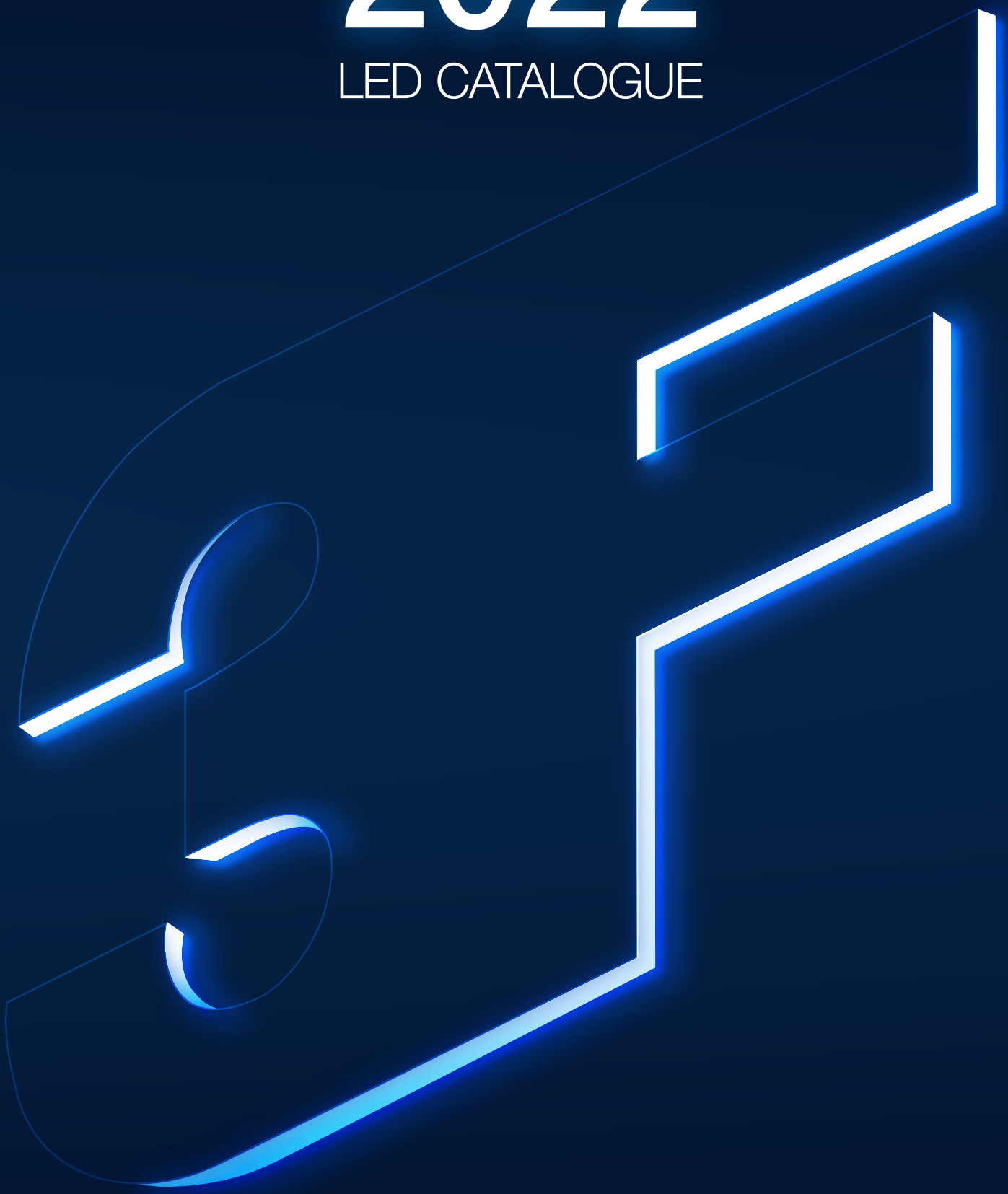
2022

LED CATALOGUE



3F Filippi

www.3F-Filippi.com

Credits
The use of text, images, drawings or any other content from this General Catalogue, or their modification or reproduction, in whole or in part, is strictly prohibited without the express authorisation of 3F Filippi S.p.A. Any company or product names or registered trademarks referred to in this publication are the property of their corresponding owners.

Photographers
Andrea Martiradonna
Antonio Braga
Beppe Giardino
Fabrizio Carbone
Fabio Lercara
Fiat Chrysler Automobiles
Francesco Rioda
Gabriottifotografi
Ing. Ferrari S.p.A.
Ivan Rossi
Martex S.p.A.
Massimo Spada
Miro Zagnoli
Stefano Anzini

Legend

Symbols

IP20 — Overall IP rating

IP20 / IP23 — IP rating of recessed part / IP rating of exposed part

650°C | SL 650°C | VT 960°C — Glow wire resistance temperature

Certification

Luminaire suitable for offices

ENEC Certified product

6,5J | IK08 — Mechanical strength to impacts

Product compliant with IEC TR 61547-1 and IEC TR 63158 standards (see “Infopoint” chapter)

EP — Maintained emergency wiring

ENP — Non-permanent emergency wiring

D — Luminaires with electronic wiring and limited surface temperature

Classe II — Protection against electric shock - Appliance class

Driver/LED SELV — Safety Extra-Low Voltage Separated power source (Class III)

A++ / A+ / A — Energy efficiency class

Resistance against ball impacts in accordance with DIN 18032-3

ATEX 3D Zona 22 — Product compliant with ATEX regulations (see “Infopoint” chapter)

ICE — Watertight product suitable for installation in cold rooms

HACCP — Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard)

Colors

AL Aluminium
AN Anthracite
B White
BK Black / Matt Black
GR Grey
RD Red
WH White / Matt White

Acronyms

1x -> 6x Number of sources
2M specular louvre
2MG specular louvre, high efficiency
2S semi-specular louvre
2US semi-glossy louvre
3AO Matt silver decorative louvre
3DEC White decorative louvre
AB White trim
AMPIO Wide distribution
AS Asymmetric
BAT Batwing distribution - dual asymmetric
CLO Constant light output (see the section "Management of light")
CONC Concentrated distribution
CR Fast connection
D Curved diffuser
D1-10V Dimmable 1 - 10 volt wiring
D0-10V Dimmable 0 - 10 volt wiring
DA Twin-circuit
DALI Dali digital dimmable wiring
DALI DT8 DALI dimmable cabling for Tunable White
DE Dual emission
DI Direct – indirect light output
DR Rectangular diffuser
DX Right
E Efficiency
ELL Elliptical transparent methacrylate lenses
ENP Non-permanent emergency lighting
EP Permanent emergency lighting
EXT External
FCH Version for metal panels with high structures
FCL Version for metal panels with low structures
FD Fixture suitable FDP or FDO
FDO Flat Diffuser Opal
FDP Flat Diffuser Microprismatic
FP Version for Plasterboard
FRONT Asymmetric distribution with deep bilateral
GSP Glare Screen Prismatic
HCL Human centric lighting (see the section "Management of light")
HF Electronic wiring
HO High Output
HS Hard Skin - high chemical resistant body
HST Glass stabilised via heat soak test
HT High temperature
Ice Version suitable for refrigeration cells
II Class ii
IKxx Impact resistance
IND Indirect light output
INT Internal
IPxx Liquid ingress protection
L Lenses
LA Wide version luminaire
LED Light emitting diode
LGS Flat PMMA, with low luminance microprismatic cover
Lxxxx Appliance length xxxx millimetres
MEDIUM Asymmetric distribution
NL No power line
OCB Optics Control Black - LEED Compliant
OCW Optics Control White - LEED Compliant
OP Opal
P Surface luminaire
PC Polycarbonate
PCD Phase cut dimmable wiring
R Recessed version
RSP Flow recuperator with prismatic screen
RVS Flow recuperator and molded glass
RVSS Flux recuperator and laminated moulded glass
S Structure
Sensor Sensor (refer to the "Management of light")
Sensor CF Sensor with corridor function (refer to the "Management of light")
SF Soft opal screen
SL Flat smooth diffuser in methacrylate
SMP Flat cover microprismatic
SOP Opal PMMA flat diffuser
SP Flat diffuser, prismatic in methacrylate
SP PC Flat PMMA prismatic cover
SPOT Concentrated distribution
ST Narrow body
SX Left
TK Product installable on Binario 3F
TW Tunable White
UGR Luminance control lens
UR95 Resistent to relative humidity up to 95%
VA Frosted glass
VOP Opal enamelled glass
VS Moulded glass
VSS Laminated moulded glass
VT Transparent glass
WIDE Wide distribution

Product range

3F Architectural

Surface luminaires and suspensions

Recessed luminaires

Systems and track-mounted products

Waterproof and corrosion-proof

Outdoor

Light Management

Infopoint

This “LED catalogue 2022” is an informative product which is distributed free of charge.
While all efforts have been taken to ensure the accuracy of its contents, 3F Filippi shall not under any circumstances be held liable for errors, omissions, interruptions or delays concerning the information provided in the Catalogue, or for any resulting damage.
The data listed in this Catalogue may be approximate: please visit our website at **www.3f-filippi.com** or contact our Sales network to check for any updates.
As 3F Filippi S.p.A. are constantly striving to improve our products, we reserve the right to modify the contents of this publication and the technical specifications of products contained herein without prior notice.

Applications

36	3F HD Direct - Single			•	•	•	•	•		
44	3F HD Direct - Single - Tunable White			•	•	•	•	•		
46	3F HD Direct - Channel			•	•	•	•	•		
50	3F HD Direct/Indirect - Single			•	•	•	•	•		
56	3F HD Direct/Indirect - Channel			•	•	•	•	•		
68	3F HD R Recessed - Single			•	•	•	•	•		
74	3F HD R Recessed - Channel			•	•	•	•	•		
84	3F Mirella Direct			•	•	•		•		
88	3F Mirella Direct/Indirect			•	•	•		•		
92	3F Mirella Soft Direct			•	•	•		•		
94	3F Mirella Soft Direct/Indirect			•	•	•		•		
98	3F Mirella Floor			•	•	•		•		
106	3F Trittico			•	•	•				
116	3F Solo Direct			•	•	•		•		
120	3F Solo Direct/Indirect			•	•	•		•		
130	3F Filoluce			•	•	•				
136	3F Emilio Table			•	•	•				
142	3F Eldorado Frame			•	•	•	•	•		
144	3F Eldorado Twin			•	•	•	•	•		
152	Zero 3F			•	•		•	•		
156	Zero 3F - Channel			•	•		•	•		
160	Zero 3F Tunable White			•	•		•	•		
164	3F C8 Direct			•	•	•	•	•		
166	3F C8 Direct/Indirect			•	•	•	•	•		
168	3F Travetta LED Direct			•	•		•	•		
172	3F Travetta LED Direct/Indirect			•	•		•	•		
176	3F Travetta LED Tunable White			•	•		•	•		
182	3F Zeta L	•		•	•		•	•		
186	3F Zeta D	•		•	•		•	•		
188	3F Zeta DR	•		•	•		•	•		
194	3F Dìagon P			•	•	•	•	•		
196	3F Dìagon P Tunable White			•	•	•	•	•		
198	3F Petra LED	•	•				•	•	•	
200	3F Petra LED Sensor	•	•				•	•	•	
202	3F Petra LED Suspended		•				•	•	•	
204	P 200 LED			•		•	•	•		
206	P 200 LED IP54	•		•		•	•	•		
208	P 250 LED			•		•	•			
212	P 250 LED Diffused Light			•		•	•			
214	Mira Wall LED				•		•	•		
216	3F Emilio Wall			•	•	•				
224	3F Six R			•		•				
230	3F LED Panel			•	•	•	•	•		
242	3F Dìagon | Lay-in installation			•	•	•	•	•		
246	3F Dìagon Tunable White | Lay-in installation			•	•	•	•	•		
250	3F Dìagon | Pull-up installation			•	•	•	•	•		
256	L 320 LED	•		•	•	•	•	•		
268	L 340 Diffused Light	•		•	•	•	•	•		
272	L 340 Lite	•		•	•	•	•	•		
274	L 340 Tunable White			•	•	•	•	•		

		HACCP								
278	L 350 LED			•		•				
282	L 360			•	•	•	•	•		
284	L 480			•	•	•	•	•		
288	L 560 LED	•		•			•	•		
292	L 600 Diffused Light	•	•	•		•	•	•		
300	L 650 Diffused Light	•	•	•		•	•	•		
310	3F Reno White	•		•	•	•	•	•		
318	3F Reno Black	•		•	•	•	•	•		
326	Galassia 220			•	•	•	•	•		
334	Lucequadro LED			•	•	•	•	•		
338	3F Emilio R			•	•	•				
342	Zero 3F Track			•	•		•	•		
344	3F Zeta Track L					•				
346	3F Zeta Track DR					•				
356	3F Linux S | IP40		•	•	•	•				
358	3F Linux S | IP54		•	•	•	•				
360	3F Linux L | Light modules	•	•	•	•	•				
370	3F Linux D | Light modules		•	•	•	•				
372	3F Linux DR | Light modules		•	•	•	•				
376	3F Linux Track		•	•	•	•				
388	3F Six Track	•	•			•			•	•
392	3F Six Blindo	•	•			•			•	•
402	3F Emilio Track			•	•	•				
410	Binario 3F				•	•				
424	3F Tank ATEX	•	•	•	•	•	•	•	•	•
430	3F Tank ICE Extreme	•	•			•				•
438	Beta 500	•	•			•				
448	3F Linda LED	•	•			•			•	•
456	3F Linda LED ATEX	•	•							•
458	3F Linda LED HS		•			•			•	•
460	3F Linda LED Transparent	•	•			•			•	•
462	3F Linda LED Ice	•	•			•			•	•
464	3F Linda LED Sensor	•	•			•			•	•
480	3F LEM	•	•			•				
484	3F LEM High Output	•	•			•				
488	3F LEM Sensor		•			•				
492	3F LEM High Temperature	•	•			•				
496	3F LEM Sport							•	•	
498	3F LEM Sport High Output							•	•	
510	Beta 235 LED Steel	•	•			•			•	•
518	Beta 235 LED Stainless Steel	•	•			•			•	•
524	Beta i3F LED	•	•						•	•
530	Retrofit Beta A3F - i3F		•							
534	Retrofit Beta 430		•							
538	3F Cub LED	•	•						•	
558	3F Manta		•			•			•	•
564	3F 66 LED									•

HACCP **Food** **Industry** **Offices** **Architecture** **Retail**

Healthcare **Schools** **Sport** **Transport**

Quality

Absolute transparency with the market is one of our most abiding values. Ever since it was founded, our company has always offered fixtures that offer guaranteed performance, establishing itself as a reliable partner for the creation of any lighting project.

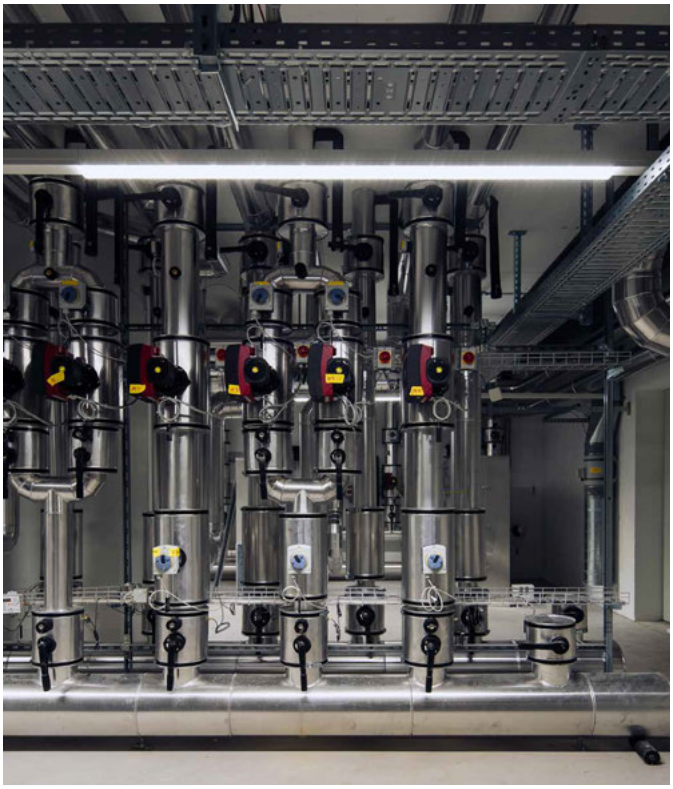
Our products are at the heart of everything. Each of them is created to have the best possible performance and durability, and are tested and verified in our laboratories. In fact, 3F Filippi uses cutting-edge systems like the Goniophotometer to perform photometric calculations with absolute precision and invests a significant portion of its resources in Research and Development to stay up-to-date on the latest technological innovations available on the market.

Our employees are highly motivated, knowledgeable, and passionate: this is the starting point for obtaining customer satisfaction.

Our sales force is always ready to support you so you can obtain the best results.

From the initial phases of your project, we provide information on our fixtures, processes, prices, and services. We are at your disposal to create custom solutions for your experience.

Our values



RELIABILITY AND TECHNIQUE COME FIRST

3F Filippi's commitment is to offer its customers the best technology available on the market so that every single Watt used is optimised to give the highest level of illumination.
Whenever they pick one of our products, customers must be certain they are choosing **the best on the market** in terms of technical performance, reduced energy consumption, and reliability.

LISTENING TO THE CUSTOMER ALWAYS PROVES OUT.

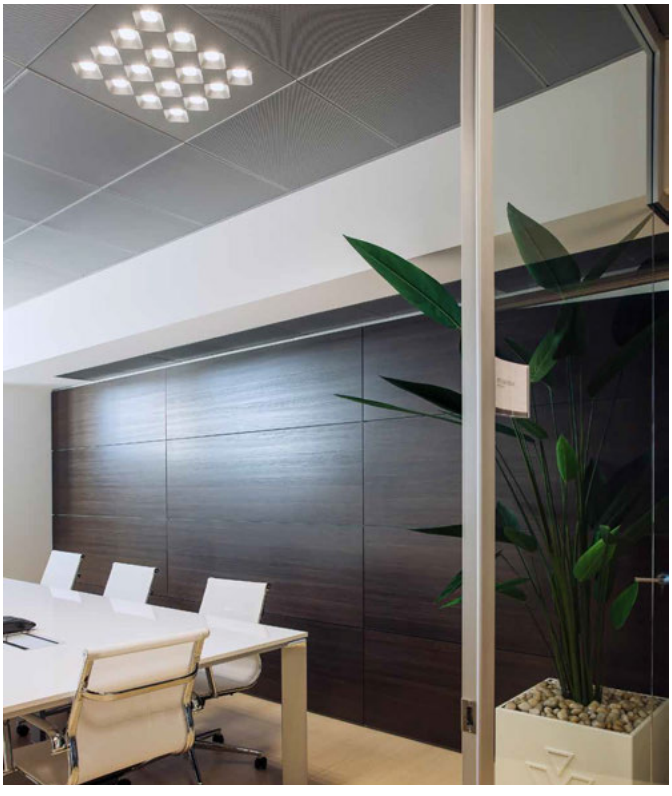
Customers are the ideal partners when we talk about ideas, environmental topics, and increasingly green technical solutions. They help us analyse the present and imagine the future, considering several points of view.
Quick and easy installation have always been a benchmark for 3F Filippi, so we take the installers' feedback very seriously. In response to their observations we have developed, for example, the Fast Wiring for 3F Linus and 3F HD, as well as the Quick Connection for our industrial products.
All of these are optimisations that help those working in the construction site to save time, effort, and money.

WE BELIEVE IN THE RULES

The interpretation of the architectural spaces and the lighting effects within them must always follow the current standards.
These rules derive from the experience of competent professionals, able to design a healthy and comfortable environment for those who experience it.
That is why, since 1952, 3F Filippi has been developing cutting-edge systems and instruments to **respond to the requirements** of the strictest standards, often before they become mandatory: We feel that we cannot show respect for the customer if we do not respect the rules.

IMPROVING PEOPLE'S LIVES

Light is a physical phenomenon that profoundly impacts every aspect of our lives. People spend most of their day indoors and 3F Filippi products are there to light up the hospitals where you were born, the schools you attended, the companies and offices where you work, and the shops you frequent.
Since this lighting accompanies every moment of your life, we feel it is our fundamental duty to **offer the best light for your wellbeing**. And nothing could make us happier.



Laboratory Tests

GONIOPHOTOMETER

Research and Development plays a fundamental role in 3F Filippi's growth strategy.

This is why the company dedicates a significant portion of its resources each year to always be up-to-date with the most recent innovations available, like **the rotating mirror Goniophotometer**, i.e., the most technologically advanced instruments in the industry to perform extremely precise checks.
All measurements are done inside a laboratory that occupies 210 m^2 of surface area, with a height of 8 m, and in which all the different parameters are continuously checked, including electrical stability, air speed, humidity, and temperature.
3F Filippi is one of the few European companies to possess this type of instrumentation and, therefore, can certify its products according to the recent standards, UNI EN 13032 and IES LM-79.

The use of this technology allows us to guarantee quality, reliability, and the authenticity of the data reported.
Tests that can be carried out:

- Photometric measurements (intensity, distribution, luminance, etc.)
- Colorimetric measurements (light spectrum, colour temperatures, colour yields, etc.).
- Precise thermal measurements on the internal components of the device

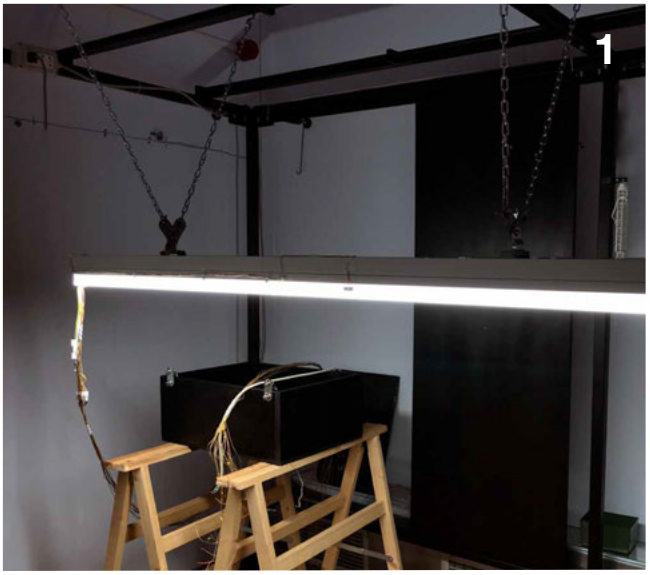
The photometric laboratory, which is CTF – Stage 2 certified by a Third Party (certification can be downloaded from www.3F-Filippi.com), is subject to IMQ monitoring and allows all photometric and colorimetric measurements of the products in the catalogue, according to the various international standards.

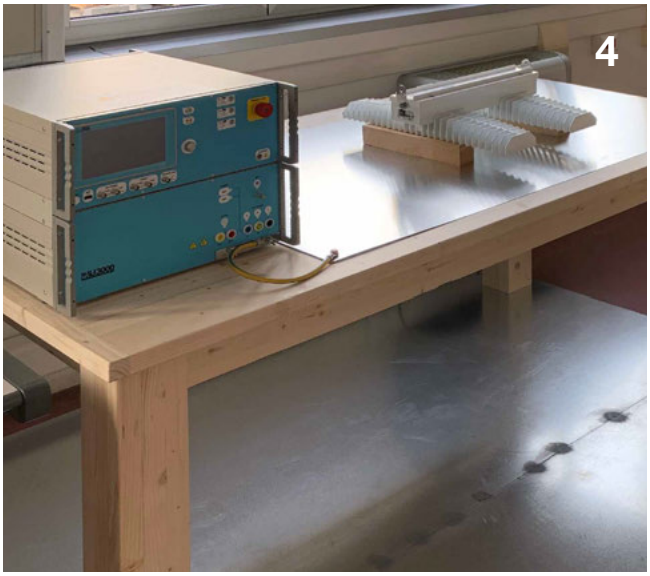
TESTS AND INSPECTIONS

3F Filippi devices are built and tested in compliance with current national standard CEI 34-21, European standard EN 60598-1, and international standard IEC 60598-1.
This allows us to independently perform the **valid tests for product Certification**: this significantly speeds up the development phases, to the customer's advantage, ensuring the safety, quality, and long life of the fixtures.

This is why the company constantly invests in updating its laboratories, which are IMQ certified (certifications can be downloaded from www.3F-Filippi.com), where the following tests are performed:

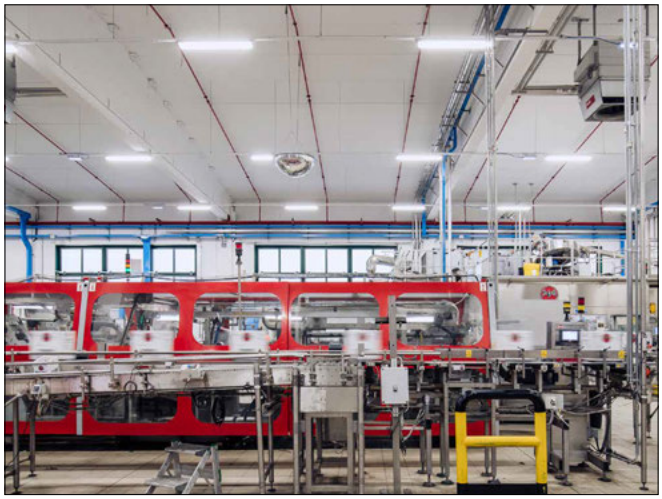
Temperature
Electromagnetic compatibility
UL Conformity: Rain and Sprinkler
EMC Compatibility: Burst and Surge
Liquid seal tests
Ball impact resistance (DIN 18032-3)
Dust seal
Resistance to salt spray
Impact Resistance





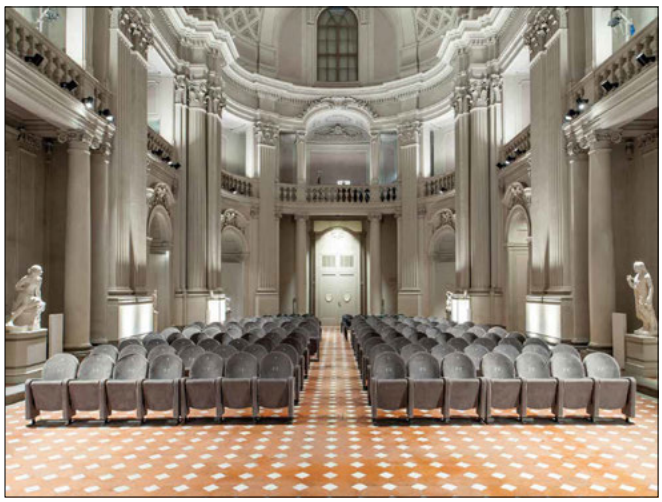
We work hard each day to give our best

3F Filippi works alongside the best specialists, providing them with the most advanced instruments and the support of its lighting office (whose activity is ISO 9001 certified).
The company works through a close-knit network of regional and foreign offices in the European, Latin American, Asian, and Oceanian markets and impeccable logistics supported by a modern fleet of company vehicles allows 3F Filippi to optimise its delivery times and shipping of fixtures to its customers throughout the world.
Since 2018, 3F Filippi and Targetti, two companies that made the history of lighting in Italy, represent a cohesive unit that acts as a unique partner to professionals and planners looking for quality solutions.
With decades of experience and the combination of skills in the technical and architectural lighting areas, the group responds and meets any type of need and design approach. Our partner can count on a vast selection, from the highly technical and functional products in the 3F Filippi catalogue to Targetti fixtures for indoor and outdoor architectural lighting, and up to the range of LED sources and fixtures offered by the Duralamp brand.



3F Filippi

Since 1952, 3F Filippi S.p.A has been a benchmark in the field of efficient technical lighting fixture design and manufacturing.
The products, which are designed and created exclusively in the Pian di Macina - Pianoro (Bologna) facilities, are an expression of the company's ability to combine the traditional and the modern, craftsmanship and technology, appearance and functionality, and efficiency and sustainability.



TARGETTI

Targetti has been designing and producing indoor and outdoor architectural lighting fixtures since 1928.
For over ninety years, its products have been illuminating prized artistic and architectural works throughout the world and are the expression of innovation, research, and attention to detail.
The company has always placed its experience and expertise at the disposal of architects, designers, and professionals in the lighting world.

DURA LAMP

With decades of experience and solid technical skill, Duralamp offers a wide range of high quality and efficient products.
Thanks to its expertise, it selects the latest generation components, engineering reliable products, with an offer that includes sources, LED strips, and lighting fixtures.


3F Filippi

Sustainability

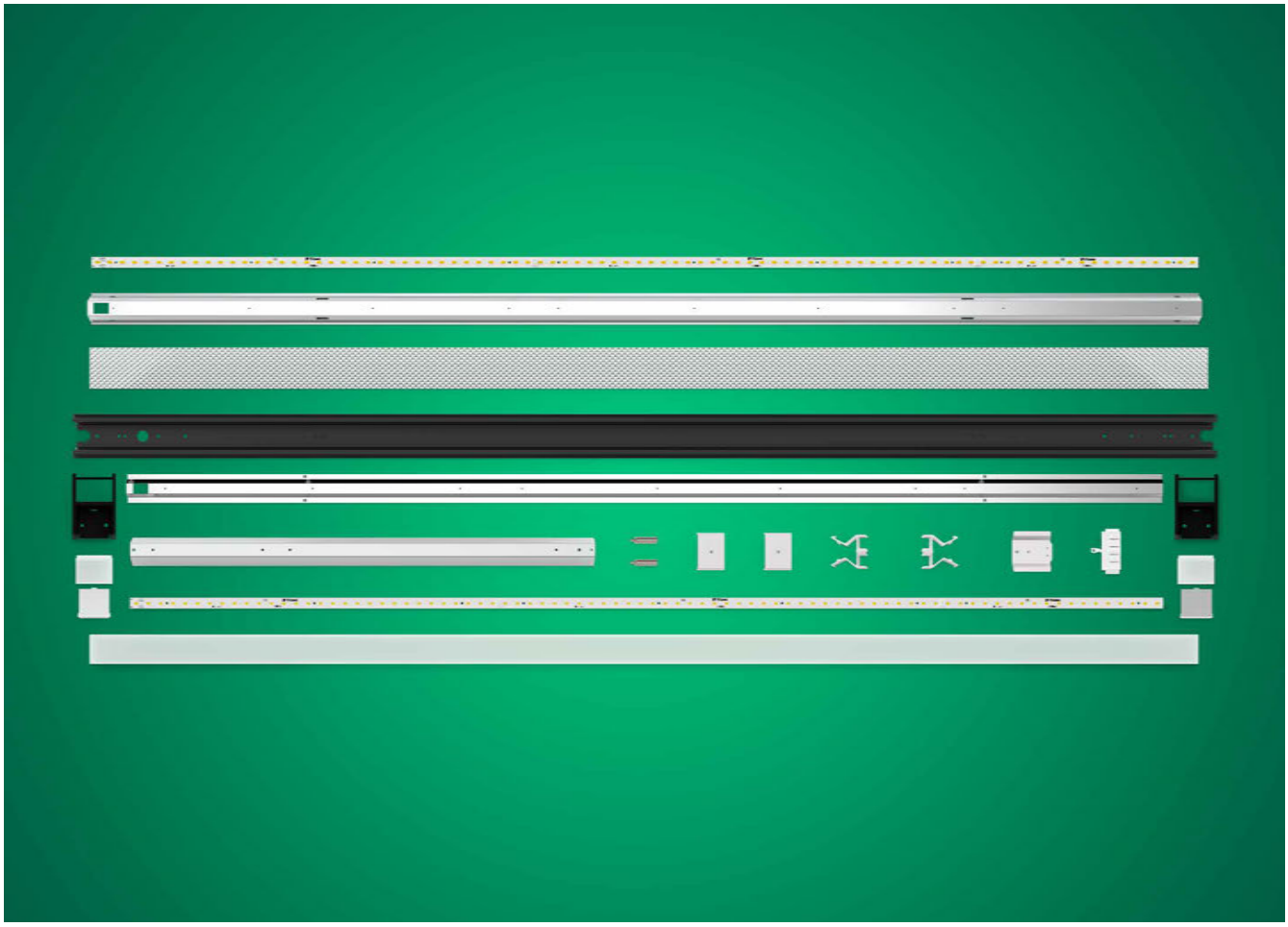
3F Filippi wants to contribute to spreading and development a new consumption model that is not based on a “disposable” economy but on products that can be updated over time and on which maintenance can be performed, as needed.
Our products have always been built as platforms that can adapt to the customer’s needs and technological development, for solutions that are always more efficient.
To reach this goal, we focus on increasing the performance of the products and reducing the environmental impact of the manufacturing processes.
3F Filippi actively collaborates with Lighting Europe to develop increasingly advanced systems, in line with European and International standards.
It is also a member of ASSIL (Italian Association of Lighting Manufacturers), a partner and institutional supporter of IES (Illuminating Engineering Society of North America), AIDI (Italian Lighting Association), and APIL (Association of Lighting Professionals) with whom it shares the values of the Carta della Luce (Light Charter).

Optimized manufacturing

At 3F Filippi, we work to produce **increasingly efficient products with less impact on the environment**, throughout all phases of the life cycle.
Here is what we are already doing today:

- We choose the **best** and most efficient components on the market
- We manufacture **exclusively** in two facilities located in the same district (Pian di Macina - Pianoro - Bologna).
- We use **photovoltaic panels** that cover 30% of the energy needs, with the remaining 70% from **certified renewable energy sources**
- If quality is equal, we choose the closest supplier to our facility
- **ISO 14001** certified, we reorganise and rationalise the company's environmental management
- We apply the **Lean Production** system that aims to minimise waste, with the goal of removing it
- We use **green packaging** that is highly recyclable and in the most compact sizes possible. This has a significant positive impact on transport and stocking of our products

Ecodesign: a lifetime design



The Ecodesign Regulation governs the criteria that have as their purpose the creation and marketing of durable and innovative products that are conceived, designed and manufactured in such a way as to allow their reuse, refurbishment, improvement (upgrade) and recycling.

3F Filippi is a company sensitive to environmental issues: we have been applying the provisions of the Regulations for years now (remember the "EDG - Economia di Gestione" campaign launched at the end of the 1980s).

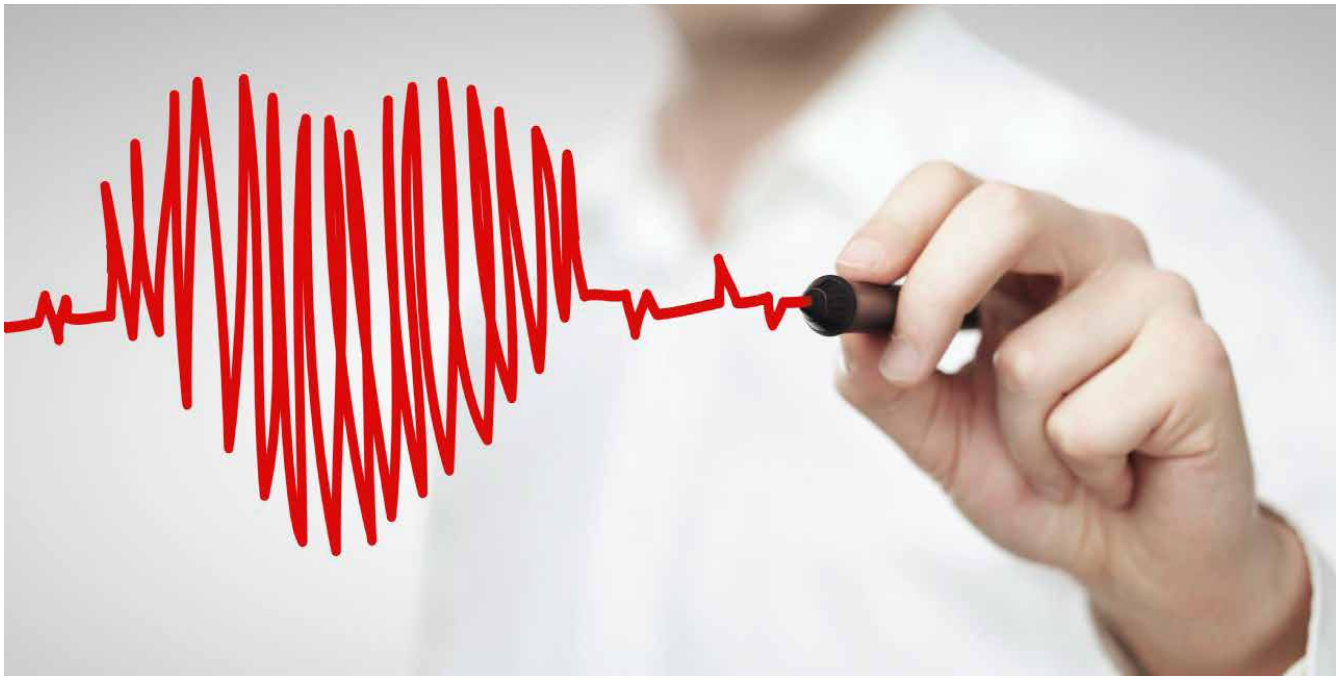
Our products are easily disassembled to facilitate the disposal of each single component, designed to achieve maximum recyclability.
In particular, the light sources and power supplies are:
- accessible and available so that checks can be easily carried out.
- removable to ensure the repairability of the lighting fixture.
- replaceable to allow for any updating of the lighting fixture, where more efficient or otherwise better components are available on the future market.

Remember that the components must be replaced and accessible only to qualified personnel, the manufacturer or his assistance service.

3F Filippi aims to reduce environmental impacts along all stages of the product life cycle, through the use of the Life Cycle Assessment and focusing in particular on:
- achievement of the maximum possible energy efficiency, considering the substantial contribution to achieve the objectives of reducing greenhouse gas emissions.
- maximization of product life span: we currently achieve service lives of 100,000 hours, a result we intend to surpass in the coming years.

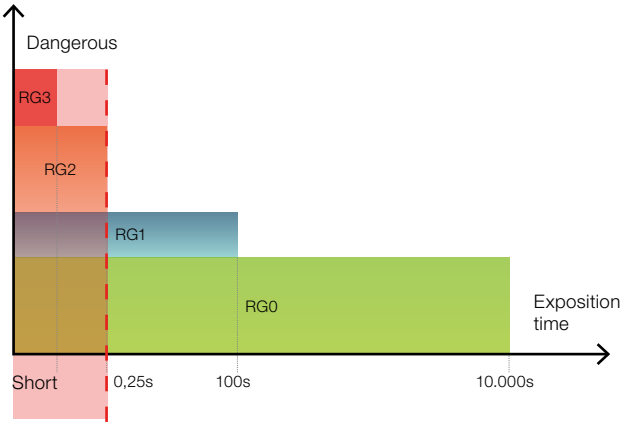
LEDs: photobiological safety

IS LED TECHNOLOGY SAFE FOR HEALTH?



Among 3F Filippi's top priorities is the well-being of those who are illuminated by our products. For this reason, we pay a great deal of attention to photo-biological safety, using the best sources with a low impact on human health.

Unfortunately, some less scrupulous manufacturers use low-quality sources during prolonged exposure, emit radiation which is damaging to organs of the human body, such as the eyes and skin.
A number of Photobiological Safety Risk Groups (IEC62471) have now been defined for the amount of radiation emitted from all sources in the range of wavelengths from 200 nm to 3000 nm, providing a clear indication of the limits of maximum exposure for each group.



Risk classes
In accordance with Paragraph 6.1 of EN 62471: 2010, the risk groups (for blue light) are defined as follows:

RG0 (Risk Exempt): The source does not cause any photo-biological risk. Requirement met by any lamp that does not cause a blue light (BL) retinal risk with an exposure time of up to 10,000 s (about 2.8 h).
RG1 (Low Risk): The source does not cause risk due to normal operating limitations on exposure. Requirement met by any source that exceeds the limits of the Exempt Group but does not cause a blue light (BL) retinal risk with an exposure time of up to 100 s.
RG2 (Moderate Risk): The source does not cause a risk due to an instinctive reaction when looking at very bright light sources (or due to a sensation of thermal discomfort.) Requirement met by any source that exceeds the limits of Risk 1 Group but does not cause a blue light (BL) retinal risk with an exposure time of up to 0.25 s (aversion response).
RG3 (High Risk): The source can constitute a risk even due to momentary or brief exposure.
Sources that exceed the limits of Risk Group 2 are included in Risk Group 3.

NOTES

The standard EN 60598-1:2021 (Luminaires - Part 1: General requirements and tests) concerning indoor luminaires indicates in paragraph 4.24.2 (Blue light retinal risk):
“For luminaires that use light sources from risk group RG1 (unlimited), in accordance with IEC/TR 62778, or which have been judged as being finished products ready for use, belonging to risk group RG1 (unlimited), the requirements concerning blue light retinal risk do not apply.”
For luminaires that have an ETHR illuminance threshold, evaluated in accordance with IEC/TR 62778, additional requirements are applied for evaluating how far the product is from the threshold between RG2 and RG1. In such cases, although the luminaire cannot be considered to be dangerous, warnings and markings are used to alert the installer or user to the possible risks associated with direct and prolonged viewing of the source.

From a technical perspective, RG0 and RG1 groups cannot be said to be equivalent, or to be both considered as "exempt". The two photobiological risk groups are in fact distinguished as follows:
RG0 (Risk Absent): the source does not present any photobiological risk.
RG1 (Low risk): The source does not cause risk due to normal operating limitations on exposure.

Currently, therefore, there is no regulation that declares the various photo-biological risk groups to be equivalent, or indeed that united them, rendering both exempt.
Exposure to RG1-group luminaires is not considered dangerous under ordinary conditions of use, due to the fact that periods of exposure of over 100 seconds are considered to be "unlikely", although not impossible, as this cannot be predicted in the design phase.
Risk group RG0, on the other hand, has a period of exposure greater than 2.8h and as such, it can be stated with greater confidence that a luminaire would not be viewed directly for this long.

The demand for RG0 light sources could be considered redundant, but it is not stated anywhere that it is prohibited to request the use of RG0 luminaires, or that these can be considered equivalent to those belonging to the RG1 risk category.
As explained above, the RG0 risk group represents a cautionary, optimal class of light source.

A company that exhibits extra caution with regard to the safety of its operators, and decides to install equipment belonging to the risk-exempt RG0 category, could therefore be seen to be excessively conservative, but cannot certainly be criticised for having requested compliance with a parameter that provides greater safety for all involved.

European legislation states that companies, specifically the statutory employer, evaluate and manage risks to workers' health and safety. Among the risks that the employer must evaluate is any photobiological risk deriving from exposure to artificial optical radiation.
The reference standard is IEC/EN 62471:2010, which does not define a threshold marking safe from unsafe, but rather defines classification of sources into risk groups.
Limitations of use or warnings for the user are contained in the corresponding product standards, while a product marking guide is contained in IEC TR 62471-2:2009.

3F Filippi is committed to providing the most technologically advanced luminaires and always chooses the LED sources with the lowest photobiological risk group available on the market for its customers.
We also frequently find that some manufacturers declare data which is inconsistent with the components available on the market, and which must therefore be untrue.
If customers are offered product solutions similar to those which 3F Filippi declares for a certain class (for example RG1 - low) but other manufacturers state as being of a lower class (e.g. RG0 – risk absent), they can protect themselves by requesting that those manufacturers provide the certificates proving that the sources actually meet this photobiological risk class.

Instruments

The 3F Filippi catalogue is intended to be a valid “work instrument” that is continuously evolving, as is the lighting market, customer demand and lighting technology.

For 3F Filippi, operating in this industry means continuously being committed to increasing not only the performance of each product, but also the knowledge of artificial light and the infinite interactions that define the relationship between people and the environment.

This calls for continuous research and constructive networking with planners, in particular lighting designers, to the full extent of their individual skills and specialities.

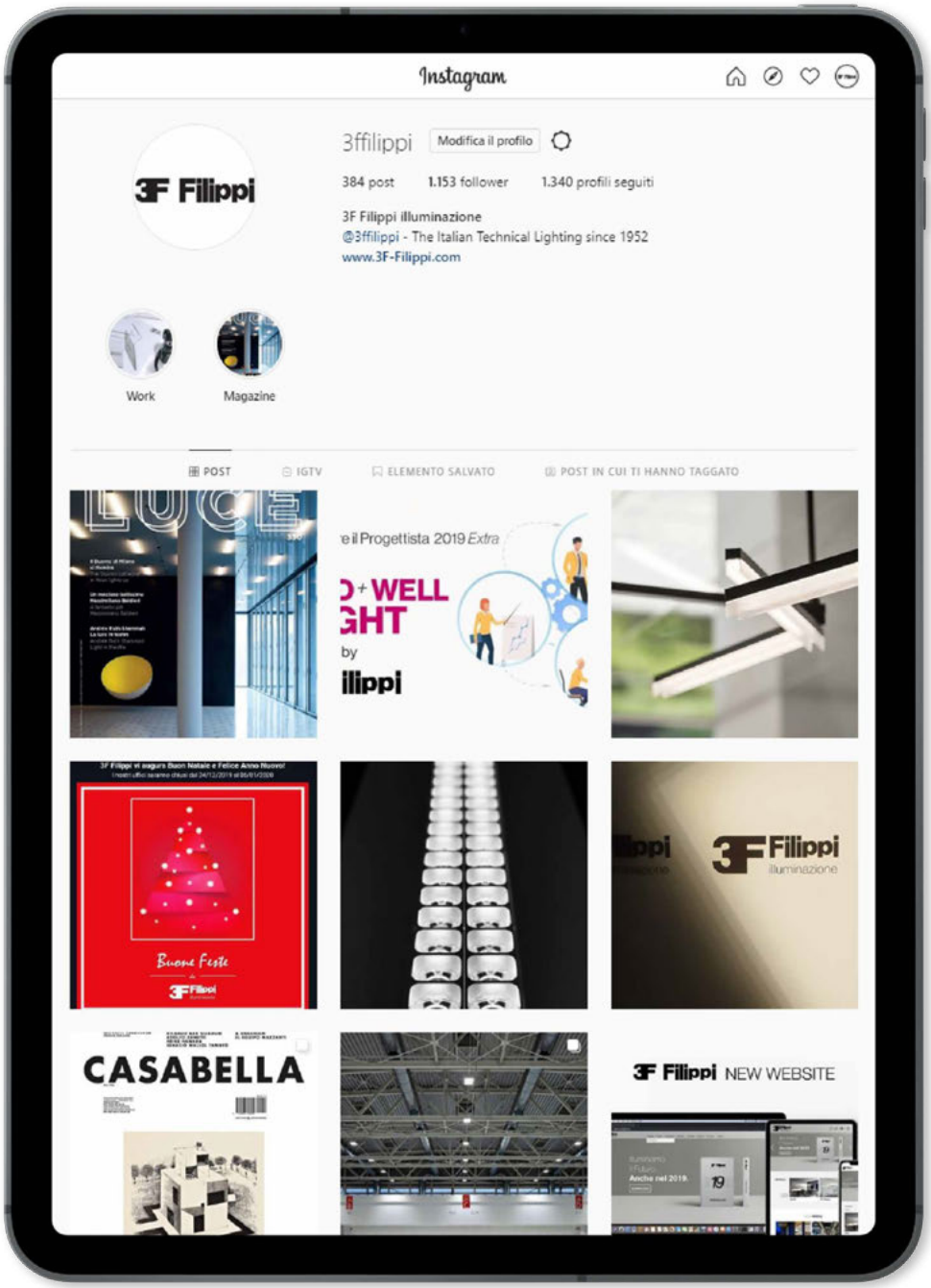
We are convinced that a new lighting culture may arise only by working together to share the standards on mandatory lighting design, giving rise to all the necessary initiatives for the development of a new lighting culture.

For this reason, we signed the APIL Lighting Charter (Associazione Professionisti dell’Illuminazione).

Sharing experiences

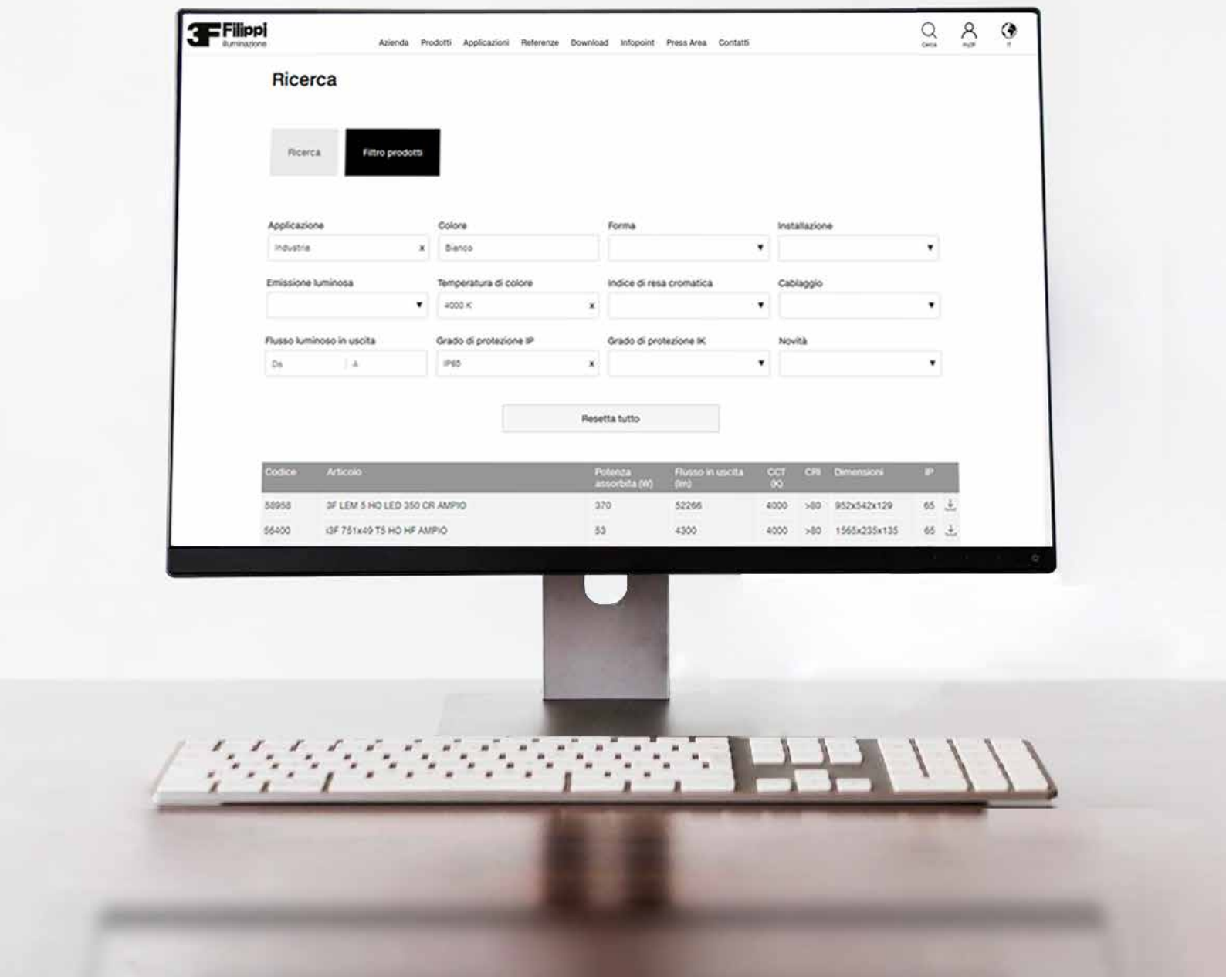
There is no treasure more valuable than experience in the field. That is why we publish **our monthly Newsletter, "lightUpdate"** with reports on what designers all over the world make with our products.
In the Case History section of our website you can find a collection of these references.

We publish images every day on social networks (LinkedIn, Instagram, and Facebook) to show how light influences our environment and its perception.
Would you like to share your project? Tag us in your posts using @3FFilippi #3FFilippi



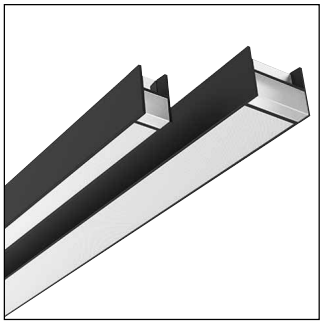
lightUpdate newsletter

Are you looking for the right product?

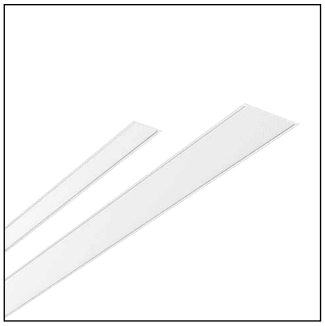


The website www.3F-Filippi.com was designed to make the research process more straightforward, in 6 different languages.
We decided to structure the information following the "**Research by code**" that lead directly to the item, the "**Product Filter**" to choose the most suitable product from a dynamic screen and the "**Configurators**" that also help less practised users with **guided creation of modular products**.

3F HD



3F HD R



3F Mirella

3F Mirella Floor

3F Trittico

3F Solo

3F Filoluce

3F Emilio Table

3F Eldorado

3F Architectural

3F HD

> www.3F-Filippi.com/3F HD

Design by **Park Associati**

3F HD is available with different photometric distributions that are obtained with opal and prismatic screens.
The fixture is also available in a LEED compliant version equipped with an OCB optic, a unique solution with innovative technology to control luminance in the workplace in compliance with LEED specifications.
3F HD is composed of an H section aluminium linear profile. Available in various lengths it provides direct or direct/indirect light emission.
3F HD can be used easily in continuous lines with a significant reduction in installation time thanks to the presence of concealed joints and standard mounted plug-sockets.
The lighting head it is equipped with allows for a 360° perception of the fixture reaffirming its presence and uniqueness.

This product is also available in this version 3F HD R (page 65).

+ Overview

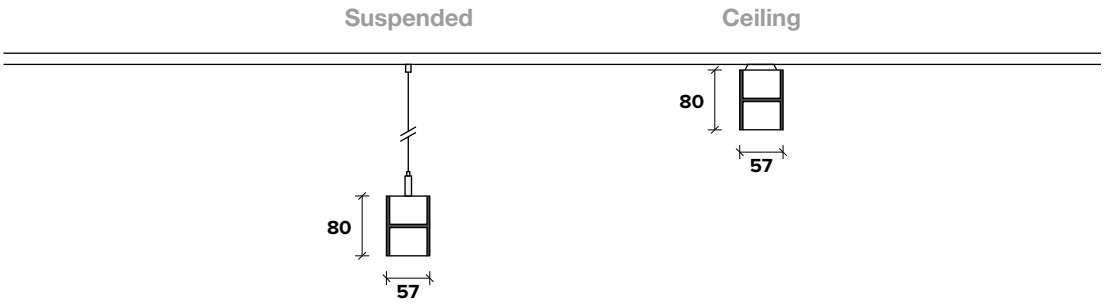
- Luminous efficacy up to 123 lumen/watt.
- Luminous fluxes from 1250 to 13135 lumens.
- Average luminance <200 cd/m² (OCB version).
- Extensive installation pitch.
- UGR <16 (OCB version).
- LEED Compliant.
- Available with OC lenticular optics or diffusers.
- Module lengths optimised to reduce installation time and required accessories by up to 20%.
- Quick and easy cleaning.
- Luminous end caps.
- Seamless screens (up to 15 metres in length).
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.

Page		Product	Ceiling	Suspended
36		3F HD Direct - Single	•	•
44	NEW	3F HD Direct - Single - Tunable White	•	•
46		3F HD Direct - Channel	•	•
50		3F HD Direct/Indirect - Single		•
56		3F HD Direct/Indirect - Channel		•

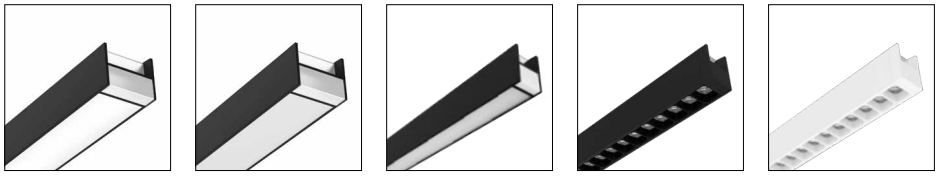
Product range

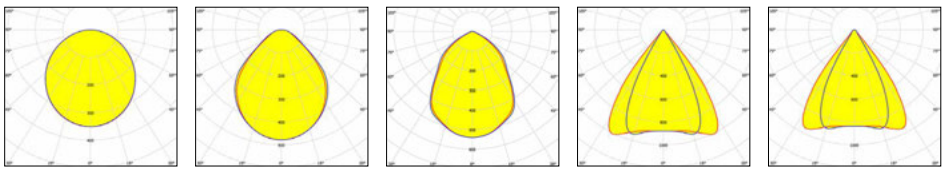
3F HD 50

Single/Channel



3F HD
Direct Emission



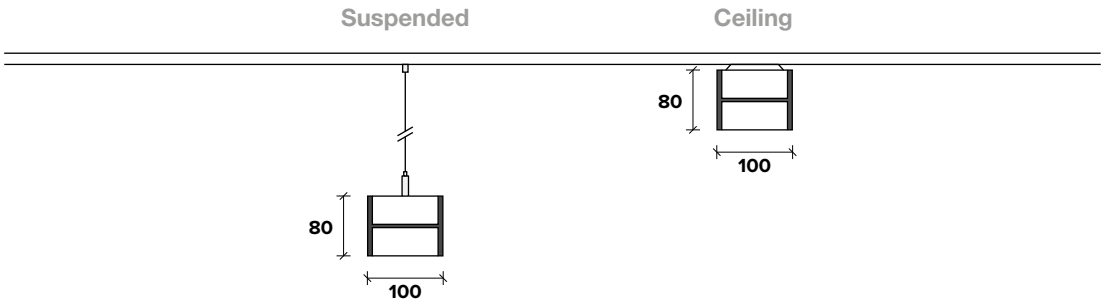
		FDO	FDP	GSP	OCB	OCW
Average luminance for angles> 65 (cd / m²)		>3000	<3000	<3000	<200	<1500
UGR		<21	<19	<19	<16	<16
Finishes		Silver | White | Black				
Photometric distribution						
Installation steps	**Dt**	1,29	1,16	1,14	1,34	1,32
	DI	1,24	1,18	1,18	1,00	1,00

NEW

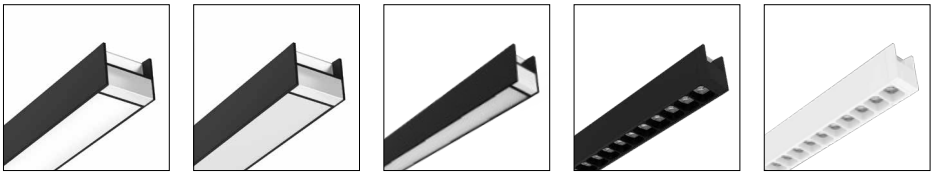
Arrange the version that best suits your needs quickly and easily
www.3f-filippi.com/en/**3F-HD-configurator**

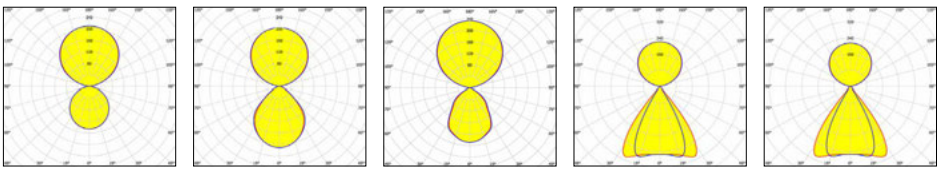
3F HD 100

Single/Channel



3F HD
Direct / Indirect
Emission



		FDO	FDP	GSP	OCB	OCW
Average luminance for angles> 65 (cd / m²)		>3000	<3000	<3000	<200	<1500
UGR		<21	<19	<19	<16	<16
Finishes		Silver | White | Black				
Photometric distribution						
Installation steps	**Dt**	1,40	1,50	1,45	1,50	1,50
	Dl	1,20	1,25	1,25	1,20	1,20

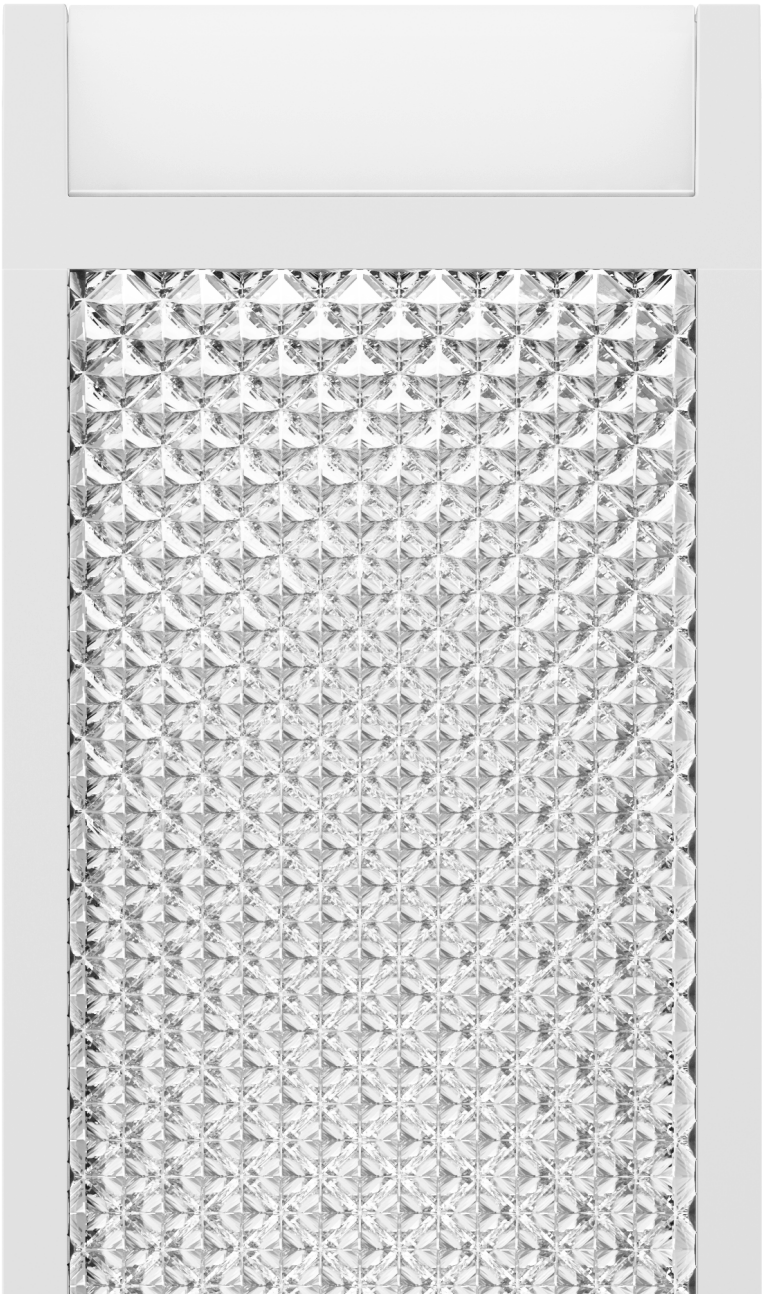
Screens and finishes

3F HD can satisfy all lighting needs. The system can be equipped with two different rollable flat PMMA filters, a prismatic screen designed especially for 3F Filippi and a series of OCB (Optics Control Black) optics, depending on the intended use of the environments.
The FDO opal screen is suitable for areas that are not visually demanding such as waiting rooms and corridors, while the FDP (Flat Diffuser Micro prismatic) standard micro prismatic one ensures increased visual comfort for work stations.

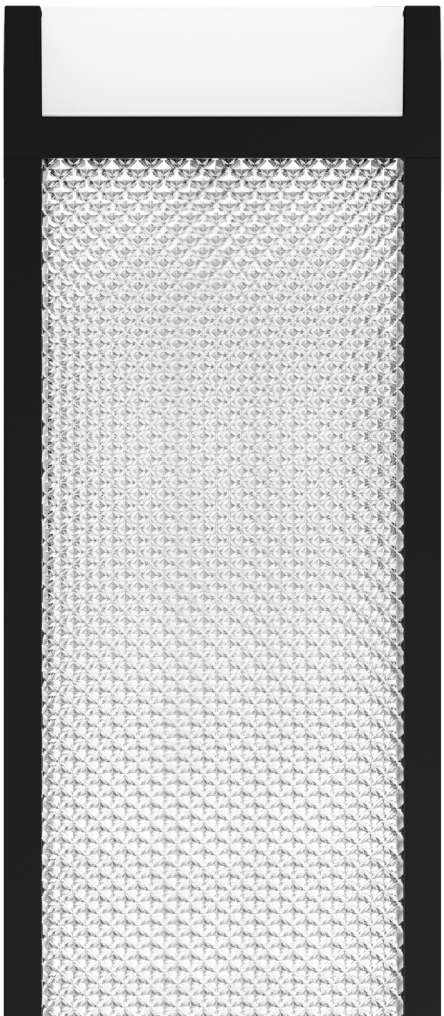
Both filters do not require any visible joints for lengths of up to 15 metres thus ensuring the uniformity of the light diffusion.

The GSP (Glare Screen Prismatic) prismatic screen allows 3F HD to reduce progressive luminance, using the OCB optic on the other hand meets and widely exceeds luminance limits provided for in LEED certification for corners of more than 45° (<2500 cd/m²) and those of more than 65° (<200 cd/m²).

GSP
Prismatic screen

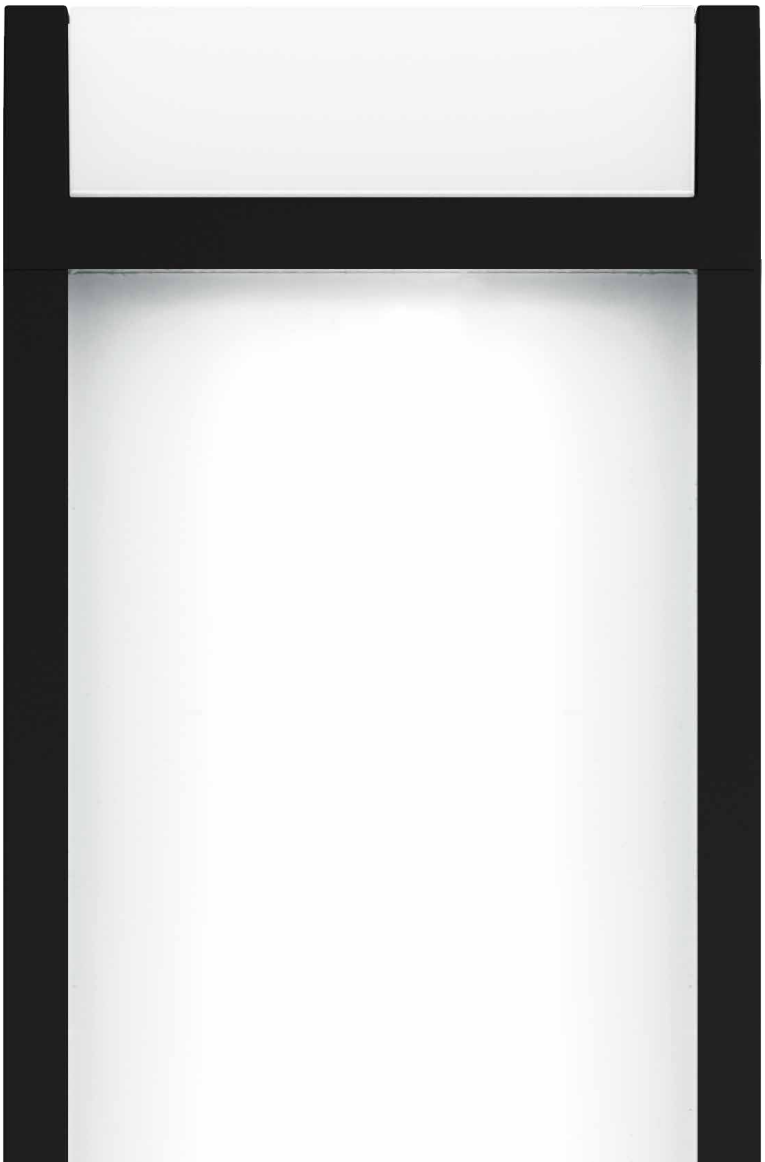


FDP
Flat micro prismatic diffuser



OCW
Optics Control White
Complies with LEED regulations

FDO
Flat opal diffuser

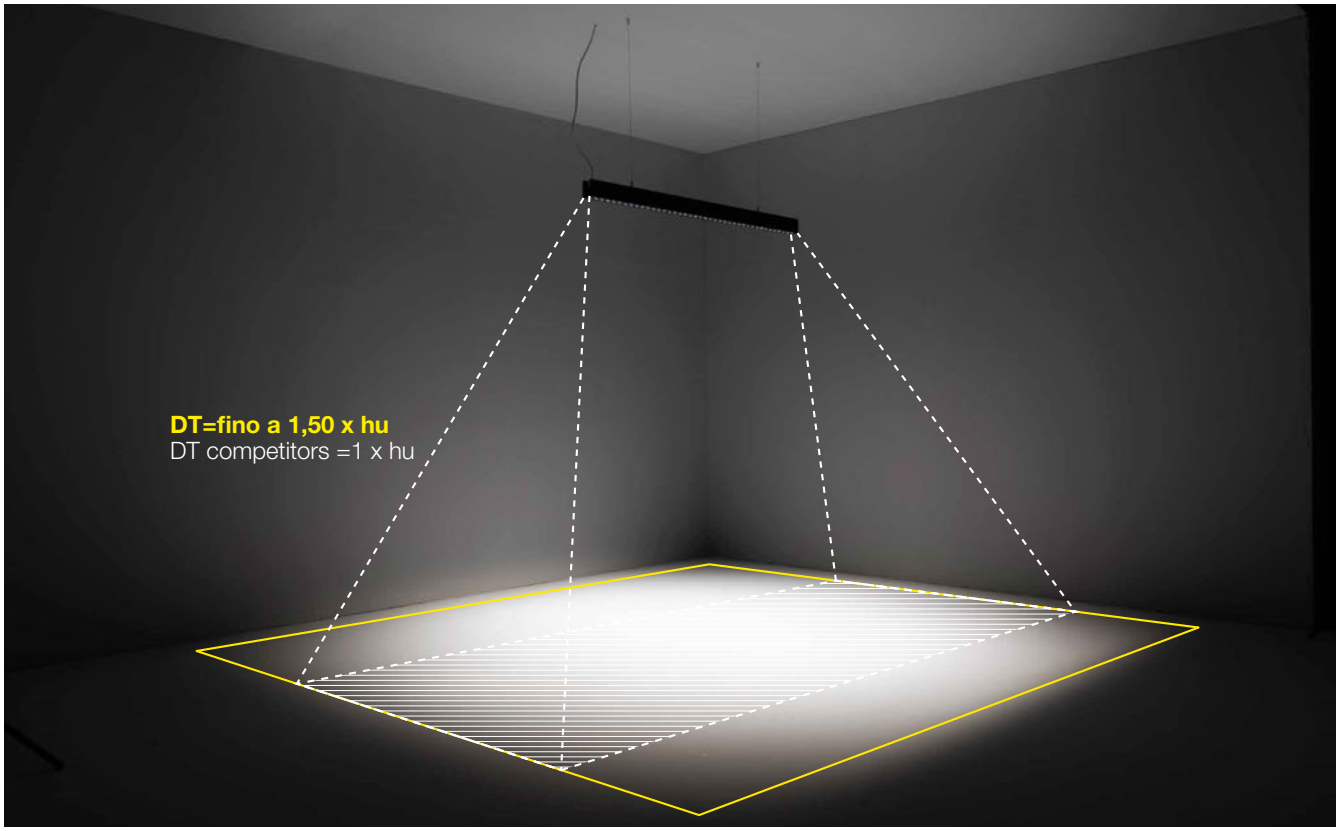


OCB
Optics Control Black
Complies with LEED regulations

Scale 1:1

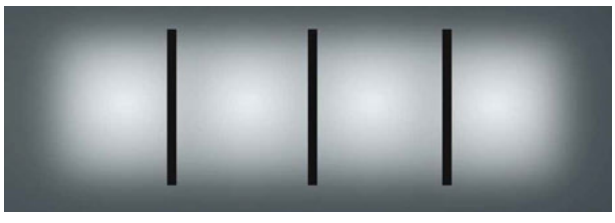
Optimized distribution

The new optics from the OC (Optic Control) range were designed with the aim of obtaining the best lighting performance in terms of low luminance and uniformity of light distribution in the space: modern offices need spaces where the furniture can be arranged in a flexible way. For this reason the first step is to accept an ambitious challenge: to create an optic that can meet the stringent requirements of LEED certification with a product that can be installed at wide distances. With the solutions that were previously available on the market the distance was too contained and meant it was necessary to install a large number of fixtures to achieve the required performance in compliance with existing legislation.

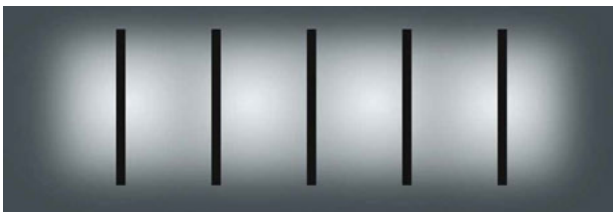


Thanks to innovative Optic Control optics, the DT (transversal installation step, ie the installation distance between the luminaires) offered by 3F HD OCB is up to 50% more than the average of the homologous products proposed by the major brands on the market. The performance is obtained by maintaining 500 lux and ensuring, thanks to direct emission only, complete uniformity of the luminous flux on work stations (Direct/Indirect emission versions are also available).

3F HD

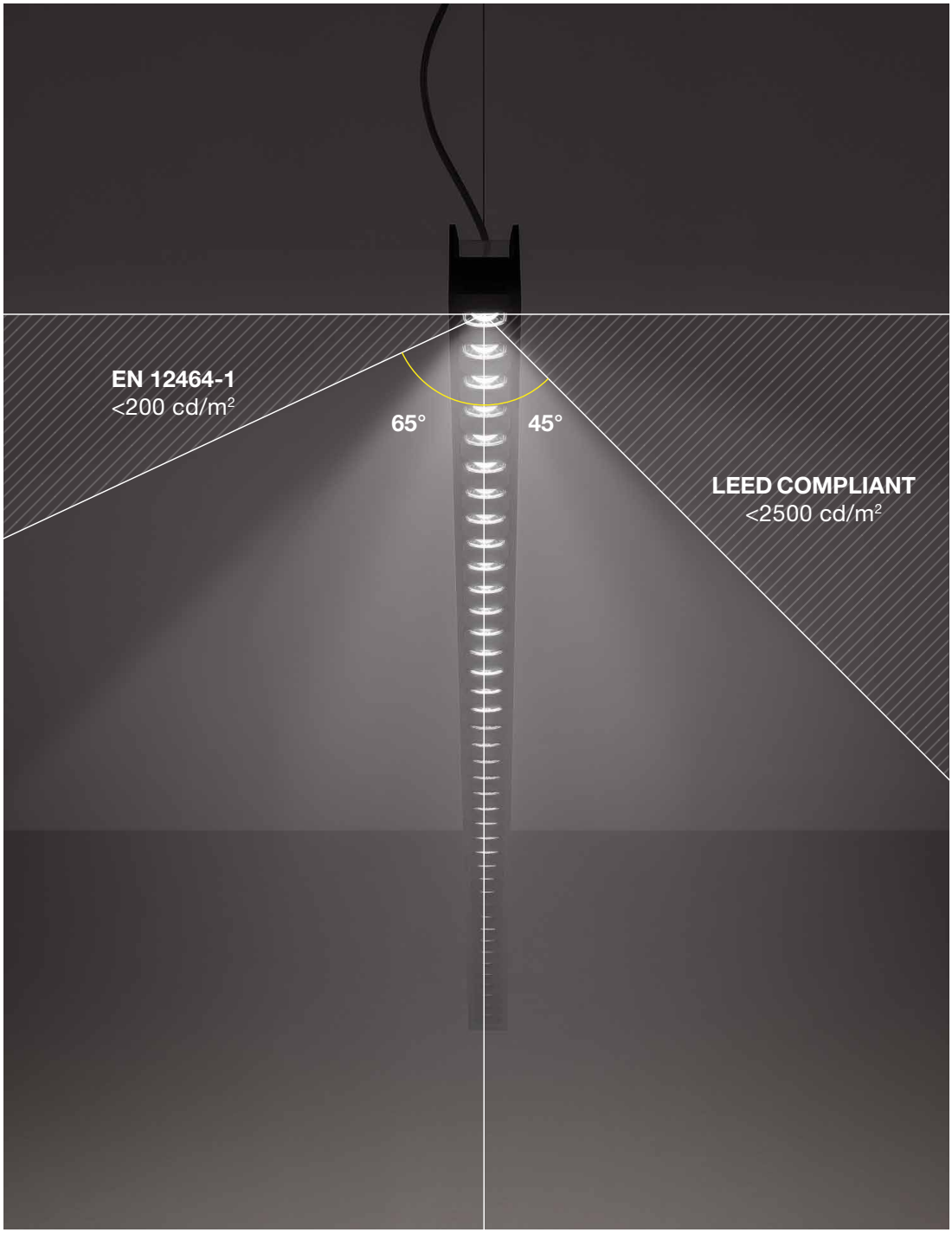


Competitors



LEED compliant

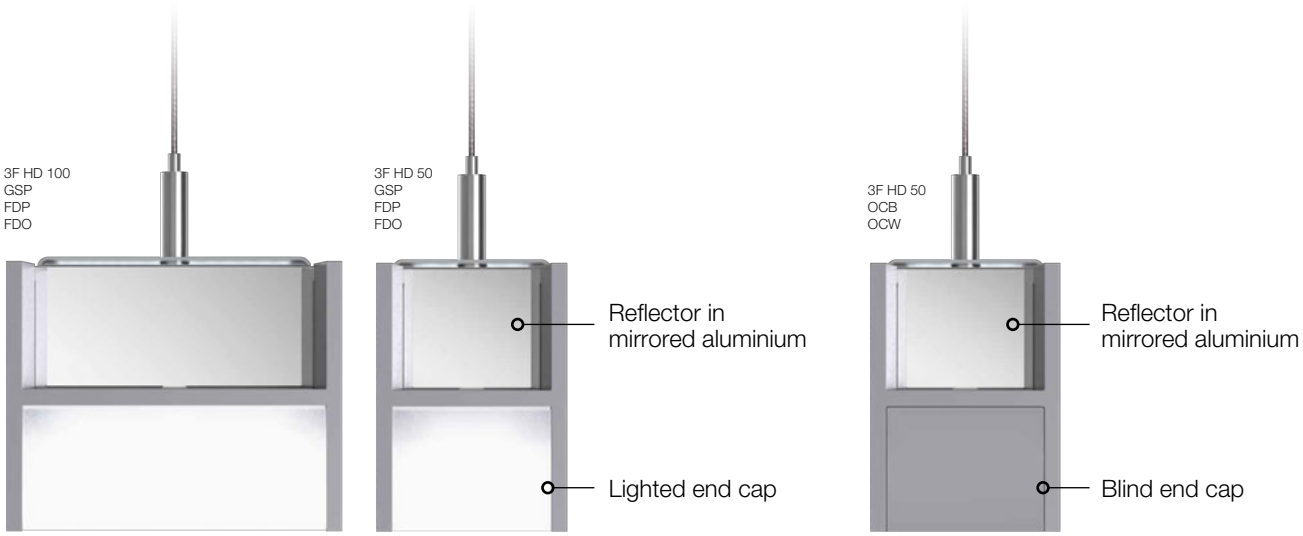
3F HD is the ideal technical solution to comply with indications from the most stringent environmental certifications and current legislation. The 3F Filippi system is **LEED compliant, with a luminance of less than 2500 cd/m²** for corners of more than 45°. The performance of 3F HD substantially meets the requirements of European standard EN 12464-1: if the maximum luminance required at 65° must be between 3000 cd/m² and 1500 cd/m², **the performance of the fixture at the same angle is lower than 200 cd/m² with UGR value <16.**



Product advantages

END CAPS

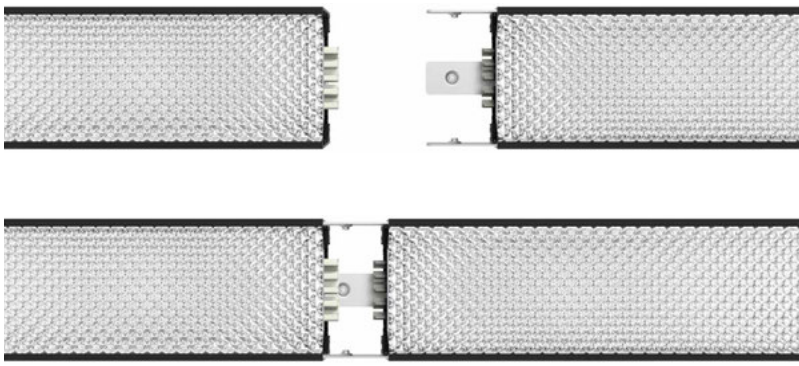
3F HD is a product created with two different types of end caps While the OC (Optic Control - OCB and OCW) have blind caps, given that lighting and lighting distribution control are managed completely by the cells, those with screens use lighted end caps that perform the following functions:
- Aesthetic: the lower screen connected to the two end caps creates luminosity that eliminates the typical two-dimensional effect of similar products.
- Functional: when the product is installed near walls, the lighted caps mitigate the typical smudged light effect. On the other hand, when installed in open areas, its perception and light diffusion improve, even in the most open corners.
- Lighting: the luminous front component reduces the visual contrast, making the perceived light under the same product axis more comfortable.
All versions have a mirrored aluminium decoration that hides the access, giving the product visual depth.



FASTWIRING SYSTEM

In the channel versions, the **FastWiring** system drastically reduces the installation time.

A plug and a socket are mounted at the beginning and end of each bar. Simply join them together and the connection is made automatically.
From the mechanical point of view, the connection is ensured by the (already mounted) joining elements inside the second body and fixing the safety hardware.



3F HD Direct - Single

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing.
Removable gear-tray.
Lighting head caps with specular aluminium frieze.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.
FDO version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

Ceiling mounted or suspension installation.

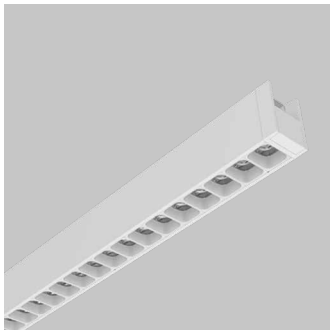
Light Management

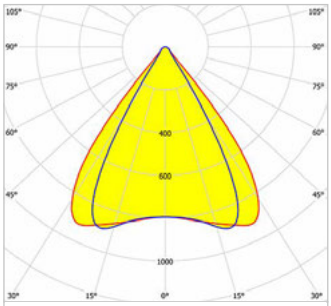
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD OCW Single



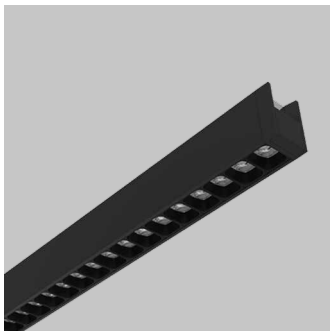


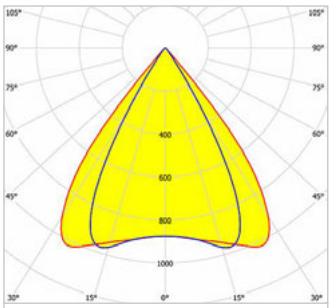
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6215	3F HD50 WH 12/830 DALI OCW L1214	14.5	1696	3000	>80	1214x57x80
○	6216	3F HD50 WH 15/830 DALI OCW L1508	18	2120	3000	>80	1508x57x80
○	6217	3F HD50 WH 30/830 DALI OCW L2975	33	4240	3000	>80	2975x57x80

3F HD OCB Single



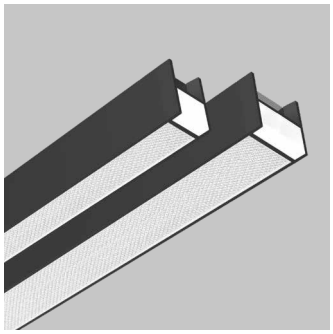


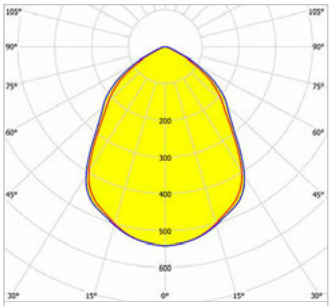
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <200 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective black polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
●	6300	3F HD50 BK 12/830 DALI OCB L1214	14.5	1570	3000	>80	1214x57x80
●	6301	3F HD50 BK 15/830 DALI OCB L1508	18	1963	3000	>80	1508x57x80
●	6302	3F HD50 BK 30/830 DALI OCB L2975	33	3926	3000	>80	2975x57x80
○	6385	3F HD50 AL 12/830 DALI OCB L1214	14.5	1570	3000	>80	1214x57x80
○	6386	3F HD50 AL 15/830 DALI OCB L1508	18	1963	3000	>80	1508x57x80
○	6387	3F HD50 AL 30/830 DALI OCB L2975	33	3926	3000	>80	2975x57x80

3F HD GSP Single





Code 6209 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

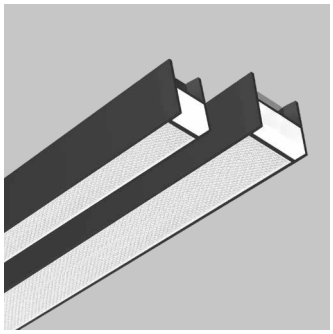
Driver/LED SELV

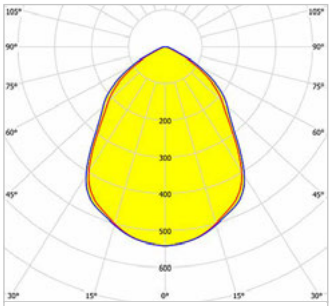
Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6208	3F HD50 WH 13/840 DALI GSP L1214	14	1374	4000	>80	1214x57x80
○	6209	3F HD50 WH 16/840 DALI GSP L1508	18	1718	4000	>80	1508x57x80
○	6210	3F HD50 WH 32/840 DALI GSP L2975	35	3435	4000	>80	2975x57x80
●	6293	3F HD50 BK 13/840 DALI GSP L1214	14	1374	4000	>80	1214x57x80
●	6294	3F HD50 BK 16/840 DALI GSP L1508	18	1718	4000	>80	1508x57x80
●	6295	3F HD50 BK 32/840 DALI GSP L2975	35	3435	4000	>80	2975x57x80
○	6378	3F HD50 AL 13/840 DALI GSP L1214	14	1374	4000	>80	1214x57x80
○	6379	3F HD50 AL 16/840 DALI GSP L1508	18	1718	4000	>80	1508x57x80
○	6380	3F HD50 AL 32/840 DALI GSP L2975	35	3435	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6227	3F HD100 WH 22/840 DALI GSP L1214	23	2617	4000	>80	1214x100x80
○	6228	3F HD100 WH 26/840 DALI GSP L1508	29	3271	4000	>80	1508x100x80
○	6229	3F HD100 WH 52/840 DALI GSP L2975	56	6428	4000	>80	2975x100x80
●	6312	3F HD100 BK 22/840 DALI GSP L1214	23	2617	4000	>80	1214x100x80
●	6313	3F HD100 BK 26/840 DALI GSP L1508	29	3271	4000	>80	1508x100x80
●	6314	3F HD100 BK 52/840 DALI GSP L2975	56	6428	4000	>80	2975x100x80
○	6397	3F HD100 AL 22/840 DALI GSP L1214	23	2617	4000	>80	1214x100x80
○	6398	3F HD100 AL 26/840 DALI GSP L1508	29	3271	4000	>80	1508x100x80
○	6399	3F HD100 AL 52/840 DALI GSP L2975	56	6428	4000	>80	2975x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD HO GSP Single





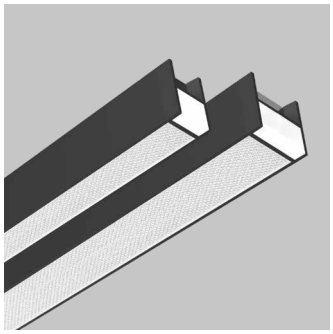
Code 6794

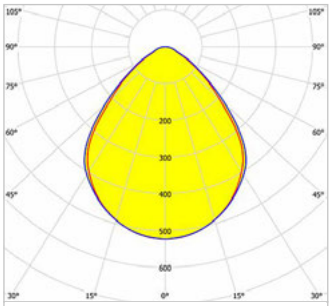
650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6793	3F HD50 WH HO 22/840 DALI GSP L1214	24	2596	4000	>80	1214x57x80
○	6794	3F HD50 WH HO 26/840 DALI GSP L1508	30	3246	4000	>80	1508x57x80
○	6795	3F HD50 WH HO 52/840 DALI GSP L2975	58	6492	4000	>80	2975x57x80
●	6799	3F HD50 BK HO 22/840 DALI GSP L1214	24	2596	4000	>80	1214x57x80
●	6800	3F HD50 BK HO 26/840 DALI GSP L1508	30	3246	4000	>80	1508x57x80
●	6801	3F HD50 BK HO 52/840 DALI GSP L2975	58	6492	4000	>80	2975x57x80
○	6805	3F HD50 AL HO 22/840 DALI GSP L1214	24	2596	4000	>80	1214x57x80
○	6806	3F HD50 AL HO 26/840 DALI GSP L1508	30	3246	4000	>80	1508x57x80
○	6807	3F HD50 AL HO 52/840 DALI GSP L2975	58	6492	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6796	3F HD100 WH HO 36/840 DALI GSP L1214	39	4434	4000	>80	1214x100x80
○	6797	3F HD100 WH HO 44/840 DALI GSP L1508	49	5542	4000	>80	1508x100x80
○	6798	3F HD100 WH HO 88/840 DALI GSP L2975	98	11085	4000	>80	2975x100x80
●	6802	3F HD100 BK HO 36/840 DALI GSP L1214	39	4434	4000	>80	1214x100x80
●	6803	3F HD100 BK HO 44/840 DALI GSP L1508	49	5542	4000	>80	1508x100x80
●	6804	3F HD100 BK HO 88/840 DALI GSP L2975	98	11085	4000	>80	2975x100x80
○	6808	3F HD100 AL HO 36/840 DALI GSP L1214	39	4434	4000	>80	1214x100x80
○	6809	3F HD100 AL HO 44/840 DALI GSP L1508	49	5542	4000	>80	1508x100x80
○	6810	3F HD100 AL HO 88/840 DALI GSP L2975	98	11085	4000	>80	2975x100x80

3F HD FDP Single





Code 6220 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

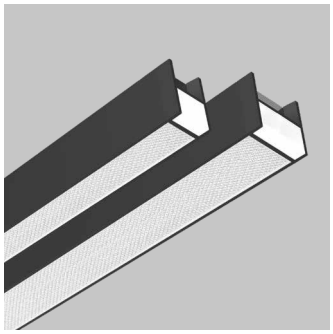
Driver/LED SELV

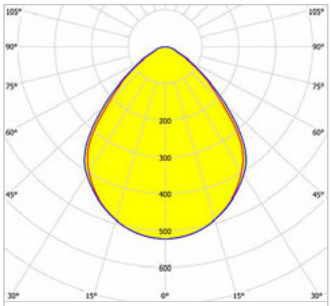
Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6200	3F HD50 WH 13/840 DALI FDP L1214	14	1292	4000	>80	1214x57x80
○	6201	3F HD50 WH 16/840 DALI FDP L1508	18	1615	4000	>80	1508x57x80
○	6202	3F HD50 WH 32/840 DALI FDP L2975	35	3229	4000	>80	2975x57x80
●	6285	3F HD50 BK 13/840 DALI FDP L1214	14	1292	4000	>80	1214x57x80
●	6286	3F HD50 BK 16/840 DALI FDP L1508	18	1615	4000	>80	1508x57x80
●	6287	3F HD50 BK 32/840 DALI FDP L2975	35	3229	4000	>80	2975x57x80
○	6370	3F HD50 AL 13/840 DALI FDP L1214	14	1292	4000	>80	1214x57x80
○	6371	3F HD50 AL 16/840 DALI FDP L1508	18	1615	4000	>80	1508x57x80
○	6372	3F HD50 AL 32/840 DALI FDP L2975	35	3229	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6219	3F HD100 WH 22/840 DALI FDP L1214	23	2468	4000	>80	1214x100x80
○	6220	3F HD100 WH 26/840 DALI FDP L1508	29	3085	4000	>80	1508x100x80
○	6221	3F HD100 WH 52/840 DALI FDP L2975	56	6062	4000	>80	2975x100x80
●	6304	3F HD100 BK 22/840 DALI FDP L1214	23	2468	4000	>80	1214x100x80
●	6305	3F HD100 BK 26/840 DALI FDP L1508	29	3085	4000	>80	1508x100x80
●	6306	3F HD100 BK 52/840 DALI FDP L2975	56	6062	4000	>80	2975x100x80
○	6389	3F HD100 AL 22/840 DALI FDP L1214	23	2468	4000	>80	1214x100x80
○	6390	3F HD100 AL 26/840 DALI FDP L1508	29	3085	4000	>80	1508x100x80
○	6391	3F HD100 AL 52/840 DALI FDP L2975	56	6062	4000	>80	2975x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD HO FDP Single





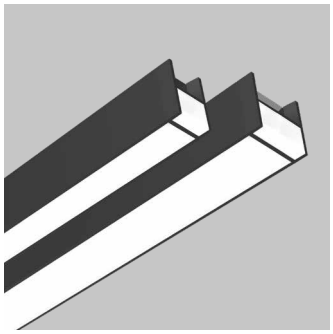
Code 6815

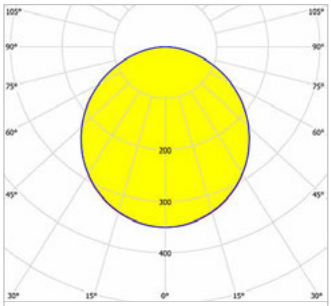
650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6811	3F HD50 WH HO 22/840 DALI FDP L1214	24	2448	4000	>80	1214x57x80
○	6812	3F HD50 WH HO 26/840 DALI FDP L1508	30	3061	4000	>80	1508x57x80
○	6813	3F HD50 WH HO 52/840 DALI FDP L2975	58	6122	4000	>80	2975x57x80
●	6817	3F HD50 BK HO 22/840 DALI FDP L1214	24	2448	4000	>80	1214x57x80
●	6818	3F HD50 BK HO 26/840 DALI FDP L1508	30	3061	4000	>80	1508x57x80
●	6819	3F HD50 BK HO 52/840 DALI FDP L2975	58	6122	4000	>80	2975x57x80
○	6823	3F HD50 AL HO 22/840 DALI FDP L1214	24	2448	4000	>80	1214x57x80
○	6824	3F HD50 AL HO 26/840 DALI FDP L1508	30	3061	4000	>80	1508x57x80
○	6825	3F HD50 AL HO 52/840 DALI FDP L2975	58	6122	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6814	3F HD100 WH HO 36/840 DALI FDP L1214	39	4182	4000	>80	1214x100x80
○	6815	3F HD100 WH HO 44/840 DALI FDP L1508	49	5227	4000	>80	1508x100x80
○	6816	3F HD100 WH HO 88/840 DALI FDP L2975	98	10454	4000	>80	2975x100x80
●	6820	3F HD100 BK HO 36/840 DALI FDP L1214	39	4182	4000	>80	1214x100x80
●	6821	3F HD100 BK HO 44/840 DALI FDP L1508	49	5227	4000	>80	1508x100x80
●	6822	3F HD100 BK HO 88/840 DALI FDP L2975	98	10454	4000	>80	2975x100x80
○	6826	3F HD100 AL HO 36/840 DALI FDP L1214	39	4182	4000	>80	1214x100x80
○	6827	3F HD100 AL HO 44/840 DALI FDP L1508	49	5227	4000	>80	1508x100x80
○	6828	3F HD100 AL HO 88/840 DALI FDP L2975	98	10454	4000	>80	2975x100x80

3F HD FDO Single





Code 6224

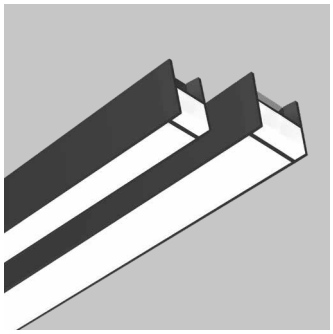
650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

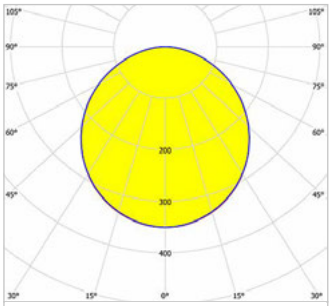
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6204	3F HD50 WH 13/840 DALI FDO L1214	14	1250	4000	>80	1214x57x80
○	6205	3F HD50 WH 16/840 DALI FDO L1508	18	1563	4000	>80	1508x57x80
○	6206	3F HD50 WH 32/840 DALI FDO L2975	35	3126	4000	>80	2975x57x80
●	6289	3F HD50 BK 13/840 DALI FDO L1214	14	1250	4000	>80	1214x57x80
●	6290	3F HD50 BK 16/840 DALI FDO L1508	18	1563	4000	>80	1508x57x80
●	6291	3F HD50 BK 32/840 DALI FDO L2975	35	3126	4000	>80	2975x57x80
○	6374	3F HD50 AL 13/840 DALI FDO L1214	14	1250	4000	>80	1214x57x80
○	6375	3F HD50 AL 16/840 DALI FDO L1508	18	1563	4000	>80	1508x57x80
○	6376	3F HD50 AL 32/840 DALI FDO L2975	35	3126	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6223	3F HD100 WH 22/840 DALI FDO L1214	23	2304	4000	>80	1214x100x80
○	6224	3F HD100 WH 26/840 DALI FDO L1508	29	2880	4000	>80	1508x100x80
○	6225	3F HD100 WH 52/840 DALI FDO L2975	56	5660	4000	>80	2975x100x80
●	6308	3F HD100 BK 22/840 DALI FDO L1214	23	2304	4000	>80	1214x100x80
●	6309	3F HD100 BK 26/840 DALI FDO L1508	29	2880	4000	>80	1508x100x80
●	6310	3F HD100 BK 52/840 DALI FDO L2975	56	5660	4000	>80	2975x100x80
○	6393	3F HD100 AL 22/840 DALI FDO L1214	23	2304	4000	>80	1214x100x80
○	6394	3F HD100 AL 26/840 DALI FDO L1508	29	2880	4000	>80	1508x100x80
○	6395	3F HD100 AL 52/840 DALI FDO L2975	56	5660	4000	>80	2975x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD HO FDO Single





Code 6839

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6829	3F HD50 WH HO 22/840 DALI FDO L1214	24	2286	4000	>80	1214x57x80
○	6830	3F HD50 WH HO 26/840 DALI FDO L1508	30	2858	4000	>80	1508x57x80
○	6831	3F HD50 WH HO 52/840 DALI FDO L2975	58	5716	4000	>80	2975x57x80
●	6835	3F HD50 BK HO 22/840 DALI FDO L1214	24	2286	4000	>80	1214x57x80
●	6836	3F HD50 BK HO 26/840 DALI FDO L1508	30	2858	4000	>80	1508x57x80
●	6837	3F HD50 BK HO 52/840 DALI FDO L2975	58	5716	4000	>80	2975x57x80
○	6841	3F HD50 AL HO 22/840 DALI FDO L1214	24	2286	4000	>80	1214x57x80
○	6842	3F HD50 AL HO 26/840 DALI FDO L1508	30	2858	4000	>80	1508x57x80
○	6843	3F HD50 AL HO 52/840 DALI FDO L2975	58	5716	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6832	3F HD100 WH HO 36/840 DALI FDO L1214	39	3904	4000	>80	1214x100x80
○	6833	3F HD100 WH HO 44/840 DALI FDO L1508	49	4880	4000	>80	1508x100x80
○	6834	3F HD100 WH HO 88/840 DALI FDO L2975	98	9760	4000	>80	2975x100x80
●	6838	3F HD100 BK HO 36/840 DALI FDO L1214	39	3904	4000	>80	1214x100x80
●	6839	3F HD100 BK HO 44/840 DALI FDO L1508	49	4880	4000	>80	1508x100x80
●	6840	3F HD100 BK HO 88/840 DALI FDO L2975	98	9760	4000	>80	2975x100x80
○	6844	3F HD100 AL HO 36/840 DALI FDO L1214	39	3904	4000	>80	1214x100x80
○	6845	3F HD100 AL HO 44/840 DALI FDO L1508	49	4880	4000	>80	1508x100x80
○	6846	3F HD100 AL HO 88/840 DALI FDO L2975	98	9760	4000	>80	2975x100x80

NEW

3F HD Direct - Single - Tunable White

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing.
Removable gear-tray.
Lighting end caps with mirrored aluminium frieze.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
Anti-glare opal polycarbonate filter for brightness uniformity.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm² per poles.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels or colour rendering indices
- housing in different RAL colours
- emergency versions

Applications

Any environments requiring light which aims for the wellness of people.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

Installation

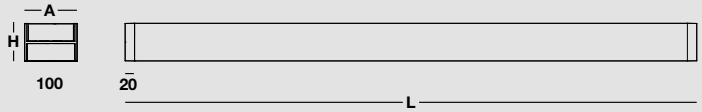
Ceiling mounted or suspension installation.

Light Management

Thanks to the 3F HCL technology, our Tunable White products can be controlled by:

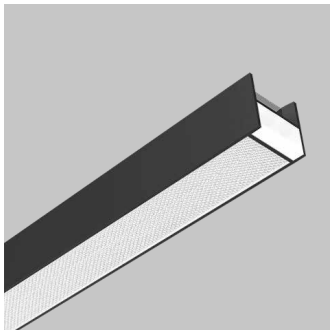
- Wired control systems (more information on page 592)
- 3F Bluetooth control systems (more information on page 594)

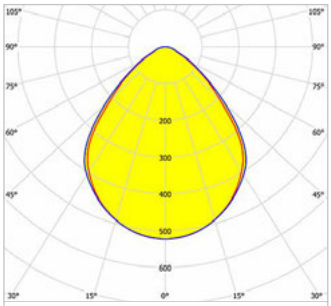
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD Tunable White FDP





Code 6869 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

TW | Driver/LED SELV

Variable light intensity and colour temperature.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 100 - DALI DT8 electronic wiring 230V-50/60Hz							
○	6868 NEW	3F HD100 WH 22 DT8 TW FDP L1214	27 26 25	2387	2700 4000 6500	>80	1214x100x80
○	6869 NEW	3F HD100 WH 26 DT8 TW FDP L1508	34 32.5 31	2984	2700 4000 6500	>80	1508x100x80
○	6870 NEW	3F HD100 WH 52 DT8 TW FDP L2975	66 63 60	5967	2700 4000 6500	>80	2975x100x80
●	6871 NEW	3F HD100 BK 22 DT8 TW FDP L1214	27 26 25	2387	2700 4000 6500	>80	1214x100x80
●	6872 NEW	3F HD100 BK 26 DT8 TW FDP L1508	34 32.5 31	2984	2700 4000 6500	>80	1508x100x80
●	6873 NEW	3F HD100 BK 52 DT8 TW FDP L2975	66 63 60	5967	2700 4000 6500	>80	2975x100x80
○	6874 NEW	3F HD100 AL 22 DT8 TW FDP L1214	27 26 25	2387	2700 4000 6500	>80	1214x100x80
○	6875 NEW	3F HD100 AL 26 DT8 TW FDP L1508	34 32.5 31	2984	2700 4000 6500	>80	1508x100x80
○	6876 NEW	3F HD100 AL 52 DT8 TW FDP L2975	66 63 60	5967	2700 4000 6500	>80	2975x100x80

3F HD Direct - Channel

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing.
Removable gear-tray.
Hot-dip galvanised steel linear connecting element installed on the body for rapid mechanical connection.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
5 mm^2 section 2.5 pin through line with an irreversible quick coupling plug plug/ socket fixed on the body for rapid electrical connection.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.
FDO version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

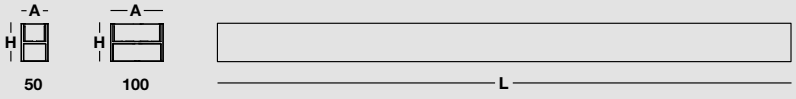
Installation

Ceiling mounted or suspension installation.

Light Management

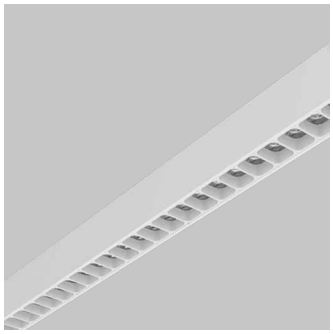
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

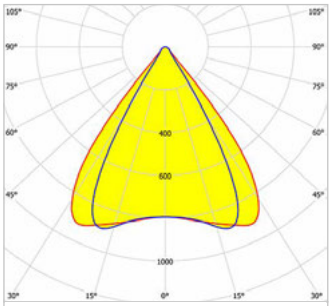
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD OCW Channel



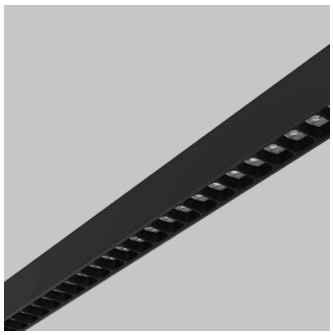


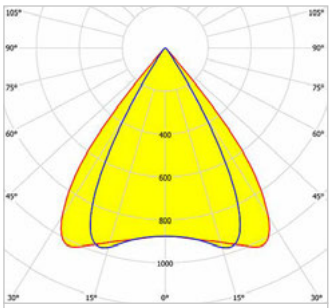
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6260	3F HD50 WH 12/830 DALI 5P OCW L1174	14.5	1696	3000	>80	1174x57x80
○	6261	3F HD50 WH 15/830 DALI 5P OCW L1468	18	2120	3000	>80	1468x57x80
○	6262	3F HD50 WH 30/830 DALI 5P OCW L2935	33	4240	3000	>80	2935x57x80

3F HD OCB Channel



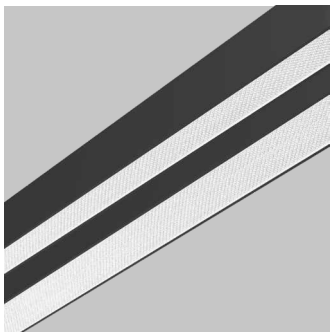


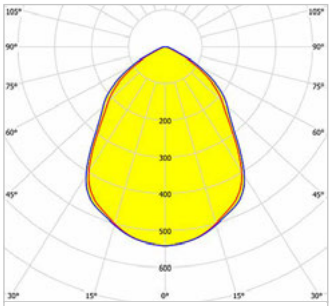
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <200 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective black polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
●	6345	3F HD50 BK 12/830 DALI 5P OCB L1174	14.5	1570	3000	>80	1174x57x80
●	6346	3F HD50 BK 15/830 DALI 5P OCB L1468	18	1963	3000	>80	1468x57x80
●	6347	3F HD50 BK 30/830 DALI 5P OCB L2935	33	3926	3000	>80	2935x57x80
○	6430	3F HD50 AL 12/830 DALI 5P OCB L1174	14.5	1570	3000	>80	1174x57x80
○	6431	3F HD50 AL 15/830 DALI 5P OCB L1468	18	1963	3000	>80	1468x57x80
○	6432	3F HD50 AL 30/830 DALI 5P OCB L2935	33	3926	3000	>80	2935x57x80

3F HD GSP Channel





Code 6246 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

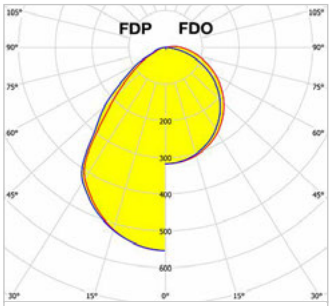
Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP transparent methacrylate diffuser, prismatic outside, antiglare.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6245	3F HD50 WH 13/840 DALI 5P GSP L1174	14	1374	4000	>80	1174x57x80
○	6246	3F HD50 WH 16/840 DALI 5P GSP L1468	18	1718	4000	>80	1468x57x80
○	6250	3F HD50 WH 32/840 DALI 5P GSP L2935	35	3435	4000	>80	2935x57x80
●	6330	3F HD50 BK 13/840 DALI 5P GSP L1174	14	1374	4000	>80	1174x57x80
●	6331	3F HD50 BK 16/840 DALI 5P GSP L1468	18	1718	4000	>80	1468x57x80
●	6335	3F HD50 BK 32/840 DALI 5P GSP L2935	35	3435	4000	>80	2935x57x80
○	6415	3F HD50 AL 13/840 DALI 5P GSP L1174	14	1374	4000	>80	1174x57x80
○	6416	3F HD50 AL 16/840 DALI 5P GSP L1468	18	1718	4000	>80	1468x57x80
○	6420	3F HD50 AL 32/840 DALI 5P GSP L2935	35	3435	4000	>80	2935x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6275	3F HD100 WH 22/840 DALI 5P GSP L1174	23	2617	4000	>80	1174x100x80
○	6276	3F HD100 WH 26/840 DALI 5P GSP L1468	29	3271	4000	>80	1468x100x80
○	6280	3F HD100 WH 52/840 DALI 5P GSP L2935	56	6428	4000	>80	2935x100x80
●	6360	3F HD100 BK 22/840 DALI 5P GSP L1174	23	2617	4000	>80	1174x100x80
●	6361	3F HD100 BK 26/840 DALI 5P GSP L1468	29	3271	4000	>80	1468x100x80
●	6365	3F HD100 BK 52/840 DALI 5P GSP L2935	56	6428	4000	>80	2935x100x80
○	6445	3F HD100 AL 22/840 DALI 5P GSP L1174	23	2617	4000	>80	1174x100x80
○	6446	3F HD100 AL 26/840 DALI 5P GSP L1468	29	3271	4000	>80	1468x100x80
○	6450	3F HD100 AL 52/840 DALI 5P GSP L2935	56	6428	4000	>80	2935x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD FD Channel



Code 6237

650°C | IP40 | 0,2J | IK02 | FDP

Driver/LED SELV

Average luminance <3000 cd/m² for angles >65° (FDP).
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
For diffusers see accessories on page 60.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6236	3F HD50 WH 13/840 DALI 5P FD L1174	14	1292 FDP 1250 FDO	4000	>80	1174x57x80
○	6237	3F HD50 WH 16/840 DALI 5P FD L1468	18	1615 FDP 1563 FDO	4000	>80	1468x57x80
○	6241	3F HD50 WH 32/840 DALI 5P FD L2935	35	3229 FDP 3126 FDO	4000	>80	2935x57x80
●	6321	3F HD50 BK 13/840 DALI 5P FD L1174	14	1292 FDP 1250 FDO	4000	>80	1174x57x80
●	6322	3F HD50 BK 16/840 DALI 5P FD L1468	18	1615 FDP 1563 FDO	4000	>80	1468x57x80
●	6326	3F HD50 BK 32/840 DALI 5P FD L2935	35	3229 FDP 3126 FDO	4000	>80	2935x57x80
○	6406	3F HD50 AL 13/840 DALI 5P FD L1174	14	1292 FDP 1250 FDO	4000	>80	1174x57x80
○	6407	3F HD50 AL 16/840 DALI 5P FD L1468	18	1615 FDP 1563 FDO	4000	>80	1468x57x80
○	6411	3F HD50 AL 32/840 DALI 5P FD L2935	35	3229 FDP 3126 FDO	4000	>80	2935x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6266	3F HD100 WH 22/840 DALI 5P FD L1174	23	2468 FDP 2304 FDO	4000	>80	1174x100x80
○	6267	3F HD100 WH 26/840 DALI 5P FD L1468	29	3085 FDP 2880 FDO	4000	>80	1468x100x80
○	6271	3F HD100 WH 52/840 DALI 5P FD L2935	56	6062 FDP 5660 FDO	4000	>80	2935x100x80
●	6351	3F HD100 BK 22/840 DALI 5P FD L1174	23	2468 FDP 2304 FDO	4000	>80	1174x100x80
●	6352	3F HD100 BK 26/840 DALI 5P FD L1468	29	3085 FDP 2880 FDO	4000	>80	1468x100x80
●	6356	3F HD100 BK 52/840 DALI 5P FD L2935	56	6062 FDP 5660 FDO	4000	>80	2935x100x80
○	6436	3F HD100 AL 22/840 DALI 5P FD L1174	23	2468 FDP 2304 FDO	4000	>80	1174x100x80
○	6437	3F HD100 AL 26/840 DALI 5P FD L1468	29	3085 FDP 2880 FDO	4000	>80	1468x100x80
○	6441	3F HD100 AL 52/840 DALI 5P FD L2935	56	6062 FDP 5660 FDO	4000	>80	2935x100x80

3F HD Direct/Indirect - Single

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing.
Removable gear-tray.
Translucent polycarbonate upper diffuser.
Lighting head caps with specular aluminium frieze.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit, 2 DALI addresses (depending on the type of lighting fixture).
Entrance to the upper power supply in proximity to a power head.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.
FDO version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

Suspension installation.

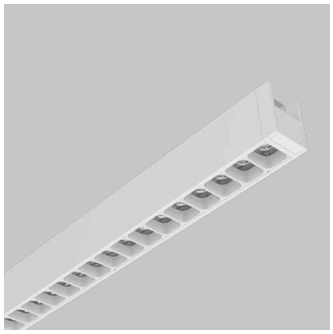
Light Management

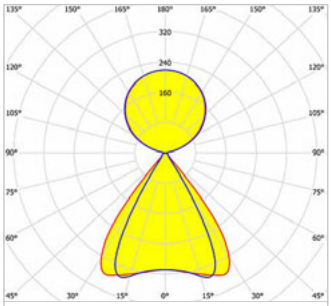
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD DI OCW Single



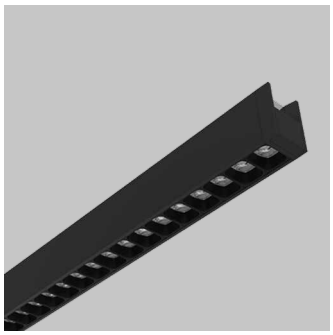


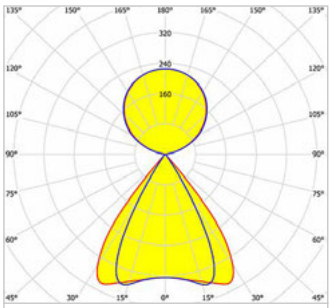
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6470	3F HD50DI WH 12+20/830 DALI OCW L1214	37	4268	3000	>80	1214x57x80
○	6471	3F HD50DI WH 15+26/830 DALI OCW L1508	48	5394	3000	>80	1508x57x80
○	6472	3F HD50DI WH 30+52/830 DALI OCW L2975	90	10800	3000	>80	2975x57x80

3F HD DI OCB Single



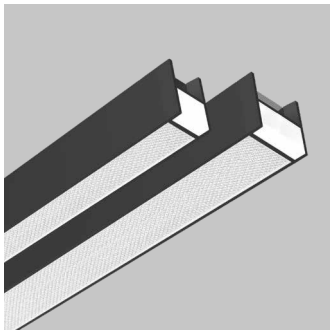


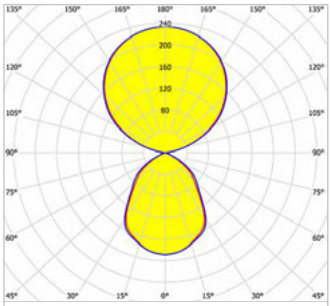
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <200 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective black polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
●	6555	3F HD50DI BK 12+20/830 DALI OCB L1214	37	4142	3000	>80	1214x57x80
●	6556	3F HD50DI BK 15+26/830 DALI OCB L1508	48	5237	3000	>80	1508x57x80
●	6557	3F HD50DI BK 30+52/830 DALI OCB L2975	90	10486	3000	>80	2975x57x80
○	6640	3F HD50DI AL 12+20/830 DALI OCB L1214	37	4142	3000	>80	1214x57x80
○	6641	3F HD50DI AL 15+26/830 DALI OCB L1508	48	5237	3000	>80	1508x57x80
○	6642	3F HD50DI AL 30+52/830 DALI OCB L2975	90	10486	3000	>80	2975x57x80

3F HD DI GSP Single





Code 6464 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

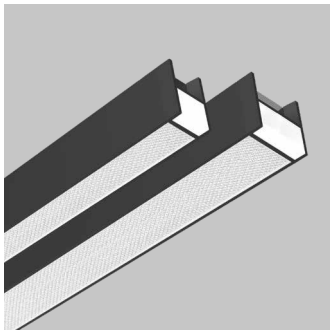
Driver/LED SELV

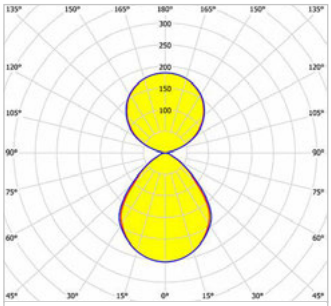
Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP transparent methacrylate diffuser, prismatic outside, antiglare.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6463	3F HD50DI WH 13+20/840 DALI GSP L1214	37	4081	4000	>80	1214x57x80
○	6464	3F HD50DI WH 16+26/840 DALI GSP L1508	46	5164	4000	>80	1508x57x80
○	6465	3F HD50DI WH 32+52/840 DALI GSP L2975	91	10340	4000	>80	2975x57x80
●	6548	3F HD50DI BK 13+20/840 DALI GSP L1214	37	4081	4000	>80	1214x57x80
●	6549	3F HD50DI BK 16+26/840 DALI GSP L1508	46	5164	4000	>80	1508x57x80
●	6550	3F HD50DI BK 32+52/840 DALI GSP L2975	91	10340	4000	>80	2975x57x80
○	6633	3F HD50DI AL 13+20/840 DALI GSP L1214	37	4081	4000	>80	1214x57x80
○	6634	3F HD50DI AL 16+26/840 DALI GSP L1508	46	5164	4000	>80	1508x57x80
○	6635	3F HD50DI AL 32+52/840 DALI GSP L2975	91	10340	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6482	3F HD100DI WH 22+20/840 DALI GSP L1214	46	5394	4000	>80	1214x100x80
○	6483	3F HD100DI WH 26+26/840 DALI GSP L1508	61	6805	4000	>80	1508x100x80
○	6484	3F HD100DI WH 52+52/840 DALI GSP L2975	113	13510	4000	>80	2975x100x80
●	6567	3F HD100DI BK 22+20/840 DALI GSP L1214	46	5394	4000	>80	1214x100x80
●	6568	3F HD100DI BK 26+26/840 DALI GSP L1508	61	6805	4000	>80	1508x100x80
●	6569	3F HD100DI BK 52+52/840 DALI GSP L2975	113	13510	4000	>80	2975x100x80
○	6652	3F HD100DI AL 22+20/840 DALI GSP L1214	46	5394	4000	>80	1214x100x80
○	6653	3F HD100DI AL 26+26/840 DALI GSP L1508	61	6805	4000	>80	1508x100x80
○	6654	3F HD100DI AL 52+52/840 DALI GSP L2975	113	13510	4000	>80	2975x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD DI FDP Single





Code 6475 L<3000 cd/m² 65°

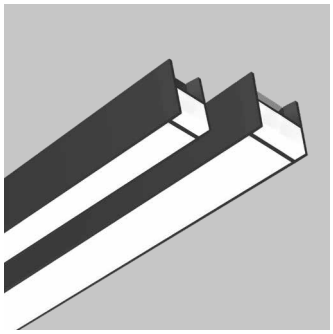
650°C | IP40 | 0,2J | IK02

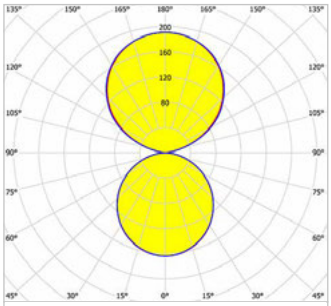
Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
Opal polycarbonate internal anti-glare filter for lighting uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6455	3F HD50DI WH 13+20/840 DALI FDP L1214	37	3999	4000	>80	1214x57x80
○	6456	3F HD50DI WH 16+26/840 DALI FDP L1508	46	5061	4000	>80	1508x57x80
○	6457	3F HD50DI WH 32+52/840 DALI FDP L2975	91	10134	4000	>80	2975x57x80
●	6540	3F HD50DI BK 13+20/840 DALI FDP L1214	37	3999	4000	>80	1214x57x80
●	6541	3F HD50DI BK 16+26/840 DALI FDP L1508	46	5061	4000	>80	1508x57x80
●	6542	3F HD50DI BK 32+52/840 DALI FDP L2975	91	10134	4000	>80	2975x57x80
○	6625	3F HD50DI AL 13+20/840 DALI FDP L1214	37	3999	4000	>80	1214x57x80
○	6626	3F HD50DI AL 16+26/840 DALI FDP L1508	46	5061	4000	>80	1508x57x80
○	6627	3F HD50DI AL 32+52/840 DALI FDP L2975	91	10134	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6474	3F HD100DI WH 22+20/840 DALI FDP L1214	46	5245	4000	>80	1214x100x80
○	6475	3F HD100DI WH 26+26/840 DALI FDP L1508	61	6619	4000	>80	1508x100x80
○	6476	3F HD100DI WH 52+52/840 DALI FDP L2975	113	13144	4000	>80	2975x100x80
●	6559	3F HD100DI BK 22+20/840 DALI FDP L1214	46	5245	4000	>80	1214x100x80
●	6560	3F HD100DI BK 26+26/840 DALI FDP L1508	61	6619	4000	>80	1508x100x80
●	6561	3F HD100DI BK 52+52/840 DALI FDP L2975	113	13144	4000	>80	2975x100x80
○	6644	3F HD100DI AL 22+20/840 DALI FDP L1214	46	5245	4000	>80	1214x100x80
○	6645	3F HD100DI AL 26+26/840 DALI FDP L1508	61	6619	4000	>80	1508x100x80
○	6646	3F HD100DI AL 52+52/840 DALI FDP L2975	113	13144	4000	>80	2975x100x80

3F HD DI FDO Single





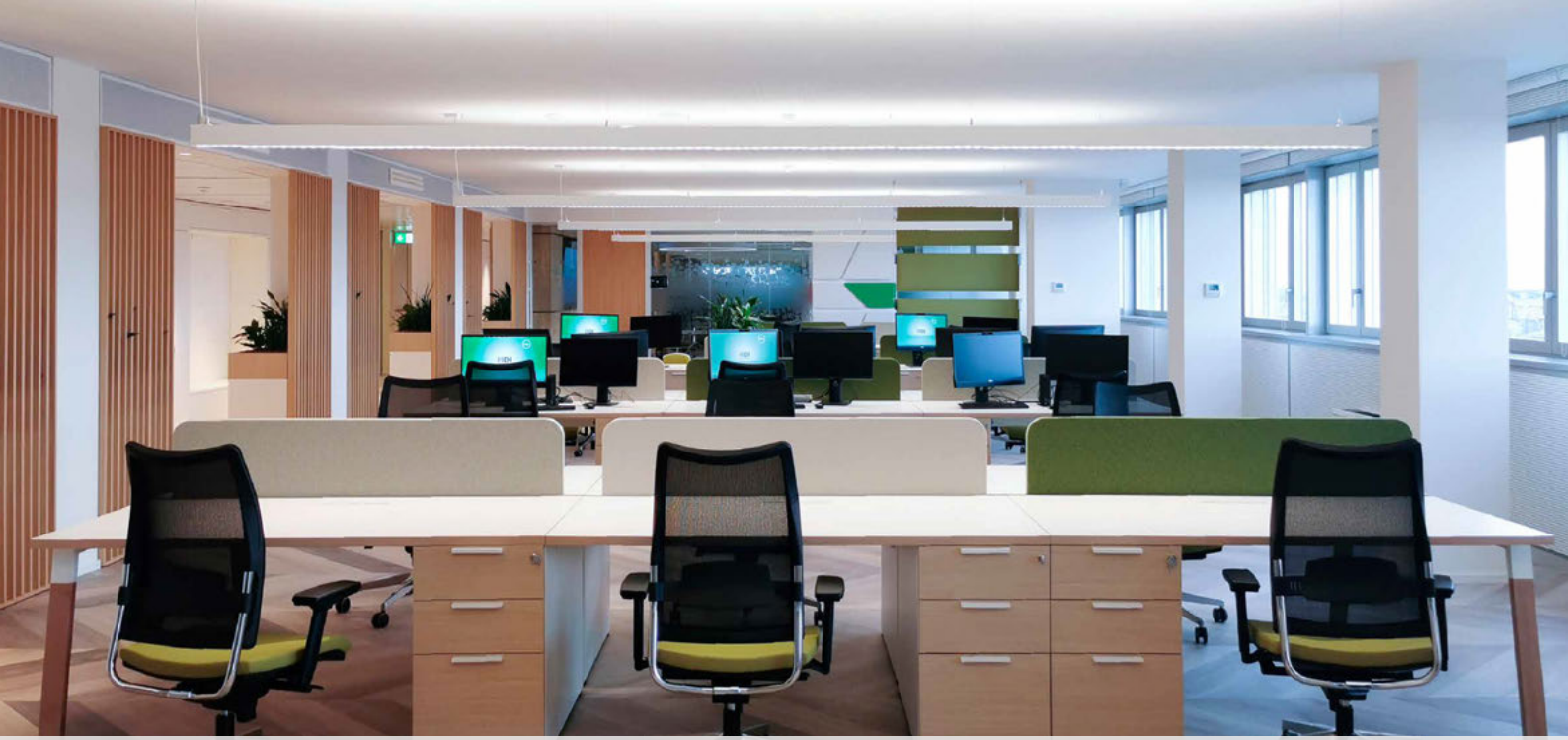
Code 6479

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6459	3F HD50DI WH 13+20/840 DALI FDO L1214	37	3957	4000	>80	1214x57x80
○	6460	3F HD50DI WH 16+26/840 DALI FDO L1508	46	5009	4000	>80	1508x57x80
○	6461	3F HD50DI WH 32+52/840 DALI FDO L2975	91	10031	4000	>80	2975x57x80
●	6544	3F HD50DI BK 13+20/840 DALI FDO L1214	37	3957	4000	>80	1214x57x80
●	6545	3F HD50DI BK 16+26/840 DALI FDO L1508	46	5009	4000	>80	1508x57x80
●	6546	3F HD50DI BK 32+52/840 DALI FDO L2975	91	10031	4000	>80	2975x57x80
○	6629	3F HD50DI AL 13+20/840 DALI FDO L1214	37	3957	4000	>80	1214x57x80
○	6630	3F HD50DI AL 16+26/840 DALI FDO L1508	46	5009	4000	>80	1508x57x80
○	6631	3F HD50DI AL 32+52/840 DALI FDO L2975	91	10031	4000	>80	2975x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6478	3F HD100DI WH 22+20/840 DALI FDO L1214	46	5081	4000	>80	1214x100x80
○	6479	3F HD100DI WH 26+26/840 DALI FDO L1508	61	6414	4000	>80	1508x100x80
○	6480	3F HD100DI WH 52+52/840 DALI FDO L2975	113	12742	4000	>80	2975x100x80
●	6563	3F HD100DI BK 22+20/840 DALI FDO L1214	46	5081	4000	>80	1214x100x80
●	6564	3F HD100DI BK 26+26/840 DALI FDO L1508	61	6414	4000	>80	1508x100x80
●	6565	3F HD100DI BK 52+52/840 DALI FDO L2975	113	12742	4000	>80	2975x100x80
○	6648	3F HD100DI AL 22+20/840 DALI FDO L1214	46	5081	4000	>80	1214x100x80
○	6649	3F HD100DI AL 26+26/840 DALI FDO L1508	61	6414	4000	>80	1508x100x80
○	6650	3F HD100DI AL 52+52/840 DALI FDO L2975	113	12742	4000	>80	2975x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**



3F HD Direct/Indirect - Channel

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing.
Removable gear-tray.
Hot-dip galvanised steel linear connecting element installed on the body for rapid mechanical connection.
Translucent polycarbonate upper diffuser.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit, 2 DALI addresses (depending on the type of lighting fixture).
Entrance to the upper power supply in proximity to a power head.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.
FDO version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

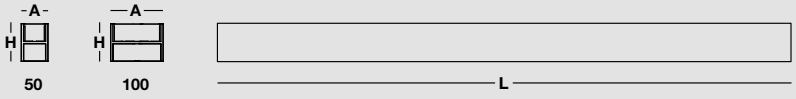
Installation

Suspension installation.

Light Management

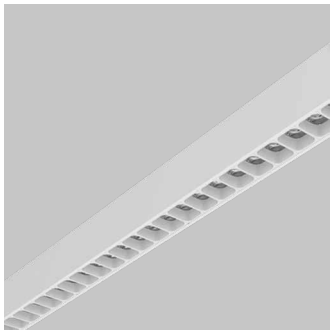
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

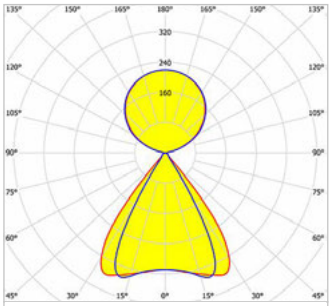
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD DI OCW Channel





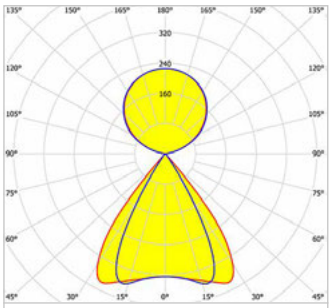
Code 6516 L<2500 cd/m² 45°

650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6515	3F HD50DI WH 12+20/830 DALI 5P OCW L1174	37	4268	3000	>80	1174x57x80
○	6516	3F HD50DI WH 15+26/830 DALI 5P OCW L1468	48	5394	3000	>80	1468x57x80
○	6517	3F HD50DI WH 30+52/830 DALI 5P OCW L2935	90	10800	3000	>80	2935x57x80

3F HD DI OCB Channel



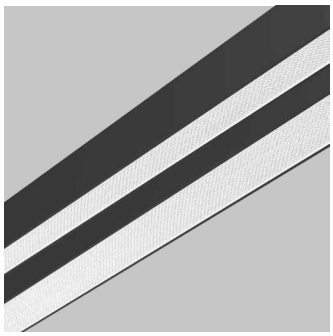
Code 6601 L<2500 cd/m² 45°

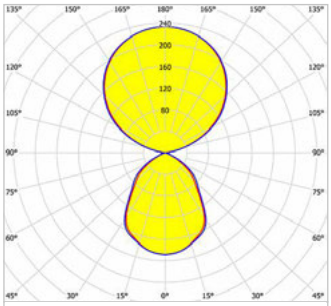
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <200 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective black polycarbonate alveolar optic.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
●	6600	3F HD50DI BK 12+20/830 DALI 5P OCB L1174	37	4142	3000	>80	1174x57x80
●	6601	3F HD50DI BK 15+26/830 DALI 5P OCB L1468	48	5237	3000	>80	1468x57x80
●	6602	3F HD50DI BK 30+52/830 DALI 5P OCB L2935	90	10486	3000	>80	2935x57x80
○	6685	3F HD50DI AL 12+20/830 DALI 5P OCB L1174	37	4142	3000	>80	1174x57x80
○	6686	3F HD50DI AL 15+26/830 DALI 5P OCB L1468	48	5237	3000	>80	1468x57x80
○	6687	3F HD50DI AL 30+52/830 DALI 5P OCB L2935	90	10486	3000	>80	2935x57x80

3F HD DI GSP Channel





Code 6501 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

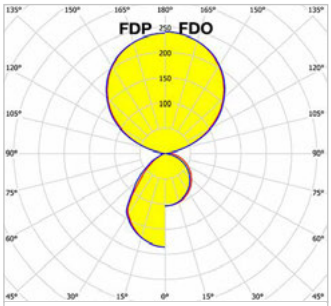
Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP transparent methacrylate diffuser, prismatic outside, antiglare.
Anti-glare opal polycarbonate filter for brightness uniformity.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6500	3F HD50DI WH 13+20/840 DALI 5P GSP L1174	37	4081	4000	>80	1174x57x80
○	6501	3F HD50DI WH 16+26/840 DALI 5P GSP L1468	46	5164	4000	>80	1468x57x80
○	6505	3F HD50DI WH 32+52/840 DALI 5P GSP L2935	91	10340	4000	>80	2935x57x80
●	6585	3F HD50DI BK 13+20/840 DALI 5P GSP L1174	37	4081	4000	>80	1174x57x80
●	6586	3F HD50DI BK 16+26/840 DALI 5P GSP L1468	46	5164	4000	>80	1468x57x80
●	6590	3F HD50DI BK 32+52/840 DALI 5P GSP L2935	91	10340	4000	>80	2935x57x80
○	6670	3F HD50DI AL 13+20/840 DALI 5P GSP L1174	37	4081	4000	>80	1174x57x80
○	6671	3F HD50DI AL 16+26/840 DALI 5P GSP L1468	46	5164	4000	>80	1468x57x80
○	6675	3F HD50DI AL 32+52/840 DALI 5P GSP L2935	91	10340	4000	>80	2935x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6530	3F HD100DI WH 22+20/840 DALI 5P GSP L1174	46	5394	4000	>80	1174x100x80
○	6531	3F HD100DI WH 26+26/840 DALI 5P GSP L1468	61	6805	4000	>80	1468x100x80
○	6535	3F HD100DI WH 52+52/840 DALI 5P GSP L2935	113	13510	4000	>80	2935x100x80
●	6615	3F HD100DI BK 22+20/840 DALI 5P GSP L1174	46	5394	4000	>80	1174x100x80
●	6616	3F HD100DI BK 26+26/840 DALI 5P GSP L1468	61	6805	4000	>80	1468x100x80
●	6620	3F HD100DI BK 52+52/840 DALI 5P GSP L2935	113	13510	4000	>80	2935x100x80
○	6700	3F HD100DI AL 22+20/840 DALI 5P GSP L1174	46	5394	4000	>80	1174x100x80
○	6701	3F HD100DI AL 26+26/840 DALI 5P GSP L1468	61	6805	4000	>80	1468x100x80
○	6705	3F HD100DI AL 52+52/840 DALI 5P GSP L2935	113	13510	4000	>80	2935x100x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD DI FD Channel



Code 6492

650°C | IP40 | 0,2J | IK02 | FDP

Driver/LED SELV

Average luminance <3000 cd/m² for angles >65° (FDP).
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
For diffusers see accessories on page 60.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz							
○	6491	3F HD50DI WH 13+20/840 DALI 5P FD L1174	37	3999 FDP 3957 FDO	4000	>80	1174x57x80
○	6492	3F HD50DI WH 16+26/840 DALI 5P FD L1468	46	5061 FDP 5009 FDO	4000	>80	1468x57x80
○	6496	3F HD50DI WH 32+52/840 DALI 5P FD L2935	91	10134 FDP 10031 FDO	4000	>80	2935x57x80
●	6576	3F HD50DI BK 13+20/840 DALI 5P FD L1174	37	3999 FDP 3957 FDO	4000	>80	1174x57x80
●	6577	3F HD50DI BK 16+26/840 DALI 5P FD L1468	46	5061 FDP 5009 FDO	4000	>80	1468x57x80
●	6581	3F HD50DI BK 32+52/840 DALI 5P FD L2935	91	10134 FDP 10031 FDO	4000	>80	2935x57x80
○	6661	3F HD50DI AL 13+20/840 DALI 5P FD L1174	37	3999 FDP 3957 FDO	4000	>80	1174x57x80
○	6662	3F HD50DI AL 16+26/840 DALI 5P FD L1468	46	5061 FDP 5009 FDO	4000	>80	1468x57x80
○	6666	3F HD50DI AL 32+52/840 DALI 5P FD L2935	91	10134 FDP 10031 FDO	4000	>80	2935x57x80
3F HD 100 - DALI electronic wiring 230V-50/60Hz							
○	6521	3F HD100DI WH 22+20/840 DALI 5P FD L1174	46	5245 FDP 5081 FDO	4000	>80	1174x100x80
○	6522	3F HD100DI WH 26+26/840 DALI 5P FD L1468	61	6619 FDP 6414 FDO	4000	>80	1468x100x80
○	6526	3F HD100DI WH 52+52/840 DALI 5P FD L2935	113	13144 FDP 12742 FDO	4000	>80	2935x100x80
●	6606	3F HD100DI BK 22+20/840 DALI 5P FD L1174	46	5245 FDP 5081 FDO	4000	>80	1174x100x80
●	6607	3F HD100DI BK 26+26/840 DALI 5P FD L1468	61	6619 FDP 6414 FDO	4000	>80	1468x100x80
●	6611	3F HD100DI BK 52+52/840 DALI 5P FD L2935	113	13144 FDP 12742 FDO	4000	>80	2935x100x80
○	6691	3F HD100DI AL 22+20/840 DALI 5P FD L1174	46	5245 FDP 5081 FDO	4000	>80	1174x100x80
○	6692	3F HD100DI AL 26+26/840 DALI 5P FD L1468	61	6619 FDP 6414 FDO	4000	>80	1468x100x80
○	6696	3F HD100DI AL 52+52/840 DALI 5P FD L2935	113	13144 FDP 12742 FDO	4000	>80	2935x100x80

3F HD | Accessories

850°C

FDP - Flat diffuser, externally microprismatic and made of transparent polycarbonate, with internal anti-glare opal polycarbonate filter for luminous uniformity. Supplied in roll.

Accessory compatible with 3F HD FD Channel and 3F HD DI FD Channel.

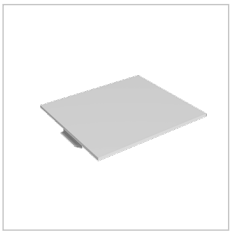
Code	Item
A01536	Channels diffusers 3F HD50 - FDP - 6m
A01537	Channels diffusers 3F HD50 - FDP - 9m
A01538	Channels diffusers 3F HD50 - FDP - 15m
A01544	Channels diffusers 3F HD100 - FDP - 6m
A01545	Channels diffusers 3F HD100 - FDP - 9m
A01546	Channels diffusers 3F HD100 - FDP - 15m

850°C

FDO - Flat diffuser, smooth outside and made of opal polycarbonate. Supplied in roll.

Accessory compatible with 3F HD FD Channel and 3F HD DI FD Channel.

Code	Item
A01540	Channels diffusers 3F HD50 - FDO - 6m
A01541	Channels diffusers 3F HD50 - FDO - 9m
A01542	Channels diffusers 3F HD50 - FDO - 15m
A01548	Channels diffusers 3F HD100 - FDO - 6m
A01549	Channels diffusers 3F HD100 - FDO - 9m
A01550	Channels diffusers 3F HD100 - FDO - 15m



Dilator coupling to connect flat diffusers FDP or FDO.

Accessory compatible with 3F HD FD Channel and 3F HD DI FD Channel.

Code	Item
A01563	Dilator joint FD channels>15m - HD50 WH
A01564	Dilator joint FD channels>15m - HD100 WH
A01568	Dilator joint FD channels>15m - HD50 BK
A01569	Dilator joint FD channels>15m - HD100 BK
A01570	Dilator joint FD channels>15m - HD50 AL
A01571	Pair of end caps 3F HD50R WH channel GSP

To be used for channels longer than 15 metres.

Pair of end caps for light channels equipped with OCB and OCW optics; made of plastic material reinforced with fibreglass and supplied with fixing screws. Thickness: 20 mm each cap.

Accessory compatible with 3F HD OCW Channel, 3F HD OCB Channel, 3F HD DI OCW Channel and 3F HD DI OCB Channel.

Code	Item
A01558	Pair end caps for 3F HD50 WH channel OC
A01559	Pair end caps for 3F HD50 BK channel OC
A01560	Pair end caps for 3F HD50 AL channel OC

These accessories are not suitable for single-unit installation.

Pair of end caps for light channels equipped with GSP screens; made of plastic material reinforced with fibreglass and supplied with fixing screws. Thickness: 20 mm each cap.

Accessory compatible with 3F HD GSP Channel and 3F HD DI GSP Channel.

Code	Item
A01578	Pair of end caps for 3F HD50 WH channel GSP
A01579	Pair of end caps for 3F HD50 BK channel GSP
A01580	Pair of end caps for 3F HD50 AL channel GSP
A01581	Pair of end caps for 3F HD100 WH channel GSP
A01582	Pair of end caps for 3F HD100 BK channel GSP
A01583	Pair of end caps for 3F HD100 AL channel GSP

These accessories are not suitable for single-unit installation.

Pair of end caps for light channels equipped with FDP and FDO screens; made of plastic material reinforced with fibreglass and supplied with fixing screws. Thickness: 20 mm each cap.

Accessory compatible with 3F HD FD Channel and 3F HD DI FD Channel.

Code	Item
A01552	Pair of end caps for 3F HD50 WH channel FD
A01553	Pair of end caps for 3F HD50 BK channel FD
A01554	Pair of end caps for 3F HD50 AL channel FD
A01555	Pair of end caps for 3F HD100 WH channel FD
A01556	Pair of end caps for 3F HD100 BK channel FD
A01557	Pair of end caps for 3F HD100 AL channel FD

These accessories are not suitable for single-unit installation.

Stainless steel sliding bracket that can be positioned freely. Accessory dedicated to ceiling installation.

Code	Item
A01530	Ceiling/recessed sliding brack. 3F HD50
A01531	Ceiling/recessed sliding brack. 3F HD100

Free-position sliding bracket with regulator in stainless steel. Accessory dedicated to suspended installation.

Code	Item
A01532	Slid.brack.w/reg.susp.instal. 3F HD50
A01528	Slid.brack.w/reg.susp.instal. 3F HD100

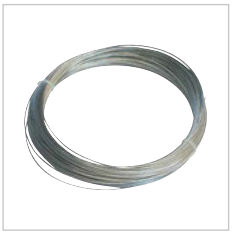
In the event of buying the sliding bracket with a regulator (code A01532 - A01528) on its own, the suspension cable must be made of galvanised steel with 49 elementary wires with a minimum diameter of 1,5 mm^2 (for a load of 15 kg).

Suspension without controller, galvanised steel cable 1.5 mm diameter, load 15 kg.

Accessory compatible with sliding bracket code A01532 and A01528.

Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m
A20488	Suspension without adjustment - 3 m
A20489	Suspension without adjustment - 4 m
A20490	Suspension without adjustment - 5 m
A20491	Suspension without adjustment - 6 m

In the case of purchase of only one sliding bracket with controller (codes A01532 - A01528), the suspension cable must be made of galvanised steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg).



Galvanised steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

Accessory compatible with one of the following codes: A01532 - A01528 - A0714.

Code	Item
A0716	Coil galv. cable diam. 1.5mm - 100m The pack contains 100 metres.
A0717	Coil galv. cable diam. 1.5mm - 500m The pack contains 500 metres.
A0718	Coil galv. cable diam. 1.5mm - 1000m The pack contains 1000 metres.

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

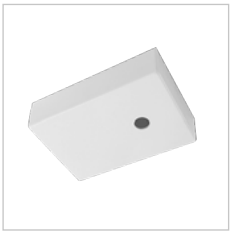
Accessory compatible with one of the following codes: A0716 - A0717 - A0718.

Code	Item
A0714	Clamp 2 holes susp.- 100 pcs The pack contains 100 pieces.

Terminal block (plug/socket) with irreversible snap-in double clamp, for power-supply connection at beginning and end of the channel, 5 poles.

Accessory compatible with 3F HD Direct - Single - Tunable White, 3F HD Direct - Channel, 3F HD Direct/Indirect - Channel.

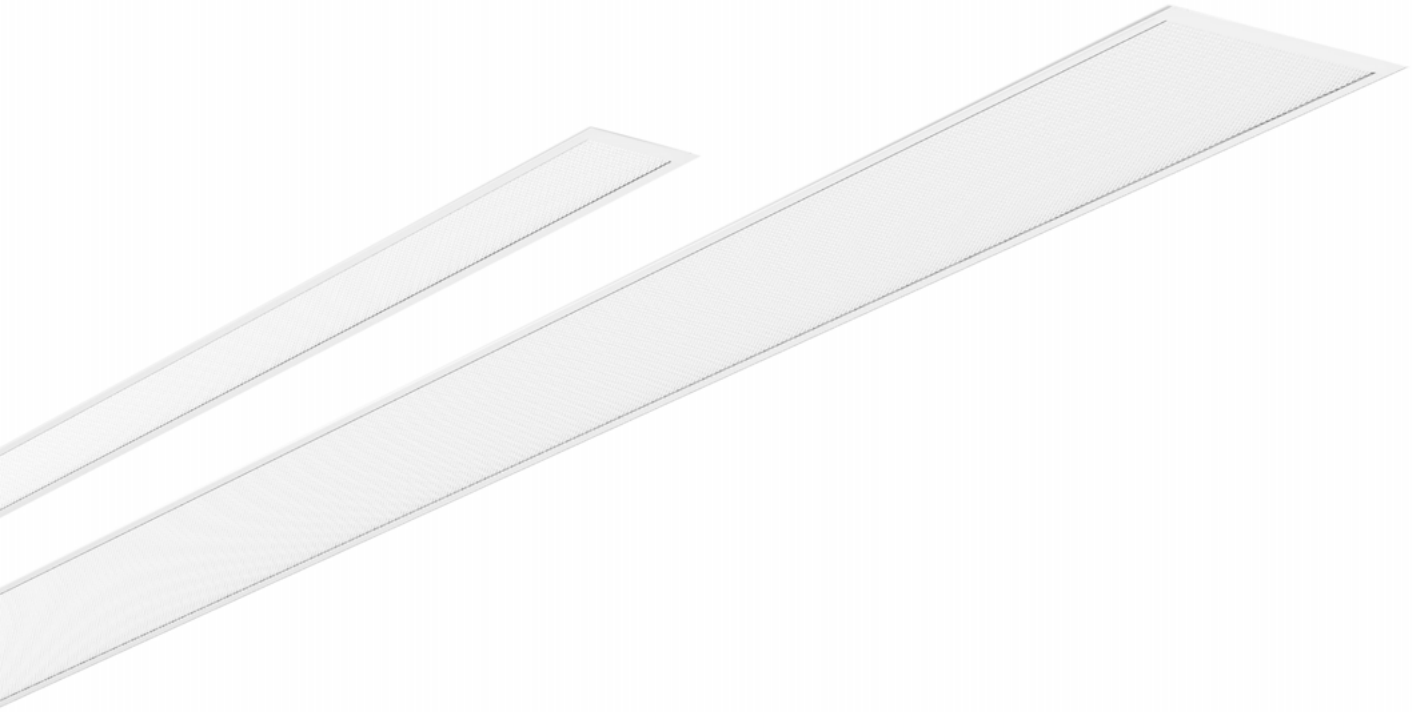
Code	Item
A01567	3F HD - 5P socket/plug terminal block



Electric supply with white polycarbonate case, internal bracket in galvanised steel.

Accessory compatible with 3F HD Direct - Single, 3F HD Direct - Single - Tunable White, 3F HD Direct/Indirect - Single, 3F HD Direct/Indirect - Channel.

Code	Item
A0679	5 pole rectangular rose (no cable) WH



3F HD R

> www.3F-Filippi.com/3F HD R

Design by **Park Associati**

3F HD R is available with different photometric distributions that are obtained with opal and prismatic screens.
The fixture is also available in a LEED compliant version equipped with an OCB optic, a unique solution with innovative technology to control luminance in the workplace in compliance with LEED specifications.
3F HD R is composed of an H section aluminium linear profile and it can be used easily in continuous lines with a significant reduction in installation time thanks to the presence of concealed joints and standard mounted plug-sockets.

This product is also available in this version 3F HD (page 27).

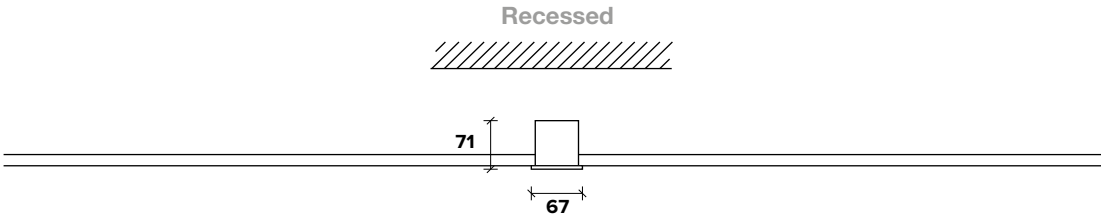
+ Overview

- Luminous efficacy up to 123 lumen/watt.
- Luminous fluxes from 1250 to 9997 lumens.
- Average luminance <200 cd/m² (OCB version).
- Extensive installation pitch.
- UGR <16 (OCW version).
- LEED Compliant.
- Available with OC lenticular optics or diffusers.
- Module lengths optimised to reduce installation time and required accessories by up to 20%.
- Quick and easy cleaning.
- Seamless screens (up to 15 metres in length).
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.
- Thanks to the FastWiring system, the installation time is drastically reduced.

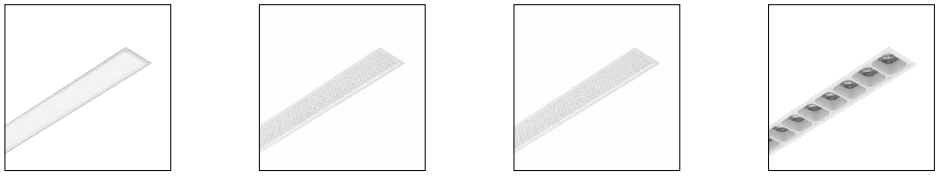
Page	Product	Recessed
68	3F HD R Recessed - Single	•
74	3F HD R Recessed - Channel	•

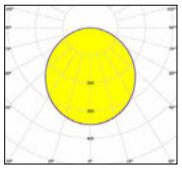
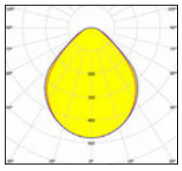
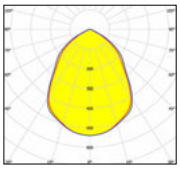
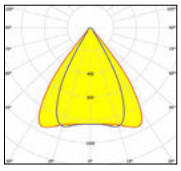
Product range

3F HD R 50



3F HD 50 R



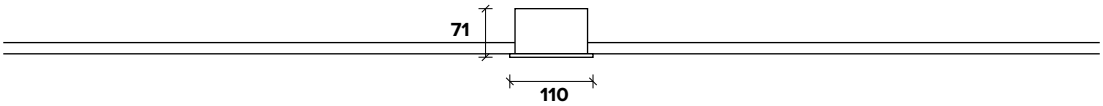
		FDO	FDP	GSP	OCW
Average luminance for angles> 65 (cd / m²)		>3000	<3000	<3000	<1500
UGR		<21	<19	<19	<16
Finishes			White		
Photometric distribution					
Installation steps	**Dt**	1,29	1,16	1,14	1,32
	DI	1,24	1,18	1,18	1,00

NEW

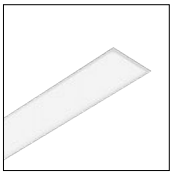
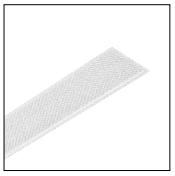
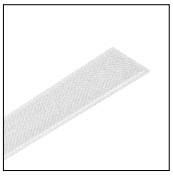
Arrange the version that best suits your needs quickly and easily
www.3f-filippi.com/en/**3F-HD-configurator**

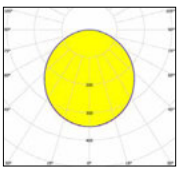
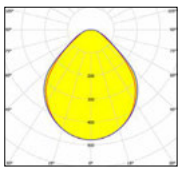
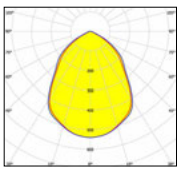
Recessed

3F HD R 100



3F HD 100 R

		FDO	FDP	GSP
Average luminance for angles> 65 (cd / m²)		>3000	<3000	<3000
UGR		<21	<19	<19
Finishes			White	
Photometric distribution				
Installation steps	**Dt**	1,40	1,50	1,45
	Dl	1,20	1,25	1,25

3F HD R Recessed - Single

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in white painted extruded aluminium.
Removable gear-tray.
End caps in white steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- optic in different RAL colours
- wiring: CLO (more information on page 598)
- Optics Control Black
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.
FDO version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

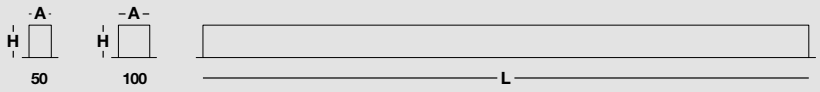
Installation

Recessed installation.

Light Management

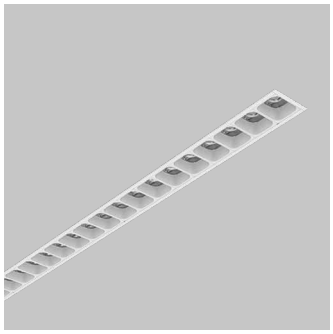
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

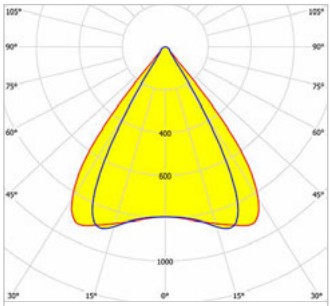
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD R OCW Single





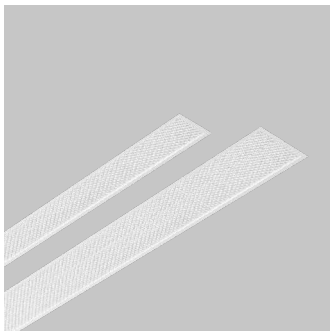
Code 6726 L<2500 cd/m² 45°

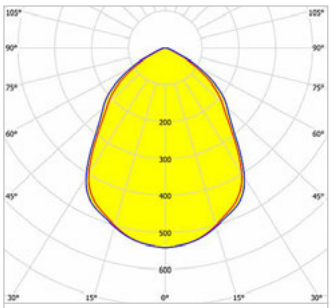
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6725	3F HD50R WH 12/830 DALI OCW L1188	14.5	1696	3000	>80	1188x67x71
6726	3F HD50R WH 15/830 DALI OCW L1482	18	2120	3000	>80	1482x67x71
6727	3F HD50R WH 30/830 DALI OCW L2949	33	4240	3000	>80	2949x67x71

3F HD R GSP Single





Code 6719 L<3000 cd/m² 65°

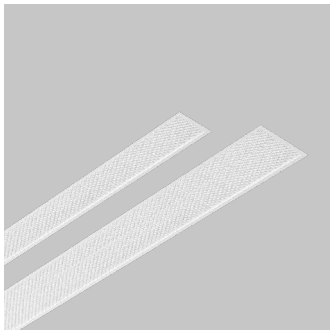
650°C | IP40 | 0,2J | IK02

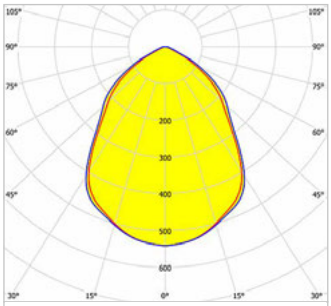
Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6718	3F HD50R WH 13/840 DALI GSP L1188	14	1374	4000	>80	1188x67x71
6719	3F HD50R WH 16/840 DALI GSP L1482	18	1718	4000	>80	1482x67x71
6720	3F HD50R WH 32/840 DALI GSP L2949	35	3435	4000	>80	2949x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6737	3F HD100R WH 22/840 DALI GSP L1188	23	2617	4000	>80	1188x110x71
6738	3F HD100R WH 26/840 DALI GSP L1482	29	3271	4000	>80	1482x110x71
6739	3F HD100R WH 52/840 DALI GSP L2949	56	6428	4000	>80	2949x110x71

3F HD R HO GSP Single





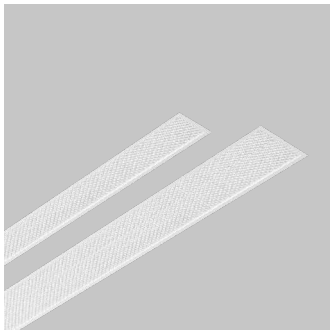
Code 6848

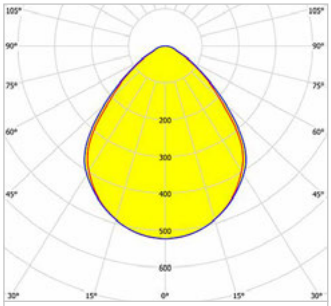
650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6847	3F HD50R WH HO 22/840 DALI GSP L1188	24	2596	4000	>80	1188x67x71
6848	3F HD50R WH HO 26/840 DALI GSP L1482	30	3246	4000	>80	1482x67x71
6849	3F HD50R WH HO 52/840 DALI GSP L2949	58	6492	4000	>80	2949x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6850	3F HD100R WH HO 36/840 DALI GSP L1188	39	4434	4000	>80	1188x110x71
6851	3F HD100R WH HO 44/840 DALI GSP L1482	49	5542	4000	>80	1482x110x71
6852	3F HD100R WH HO 88/840 DALI GSP L2949	98	11085	4000	>80	2949x110x71

3F HD R FDP Single





Code 6730 L<3000 cd/m² 65°

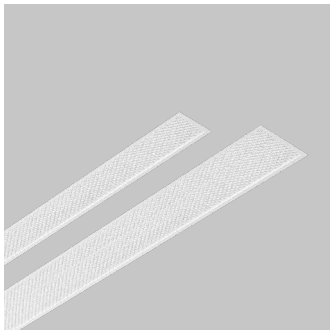
850°C | IP40 | 0,2J | IK02 | Driver/LED SELV

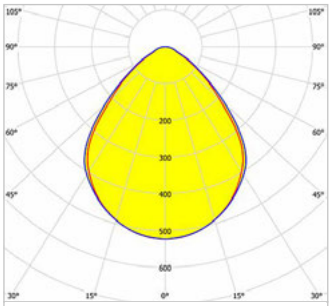
Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6710	3F HD50R WH 13/840 DALI FDP L1188	14	1292	4000	>80	1188x67x71
6711	3F HD50R WH 16/840 DALI FDP L1482	18	1615	4000	>80	1482x67x71
6712	3F HD50R WH 32/840 DALI FDP L2949	35	3229	4000	>80	2949x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6729	3F HD100R WH 22/840 DALI FDP L1188	23	2468	4000	>80	1188x110x71
6730	3F HD100R WH 26/840 DALI FDP L1482	29	3085	4000	>80	1482x110x71
6731	3F HD100R WH 52/840 DALI FDP L2949	56	6062	4000	>80	2949x110x71

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD R HO FDP Single





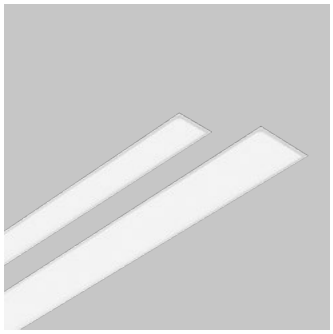
Code 6857

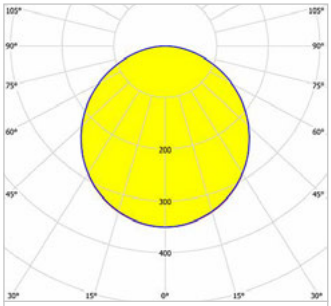
CE | SAFE FLICKER | D | 850°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Externally micro prismatic transparent flat anti-glare polycarbonate diffuser.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6853	3F HD50R WH HO 22/840 DALI FDP L1188	24	2448	4000	>80	1188x67x71
6854	3F HD50R WH HO 26/840 DALI FDP L1482	30	3061	4000	>80	1482x67x71
6855	3F HD50R WH HO 52/840 DALI FDP L2949	58	6122	4000	>80	2949x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6856	3F HD100R WH HO 36/840 DALI FDP L1188	39	4182	4000	>80	1188x110x71
6857	3F HD100R WH HO 44/840 DALI FDP L1482	49	5227	4000	>80	1482x110x71
6858	3F HD100R WH HO 88/840 DALI FDP L2949	98	10454	4000	>80	2949x110x71

3F HD R FDO Single





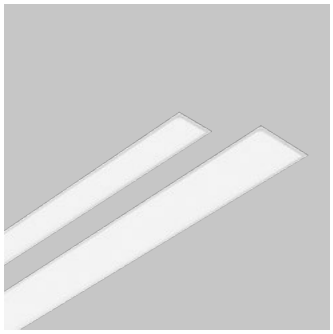
Code 6734

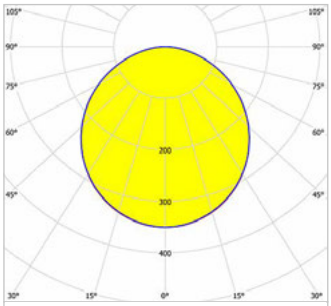
CE | SAFE FLICKER | D | 850°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6714	3F HD50R WH 13/840 DALI FDO L1188	14	1250	4000	>80	1188x67x71
6715	3F HD50R WH 16/840 DALI FDO L1482	18	1563	4000	>80	1482x67x71
6716	3F HD50R WH 32/840 DALI FDO L2949	35	3126	4000	>80	2949x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6733	3F HD100R WH 22/840 DALI FDO L1188	23	2304	4000	>80	1188x110x71
6734	3F HD100R WH 26/840 DALI FDO L1482	29	2880	4000	>80	1482x110x71
6735	3F HD100R WH 52/840 DALI FDO L2949	56	5660	4000	>80	2949x110x71

3F HD R HO FDO Single





Code 6863

Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
Flat opal anti-glare polycarbonate diffuser.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6859	3F HD50R WH HO 22/840 DALI FDO L1188	24	2286	4000	>80	1188x67x71
6860	3F HD50R WH HO 26/840 DALI FDO L1482	30	2858	4000	>80	1482x67x71
6861	3F HD50R WH HO 52/840 DALI FDO L2949	58	5716	4000	>80	2949x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6862	3F HD100R WH HO 36/840 DALI FDO L1188	39	3904	4000	>80	1188x110x71
6863	3F HD100R WH HO 44/840 DALI FDO L1482	49	4880	4000	>80	1482x110x71
6864	3F HD100R WH HO 88/840 DALI FDO L2949	98	9760	4000	>80	2949x110x71

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD R Recessed - Channel

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in white painted extruded aluminium.
Removable gear-tray.
Hot-dip galvanised steel linear connecting element installed on the body for rapid mechanical connection.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
5 mm² section 2.5 pin through line with an irreversible quick coupling plug plug/socket fixed on the body for rapid electrical connection.
Branching via an irreversible quick coupling plug to connect the cable housing element to the socket.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- OC optic in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.
FDO version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

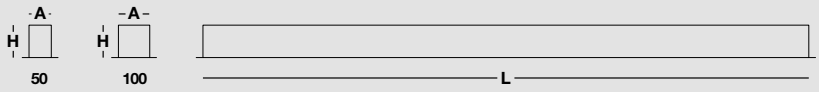
Installation

Recessed installation.

Light Management

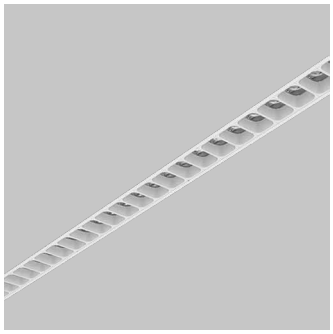
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

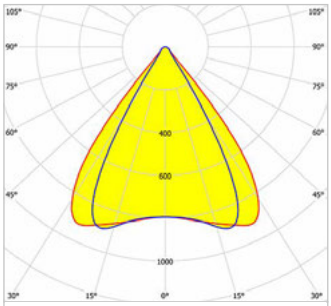
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD R OCW Channel





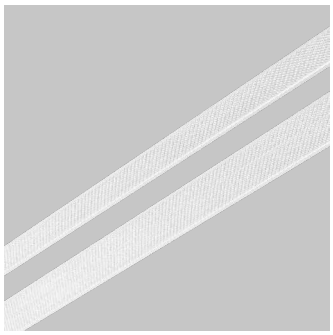
Code 6771 L<2500 cd/m² 45°

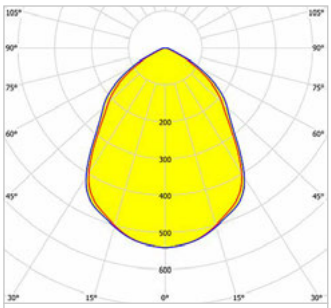
650°C | IP40 | 0,2J | IK02

Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Offices with video terminals and administrative, information and school offices.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6770	3F HD50R WH 12/830 DALI 5P OCW L1174	14.5	1696	3000	>80	1174x67x71
6771	3F HD50R WH 15/830 DALI 5P OCW L1468	18	2120	3000	>80	1468x67x71
6772	3F HD50R WH 30/830 DALI 5P OCW L2935	33	4240	3000	>80	2935x67x71

3F HD R GSP Channel





Code 6756 L<3000 cd/m² 65°

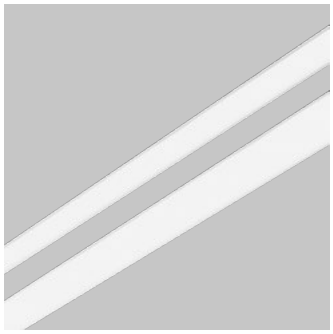
650°C | IP40 | 0,2J | IK02

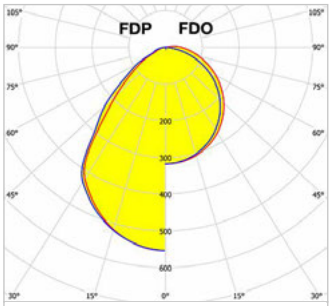
Driver/LED **SELV**

Average luminance <3000 cd/m² for angles >65°.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6755	3F HD50R WH 13/840 DALI 5P GSP L1174	14	1374	4000	>80	1174x67x71
6756	3F HD50R WH 16/840 DALI 5P GSP L1468	18	1718	4000	>80	1468x67x71
6760	3F HD50R WH 32/840 DALI 5P GSP L2935	35	3435	4000	>80	2935x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6785	3F HD100R WH 22/840 DALI 5P GSP L1174	23	2617	4000	>80	1174x110x71
6786	3F HD100R WH 26/840 DALI 5P GSP L1468	29	3271	4000	>80	1468x110x71
6790	3F HD100R WH 52/840 DALI 5P GSP L2935	56	6428	4000	>80	2935x110x71

3F HD R FD Channel





Code 6747

650°C | IP40 | 0,2J | IK02 | FDP

Driver/LED SELV

Average luminance <3000 cd/m² for angles >65° (FDP).
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.
For diffusers see accessories on page 77.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F HD 50 - DALI electronic wiring 230V-50/60Hz						
6746	3F HD50R WH 13/840 DALI 5P FD L1174	14	1292 FDP 1250 FDO	4000	>80	1174x67x71
6747	3F HD50R WH 16/840 DALI 5P FD L1468	18	1615 FDP 1563 FDO	4000	>80	1468x67x71
6751	3F HD50R WH 32/840 DALI 5P FD L2935	35	3229 FDP 3126 FDO	4000	>80	2935x67x71
3F HD 100 - DALI electronic wiring 230V-50/60Hz						
6776	3F HD100R WH 22/840 DALI 5P FD L1174	23	2468 FDP 2304 FDO	4000	>80	1174x110x71
6777	3F HD100R WH 26/840 DALI 5P FD L1468	29	3085 FDP 2880 FDO	4000	>80	1468x110x71
6781	3F HD100R WH 52/840 DALI 5P FD L2935	56	6062 FDP 5660 FDO	4000	>80	2935x110x71

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F HD R | Accessories

850°C

FDP - Flat diffuser, externally microprismatic and made of transparent polycarbonate, with internal anti-glare opal polycarbonate filter for luminous uniformity. Supplied in roll.

Accessory compatible with 3F HD R FD Channel.

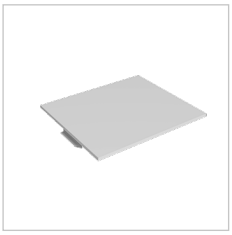
Code	Item
A01536	Channels diffusers 3F HD50 - FDP - 6m
A01537	Channels diffusers 3F HD50 - FDP - 9m
A01538	Channels diffusers 3F HD50 - FDP - 15m
A01544	Channels diffusers 3F HD100 - FDP - 6m
A01545	Channels diffusers 3F HD100 - FDP - 9m
A01546	Channels diffusers 3F HD100 - FDP - 15m

850°C

FDO - Flat diffuser, smooth outside and made of opal polycarbonate. Supplied in roll.

Accessory compatible with 3F HD R FD Channel.

Code	Item
A01540	Channels diffusers 3F HD50 - FDO - 6m
A01541	Channels diffusers 3F HD50 - FDO - 9m
A01542	Channels diffusers 3F HD50 - FDO - 15m
A01548	Channels diffusers 3F HD100 - FDO - 6m
A01549	Channels diffusers 3F HD100 - FDO - 9m
A01550	Channels diffusers 3F HD100 - FDO - 15m



Dilator coupling to connect flat diffusers FDP or FDO.

Accessory compatible with 3F HD R FD Channel.

Code	Item
A01563	Dilator joint FD channels>15m - HD50 WH
A01564	Dilator joint FD channels>15m - HD100 WH
A01568	Dilator joint FD channels>15m - HD50 BK
A01569	Dilator joint FD channels>15m - HD100 BK
A01570	Dilator joint FD channels>15m - HD50 AL
A01571	Pair of end caps 3F HD50R WH channel GSP

To be used for channels longer than 15 metres.

Pair of end caps for channels, in grey painted aluminium, with screws for fixing to housing, always required. Thickness: 10 mm each cap.

Accessory compatible with 3F HD R FD Channel.

Code	Item
A01561	Pair end caps 3F HD50R WH chan. FD
A01562	Pair end caps 3F HD100R WH chan. FD
A01572	Dilator joint FD channels>15m - HD100 AL
A01573	Pair of end caps 3F HD100R WH chann GSP
A01574	Pair of end caps 3F HD50R WH channel OCW

These accessories are not suitable for single-unit installation.

Set of galvanised steel brackets necessary to recess install the fixture in plasterboard.

Code	Item
A01565	Pair fixing brack. plasterboard 3F HD50R
A01566	Pair fixing brack.plasterboard 3F HD100R

Terminal block (plug/socket) with irreversible snap-in double clamp, for power-supply connection at beginning and end of the channel, 5 poles.

Accessory compatible with 3F HD R Recessed - Channel.

Code	Item
A01567	3F HD - 5P socket/plug terminal block

3F Mirella

> www.3F-Filippi.com/3F Mirella

Design by **Andrea Ciotti**

Essential yet at the same time refined the fixture is composed of an aluminium body that houses the LED technology and a shaped methacrylate part that accompanies the luminous flux.
Available in various models and finishes the new system is designed to integrate discreetly in professional or residential contexts.
The integration of the two elements makes the visual perception of the light source change inside the space during the day.
Elaborate, essential and flexible 3F Mirella is a solution that is suitable for multiple configurations in modern architectural spaces.
It can be equipped with diffusers of different types and colours, all interchangeable to give customers the possibility to select the best light quality and required visual comfort.

This product is also available in this version 3F Mirella Floor (page 97).

+ Overview

- Luminous efficacy up to 110 lumen/watt.
- Luminous fluxes from 4741 to 9051 lumens.
- Average luminance <3000 cd/m².
- Extensive installation pitch.
- UGR <19 (SP version).
- Driver integrated in the fixture.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Suspended
84	3F Mirella Direct	•
88	3F Mirella Direct/Indirect	•
92	3F Mirella Soft Direct	•
94	3F Mirella Soft Direct/Indirect	•

Screens and finishes

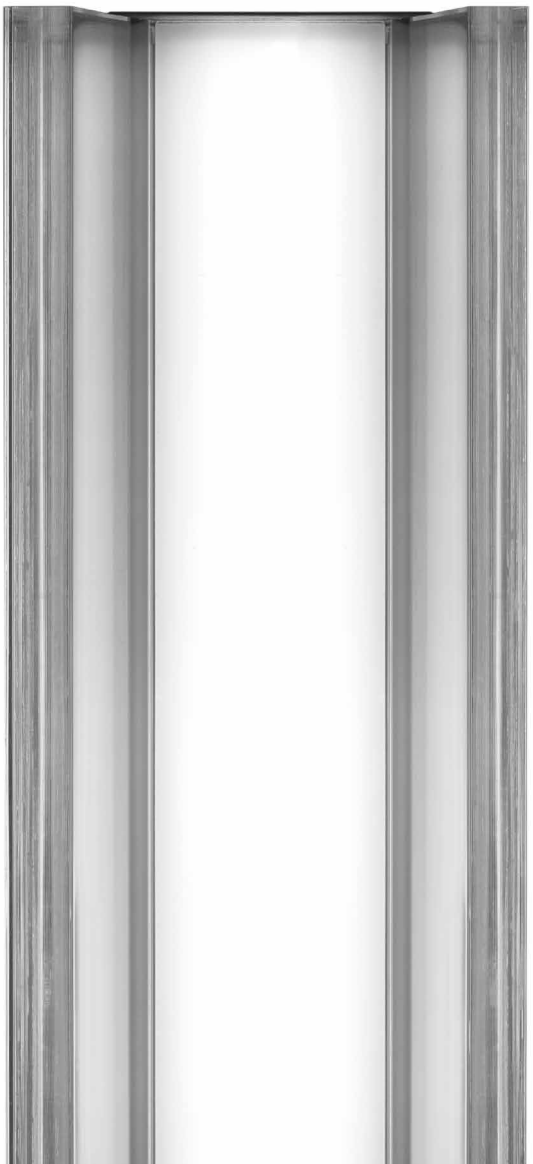
3F Filippi takes their lighting competence to the architectural sector with products with advanced technology and excellent performance.
3F Mirella was developed with an optical system composed of three elements that make it possible to have extraordinary glare values and luminance without compromising on luminous flux output.

Finishes

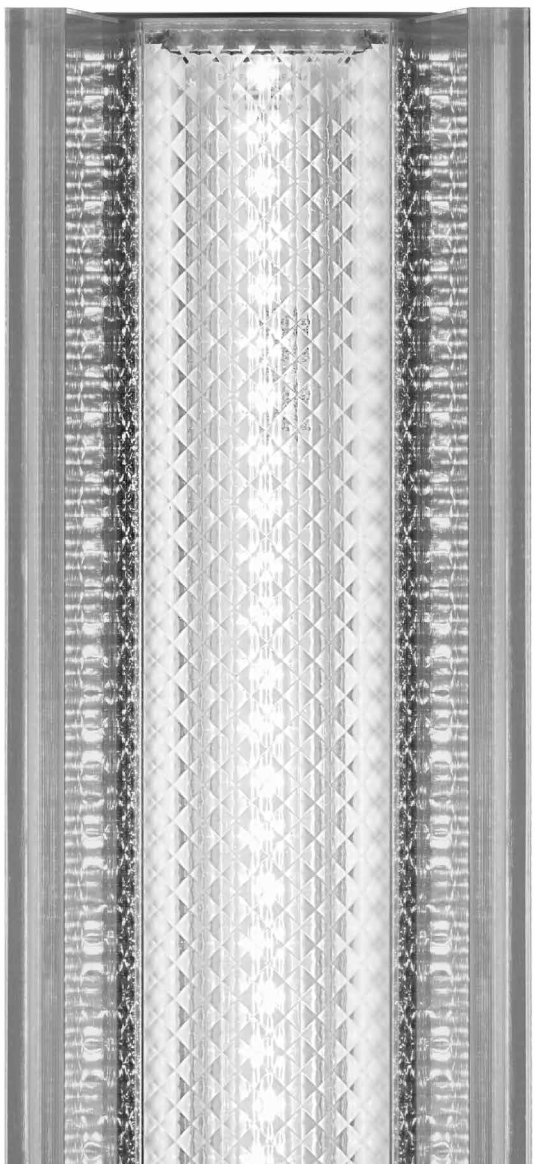
White Black Silver

A. Secondary transparent PMMA lens to optimise light distribution.
B. Secondary satin PMMA lens for soft lighting.

OP
Flat opal PMMA filter
Transparent lens



SP
Flat prismatic PMMA filter
Transparent lens




A
B

3F Mirella Direct

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
External lens of particular aesthetic value in transparent PMMA.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
ON/OFF versions
Transparent 3-pole power cable with white ceiling power supply case.
DALI versions
Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- power and suspension cables of >2 m long
- emergency versions

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
In environments with VDTs, managerial offices and staterooms.
OP version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

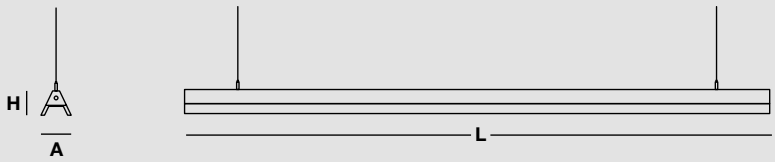
Installation

Suspension installation.

Light Management

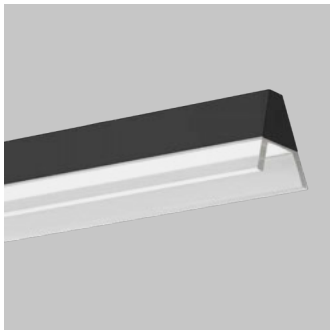
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

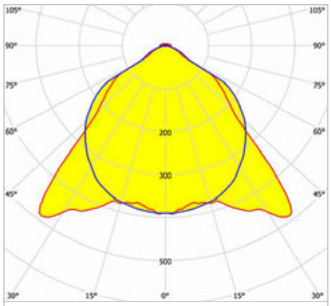
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella SP





Code 10922 L<3000 cd/m² 65°

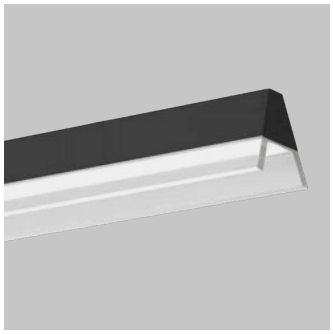
650°C IP40 1J IK06

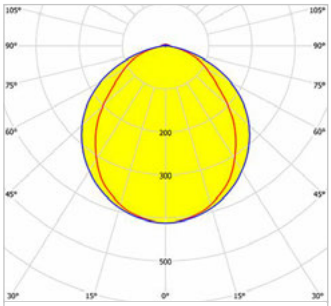
Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
PMMA primary lens for total source shielding.
Flat transparent prismatic PMMA methacrylate filter, multi-lenticular exterior, anti-glare.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	10920	3F Mirella WH 40 SP L1480	46	4741	4000	>80	1480x112x91
○	10921	3F Mirella WH 60 SP L2200	66	7112	4000	>80	2200x112x91
●	10898	3F Mirella BK 40 SP L1480	46	4741	4000	>80	1480x112x91
●	10899	3F Mirella BK 60 SP L2200	66	7112	4000	>80	2200x112x91
○	10942	3F Mirella AL 40 SP L1480	46	4741	4000	>80	1480x112x91
○	10943	3F Mirella AL 60 SP L2200	66	7112	4000	>80	2200x112x91
DALI electronic wiring 230V-50/60Hz							
○	10922	3F Mirella WH 40 DALI SP L1480	45	4741	4000	>80	1480x112x91
○	10923	3F Mirella WH 60 DALI SP L2200	66	7112	4000	>80	2200x112x91
●	10900	3F Mirella BK 40 DALI SP L1480	45	4741	4000	>80	1480x112x91
●	10901	3F Mirella BK 60 DALI SP L2200	66	7112	4000	>80	2200x112x91
○	10944	3F Mirella AL 40 DALI SP L1480	45	4741	4000	>80	1480x112x91
○	10945	3F Mirella AL 60 DALI SP L2200	66	7112	4000	>80	2200x112x91

3F Mirella OP





Code 10933

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Flat opal anti-glare PMMA filter.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	10931	3F Mirella WH 40 OP L1480	46	4845	4000	>80	1480x112x91
○	10932	3F Mirella WH 60 OP L2200	66	7268	4000	>80	2200x112x91
●	10909	3F Mirella BK 40 OP L1480	46	4845	4000	>80	1480x112x91
●	10910	3F Mirella BK 60 OP L2200	66	7268	4000	>80	2200x112x91
○	10953	3F Mirella AL 40 OP L1480	46	4845	4000	>80	1480x112x91
○	10954	3F Mirella AL 60 OP L2200	66	7268	4000	>80	2200x112x91
DALI electronic wiring 230V-50/60Hz							
○	10933	3F Mirella WH 40 DALI OP L1480	45	4845	4000	>80	1480x112x91
○	10934	3F Mirella WH 60 DALI OP L2200	66	7268	4000	>80	2200x112x91
●	10911	3F Mirella BK 40 DALI OP L1480	45	4845	4000	>80	1480x112x91
●	10912	3F Mirella BK 60 DALI OP L2200	66	7268	4000	>80	2200x112x91
○	10955	3F Mirella AL 40 DALI OP L1480	45	4845	4000	>80	1480x112x91
○	10956	3F Mirella AL 60 DALI OP L2200	66	7268	4000	>80	2200x112x91

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella Direct/Indirect

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
External lens of particular aesthetic value in transparent PMMA.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
ON/OFF versions
Transparent 3-pole power cable with white ceiling power supply case, single ignition.
DALI versions
5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- power and suspension cables of >2 m long
- twin-circuit
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
In environments with VDTs, managerial offices and staterooms.
OP version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

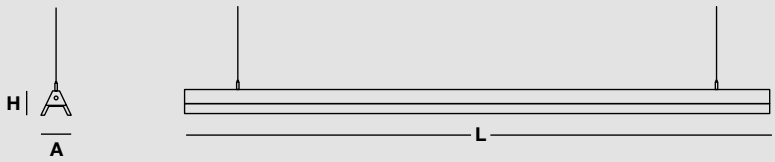
Installation

Suspension installation.

Light Management

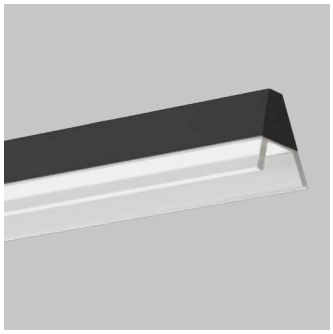
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

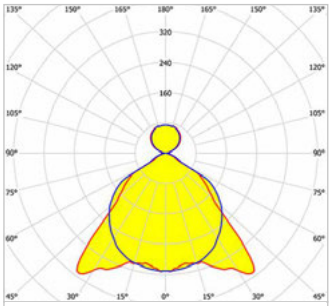
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella DI SP





Code 10926 L<3000 cd/m² 65°

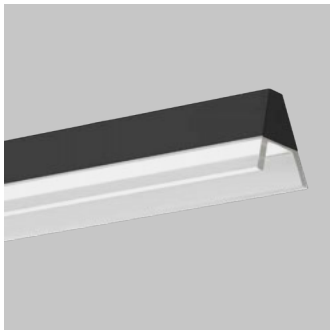
650°C IP40 1J IK06

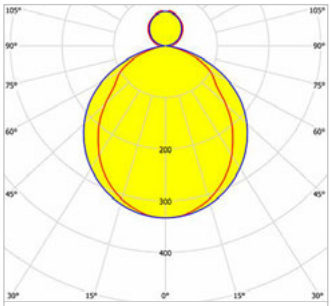
Driver/LED SELV

PMMA primary lens for total source shielding.
Flat transparent prismatic PMMA methacrylate filter, multi-lenticular exterior, anti-glare.
Average luminance <3000 cd/m² for radial angles >65°.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	10924	3F Mirella WH DI 40+8 SP L1480	58	5849	4000	>80	1480x112x91
○	10925	3F Mirella WH DI 60+14 SP L2200	84	8907	4000	>80	2200x112x91
●	10902	3F Mirella BK DI 40+8 SP L1480	58	5849	4000	>80	1480x112x91
●	10903	3F Mirella BK DI 60+14 SP L2200	84	8907	4000	>80	2200x112x91
○	10946	3F Mirella AL DI 40+8 SP L1480	58	5849	4000	>80	1480x112x91
○	10947	3F Mirella AL DI 60+14 SP L2200	84	8907	4000	>80	2200x112x91
DALI electronic wiring 230V-50/60Hz							
○	10926	3F Mirella WH DI 40+8 DALI SP L1480	58	5849	4000	>80	1480x112x91
○	10927	3F Mirella WH DI 60+14 DALI SP L2200	84	8907	4000	>80	2200x112x91
●	10904	3F Mirella BK DI 40+8 DALI SP L1480	58	5849	4000	>80	1480x112x91
●	10905	3F Mirella BK DI 60+14 DALI SP L2200	84	8907	4000	>80	2200x112x91
○	10948	3F Mirella AL DI 40+8 DALI SP L1480	58	5849	4000	>80	1480x112x91
○	10949	3F Mirella AL DI 60+14 DALI SP L2200	84	8907	4000	>80	2200x112x91

3F Mirella DI OP





Code 10937

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Flat opal anti-glare PMMA filter.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	10935	3F Mirella WH DI 40+8 OP L1480	58	5944	4000	>80	1480x112x91
○	10936	3F Mirella WH DI 60+14 OP L2200	84	9051	4000	>80	2200x112x91
●	10913	3F Mirella BK DI 40+8 OP L1480	58	5944	4000	>80	1480x112x91
●	10914	3F Mirella BK DI 60+14 OP L2200	84	9051	4000	>80	2200x112x91
○	10957	3F Mirella AL DI 40+8 OP L1480	58	5944	4000	>80	1480x112x91
○	10958	3F Mirella AL DI 60+14 OP L2200	84	9051	4000	>80	2200x112x91
DALI electronic wiring 230V-50/60Hz							
○	10937	3F Mirella WH DI 40+8 DALI OP L1480	58	5944	4000	>80	1480x112x91
○	10938	3F Mirella WH DI 60+14 DALI OP L2200	84	9051	4000	>80	2200x112x91
●	10915	3F Mirella BK DI 40+8 DALI OP L1480	58	5944	4000	>80	1480x112x91
●	10916	3F Mirella BK DI 60+14 DALI OP L2200	84	9051	4000	>80	2200x112x91
○	10959	3F Mirella AL DI 40+8 DALI OP L1480	58	5944	4000	>80	1480x112x91
○	10960	3F Mirella AL DI 60+14 DALI OP L2200	84	9051	4000	>80	2200x112x91

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella Soft Direct

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
PMMA primary lens for total source shielding.
Brushed methacrylate PMMA prismatic flat anti-glare filter, multi lenticular on the outside.
External lens of particular aesthetic value in satin PMMA.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
ON/OFF versions
Transparent 3-pole power cable with white ceiling power supply case.
DALI versions
Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- power and suspension cables of >2 m long
- emergency versions

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
In environments with VDTs, managerial offices and staterooms.

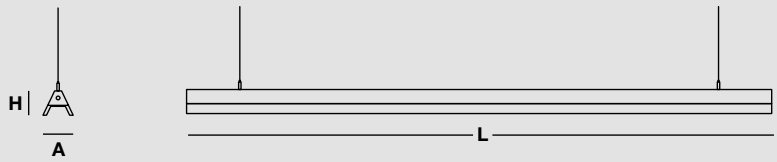
Installation

Suspension installation.

Light Management

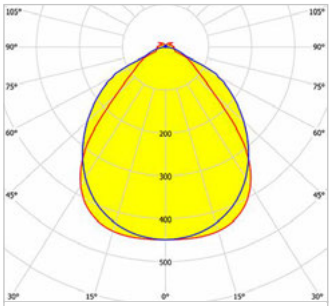
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella Soft SP



Code 12894 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06 | Driver/LED SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	12892	3F Mirella SF WH 40 SP L1480	46	3964	4000	>80	1480x112x91
○	12893	3F Mirella SF WH 60 SP L2200	66	5947	4000	>80	2200x112x91
●	12870	3F Mirella SF BK 40 SP L1480	46	3964	4000	>80	1480x112x91
●	12871	3F Mirella SF BK 60 SP L2200	66	5947	4000	>80	2200x112x91
○	12914	3F Mirella SF AL 40 SP L1480	46	3964	4000	>80	1480x112x91
○	12915	3F Mirella SF AL 60 SP L2200	66	5947	4000	>80	2200x112x91
DALI electronic wiring 230V-50/60Hz							
○	12894	3F Mirella SF WH 40 DALI SP L1480	45	3964	4000	>80	1480x112x91
○	12895	3F Mirella SF WH 60 DALI SP L2200	66	5947	4000	>80	2200x112x91
●	12872	3F Mirella SF BK 40 DALI SP L1480	45	3964	4000	>80	1480x112x91
●	12873	3F Mirella SF BK 60 DALI SP L2200	66	5947	4000	>80	2200x112x91
○	12916	3F Mirella SF AL 40 DALI SP L1480	45	3964	4000	>80	1480x112x91
○	12917	3F Mirella SF AL 60 DALI SP L2200	66	5947	4000	>80	2200x112x91

3F Mirella Soft Direct/Indirect

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
PMMA primary lens for total source shielding.
Brushed methacrylate PMMA prismatic flat anti-glare filter, multi lenticular on the outside.
External lens of particular aesthetic value in satin PMMA.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
ON/OFF versions
Transparent 3-pole power cable with white ceiling power supply case, single ignition.
DALI versions
5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- power and suspension cables of >2 m long
- twin-circuit
- emergency versions

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
In environments with VDTs, managerial offices and staterooms.

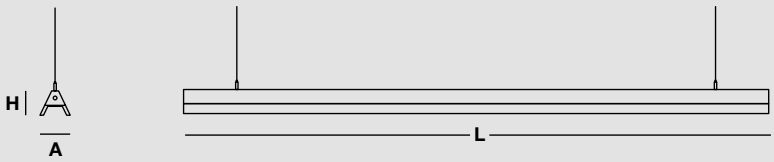
Installation

Suspension installation.

Light Management

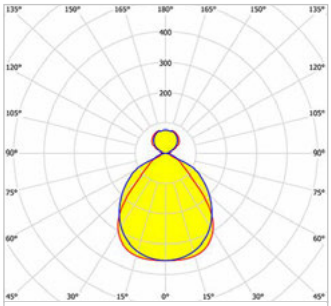
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella Soft DI SP

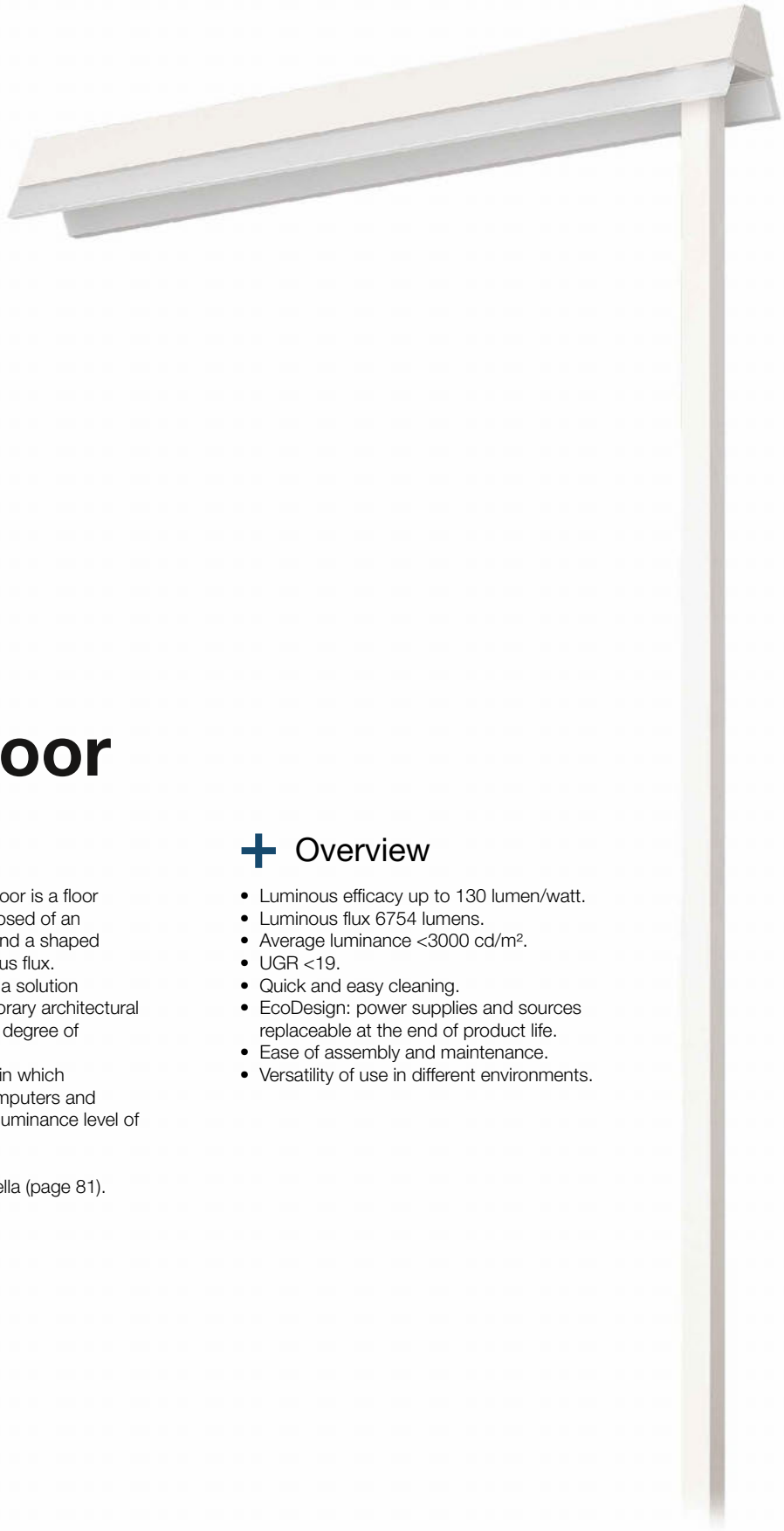


Code 12898 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06 | Driver/LED SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	12896	3F Mirella SF WH DI 40+8 SP L1480	58	5018	4000	>80	1480x112x91
○	12897	3F Mirella SF WH DI 60+14 SP L2200	84	7641	4000	>80	2200x112x91
●	12874	3F Mirella SF BK DI 40+8 SP L1480	58	5018	4000	>80	1480x112x91
●	12875	3F Mirella SF BK DI 60+14 SP L2200	84	7641	4000	>80	2200x112x91
○	12918	3F Mirella SF AL DI 40+8 SP L1480	58	5018	4000	>80	1480x112x91
○	12919	3F Mirella SF AL DI 60+14 SP L2200	84	7641	4000	>80	2200x112x91
DALI electronic wiring 230V-50/60Hz							
○	12898	3F Mirella SF WH DI 40+8 DALI SP L1480	58	5018	4000	>80	1480x112x91
○	12899	3F Mirella SF WH DI 60+14 DALI SP L2200	84	7641	4000	>80	2200x112x91
●	12876	3F Mirella SF BK DI 40+8 DALI SP L1480	58	5018	4000	>80	1480x112x91
●	12877	3F Mirella SF BK DI 60+14 DALI SP L2200	84	7641	4000	>80	2200x112x91
○	12920	3F Mirella SF AL DI 40+8 DALI SP L1480	58	5018	4000	>80	1480x112x91
○	12921	3F Mirella SF AL DI 60+14 DALI SP L2200	84	7641	4000	>80	2200x112x91


LANCE WYMAN
THE VISUAL DIARIES
1973–1982



3F Mirella Floor

> www.3F-Filippi.com/3F Mirella Floor

Design by **Andrea Ciotti**

Essential yet at the same time refined, 3F Mirella Floor is a floor lamp that can be freely positioned in space, composed of an aluminium body that houses the LED technology and a shaped methacrylate volume that accompanies the luminous flux.
Elaborate, essential and flexible, 3F Mirella Floor is a solution suitable for the multiple configurations of contemporary architectural spaces - smart working above all - in which a high degree of flexibility of the individual workstations is required.
Its light (direct-indirect) is perfect for environments in which electronic equipment such as tablets, personal computers and smartphones are used daily, thanks to its average luminance level of less than 3000 cd/m² for radial angles >65°.

This product is also available in this version 3F Mirella (page 81).

+ Overview

- Luminous efficacy up to 130 lumen/watt.
- Luminous flux 6754 lumens.
- Average luminance <3000 cd/m².
- UGR <19.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Floor
98	3F Mirella Floor	•

3F Mirella Floor

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
Transparent methacrylate PMMA micro prismatic primary anti-glare lens, multi lenticular on the outside.
Anti-glare opal polycarbonate filter for brightness uniformity.
External lens of particular aesthetic value in satin PMMA.
Painted stainless steel square section pole.
Base in painted steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Power supply with a 2.5 m long transparent cable, schuko plug.
ON/OFF versions
Foot switch, single switch-on.
DALI versions
Touch DALI touch control integrated in the stem, for switching on and off and independent adjustment of the two emissions.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- body, pole and base in different RAL colours
- wiring: CLO (more information on page 598)
- different power cables

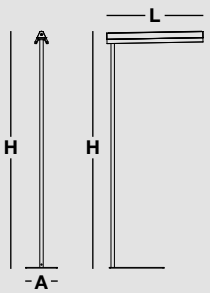
Applications

Environments which cannot, for technical reasons, be equipped with points of light directed onto the ceiling.
Open-space offices and environments in which a high degree of workstation flexibility is required.
Environments: staterooms, with VDTs, offices.
Environments where soft diffuse light is required for optimal visual comfort.

Installation

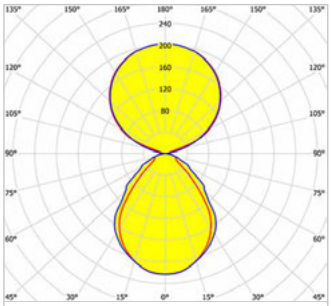
Floor installation.

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Mirella Floor



650°C

IP40

Driver/LED
SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
○	12961	3F Mirella Floor SF WH 23+23	52	7042	4000	>80	843x280x2060
●	12960	3F Mirella Floor SF BK 23+23	52	7042	4000	>80	843x280x2060
DALI electronic wiring 230V-50/60Hz							
○	12965	3F Mirella Floor SF WH 23+23 Touch DALI	52	7042	4000	>80	843x280x2060
●	12964	3F Mirella Floor SF BK 23+23 Touch DALI	52	7042	4000	>80	843x280x2060


THE CORNER
THE CORNER
THE CORNER

3F Trittico

> www.3F-Filippi.com/3F Trittico

Design by **Atelier(s) Alfonso Femia**

Light fixture equipped with LED sources.
3F Trittico is composed of three arms of around 800 mm, two for direct lighting and one for indirect lighting.
Conceived mainly to light offices this fixture is ideal to adapt to changes in the layout of spaces.
The three arms on the fixture can rotate perpendicularly to the supporting rod to provide the best lighting depending on the activity carried out in the space and the arrangement of the furniture.

This product is also available in this version 3F Solo (page 111).

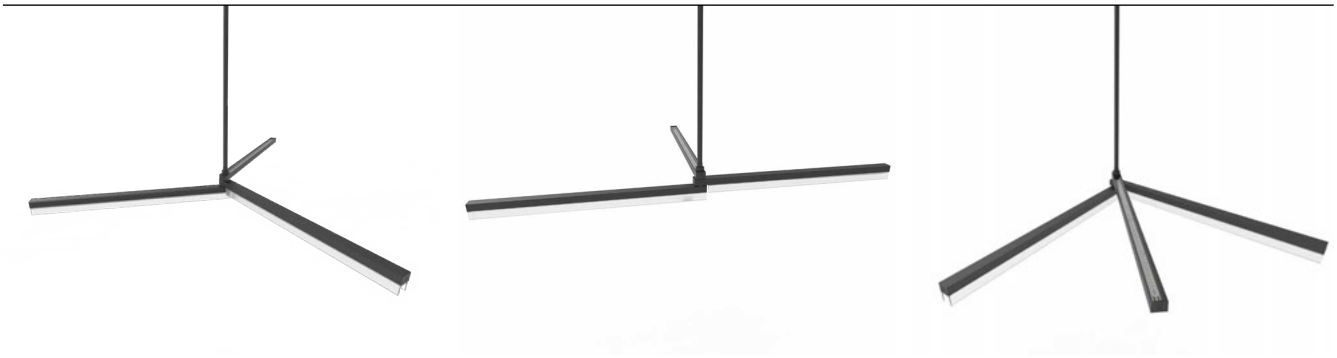
+ Overview

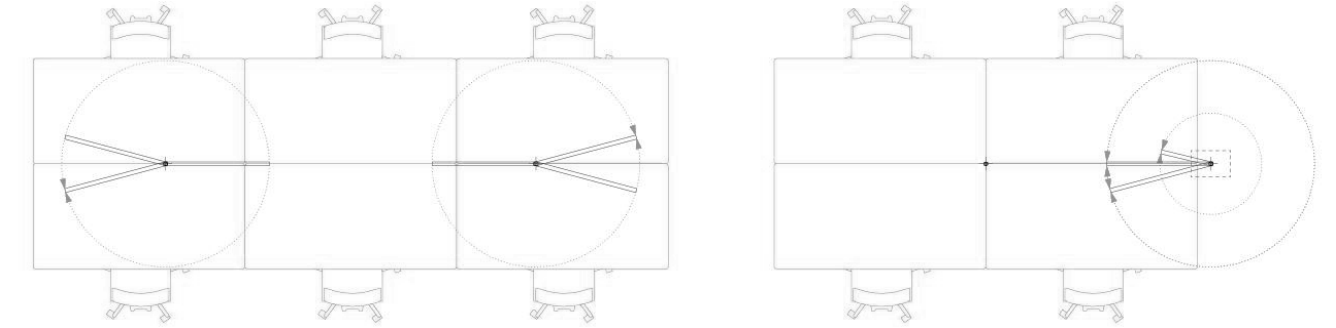
- Luminous efficacy up to 130 lumen/watt.
- Luminous flux 5841 lumens.
- Average luminance <3000 cd/m^2.
- Adjustable light source according to customer needs.
- UGR <19.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

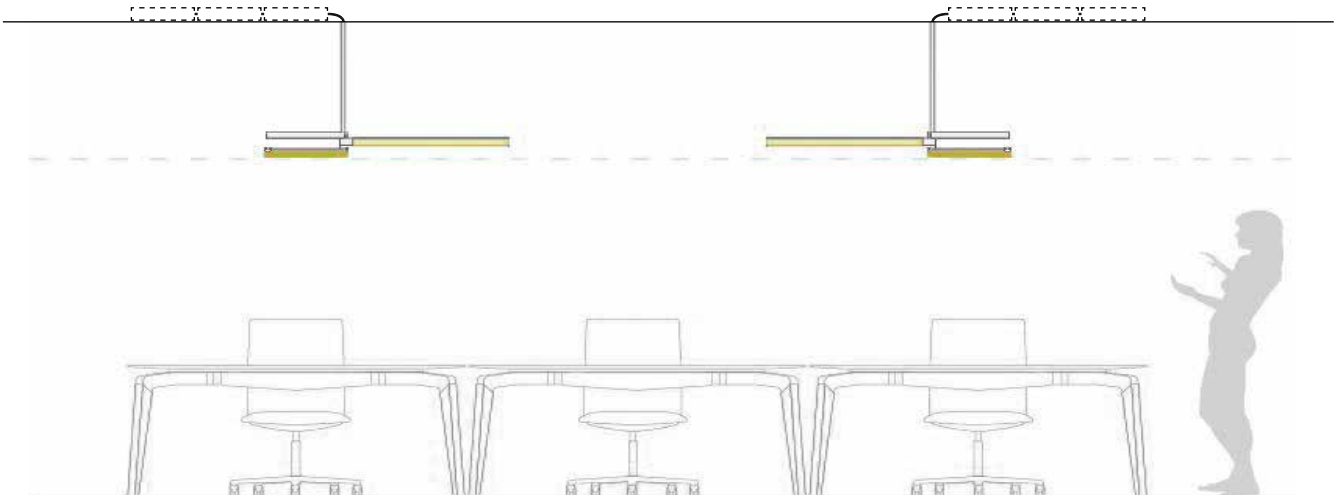
Page	Product	Suspended
106	3F Trittico	•

Versatility

Minimum angle between light elements of 52 degrees.
Maximum angle between light elements 308 degrees.







Screens and finishes

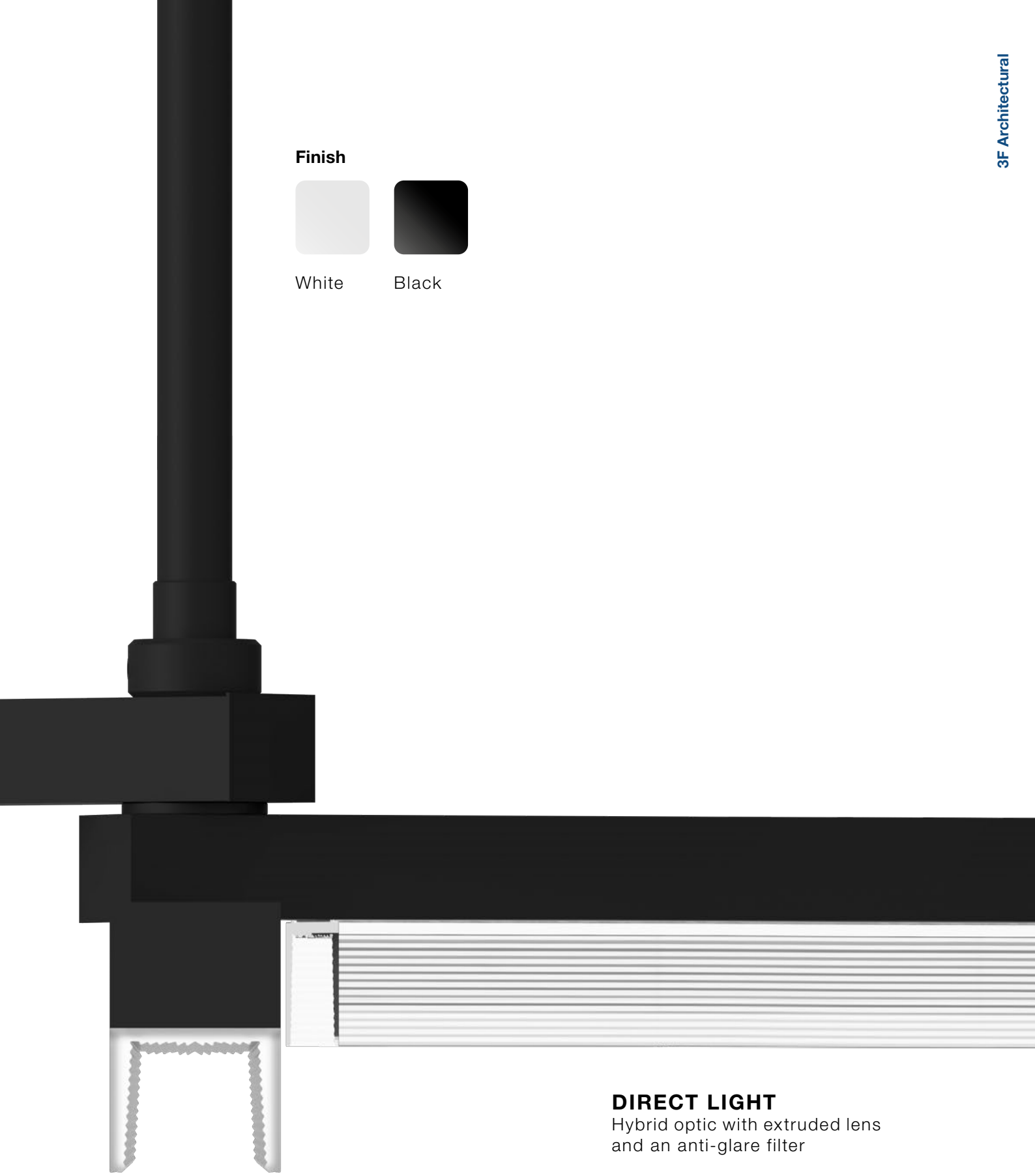
3F Trittico is available with an opaque black and white finish with aluminium arms and a steel supporting rod.
Indirect lighting is filtered by a translucent PMMA screen, while the desktop version is diffused with a satin extruded PMMA lens with a design that minimises the level of glare.

INDIRECT LIGHT
Flat opal
PMMA filter

Finish

White

Black



DIRECT LIGHT
Hybrid optic with extruded lens
and an anti-glare filter

3F Trittico

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Lifetime (L92/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing with horizontal side stripes.
Fixture composed of three independent adjustable arms that can be moved separately.
Non-iridescent high efficiency aluminium with a titanium and magnesium surface treatment flow recuperator.
Transparent PMMA methacrylate anti-glare filter.
Arms for direct lighting with satin PMMA methacrylate lenses.
Arm for indirect lighting with a translucent polycarbonate screen.
Polycarbonate heads.
Steel suspension fixture with poles H 300-500-800 mm with a brass rotation mechanism.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Peripheral cabling unit to recess into the ceiling.
Class II.
4-pole terminal block, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- version for ceiling installation
- maximum pole height 1.3 m
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

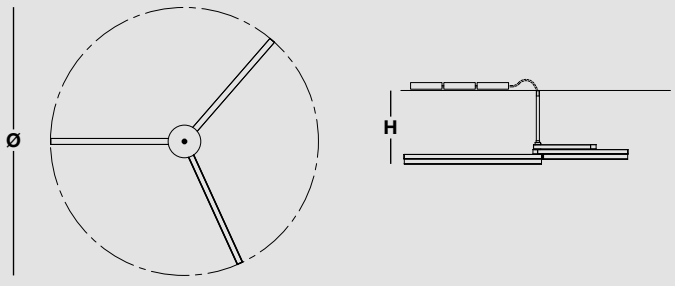
Installation

Installing mineral fibre or metal panels in plasterboard ceilings.
Warning: to install this fixture it is necessary to buy one of the following four accessories (A0828 / A0829 / A0830 / A0831) depending on the kind of ceiling to be used.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

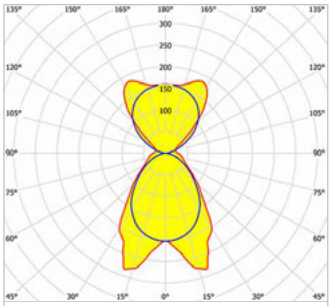
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

Accessories on page 108.

3F Trittico



Code 6104

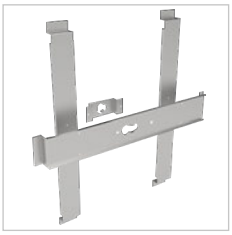
650°C | IP20 | 0,2J | IK02 | Classe II | Driver/LED SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
DALI electronic wiring 230V-50/60Hz							
○	6157	3F Trittico WH 12+12+15/830 DALI H300	45	5841	3000	>80	1560x300
○	6160	3F Trittico WH 12+12+15/830 DALI H500	45	5841	3000	>80	1560x500
○	6163	3F Trittico WH 12+12+15/830 DALI H800	45	5841	3000	>80	1560x800
●	6158	3F Trittico BK 12+12+15/830 DALI H300	45	5841	3000	>80	1560x300
●	6161	3F Trittico BK 12+12+15/830 DALI H500	45	5841	3000	>80	1560x500
●	6164	3F Trittico BK 12+12+15/830 DALI H800	45	5841	3000	>80	1560x800

3F Trittico | Accessories

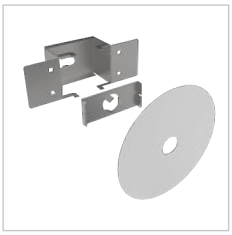
Hot-dip galvanised steel fixture installation bracket for metal panel false ceilings 600x600 with hidden structure with perpendicular adjustment rod screws.

Code	Item
A0828	Trittico fixing metal panels 60x60



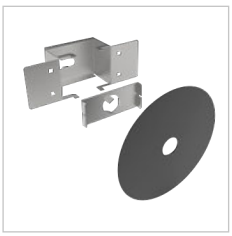
Hot-dip galvanised steel fixture installation bracket for mineral fibre panel false ceilings 600x600 with visible structure with perpendicular adjustment rod screws.

Code	Item
A0829	Trittico fixing mineral fiber pan. 60x60



Hot-dip galvanised steel fixture installation bracket for plasterboard false ceilings with perpendicular adjustment rod screws. White painted canopy with a Ø 120 mm hole.

Code	Item
A0830	Fixing Trittico plasterboard WH



Hot-dip galvanised steel fixture installation bracket for plasterboard false ceilings with perpendicular adjustment rod screws. Black painted canopy with a Ø 120 mm hole.

Code	Item
A0831	Fixing Trittico plasterboard BK

3F Solo

> www.3F-Filippi.com/3F Solo

Design by **Atelier(s) Alfonso Femia**

The excellence of light combined with the elegance of the shape. 3F Solo is the result of the thinking behind the creation of the 3F Trittico: it is a simple, linear element that integrates discretely into environments.
An elegant, deliberately simple product enriched with technical details that become significant aesthetic characteristics.
The design of the fluted lens developed by the 3F Filippi optical laboratory, ensures that the light is diffused into the space softly and without glaring: the complex shape characterised by horizontal lines becomes a symmetry motif of the entire fixture in an interplay of surfaces that lighten the body when the fixture is lit.
In the version with the prismatic screen the contrast between the smooth surface of the body and the fluted diffuser creates a dualism that enhances its technical spirit.
The direct and indirect versions provide a feeling of greater space to the surrounding environment and make the product appear even more suspended in space.

This product is also available in this version 3F Trittico (page 101).

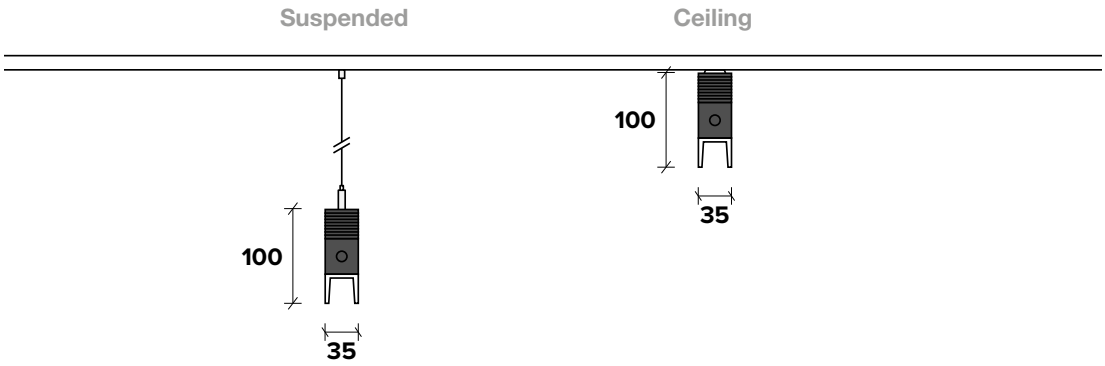
+ Overview

- Luminous efficacy up to 130 lumen/watt.
- Luminous fluxes from 1826 to 15689 lumens.
- Average luminance <3000 cd/m² (L version).
- Extensive installation pitch.
- UGR <19.
- Driver integrated in the fixture.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Ceiling	Suspended
116	3F Solo Direct	•	•
120	3F Solo Direct/Indirect		•

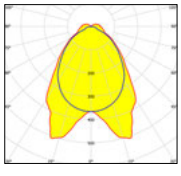
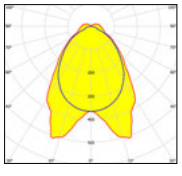
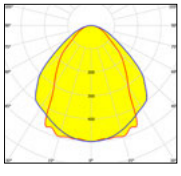
Product range

3F Solo L

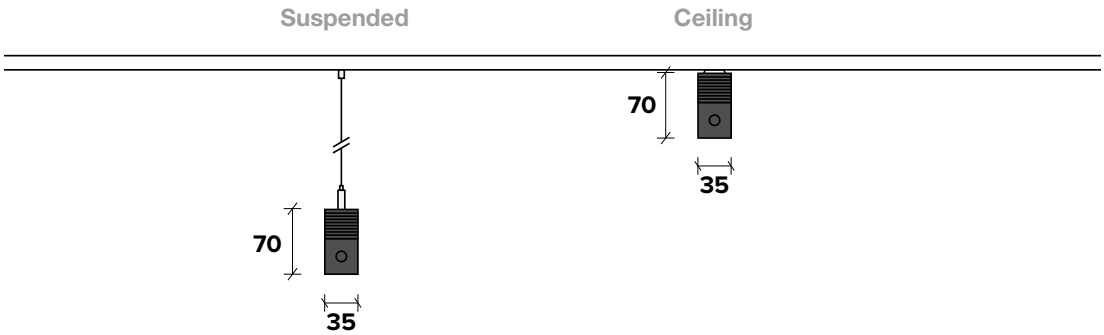


3F Solo
Direct Emission



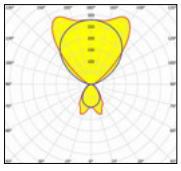
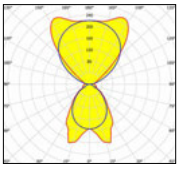
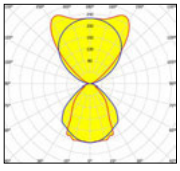
Model		L	L HO	HO SP
Average luminance for angles> 65 (cd / m²)		<3000	>3000	>3000
Percentage of emission D/DI (%)	Up	0	0	0
	Down	100	100	100
Finishes			White | Black	
Photometric distribution				
Installation steps	Dt	1,35	1,35	1,06
	Dl	1,13	1,13	1,25

3F Solo SP



3F Solo
Direct / Indirect
Emission



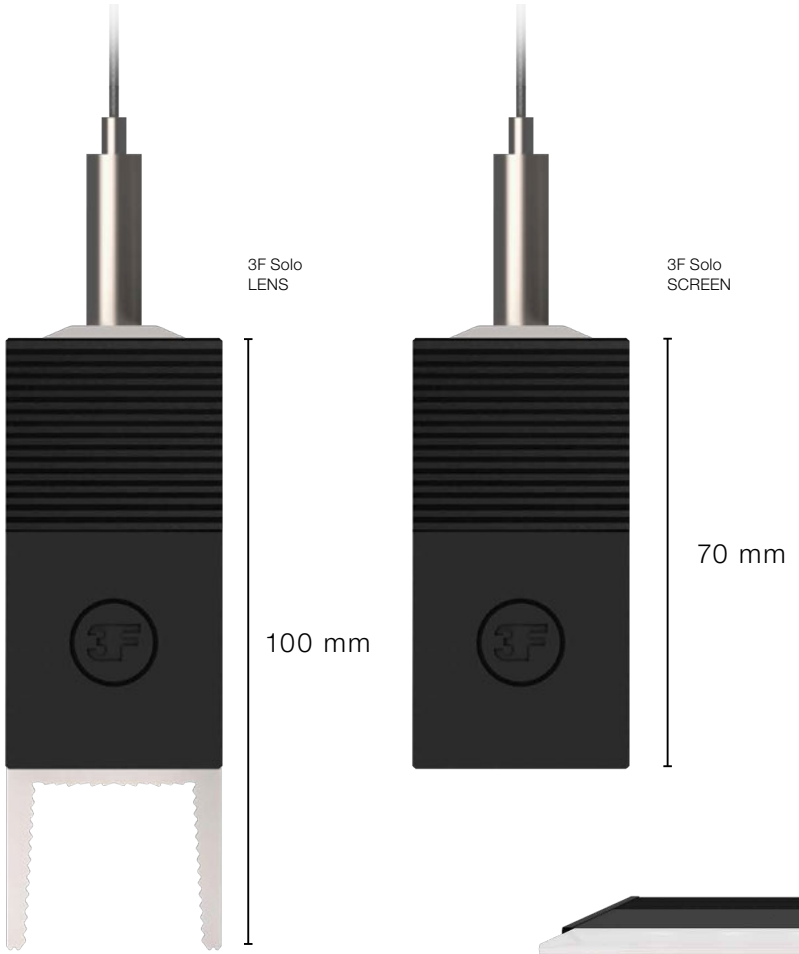
Model		L	L HO	HO SP
Average luminance for angles> 65 (cd / m²)		<3000	>3000	>3000
Percentuale di emissione D/DI (%)	**Up**	76	61	60
	Down	24	39	40
Finishes			White | Black	
Photometric distribution				
Installation steps	**Dt**	1,35	1,35	1,06
	DI	1,13	1,13	1,25

PRECISION LIGHTING

3F Solo distinguishes itself given the precision of the lighting provided and as a result complete visual comfort. In particular, the version equipped with a fluted U shaped opaque PMMA lens makes it possible to widen the distance between fixtures without increasing luminance and decreasing the number of products installed in the space. Luminous flux of the fixture from 1800 to 15000 lumen. Symmetrical direct (or direct and indirect) distribution. Installation distance Dt 1,35 x hu - Dl = 1,13 x hu. Average luminance <3000 cd/m² for >65° radial angles. UGR <19 (EN 12464-1). Product length from 1475 mm, 2205 mm and 2935 mm.

Screens and finishes

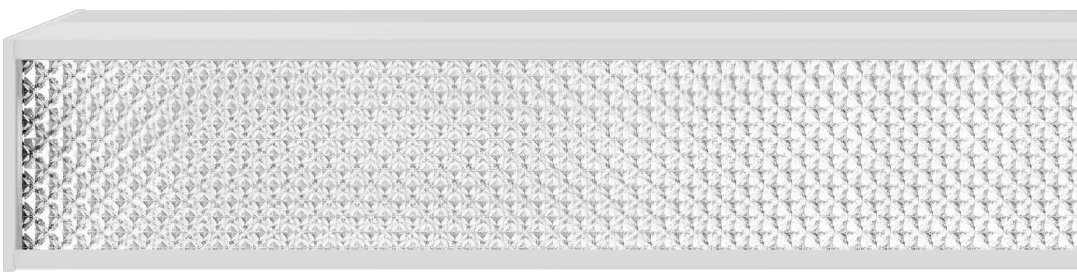
3F Solo is designed as a flexible element thanks to the various options provided by the designer. In addition to being able to choose the version with the prismatic screen or the one with the U-shaped fluted lens, lighting designers can choose from a black or white finish to facilitate the insertion of the fixture into the architectural context of the workplace. Developed as a single element the light fixture comes in three different lengths (1500mm, 2200mm and 2900mm), to increase the options available to architects and lighting designers.



Finishes

White Black

LENS
in frosted PMMA



SCREEN
Flat PMMA prismatic diffuser

3F Solo Direct

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L92/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing with horizontal side stripes.
End caps in polycarbonate.
Upper film in translucent polycarbonate, self-extinguishing, UV stabilised.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit.
5-pole transparent power cable of 2 m long.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where soft diffuse light is required for optimal visual comfort.

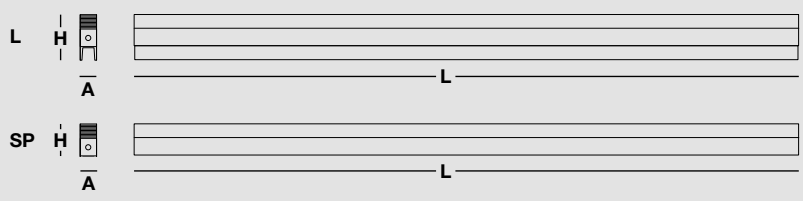
Installation

Ceiling mounted or suspension installation.
Warning: to install this fixture it is necessary to buy the accessory (A0820 - A0821), according to the type of installation.

Light Management

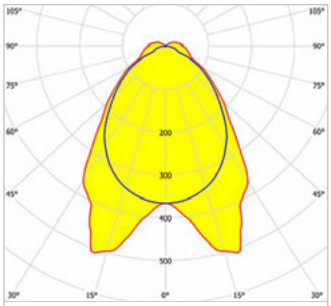
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Solo L



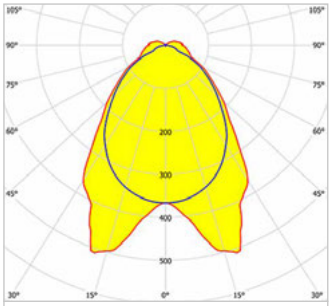
Code 60010 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
Transparent PMMA methacrylate anti-glare filter and striped-satin PMMA methacrylate lens.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	60010	3F Solo L WH 14/830 DALI L1475	17	1826	3000	>80	1475x35x100
●	60011	3F Solo L BK 14/830 DALI L1475	17	1826	3000	>80	1475x35x100
○	60013	3F Solo L WH 21/830 DALI L2205	24	2739	3000	>80	2205x35x100
●	60014	3F Solo L BK 21/830 DALI L2205	24	2739	3000	>80	2205x35x100
○	60016	3F Solo L WH 28/830 DALI L2935	32	3652	3000	>80	2935x35x100
●	60017	3F Solo L BK 28/830 DALI L2935	32	3652	3000	>80	2935x35x100

3F Solo L HO



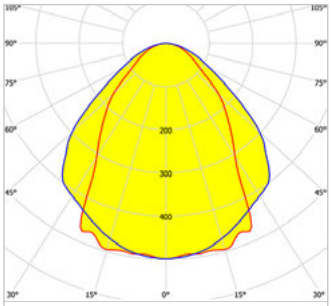
Code 60019

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Transparent PMMA methacrylate anti-glare filter and striped-satin PMMA methacrylate lens.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	60019	3F Solo L WH HO 28/830 DALI L1475	33	3474	3000	>80	1475x35x100
●	60020	3F Solo L BK HO 28/830 DALI L1475	33	3474	3000	>80	1475x35x100
○	60022	3F Solo L WH HO 41/830 DALI L2205	46	5210	3000	>80	2205x35x100
●	60023	3F Solo L BK HO 41/830 DALI L2205	46	5210	3000	>80	2205x35x100
○	60025	3F Solo L WH HO 54/830 DALI L2935	58	6591	3000	>80	2935x35x100
●	60026	3F Solo L BK HO 54/830 DALI L2935	58	6591	3000	>80	2935x35x100

3F Solo HO SP



Code 60052

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
White aluminium non-iridescent high efficiency.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	60052	3F Solo WH HO 28/830 DALI SP L1475	33	3469	3000	>80	1475x35x70
●	60053	3F Solo BK HO 28/830 DALI SP L1475	33	3469	3000	>80	1475x35x70
○	60055	3F Solo WH HO 41/830 DALI SP L2205	46	5203	3000	>80	2205x35x70
●	60056	3F Solo BK HO 41/830 DALI SP L2205	46	5203	3000	>80	2205x35x70
○	60058	3F Solo WH HO 54/830 DALI SP L2935	58	6582	3000	>80	2935x35x70
●	60059	3F Solo BK HO 54/830 DALI SP L2935	58	6582	3000	>80	2935x35x70

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Solo Direct/Indirect

Construction characteristics

Illuminotechnical characteristics
Symmetric direct-indirect distribution.
Lifetime (L92/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium housing with horizontal side stripes.
End caps in polycarbonate.
Upper film in translucent polycarbonate, self-extinguishing, UV stabilised.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole terminal block, single 230V circuit.
5-pole transparent power cable of 2 m long.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where soft diffuse light is required for optimal visual comfort.

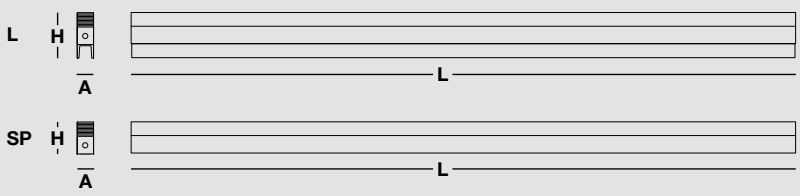
Installation

Suspension installation.
Warning: to install this fixture it is necessary to buy the accessory A0820.

Light Management

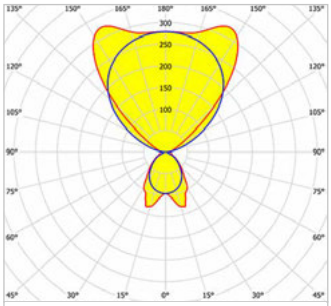
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Solo L DI



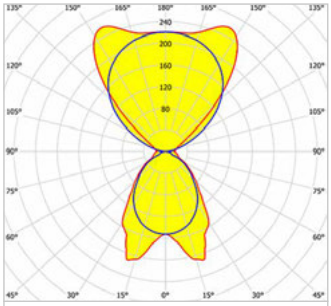
Code 60031 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
Transparent PMMA methacrylate anti-glare filter and striped-satin PMMA methacrylate lens.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	60031	3F Solo L WH DI 14+38/830 DALI L1475	57	6949	3000	>80	1475x35x100
●	60032	3F Solo L BK DI 14+38/830 DALI L1475	57	6949	3000	>80	1475x35x100
○	60034	3F Solo L WH DI 21+58/830 DALI L2205	92	10786	3000	>80	2205x35x100
●	60035	3F Solo L BK DI 21+58/830 DALI L2205	92	10786	3000	>80	2205x35x100
○	60037	3F Solo L WH DI 28+67/830 DALI L2935	99	12750	3000	>80	2935x35x100
●	60038	3F Solo L BK DI 28+67/830 DALI L2935	99	12750	3000	>80	2935x35x100

3F Solo L DI HO



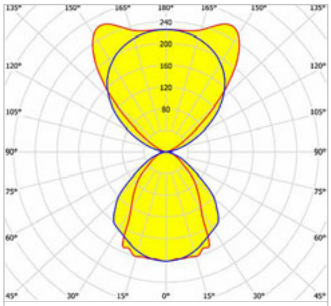
Code 60040

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

Transparent PMMA methacrylate anti-glare filter and striped-satin PMMA methacrylate lens.
Non-iridescent high efficiency specular aluminium with a titanium and magnesium surface treatment flow recuperator.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	60040	3F Solo L WH DI HO 28+38/830 DALI L1475	73	8597	3000	>80	1475x35x100
●	60041	3F Solo L BK DI HO 28+38/830 DALI L1475	73	8597	3000	>80	1475x35x100
○	60043	3F Solo L WH DI HO 41+58/830 DALI L2205	115	13257	3000	>80	2205x35x100
●	60044	3F Solo L BK DI HO 41+58/830 DALI L2205	115	13257	3000	>80	2205x35x100
○	60046	3F Solo L WH DI HO 54+67/830 DALI L2935	127	15689	3000	>80	2935x35x100
●	60047	3F Solo L BK DI HO 54+67/830 DALI L2935	127	15689	3000	>80	2935x35x100

3F Solo DI HO SP



Code 60064

650°C | IP40 | 0,2J | IK02 | Driver/LED SELV

SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
White aluminium non-iridescent high efficiency.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	60064	3F Solo WH DI HO 28+38/830 DALI SP L1475	73	8592	3000	>80	1475x35x70
●	60065	3F Solo BK DI HO 28+38/830 DALI SP L1475	73	8592	3000	>80	1475x35x70
○	60067	3F Solo WH DI HO 41+58/830 DALI SP L2205	115	13250	3000	>80	2205x35x70
●	60068	3F Solo BK DI HO 41+58/830 DALI SP L2205	115	13250	3000	>80	2205x35x70
○	60070	3F Solo WH DI HO 54+67/830 DALI SP L2935	127	15680	3000	>80	2935x35x70
●	60071	3F Solo BK DI HO 54+67/830 DALI SP L2935	127	15680	3000	>80	2935x35x70

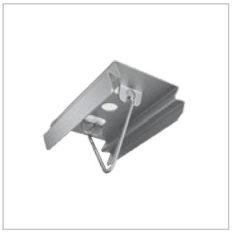
Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Solo | Accessories

Free-position sliding bracket with regulator in stainless steel. Accessory dedicated to suspended installation.

Code	Item
A0820	Pair of sliding brack. + reg. susp. 3F Solo

This accessory must ALWAYS be used with one of the following codes: A20485 - A20486 - A20487.



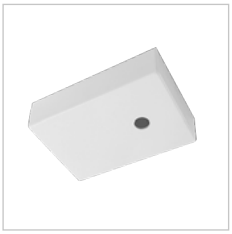
Stainless steel sliding bracket that can be positioned freely. Accessory dedicated to ceiling installation.

Code	Item
A0821	Pair of sliding brack. ceiling 3F Solo

Suspension without controller, galvanised steel cable 1.5 mm diameter, load 15 kg.

Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m

Attention: each product requires two suspensions with regulator.



Electric supply with white polycarbonate case, internal bracket in galvanised steel.

Code	Item
A0679	5 pole rectangular rose (no cable) WH

3F Filoluce

> www.3F-Filippi.com/3F Filoluce

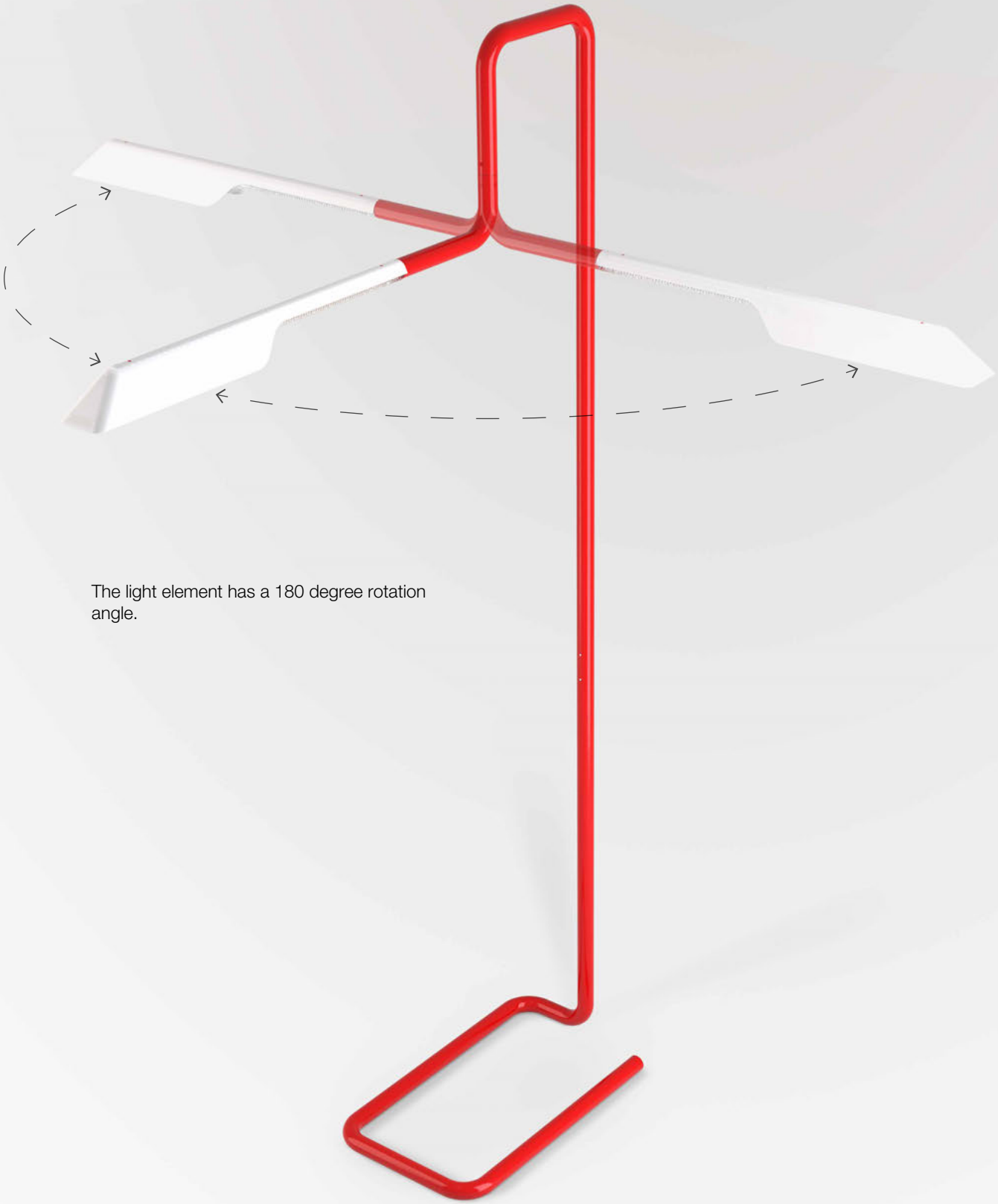
Design by **GEZA Architettura**

A free-standing steel luminaire fitted with a white opal methacrylate diffuser and a prismatic screen designed for the workplace.
The lightness of the shape allows 3F Filoluce to fit easily into every context, establishing a relationship with the same through the various curves that form the sinuous vertical arm with a constant diameter of 38 mm, from the base right up to the diffuser.
Fitted with a touch ignition system located in the vertical part the fixture provides comfortable lighting that is particularly suitable for office environments.
With 3F Filoluce design and quality combine in a single element with a sleek, unusual shape designed to enhance the work environment from a technical and aesthetic point of view.

+ Overview

- Luminous efficacy up to 110 lumen/watt.
- Luminous fluxes from 4706 to 4953 lumens.
- Average luminance <3000 cd/m^2.
- Adjustable light source according to customer needs.
- UGR <19.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Floor
130	3F Filoluce	•

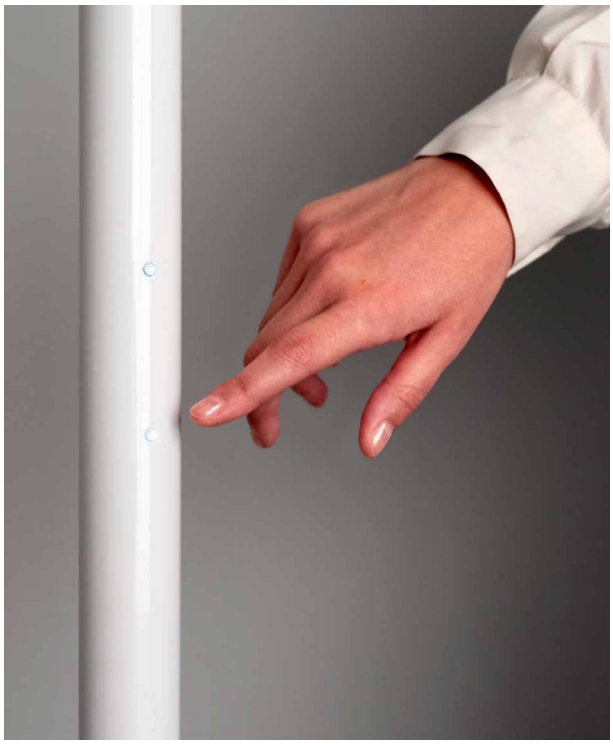


The light element has a 180 degree rotation angle.

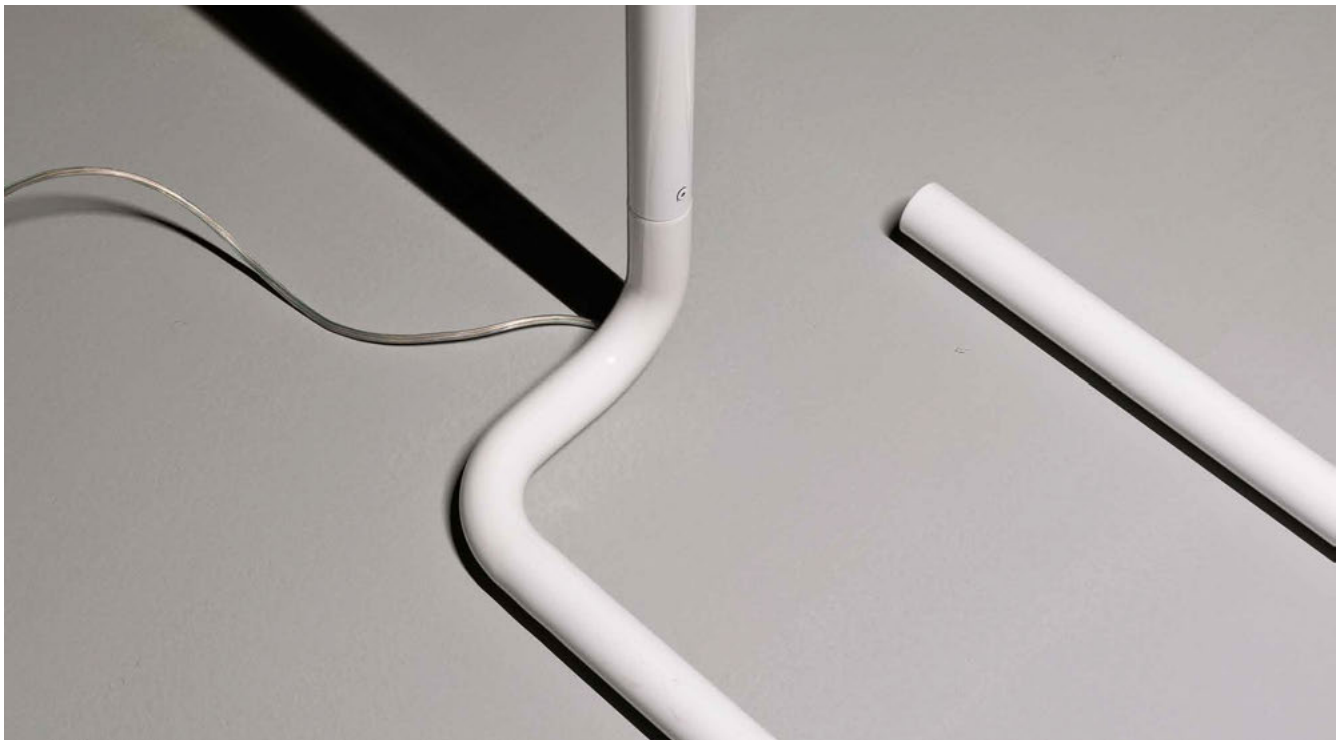
Product advantages

Particularly eye-catching opal and transparent prismatic PMMA diffuser to optimise light distribution.

Touch DALI touch control integrated in the stem, for switching on and off and independent adjustment of the two emissions.



Power supply with a 2.5 m long transparent cable, schuko plug.



Screens and finishes

3F Filoluce is available in black, white, red and anthracite versions. Its direct and indirect light is distributed downwards using a trapezoidal prismatic diffuser and upwards using an opal element: a mix that makes the working environment relaxing while at the same time ensuring excellent visual comfort on work stations.

OP
Flat opal
PMMA filter

SP
Prismatic
PMMA filter

Finishes

White Black Red Anthracite

3F Filoluce

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Average luminance <3000 cd/m² for radial angles >65° (direct emission).
Lifetime (L92/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Painted steel filiform tubular body.
Aluminium LED housing compartment with a thermal heat sink function.
Particularly eye-catching opal and transparent prismatic PMMA diffuser to optimise light distribution.
The luminous part can be rotated 180° horizontally to optimise positioning in the workplace.

Electrical characteristics
In compliance with EN 60598-1.
Touch DALI touch control integrated in the stem, for switching on and off and independent adjustment of the two emissions.
Power supply with a 2.5 m long transparent cable, schuko plug.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- single-circuit wiring
- different power cables

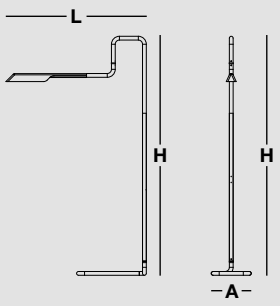
Applications

Environments which cannot, for technical reasons, be equipped with points of light directed onto the ceiling.
Open-space offices and environments in which a high degree of workstation flexibility is required.
Environments: staterooms, with VDTs, offices.
Environments where soft diffuse light is required for optimal visual comfort.

Installation

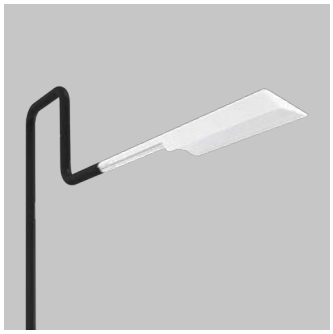
Floor installation.

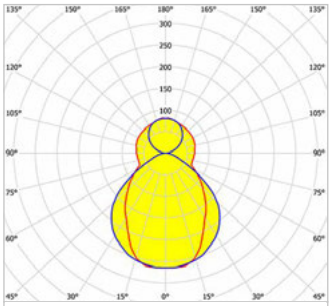
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Filoluce





Code 6098 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

Driver/LED SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	6063	3F Filoluce WH 16+23W/830 Touch DALI	45	4706	3000	>80	1410x400x2400
○	6098	3F Filoluce WH 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400
●	6064	3F Filoluce BK 16+23W/830 Touch DALI	45	4706	3000	>80	1410x400x2400
●	6099	3F Filoluce BK 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400
●	6065	3F Filoluce AN 16+23W/830 Touch DALI	45	4706	3000	>80	1410x400x2400
●	6100	3F Filoluce AN 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400
●	6066	3F Filoluce RD 16+23W/830 Touch DALI	45	4706	3000	>80	1410x400x2400
●	6101	3F Filoluce RD 16+23W/840 Touch DALI	45	4953	4000	>80	1410x400x2400

Filippi

3F Emilio Table

> www.3F-Filippi.com/3F Emilio Table

3F Emilio Table combines three different elements that together form a unique table lamp.
The soft, sinuous lines of the base and the tube follow the geometry and fittings of the spotlight to create a compact and highly energy efficient lamp.
In addition to being simple the 3F Emilio Table is also extremely functional.
Colour fidelity and enhancement of textures combined with high-performance lighting make this product ideal for lighting workstations, reception areas and professional environments.
The high level know-how and technology provided by 3F Filippi, make the 3F Emilio Table a table lamp with the technical characteristics of a professional spotlight.

This product is also available in this version 3F Emilio Wall (page 216), 3F Emilio R (page 338), 3F Emilio Track (page 397).

+ Overview

- Luminous flux 1148 lumens.
- Adjustable light source according to customer needs.
- Quick and easy cleaning.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Table
136	3F Emilio Table	•

LEED and WELL compliant

3F Filippi has always favoured projects where the priority is lighting quality.
This is why they develop products in line with the criteria and principles of LEED as well as WELL certifications (a certification that assesses the well-being of the occupants in certain environments, especially offices).
To increasingly place people and their needs at the centre of projects the light emitted by fixtures must be monitored in a simple and precise way: with 3F Emilio Table this is possible by increasing lighting levels (more than 500 lux on the work surface) and reducing energy consumption.
The Dimmer makes it possible to control the light according to the personal needs of all occupants even with different lighting levels. The CRI>90 source also makes it compliant with CAM - Criteri Ambientali Minimi (Minimum Environmental Criteria) for public buildings (D.M. 11 OCTOBER 2017).

LIGHT UNIFORMITY

A table lamp is a friend at work capable of warming cold days and highlighting work details: this is why it is equipped with a cosy warm light (3000K), with high colour rendering (CRI>90) and extremely low optical flicker values to avoid visual disturbances and headaches.
What's better than working at a well-lit and comfortable desk?

Adaptability in space

The simple and elegant design, together with its compact size are a great advantage that make 3F Emilio Table the ideal choice for those who need a flexible and effective light. Thanks to the diffuser adjustability of 90° along the horizontal axis and 80° on the stem axis three different lighting effects can be obtained:

- work light (intense and focused light to help visual performance).
- indirect light (the head rotates to create pleasant ambient lighting or increase the perception of space).
- indoor light (high quality lighting for decorative demonstration functions) if directed towards the wall.

3F Emilio Table

Construction characteristics

Illuminotechnical characteristics
Direct controlled symmetrical and indirect diffused comfort distribution (thanks to the reduction of the luminous contrast between the product and the surrounding environment).
Lifetime (L90/B20): 30000 h. (tq+25°C)
Lifetime (L80/B20): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Diffuser in die-cast aluminium, opaque white, with upper rings with a luminous crown effect and an orientation arm.
Diffuser adjustability: 90° along the horizontal axis and 290° on the stem axis.
PMMA opal methacrylate lens.
Round stem in painted steel.
Round shaped base in aluminium and painted steel.

Electrical characteristics
In compliance with EN 60598-1.
Dimmer button installed on the 2 m long power cable with 2x10A plug.
Class II.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- LED module with different power levels, colour temperatures and colour rendering index
- housing in different RAL colours

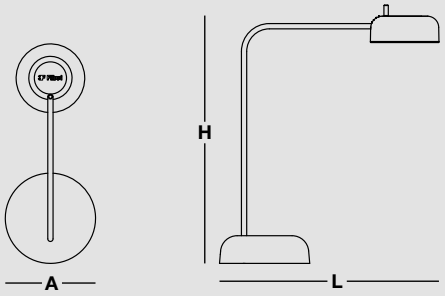
Applications

Environments which cannot, for technical reasons, be equipped with points of light directed onto the ceiling.
Open-space offices and environments in which a high degree of workstation flexibility is required.
Environments: staterooms, with VDTs, offices.
Environments where soft diffuse light is required for optimal visual comfort.

Installation

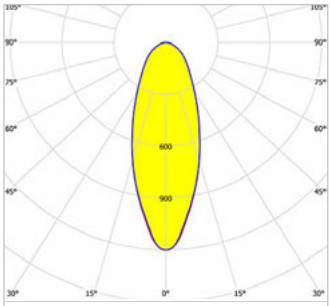
Table installation.

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

3F Emilio Table



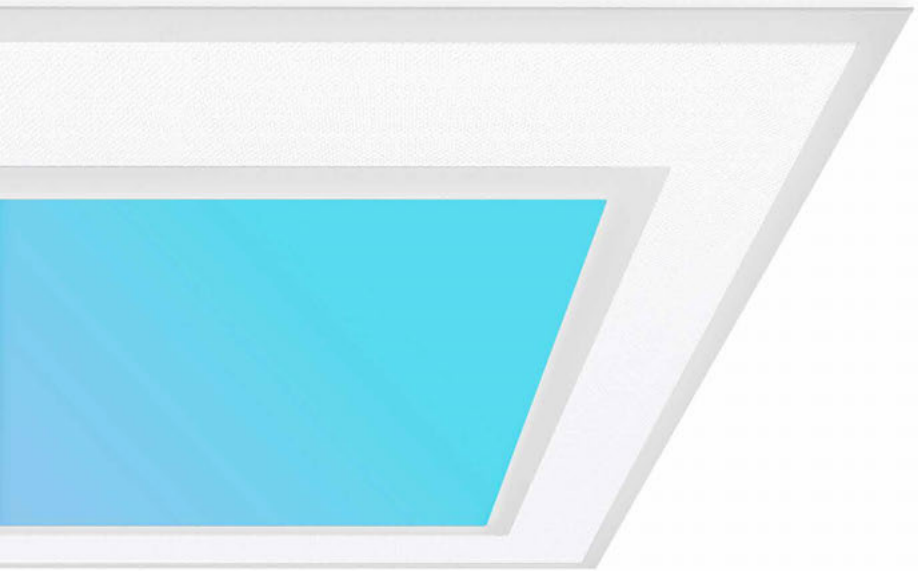
Code 6090

650°C

IP20

Driver/LED
SELV

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
PHASE CUT DIM electronic wiring 230V-50/60Hz							
6090	3F Emilio Table WH 1000/930 PCD	80°	14	1148	3000	>90	415x170x490



3F Eldorado

> www.3F-Filippi.com/3F Eldorado

The world of work is constantly evolving, codes are renewing and behaviour and the way we experience environments are changing: smart working, flexible workstations and the use of smartphones and tablets.
As a result of increasingly careful investments by those building or renovating workplaces it is necessary to design products with a multifunctional approach: this is why we developed 3F Eldorado as an open platform capable of integrating products and extra functions simply to meet the needs of workers. All this by placing lighting quality at the centre of our research.
3F Eldorado is equipped with state-of-the-art sources and a prismatic diffuser that can light environments in an effective way and minimise the level of glare as required by the most stringent international regulations.
3F Eldorado is a unique, customisable product capable of integrating seamlessly into different areas and furnishings in the workplace, being able to act on various aspects such as:

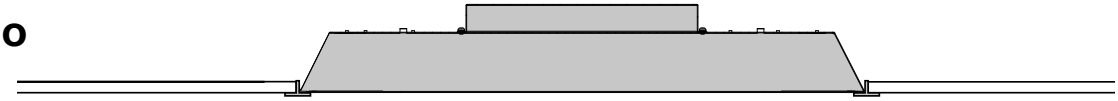
- colour temperature variable over time
- integration of spot fixtures
- diffused lighting with custom graphics
- emergency lighting
- aesthetic and functional finishes that provide added value to the product and the lighting and architectural design
- audio or sound-absorption functions

For further information we invite you to consult our website www.3F-Filippi.com

Page		Product	Recessed
142	NEW	3F Eldorado Frame	•
144	NEW	3F Eldorado Twin	•

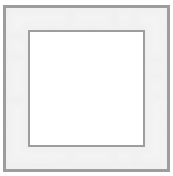
Product range

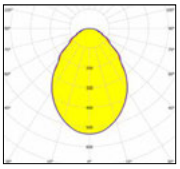
Recessed



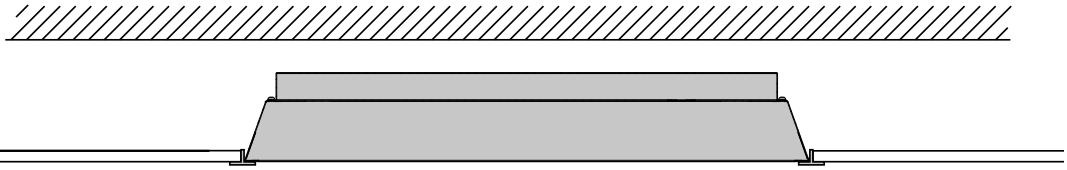
3F Eldorado

Lay-in installation



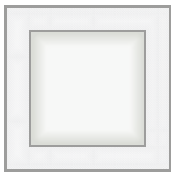
Model		Frame
Average luminance for angles> 65 (cd / m²)		<3000
Output flux (lm)		3000 | 4000
UGR		<19
CCT (K)		4000
Protection class		IP40
Finishes		White
Photometric distribution		
Installation steps	**Dt**	1,08
	Dl	1,08

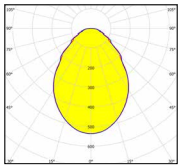
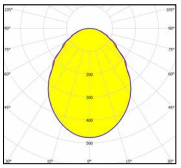
Recessed



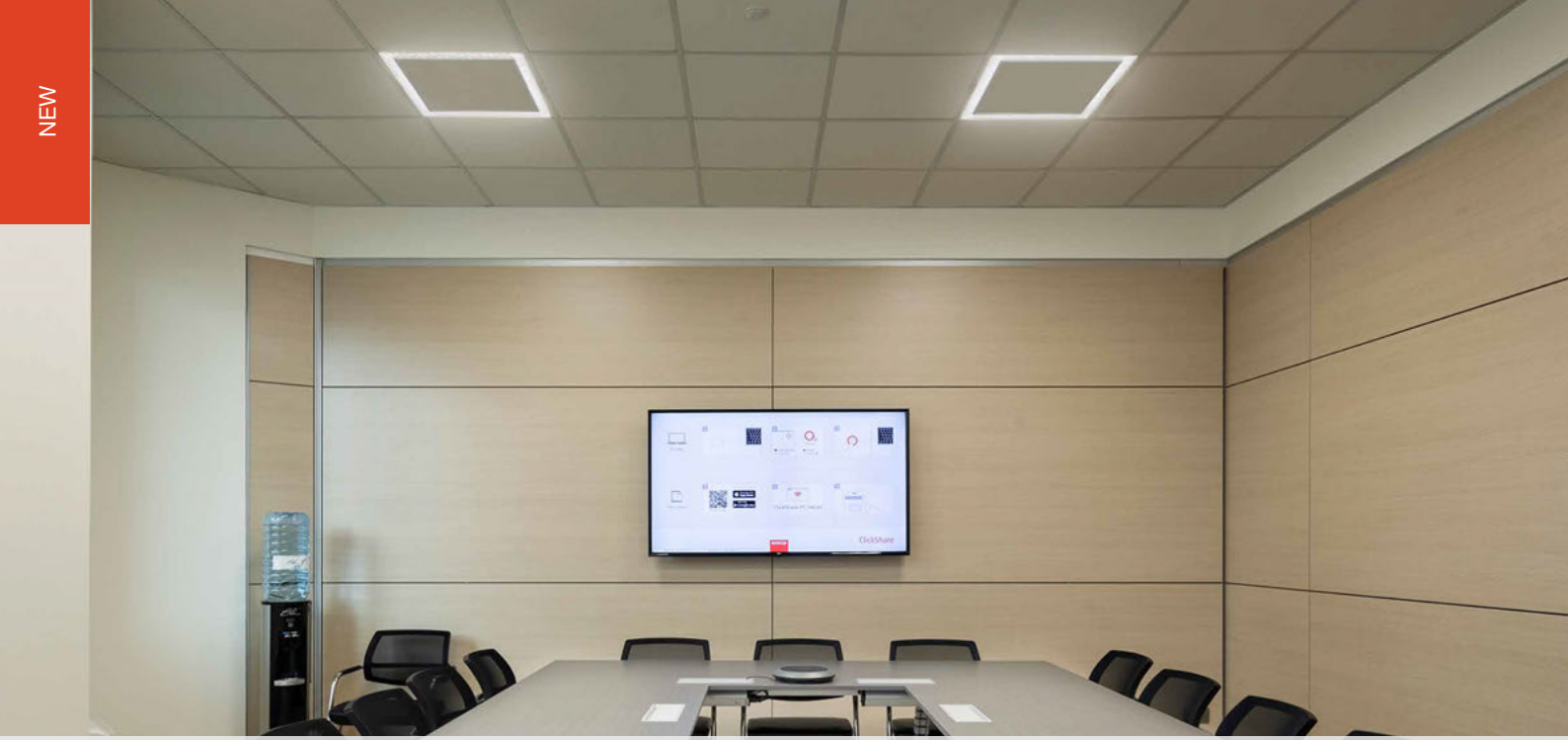
3F Eldorado

Pull-up installation



Model		Twin (Frame)	Twin (Centre)
Average luminance for angles> 65 (cd / m²)		<3000	>3000
Output flux (lm)		3000 | 4000	3000
UGR		<19	<22
CCT (K)		4000	
Protection class		IP40	
Finishes		White	
Photometric distribution			
Installation steps	**Dt**	1,08	1,20
	Dl	1,08	1,20

NEW



3F Eldorado Frame

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.
Central part in hot-galvanised steel, painted in white polyester.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- emergency versions
- different central screens and screen prints
- equippable central covers

Applications

Any environment in which flexibility of lighting and customisation is required, capable of integrating perfectly into the areas and furnishings of different workspaces.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

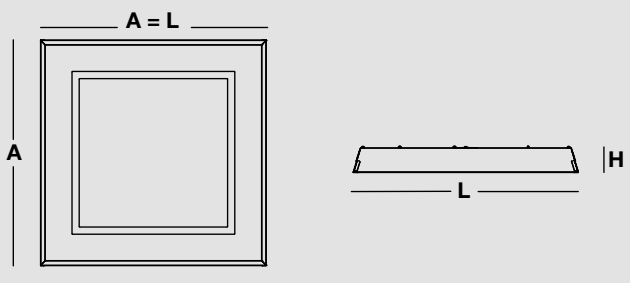
Installation

Lay-in installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

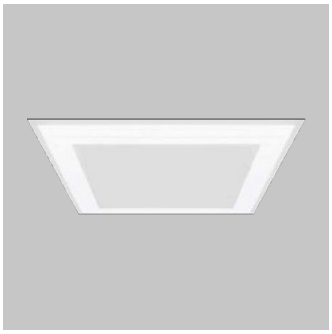
Dimensions

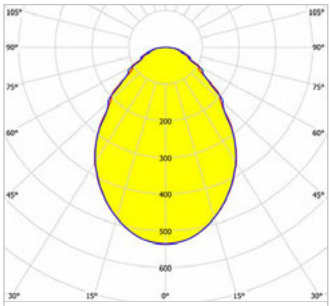


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

Accessories on page 145.

3F Eldorado Frame White LGS





Code 2326 L<3000 cd/m² 65°

650°C | IP40 | 0,2J | IK02

Driver/LED SELV

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
2326 NEW	3F Eldorado 29/840 DALI LGS 596	33	3251	4000	>80	596x596x95
2327 NEW	3F Eldorado 39/840 DALI LGS 596	45	4256	4000	>80	596x596x95
2328 NEW	3F Eldorado 29/840 DALI LGS 621	33	3251	4000	>80	621x621x95
2329 NEW	3F Eldorado 39/840 DALI LGS 621	45	4256	4000	>80	621x621x95

NEW

3F Eldorado Twin

Construction characteristics

Illuminotechnical characteristics
Symmetrical distribution controlled and diffused according to the type of use.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
LGS micro-prismatic flat perimeter diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.
OP flat screen in the central part in opal methacrylate, anti-glare.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Twin-circuit.

Source characteristics

- Squared or linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- emergency versions
- different central screens and screen prints

Applications

Any environment in which flexibility of lighting and customisation is required, capable of integrating perfectly into the areas and furnishings of different workspaces.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

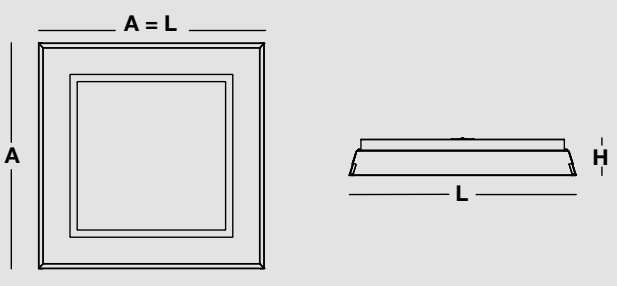
Installation

Lay-in installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

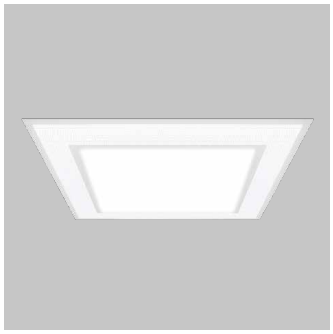
Dimensions

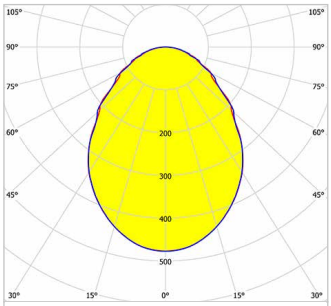


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **architectural.3f-filippi.com**

Accessories on page 145.

3F Eldorado Twin White LGS + OP





Code 2330 L<3000 cd/m² 65°

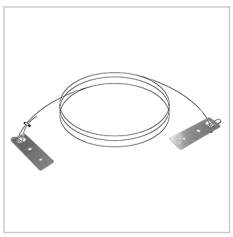
650°C | IP40 | 0,2J | IK02

Driver/LED SELV

Dual lighting functionality.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
2330 NEW	3F Eldorado 29+30/840 DALI LGS+OP 596	67	5940	4000	>80	596x596x95
2331 NEW	3F Eldorado 39+30/840 DALI LGS+OP 596	78	6945	4000	>80	596x596x95
2332 NEW	3F Eldorado 29+30/840 DALI LGS+OP 621	67	5940	4000	>80	621x621x95
2333 NEW	3F Eldorado 39+30/840 DALI LGS+OP 621	78	6945	4000	>80	621x621x95

3F Eldorado | Accessories



Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0579	Safety wire with brackets

Zero 3F

3F C8

3F Travetta

3F Zeta

3F Dìagon P

3F Petra

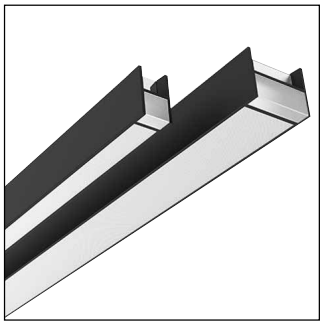
P 200

P 250

Mira

3F Emilio Wall

3F HD



3F Mirella

3F Trittico

Surface luminaires and suspensions


Classici
Classici italiani del '900
STENDHAL
Dacia Maraini ISOLINA
MORAVIA
CAMUS

Zero 3F

> **www.3F-Filippi.com/Zero 3F**

In modern study and work spaces, the homogeneity of light is a fundamental element to reduce shadow areas and improve volume perception.
Minimising the contrast between areas that are lit differently limits eye stress making the environment more comfortable.
The new Zero 3F was designed specifically to cope with visual tasks efficiently in task-areas, thanks to an increase in the surrounding and background areas.
Light is distributed widely even on the walls to limit the "cave effect" and to enhance the furnishings and information present on vertical surfaces.

This product is also available in this version Zero 3F Track (page 342).

Overview

- Luminous efficacy up to 140 lumen/watt.
- Luminous fluxes from 1897 to 6227 lumens.
- Average luminance <3000 cd/m².
- Extensive installation pitch.
- UGR <19.
- Uniformly illuminated screen.
- Asymmetrical version.
- Driver integrated in the fixture.
- Quick and easy cleaning.
- Luminous end caps.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Can be installed on the 3F Linux S electrified track.
- Versatility of use in different environments.
- Continuous Channel version
- Tunable White version

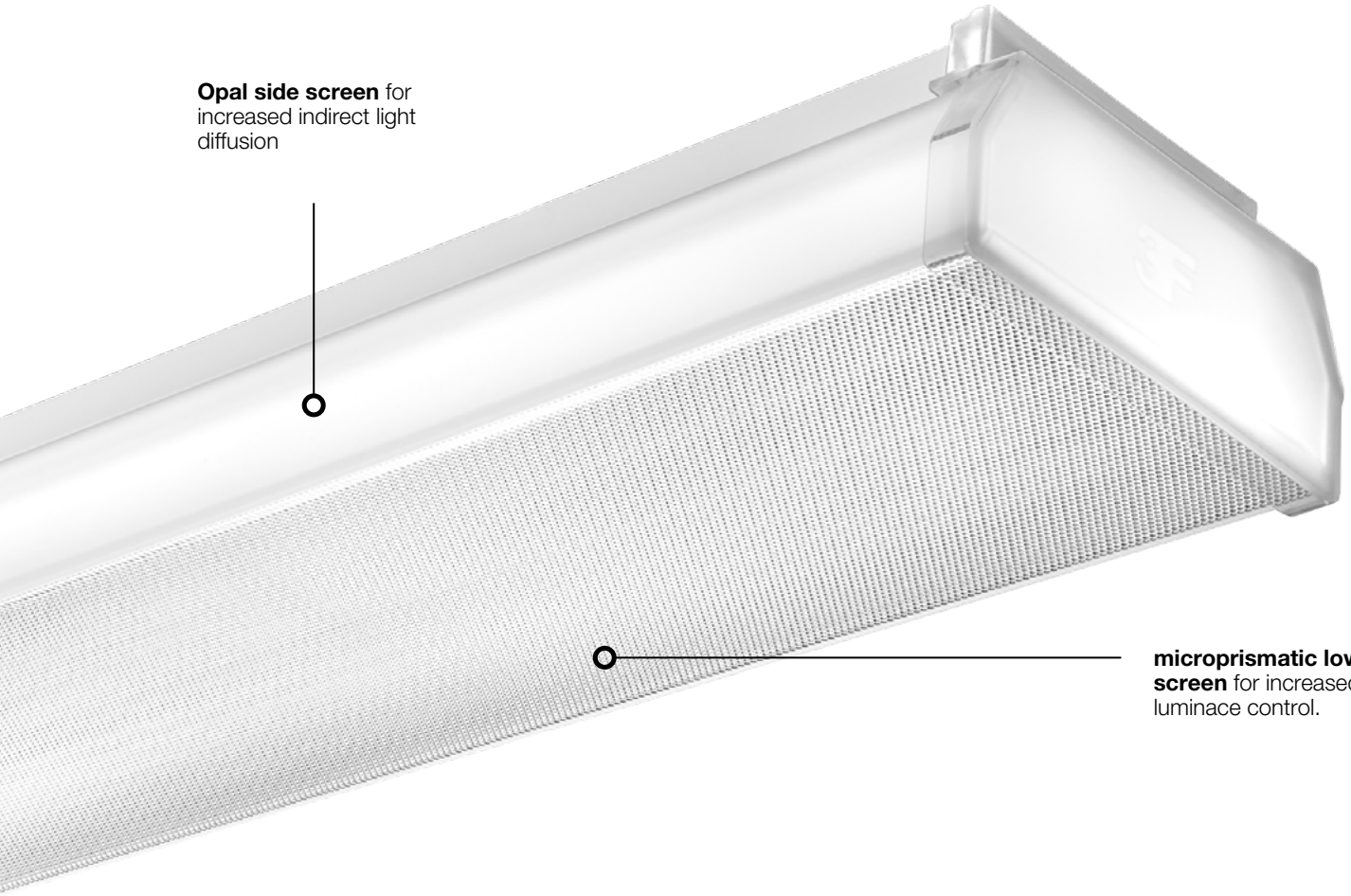
Page		Product	Ceiling	Suspended	Wall
152	UPDATE	Zero 3F	•	•	•
156	NEW	Zero 3F - Channel	•	•	•
160	NEW	Zero 3F Tunable White	•	•	•

Zero 3F

QUALITY OF LIGHT

Zero 3F is the result of more than a decade of experience of 3F Filippi in school and work environments, where visual comfort and light diffusion are the basis of a lighting project. To obtain low luminance values we maximised the area of the emitting surface to obtain the best luminous intensity possible.

The result is a fixture with a micro prismatic lower surface to obtain the shielding required by regulations and an opal side area to softly diffuse light into the space and give a sensation of suspension to the fixture.
It is a simple, clean design that integrates discreetly in all types of environment.



To obtain a perfect 360° light we created an end cap using the best mould technology available and using state-of-the-art LED sources that are not visible from any angle.

The diffusion and homogeneity obtained give a sense of incomparable luminance fullness to enhance any environment to the full whether it is a school classroom, an office or simply a corridor.

THE BENEFITS OF HOMOGENEOUSLY DIFFUSED LIGHT

As you can see from the simulations below increasing the luminosity of vertical surfaces is a significant element that improves the visibility of information like that contained in bookshelves. The indirect light component reduces visual contrast and makes the product seem to be suspended even if it is installed on the ceiling, and the mix between this and the direct light rays generate a uniform light right up to the joins between the walls and the ceiling.

Standard fixture
Direct
photometric distribution

Zero 3F
Direct/indirect
photometric distribution

Zero 3F

Construction characteristics

Illuminotechnical characteristics
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate filter for brightness uniformity.
Lighting end caps in PMMA opal.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.

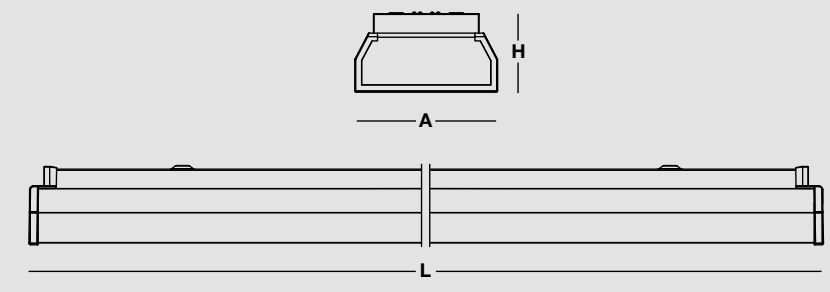
Installation

Ceiling, suspension or wall installation.
Thanks to the full compatibility for dimensions and fixing distances, this product becomes the perfect solution for updating existing installations.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

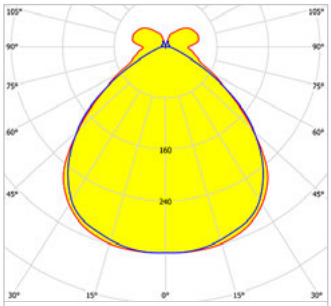
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 162.

Zero 3F



Code 1857 L<3000 cd/m² 65°

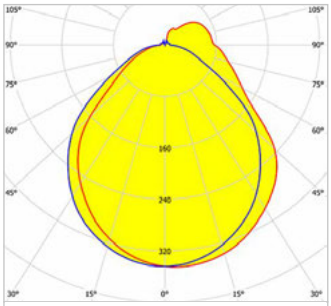
EP | D | 650°C | IP40 | 1J | IK06

Driver/LED SELV

Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
1855	03F 14W/840 L620	16	2014	4000	>80	620x119x64
1856	03F 28W/840 L1204	31	4029	4000	>80	1204x119x64
1857	03F 35W/840 L1506	36	5036	4000	>80	1506x119x64
1858	03F 42W/840 L1787	46	6042	4000	>80	1787x119x64
1859	03F 18W/940 L620	20	1983	4000	>90	620x119x64
1860	03F 35W/940 L1204	42	4152	4000	>90	1204x119x64
1861	03F 44W/940 L1506	50	5190	4000	>90	1506x119x64
1862	03F 53W/940 L1787	58	6227	4000	>90	1787x119x64
DALI electronic wiring 230V-50/60Hz						
1863	03F 14W/840 DALI L620	16	2014	4000	>80	620x119x64
1864	03F 28W/840 DALI L1204	31	4029	4000	>80	1204x119x64
1865	03F 35W/840 DALI L1506	36	5036	4000	>80	1506x119x64
1866	03F 42W/840 DALI L1787	46	6042	4000	>80	1787x119x64
1867	03F 18W/940 DALI L620	20	1983	4000	>90	620x119x64
1868	03F 35W/940 DALI L1204	40	4152	4000	>90	1204x119x64
1869	03F 44W/940 DALI L1506	49	5190	4000	>90	1506x119x64
1870	03F 53W/940 DALI L1787	57	6227	4000	>90	1787x119x64
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
1871	03F 28W/840 EP L1204	32	4029	4000	>80	1204x119x64
1872	03F 35W/840 EP L1506	37	5036	4000	>80	1506x119x64
1873	03F 42W/840 EP L1787	47	6042	4000	>80	1787x119x64
1874	03F 35W/940 EP L1204	43	4152	4000	>90	1204x119x64
1875	03F 44W/940 EP L1506	51	5190	4000	>90	1506x119x64
1876	03F 53W/940 EP L1787	59	6227	4000	>90	1787x119x64
DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
1877	03F 28W/840 DALI EP L1204	32	4029	4000	>80	1204x119x64
1878	03F 35W/840 DALI EP L1506	37	5036	4000	>80	1506x119x64
1879	03F 42W/840 DALI EP L1787	47	6042	4000	>80	1787x119x64
1880	03F 35W/940 DALI EP L1204	41	4152	4000	>90	1204x119x64
1881	03F 44W/940 DALI EP L1506	50	5190	4000	>90	1506x119x64
1882	03F 53W/940 DALI EP L1787	58	6227	4000	>90	1787x119x64

Zero 3F AS



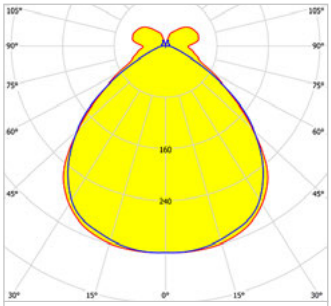
Code 1885

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Asymmetric distribution.
Internal recuperator in white painted steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
1883	03F 14W/840 AS L620	16	1927	4000	>80	620x119x64
1884	03F 28W/840 AS L1204	31	3854	4000	>80	1204x119x64
1885	03F 35W/840 AS L1506	36	4818	4000	>80	1506x119x64
1886	03F 42W/840 AS L1787	46	5780	4000	>80	1787x119x64
1887	03F 18W/940 AS L620	20	1897	4000	>90	620x119x64
1888	03F 35W/940 AS L1204	42	3971	4000	>90	1204x119x64
1889	03F 44W/940 AS L1506	50	4965	4000	>90	1506x119x64
1890	03F 53W/940 AS L1787	58	5957	4000	>90	1787x119x64

Zero 3F HO



Code 1893

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Controlled symmetric distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
1891 NEW	03F HO 18W/840 L620	20	2418	4000	>80	620x119x64
1892 NEW	03F HO 35W/840 L1204	40	5063	4000	>80	1204x119x64
1893 NEW	03F HO 44W/840 L1506	49	6329	4000	>80	1506x119x64
1894 NEW	03F HO 53W/840 L1787	57	7593	4000	>80	1787x119x64
DALI electronic wiring 230V-50/60Hz						
1895 NEW	03F HO 18W/840 DALI L620	20	2418	4000	>80	620x119x64
1896 NEW	03F HO 35W/840 DALI L1204	40	5063	4000	>80	1204x119x64
1897 NEW	03F HO 44W/840 DALI L1506	49	6329	4000	>80	1506x119x64
1898 NEW	03F HO 53W/840 DALI L1787	57	7593	4000	>80	1787x119x64

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

NEW

Zero 3F - Channel

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate filter for brightness uniformity.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entrance to the upper power supply in proximity to a power head.
5 mm² section 1.5 pin through line with an irreversible quick coupling plug plug/socket fixed on the body for rapid electrical connection.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.

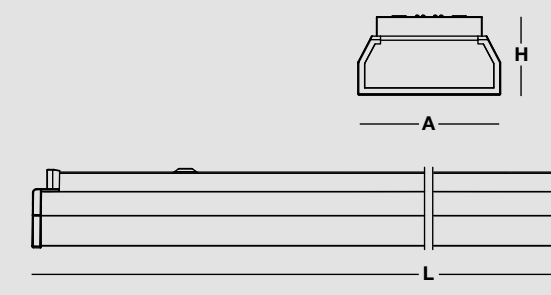
Installation

Continuous light channel installation on ceiling or suspension.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

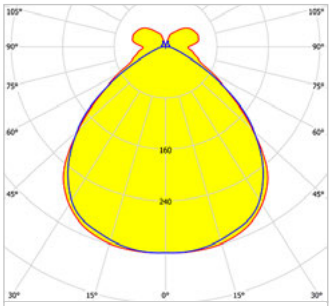
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 162.

Zero 3F - Starting channel



Code 1907 L<3000 cd/m² 65°

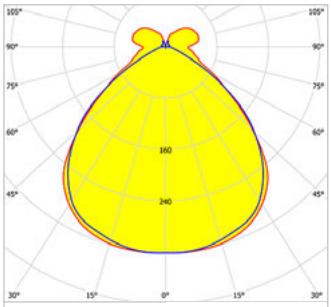
650°C | IP40 | 1J | IK06

Driver/LED SELV

Opal PMMA luminous end cap.
Hot-dip galvanised steel connecting element in white.
White polycarbonate union collar.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
1905 NEW	03F 28W/840 DALI 5P SC L1204	31	4029	4000	>80	1204x119x64
1906 NEW	03F 35W/840 DALI 5P SC L1506	36	5036	4000	>80	1506x119x64
1907 NEW	03F 42W/840 DALI 5P SC L1787	46	6042	4000	>80	1787x119x64

Zero 3F - Central channel



Code 1914 L<3000 cd/m² 65°

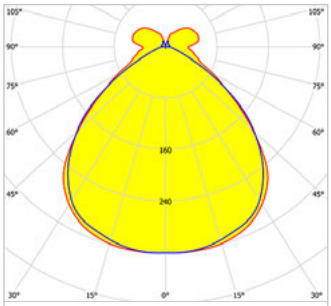
650°C | IP40 | 1J | IK06

Driver/LED SELV

Hot-dip galvanised steel connecting element in white.
White polycarbonate union collar.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
1912 NEW	03F 28W/840 DALI 5P CC L1204	31	4029	4000	>80	1204x119x64
1913 NEW	03F 35W/840 DALI 5P CC L1506	36	5036	4000	>80	1506x119x64
1914 NEW	03F 42W/840 DALI 5P CC L1787	46	6042	4000	>80	1787x119x64

Zero 3F - End channel



Code 1920 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06

Driver/LED SELV

Opal PMMA luminous end cap.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
1918 NEW	03F 28W/840 DALI 5P EC L1204	31	4029	4000	>80	1204x119x64
1919 NEW	03F 35W/840 DALI 5P EC L1506	36	5036	4000	>80	1506x119x64
1920 NEW	03F 42W/840 DALI 5P EC L1787	46	6042	4000	>80	1787x119x64

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

NEW

Zero 3F Tunable White

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate filter for brightness uniformity.
Lighting end caps in PMMA opal.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm² per poles.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels or colour rendering indices
- emergency versions

Applications

Any environments requiring light which aims for the wellness of people.
Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.

Installation

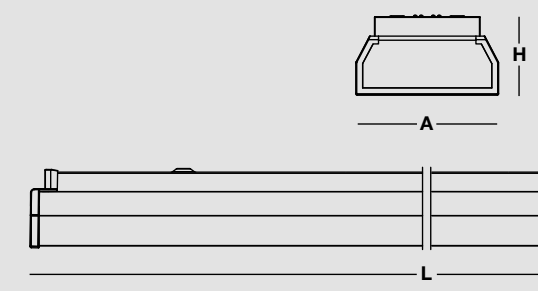
Ceiling, suspension or wall installation.
Thanks to the full compatibility for dimensions and fixing distances, this product becomes the perfect solution for updating existing installations.

Light Management

Thanks to the 3F HCL technology, our Tunable White products can be controlled by:

- Wired control systems (more information on page 592)
- 3F Bluetooth control systems (more information on page 594)

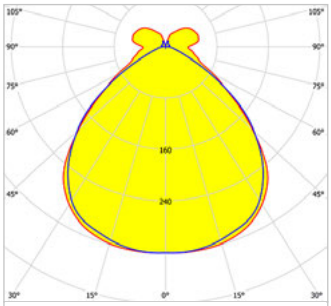
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 162.

Zero 3F Tunable White



Code 1932 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06 | TW | Driver/LED SELV

Variable light intensity and colour temperature.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI DT8 electronic wiring 230V-50/60Hz						
1930 NEW	03F 28W DT8 TW L1204	35 33.5 32	4115	2700 4000 6500	>80	1204x119x64
1931 NEW	03F 35W DT8 TW L1506	43 41.5 39	5144	2700 4000 6500	>80	1506x119x64
1932 NEW	03F 42W DT8 TW L1787	50 48 46	6172	2700 4000 6500	>80	1787x119x64

Zero 3F | Accessories

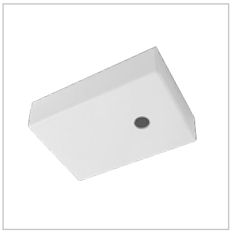
Wall-mounting bracket, in white painted steel.

Code	Item
A0052	Wall-mounting brack

Suspension with regulator, galvanised steel cable 1.5 mm diameter, load 15 kg.

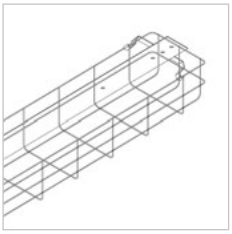
Code	Item
A0660	Suspension with adjustment - 1m
A0661	Suspension with adjustment - 2 m
A0662	Suspension with adjustment - 3 m
A0663	Suspension with adjustment - 4 m
A0664	Suspension with adjustment - 5 m
A0665	Suspension with adjustment - 6 m

Attention: each product requires two suspensions with regulator.



Electric supply with white polycarbonate case, internal bracket in galvanised steel.

Code	Item
A0679	5 pole rectangular rose (no cable) WH



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod Ø 5 mm.

Code	Item
A0455	Wireguard 180x1330 3F Linda
A0456	Wireguard 180x1630 3F Linda

Only for luminaires fixed without hooks.


Welkom
Welcome
BIENVENUE
Willkommen
Bienvenido
Benvenuto
Cosa vuoi fare da
GRANDE?
Diventa un professionista con noi.
IIS PODESTI CALZECCHI ONESTI
iiS
VISITA la SCUOLA
TECNICA
PROFESSIONALE

3F C8 Direct

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Transparent 5-pole power cable with white ceiling power supply case.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- power and suspension cables of >2 m long
- different dimensions
- housing in different RAL colours
- emergency versions

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
In environments with VDTs, managerial offices and staterooms.

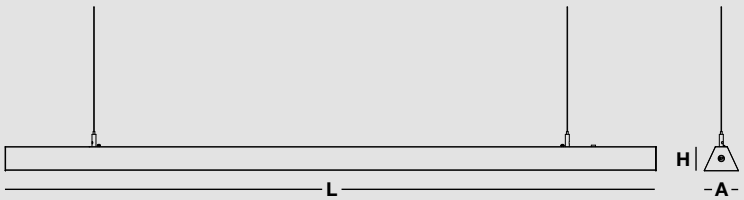
Installation

Suspension installation.

Light Management

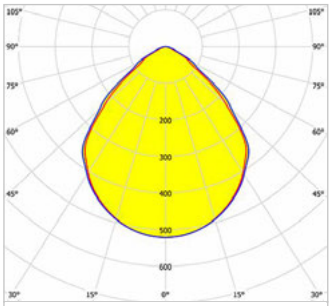
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F C8 GSP



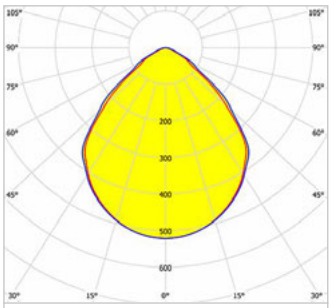
Code 6128 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	6128	3F C8 WH 30/840 DALI GSP L1480	35	2880	4000	>80	1480x77x54
●	6136	3F C8 BK 30/840 DALI GSP L1480	35	2880	4000	>80	1480x77x54

3F C8 HO GSP



Code 6140

650°C | IP40 | 1J | IK06 | Driver/LED SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	6140	3F C8 WH HO 44/840 DALI GSP L1480	51	3912	4000	>80	1480x77x54
●	6148	3F C8 BK HO 44/840 DALI GSP L1480	51	3912	4000	>80	1480x77x54

3F C8 Direct/Indirect

Construction characteristics

Illuminotechnical characteristics
Symmetric direct-indirect distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Extruded aluminium body, zamak heads.
SP flat diffuser in transparent PMMA, outside prismatic, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.
Adjustable suspension fixtures with chrome studs and rapid adjusters, galvanised steel cable of 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
5-pole transparent power cable with white power supply case for ceiling, single 230V circuit, 2 DALI addresses.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- power and suspension cables of >2 m long
- twin-circuit
- different dimensions
- housing in different RAL colours
- emergency versions

Applications

Environments involving accurate visual tasks where a diffused and soft light for an optimum visual comfort and the source total shielding are required.
In environments with VDTs, managerial offices and staterooms.

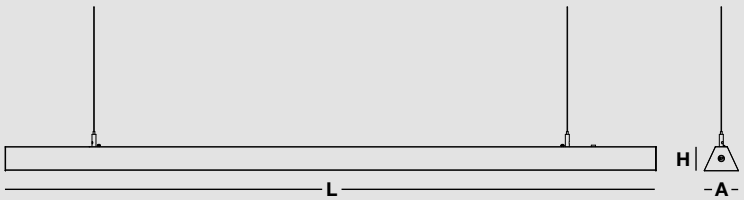
Installation

Suspension installation.

Light Management

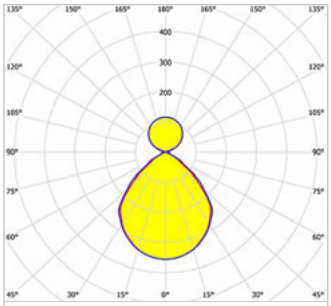
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F C8 DI GSP



Code 6130 L<3000 cd/m² 65°

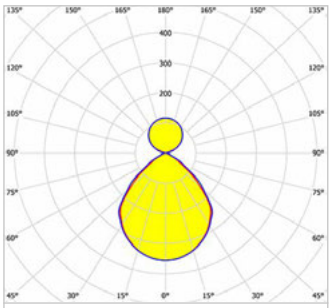
650°C | IP40 | 1J | IK06

Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	6130	3F C8 WH DI 30+8/840 DALI GSP L1480	45	4147	4000	>80	1480x77x54
●	6138	3F C8 BK DI 30+8/840 DALI GSP L1480	45	4147	4000	>80	1480x77x54

3F C8 DI HO GSP



Code 6142

650°C | IP40 | 1J | IK06

Driver/LED SELV

	Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz							
○	6142	3F C8 WH DI HO 44+8/840 DALI GSP L1480	62	5179	4000	>80	1480x77x54
●	6150	3F C8 BK DI HO 44+8/840 DALI GSP L1480	62	5179	4000	>80	1480x77x54

3F Travetta LED Direct

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing with squared shape in white painted galvannealed steel, with nonreflecting surface.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Terminal block for cascade line connection with connection capacity 2x2.5 mm².

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 2.

On request

- different power levels, colour rendering indices and colour temperatures
- different dimensions
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.
Environments where soft diffuse light is required for optimal visual comfort.

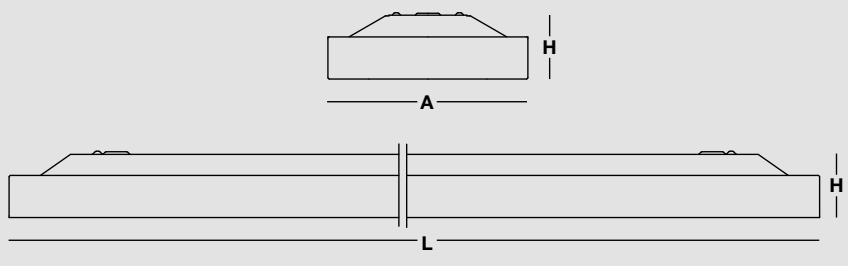
Installation

Ceiling mounted or suspension installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

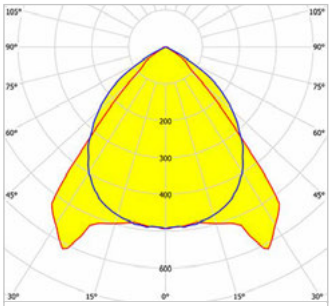
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 178.

3F Travetta LED 2MG



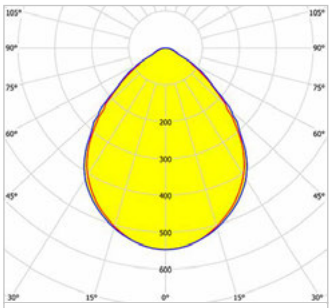
Code 11481 L<1000 cd/m² 65°

650°C IP20 Driver/LED SELV

Average luminance <1000 cd/m² for radial angles >65°.
2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
11481	3F Travetta LED 1x22W DALI 2MG L1590	24.5	3168	4000	>80	1590x190x60
11484	3F Travetta LED 2x22W DALI 2MG L1590	49	6236	4000	>80	1590x190x60
11515	3F Travetta LED 1x30W/940 DALI 2MG L1590	34	3264	4000	>90	1590x190x60
11516	3F Travetta LED 2x22W/940 DALI 2MG L1590	49	5114	4000	>90	1590x190x60

3F Travetta LED LGS



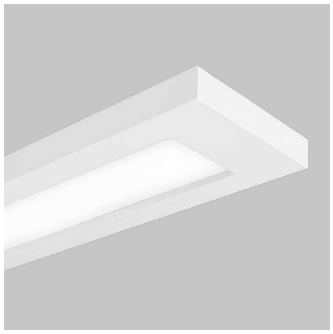
Code 11533 L<3000 cd/m² 65°

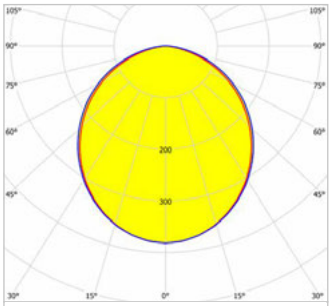
650°C IP20 Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
Flow recuperator in semi-specular aluminium, high efficiency.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
11528	3F Travetta LED 1x24W LGS L1290	27	3022	4000	>80	1290x190x60
11530	3F Travetta LED 1x30W LGS L1590	34	3783	4000	>80	1590x190x60
11531	3F Travetta LED 2x18W LGS L1290	40	4690	4000	>80	1290x190x60
11533	3F Travetta LED 2x22W LGS L1590	49	5865	4000	>80	1590x190x60
11566	3F Travetta LED 1x24W/940 LGS L1290	27	2478	4000	>90	1290x190x60
11567	3F Travetta LED 1x30W/940 LGS L1590	34	3102	4000	>90	1590x190x60
11568	3F Travetta LED 2x18W/940 LGS L1290	40	3846	4000	>90	1290x190x60
11569	3F Travetta LED 2x22W/940 LGS L1590	49	4809	4000	>90	1590x190x60
DALI electronic wiring 230V-50/60Hz						
11537	3F Travetta LED 1x24W DALI LGS L1290	27	3022	4000	>80	1290x190x60
11539	3F Travetta LED 1x30W DALI LGS L1590	34	3783	4000	>80	1590x190x60
11540	3F Travetta LED 2x18W DALI LGS L1290	40	4690	4000	>80	1290x190x60
11542	3F Travetta LED 2x22W DALI LGS L1590	49	5865	4000	>80	1590x190x60
11570	3F Travetta LED 1x24W/940 DALI LGS L1290	27	2478	4000	>90	1290x190x60
11571	3F Travetta LED 1x30W/940 DALI LGS L1590	34	3102	4000	>90	1590x190x60
11572	3F Travetta LED 2x18W/940 DALI LGS L1290	40	3846	4000	>90	1290x190x60
11573	3F Travetta LED 2x22W/940 DALI LGS L1590	49	4809	4000	>90	1590x190x60

3F Travetta LED OP





Code 10735

650°C IP20 Driver/LED SELV

OP opal methacrylate flat diffuser, anti-glare.
Flow recuperator in semi-specular aluminium, high efficiency.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10731	3F Travetta LED 1x18W OP L1290	20	2335	4000	>80	1290x190x60
10732	3F Travetta LED 1x22W OP L1590	24.5	2920	4000	>80	1590x190x60
10734	3F Travetta LED 2x18W OP L1290	40	4545	4000	>80	1290x190x60
10775	3F Travetta LED 1x40W OP L2200	45	4887	4000	>80	2200x190x60
10735	3F Travetta LED 2x22W OP L1590	49	5683	4000	>80	1590x190x60
10777	3F Travetta LED 2x40W OP L2200	90	9511	4000	>80	2200x190x60
DALI electronic wiring 230V-50/60Hz						
11494	3F Travetta LED 1x18W DALI OP L1290	20	2335	4000	>80	1290x190x60
11495	3F Travetta LED 1x22W DALI OP L1590	24.5	2920	4000	>80	1590x190x60
11497	3F Travetta LED 2x18W DALI OP L1290	40	4545	4000	>80	1290x190x60
11511	3F Travetta LED 1x40W DALI OP L2200	45	4887	4000	>80	2200x190x60
11498	3F Travetta LED 2x22W DALI OP L1590	49	5683	4000	>80	1590x190x60
11513	3F Travetta LED 2x40W DALI OP L2200	90	9511	4000	>80	2200x190x60

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Travetta LED Direct/Indirect

Construction characteristics

Illuminotechnical characteristics
Direct-indirect distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing with squared shape in white painted galvannealed steel, with nonreflecting surface.
Upper holes closing film made of opal polycarbonate.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Terminal block for cascade line connection with connection capacity 2x2.5 mm².

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 2.

On request

- different power levels, colour rendering indices and colour temperatures
- different dimensions
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.
Environments where soft diffuse light is required for optimal visual comfort.

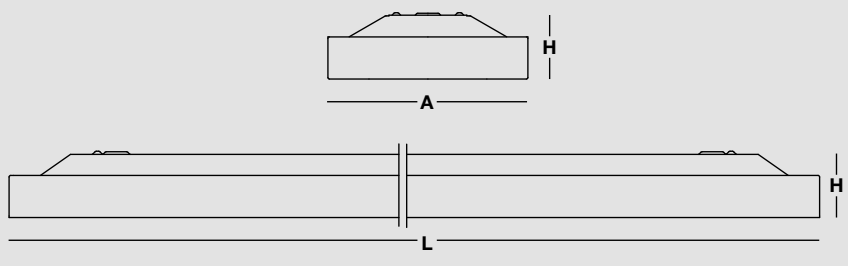
Installation

Suspension installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).
The DALI SENSOR (LS) products from this product family are all fitted with DALI light and presence sensors integrated into the luminaire (see "Light Management" chapter).

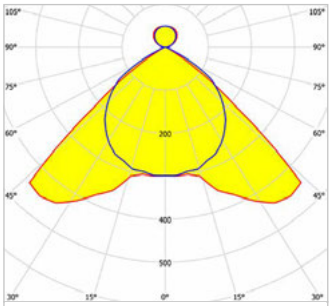
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 178.

3F Travetta LED DI 2MG



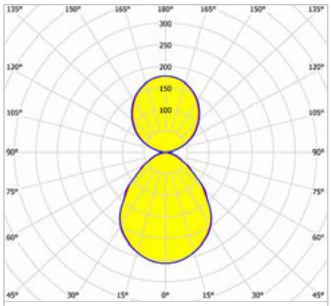
Code 10748 L<1000 cd/m² 65°

650°C IP20 Driver/LED SELV

Average luminance <1000 cd/m² for radial angles >65°.
Light emission: direct 85%, indirect 15% .
2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10747	3F Travetta LED DI 2x15W 2MG L1590	33	3958	4000	>80	1590x190x60
10748	3F Travetta LED DI 2x22W 2MG L1590	49	5865	4000	>80	1590x190x60
10758	3F Travetta LED DI 2x15W/940 2MG L1590	33	3245	4000	>90	1590x190x60
10759	3F Travetta LED DI 2x22W/940 2MG L1590	49	4809	4000	>90	1590x190x60
DALI electronic wiring 230V-50/60Hz						
11503	3F Travetta LED DI 2x15W DALI 2MG L1590	33	3958	4000	>80	1590x190x60
11504	3F Travetta LED DI 2x22W DALI 2MG L1590	49	5865	4000	>80	1590x190x60
11596	3F Trav. LED DI 2x15W/940 DALI 2MG L1590	33	3245	4000	>90	1590x190x60
11597	3F Trav. LED DI 2x22W/940 DALI 2MG L1590	49	4809	4000	>90	1590x190x60

3F Travetta LED DI LGS



Code 11656 L<3000 cd/m² 65°

650°C IP20 Driver/LED SELV

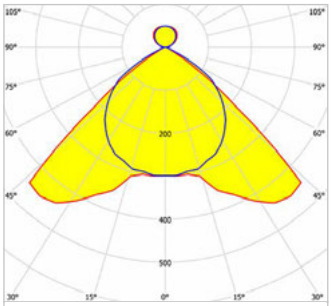
Average luminance <3000 cd/m² for radial angles >65°.
Light emission: direct 55%, indirect 45% .
Flow recuperator in semi-glossy aluminium.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
11656	3F Travetta LED DI 2x18W LGS L1290	40	4809	4000	>80	1290x190x60
11657	3F Travetta LED DI 2x24W LGS L1290	54	6037	4000	>80	1290x190x60
11599	3F Travetta LED DI 2x22W LGS L1590	49	6013	4000	>80	1590x190x60
11600	3F Travetta LED DI 2x30W LGS L1590	66	7555	4000	>80	1590x190x60
11658	3F Travetta LED DI 2x18W/940 LGS L1290	40	3944	4000	>90	1290x190x60
11659	3F Travetta LED DI 2x24W/940 LGS L1290	54	4950	4000	>90	1290x190x60
11602	3F Travetta LED DI 2x22W/940 LGS L1590	49	4931	4000	>90	1590x190x60
11603	3F Travetta LED DI 2x30W/940 LGS L1590	66	6195	4000	>90	1590x190x60
DALI electronic wiring 230V-50/60Hz						
11660	3F Travetta LED DI 2x18W DALI LGS L1290	40	4809	4000	>80	1290x190x60
11661	3F Travetta LED DI 2x24W DALI LGS L1290	54	6037	4000	>80	1290x190x60
11629	3F Travetta LED DI 2x22W DALI LGS L1590	49	6013	4000	>80	1590x190x60
11630	3F Travetta LED DI 2x30W DALI LGS L1590	66	7555	4000	>80	1590x190x60
11662	3F Trav. LED DI 2x18W/940 DALI LGS L1290	40	3944	4000	>90	1290x190x60
11663	3F Trav. LED DI 2x24W/940 DALI LGS L1290	54	4950	4000	>90	1290x190x60
11632	3F Trav. LED DI 2x22W/940 DALI LGS L1590	49	4931	4000	>90	1590x190x60
11633	3F Trav. LED DI 2x30W/940 DALI LGS L1590	66	6195	4000	>90	1590x190x60

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 178.

3F Travetta LED DI DALI Sensor 2MG



Code 11523 L<1000 cd/m² 65°

650°C IP20 Driver/LED SELV

Average luminance <1000 cd/m² for radial angles >65°.
Light emission: direct 15%, indirect 85% .
2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.
Integrated DALI light and presence sensor on the luminaire, to keep lighting levels constant in accordance with the amount of natural light and the presence of persons.
Turns on and off and is regulated according to the level of light and the presence of persons.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
11522	3F Trav. LED DI 2x15W DALI LS 2MG L1590	35	3958	4000	>80	1590x190x60
11523	3F Trav. LED DI 2x22W DALI LS 2MG L1590	49	5865	4000	>80	1590x190x60

3F Travetta LED Tunable White

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <1000 cd/m² for radial angles >65°.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L75/B10): 80000 h. (tq+25°C)
Lifetime (L70/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing with squared shape in white painted galvannealed steel, with nonreflecting surface.
2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
Opal methacrylate diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) for line connection with connection capacity 2x2.5 mm² per poles.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different dimensions
- housing and accessories in different RAL colours
- emergency versions

Applications

Any environments requiring light which aims for the wellness of people.
Environments with VDTs.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

Installation

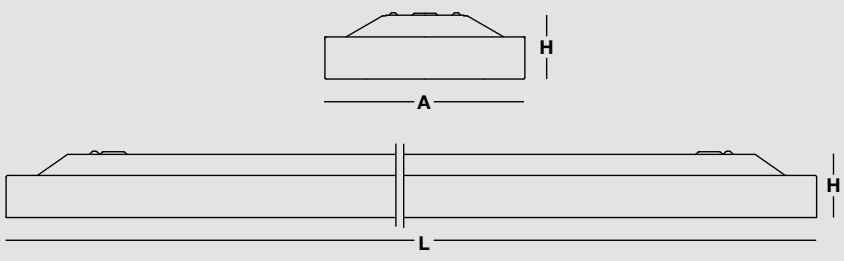
Ceiling mounted or suspension installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

Light Management

Thanks to the 3F HCL technology, our Tunable White products can be controlled by:

- Wired control systems (more information on page 592)
- 3F Bluetooth control systems (more information on page 594)

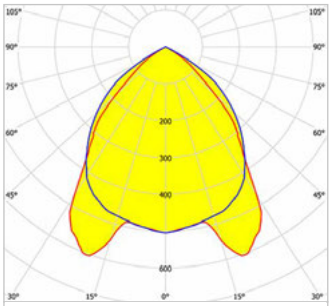
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 178.

3F Travetta LED Tunable White 2MG



Code 10763 L<1000 cd/m² 65°

650°C IP20 TW Driver/LED SELV

Variable light intensity and colour temperature.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI DT8 electronic wiring 230V-50/60Hz						
10763	3F TRAV. LED 2X22W DALI DT8 TW 2MG L1590	50	5550 6236 6143	2700 4000 6500	>80	1590x190x60

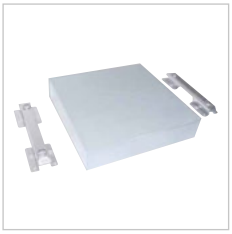
3F Travetta | Accessories

Wall-mounting bracket, in white painted steel.

Code	Item
A0052	Wall-mounting brack

Connecting bracket to form linear channels or branches of single luminaires, in galvanised steel with upper holes for adjustable suspensions.

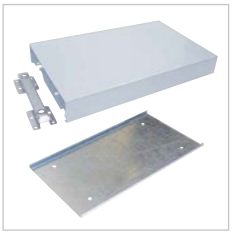
Code	Item
A0875	Connecting bracket Travetta



Linear connecting element and for branch, between luminaires or between luminaires and wall, to form channels, in steel with accessorizable cover, white colour. It allows the passage of the power-supply line. Concerning the use of connecting elements in false ceilings 600x600, see installation.

Code	Item
A0892	White connect.elem.190x190 3F Travetta
A0894	White connect.elem.190x210 3F Travetta
A0895	White connect.elem.190x510 3F Travetta
A0896	White connect.elem.190x810 3F Travetta
A0897	White connect.elem.190x1110 3F Travetta
A0941	White con.elem.lum/wall 810 3F Travetta
A0942	Wh.conn.elem.lum/wall 1110 3F Travetta

On request: elements of desired length. Connecting elements for false ceiling 625x625.



Branching in correspondence with the steel linear connecting elements with a white colour accessory cover.

Code	Item
A0951	White branch elem. 190x310 3F Travetta
A0952	White branches elem. 190x460 3F Travetta
A0877	Bracket for T-branch for 3F Travetta
A0878	Bracket for X-branch for 3F Travetta

It allows the passage of the power-supply line. The 190x190 linear connecting element can also be used for T junctions (request a bracket code A0875) and X junctions (request two brackets code A0875). To obtain an excellent T or X junction for connecting elements of a false ceiling with 600x600 visible profiles, the combination of a 1110 mm linear element with a 460 mm junction and the combination of a 810 mm linear element with a 310 mm junction are recommended.

Connecting element between luminaires or between luminaire and wall, white colour, composed of aluminium tube 1.5 m long Ø20 mm, which can be sectioned to any desired length, it allows the passage of the power-supply line.

Code	Item
A0870	White conn. elem. with boss for lum.
A0872	White conn.elem. to wall w/boss for lum.

Linear connecting element end cap to be used when there are connecting elements at the beginning or end of a channel.

Code	Item
A01368	Travetta B joint closing cap

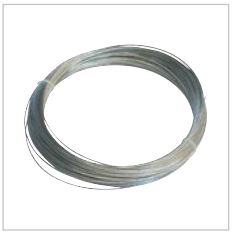
Adjustable suspension with polycarbonate case in white colour, internal bracket in galvanised steel. Wired version with transparent power-supply cable 5x1.5 mm². Stainless steel cables Ø 1.25 mm, length 1 m, leaded at one end with adjusters for coupling on the luminaire.

Code	Item
A01318	White rectangular case adj. susp. 1 m
A01325	Wired adj. susp. 5P wh.rect.case 1 m

On request: for suspensions longer than 1 m, it is necessary order stainless steel cables Ø 1,25 mm in spool of 100 m and pack of n° 100 clamps.
Accessory always required for 2200 mm long products.

Fixed suspension with white polycarbonate case, internal bracket in galvanised steel. Wired version with transparent power-supply cable 5x1.5 mm². Ø 1.25 mm stainless steel cables leaded at the end for coupling on the luminaire.

Code	Item
A01314	White rectangular case fixed susp. 0,3m
A01315	White rectangular case fixed susp. 0,5m
A01317	White rectangular case fixed susp. 1m
A01321	Wired fixed susp. 5P wh.rect.case 0,3m
A01322	Wired fixed susp. 5P wh.rect.case 0,5m
A01324	Wired fixed susp. 5P wh.rect.case 1m

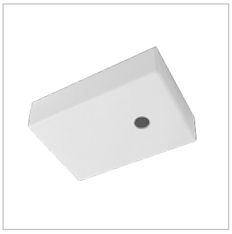


Coil of stainless steel cable Ø 1.25 mm, length 100 m.

Code	Item
A0620	Spool stain.ste.cab.diam. 1,25mm 100 m The pack contains 100 metres.

Clamps in nickel-plated brass suitable for fixing of steel wire (diameter 1.25 mm - 1.5 mm - 2 mm), complete with locking screws.

Code	Item
A0622	Clamp 1 hole suspension - 100 pcs The pack contains 100 pieces.



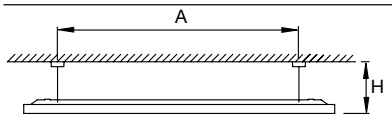
Electric supply with white polycarbonate case, internal bracket in galvanised steel.

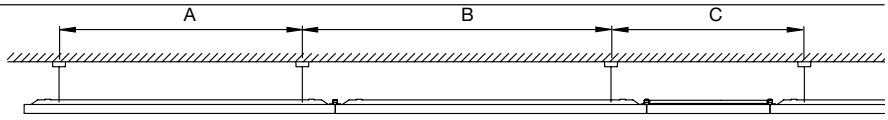
Code	Item
A0679	5 pole rectangular rose (no cable) WH

3F Travetta LED

Installations

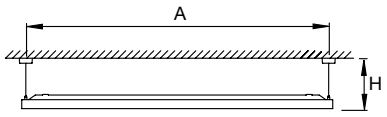
Mounting with fixed suspension H = 300-500-1000mm

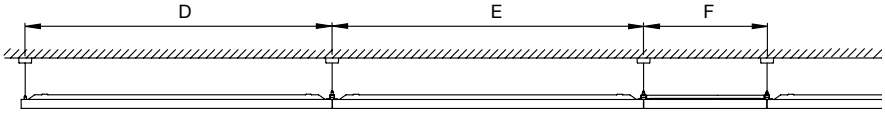




Versions	A	Connecting bracket code	B	Connecting element code	C
3F Travetta 1290	1200	A0875	1290	A0892	280
				A0894	300
				A0895	600
				A0896	900
				A0897	1200
3F Travetta 1590	1200	A0875	1590	A0892	580
				A0894	600
				A0895	900
				A0896	1200
				A0897	1500
3F Travetta 2200	1800	A0875	2200	A0892	590
				A0894	610
				A0895	910
				A0896	1210
				A0897	1510

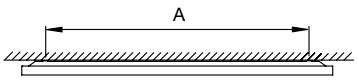
Mounting with adjustable suspension H max 1000mm

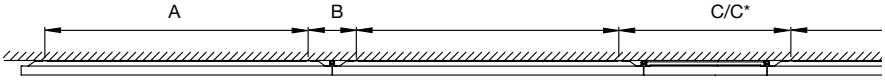




Versions	A	Connecting bracket code	D	E	Connecting element code	F
3F Travetta 1290	1250	A0875	1270	1290	A0892	190
					A0894	210
					A0895	510
					A0896	810
					A0897	1110
3F Travetta 1590	1550	A0875	1570	1590	A0892	190
					A0894	210
					A0895	510
					A0896	810
					A0897	1110
3F Travetta 2200	2160	A0875	2180	2200	A0892	190
					A0894	210
					A0895	510
					A0896	810
					A0897	1110

Ceiling mounting

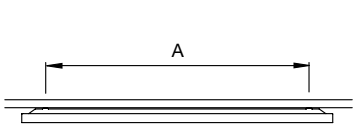


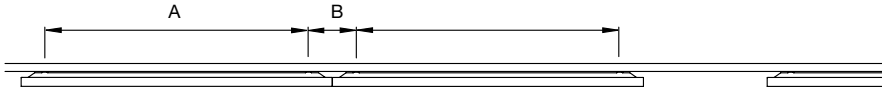


Versions	A	Connecting bracket code	B	Connecting element code	C	C*
3F Travetta 1290 (C)	1075	A0875	215	A0892	405	
3F Travetta 1590 (C)	1375	A0875	215	A0892	405	690
3F Travetta 2200 (C*)	1700	A0875	500	A0894	425	710
				A0895	725	1010
				A0896	1025	1310
				A0897	1325	1610

Installation on 3F Linux system

This type of installation avoids the use of connecting elements for 3F Travetta direct version.

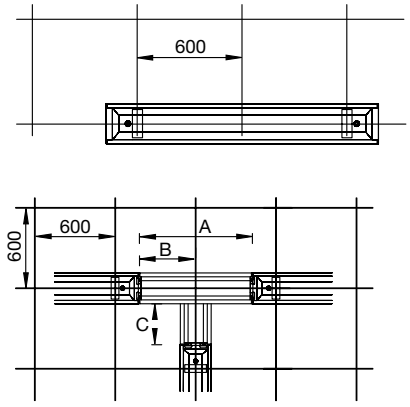




Versions	A	B
3F Travetta 1290	1075	215
3F Travetta 1590	1375	215
3F Travetta 2200	1700	500

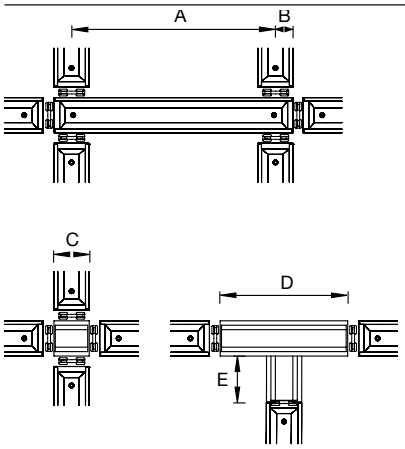
Installation to false ceiling with exposed structure 600x600 - 600x1200

For this type of installation only fixed suspensions are to be used.



	Linear connecting elements codes				Connecting elements for branches codes	
	A0894	A0895	A0896	A0897	A0951	A0952
Versions	A	A	A/B	A/B	C	C
3F Travetta 1290		510		1110/505		460
3F Travetta 1590	210		810/405		310	

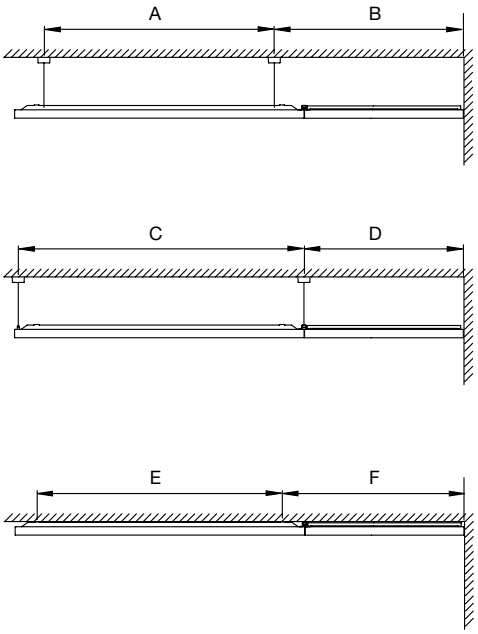
Formation of composition or branch



Versions	A	B
3F Travetta 1290	1100	95
3F Travetta 1590	1400	95

Linear connecting elements codes					Connecting elements for branches codes	
A0892	A0894	A0895	A0896	A0897	A0951	A0952
C	D	D	D	D	E	E
190	210	510	810	1110	310	460

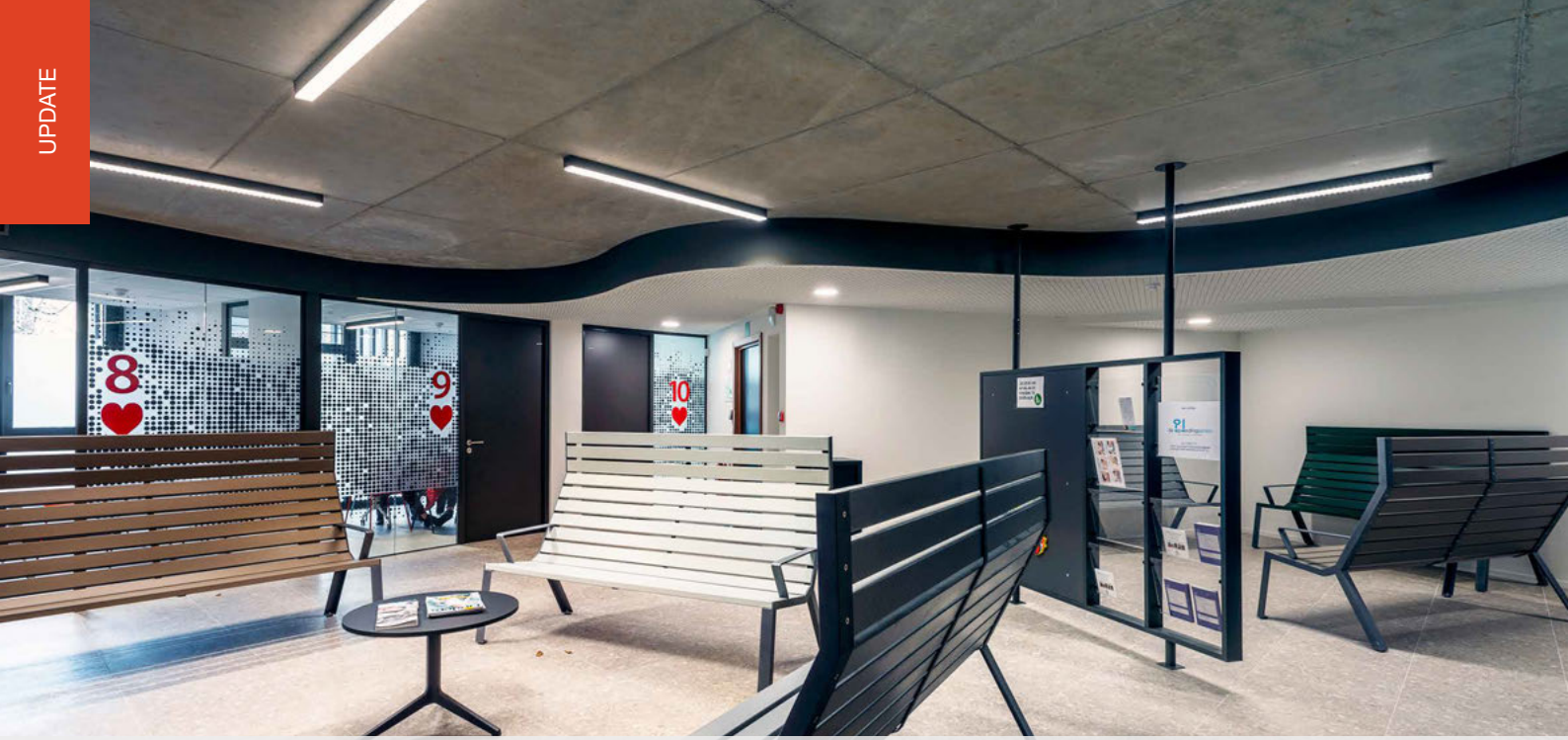
Wall power-supply



Fixed suspension Versions	A	Connecting bracket code	B
3F Travetta 1290	1200	A0941 A0942	855 1155
3F Travetta 1590	1200	A0941 A0942	1005 1305
3F Travetta 2200	1800	A0941 A0942	1010 1310

Adjustable suspension Versions	C	Connecting bracket code	D
3F Travetta 1290	1270	A0941 A0942	810 1110
3F Travetta 1590	1570	A0941 A0942	810 1110
3F Travetta 2200	2180	A0941 A0942	810 1110

Ceiling mounting Versions	E	Connecting bracket code	F
3F Travetta 1290	1075	A0941 A0942	918 1218
3F Travetta 1590	1375	A0941 A0942	918 1218
3F Travetta 2200	1700	A0941 A0942	1060 1360



3F Zeta L

Construction characteristics

Illuminotechnical characteristics
Wide, direct and asymmetric controlled distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).
L UGR version
Average luminance <3000 cd/m² for radial angles >65°.

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
End caps in white polycarbonate.
Stainless steel mounting brackets with anti-slip screws.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

Source characteristics

- LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 598)
- HACCP versions for use in the food industry
- IP54 version
- emergency versions

Applications

Environments: architectural, commercial, transit areas, cornices, boards.
L UGR version
Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

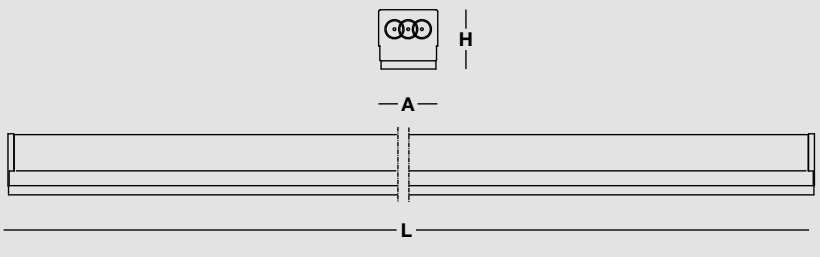
Installation

Ceiling, suspension or wall installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

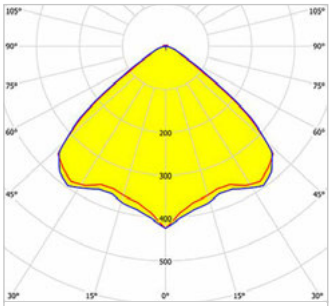
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 191.

3F Zeta L



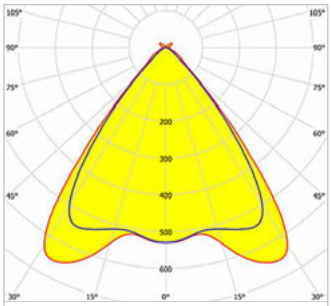
Code 10892 L<3000 cd/m² 65°

EP | D | 650°C | IP40 | IK06 | HACCP

Lenses for wide distribution, in transparent PMMA with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10894	3F Zeta L 15 LED L605	17.5	2749	4000	>80	605x62x65
10893	3F Zeta L 30 LED L1194	33	5498	4000	>80	1194x62x65
10892	3F Zeta L 40 LED L1489	40	6872	4000	>80	1489x62x65
10891 NEW	3F Zeta L 50 LED L1783	50	8247	4000	>80	1783x62x65
DALI electronic wiring 230V-50/60Hz						
10977	3F Zeta L 30 LED DALI L1194	33	5498	4000	>80	1194x62x65
10976	3F Zeta L 40 LED DALI L1489	40	6872	4000	>80	1489x62x65
10975 NEW	3F Zeta L 50 LED DALI L1783	50	8247	4000	>80	1783x62x65
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
10988	3F Zeta L 40 LED EP L1489	41	6872	4000	>80	1489x62x65
10987 NEW	3F Zeta L 50 LED EP L1783	51	8247	4000	>80	1783x62x65

3F Zeta L UGR



Code 10864 L<3000 cd/m² 65°

EP | D | 650°C | IP40 | 1J | IK06 | HACCP

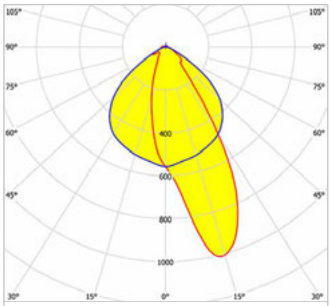
Average luminance <3000 cd/m² for radial angles >65°.
Transparent methacrylate controlled distribution lenses with flat external surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10864	3F Zeta L UGR 30 LED L1194	33	5481	4000	>80	1194x62x65
10840	3F Zeta L UGR 30/940 LED L1194	33	4494	4000	>90	1194x62x65
10863	3F Zeta L UGR 40 LED L1489	40	6851	4000	>80	1489x62x65
10839	3F Zeta L UGR 40/940 LED L1489	40	5618	4000	>90	1489x62x65
11026 NEW	3F Zeta L UGR 50 LED L1783	50	8221	4000	>80	1783x62x65
11027 NEW	3F Zeta L UGR 50/940 LED L1783	50	6742	4000	>90	1783x62x65
DALI electronic wiring 230V-50/60Hz						
10867	3F Zeta L UGR 30 LED DALI L1194	33	5481	4000	>80	1194x62x65
10842	3F Zeta L UGR 30/940 LED DALI L1194	33	4494	4000	>90	1194x62x65
10866	3F Zeta L UGR 40 LED DALI L1489	40	6851	4000	>80	1489x62x65
10841	3F Zeta L UGR 40/940 LED DALI L1489	40	5618	4000	>90	1489x62x65
11028 NEW	3F Zeta L UGR 50 LED DALI L1783	50	8221	4000	>80	1783x62x65
11029 NEW	3F Zeta L UGR 50/940 LED DALI L1783	50	6742	4000	>90	1783x62x65
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
10844	3F Zeta L UGR 30 LED EP L1194	34	5481	4000	>80	1194x62x65
10846	3F Zeta L UGR 30/940 LED EP L1194	34	4494	4000	>90	1194x62x65
10843	3F Zeta L UGR 40 LED EP L1489	41	6851	4000	>80	1489x62x65
10845	3F Zeta L UGR 40/940 LED EP L1489	41	5618	4000	>90	1489x62x65
11030 NEW	3F Zeta L UGR 50 LED EP L1783	51	8221	4000	>80	1783x62x65
11031 NEW	3F Zeta L UGR 50/940 LED EP L1783	51	6742	4000	>90	1783x62x65

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 191.

3F Zeta L AS



Code 10605

EP | D | 650°C | IP40 | 1J | IK06 | HACCP

Transparent methacrylate asymmetric distribution lenses with a flat external surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10605	3F Zeta L AS 40 LED L1489	40	6894	4000	>80	1489x62x65
DALI electronic wiring 230V-50/60Hz						
10606	3F Zeta L AS 40 LED DALI L1489	40	6894	4000	>80	1489x62x65
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
10607	3F Zeta L AS 40 LED EP L1489	41	6894	4000	>80	1489x62x65

3F Zeta D

Construction characteristics

Illuminotechnical characteristics
Diffused symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Curved screen in self-extinguishing polycarbonate, UV stabilised, opal, with smooth outer surface.
End caps in white polycarbonate.
Stainless steel mounting brackets with anti-slip screws.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 598)
- class II
- emergency versions

Applications

Environments: architectural, commercial, transit areas, cornices, large mirrors, boards.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

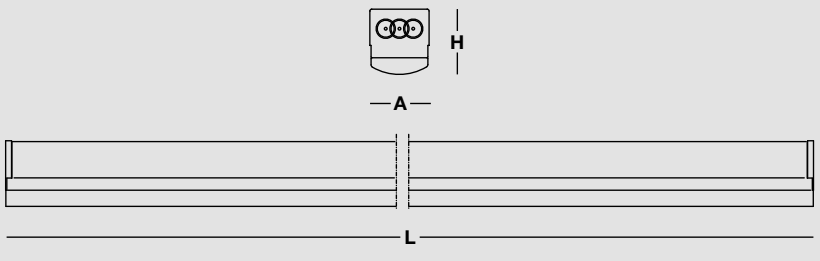
Installation

Ceiling, suspension or wall installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

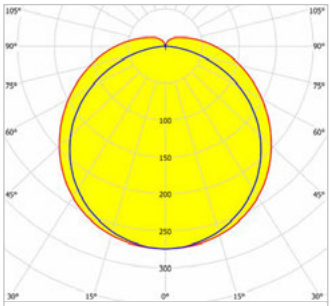
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 191.

3F Zeta D



Code 10873

EP | D | 850°C | IP40 | 1J | IK06 | Driver/LED SELV | HACCP

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10872	3F Zeta D 1x9 LED L605	10	1247	4000	>80	605x62x81
10871	3F Zeta D 1x18 LED L1194	20	2494	4000	>80	1194x62x81
10875	3F Zeta D 2x9 LED L605	20	2495	4000	>80	605x62x81
10870	3F Zeta D 1x22 LED L1489	24.5	3118	4000	>80	1489x62x81
10874	3F Zeta D 2x18 LED L1194	40	4988	4000	>80	1194x62x81
10873	3F Zeta D 2x22 LED L1489	49	6236	4000	>80	1489x62x81
DALI electronic wiring 230V-50/60Hz						
10962	3F Zeta D 1x18 LED DALI L1194	20	2494	4000	>80	1194x62x81
10961	3F Zeta D 1x22 LED DALI L1489	24.5	3118	4000	>80	1489x62x81
10965	3F Zeta D 2x18 LED DALI L1194	40	4988	4000	>80	1194x62x81
10964	3F Zeta D 2x22 LED DALI L1489	49	6236	4000	>80	1489x62x81
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
10980	3F Zeta D 1x22 LED EP L1489	25.5	3118	4000	>80	1489x62x81
10982	3F Zeta D 2x22 LED EP L1489	50	6236	4000	>80	1489x62x81

3F Zeta DR

Construction characteristics

Illuminotechnical characteristics
Diffused, direct and asymmetric controlled distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
End caps in white polycarbonate.
Stainless steel mounting brackets with anti-slip screws.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 598)
- class II
- emergency versions

Applications

Environments: architectural, commercial, transit areas, cornices, large mirrors, boards.
UGR version
Environments: exhibition areas, staterooms, with VDTs, halls, shops, great halls, offices.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

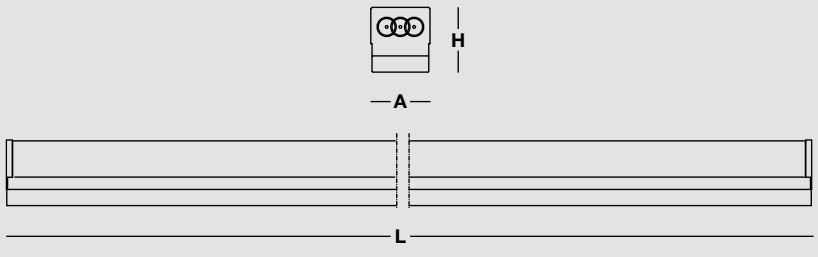
Installation

Ceiling, suspension or wall installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

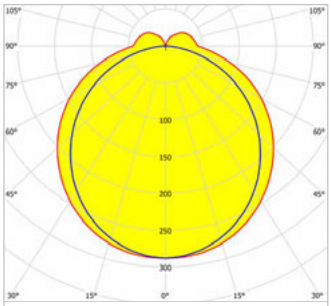
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 191.

3F Zeta DR



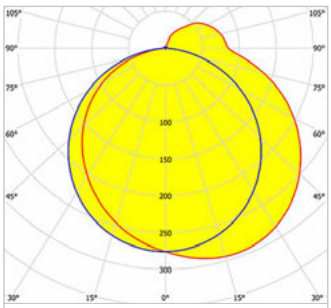
Code 10880

EP | D | 850°C | IP40 | 1J | IK06 | Driver/LED SELV | HACCP

Diffused symmetric distribution.
Rectangular screen in self-extinguishing polycarbonate, UV stabilised, opal, with smooth outer surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10879	3F Zeta DR 1x9 LED L605	10	1251	4000	>80	605x62x81
10878	3F Zeta DR 1x18 LED L1194	20	2500	4000	>80	1194x62x81
10882	3F Zeta DR 2x9 LED L605	20	2501	4000	>80	605x62x81
10877	3F Zeta DR 1x22 LED L1489	24.5	3126	4000	>80	1489x62x81
10881	3F Zeta DR 2x18 LED L1194	40	5001	4000	>80	1194x62x81
10880	3F Zeta DR 2x22 LED L1489	49	6253	4000	>80	1489x62x81
DALI electronic wiring 230V-50/60Hz						
10968	3F Zeta DR 1x18 LED DALI L1194	20	2500	4000	>80	1194x62x81
10967	3F Zeta DR 1x22 LED DALI L1489	24.5	3126	4000	>80	1489x62x81
10971	3F Zeta DR 2x18 LED DALI L1194	40	5001	4000	>80	1194x62x81
10970	3F Zeta DR 2x22 LED DALI L1489	49	6253	4000	>80	1489x62x81
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
10984	3F Zeta DR 1x22 LED EP L1489	25.5	3126	4000	>80	1489x62x81
10986	3F Zeta DR 2x22 LED EP L1489	50	6253	4000	>80	1489x62x81

3F Zeta DR AS



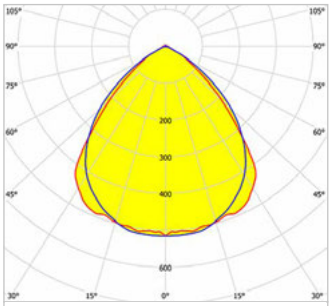
Code 10887

D | 850°C | IP40 | 1J | IK06 | Driver/LED SELV | HACCP

Asymmetric distribution.
Rectangular screen in self-extinguishing polycarbonate, UV stabilised, opal, with smooth outer surface.
Internal recuperator in white painted steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10886	3F Zeta DR AS 1x30 LED L1489	34	3451	4000	>80	1489x62x81
10887	3F Zeta DR AS 2x22 LED L1489	49	5096	4000	>80	1489x62x81
DALI electronic wiring 230V-50/60Hz						
10973	3F Zeta DR AS 1x30 LED DALI L1489	34	3451	4000	>80	1489x62x81
10974	3F Zeta DR AS 2x22 LED DALI L1489	49	5096	4000	>80	1489x62x81

3F Zeta DR UGR



Code 10998 L<1500 cd/m² 65°

EP | D | 850°C | IP40 | 1J | IK06 | Driver/LED SELV | HACCP

Controlled symmetric distribution.
1x - Average luminance <1500 cd/m² for radial angles >65°.
2x - Average luminance <3000 cd/m² for radial angles >65°.
Rectangular transparent polycarbonate diffuser.
Semi-specular aluminium internal louvre with prismatic methacrylate filter above the louvre blades for complete shielding of the louvre compartment.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10599	3F Zeta DR UGR 1x12 LED L605	14	1497	4000	>80	605x62x81
10598	3F Zeta DR UGR 2x9 LED L605	20	2144	4000	>80	605x62x81
10592	3F Zeta DR UGR 1x24 LED L1194	27	2786	4000	>80	1194x62x81
10998	3F Zeta DR UGR 1x30 LED L1783	34	3487	4000	>80	1783x62x81
10591	3F Zeta DR UGR 2x18 LED L1194	40	4287	4000	>80	1194x62x81
10997	3F Zeta DR UGR 2x22 LED L1783	49	5361	4000	>80	1783x62x81
11003	3F Zeta DR UGR 2x22/940 LED L1783	49	4396	4000	>90	1783x62x81
DALI electronic wiring 230V-50/60Hz						
10601	3F Zeta DR UGR 1x12 LED DALI L605	15	1497	4000	>80	605x62x81
10600	3F Zeta DR UGR 2x9 LED DALI L605	20	2144	4000	>80	605x62x81
10594	3F Zeta DR UGR 1x24 LED DALI L1194	27	2786	4000	>80	1194x62x81
11000	3F Zeta DR UGR 1x30 LED DALI L1783	34	3487	4000	>80	1783x62x81
10593	3F Zeta DR UGR 2x18 LED DALI L1194	40	4287	4000	>80	1194x62x81
10999	3F Zeta DR UGR 2x22 LED DALI L1783	49	5361	4000	>80	1783x62x81
11004	3F Zeta DR UGR 2x22/940 LED DALI L1783	49	4396	4000	>90	1783x62x81
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
11002	3F Zeta DR UGR 1x30 LED EP L1783	35	3487	4000	>80	1783x62x81
11001	3F Zeta DR UGR 2x22 LED EP L1783	50	5361	4000	>80	1783x62x81

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Zeta | Accessories

Suspension with regulator, galvanised steel cable 1.5 mm diameter, load 15 kg.

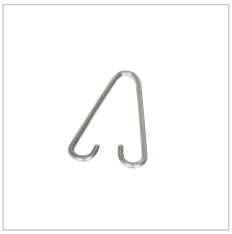
Code	Item
A0660	Suspension with adjustment - 1m
A0661	Suspension with adjustment - 2 m
A0662	Suspension with adjustment - 3 m
A0663	Suspension with adjustment - 4 m
A0664	Suspension with adjustment - 5 m
A0665	Suspension with adjustment - 6 m

Attention: each product requires two suspensions with regulator.

Caddy hook to create a point from which to suspend the system or the loads to false ceilings with visible profiles.

Code	Item
A02562	Caddy for exposed profiles of 24 mm

To be installed on exposed profiles (width 24 mm) of false ceilings. We recommend reinforcing the false-ceiling fixing at the point where the Caddy is to be installed. Supplied complete with nut and washer. The suspension must be purchased separately.
These accessories must ALWAYS be used with one of the following codes: A0660 - A0661 - A0662 - A0663 - A0664 - A0665.

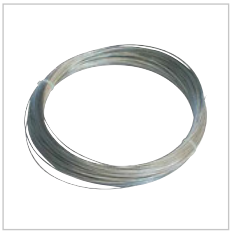


Hook to suspended luminaires to a chain.

Code	Item
A20452	Stainless steel hook for chain

Element to connect in hot-galvanised steel.

Code	Item
A20433	Linear connecting element



Galvanised steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

Code	Item
A0716	Coil galv. cable diam. 1.5mm - 100m The pack contains 100 metres.
A0717	Coil galv. cable diam. 1.5mm - 500m The pack contains 500 metres.
A0718	Coil galv. cable diam. 1.5mm - 1000m The pack contains 1000 metres.

These accessories must ALWAYS be used with one of the following codes: A20452 - A0714 - A0659.

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

Code	Item
A0714	Clamp 2 holes susp.- 100 pcs The pack contains 100 pieces.

Clamp suitable for fixing and adjustment of galvanised steel wire (diameter 1.5 mm), with quick adjustment through unlock buttons. The clamp with 2 holes allow to fix and adjust the cable on the carrier structural element (belonging to the building) or with eye screw fixing.

Code	Item
A0659	Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces.

This accessory can be used with one of the following codes: A0716 - A0717 - A0718.

Safety bracket in white painted steel to secure lighting elements if installed vertically.

Code	Item
A20478	Anti-slip term. incli. 3F Linux

This accessory must always be used in combination with end terminals.

Wall-mounting bracket, in white painted steel.

Code	Item
A0052	Wall-mounting brack

Electric supply with white polycarbonate case, internal bracket in galvanised steel.

Code	Item
A0679	5 pole rectangular rose (no cable) WH

3F Dìagon P

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <3000 cd/m² for angles >65°.
Colour temperature available /830 - /840, /930 - /940.
Lifetime (L95/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L80/B10): 80000 h. (tq+25°C)
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
White painted frame.
Height only 40 mm.
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Opal methacrylate rhomboid lenses with differentiated, engraved and prismatic surfaces for diffused, soft lighting and excellent visual comfort.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Quick connection.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- suspension installation
- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (more information on page 598)
- Sensor version
- transparent lens versions
- emergency versions

Applications

Environments: staterooms, with VDTs, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

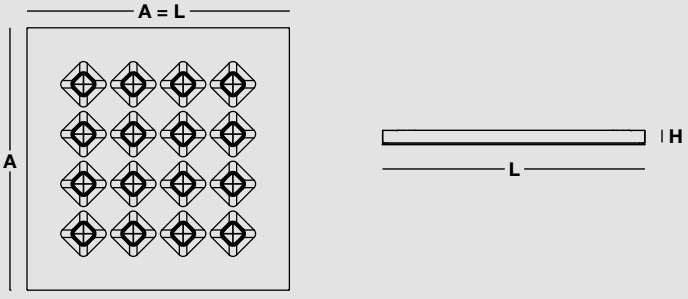
Installation

Ceiling installation.

Light Management

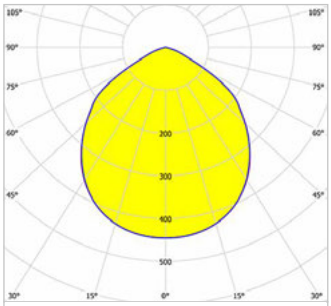
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Diagon P Soft UGR



Code 12126 L<3000 cd/m² 65°

EP | D | 650°C | IP20 | 1J | IK06

Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
12126	3F Diagon P 25W/830 SOFT UGR 596x596	28	3495	3000	>80	596x596x40
12130	3F Diagon P 25W/840 SOFT UGR 596x596	28	3679	4000	>80	596x596x40
12134	3F Diagon P 39W/930 SOFT UGR 596x596	40	3890	3000	>90	596x596x40
12138	3F Diagon P 39W/940 SOFT UGR 596x596	40	4116	4000	>90	596x596x40
DALI electronic wiring 230V-50/60Hz						
12127	3F Diagon P 25W/830 DALI SOFT UGR 596x596	28	3495	3000	>80	596x596x40
12131	3F Diagon P 25W/840 DALI SOFT UGR 596x596	28	3679	4000	>80	596x596x40
12135	3F Diagon P 39W/930 DALI SOFT UGR 596x596	40	3890	3000	>90	596x596x40
12139	3F Diagon P 39W/940 DALI SOFT UGR 596x596	40	4116	4000	>90	596x596x40
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
12128	3F Diagon P 25W/830 EP SOFT UGR 596x596	29	3495	3000	>80	596x596x40
12132	3F Diagon P 25W/840 EP SOFT UGR 596x596	29	3679	4000	>80	596x596x40
12136	3F Diagon P 39W/930 EP SOFT UGR 596x596	41	3890	3000	>90	596x596x40
12140	3F Diagon P 39W/940 EP SOFT UGR 596x596	41	4116	4000	>90	596x596x40

3F Dìagon P Tunable White

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <3000 cd/m² for angles >65°.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L95/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L80/B10): 80000 h. (tq+25°C)
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
White painted frame.
Height only 40 mm.
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Opal methacrylate rhomboid lenses with differentiated, engraved and prismatic surfaces for diffused, soft lighting and excellent visual comfort.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
Quick connection.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- suspension installation
- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit
- emergency versions

Applications

Any environments requiring light which aims for the wellness of people.
Environments: staterooms, with VDTs, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

Installation

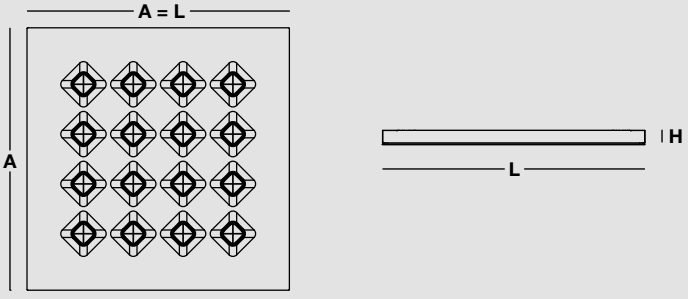
Ceiling installation.

Light Management

Thanks to the 3F HCL technology, our Tunable White products can be controlled by:

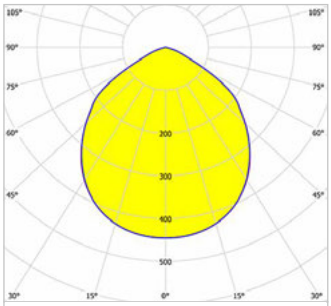
- Wired control systems (more information on page 592)
- 3F Bluetooth control systems (more information on page 594)

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Dìagon P Soft UGR Tunable White



Code 12142 L<3000 cd/m² 65°

650°C IP20 1J IK06

TW

Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI DT8 electronic wiring 230V-50/60Hz						
12142	3F Diagon P 25W DT8 TW SOFT UGR 596x596	30 29 28	3198	2700 4000 6500	>80	596x596x40

3F Petra LED

Construction characteristics

Illuminotechnical characteristics
Diffuse distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in
self-extinguishing V2 polycarbonate, UV stabilised, injection moulded, glazed.
Ecologic anti-aging injected sealing gasket.
Diffuser in opal PMMA, injection moulded.
Gear-tray reflector unit in aluminium, painted in white epoxy-polyester, fixed to the housing by quick-fastening steel devices, hinged opening.
Snug fit safety snap-lock clips for diffuser mounting in transparent polycarbonate, screwdriver opening.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Entry for power-supply cable at the top by means of sealing grommet or lateral after drilling.

Source characteristics

- Circular LED module.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- wiring: CLO (more information on page 598)
- LED module with different power levels, colour temperatures and colour rendering index
- emergency versions

Applications

Environments: architectural, transit areas, lobbies or waiting rooms, stairwells.
Environments where ceiling indirect lighting and direct lighting supply a visual comfort.
Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
Completely insect and dust proof.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

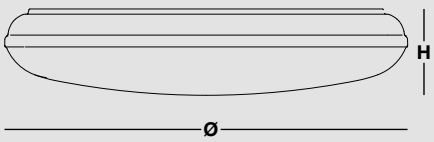
Installation

Wall or ceiling installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

Light Management

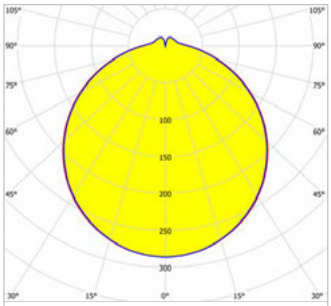
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Petra LED



Code 34330

EP

675°C

IP64
300-380

IP65
620

0,2J

IK02

Driver/LED
SELV

HACCP

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz						
34229	3F Petra OP 300 12W LED	14	1660	4000	>80	300x120
34234	3F Petra OP 300 12W/940 LED	14	1361	4000	>90	300x120
34330	3F Petra OP 380 22W LED	25	2978	4000	>80	380x117
34335	3F Petra OP 380 22W/940 LED	25	2442	4000	>90	380x117
34407	3F Petra OP 620 50W LED	53	5955	4000	>80	620x134
DALI electronic wiring 230V-50/60Hz						
34230	3F Petra OP 300 12W LED DALI	14	1660	4000	>80	300x120
34235	3F Petra OP 300 12W/940 LED DALI	14	1361	4000	>90	300x120
34331	3F Petra OP 380 22W LED DALI	25	2978	4000	>80	380x117
34336	3F Petra OP 380 22W/940 LED DALI	25	2442	4000	>90	380x117
34408	3F Petra OP 620 50W LED DALI	52	5955	4000	>80	620x134
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
34231	3F Petra OP 300 12W LED EP	15	1660	4000	>80	300x120
34236	3F Petra OP 300 12W/940 LED EP	15	1361	4000	>90	300x120
34332	3F Petra OP 380 22W LED EP	26	2978	4000	>80	380x117
34337	3F Petra OP 380 22W/940 LED EP	26	2442	4000	>90	380x117
34409	3F Petra OP 620 50W LED EP	54	5955	4000	>80	620x134

3F Petra LED Sensor

Construction characteristics

Illuminotechnical characteristics
Diffuse distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in
self-extinguishing V2 polycarbonate, UV stabilised, injection moulded, glazed.
Ecologic anti-aging injected sealing gasket.
Diffuser in opal PMMA, injection moulded.
Gear-tray reflector unit in aluminium, painted in white epoxy-polyester, fixed to the housing by quick-fastening steel devices, hinged opening.
Snug fit safety snap-lock clips for diffuser mounting in transparent polycarbonate, screwdriver opening.

Electrical characteristics
In compliance with EN 60598-1.
Entry for power-supply cable at the top by means of sealing grommet or lateral after drilling.
Sensor mode: turns on and off depending on persons present.
Integrated presence sensor with ON/OFF function.

Source characteristics

- Circular LED module.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- 3F Petra OP 620 50W Sensor
- LED module with different power levels, colour temperatures and colour rendering index
- emergency versions

Applications

Environments: architectural, transit areas, lobbies or waiting rooms, stairwells.
Environments where ceiling indirect lighting and direct lighting supply a visual comfort.
Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
Completely insect and dust proof.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

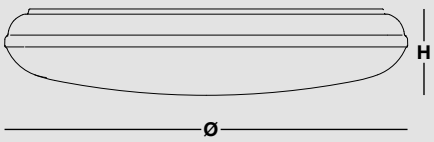
Installation

Wall or ceiling installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

Light Management

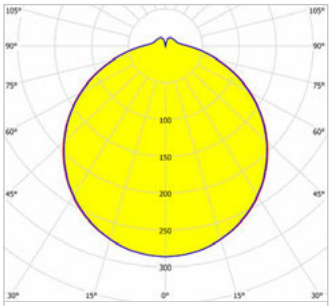
For more information on 3F Sensor technology, refer to the specific chapter in the "Light Management" section.

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Petra LED Sensor



Code 34334

675°C | IP64 | 0,2J | IK02 | Driver/LED SELV | HACCP

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz						
34233	3F Petra OP 300 12W LED Sensor	15	1660	4000	>80	300x120
34334	3F Petra OP 380 22W LED Sensor	26	2978	4000	>80	380x117

3F Petra LED Suspended

Construction characteristics

Illuminotechnical characteristics
Diffuse distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in self-extinguishing V2 polycarbonate, UV stabilised, injection moulded, glazed.
Ecologic anti-aging injected sealing gasket.
Diffuser in opal PMMA, injection moulded.
Gear-tray reflector unit in aluminium, painted in white epoxy-polyester, fixed to the housing by quick-fastening steel devices, hinged opening.
Snug fit safety snap-lock clips for diffuser mounting in transparent polycarbonate, screwdriver opening.
Adjustable suspension with Rose in white polycarbonate, with stainless steel cables, 2 m long.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Entry for power-supply cable at the top by means of double-membrane sealing grommet, or side-entry after drilling.
Transparent 5x1.5 mm² power-supply cable.

Source characteristics

- Circular LED module.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- wiring: dimmable, CLO (more information on page 598)
- LED module with different power levels, colour temperatures and colour rendering index
- emergency versions

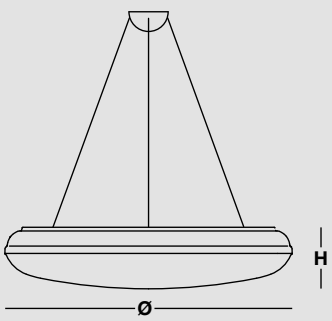
Applications

Environments: transit areas, great halls. Environments where ceiling indirect lighting and direct lighting supply a visual comfort. Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials. Completely insect and dust proof.

Installation

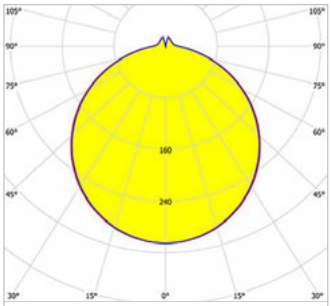
Suspension installation.

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Petra LED Suspended



Code 34411

675°C | IP65 | 0,2J | IK02 | Driver/LED SELV

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz						
34411	3F Petra OP 620 50W LED SO	53	5955	4000	>80	620x134

P 200 LED

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <1000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
2US parabolic louvre in semi-glossy aluminium with transverse blades closed at the top and prismatic PMMA diffusers for total shielding of the louvre compartment.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.

10W version
- Colour initial tolerance (MacAdam): SDCM 2.

24W, 30W versions
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- parabolic louvres 2M, 2MG, 3AO
- different power levels, colour rendering indices and colour temperatures
- housing in RAL colours
- wiring: dimmable, CLO (more information on page 598)
- emergency versions

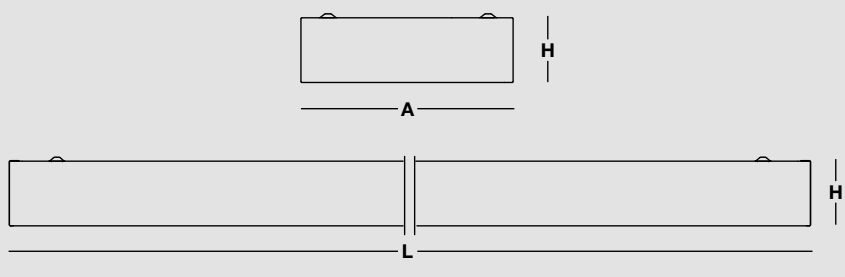
Applications

Environments: with VDTs, schools, offices.

Installation

Ceiling mounted installation.

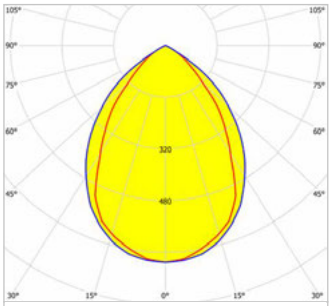
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 207.

P 200 LED 2US



Code 12680 L<1000 cd/m² 65°

650°C IP20 Driver/LED SELV HACCP

Average luminance <1000 cd/m² for radial angles >65°.
2US parabolic louvre in semi-glossy aluminium, anti-glare, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
12675	P 201x30W LED 2US 156x1531	34	3529	4000	>80	1531x156x82
12692	P 203x10W LED 2US 596x596	34	3748	4000	>80	596x596x82
12687	P 202x24W LED 2US 270x1231	54	5531	4000	>80	1231x270x82
12680	P 202x24W LED 2US 196x1231	54	5871	4000	>80	1231x196x82
12689	P 202x30W LED 2US 270x1531	66	6922	4000	>80	1531x270x82
12682	P 202x30W LED 2US 196x1531	66	7348	4000	>80	1531x196x82

P 200 LED IP54

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).
VS version
3x - Average luminance <1500 cd/m² for radial angles >65°.
4x - Average luminance <3000 cd/m² for radial angles >65°.

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.

10W version
- Colour initial tolerance (MacAdam): SDCM 2.

24W version
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- wiring: dimmable, CLO (more information on page 604)
- emergency versions

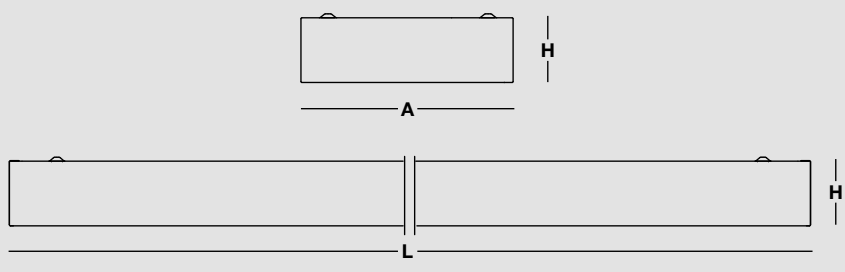
Applications

Environments: sterilized, aseptic.
Particularly suitable for environments where protection against water and dust is required, such as hospitals, pharmaceutical and chemical laboratories.
In environments with foodstuffs or machines with moving parts, with considerable sudden temperature changes, and in general in any environments requiring total protection against falling fragments, use the P 200 LED IP54 SP PC version (polycarbonate diffuser) available on request.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.
SP version
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

Installation

Ceiling mounted installation.

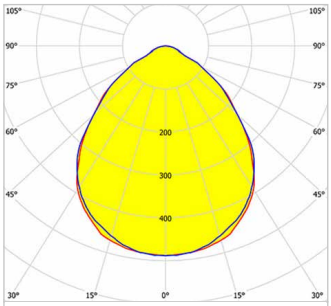
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 207.

P 200 LED IP54 VS



Code 10852 L<3000 cd/m² 65°

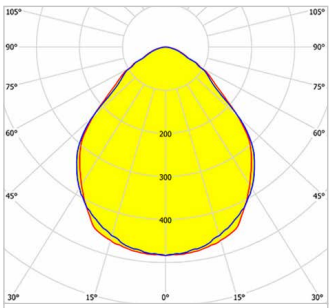
CE | SAFE FLICKER | D | 960°C | IP54 | 5J | IK08

Driver/LED SELV

3x - Average luminance <1500 cd/m² for radial angles >65°.
4x - Average luminance <3000 cd/m² for radial angles >65°.
VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm, locked to the white painted aluminium perimetrical frame, sealing gasket, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10851	P 203x10W LED VS IP54 596x596	34	3986	4000	>80	596x596x82
10852	P 204x10W LED VS IP54 596x596	45	5253	4000	>80	596x596x82
10848	P 202x24W LED VS IP54 196x1231	54	6302	4000	>80	1231x196x82

P 200 LED IP54 SP



Code 10860 L<3000 cd/m² 65°

CE | SAFE FLICKER | D | 650°C | IP54 | 1J | IK06

Driver/LED SELV

SP transparent PMMA diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10859	P 203x10W LED SP IP54 596x596	34	4142	4000	>80	596x596x82
10860	P 204x10W LED SP IP54 596x596	45	5474	4000	>80	596x596x82
10856	P 202x24W LED SP IP54 196x1231	54	6567	4000	>80	1231x196x82

P 200 | Accessories

Wall-mounting bracket, in white painted steel.

Accessory compatible with 156 mm or 196 mm wide versions.

Code	Item
A0052	Wall-mounting brack

P 250 LED

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).
SP version
Average luminance <3000 cd/m² for radial angles >65°.
LGS version
Average luminance <1500 cd/m² for radial angles >65°.

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Height only 55 mm.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.

10W version
- Colour initial tolerance (MacAdam): SDCM 2.

24W, 30W versions
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- wiring: dimmable, CLO (more information on page 598)
- emergency versions

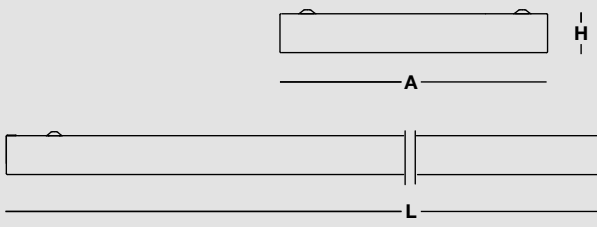
Applications

Particularly suitable for low height environments.
SP version
Environments: with VDTs, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.
OP version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.
LGS version
Environments: with video terminals, representative areas, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.

Installation

Ceiling mounted installation.

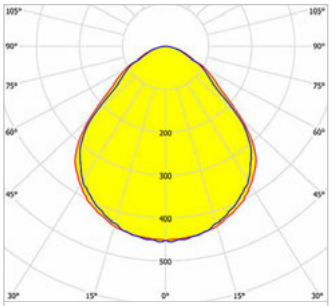
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 213.

P 250 LED SP



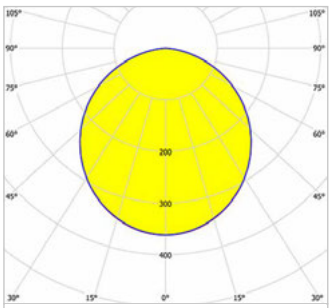
Code 12824 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
SP transparent PMMA diffuser, prismatic, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
12824	P 253x10W LED SP 596x596	34	4360	4000	>80	596x596x55
12815	P 251x30W LED SP 156x1531	34	4364	4000	>80	1531x156x55
12826	P 254x10W LED SP 596x596	45	5765	4000	>80	596x596x55
12820	P 252x24W LED SP 196x1231	54	6916	4000	>80	1231x196x55
12822	P 252x30W LED SP 196x1531	66	8655	4000	>80	1531x196x55

P 250 LED OP



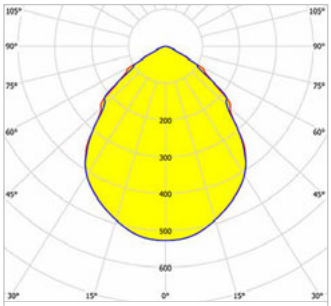
Code 12844

650°C | IP40 | 5J | IK08 | Driver/LED SELV

OP opal PMMA flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame with sealing gasket, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
12844	P 253x10W LED OP 596x596	34	4080	4000	>80	596x596x55
12835	P 251x30W LED OP 156x1531	34	4084	4000	>80	1531x156x55
12846	P 254x10W LED OP 596x596	45	5405	4000	>80	596x596x55
12840	P 252x24W LED OP 196x1231	54	6484	4000	>80	1231x196x55
12842	P 252x30W LED OP 196x1531	66	8116	4000	>80	1531x196x55

P 250 LED LGS



Code 12864 L<1500 cd/m² 65°

650°C IP40 1J IK06

Driver/LED SELV

Average luminance <1500 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
12864	P 253x10W LED LGS 596x596	34	3696	4000	>80	596x596x55
12855	P 251x30W LED LGS 156x1531	34	3700	4000	>80	1531x156x55
12866	P 254x10W LED LGS 596x596	45	4894	4000	>80	596x596x55
12860	P 252x24W LED LGS 196x1231	54	5871	4000	>80	1231x196x55
12862	P 252x30W LED LGS 196x1531	66	7348	4000	>80	1531x196x55

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

UPDATE

P 250 LED Diffused Light

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L90/B20): 30000 h. (tq+25°C)
Lifetime (L80/B20): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).
LGS version
Average luminance <1500 cd/m² for radial angles >65°.

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Height only 55 mm.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- housing in different RAL colours
- emergency versions

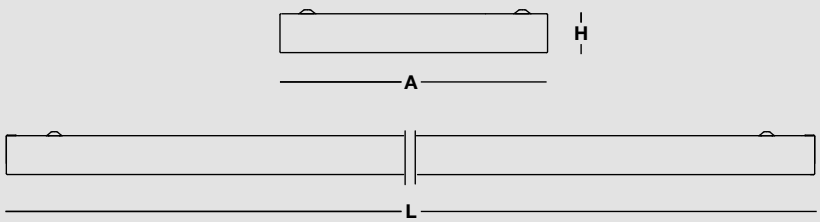
Applications

Particularly suitable for low height environments.
LGS version
Environments: with video terminals, representative areas, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.
OP version
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

Installation

Ceiling mounted installation.

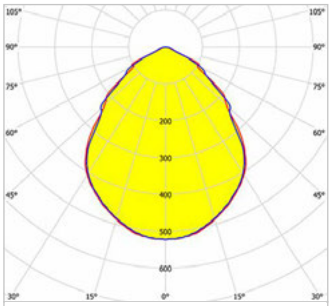
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 213.

P 250 LED Diffused Light LGS



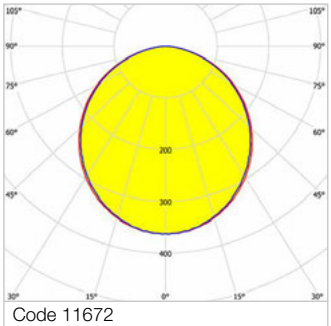
Code 11686 L<1500 cd/m² 65°

650°C | IP40 | 1J | IK06 | Driver/LED SELV

Average luminance <1500 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare, locked to the white painted aluminium perimeter frame, hinged opening.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10048 UPDATE	P 250 28W LED LGS 596x596	31	3707	4000	>80	596x596x55
DALI electronic wiring 230V-50/60Hz						
10049 UPDATE	P 250 28W LED DALI LGS 596x596	31	3707	4000	>80	596x596x55

P 250 LED Diffused Light OP



Code 11672

650°C | IP40 | 5J | IK08 | Driver/LED SELV

OP opal PMMA flat diffuser, anti-glare, locked to the pre-painted white aluminium perimeter frame, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
10051 UPDATE	P 250 28W LED OP 596x596	31	4083	4000	>80	596x596x55
DALI electronic wiring 230V-50/60Hz						
10053 UPDATE	P 250 28W LED DALI OP 596x596	31	4083	4000	>80	596x596x55

P 250 | Accessories

Wall-mounting bracket, in white painted steel.

Accessory compatible with 156 mm or 196 mm wide versions.

Code	Item
A0052	Wall-mounting brack

UPDATE

Mira Wall LED

Construction characteristics

Illuminotechnical characteristics
Asymmetric indirect distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester with reticular slots for high direct light emission.
Flow recuperator in specular aluminium with superficial titanium-magnesium treatment.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- housing in different RAL colours
- wiring: dimmable, CLO (more information on page 598)
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: transit areas, lobbies or waiting rooms, corridors, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.

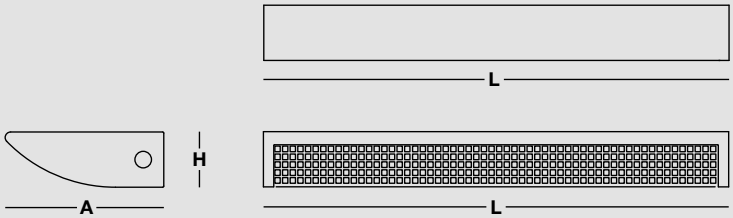
Installation

Wall installation.
Thanks to the full compatibility of dimensions, fixing spacing and accessories with the previous fluorescent version, this product becomes the perfect solution for updating existing installations.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

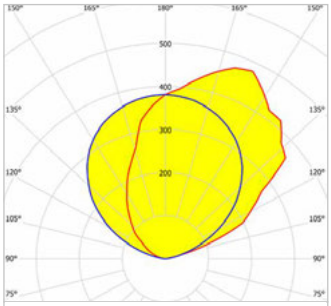
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 215.

Mira Par LED Ind



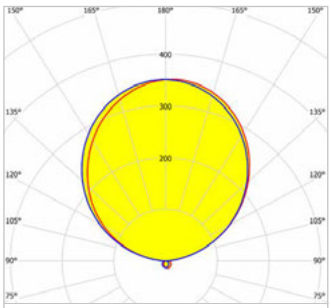
Code 1959

CE | SAFE FLICKER | D | 850°C | IP40 | Driver/LED SELV

Indirect lighting.
Upper closing diffuser in selfextinguishing V2 transparent polycarbonate, UV stabilised.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
1959	MIRA PAR LED 4x12W IND L675	56	6453	4000	>80	675x230x80
DALI electronic wiring 230V-50/60Hz						
1960 NEW	Mira Par LED 4x12W DALI IND L675	54	6453	4000	>80	675x230x80

Mira Par LED Dec



Code 1961 L<1000 cd/m² 65°

CE | SAFE FLICKER | D | 650°C | IP40 | Driver/LED SELV

Average luminance <1000 cd/m² for radial angles >65°.
Indirect and direct decorative lighting.
Body with reticular slots.
Opal acrylic upper diffuser.
Opal polycarbonate Inlay Cover for perforated housings.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
1961	MIRA PAR LED DE 4x12W L675	56	6321	4000	>80	675x230x80
DALI electronic wiring 230V-50/60Hz						
1963 NEW	Mira Par LED DE 4x12W DALI L675	54	6321	4000	>80	675x230x80

Mira | Accessories

5-pole terminal block, connection capacity from 2.5 to 6 mm², on galvanised steel bracket for cascade connection lines.

Code	Item
A0090	Bracket/5-pole terminal block

UPDATE

3F Emilio Wall

Construction characteristics

Illuminotechnical characteristics
Diffused symmetric distribution.
Lifetime (L90/B20): 30000 h. (tq+25°C)
Lifetime (L80/B20): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Mechanical characteristics
Gear-tray casing in white painted aluminium for ceiling or wall installation.
Single-piece in die-cast aluminium with passive dissipation, white colour, with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.
Invisible lock for positioning the luminous flux.
PMMA opal methacrylate lens.
Positioning arm in galvanised brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 290°.

Electrical characteristics
In compliance with EN 60598-1.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- LED module with different power levels, colour temperatures and colour rendering index
- housing in different RAL colours
- dimmable wiring

Applications

Environments: commercial, museums, shops.
Environments: transit areas, lobbies or waiting rooms, corridors, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.

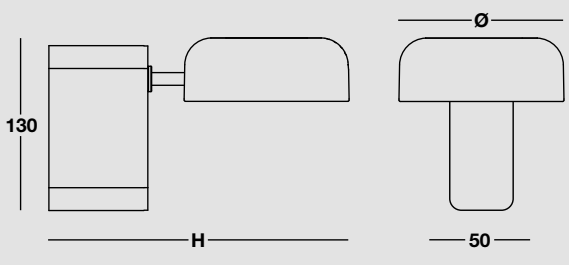
Installation

Wall or ceiling installation.
In cases where the body of the luminaire is facing the ceiling (for indirect lighting), to maintain high luminous efficiency we recommend cleaning the lens regularly.

Light Management

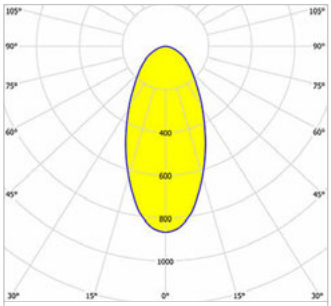
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Emilio Wall



Code 47509

650°C | IP20 | 0,2J | IK02 | Driver/LED SELV

PMMA opal methacrylate lens.

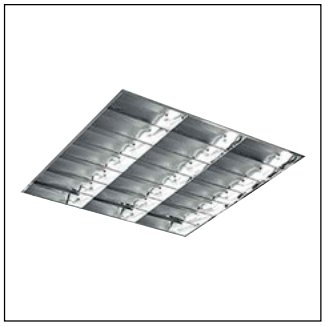
Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
47509	3F Emilio P LED 3000/840	50°	28	2844	4000	>80	130x156
DALI electronic wiring 230V-50/60Hz							
47532 NEW	3F Emilio P LED 3000/840 DALI	50°	28	2844	4000	>80	130x156

3F Six R

3F LED Panel

3F Dìagon

L 320



L 340

L 350

L 360

L 480

L 560

L 600

L 650

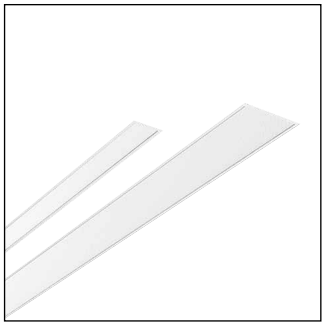
3F Reno

Galassia

Lucequadro

3F Emilio R

3F HD R

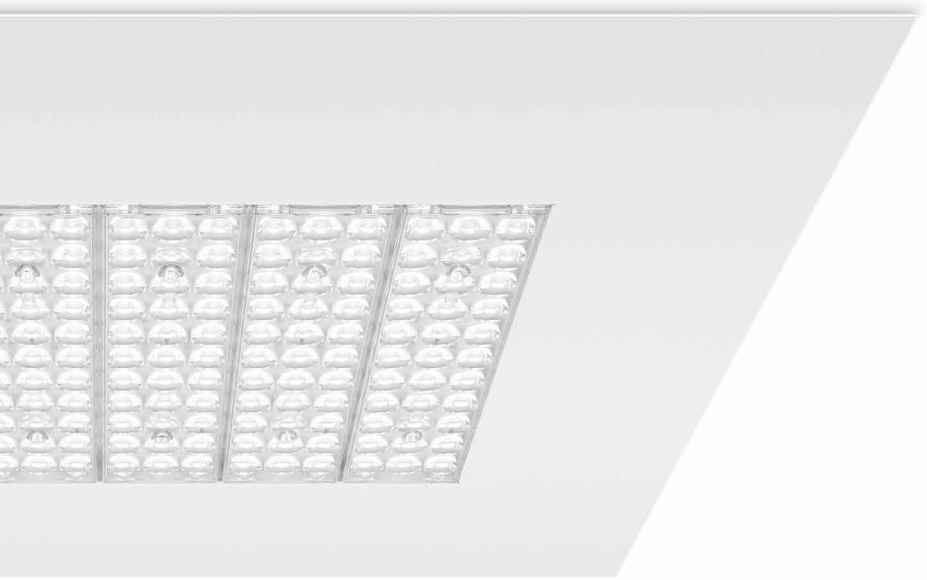


3F Eldorado

Recessed luminaires

Page		Product	Lay-installation	Pull-up installation	Sterile environments	Slat ceiling
221		**3F Six R**				
224		3F Six R	•	with accessory		
229		**3F LED Panel**				
230	UPDATE	3F LED Panel	•			
235		**3F Dìagon**				
242	UPDATE	3F Dìagon | Lay-in installation	•			
246		3F Dìagon Tunable White | Lay-in installation	•			
250		3F Dìagon | Pull-up installation		•		
256		**L 320**				
256	UPDATE	L 320 LED	•	with accessory		
267		**L 340**				
268		L 340 Diffused Light	•	with accessory		
272		L 340 Lite	•	with accessory		
274		L 340 Tunable White	•	with accessory		
278		**L 350**				
278		L 350 LED	•	with accessory		
282		**L 360**				
282		L 360	•			
284		**L 480**				
284		L 480		•		
288		**L 560**				
288		L 560 LED				•
292		**L 600**				
292	NEW	L 600 Diffused Light	•	•	•	
300		**L 650**				
300	NEW	L 650 Diffused Light	•	•	•	
305		**3F Reno**				
310		3F Reno White		downlight		
318		3F Reno Black		downlight		
326		**Galassia**				
326		Galassia 220		downlight		
334		**Lucequadro**				
334		Lucequadro LED		downlight		
338		**3F Emilio R**				
338		3F Emilio R		downlight		


GELATI
GELATI
GELATI
GELATI
GELATI
2,09
1,73
1,16
1,79 €
MISTER POLARETTO
www.polaretti.it



3F Six R

> www.3F-Filippi.com/3F Six R

3F Six R is the new recessed luminaire particularly suitable for shopping centres, exhibition areas and warehouses with important installation heights.
Thanks to the use of six methacrylate optical lenses installed on the fixture is it possible to obtain customised luminous distribution by choosing from the three types of optics available: wide, medium and UGR.
The latter configuration, designed to be used in environments with more stringent vision requirements or where there are VDTs, uses lenses with controlled luminance and a UGR<19 glare index.
3F Six R is available in a version with ON/OFF wiring or DALI control to manage the fixture and the energy consumption of the entire lighting system.

This product is also available in this version 3F Six (page 385).

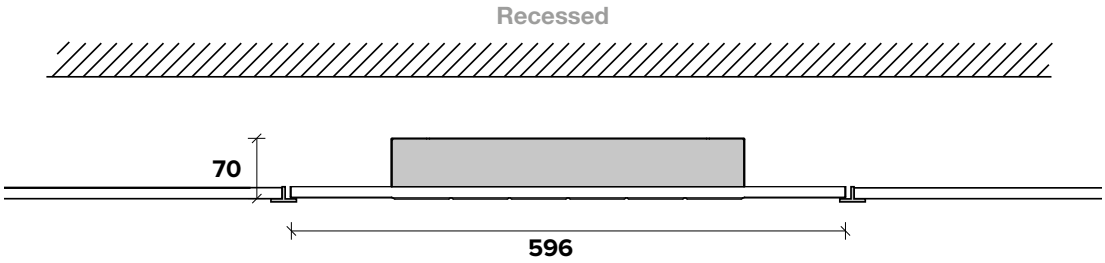
+ Overview

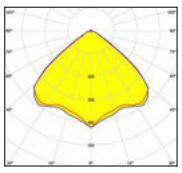
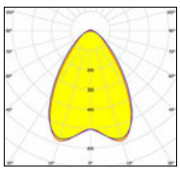
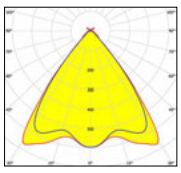
- Luminous efficacy up to 154 lumen/watt.
- Luminous fluxes from 6628 to 13622 lumens.
- Average luminance <3000 cd/m² (UGR version).
- UGR <19 (UGR version).
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Lay-installation	Pull-up installation
224	3F Six R	•	with accessory

Product range

3F Six R



3F Six R		Wide	Medium	UGR
Model				
Average luminance for angles> 65 (cd / m²)		>3000	>3000	<3000
UGR		<21	<21	<19
Protection class			IP40	
Photometric distribution				
Installation steps	**Dt**	1,39	1,16	1,39
	Dl	1,43	1,19	1,30


10
PORTA OGGETTI CUCINA
ACCESSORI STOVIGLIE
VASI DA CONSERVA
CONTENITORI IN VETRO
CONTENITORI IN PLASTICA

3F Six R

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
PMMA lenses with external flat surface.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Power cable type H05Z1Z1-F 3-5x1.5 mm² that protrudes by 1 m with sheared ends.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- different dimensions
- emergency versions

Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
UGR version
Environments that need luminance control.

Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

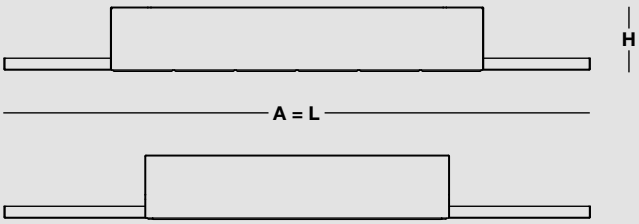
Installation

Lay-in installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

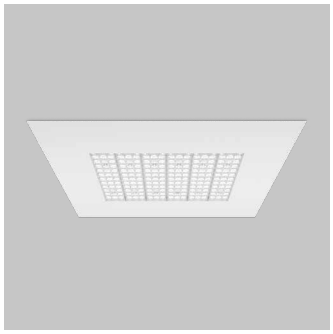
Dimensions

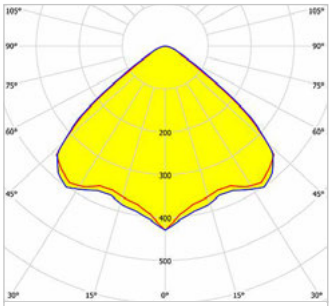


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 227.

3F Six R Wide





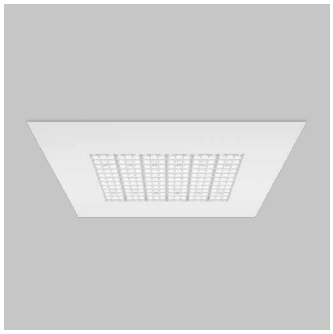
Code 22230

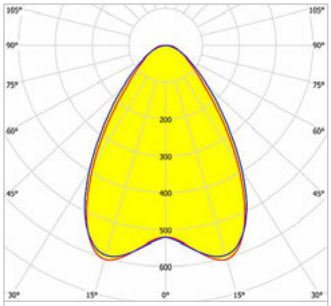
CE | D | 650°C | IP40 | 1J | IK06 | HACCP

Wide distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
22230	3F Six R 85/840 WIDE 596x596	89	13622	4000	>80	596x596x70
22231	3F Six R 70/840 WIDE 596x596	72	11050	4000	>80	596x596x70
22232	3F Six R 60/840 WIDE 596x596	62	9530	4000	>80	596x596x70
DALI electronic wiring 230V-50/60Hz						
22233	3F Six R 85/840 DALI WIDE 596x596	89	13622	4000	>80	596x596x70
22234	3F Six R 70/840 DALI WIDE 596x596	72	11050	4000	>80	596x596x70
22235	3F Six R 60/840 DALI WIDE 596x596	62	9530	4000	>80	596x596x70

3F Six R Medium





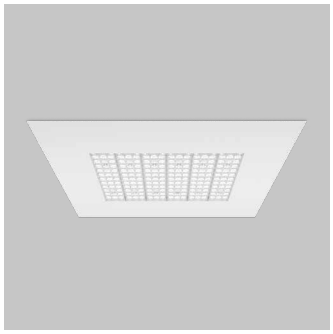
Code 22237

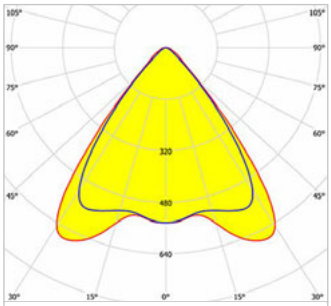
CE | D | 650°C | IP40 | 1J | IK06 | HACCP

Medium distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
22237	3F Six R 85/840 MEDIUM 596x596	89	13157	4000	>80	596x596x70
22238	3F Six R 70/840 MEDIUM 596x596	72	10673	4000	>80	596x596x70
22239	3F Six R 60/840 MEDIUM 596x596	62	9205	4000	>80	596x596x70
DALI electronic wiring 230V-50/60Hz						
22240	3F Six R 85/840 DALI MEDIUM 596x596	89	13157	4000	>80	596x596x70
22241	3F Six R 70/840 DALI MEDIUM 596x596	72	10673	4000	>80	596x596x70
22242	3F Six R 60/840 DALI MEDIUM 596x596	62	9205	4000	>80	596x596x70

3F Six R UGR





Code 22244

650°C | IP40 | 1J | IK06 | HACCP

Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
22244	3F Six R 40/840 UGR 596x596	43	6621	4000	>80	596x596x70
DALI electronic wiring 230V-50/60Hz						
22245	3F Six R 40/840 DALI UGR 596x596	43	6621	4000	>80	596x596x70

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Six R | Accessories

Adapter frame in white-painted steel, for installing luminaries with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

Code	Item
A0798	621x621 frame + brackets

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0579	Safety wire with brackets

White aluminium frame. Height 80 mm.

Code	Item
A01489 NEW	3FLPLAFO604 - 60x60 ceiling frame kit

3F LED Panel

> www.3F-Filippi.com/3F LED Panel

3F LED Panel is 3F Filippi's new entry-level proposal: a functional product that aims to provide good lighting in indoor environments. Simplicity does not mean economy: the LED sources (available with CRI >80 and CRI >90) don't cause any photobiological risk, belonging to the RG0 class (Risk Exempt).
Furthermore, the very low level of Flickering guarantees more comfort and safety, especially after prolonged use in environments with VDTs.
The aluminium body guarantees lightness and gives a remarkable rigidity to the product, supplied as standard with the anti-fall safety cable to secure the body to the building structure.
Particular attention was paid to the frame that outlines the perimeter (made in a single piece) and to the rapidity of installation: the quick-coupling terminal block also allows the connection in cascade of several appliances.

+ Overview

- Luminous efficacy up to 130 lumen/watt.
- Luminous fluxes from 2316 to 5272 lumens.
- Average luminance <3000 cd/m².
- Extensive installation pitch.
- UGR <19.
- Excellent quality/price ratio.
- Technology by 3F Filippi.
- Multi-current power supply to choose different lighting levels.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.
- Reliability guaranteed over time.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Lay-installation
230	3F LED Panel	•

UPDATE

3F LED Panel

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B20): 30000 h. (tq+25°C)
Lifetime (L90/B20): 50000 h. (tq+25°C)
Lifetime (L75/B20): 80000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in white painted epoxy-polyester powder aluminium.
Diffuser in SMP trasparent microprismatic PMMA externally, anti-glare with high transmittance.
Perimetral frame in white polycarbonate.
Anti-fall safety cable.

Electrical characteristics
In compliance with EN 60598-1.
Multi-current power supply, to be ordered separately, that allows you to choose the driving current of the fixture at the time of installation according to the required illuminance.
Fixtures in compliance with EN 60598-2-22, for power supply from a centralised CPSS emergency system.
Class II.
EP permanent emergency kit, to be ordered separately, compliant with the EN S60598-2-22, high risk areas excluded.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

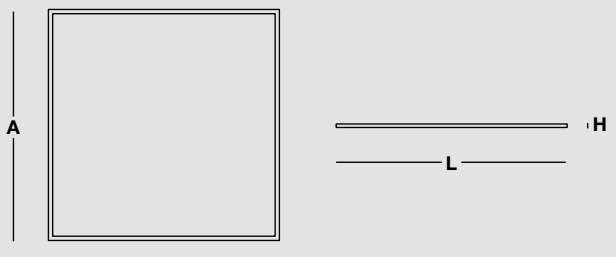
Installation

Lay-in or pull-up installation, Ceiling or suspension via accessory.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).
In electrical systems without a regulation system (manual or automatic), a suitable jumper must be made on the DA-DA terminals of the appliance.

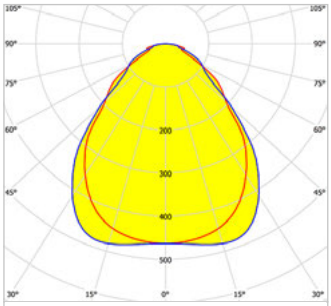
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 232.

3F LED Panel



Code 22802

650°C | IP20 IP43 | 1J | IK06 | Driver/LED SELV | HACCP

23W, 27W, 29W, 31W, 34W, 36W, 39W, and 43W powers, are available with DALI wiring.
27W, 29W, 31W, 34W and 36W powers, are available with ON/OFF wiring.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
22790 UPDATE	3FLP6060UGR-830	23 27 29 31 34 36 39 43	2755 600mA 3207 700mA 3437 750mA 3640 800mA 3830 850mA 4010 900mA 4471 1000mA 4860 1100mA	3000	>80	595x595x9
22791 UPDATE	3FLP6060UGR-840	23 27 29 31 34 36 39 43	2990 600mA 3480 700mA 3730 750mA 3950 800mA 4160 850mA 4350 900mA 4850 1000mA 5272 1100mA	4000	>80	595x595x9
22792 UPDATE	3FLP6060UGR-930	23 27 29 31 34 36 39 43	2316 600mA 2696 700mA 2890 750mA 3060 800mA 3220 850mA 3370 900mA 3758 1000mA 4084 1100mA	3000	>90	595x595x9
22793 UPDATE	3FLP6060UGR-940	23 27 29 31 34 36 39 43	2513 600mA 2925 700mA 3135 750mA 3320 800mA 3500 850mA 3660 900mA 4081 1000mA 4436 1100mA	4000	>90	595x595x9
22794 UPDATE	3FLP30120UGR-940	23 27 29 31 34 36 39 43	2263 600mA 2634 700mA 2823 750mA 2990 800mA 3150 850mA 3300 900mA 3679 1000mA 4000 1100mA	4000	>90	1195x295x9

3F LED Panel Driver

Classe II

Code	Item
A01485	ZK700-900EL DRIVER ON-OFF DIP-SWITCH
A01486	DELT40C-MEL DRIVER DALI DIP-SWITCH

3F LED Panel | Accessories

Frame for ceiling installation of the product (driver included), made of white extruded aluminium. Kit to assemble. Dowels and screws supplied as standard.

Code	Item
A01490	3FLPLAFO603 - 60x60 ceiling frame kit
A01491	3FLPLAFO1203 - 30x120 ceiling frame kit

Attention: the code 3FLPLAF0603 is dedicated to 60x60 cm panels, while the code 3FLPLAF01203 is dedicated to 120x30 cm panels.

600x600 carter in white painted steel, for installing 596x596 mm luminaires in abutment on false ceilings with metal panels.

Code	Item
A01495	600x600 carter for metal panels

This accessory is suitable for square products only.

Adjustable suspension with 1.5 m long cables.

Code	Item
A01492	3FKTLP-SPU - Suspension with adjustment - 1,5m

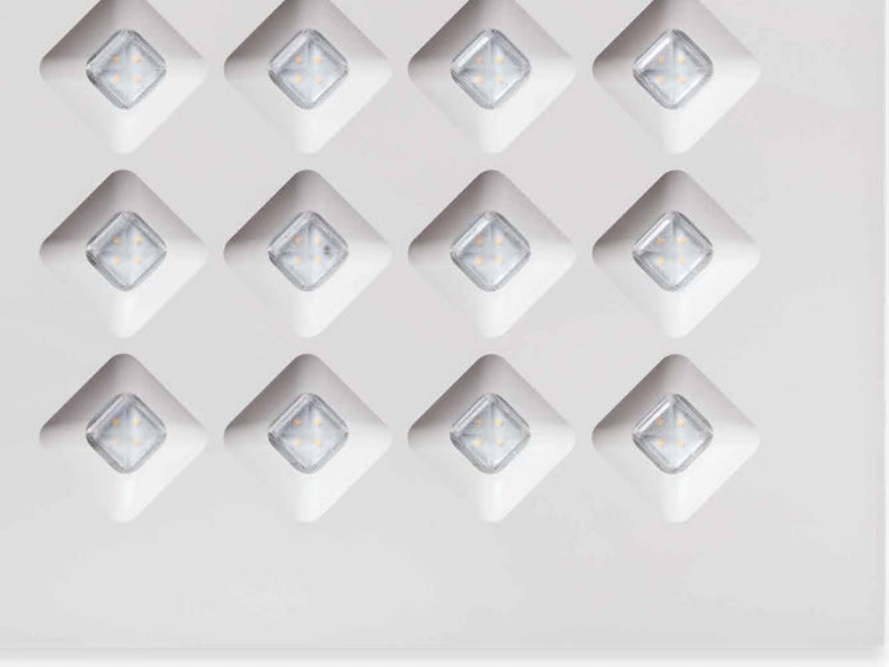
Kit of 4 metal springs for recessed installation of the product.

Code	Item
A01493	3FKTLPW1-MS - Built-in springs

EP maintained emergency wiring, 3hr duration with 24hrs recharge. EN 60598-2-22 standard compliant, high-risk areas excluded. Dimensions 135x45x23 mm.

Code	Item
A01494	3FKTEMR03 - Kit EP 3h

EP



3F Dìagon

> **www.3F-Filippi.com/3F Dìagon**

Light to improve working environments, shops and passage ways: providing this is 3F Dìagon, a square shaped recessed fixture whose 16 recessed cells are equipped with state-of-the-art LED sources.
The fixture is only 30 millimetres high which allows installation in ceiling cavities up to a minimum height of 110 mm.
Every truncated square pyramid shaped cell is equipped with a lens that is designed to maximise the light output of the state-of-the-art LED sources.
This means a system efficiency of up to 160 lm/ W for the version with transparent lenses and up to 135 lm/ W for the Soft UGR version.
Available in three different sizes (596x596 mm, 599x599mm and 621x621mm) and with two different types of lenses (transparent and Soft UGR), the fixture comes with on/off wiring, DALI control, Tunable White and an Emergence light.
3F Dìagon is suitable for surface installation on false ceilings with a visible support system, a pull-up installation version on plasterboard false ceilings, metal ceilings and for ceiling installation.

This product is also available in this version 3F Dìagon P (page 194).

+ Overview

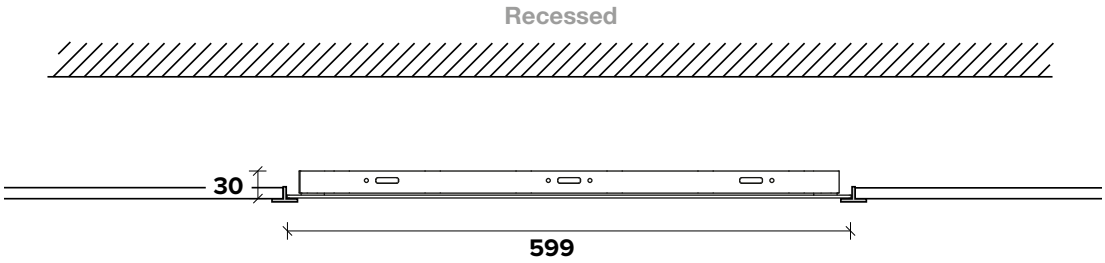
- Luminous efficacy up to 161 lumen/watt.
- Luminous fluxes from 2738 to 5547 lumens.
- Average luminance <1500 cd/m².
- UGR <16.
- Optics with 45° oriented light cells.
- Available with integrated sensors.
- Emergency version with kit integrated into the body.
- Driver integrated in the fixture.
- Essential and functional design.
- Tunable White version.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.

Page		Product	Lay-installation	Pull-up installation
242	UPDATE	3F Dìagon | Lay-in installation	•	
246		3F Dìagon Tunable White | Lay-in installation	•	
250		3F Dìagon | Pull-up installation		•

Product range

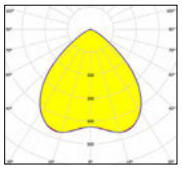
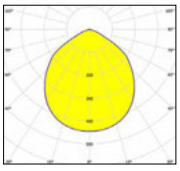
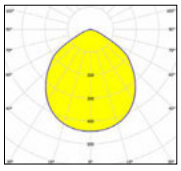
3F Dìagon

Lay-in installation



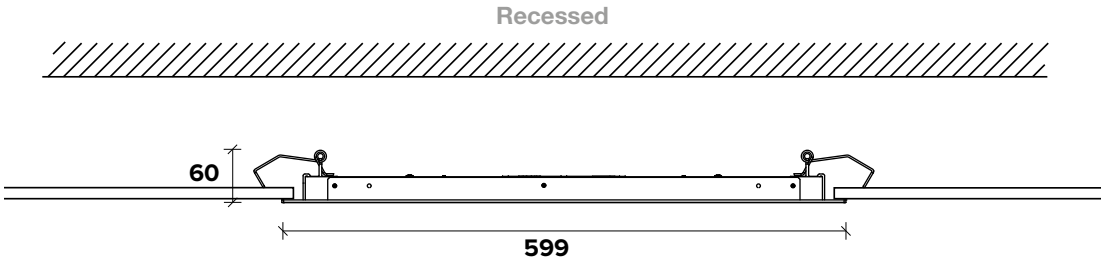
3F Dìagon Lay-in installation



Model		Standard	Soft UGR	Soft UGR TW
Average luminance for angles> 65 (cd / m²)		<1500	<3000	<3000
UGR		<19	<19	<19
Protection class			IP20 IP43	
Photometric distribution				
Installation steps	**Dt**	1,40	1,20	1,20
	Dl	1,40	1,20	1,20

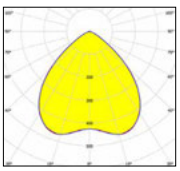
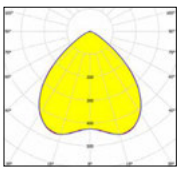
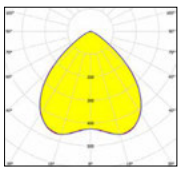
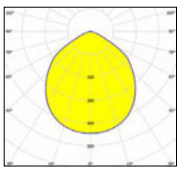
3F Dìagon

Pull-up installation



More information on the “Mounting details” page

3F Dìagon
Pull-up installation

Model		FCL	FCH	FP	FP Soft UGR
Average luminance for angles> 65 (cd / m²)		<1500	<1500	<1500	<3000
UGR		<19	<19	<19	<19
Protection class				IP20 IP43	
Photometric distribution					
Installation steps	**Dt**	1,40	1,40	1,40	1,20
	Dl	1,40	1,40	1,40	1,20

Screens and finishes

3F Dìagon | Transparent lenses

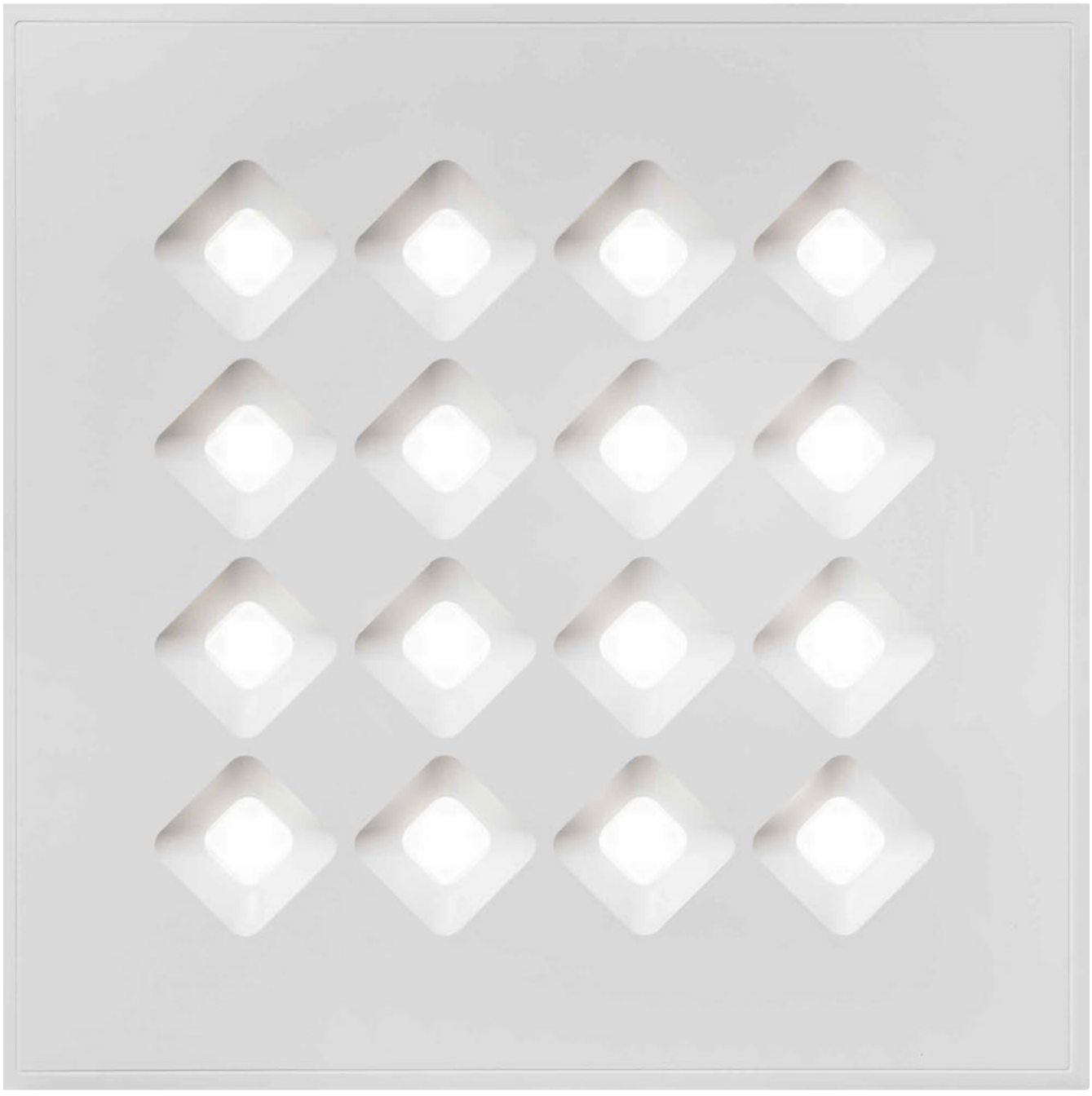
Versions equipped with transparent lenses, suitable for boardrooms with visual display terminals, offices or environments with exacting visual tasks where a diffused soft light is required for optimal visual comfort.
The 15W, 19W and 25W power versions provide a glare degree lower than 1500 cd/m² and UGR <16. The 39W power version provides luminances with values below 3000 cd/m², despite output fluxes from the luminaire exceeding 5500 lumens.

Finishes **On request**

White Black Grey

3F Dìagon | Soft UGR lenses

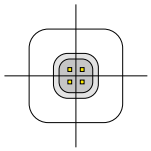
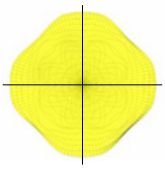
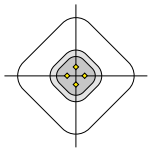
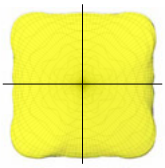
The versions equipped with Soft UGR lens are particularly suitable for illuminating environments where maximum comfort is required for diffused and soft lighting.
Suitable for representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms. They provide luminance control with values lower than 3000 cd/m² for angles> 65°.



Product advantages

45° ANGLE CELLS

The 45° angle cells were designed to minimise shadow areas inside the illuminated space. This idea came from careful analysis of multi-lens fixtures on the market that have the lenses parallel to the edge of the fixture:

	Cell distribution	Light distribution of a single cell	Uniformity of light on the ground
Market solution			
3F Dìagon			

As can be seen with 45 degree angled cells uniformity on the ground is higher because the light distribution of the cell fills most of the available space even by using micro prisms on the lens edges and state-of-the-art LED sources.

LED/Lens Features

Direct symmetric distribution
Colour temperatures available: /830 - /840, /930 - /940 or HCL (on request)
Useful life (L80/B10): 80000 hours (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471).
State-of-the-art square LED modules
Initial colour tolerance (MacAdam): SDCM 3
Transparent lens performance > 90%
Soft UGR lens efficiency> 75%

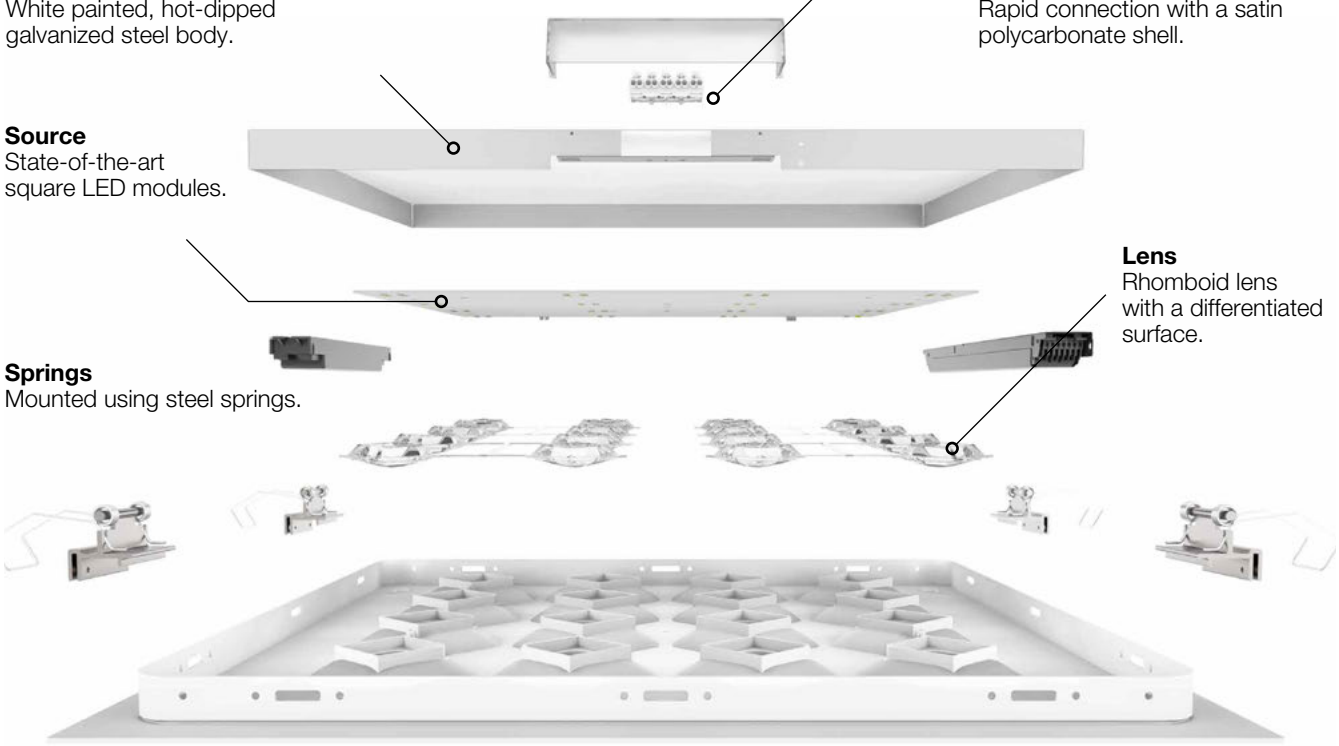
Body
White painted, hot-dipped galvanized steel body.

Wiring
Rapid connection with a satin polycarbonate shell.

Source
State-of-the-art square LED modules.

Lens
Rhomboid lens with a differentiated surface.

Springs
Mounted using steel springs.



Screen
Anti-glare white polycarbonate alveolar diagonal screen.

Thanks to the compact height of 30 millimetres, 3F Diagon is the ideal solution for installation in false ceilings with limited space.

UPDATE

3F Dìagon | Lay-in installation

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Colour temperature available /830 - /840, /930 - /940.
Lifetime (L95/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L80/B10): 80000 h. (tq+25°C)
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Height only 30 mm.
Installation in false ceilings with exposed structure.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Quick connection.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (more information on page 598)
- Sensor version
- emergency versions

Applications

Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.
Representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms.

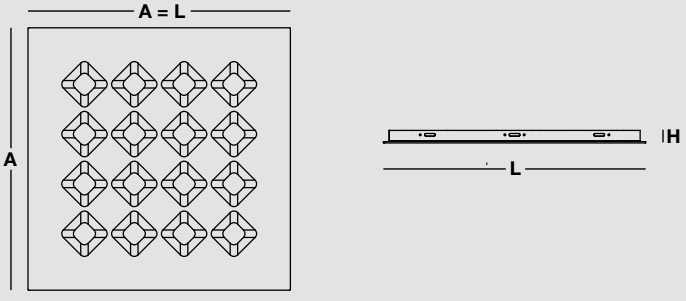
Installation

Lay-in installation.
Installation and assembly diagrams on page 248.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

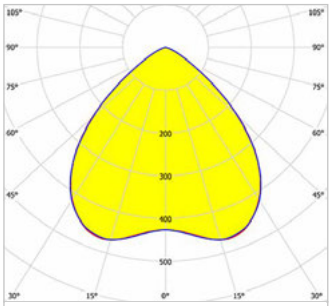
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 254.

3F Dìagon



Code 23006 L<1500 cd/m² 65°

EP | D | 650°C | IP20 IP43 | 1J | IK06

Average luminance <1500 cd/m² for radial angles >65°.
39W - Average luminance <3000 cd/m² for radial angles >65°.
Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

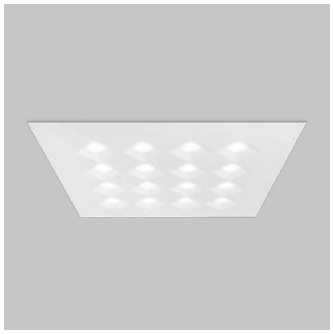
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
23025	3F Diagon 15W/840 596x596	17	2694	4000	>80	596x596x30
23024	3F Diagon 19W/840 596x596	21	3354	4000	>80	596x596x30
23098	3F Diagon 25W/930 596x596	28	3294	3000	>90	596x596x30
23122	3F Diagon 25W/940 596x596	28	3485	4000	>90	596x596x30
23002	3F Diagon 25W/830 596x596	28	4038	3000	>80	596x596x30
23026	3F Diagon 25W/840 596x596	28	4250	4000	>80	596x596x30
23027	3F Diagon 39W/840 596x596	40	5796	4000	>80	596x596x30
23123 NEW	3F Diagon 39W/940 596x596	40	4861	4000	>90	596x596x30
3F Dìagon 596x596 - DALI electronic wiring 230V-50/60Hz						
23029	3F Diagon 15W/840 DALI 596x596	17	2694	4000	>80	596x596x30
23028	3F Diagon 19W/840 DALI 596x596	21	3354	4000	>80	596x596x30
23102	3F Diagon 25W/930 DALI 596x596	28	3294	3000	>90	596x596x30
23126	3F Diagon 25W/940 DALI 596x596	28	3485	4000	>90	596x596x30
23006	3F Diagon 25W/830 DALI 596x596	28	4038	3000	>80	596x596x30
23030	3F Diagon 25W/840 DALI 596x596	28	4250	4000	>80	596x596x30
23031	3F Diagon 39W/840 DALI 596x596	40	5796	4000	>80	596x596x30
23127 NEW	3F Diagon 39W/940 DALI 596x596	40	4861	4000	>90	596x596x30
3F Dìagon 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23033	3F Diagon 15W/840 EP 596x596	18	2694	4000	>80	596x596x30
23032	3F Diagon 19W/840 EP 596x596	22	3354	4000	>80	596x596x30
23106	3F Diagon 25W/930 EP 596x596	29	3294	3000	>90	596x596x30
23130	3F Diagon 25W/940 EP 596x596	29	3485	4000	>90	596x596x30
23010	3F Diagon 25W/830 EP 596x596	29	4038	3000	>80	596x596x30
23034	3F Diagon 25W/840 EP 596x596	29	4250	4000	>80	596x596x30
23035	3F Diagon 39W/840 EP 596x596	41	5796	4000	>80	596x596x30
23131 NEW	3F Diagon 39W/940 EP 596x596	41	4861	4000	>90	596x596x30

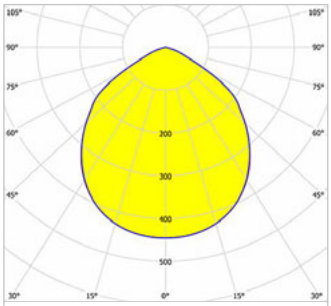
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 621x621 - ON/OFF electronic wiring 230V-50/60Hz						
23409	3F Diagon 15W/840 621x621	17	2694	4000	>80	621x621x30
23408	3F Diagon 19W/840 621x621	21	3354	4000	>80	621x621x30
23482	3F Diagon 25W/930 621x621	28	3294	3000	>90	621x621x30
23506	3F Diagon 25W/940 621x621	28	3485	4000	>90	621x621x30
23386	3F Diagon 25W/830 621x621	28	4038	3000	>80	621x621x30
23410	3F Diagon 25W/840 621x621	28	4250	4000	>80	621x621x30
23411	3F Diagon 39W/840 621x621	40	5796	4000	>80	621x621x30
23507 NEW	3F Diagon 39W/940 621x621	40	4861	4000	>90	621x621x30
3F Dìagon 621x621 - DALI electronic wiring 230V-50/60Hz						
23413	3F Diagon 15W/840 DALI 621x621	17	2694	4000	>80	621x621x30
23412	3F Diagon 19W/840 DALI 621x621	21	3354	4000	>80	621x621x30
23486	3F Diagon 25W/930 DALI 621x621	28	3294	3000	>90	621x621x30
23510	3F Diagon 25W/940 DALI 621x621	28	3485	4000	>90	621x621x30
23390	3F Diagon 25W/830 DALI 621x621	28	4038	3000	>80	621x621x30
23414	3F Diagon 25W/840 DALI 621x621	28	4250	4000	>80	621x621x30
23415	3F Diagon 39W/840 DALI 621x621	40	5796	4000	>80	621x621x30
23511 NEW	3F Diagon 39W/940 DALI 621x621	40	4861	4000	>90	621x621x30
3F Dìagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23417	3F Diagon 15W/840 EP 621x621	18	2694	4000	>80	621x621x30
23416	3F Diagon 19W/840 EP 621x621	22	3354	4000	>80	621x621x30
23490	3F Diagon 25W/930 EP 621x621	29	3294	3000	>90	621x621x30
23514	3F Diagon 25W/940 EP 621x621	29	3485	4000	>90	621x621x30
23394	3F Diagon 25W/830 EP 621x621	29	4038	3000	>80	621x621x30
23418	3F Diagon 25W/840 EP 621x621	29	4250	4000	>80	621x621x30
23419	3F Diagon 39W/840 EP 621x621	41	5796	4000	>80	621x621x30
23515 NEW	3F Diagon 39W/940 EP 621x621	41	4861	4000	>90	621x621x30

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 254.

3F Dìagon Soft UGR





Code 23826 L<3000 cd/m² 65°

EP | D | 650°C | IP20 IP43 | 1J | IK06

Average luminance <3000 cd/m² for angles >65°.
Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
23826	3F Diagon 25W/830 SOFT UGR 596x596	28	3495	3000	>80	596x596x30
23812	3F Diagon 25W/840 SOFT UGR 596x596	28	3679	4000	>80	596x596x30
23842	3F Diagon 39W/930 SOFT UGR 596x596	40	3890	3000	>90	596x596x30
23834	3F Diagon 39W/940 SOFT UGR 596x596	40	4116	4000	>90	596x596x30
3F Dìagon 596x596 - DALI electronic wiring 230V-50/60Hz						
23828	3F Diagon 25W/830 DALI SOFT UGR 596x596	28	3495	3000	>80	596x596x30
23814	3F Diagon 25W/840 DALI SOFT UGR 596x596	28	3679	4000	>80	596x596x30
23844	3F Diagon 39W/930 DALI SOFT UGR 596x596	40	3890	3000	>90	596x596x30
23836	3F Diagon 39W/940 DALI SOFT UGR 596x596	40	4116	4000	>90	596x596x30
3F Dìagon 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23827	3F Diagon 25W/830 EP SOFT UGR 596x596	29	3495	3000	>80	596x596x30
23813	3F Diagon 25W/840 EP SOFT UGR 596x596	29	3679	4000	>80	596x596x30
23843	3F Diagon 39W/930 EP SOFT UGR 596x596	41	3890	3000	>90	596x596x30
23835	3F Diagon 39W/940 EP SOFT UGR 596x596	41	4116	4000	>90	596x596x30
3F Dìagon 621x621 - ON/OFF electronic wiring 230V-50/60Hz						
23830	3F Diagon 25W/830 SOFT UGR 621x621	28	3495	3000	>80	621x621x30
23819	3F Diagon 25W/840 SOFT UGR 621x621	28	3679	4000	>80	621x621x30
23846	3F Diagon 39W/930 SOFT UGR 621x621	40	3890	3000	>90	621x621x30
23838	3F Diagon 39W/940 SOFT UGR 621x621	40	4116	4000	>90	621x621x30
3F Dìagon 621x621 - DALI electronic wiring 230V-50/60Hz						
23832	3F Diagon 25W/830 DALI SOFT UGR 621x621	28	3495	3000	>80	621x621x30
23821	3F Diagon 25W/840 DALI SOFT UGR 621x621	28	3679	4000	>80	621x621x30
23848	3F Diagon 39W/930 DALI SOFT UGR 621x621	40	3890	3000	>90	621x621x30
23840	3F Diagon 39W/940 DALI SOFT UGR 621x621	40	4116	4000	>90	621x621x30
3F Dìagon 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23831	3F Diagon 25W/830 EP SOFT UGR 621x621	29	3495	3000	>80	621x621x30
23820	3F Diagon 25W/840 EP SOFT UGR 621x621	29	3679	4000	>80	621x621x30
23847	3F Diagon 39W/930 EP SOFT UGR 621x621	41	3890	3000	>90	621x621x30
23839	3F Diagon 39W/940 EP SOFT UGR 621x621	41	4116	4000	>90	621x621x30

3F Dìagon Tunable White | Lay-in installation

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
The colour temperature can be adjusted between 2700 K and 6500 K.
Lifetime (L95/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L80/B10): 80000 h. (tq+25°C)
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate.
Height only 30 mm.
Installation in false ceilings with exposed structure.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Cable with a DALI DT8 driver.
5-pole terminal block (L-N-PE-DA/DA) quick connection for line connection with connection capacity 2x2.5 mm² per poles.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- emergency versions

Applications

Any environments requiring light which aims for the wellness of people.
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.
Representative environments, with video terminals, offices, meeting rooms, transit areas, reception and waiting rooms.

Installation

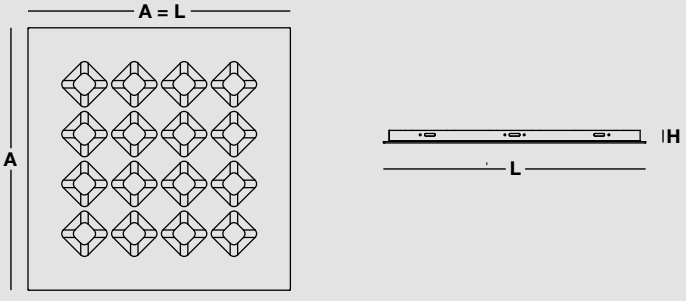
Lay-in installation.
Installation and assembly diagrams on page 248.

Light Management

Thanks to the 3F HCL technology, our Tunable White products can be controlled by:

- Wired control systems (more information on page 592)
- 3F Bluetooth control systems (more information on page 594)

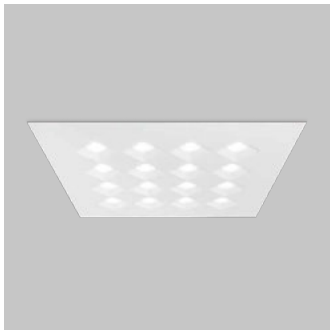
Dimensions

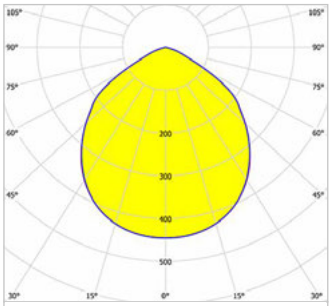


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 254.

3F Dìagon Soft UGR Tunable White





Code 23816 L<3000 cd/m² 65°

650°C | IP20 IP43 | 1J | IK06

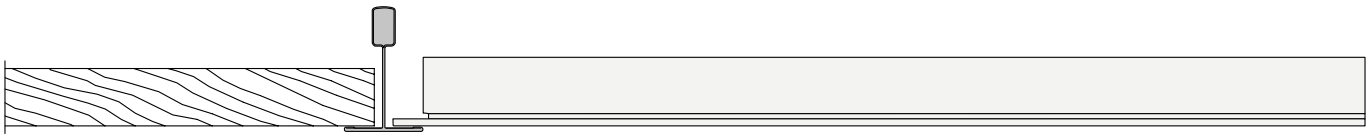
TW

Average luminance <3000 cd/m² for angles >65°.
Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.

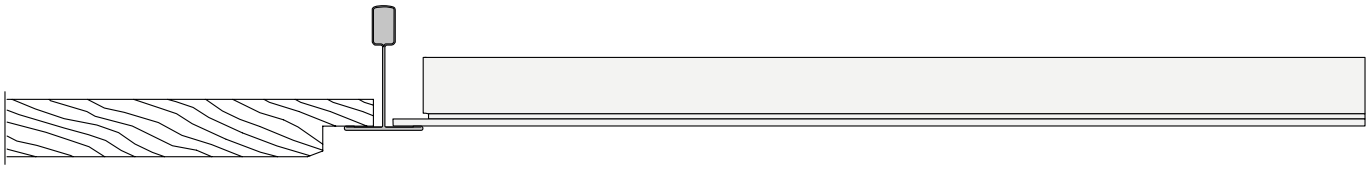
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 596x596 - DALI electronic wiring 230V-50/60Hz						
23816	3F Diagon 25W DT8 TW SOFT UGR 596x596	30 29 28	3198	2700 4000 6500	>80	596x596x30
3F Dìagon 621x621 - DALI electronic wiring 230V-50/60Hz						
23823	3F Diagon 25W DT8 TW SOFT UGR 621x621	30 29 28	3198	2700 4000 6500	>80	621x621x30

Mounting details 3F Dìagon | Lay-in installation

Standard versions

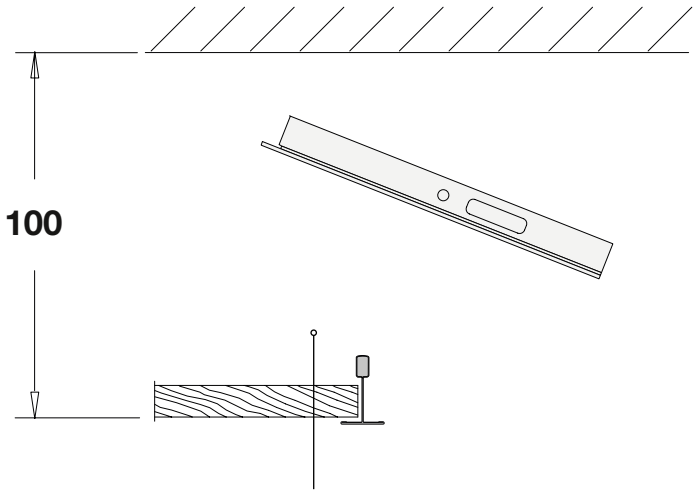


Panels in mineral fibre with exposed structure 600x600 or 625x625.

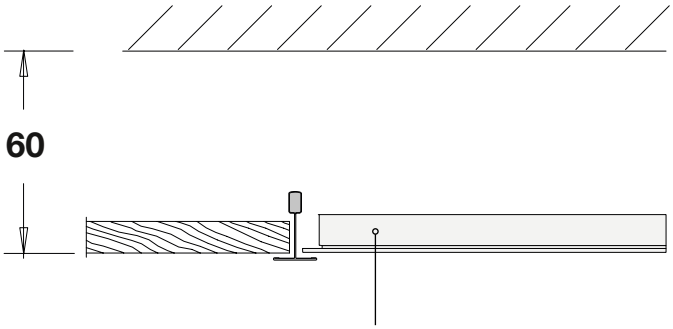


Panels in mineral fibre with decoration in relief 600x600.

Installation



Installation following false ceiling mounting, supported by the exposed structure, minimum void of 110 mm from the structure's lower edge.



Installation simultaneously with the false ceiling, minimum void of 60 mm from the structure's lower edge.

3F Dìagon | Pull-up installation

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L95/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L80/B10): 80000 h. (tq+25°C)
Lifetime (L75/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Honeycombed diagonal screen in white anti-glare polycarbonate.
Height only 30 mm.
The FP (For Plasterboard) version is dedicated to plasterboard false ceilings.
The FCL (For Complanar Low) version is dedicated to plasterboard with metal panels and low structures.
The FCH (For Complanar High) version is dedicated to plasterboard with metal panels and high structures.
For all versions, spring fixing in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Quick connection.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: twin-circuit, CLO (more information on page 598)
- luminaires for pull-up installation with brackets
- 3F Tunable White versione
- 3F Dìagon Soft UGR, for FCL and FCH versions
- emergency versions

Applications

FCL, FCH, FP versions
Environments: staterooms, with VDTs, offices.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.
Version FP Soft UGR
Environments where soft diffuse light is required for optimal visual comfort and total shielding of the source.

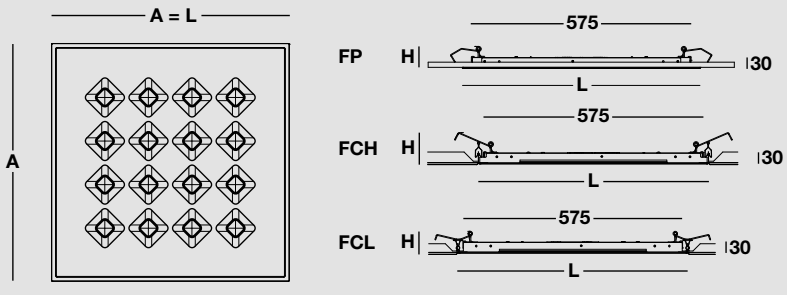
Installation

Pull-up installation.
Installation and assembly diagrams on page 253.
Do not hesitate to contact our Sales Network or our Technical Offices to check the compatibility of the FCH and FCL models with the various types of metallic false ceilings.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

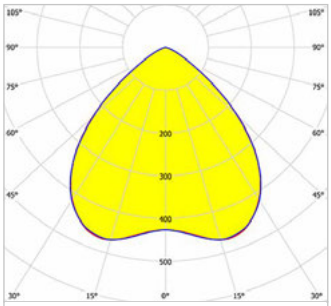
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 254.

3F Dìagon FCL

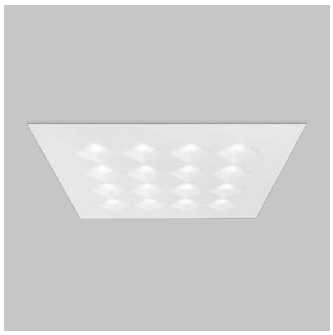


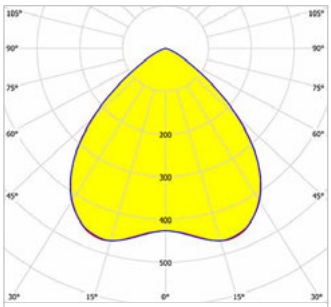
EP | D | 650°C | IP20 IP43 | 1J | IK06

Average luminance <1500 cd/m² for radial angles >65°.
Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz						
23785	3F Diagon FCL 19W/840 599x599	21	3354	4000	>80	599x599x60
23786	3F Diagon FCL 25W/840 599x599	28	4250	4000	>80	599x599x60
3F Dìagon 599x599 - DALI electronic wiring 230V-50/60Hz						
23787	3F Diagon FCL 19W/840 DALI 599x599	21	3354	4000	>80	599x599x60
23788	3F Diagon FCL 25W/840 DALI 599x599	28	4250	4000	>80	599x599x60
3F Dìagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23789	3F Diagon FCL 19W/840 EP 599x599	22	3354	4000	>80	599x599x60
23790	3F Diagon FCL 25W/840 EP 599x599	29	4250	4000	>80	599x599x60

3F Dìagon FCH



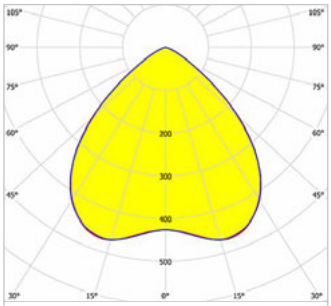


EP | D | 650°C | IP20 IP43 | 1J | IK06

Average luminance <1500 cd/m² for radial angles >65°.
Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz						
23795	3F Diagon FCH 19W/840 599x599	21	3354	4000	>80	599x599x60
23796	3F Diagon FCH 25W/840 599x599	28	4250	4000	>80	599x599x60
3F Dìagon 599x599 - DALI electronic wiring 230V-50/60Hz						
23797	3F Diagon FCH 19W/840 DALI 599x599	21	3354	4000	>80	599x599x60
23798	3F Diagon FCH 25W/840 DALI 599x599	28	4250	4000	>80	599x599x60
3F Dìagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23799	3F Diagon FCH 19W/840 EP 599x599	22	3354	4000	>80	599x599x60
23800	3F Diagon FCH 25W/840 EP 599x599	29	4250	4000	>80	599x599x60

3F Dìagon FP



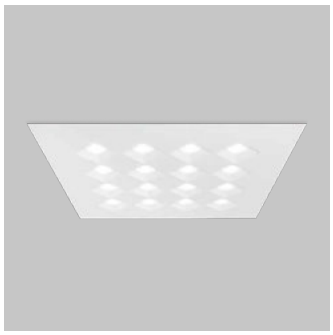
Code 23770 L<1500 cd/m² 65°

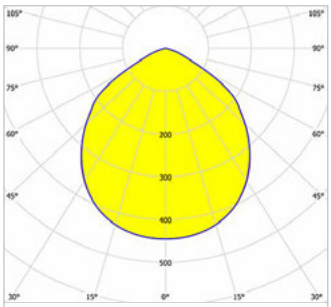
EP | D | 650°C | IP20 IP43 | 1J | IK06

Average luminance <1500 cd/m² for radial angles >65°.
Installation Interdistance Transv.D = 1.40 x hu - Long.D = 1.40 x hu.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in transparent methacrylate.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz						
24048	3F Diagon FP 19W/840 599x599	21	3354	4000	>80	599x599x60
24049	3F Diagon FP 25W/840 599x599	28	4250	4000	>80	599x599x60
3F Dìagon 599x599 - DALI electronic wiring 230V-50/60Hz						
24050	3F Diagon FP 19W/840 DALI 599x599	21	3354	4000	>80	599x599x60
24051	3F Diagon FP 25W/840 DALI 599x599	28	4250	4000	>80	599x599x60
3F Dìagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
24052	3F Diagon FP 19W/840 EP 599x599	22	3354	4000	>80	599x599x60
24053	3F Diagon FP 25W/840 EP 599x599	29	4250	4000	>80	599x599x60

3F Dìagon FP Soft UGR





Code 23850 L<3000 cd/m² 65°

EP | D | 650°C | IP20 IP43 | 1J | IK06

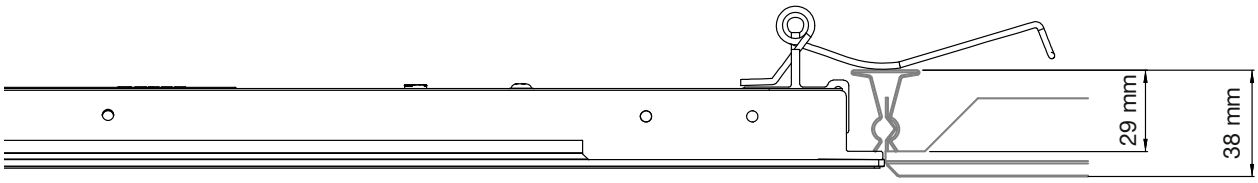
Average luminance <3000 cd/m² for angles >65°.
Installation Interdistance Transv.D = 1.20 x hu - Long.D = 1.20 x hu.
Rhomboidal lenses with differentiated surfaces, etched and prismatic to optimise the orientation of the luminous flux, in opal methacrylate.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
3F Dìagon 599x599 - ON/OFF electronic wiring 230V-50/60Hz						
23853	3F Diagon FP 25W/840 SOFT UGR 599x599	28	3679	4000	>80	599x599x60
3F Dìagon 599x599 - DALI electronic wiring 230V-50/60Hz						
23855	3F Diagon FP 25W/840 DALI SOFT UGR 599x599	28	3679	4000	>80	599x599x60
3F Dìagon 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23854	3F Diagon FP 25W/840 EP SOFT UGR 599x599	29	3679	4000	>80	599x599x60

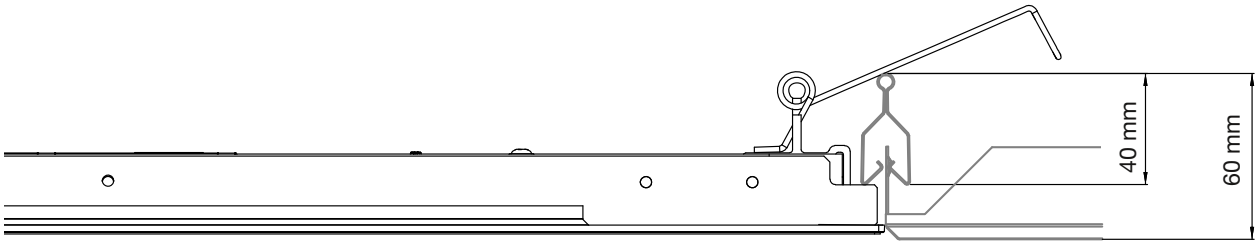
Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Mounting details 3F Dìagon | Pull-up installation

Standard versions

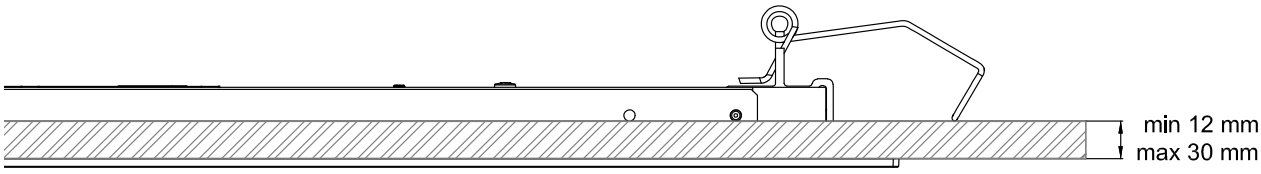


FCL - Version for metal panels with low structures



FCH - Version for metal panels with high structures

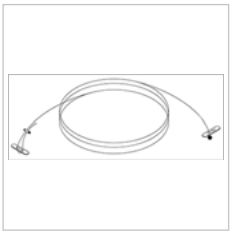
Do not hesitate to contact our Sales Network or our Technical Offices to check the compatibility of the FCH and FCL models with the various types of metallic false ceilings.



FP - Version for Plasterboard

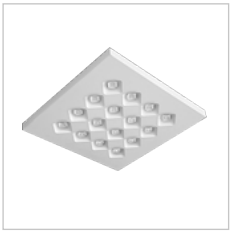
In the event that the type of false ceiling reported is not that envisaged by the installation, it is necessary to consult our Sales Network.

3F Dìagon | Accessories



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0477	Safety wire



White painted polyester hot-dip galvanised steel frame for 3F Dìagon Plafone. Height only 40 mm.

Accessory compatible with 3F Dìagon | Lay-in installation, 3F Dìagon Tunable White | Lay-in installation.

Code	Item
A0686	596x596 Diagon frame ceiling instal.

Suction cup to extract "3F Dìagon" installed in abutment. To be used in false ceilings with metal panels, where the space between the luminaire and the surrounding panels does not allow the use of other tools.

Accessory compatible with 3F Dìagon | Pull-up installation.

Code	Item
A0702	Suction cup for Diagon maintenance

UPDATE

L 320 LED

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Attention: before ordering these products, we ask you to check the Installation instructions if the type of installation requires accessory brackets.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

Source characteristics

- Linear LED modules.

10W version
- Colour initial tolerance (MacAdam): SDCM 2.

18W version
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 604)
- Sensor version
- diffuser in OP opal PMMA or SP polycarbonate, self-extinguishing V2
- luminaires for pull-up installation with brackets
- emergency versions

Applications

Environments: staterooms, with VDTs, offices.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
SP, LGS versions
Environments: sterilized, aseptic.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

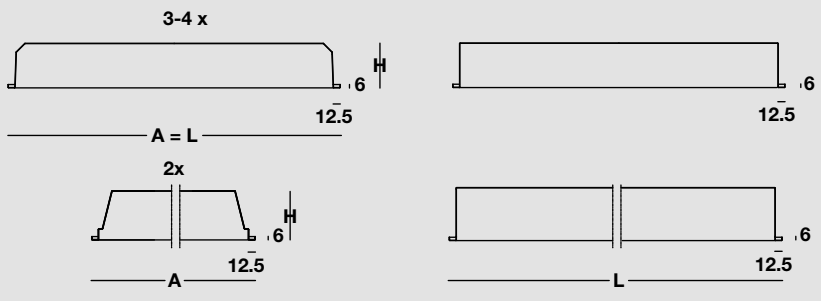
Installation

Lay-in or pull-up installation with brackets. Installation and assembly diagrams on page 258.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

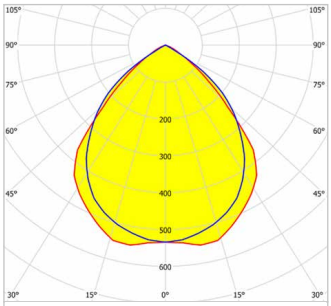
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 255.

L 320 LED 2MG



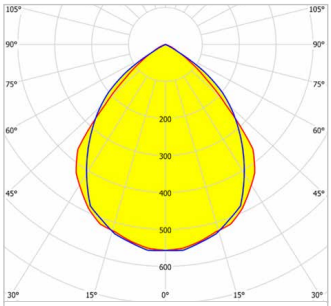
Code 28844 L<1000 cd/m² 65°

EP | D | 650°C | IP20 | Driver/LED SELV

Average luminance <1000 cd/m² for radial angles >65°.
2MG parabolic louvre, high efficiency, in specular aluminium with superficial titanium-magnesium treatment, non-iridescent, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
28844	L 323x10W LED 2MG 596x596	34	4287	4000	>80	596x596x80
22722	L 323x10W/940 LED 2MG 596x596	34	3515	4000	>90	596x596x80
L 320 596x596 - DALI electronic wiring 230V-50/60Hz						
28856	L 323x10W LED DALI 2MG 596x596	34	4287	4000	>80	596x596x80
22724	L 323x10W/940 LED DALI 2MG 596x596	34	3515	4000	>90	596x596x80
L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
28847	L 323x10W LED EP 2MG 596x596	35	4287	4000	>80	596x596x80
22723	L 323x10W/940 LED EP 2MG 596x596	35	3515	4000	>90	596x596x80
L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz						
28846	L 322x18W LED 2MG 296x1196	40	5179	4000	>80	1196x296x95
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz						
28858	L 322x18W LED DALI 2MG 296x1196	40	5179	4000	>80	1196x296x95
L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
28849	L 322x18W LED EP 2MG 296x1196	41	5179	4000	>80	1196x296x95

L 320 LED 2S



Code 28826 L<1000 cd/m² 65°

EP | D | 650°C | IP20 | Driver/LED SELV

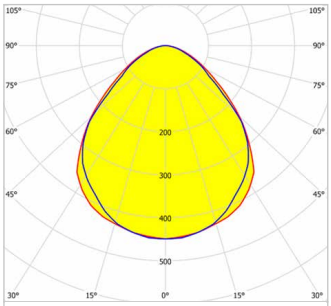
Average luminance <1000 cd/m² for radial angles >65°.
2S parabolic louvre in semi-specular aluminium, non-reflecting, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
28826	L 323x10W LED 2S 596x596	34	3997	4000	>80	596x596x80
22716	L 323x10W/940 LED 2S 596x596	34	3277	4000	>90	596x596x80
L 320 596x596 - DALI electronic wiring 230V-50/60Hz						
28838	L 323x10W LED DALI 2S 596x596	34	3997	4000	>80	596x596x80
22718	L 323x10W/940 LED DALI 2S 596x596	34	3277	4000	>90	596x596x80
L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
28829	L 323x10W LED EP 2S 596x596	35	3997	4000	>80	596x596x80
22717	L 323x10W/940 LED EP 2S 596x596	35	3277	4000	>90	596x596x80
L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz						
28828	L 322x18W LED 2S 296x1196	40	4730	4000	>80	1196x296x95
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz						
28840	L 322x18W LED DALI 2S 296x1196	40	4730	4000	>80	1196x296x95
L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
28831	L 322x18W LED EP 2S 296x1196	41	4730	4000	>80	1196x296x95

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 255.

L 320 LED SP



Code 21244 L<3000 cd/m² 65°

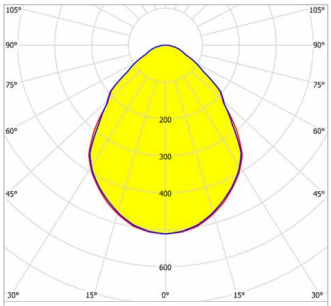
CE | SAFE FLICKER | EP | D | 650°C | IP20 IP54 | 1J | IK06

Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
21244	L 323x10W LED SP 596x596	34	4163	4000	>80	596x596x80
22701	L 323x10W/940 LED SP 596x596	34	3413	4000	>90	596x596x80
21245	L 324x10W LED SP 596x596	45	5516	4000	>80	596x596x80
22702	L 324x10W/940 LED SP 596x596	45	4523	4000	>90	596x596x80
L 320 596x596 - DALI electronic wiring 230V-50/60Hz						
21256	L 323x10W LED DALI SP 596x596	34	4163	4000	>80	596x596x80
22703	L 323x10W/940 LED DALI SP 596x596	34	3413	4000	>90	596x596x80
21257	L 324x10W LED DALI SP 596x596	45	5516	4000	>80	596x596x80
22704	L 324x10W/940 LED DALI SP 596x596	45	4523	4000	>90	596x596x80
L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21262	L 323x10W LED EP SP 596x596	35	4163	4000	>80	596x596x80
22705	L 323x10W/940 LED EP SP 596x596	35	3413	4000	>90	596x596x80
21263	L 324x10W LED EP SP 596x596	46	5516	4000	>80	596x596x80
22706	L 324x10W/940 LED EP SP 596x596	46	4523	4000	>90	596x596x80
L 320 599x599 - ON/OFF electronic wiring 230V-50/60Hz						
21617 NEW	L 323x10W LED SP 599x599	34	4163	4000	>80	599x599x80
21618 NEW	L 323x10W/940 LED SP 599x599	34	3413	4000	>90	599x599x80
L 320 599x599 - DALI electronic wiring 230V-50/60Hz						
21619 NEW	L 323x10W LED DALI SP 599x599	34	4163	4000	>80	599x599x80
21620 NEW	L 323x10W/940 LED DALI SP 599x599	34	3413	4000	>90	599x599x80
L 320 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21621 NEW	L 323x10W LED EP SP 599x599	35	4163	4000	>80	599x599x80
21622 NEW	L 323x10W/940 LED EP SP 599x599	35	3413	4000	>90	599x599x80
L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz						
21287	L 322x18W LED SP 296x1196	40	5272	4000	>80	1196x296x95
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz						
21290	L 322x18W LED DALI SP 296x1196	40	5272	4000	>80	1196x296x95
L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21293	L 322x18W LED EP SP 296x1196	41	5272	4000	>80	1196x296x95

L 320 LED LGS



Code 21580 L<1500 cd/m² 65°

EP | D | 650°C | IP20 IP54 | 1J | IK06

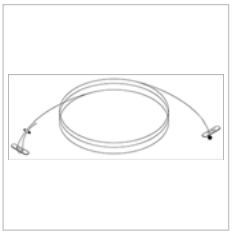
Driver/LED SELV

2x - 4x - Average luminance <3000 cd/m² for radial angles >65°.
3x - Average luminance <1500 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multilenticular exterior, anti-glare, locked to the white painted aluminium perimetral frame, sealing gasket, hinged opening. Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 320 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
21580	L 323x10W LED LGS 596x596	34	3178	4000	>80	596x596x80
21581	L 324x10W LED LGS 596x596	45	4292	4000	>80	596x596x80
22709	L 324x10W/940 LED LGS 596x596	45	3520	4000	>90	596x596x80
L 320 596x596 - DALI electronic wiring 230V-50/60Hz						
21586	L 323x10W LED DALI LGS 596x596	34	3178	4000	>80	596x596x80
21587	L 324x10W LED DALI LGS 596x596	45	4292	4000	>80	596x596x80
22710	L 324x10W/940 LED DALI LGS 596x596	45	3520	4000	>90	596x596x80
L 320 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21589	L 323x10W LED EP LGS 596x596	35	3178	4000	>80	596x596x80
21590	L 324x10W LED EP LGS 596x596	46	4292	4000	>80	596x596x80
22711	L 324x10W/940 LED EP LGS 596x596	46	3520	4000	>90	596x596x80
L 320 599x599 - ON/OFF electronic wiring 230V-50/60Hz						
21623 NEW	L 324x10W LED LGS 599x599	45	4292	4000	>80	599x599x80
21624 NEW	L 324x10W/940 LED LGS 599x599	45	3520	4000	>90	599x599x80
L 320 599x599 - DALI electronic wiring 230V-50/60Hz						
21625 NEW	L 324x10W LED DALI LGS 599x599	45	4292	4000	>80	599x599x80
21626 NEW	L 324x10W/940 LED DALI LGS 599x599	45	3520	4000	>90	599x599x80
L 320 599x599 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21627 NEW	L 324x10W LED EP LGS 599x599	46	4292	4000	>80	599x599x80
21628 NEW	L 324x10W/940 LED EP LGS 599x599	46	3520	4000	>90	599x599x80
L 320 296x1196 - ON/OFF electronic wiring 230V-50/60Hz						
21600	L 322x18W LED LGS 296x1196	40	4102	4000	>80	1196x296x95
L 320 296x1196 - DALI electronic wiring 230V-50/60Hz						
21603	L 322x18W LED DALI LGS 296x1196	40	4102	4000	>80	1196x296x95
L 320 296x1196 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21606	L 322x18W LED EP LGS 296x1196	41	4102	4000	>80	1196x296x95

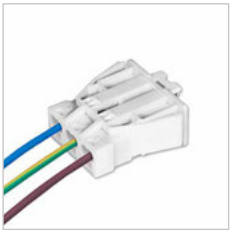
Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

L 320 | Accessories



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0477	Safety wire



Plug for quick connection of the luminaire, 3-pole irreversible to be snapped (Snap-in), with integrated locking device, H07 V2-U HT90° 1.5 mm² cables, for the connection to the terminal block of the luminaire. Connection for single-circuit wiring: order white plug. Connection for twin-circuit, dimmable, emergency wiring: order white plug plus black plug.

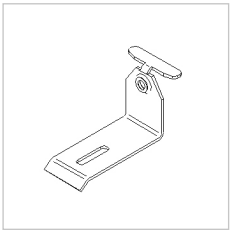
Code	Item
A0720	Wieland (white plug)
A0721	Wago (white plug)
A0722	Ensto white plug + adapter
A0725	Wieland (black plug)
A0726	Wago (black plug)
A0727	Ensto black plug + adapter

This accessory is suitable for square products only.

Adapter frame in white-painted steel, for installing luminaries with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

Code	Item
A0798	621x621 frame + brackets

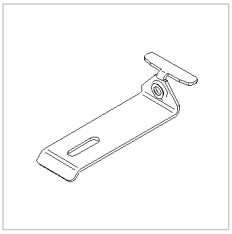
This accessory is suitable for square products only.



Galvanised steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.

Code	Item
A0173	15HI Brackets - L320-L350-L450 The pack contains 4 pieces.

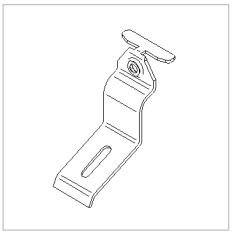
Excursion min. 0 mm, max. 25 mm.
This accessory is suitable for square products only.



Fixing bracket in galvanised steel. Pack for 1 luminaire.

Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

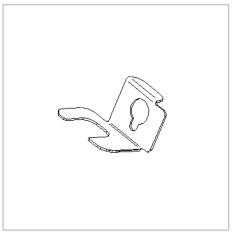
For square luminaires with louvre (excursion min. 0 mm, max. 60 mm), with diffuser and glass (excursion min. 15 mm, max. 60 mm).
For rectangular luminaires (excursion min. 45 mm, max. 72 mm), with diffuser and glass (excursion min. 27 mm, max. 65 mm).
Suitable for pull-up installation on plasterboard.



Fixing bracket in galvanised steel for ceiling pull-up installation. Pack for 1 luminaire.

Code	Item
A0170	15BS Brackets - L320-L400-L560 The pack contains 4 pieces.

For rectangular luminaires with louvre (excursion min. 18 mm, max. 45 mm), with diffuser (excursion min. 0 mm, max. 40 mm).
Not suitable for diffused light recessed luminaires.



Fixing bracket in galvanised steel for installation coplanar with metal panels with concealed structure. Pack for 1 luminaire.

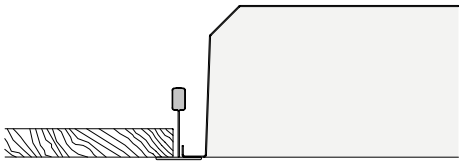
Code	Item
A0179	15LB Brackets - L320-350 met.pan. The pack contains 4 pieces.

For square luminaires with louvre, mounting in two positions (23/36 mm, 53/66 mm) with diffuser (36 mm and 66 mm).
Not suitable for diffused light recessed luminaires.

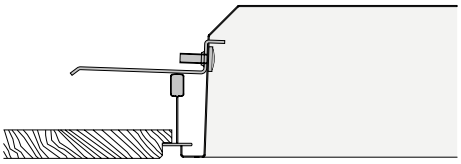

ESTINTORE
ESTINTORE
ESTINTORE
ESTINTORE
ESTINTORE

L 320 Mounting details

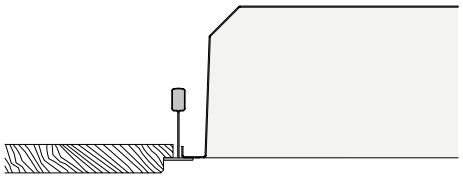
H80 version - 596x596



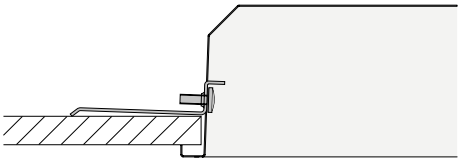
Panels in mineral fibre with exposed structure 600x600.



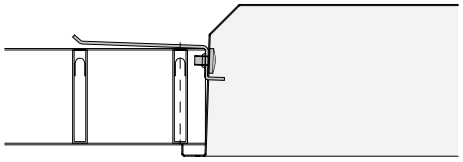
Panels in mineral fibre with decoration 600x600, small voids.
Installed flush with bracket accessory 15 ZH.



Panels in mineral fibre with decoration in relief 600x600.

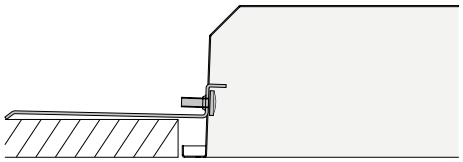


Plasterboard.
Installed flush with bracket accessory 15 ZH.

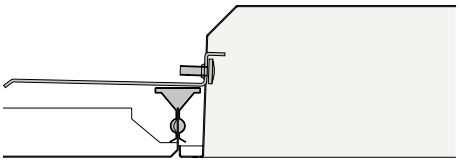


Pull-up installation on grid false ceilings.
Installed flush with bracket accessory 15 ZH.

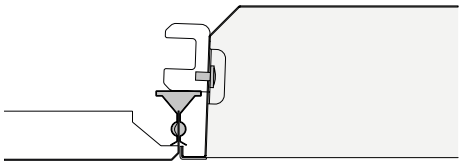
H80 version - 599x599



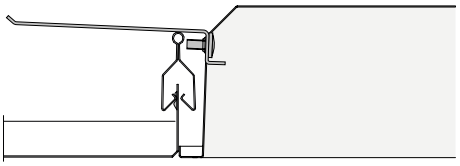
Plasterboard.
Installed flush with bracket accessory 15 ZH.



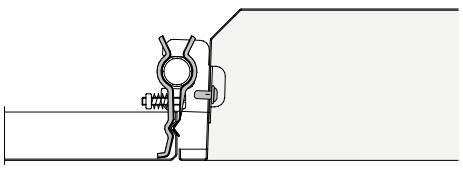
Metal panels with structures 600x600.



Metal panels with structures 600x600.

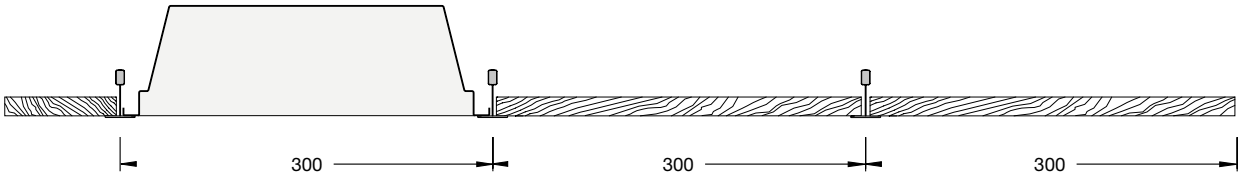


Metal panels with structures 600x600.



Metal panels with structures 600x600.

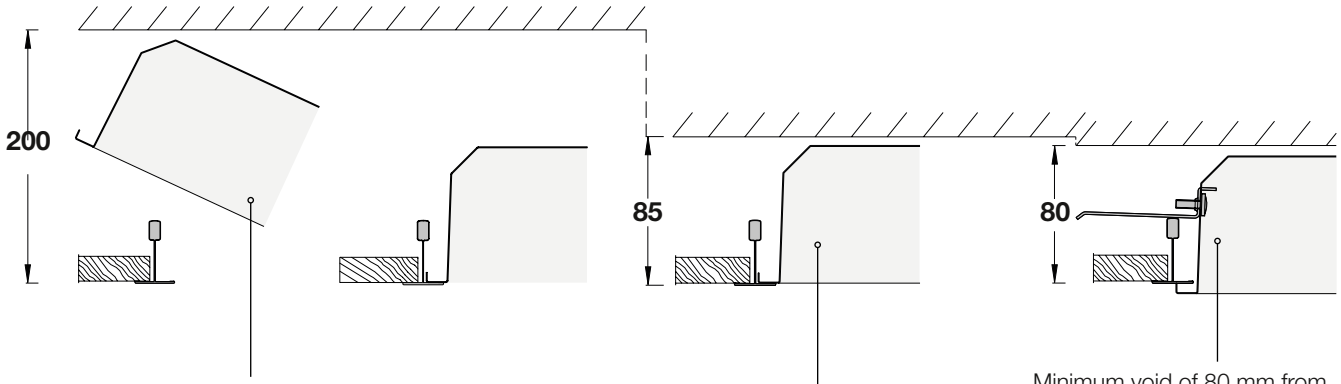
H80 version - 296x1196



Note: rectangular luminaires have a width of 296mm.
When installed on 600mm wide panels with exposed structure (600x600 or 600x1200), a further T profile must be used.

Installation

H80 version



Installation following false ceiling mounting, supported by the exposed structure, minimum void of 200 mm from the structure's lower edge.

Installation simultaneously with the false ceiling, minimum void of 85 mm from the structure's lower edge.

Minimum void of 80 mm from the structure's lower edge.
Luminaires on request, installed flush with bracket accessory 15 ZH.


DAE
CASSETTA DI PRONTO SOCCORSO
DEFIBRILLATOR

L 340

> www.3F-Filippi.com/L 340

L 340 is the new recessed fixture dedicated to the world of offices, banks, architectural environments and commercial and representative spaces.
Thanks to the low glare values obtained using glass or methacrylate prismatic and micro prismatic diffusers, it is particularly suitable for environments with video terminals, meeting rooms and offices where diffused and soft lighting is required for excellent visual comfort and to completely shield the source.
Furthermore, the L 340 is suitable from a hygiene point of view for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
The fixture can be installed on lintels or abutments (thanks to the frame accessory).
From a photometric point of view the excellent visual comfort is supported by LGS methacrylate (average luminance <1500 cd/m² >65° radial), SP (average luminance <3000 cd/m² >65° radials) and VS glass screens (Average luminance <3000 cd/m² >65° radials).
The L 340 is available in a version with on/off electronic cabling or DALI, while there are also versions with Permanent Emergency cabling.
Versions equipped with DALI drivers can be controlled manually with 3F Easy Dim technology or automatically/manually with 3F Smart Dimming technology.

+ Overview

- Luminous efficacy up to 131 lumen/watt.
- Luminous fluxes from 3338 to 6537 lumens.
- Average luminance <1500 cd/m² (LGS version).
- UGR <19.
- Uniformly illuminated screen.
- Essential and functional design.
- IP65 version, visible part for more severe applications.
- Tunable White version.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Page	Product	Lay-installation	Pull-up installation
268	L 340 Diffused Light	•	with accessory
272	L 340 Lite	•	with accessory
274	L 340 Tunable White	•	with accessory

L 340 Diffused Light

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Perimetral frame in white polycarbonate.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- diffuser in SP prismatic PMMA or SP polycarbonate, Selfextinguishing V2
- emergency versions

Applications

In environments requiring protection and simplified cleaning.
Hospitals, pharmaceutical, chemical, aseptic laboratories, sterilised rooms.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

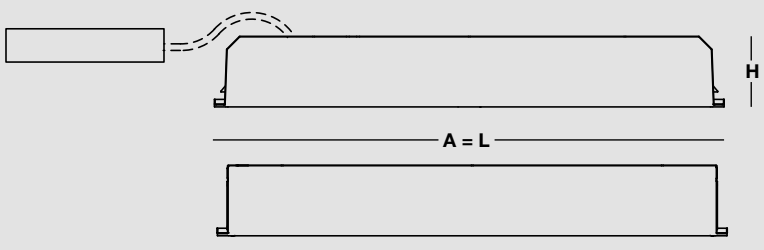
Installation

Lay-on or pull-up installation using the frame accessory.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

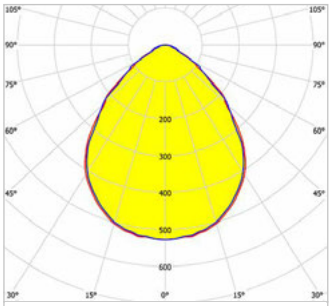
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 276.

L 340 Diffused Light LGS



Code 23857 L<1500 cd/m² 65°

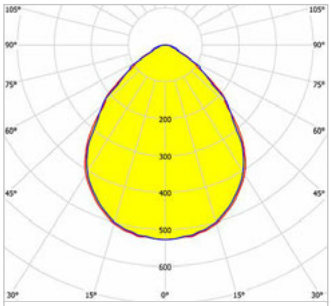
EP | 650°C | IP40 | 1J | IK06

Classe II | Driver/LED SELV | HACCP

Average luminance <1500 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
23857	L 340 25W/840 LGS 596x596	29	3785	4000	>80	596x596x80
23881	L 340 29W/940 LGS 596x596	35	3611	4000	>90	596x596x80
23858	L 340 38W/840 LGS 596x596	45	5677	4000	>80	596x596x80
23859	L 340 45W/840 LGS 596x596	52	6537	4000	>80	596x596x80
23882	L 340 45W/940 LGS 596x596	52	5361	4000	>90	596x596x80
L 340 596x596 - DALI electronic wiring 230V-50/60Hz						
23863	L 340 25W/840 DALI LGS 596x596	29	3785	4000	>80	596x596x80
23885	L 340 29W/940 DALI LGS 596x596	35	3611	4000	>90	596x596x80
23864	L 340 38W/840 DALI LGS 596x596	43	5677	4000	>80	596x596x80
23865	L 340 45W/840 DALI LGS 596x596	50	6537	4000	>80	596x596x80
23886	L 340 45W/940 DALI LGS 596x596	52	5361	4000	>90	596x596x80
L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23869	L 340 25W/840 EP LGS 596x596	30	3785	4000	>80	596x596x80
23889	L 340 29W/940 EP LGS 596x596	36	3611	4000	>90	596x596x80
23870	L 340 38W/840 EP LGS 596x596	46	5677	4000	>80	596x596x80
23871	L 340 45W/840 EP LGS 596x596	53	6537	4000	>80	596x596x80
23890	L 340 45W/940 EP LGS 596x596	53	5361	4000	>90	596x596x80
L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz						
23860	L 340 25W/840 LGS 621x621	29	3785	4000	>80	621x621x80
23883	L 340 29W/940 LGS 621x621	35	3611	4000	>90	621x621x80
23861	L 340 38W/840 LGS 621x621	45	5677	4000	>80	621x621x80
23862	L 340 45W/840 LGS 621x621	52	6537	4000	>80	621x621x80
23884	L 340 45W/940 LGS 621x621	52	5361	4000	>90	621x621x80
L 340 621x621 - DALI electronic wiring 230V-50/60Hz						
23866	L 340 25W/840 DALI LGS 621x621	29	3785	4000	>80	621x621x80
23887	L 340 29W/940 DALI LGS 621x621	35	3611	4000	>90	621x621x80
23867	L 340 38W/840 DALI LGS 621x621	43	5677	4000	>80	621x621x80
23868	L 340 45W/840 DALI LGS 621x621	50	6537	4000	>80	621x621x80
23888	L 340 45W/940 DALI LGS 621x621	52	5361	4000	>90	621x621x80
L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23891	L 340 29W/940 EP LGS 621x621	36	3611	4000	>90	621x621x80
23872	L 340 25W/840 EP LGS 621x621	30	3785	4000	>80	621x621x80
23873	L 340 38W/840 EP LGS 621x621	46	5677	4000	>80	621x621x80
23874	L 340 45W/840 EP LGS 621x621	53	6537	4000	>80	621x621x80
23892	L 340 45W/940 EP LGS 621x621	53	5361	4000	>90	621x621x80

L 340 Diffused Light LGS IP65V



Code 23972 L<1500 cd/m² 65°

EP | D | 650°C | IP40 IP65 | 1J | IK06

Classe II | Driver/LED SELV | HACCP

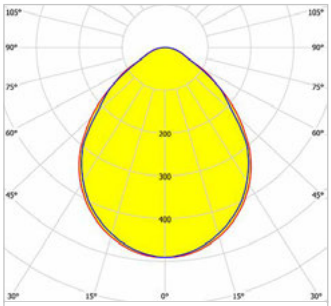
Average luminance <1500 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
23972	L 340 25W/840 LGS IP65V 596x596	29	3785	4000	>80	596x596x80
23996	L 340 29W/940 LGS IP65V 596x596	35	3611	4000	>90	596x596x80
23973	L 340 38W/840 LGS IP65V 596x596	45	5677	4000	>80	596x596x80
23974	L 340 45W/840 LGS IP65V 596x596	52	6537	4000	>80	596x596x80
23997	L 340 45W/940 LGS IP65V 596x596	52	5361	4000	>90	596x596x80
L 340 596x596 - DALI electronic wiring 230V-50/60Hz						
23978	L 340 25W/840 DALI LGS IP65V 596x596	29	3785	4000	>80	596x596x80
24000	L 340 29W/940 DALI LGS IP65V 596x596	35	3611	4000	>90	596x596x80
23979	L 340 38W/840 DALI LGS IP65V 596x596	43	5677	4000	>80	596x596x80
23980	L 340 45W/840 DALI LGS IP65V 596x596	50	6537	4000	>80	596x596x80
24001	L 340 45W/940 DALI LGS IP65V 596x596	52	5361	4000	>90	596x596x80
L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23984	L 340 25W/840 EP LGS IP65V 596x596	30	3785	4000	>80	596x596x80
24004	L 340 29W/940 EP LGS IP65V 596x596	36	3611	4000	>90	596x596x80
23985	L 340 38W/840 EP LGS IP65V 596x596	46	5677	4000	>80	596x596x80
23986	L 340 45W/840 EP LGS IP65V 596x596	53	6537	4000	>80	596x596x80
24005	L 340 45W/940 EP LGS IP65V 596x596	53	5361	4000	>90	596x596x80
L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz						
23975	L 340 25W/840 LGS IP65V 621x621	29	3785	4000	>80	621x621x80
23998	L 340 29W/940 LGS IP65V 621x621	35	3611	4000	>90	621x621x80
23976	L 340 38W/840 LGS IP65V 621x621	45	5677	4000	>80	621x621x80
23977	L 340 45W/840 LGS IP65V 621x621	52	6537	4000	>80	621x621x80
23999	L 340 45W/940 LGS IP65V 621x621	52	5361	4000	>90	621x621x80
L 340 621x621 - DALI electronic wiring 230V-50/60Hz						
23981	L 340 25W/840 DALI LGS IP65V 621x621	29	3785	4000	>80	621x621x80
24002	L 340 29W/940 DALI LGS IP65V 621x621	35	3611	4000	>90	621x621x80
23982	L 340 38W/840 DALI LGS IP65V 621x621	43	5677	4000	>80	621x621x80
23983	L 340 45W/840 DALI LGS IP65V 621x621	50	6537	4000	>80	621x621x80
24003	L 340 45W/940 DALI LGS IP65V 621x621	52	5361	4000	>90	621x621x80
L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23987	L 340 25W/840 EP LGS IP65V 621x621	30	3785	4000	>80	621x621x80
24006	L 340 29W/940 EP LGS IP65V 621x621	36	3611	4000	>90	621x621x80
23988	L 340 38W/840 EP LGS IP65V 621x621	46	5677	4000	>80	621x621x80
23989	L 340 45W/840 EP LGS IP65V 621x621	53	6537	4000	>80	621x621x80
24007	L 340 45W/940 EP LGS IP65V 621x621	53	5361	4000	>90	621x621x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 276.

L 340 Diffused Light VS IP65V



Code 23897 L<3000 cd/m² 65°

EP | 960°C | IP40 IP65 | 5J | IK08

Classe II | Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
23897	L 340 25W/840 VS IP65V 596x596	29	3499	4000	>80	596x596x80
23921	L 340 29W/940 VS IP65V 596x596	35	3338	4000	>90	596x596x80
23898	L 340 38W/840 VS IP65V 596x596	45	5248	4000	>80	596x596x80
23899	L 340 45W/840 VS IP65V 596x596	52	6044	4000	>80	596x596x80
23922	L 340 45W/940 VS IP65V 596x596	52	4956	4000	>90	596x596x80
L 340 596x596 - DALI electronic wiring 230V-50/60Hz						
23903	L 340 25W/840 DALI VS IP65V 596x596	29	3499	4000	>80	596x596x80
23925	L 340 29W/940 DALI VS IP65V 596x596	35	3338	4000	>90	596x596x80
23904	L 340 38W/840 DALI VS IP65V 596x596	43	5248	4000	>80	596x596x80
23905	L 340 45W/840 DALI VS IP65V 596x596	50	6044	4000	>80	596x596x80
23926	L 340 45W/940 DALI VS IP65V 596x596	52	4956	4000	>90	596x596x80
L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23909	L 340 25W/840 EP VS IP65V 596x596	30	3499	4000	>80	596x596x80
23929	L 340 29W/940 EP VS IP65V 596x596	36	3338	4000	>90	596x596x80
23910	L 340 38W/840 EP VS IP65V 596x596	46	5248	4000	>80	596x596x80
23911	L 340 45W/840 EP VS IP65V 596x596	53	6044	4000	>80	596x596x80
23930	L 340 45W/940 EP VS IP65V 596x596	53	4956	4000	>90	596x596x80
L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz						
23900	L 340 25W/840 VS IP65V 621x621	29	3499	4000	>80	621x621x80
23923	L 340 29W/940 VS IP65V 621x621	35	3338	4000	>90	621x621x80
23901	L 340 38W/840 VS IP65V 621x621	45	5248	4000	>80	621x621x80
23902	L 340 45W/840 VS IP65V 621x621	52	6044	4000	>80	621x621x80
23924	L 340 45W/940 VS IP65V 621x621	52	4956	4000	>90	621x621x80
L 340 621x621 - DALI electronic wiring 230V-50/60Hz						
23906	L 340 25W/840 DALI VS IP65V 621x621	29	3499	4000	>80	621x621x80
23927	L 340 29W/940 DALI VS IP65V 621x621	35	3338	4000	>90	621x621x80
23907	L 340 38W/840 DALI VS IP65V 621x621	43	5248	4000	>80	621x621x80
23908	L 340 45W/840 DALI VS IP65V 621x621	50	6044	4000	>80	621x621x80
23928	L 340 45W/940 DALI VS IP65V 621x621	52	4956	4000	>90	621x621x80
L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23912	L 340 25W/840 EP VS IP65V 621x621	30	3499	4000	>80	621x621x80
23931	L 340 29W/940 EP VS IP65V 621x621	36	3338	4000	>90	621x621x80
23913	L 340 38W/840 EP VS IP65V 621x621	46	5248	4000	>80	621x621x80
23914	L 340 45W/840 EP VS IP65V 621x621	53	6044	4000	>80	621x621x80
23932	L 340 45W/940 EP VS IP65V 621x621	53	4956	4000	>90	621x621x80

L 340 Lite

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Perimetral frame in white polycarbonate.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- Sensor version
- IP65 exposed part version
- diffuser in LGS microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

Installation

Lay-on or pull-up installation using the frame accessory.

Light Management

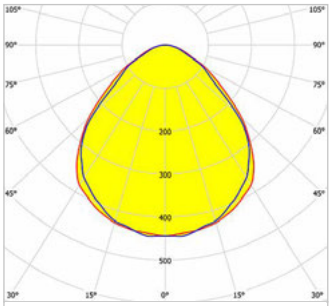
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 276.

L 340 Lite SP



Code 23937 L<3000 cd/m² 65°

EP | D | 650°C | IP40 | 1J | IK06

Classe II | Driver/LED SELV | HACCP

Average luminance <3000 cd/m² for radial angles >65°.
SP transparent methacrylate diffuser, prismatic outside, antiglare.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 340 596x596 - ON/OFF electronic wiring 230V-50/60Hz						
23937	L 343x10W/840 SP 596x596	34	4318	4000	>80	596x596x80
23940	L 343x12W/940 SP 596x596	43	4502	4000	>90	596x596x80
L 340 596x596 - DALI electronic wiring 230V-50/60Hz						
23938	L 343x10W/840 DALI SP 596x596	34	4318	4000	>80	596x596x80
23941	L 343x12W/940 DALI SP 596x596	43	4502	4000	>90	596x596x80
L 340 596x596 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23939	L 343x10W/840 EP SP 596x596	35	4318	4000	>80	596x596x80
23942	L 343x12W/940 EP SP 596x596	44	4502	4000	>90	596x596x80
L 340 621x621 - ON/OFF electronic wiring 230V-50/60Hz						
23957	L 343x10W/840 SP 621x621	34	4318	4000	>80	621x621x80
23960	L 343x12W/940 SP 621x621	43	4502	4000	>90	621x621x80
L 340 621x621 - DALI electronic wiring 230V-50/60Hz						
23958	L 343x10W/840 DALI SP 621x621	34	4318	4000	>80	621x621x80
23961	L 343x12W/940 DALI SP 621x621	43	4502	4000	>90	621x621x80
L 340 621x621 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
23959	L 343x10W/840 EP SP 621x621	35	4318	4000	>80	621x621x80
23962	L 343x12W/940 EP SP 621x621	44	4502	4000	>90	621x621x80

L 340 Tunable White

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Perimetral frame in white polycarbonate.
The 621x621 version is dedicated to false ceilings that have modular dimensions of 625x625.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Wiring on a separate unit.
Class II.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- diffuser in SP prismatic PMMA or SP polycarbonate, Selfextinguishing V2
- IP65 exposed part version
- emergency versions

Applications

Any environments requiring light which aims for the wellness of people.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

Installation

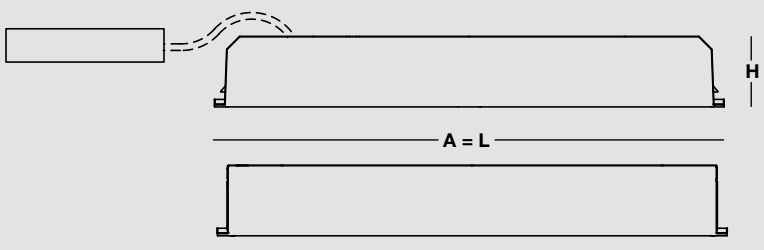
Lay-on or pull-up installation using the frame accessory.

Light Management

Thanks to the 3F HCL technology, our Tunable White products can be controlled by:

- Wired control systems (more information on page 592)
- 3F Bluetooth control systems (more information on page 594)

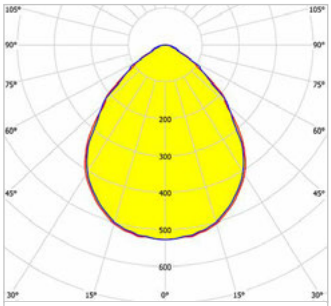
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 276.

L 340 Tunable White LGS



Code 23953 L<1500 cd/m² 65°

650°C | IP40 | 1J | IK06 | Classe II

Driver/LED SELV | HACCP

Average luminance <1500 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 340 596x596 - DALI DT8 electronic wiring 230V-50/60Hz						
23953	L 340 25W DALI DT8 TW LGS 596x596	31 30 29	3785	2700 4000 6500	>80	596x596x80
L 340 621x621 - DALI DT8 electronic wiring 230V-50/60Hz						
23954	L 340 25W DALI DT8 TW LGS 621x621	31 30 29	3785	2700 4000 6500	>80	621x621x80

L 340 | Accessories

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0579	Safety wire with brackets

Adapter frame in white-painted steel, for installing luminaries with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

Code	Item
A0798	621x621 frame + brackets

L 350 LED

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L80/B20): 80000 h. (tq+25°C)
Lifetime (L70/B20): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Attention: before ordering these products, we ask you to check the Installation instructions if the type of installation requires accessory brackets.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 7 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- SELV luminaires for pull-up installation with brackets
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: architectural, commercial, exhibition areas.
Environments where high levels of light are required.
Warning: 3AO luminaire not suitable for installation in false ceilings without heat removal capacity.
Minimum void of 200 mm required.

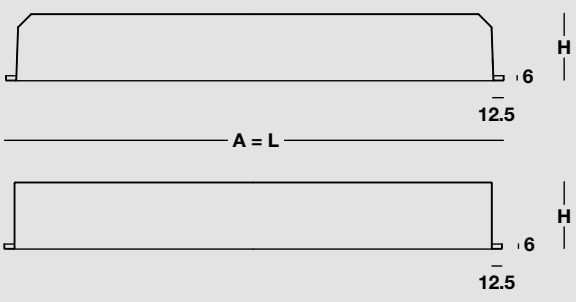
Installation

Lay-in or pull-up installation with brackets. Installation and assembly diagrams on page 280.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

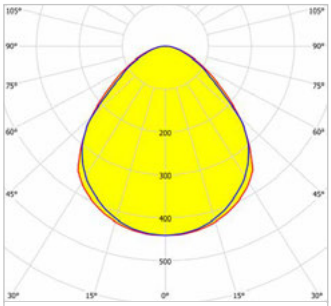
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 281.

L 350 LED SP



Code 260092

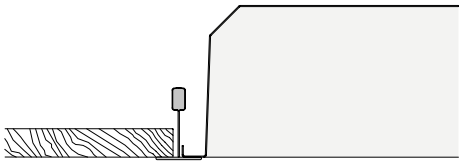
650°C | IP20 IP54 | 1J | IK06

SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

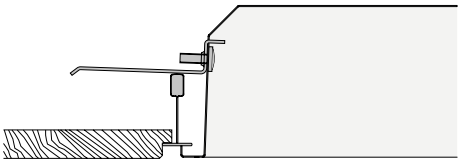
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
260092	L 353x14W LED SP 54V 596x596	47	6160	4000	>80	596x596x80
DALI electronic wiring 230V-50/60Hz						
260094	L 353x14W LED DALI SP 54V 596x596	47	6160	4000	>80	596x596x80

L 350 Mounting details

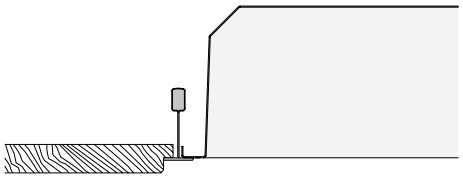
H80 version - 596x596



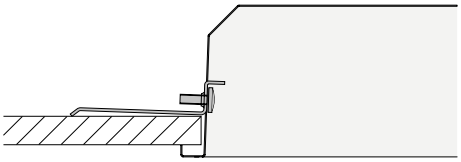
Panels in mineral fibre with exposed structure 600x600.



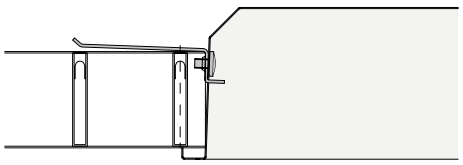
Panels in mineral fibre with decoration 600x600, small voids.
Installed flush with bracket accessory 15 ZH.



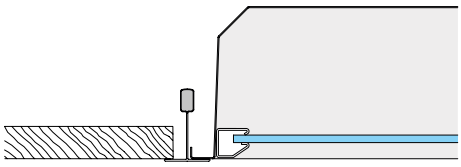
Panels in mineral fibre with decoration in relief 600x600.



Plasterboard.
Installed flush with bracket accessory 15 ZH.



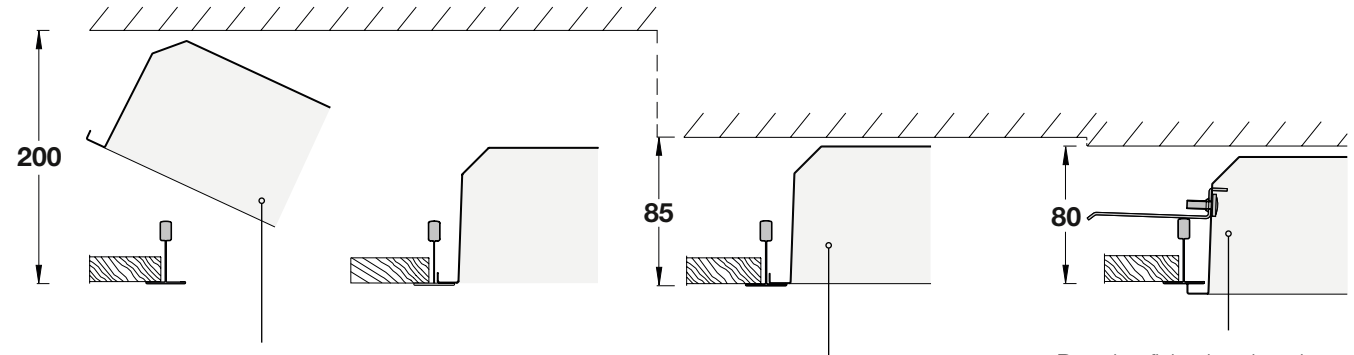
Pull-up installation on grid false ceilings.
Installed flush with bracket accessory 15 ZH.



L 350 SP IP54 exposed part

Installation

H80 version

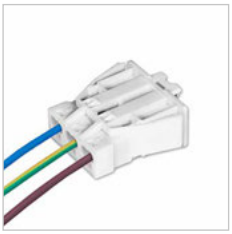


Installation following false ceiling mounting supported by the exposed structure, minimum void
of 200 mm from the structure's lower edge.

Installation simultaneously with the false ceiling, minimum void of 85 mm from the structure's lower edge.
3x25 version with minimum void of 200 mm and with capability of heat dissipation.

By using fixing brackets item 15 ZH, minimum void of 80 mm from the structure's lower edge.
3x25 version with minimum void of 200 mm and with capability of heat dissipation.

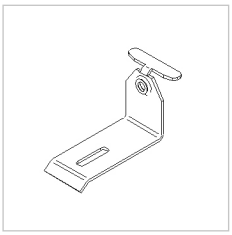
L 350 | Accessories



Plug for quick connection of the luminaire, 3-pole irreversible to be snapped (Snap-in), with integrated locking device, H07 V2-U HT90° 1.5 mm² cables, for the connection to the terminal block of the luminaire. Connection for single-circuit wiring: order white plug. Connection for twin-circuit, dimmable, emergency wiring: order white plug plus black plug.

Code	Item
A0720	Wieland (white plug)
A0721	Wago (white plug)
A0722	Ensto white plug + adapter
A0725	Wieland (black plug)
A0726	Wago (black plug)
A0727	Ensto black plug + adapter

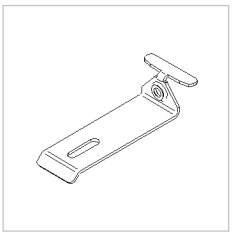
This accessory is suitable for square products only.



Galvanised steel fixing bracket for pull-up installation on plasterboard. Pack for 1 luminaire.

Code	Item
A0173	15HI Brackets - L320-L350-L450 The pack contains 4 pieces.

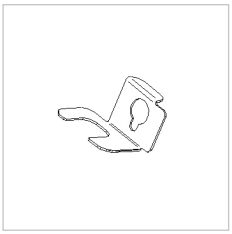
Excursion min. 0 mm, max. 25 mm.



Fixing bracket in galvanised steel. Pack for 1 luminaire.

Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

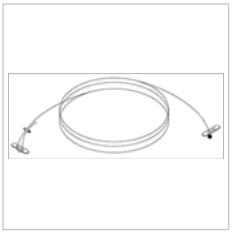
3AO (excursion min. 0 mm, max. 60 mm).
SP (excursion min. 15 mm, max. 60 mm).
Suitable for pull-up installation on plasterboard.



Fixing bracket in galvanised steel for installation coplanar with metal panels with concealed structure. Pack for 1 luminaire.

Code	Item
A0179	15LB Brackets - L320-350 met.pan. The pack contains 4 pieces.

For square luminaires with louvre, mounting in two positions (23/36 mm, 53/66 mm) with diffuser (36 mm and 66 mm).



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0477	Safety wire

Adapter frame in white-painted steel, for installing luminaries with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

Code	Item
A0798	621x621 frame + brackets

This accessory is suitable for square products only.

L 360

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Average luminance <2500 cd/m² for angles >45°.
Average luminance <1500 cd/m² for angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Transparent methacrylate lenses with different facets to optimise the direction of the luminous flux.
Anti-reflective white polycarbonate alveolar optic.
The 308x1246 version is dedicated to false ceilings that have modular dimensions of 312x1250.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- anti-reflective black polycarbonate alveolar optic
- different dimensions
- emergency versions

Applications

Environments with very exacting visual tasks and control of luminance at angles of >45° compared to the LEED certification.
Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.

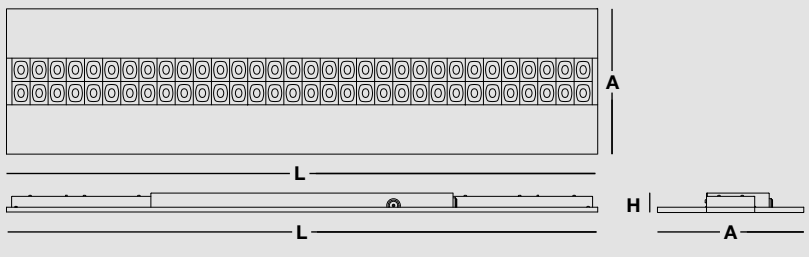
Installation

Lay-in installation.

Light Management

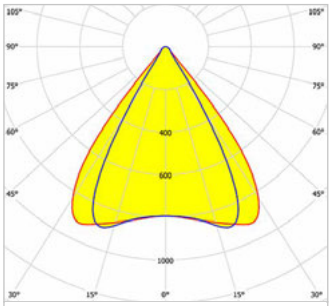
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

L 360 OCW



Code 22783 L<2500 cd/m² 45°

650°C | IP40 | 0,2J | IK02

Optics Control White - LEED Compliant.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
22782	L 362x12W LED OCW 296x1196	27	3570	4000	>80	1196x296x40
22786	L 362x12W LED OCW 308x1246	27	3570	4000	>80	1246x308x40
DALI electronic wiring 230V-50/60Hz						
22783	L 362x12W LED DALI OCW 296x1196	27	3570	4000	>80	1196x296x40
22787	L 362x12W LED DALI OCW 308x1246	27	3570	4000	>80	1246x308x40

L 480

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Removable gear-tray, functions as flux recuperator.
Pair of quick regulators for suspended installation (steel cable to be ordered separately).

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection of the power supply from the outside of the body with the possibility of cascade connection in / out.

Source characteristics

- Linear LED module.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- mounting brackets
- emergency versions

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: architectural, commercial, staterooms, banks.
OP version
Environments where dynamic, soft and diffuse light is required for optimal visual comfort.

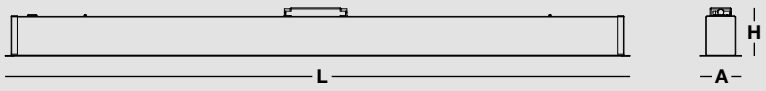
Installation

Pull-up Installation on inspectable false-ceilings.
Installation and assembly diagrams on page 287.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

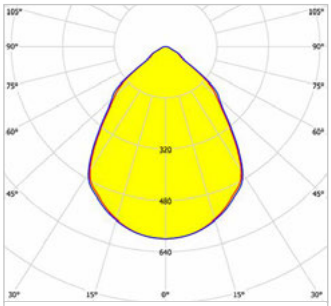
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 286.

L 480 GSP



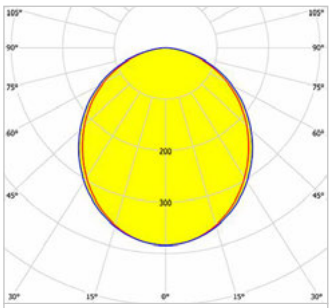
Code 22771 L<3000 cd/m² 65°

650°C IP40 Driver/LED SELV

Average luminance <3000 cd/m² for angles >65°.
SP transparent methacrylate diffuser, prismatic outside, antiglare.
Anti-glare opal polycarbonate filter for brightness uniformity.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
22767	L 480 24W LED GSP 80x1210	28	2347	4000	>80	1210x80x95
22768	L 480 30W LED GSP 80x1510	35	2937	4000	>80	1510x80x95
DALI electronic wiring 230V-50/60Hz						
22770	L 480 24W LED DALI GSP 80x1210	28	2347	4000	>80	1210x80x95
22771	L 480 30W LED DALI GSP 80x1510	35	2937	4000	>80	1510x80x95

L 480 OP



Code 22777

650°C IP40 Driver/LED SELV

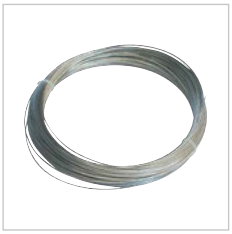
OP opal methacrylate flat diffuser, anti-glare.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
22773	L 480 24W LED OP 80x1210	28	2699	4000	>80	1210x80x95
22774	L 480 30W LED OP 80x1510	35	3378	4000	>80	1510x80x95
DALI electronic wiring 230V-50/60Hz						
22776	L 480 24W LED DALI OP 80x1210	28	2699	4000	>80	1210x80x95
22777	L 480 30W LED DALI OP 80x1510	35	3378	4000	>80	1510x80x95

L 480 | Accessories

Suspension without controller, galvanised steel cable 1.5 mm diameter, load 15 kg.

Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m
A20488	Suspension without adjustment - 3 m
A20489	Suspension without adjustment - 4 m
A20490	Suspension without adjustment - 5 m
A20491	Suspension without adjustment - 6 m



Galvanised steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

Code	Item
A0716	Coil galv. cable diam. 1.5mm - 100m The pack contains 100 metres.
A0717	Coil galv. cable diam. 1.5mm - 500m The pack contains 500 metres.
A0718	Coil galv. cable diam. 1.5mm - 1000m The pack contains 1000 metres.

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

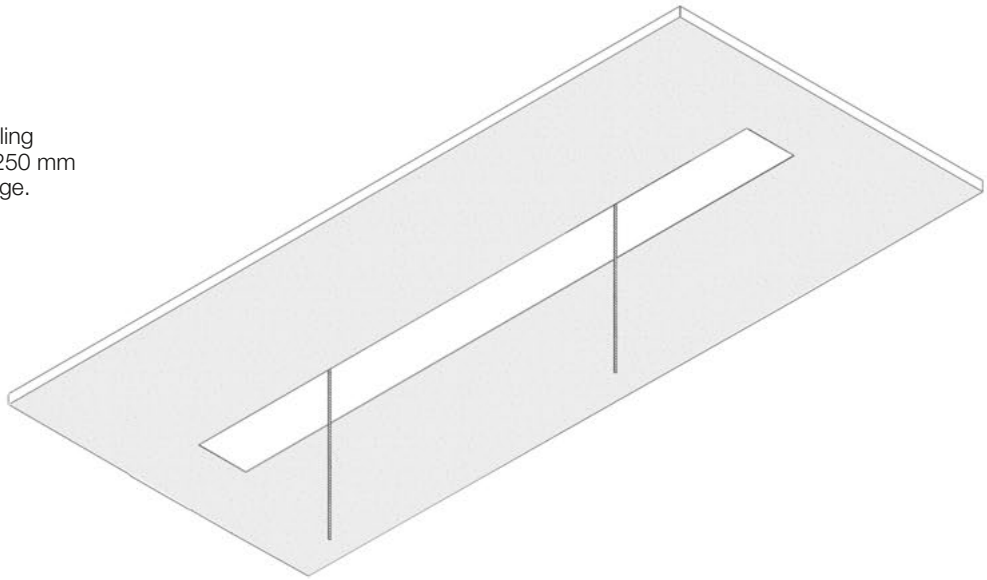
Code	Item
A0714	Clamp 2 holes susp.- 100 pcs The pack contains 100 pieces.

Clamp suitable for fixing and adjustment of galvanised steel wire (diameter 1.5 mm), with quick adjustment through unlock buttons. The clamp with 2 holes allow to fix and adjust the cable on the carrier structural element (belonging to the building) or with eye screw fixing.

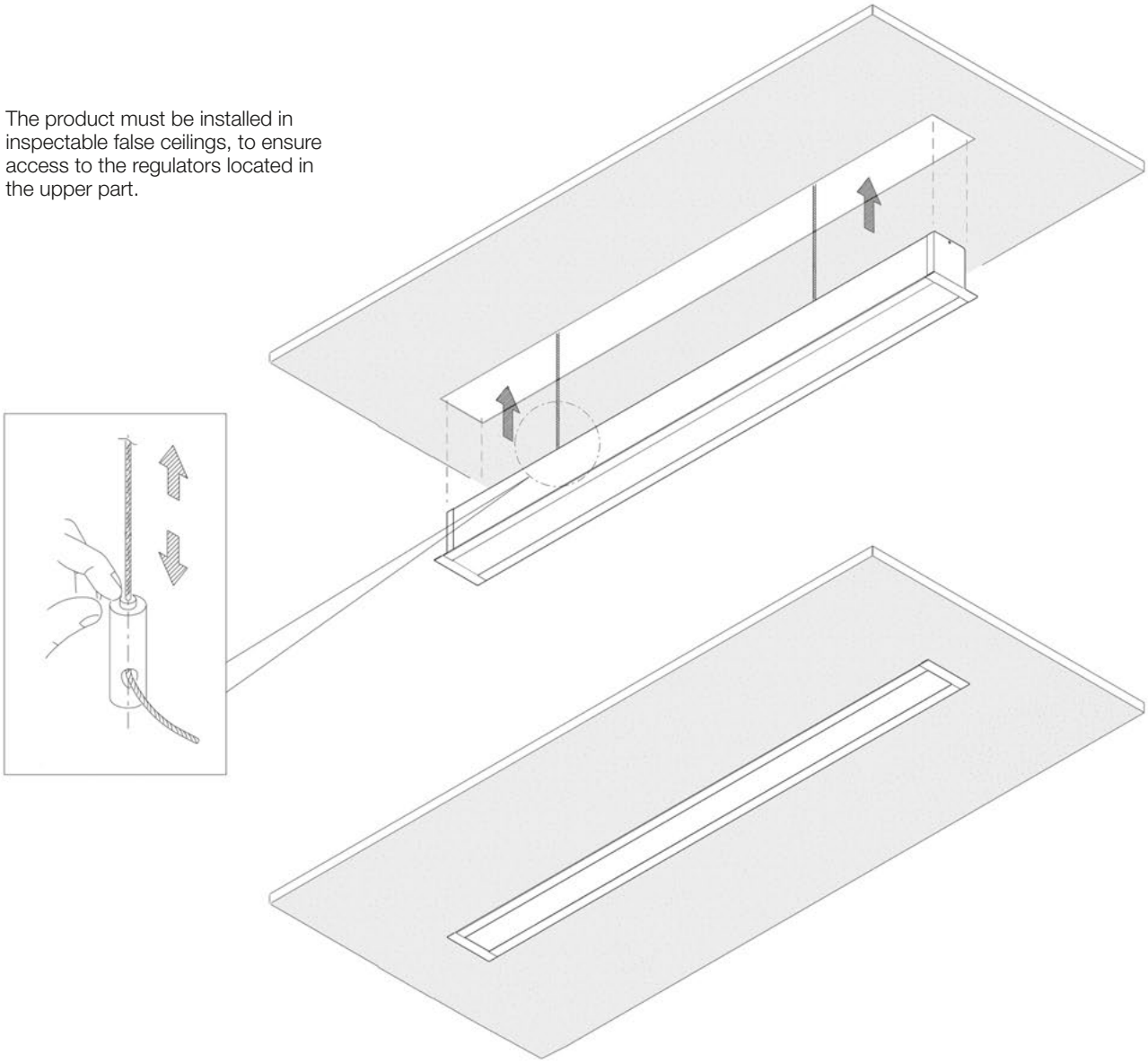
Code	Item
A0659	Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces.

Mounting details

Installation following false ceiling mounting, minimum void of 250 mm from the structure's lower edge.



The product must be installed in inspectable false ceilings, to ensure access to the regulators located in the upper part.



L 560 LED

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Attention: before ordering these products, we ask you to check the Installation instructions if the type of installation requires accessory brackets.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- parabolic louvres 2M, 2MG, 2US, 3AO
- different power levels, colour rendering indices and colour temperatures
- diffuser in SMP microprismatic PMMA or SP polycarbonate, Selfextinguishing V2
- wiring: dimmable, CLO (more information on page 598)
- emergency versions

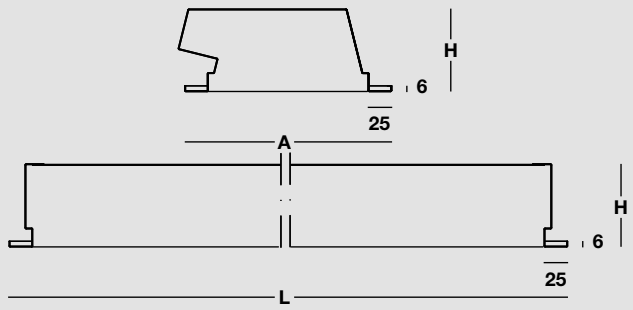
Applications

2S version
Environments: with VDTs, schools, offices.
SP version
Environments where demanding visual tasks are performed and soft diffuse light is required for optimal visual comfort and total shielding of the light source.

Installation

Slat ceiling installation.
Installation and assembly diagrams on page 290.

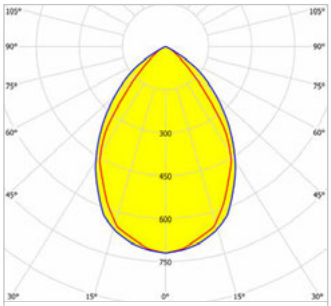
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 291.

L 560 LED 2S



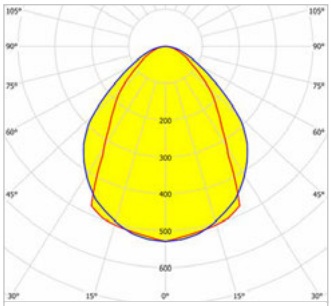
Code 270935 L<1000 cd/m² 65°

650°C | IP20 | Driver/LED SELV

1x - Average luminance <1000 cd/m² for radial angles >65°.
2x - Average luminance <1500 cd/m² for radial angles >65°.
2S parabolic louvre in semi-specular aluminium, non-reflecting, with transverse blades closed at the top.
Prismatic PMMA diffuser for total shielding of the louvre compartment.
Film protective against dust and finger marks, adhesive, attached to louvre.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
270931	L 561x12W LED 2S 221x647	14	1452	4000	>80	647x221x95
270933	L 561x24W LED 2S 221x1256	27	2906	4000	>80	1256x221x95
270937	L 562x12W LED 2S 221x647	28	2771	4000	>80	647x221x95
270935	L 561x30W LED 2S 221x1556	34	3637	4000	>80	1556x221x95
270939	L 562x24W LED 2S 221x1256	54	5547	4000	>80	1256x221x95
270941	L 562x30W LED 2S 221x1556	66	6943	4000	>80	1556x221x95

L 560 LED SP



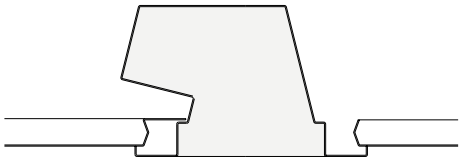
Code 270961

650°C | IP20 IP54 | 1J | IK06 | Driver/LED SELV

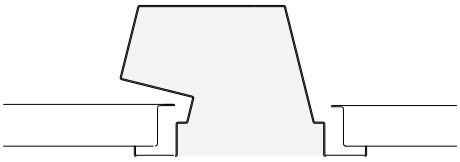
SP transparent PMMA diffuser, prismatic exterior, anti-glare, locked to the prepainted white aluminium perimeter frame with sealing gasket, hinged opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
270957	L 561x12W LED SP 221x647	14	1466	4000	>80	647x221x95
270959	L 561x24W LED SP 221x1256	27	2935	4000	>80	1256x221x95
270963	L 562x12W LED SP 221x647	28	2875	4000	>80	647x221x95
270961	L 561x30W LED SP 221x1556	34	3674	4000	>80	1556x221x95
270965	L 562x24W LED SP 221x1256	54	5755	4000	>80	1256x221x95
270967	L 562x30W LED SP 221x1556	66	7202	4000	>80	1556x221x95

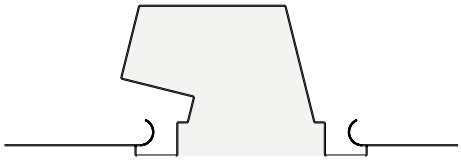
L 560 Mounting details



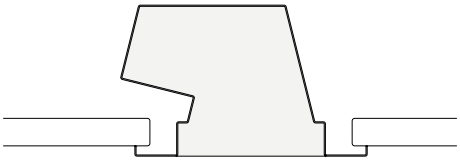
Staves spaced 100
Fixing brackets item 15 DP, 15 GF, 15 XB.



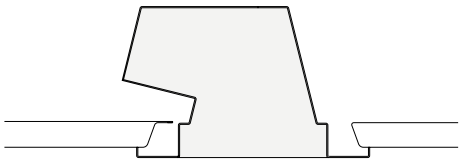
Staves spaced 100-200
Fixing brackets item 15 DP, 15 GF.



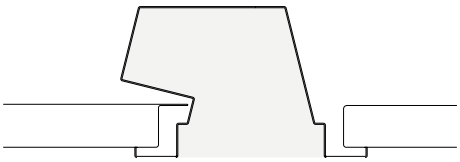
HD staves, spaced 100
Fixing brackets item 15 DP,15 GF.



Staves spaced 100-200
Fixing brackets item 15 DP, 15 GF.



Staves spaced 100
Fixing brackets item 15 DP,15 GF, 15 XB.

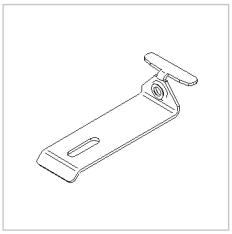


Staves spaced 100-200
Fixing brackets item 15 DP, 15 GF.

Spacing of load-bearing profiles

For perfect installation of the luminaires, the load-bearing profile sections should be positioned at the distances indicated above (net space between profiles).

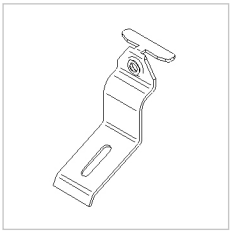
L 560 | Accessories



Fixing bracket in galvanised steel. Pack for 1 luminaire.

Code	Item
A0177	15ZH Brackets - L320-L350-L560 The pack contains 4 pieces.

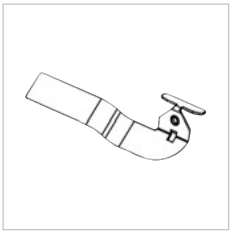
Brackets for lay-in installation on load bearing side profiles parallel to the luminaire with louvre (min. adjustment 45 mm, max 72 mm) with diffuser (min. adjustment 27 mm, max 65 mm).



Fixing bracket in galvanised steel for ceiling pull-up installation. Pack for 1 luminaire.

Code	Item
A0170	15BS Brackets - L320-L400-L560 The pack contains 4 pieces.

Brackets for lay-in installation on load bearing side profiles parallel to the luminaire with louvre (min. adjustment 18 mm, max 45 mm) with diffuser (min. adjustment 0 mm, max 40 mm).



Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.

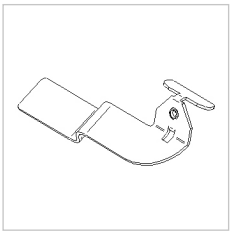
Code	Item
A0174	15DP Brackets - L560 The pack contains 4 pieces.

The bracket protruding 55 mm beyond the head side. Excursion min. 55 mm, max. 75 mm. Not suitable for diffused light recessed luminaires.

Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.

Code	Item
A0175	15GF Brackets - L560 The pack contains 4 pieces.

The bracket protruding 60 mm beyond the head side. Excursion min. 37 mm, max. 55 mm.



Head fixings bracket for installation of the luminaire on load bearing structures (transverse by the luminaire). Pack for 1 luminaire.

Code	Item
A0176	15XB Brackets - L560 The pack contains 4 pieces.

The bracket protruding 55 mm beyond the head side. Excursion min. 20 mm, max. 37 mm.

NEW

L 600 Diffused Light

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Perimetral frame in white polycarbonate with sealing gasket.
Anti-glare opal polycarbonate filter for brightness uniformity.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
5-pole terminal block (L-N-PE-DA/DA) quick connection for line connection with connection capacity 2x2.5 mm² per poles.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- diffuser in OP opal PMMA or SP polycarbonate, self-extinguishing V2
- different power levels, colour rendering indices and colour temperatures
- 3F Tunable White versione
- wiring: CLO (more information on page 598)
- brackets for pull-up installation
- emergency versions

Applications

Environments: hospital premises, aseptic, sterilised rooms, laboratories.
Environments requiring a high level of protection, high levels of light, lamp shielding and simplified cleaning.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.
Environments in which there are foodstuffs or machines with moving parts, with large temperature fluctuations, and generally, in any environments that require total protection against falling fragments, SP PC version with a polycarbonate diffuser can be supplied. If necessary an L/E version i.e. with the smooth part mounted externally, or specific luminaries with laminated glass with suitable frame can also be supplied.

LGS, VSS versions
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

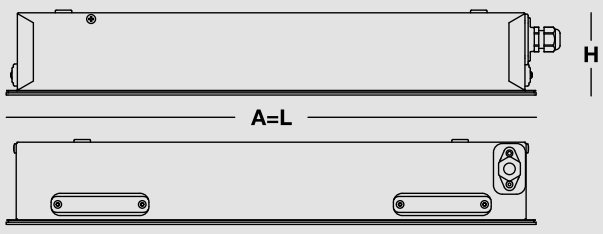
Installation

596 version
Lay-on or pull-up installation using the frame accessory.
599 version
Coplanar installation with inspectable metal panels.
621 version
Lay-in installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

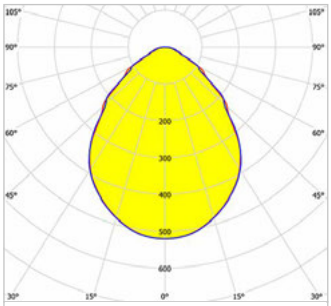
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 298.

L 600 Diffused Light LGS



Code 22822 L<3000 cd/m² 65°

EP | D | 650°C | IP64 IP65 | 1J | IK06 | HACCP

Average luminance <3000 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.

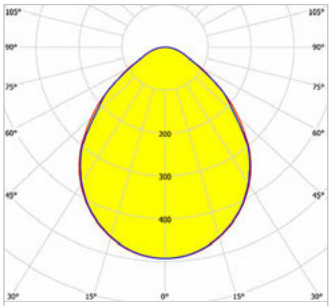
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 600 596x596 - DALI electronic wiring 230V-50/60Hz						
22821 NEW	L 600 28W/840 DALI LGS 596x596	32.5	3973	4000	>80	596x596x95
22839 NEW	L 600 35W/940 DALI LGS 596x596	39	3973	4000	>90	596x596x95
22822 NEW	L 600 42W/840 DALI LGS 596x596	45	5768	4000	>80	596x596x95
22840 NEW	L 600 52W/940 DALI LGS 596x596	55.5	5835	4000	>90	596x596x95
22823 NEW	L 600 63W/840 DALI LGS 596x596	67	7988	4000	>80	596x596x95
22841 NEW	L 600 75W/940 DALI LGS 596x596	81.5	7925	4000	>90	596x596x95
L 600 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22830 NEW	L 600 28W/840 DALI EP LGS 596x596	33.5	3973	4000	>80	596x596x95
22848 NEW	L 600 35W/940 DALI EP LGS 596x596	40	3973	4000	>90	596x596x95
22831 NEW	L 600 42W/840 DALI EP LGS 596x596	46	5768	4000	>80	596x596x95
22849 NEW	L 600 52W/940 DALI EP LGS 596x596	56.5	5835	4000	>90	596x596x95
22832 NEW	L 600 63W/840 DALI EP LGS 596x596	68	7988	4000	>80	596x596x95
22850 NEW	L 600 75W/940 DALI EP LGS 596x596	82.5	7925	4000	>90	596x596x95
L 600 599x599 - DALI electronic wiring 230V-50/60Hz						
22824 NEW	L 600 28W/840 DALI LGS 599x599	32.5	3973	4000	>80	599x599x95
22842 NEW	L 600 35W/940 DALI LGS 599x599	39	3973	4000	>90	599x599x95
22825 NEW	L 600 42W/840 DALI LGS 599x599	45	5768	4000	>80	599x599x95
22843 NEW	L 600 52W/940 DALI LGS 599x599	55.5	5835	4000	>90	599x599x95
22826 NEW	L 600 63W/840 DALI LGS 599x599	67	7988	4000	>80	599x599x95
22844 NEW	L 600 75W/940 DALI LGS 599x599	81.5	7925	4000	>90	599x599x95
L 600 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22833 NEW	L 600 28W/840 DALI EP LGS 599x599	33.5	3973	4000	>80	599x599x95
22851 NEW	L 600 35W/940 DALI EP LGS 599x599	40	3973	4000	>90	599x599x95
22834 NEW	L 600 42W/840 DALI EP LGS 599x599	46	5768	4000	>80	599x599x95
22852 NEW	L 600 52W/940 DALI EP LGS 599x599	56.5	5835	4000	>90	599x599x95
22835 NEW	L 600 63W/840 DALI EP LGS 599x599	68	7988	4000	>80	599x599x95
22853 NEW	L 600 75W/940 DALI EP LGS 599x599	82.5	7925	4000	>90	599x599x95

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 600 621x621 - DALI electronic wiring 230V-50/60Hz						
22827 NEW	L 600 28W/840 DALI LGS 621x621	32.5	3973	4000	>80	621x621x95
22845 NEW	L 600 35W/940 DALI LGS 621x621	39	3973	4000	>90	621x621x95
22828 NEW	L 600 42W/840 DALI LGS 621x621	45	5768	4000	>80	621x621x95
22846 NEW	L 600 52W/940 DALI LGS 621x621	55.5	5835	4000	>90	621x621x95
22829 NEW	L 600 63W/840 DALI LGS 621x621	67	7988	4000	>80	621x621x95
22847 NEW	L 600 75W/940 DALI LGS 621x621	81.5	7925	4000	>90	621x621x95
L 600 621x621 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22836 NEW	L 600 28W/840 DALI EP LGS 621x621	33.5	3973	4000	>80	621x621x95
22854 NEW	L 600 35W/940 DALI EP LGS 621x621	40	3973	4000	>90	621x621x95
22837 NEW	L 600 42W/840 DALI EP LGS 621x621	46	5768	4000	>80	621x621x95
22855 NEW	L 600 52W/940 DALI EP LGS 621x621	56.5	5835	4000	>90	621x621x95
22838 NEW	L 600 63W/840 DALI EP LGS 621x621	68	7988	4000	>80	621x621x95
22856 NEW	L 600 75W/940 DALI EP LGS 621x621	82.5	7925	4000	>90	621x621x95

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 298.

L 600 Diffused Light VS



Code 22858 L<3000 cd/m² 65°

EP | D | 960°C | IP64 IP65 | 5J | IK08

Average luminance <3000 cd/m² for radial angles >65°.
VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm.

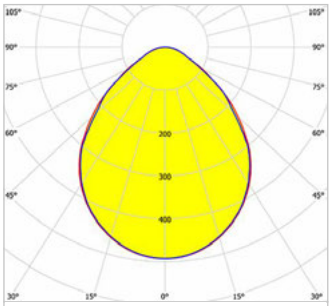
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 600 596x596 - DALI electronic wiring 230V-50/60Hz						
22857 NEW	L 600 28W/840 DALI VS 596x596	32.5	3857	4000	>80	596x596x95
22875 NEW	L 600 35W/940 DALI VS 596x596	39	3857	4000	>90	596x596x95
22858 NEW	L 600 42W/840 DALI VS 596x596	45	5605	4000	>80	596x596x95
22876 NEW	L 600 52W/940 DALI VS 596x596	55.5	5669	4000	>90	596x596x95
22859 NEW	L 600 63W/840 DALI VS 596x596	67	7774	4000	>80	596x596x95
22877 NEW	L 600 75W/940 DALI VS 596x596	81.5	7713	4000	>90	596x596x95
L 600 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22866 NEW	L 600 28W/840 DALI EP VS 596x596	33.5	3857	4000	>80	596x596x95
22884 NEW	L 600 35W/940 DALI EP VS 596x596	40	3857	4000	>90	596x596x95
22867 NEW	L 600 42W/840 DALI EP VS 596x596	46	5605	4000	>80	596x596x95
22885 NEW	L 600 52W/940 DALI EP VS 596x596	56.5	5669	4000	>90	596x596x95
22868 NEW	L 600 63W/840 DALI EP VS 596x596	68	7774	4000	>80	596x596x95
22886 NEW	L 600 75W/940 DALI EP VS 596x596	82.5	7713	4000	>90	596x596x95
L 600 599x599 - DALI electronic wiring 230V-50/60Hz						
22860 NEW	L 600 28W/840 DALI VS 599x599	32.5	3857	4000	>80	599x599x95
22878 NEW	L 600 35W/940 DALI VS 599x599	39	3857	4000	>90	599x599x95
22861 NEW	L 600 42W/840 DALI VS 599x599	45	5605	4000	>80	599x599x95
22879 NEW	L 600 52W/940 DALI VS 599x599	55.5	5669	4000	>90	599x599x95
22862 NEW	L 600 63W/840 DALI VS 599x599	67	7774	4000	>80	599x599x95
22880 NEW	L 600 75W/940 DALI VS 599x599	81.5	7713	4000	>90	599x599x95
L 600 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22869 NEW	L 600 28W/840 DALI EP VS 599x599	33.5	3857	4000	>80	599x599x95
22887 NEW	L 600 35W/940 DALI EP VS 599x599	40	3857	4000	>90	599x599x95
22870 NEW	L 600 42W/840 DALI EP VS 599x599	46	5605	4000	>80	599x599x95
22888 NEW	L 600 52W/940 DALI EP VS 599x599	56.5	5669	4000	>90	599x599x95
22871 NEW	L 600 63W/840 DALI EP VS 599x599	68	7774	4000	>80	599x599x95
22889 NEW	L 600 75W/940 DALI EP VS 599x599	82.5	7713	4000	>90	599x599x95

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 600 621x621 - DALI electronic wiring 230V-50/60Hz						
22863 NEW	L 600 28W/840 DALI VS 621x621	32.5	3857	4000	>80	621x621x95
22881 NEW	L 600 35W/940 DALI VS 621x621	39	3857	4000	>90	621x621x95
22864 NEW	L 600 42W/840 DALI VS 621x621	45	5605	4000	>80	621x621x95
22882 NEW	L 600 52W/940 DALI VS 621x621	55.5	5669	4000	>90	621x621x95
22865 NEW	L 600 63W/840 DALI VS 621x621	67	7774	4000	>80	621x621x95
22883 NEW	L 600 75W/940 DALI VS 621x621	81.5	7713	4000	>90	621x621x95
L 600 621x621 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22872 NEW	L 600 28W/840 DALI EP VS 621x621	33.5	3857	4000	>80	621x621x95
22890 NEW	L 600 35W/940 DALI EP VS 621x621	40	3857	4000	>90	621x621x95
22873 NEW	L 600 42W/840 DALI EP VS 621x621	46	5605	4000	>80	621x621x95
22891 NEW	L 600 52W/940 DALI EP VS 621x621	56.5	5669	4000	>90	621x621x95
22874 NEW	L 600 63W/840 DALI EP VS 621x621	68	7774	4000	>80	621x621x95
22892 NEW	L 600 75W/940 DALI EP VS 621x621	82.5	7713	4000	>90	621x621x95

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 298.

L 600 Diffused Light VSS



Code 22894 L<3000 cd/m² 65°

EP | D | 960°C | IP64 IP65 | 5J | IK08 | HACCP

Average luminance <3000 cd/m² for radial angles >65°.
VSS moulded laminated dipped glass, non-combustible, thickness 7 mm.

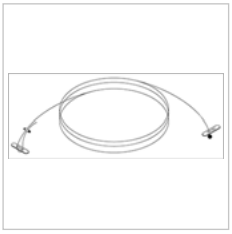
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 600 596x596 - DALI electronic wiring 230V-50/60Hz						
22893 NEW	L 600 35W/940 DALI VSS 596x596	39	3587	4000	>90	596x596x95
22894 NEW	L 600 52W/940 DALI VSS 596x596	55.5	5275	4000	>90	596x596x95
22895 NEW	L 600 75W/940 DALI VSS 596x596	81.5	7176	4000	>90	596x596x95
L 600 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22902 NEW	L 600 35W/940 DALI EP VSS 596x596	40	3587	4000	>90	596x596x95
22903 NEW	L 600 52W/940 DALI EP VSS 596x596	56.5	5275	4000	>90	596x596x95
22904 NEW	L 600 75W/940 DALI EP VSS 596x596	82.5	7176	4000	>90	596x596x95
L 600 621x621 - DALI electronic wiring 230V-50/60Hz						
22899 NEW	L 600 35W/940 DALI VSS 621x621	39	3587	4000	>90	621x621x95
22900 NEW	L 600 52W/940 DALI VSS 621x621	55.5	5275	4000	>90	621x621x95
22901 NEW	L 600 75W/940 DALI VSS 621x621	81.5	7176	4000	>90	621x621x95
L 600 621x621 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
22908 NEW	L 600 35W/940 DALI EP VSS 621x621	40	3587	4000	>90	621x621x95
22909 NEW	L 600 52W/940 DALI EP VSS 621x621	56.5	5275	4000	>90	621x621x95
22910 NEW	L 600 75W/940 DALI EP VSS 621x621	82.5	7176	4000	>90	621x621x95

L 600 | Accessories

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0579	Safety wire with brackets

Accessory compatible with luminaries with dimensions of 596x596 mm or 621x621 mm.



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

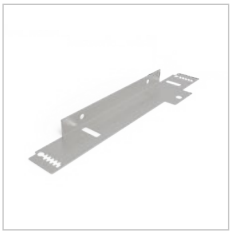
Code	Item
A0477	Safety wire

Accessory compatible with luminaries with dimensions of 599x599 mm.

Adapter frame in white-painted steel, for installing luminaries with dimensions of 596x596 mm for pull-up installations on plasterboard false ceilings.

Code	Item
A0798	621x621 frame + brackets

Accessory not compatible with VSS versions.



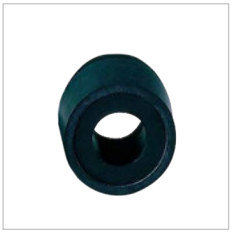
Pair of brackets in galvanised steel, for installing luminaries with dimensions of 599x599 mm coplanar with metal panels with concealed structure. For square luminaires (height profiles min. 29.6 mm, max 62.5 mm) with possible intermediate adjustments of 3.5mm.

Code	Item
A0537 NEW	Pair of flush ceiling mounting brackets

Anti-condensation diffuser cable gland.

Code	Item
A0187	Anti-condensation cable gland

Recommended for installations in environments with temperature sudden changes or subject to condensation.
Suitable only for concealed profiles of max. height 42 mm.



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

These accessories must ALWAYS be used with one of the following codes: A0187.

NEW

L 650 Diffused Light

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Perimetral frame in white stainless steel.
Anti-glare opal polycarbonate filter for brightness uniformity.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
5-pole terminal block (L-N-PE-DA/DA) quick connection for line connection with connection capacity 2x2.5 mm² per poles.

Source characteristics

- Squared LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- diffuser in OP opal PMMA or SP polycarbonate, self-extinguishing V2
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: hospital premises, transit areas, laboratories, platform-roof, underpasses.
Environments: sterilized, aseptic.
In hospital environments, food industry or machines with parts in motion, with considerable sudden temperature changes, and in general in any environments requiring total protection against falling fragments, use luminaires with laminated glass only.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.
Environments requiring a high level of protection and simplified cleaning.
Environments with exacting visual tasks, where diffused soft light for optimum visual comfort is required.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

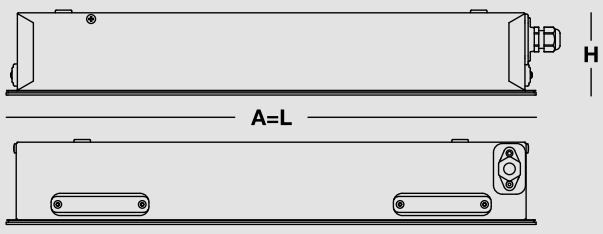
Installation

596 version
Lay-in installation.
599 version
Coplanar installation with inspectable metal panels.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

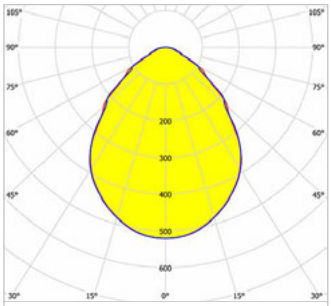
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 303.

L 650 Diffused Light LGS



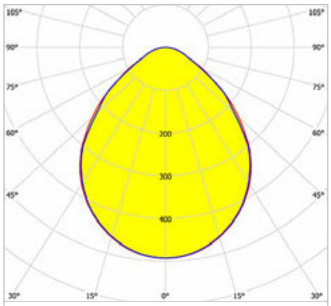
EP | D | 650°C | IP64 IP66 | 1J | IK06

Driver/LED SELV | HACCP

Average luminance <3000 cd/m² for radial angles >65°.
LGS micro-prismatic flat diffuser in transparent methacrylate, multi-lenticular exterior, anti-glare.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 650 596x596 - DALI electronic wiring 230V-50/60Hz						
21856 NEW	L 650 28W/840 DALI LGS 596x596	33	3774	4000	>80	596x596x95
21868 NEW	L 650 35W/940 DALI LGS 596x596	40	3774	4000	>90	596x596x95
21857 NEW	L 650 42W/840 DALI LGS 596x596	47	5480	4000	>80	596x596x95
21869 NEW	L 650 52W/940 DALI LGS 596x596	57	5543	4000	>90	596x596x95
21858 NEW	L 650 63W/840 DALI LGS 596x596	69	7594	4000	>80	596x596x95
21870 NEW	L 650 75W/940 DALI LGS 596x596	81	7534	4000	>90	596x596x95
L 650 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21862 NEW	L 650 28W/840 DALI EP LGS 596x596	34	3774	4000	>80	596x596x95
21874 NEW	L 650 35W/940 DALI EP LGS 596x596	41	3774	4000	>90	596x596x95
21863 NEW	L 650 42W/840 DALI EP LGS 596x596	48	5480	4000	>80	596x596x95
21875 NEW	L 650 52W/940 DALI EP LGS 596x596	58	5543	4000	>90	596x596x95
21864 NEW	L 650 63W/840 DALI EP LGS 596x596	70	7594	4000	>80	596x596x95
21876 NEW	L 650 75W/940 DALI EP LGS 596x596	82	7534	4000	>90	596x596x95
L 650 599x599 - DALI electronic wiring 230V-50/60Hz						
21859 NEW	L 650 28W/840 DALI LGS 599x599	33	3774	4000	>80	599x599x95
21871 NEW	L 650 35W/940 DALI LGS 599x599	40	3774	4000	>90	599x599x95
21860 NEW	L 650 42W/840 DALI LGS 599x599	47	5480	4000	>80	599x599x95
21872 NEW	L 650 52W/940 DALI LGS 599x599	57	5543	4000	>90	599x599x95
21861 NEW	L 650 63W/840 DALI LGS 599x599	69	7594	4000	>80	599x599x95
21873 NEW	L 650 75W/940 DALI LGS 599x599	81	7534	4000	>90	599x599x95
L 650 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21865 NEW	L 650 28W/840 DALI EP LGS 599x599	34	3774	4000	>80	599x599x95
21877 NEW	L 650 35W/940 DALI EP LGS 599x599	41	3774	4000	>90	599x599x95
21866 NEW	L 650 42W/840 DALI EP LGS 599x599	48	5480	4000	>80	599x599x95
21878 NEW	L 650 52W/940 DALI EP LGS 599x599	58	5543	4000	>90	599x599x95
21867 NEW	L 650 63W/840 DALI EP LGS 599x599	70	7594	4000	>80	599x599x95
21879 NEW	L 650 75W/940 DALI EP LGS 599x599	82	7534	4000	>90	599x599x95

L 650 Diffused Light VSS



Code 21880 L<3000 cd/m² 65°

EP | D | 960°C | IP64 IP66 | 5J | IK08

Driver/LED SELV | HACCP

Average luminance <3000 cd/m² for radial angles >65°.
VSS moulded laminated dipped glass, non-combustible, thickness 7 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
L 650 596x596 - DALI electronic wiring 230V-50/60Hz						
21880 NEW	L 650 28W/840 DALI VSS 596x596	33	3405	4000	>80	596x596x95
21892 NEW	L 650 35W/940 DALI VSS 596x596	40	3405	4000	>90	596x596x95
21881 NEW	L 650 42W/840 DALI VSS 596x596	47	4958	4000	>80	596x596x95
21893 NEW	L 650 52W/940 DALI VSS 596x596	57	5015	4000	>90	596x596x95
21882 NEW	L 650 63W/840 DALI VSS 596x596	69	6873	4000	>80	596x596x95
21894 NEW	L 650 75W/940 DALI VSS 596x596	81	6819	4000	>90	596x596x95
L 650 596x596 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21886 NEW	L 650 28W/840 DALI EP VSS 596x596	34	3405	4000	>80	596x596x95
21898 NEW	L 650 35W/940 DALI EP VSS 596x596	41	3405	4000	>90	596x596x95
21887 NEW	L 650 42W/840 DALI EP VSS 596x596	48	4958	4000	>80	596x596x95
21899 NEW	L 650 52W/940 DALI EP VSS 596x596	58	5015	4000	>90	596x596x95
21888 NEW	L 650 63W/840 DALI EP VSS 596x596	70	6873	4000	>80	596x596x95
21900 NEW	L 650 75W/940 DALI EP VSS 596x596	82	6819	4000	>90	596x596x95
L 650 599x599 - DALI electronic wiring 230V-50/60Hz						
21883 NEW	L 650 28W/840 DALI VSS 599x599	33	3405	4000	>80	599x599x95
21895 NEW	L 650 35W/940 DALI VSS 599x599	40	3405	4000	>90	599x599x95
21884 NEW	L 650 42W/840 DALI VSS 599x599	47	4958	4000	>80	599x599x95
21896 NEW	L 650 52W/940 DALI VSS 599x599	57	5015	4000	>90	599x599x95
21885 NEW	L 650 63W/840 DALI VSS 599x599	69	6873	4000	>80	599x599x95
21897 NEW	L 650 75W/940 DALI VSS 599x599	81	6819	4000	>90	599x599x95
L 650 599x599 - DALI - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
21889 NEW	L 650 28W/840 DALI EP VSS 599x599	34	3405	4000	>80	599x599x95
21901 NEW	L 650 35W/940 DALI EP VSS 599x599	41	3405	4000	>90	599x599x95
21890 NEW	L 650 42W/840 DALI EP VSS 599x599	48	4958	4000	>80	599x599x95
21902 NEW	L 650 52W/940 DALI EP VSS 599x599	58	5015	4000	>90	599x599x95
21891 NEW	L 650 63W/840 DALI EP VSS 599x599	70	6873	4000	>80	599x599x95
21903 NEW	L 650 75W/940 DALI EP VSS 599x599	82	6819	4000	>90	599x599x95

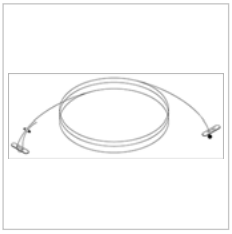
Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

L 650 | Accessories

Anti-fall safety cable with pair of brackets for fixing the housing to the building structure. Length 2.5 m.

Accessory compatible with luminaries with dimensions of 596x596 mm.

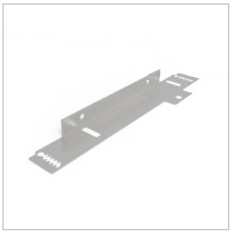
Code	Item
A0579	Safety wire with brackets



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Accessory compatible with luminaries with dimensions of 599x599 mm.

Code	Item
A0477	Safety wire



Pair of brackets in galvanised steel, for installing luminaries with dimensions of 599x599 mm coplanar with metal panels with concealed structure. For square luminaires (height profiles min. 29.6 mm, max 62.5 mm) with possible intermediate adjustments of 3.5mm.

Code	Item
A0537 NEW	Pair of flush ceiling mounting brackets

Anti-condensation diffuser cable gland.

Code	Item
A0187	Anti-condensation cable gland

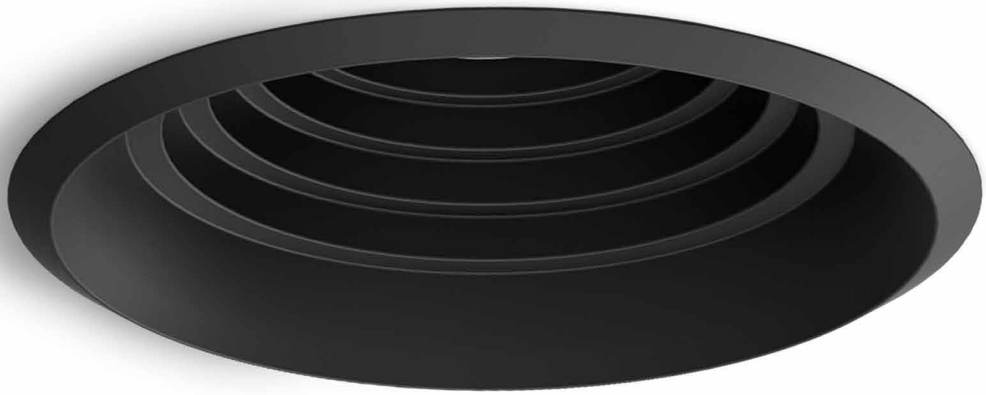
Recommended for installations in environments with temperature sudden changes or subject to condensation.
Suitable only for concealed profiles of max. height 42 mm.

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

These accessories must ALWAYS be used with one of the following codes: A0187.


308



3F Reno

> www.3F-Filippi.com/3F Reno

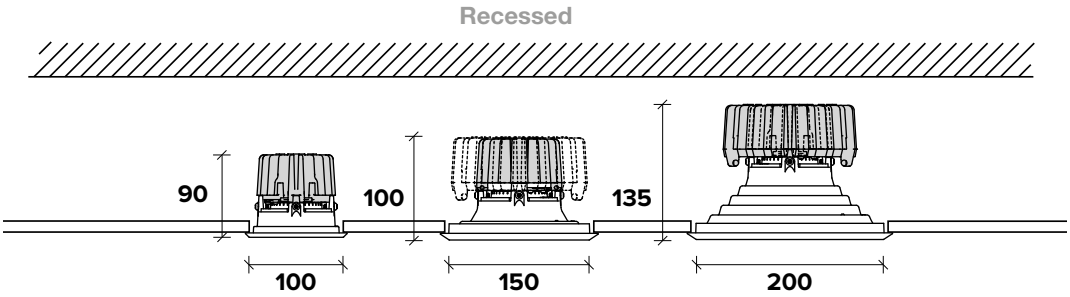
To combine comfort, effectiveness and efficiency: this is the objective of 3F Reno, the new recessed spotlight designed to provide quality lighting in every context, from professional to commercial environments.
Available in 3 different sizes (100, 150 and 200 millimetre recessed holes), it provides maximum installation flexibility: a wide range of luminous fluxes (from 900 lumen right up to more than 4000 lumen), excellent colour rendering and a high level of visual comfort.
3F Reno is available with 4 different luminous flux distributions: Wide, Spot, Elliptical and UGR.
3F Reno comes in two different colours (black and white) to adapt better to the different contexts it is used in.

+ Overview

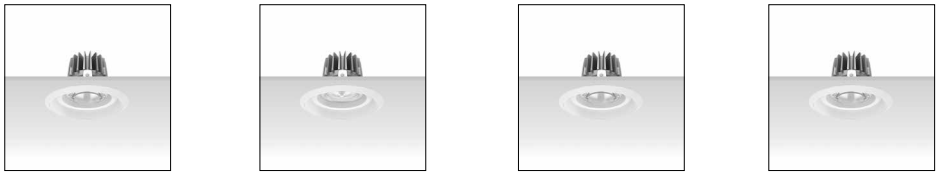
- Luminous efficacy up to 125 lumen/watt.
- Luminous fluxes from 1150 to 4103 lumens.
- Extensive installation pitch.
- UGR <16 (UGR version).
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

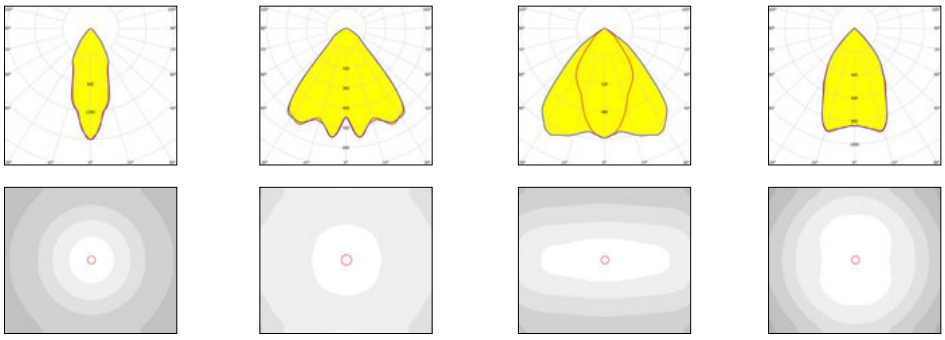
Product range

3F Reno



3F Reno White

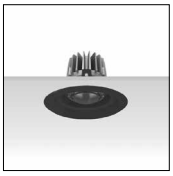


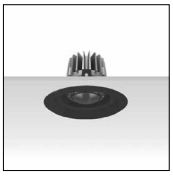
Model		SPOT	Wide	Elliptical	UGR
Average luminance for angles> 65 (cd / m²)		<3000	>3000	>3000	<1000
UGR	100	<21	/	<21	/
	150	<21	/	<21	<19
	200	<19	<21	<21	<19
Photometric distribution					

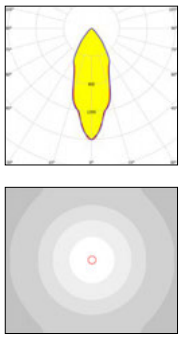
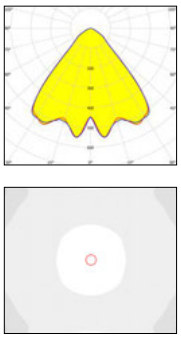
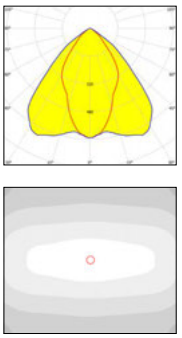
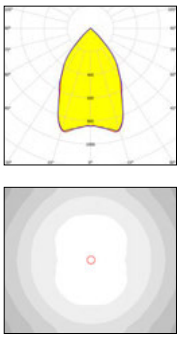
3F Reno 150
White

3F Reno 150
Black

3F Reno
Black



Model		SPOT	Wide	Elliptical	UGR
Average luminance for angles> 65 (cd / m²)		<3000	>3000	>3000	<500
UGR	**100**	<21	/	<21	/
	150	<21	<21	<21	<19
	200	<19	<19	<21	<19
Photometric distribution					

Product advantages

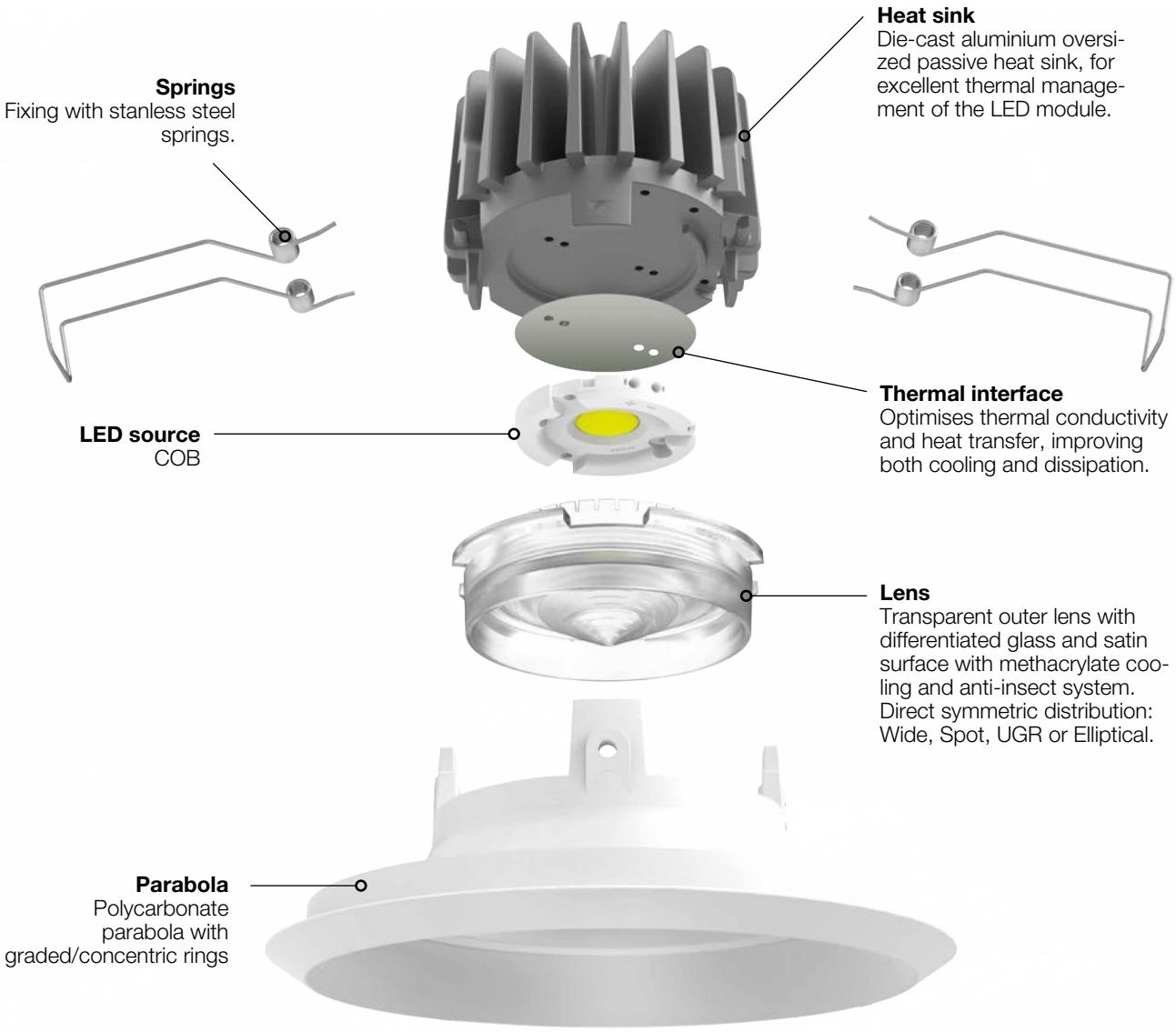
3F Reno was developed to obtain the lowest luminance level possible by working with the lens on flow distribution: the percentage of light emitted directly (which therefore does not interact with the reflector) is higher than **95%**.
The stepped surface visibly halves the reflective surface: this structure practically eliminates annoying reflections that can affect the viewer's eye even if they are at a discrete distance from the product (as in open plan offices).
In installations where minimum luminance values are required, the BK version with black reflector has reduced values up to **95%**
(3F Reno 200 BK WIDE) compared to the WH version made of white polycarbonate.

VERSIONS WITH A WHITE REFLECTOR (WH):

3F Reno 100 WH | **3F Reno 150 WH** | **3F Reno 200 WH**

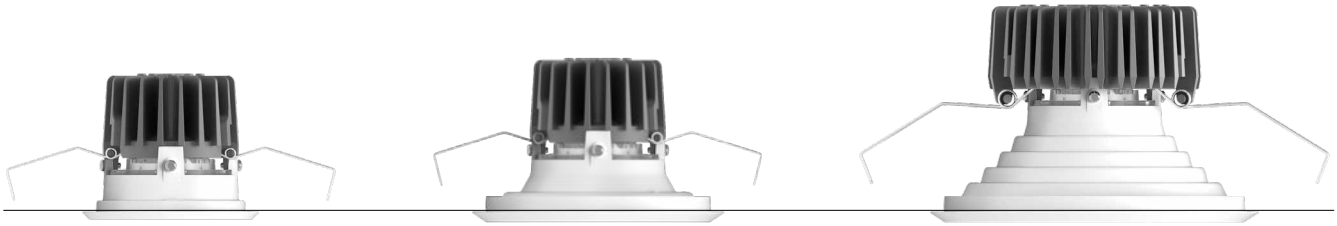
VERSIONS WITH A BLACK REFLECTOR (BK):

3F Reno 100 BK | **3F Reno 150 BK** | **3F Reno 200 BK**



Every environment is unique: to provide the most appropriate lighting according to specific needs and requirements 3F Reno comes in 3 different sized recessed holes: 100mm, 150mm and 200mm (actual sizes 116mm, 166mm and 216mm). To facilitate the installation of every product every fixture is supplied with a template to make the hole.

All versions share a significant advantage in terms of practicality: we have developed a highly efficient, compact heat sink that facilitates installation in shallow technical spaces, ensuring that these sizes do not vary **regardless of the photometric distribution used** (unlike what happens for most products on the market). This way the recessed dimensions from the external edge of the plasterboard are as follows:



3F Reno **100**

3F Reno **150**

3F Reno **200**

3F Reno White

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution: wide, spot, UGR, elliptical.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L70/B10): 80000 h. (tq+25°C)
Colour temperature available /840 and /930.
UGR version
Average luminance <1000 cd/m² for radial angles >65°.

Mechanical characteristics
Passive heat dissipator in die-casting aluminium, oversized, for optimum thermal management of the LED module.
Parabolic element with graduated/ concentric rings in white polycarbonate.
Transparent external lens with glossy and satin differentiated surfaces, with a cooling and anti-insect system in methacrylate.
Internal specular metallic louvre to optimise control of the luminous flux in polycarbonate in Spot, UGR and Elliptical versions.
Fastening spring clips in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows, service areas.
In false ceilings with narrow voids.
Wide version
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
UGR version
In environments with VDTs, managerial offices and staterooms, public offices and schools.

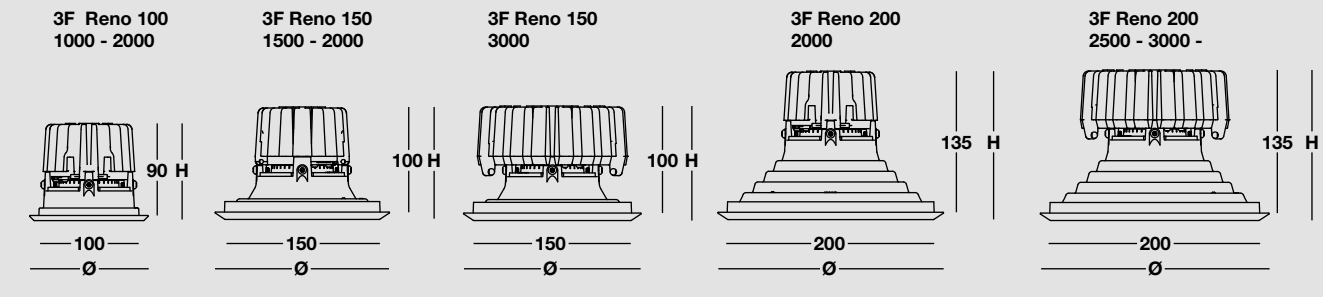
Installation

Pull-up installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

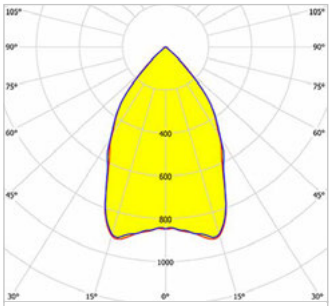
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 323.

3F Reno White UGR



Code 30721 L<500 cd/m² 65°

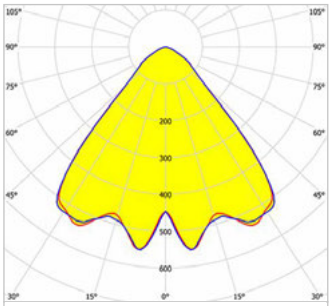
EP | 650°C | IP20 IP44 | 0,5J | IK04

Classe II | Driver/LED SELV

150 WH - Average luminance <1000 cd/m² for radial angles >65°.
200 WH - Average luminance <500 cd/m² for radial angles >65°.
Internal UGR louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
30408	3F Reno 150 WH 1500/840 UGR	64°	14	1756	4000	>80	166x107
30409	3F Reno 150 WH 2000/840 UGR	64°	20	2430	4000	>80	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
30430	3F Reno 150 WH 1500/840 DALI UGR	64°	14	1756	4000	>80	166x107
30431	3F Reno 150 WH 2000/840 DALI UGR	64°	20	2430	4000	>80	166x107
3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30419	3F Reno 150 WH 1500/840 EP UGR	64°	15	1756	4000	>80	166x107
30420	3F Reno 150 WH 2000/840 EP UGR	64°	21	2430	4000	>80	166x107
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
30721	3F Reno 200 WH 2000/840 UGR	65°	20	2411	4000	>80	216x142
30725	3F Reno 200 WH 2000/930 UGR	65°	24	2308	3000	>90	216x142
30730	3F Reno 200 WH 2500/930 UGR	65°	29	2571	3000	>90	216x142
30726	3F Reno 200 WH 3000/840 UGR	65°	28	3235	4000	>80	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
30753	3F Reno 200 WH 2000/840 DALI UGR	65°	20	2411	4000	>80	216x142
30757	3F Reno 200 WH 2000/930 DALI UGR	65°	24	2308	3000	>90	216x142
30762	3F Reno 200 WH 2500/930 DALI UGR	65°	29	2571	3000	>90	216x142
30758	3F Reno 200 WH 3000/840 DALI UGR	65°	28	3235	4000	>80	216x142
3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30737	3F Reno 200 WH 2000/840 EP UGR	65°	21	2411	4000	>80	216x142
30741	3F Reno 200 WH 2000/930 EP UGR	65°	25	2308	3000	>90	216x142
30746	3F Reno 200 WH 2500/930 EP UGR	65°	29	2571	3000	>90	216x142
30742	3F Reno 200 WH 3000/840 EP UGR	65°	29	3235	4000	>80	216x142

3F Reno White Wide



Code 30349

EP | 650°C | IP20 IP44 | 0,5J | IK04

Classe II | Driver/LED SELV

Wide lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG0 low risk, (IEC 62471) excluding versions 4000 - RG1 (further information on page 18).

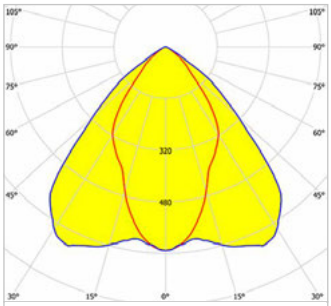
Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz							
30073	3F Reno 100 WH 1000/930 WIDE	84°	14	1150	3000	>90	116x95
30069	3F Reno 100 WH 1000/840 WIDE	84°	14	1252	4000	>80	116x95
30077	3F Reno 100 WH 2000/840 WIDE	84°	20	1953	4000	>80	116x95
30081	3F Reno 100 WH 2000/930 WIDE	84°	24	1870	3000	>90	116x95
3F Reno 100 - DALI electronic wiring 230V-50/60Hz							
30107	3F Reno 100 WH 1000/930 DALI WIDE	84°	14	1150	3000	>90	116x95
30103	3F Reno 100 WH 1000/840 DALI WIDE	84°	14	1252	4000	>80	116x95
30111	3F Reno 100 WH 2000/840 DALI WIDE	84°	20	1953	4000	>80	116x95
30115	3F Reno 100 WH 2000/930 DALI WIDE	84°	24	1870	3000	>90	116x95
3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30090	3F Reno 100 WH 1000/930 EP WIDE	84°	15	1150	3000	>90	116x95
30086	3F Reno 100 WH 1000/840 EP WIDE	84°	15	1252	4000	>80	116x95
30094	3F Reno 100 WH 2000/840 EP WIDE	84°	21	1953	4000	>80	116x95
30098	3F Reno 100 WH 2000/930 EP WIDE	84°	25	1870	3000	>90	116x95
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
30341	3F Reno 150 WH 2000/840 WIDE	84°	20	2014	4000	>80	166x107
30345	3F Reno 150 WH 2000/930 WIDE	84°	24	1928	3000	>90	166x107
30349	3F Reno 150 WH 3000/840 WIDE	84°	28	2703	4000	>80	166x107
30353	3F Reno 150 WH 3000/930 WIDE	84°	37	2712	3000	>90	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
30375	3F Reno 150 WH 2000/840 DALI WIDE	84°	20	2014	4000	>80	166x107
30379	3F Reno 150 WH 2000/930 DALI WIDE	84°	24	1928	3000	>90	166x107
30383	3F Reno 150 WH 3000/840 DALI WIDE	84°	28	2703	4000	>80	166x107
30387	3F Reno 150 WH 3000/930 DALI WIDE	84°	37	2712	3000	>90	166x107
3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30358	3F Reno 150 WH 2000/840 EP WIDE	84°	21	2014	4000	>80	166x107
30362	3F Reno 150 WH 2000/930 EP WIDE	84°	25	1928	3000	>90	166x107
30366	3F Reno 150 WH 3000/840 EP WIDE	84°	29	2703	4000	>80	166x107
30370	3F Reno 150 WH 3000/930 EP WIDE	84°	38	2712	3000	>90	166x107

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 323.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
30621	3F Reno 200 WH 2000/840 WIDE	85°	20	1925	4000	>80	216x142
30625	3F Reno 200 WH 2000/930 WIDE	85°	24	1843	3000	>90	216x142
30629	3F Reno 200 WH 3000/840 WIDE	85°	28	2584	4000	>80	216x142
30637	3F Reno 200 WH 4000/840 WIDE	85°	36	3273	4000	>80	216x142
30633	3F Reno 200 WH 3000/930 WIDE	85°	37	2592	3000	>90	216x142
30641	3F Reno 200 WH 4000/930 WIDE	85°	43	2922	3000	>90	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
30671	3F Reno 200 WH 2000/840 DALI WIDE	85°	20	1925	4000	>80	216x142
30675	3F Reno 200 WH 2000/930 DALI WIDE	85°	24	1843	3000	>90	216x142
30679	3F Reno 200 WH 3000/840 DALI WIDE	85°	28	2584	4000	>80	216x142
30687	3F Reno 200 WH 4000/840 DALI WIDE	85°	36	3273	4000	>80	216x142
30683	3F Reno 200 WH 3000/930 DALI WIDE	85°	37	2592	3000	>90	216x142
30691	3F Reno 200 WH 4000/930 DALI WIDE	85°	43	2922	3000	>90	216x142
3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30646	3F Reno 200 WH 2000/840 EP WIDE	85°	21	1925	4000	>80	216x142
30650	3F Reno 200 WH 2000/930 EP WIDE	85°	25	1843	3000	>90	216x142
30654	3F Reno 200 WH 3000/840 EP WIDE	85°	29	2584	4000	>80	216x142
30662	3F Reno 200 WH 4000/840 EP WIDE	85°	37	3273	4000	>80	216x142
30658	3F Reno 200 WH 3000/930 EP WIDE	85°	38	2592	3000	>90	216x142
30666	3F Reno 200 WH 4000/930 EP WIDE	85°	44	2922	3000	>90	216x142

3F Reno White Elliptical



Code 30461

EP | 650°C | IP20 IP44 | 0,5J | IK04

Classe II | Driver/LED SELV

Internal elliptical louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

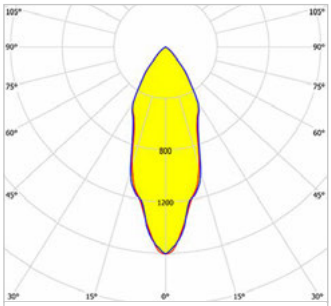
Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz							
30209	3F Reno 100 WH 1000/930 ELL	90° - 64°	14	1221	3000	>90	116x95
30205	3F Reno 100 WH 1000/840 ELL	90° - 64°	14	1330	4000	>80	116x95
30213	3F Reno 100 WH 2000/840 ELL	90° - 64°	20	2075	4000	>80	116x95
30217	3F Reno 100 WH 2000/930 ELL	90° - 64°	24	1987	3000	>90	116x95
3F Reno 100 - DALI electronic wiring 230V-50/60Hz							
30243	3F Reno 100 WH 1000/930 DALI ELL	90° - 64°	14	1221	3000	>90	116x95
30239	3F Reno 100 WH 1000/840 DALI ELL	90° - 64°	14	1330	4000	>80	116x95
30247	3F Reno 100 WH 2000/840 DALI ELL	90° - 64°	20	2075	4000	>80	116x95
30251	3F Reno 100 WH 2000/930 DALI ELL	90° - 64°	24	1987	3000	>90	116x95
3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30226	3F Reno 100 WH 1000/930 EP ELL	90° - 64°	15	1221	3000	>90	116x95
30222	3F Reno 100 WH 1000/840 EP ELL	90° - 64°	15	1330	4000	>80	116x95
30230	3F Reno 100 WH 2000/840 EP ELL	90° - 64°	21	2075	4000	>80	116x95
30234	3F Reno 100 WH 2000/930 EP ELL	90° - 64°	25	1987	3000	>90	116x95
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
30453	3F Reno 150 WH 2000/840 ELL	90° - 62°	20	2097	4000	>80	166x107
30457	3F Reno 150 WH 2000/930 ELL	90° - 62°	24	2008	3000	>90	166x107
30461	3F Reno 150 WH 3000/840 ELL	90° - 62°	28	2815	4000	>80	166x107
30465	3F Reno 150 WH 3000/930 ELL	90° - 62°	37	2824	3000	>90	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
30487	3F Reno 150 WH 2000/840 DALI ELL	90° - 62°	20	2097	4000	>80	166x107
30491	3F Reno 150 WH 2000/930 DALI ELL	90° - 62°	24	2008	3000	>90	166x107
30495	3F Reno 150 WH 3000/840 DALI ELL	90° - 62°	28	2815	4000	>80	166x107
30499	3F Reno 150 WH 3000/930 DALI ELL	90° - 62°	37	2824	3000	>90	166x107
3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30470	3F Reno 150 WH 2000/840 EP ELL	90° - 62°	21	2097	4000	>80	166x107
30474	3F Reno 150 WH 2000/930 EP ELL	90° - 62°	25	2008	3000	>90	166x107
30478	3F Reno 150 WH 3000/840 EP ELL	90° - 62°	29	2815	4000	>80	166x107
30482	3F Reno 150 WH 3000/930 EP ELL	90° - 62°	38	2824	3000	>90	166x107

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 323.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
30785	3F Reno 200 WH 2000/840 ELL	90° - 65°	20	2053	4000	>80	216x142
30789	3F Reno 200 WH 2000/930 ELL	90° - 65°	24	1965	3000	>90	216x142
30793	3F Reno 200 WH 3000/840 ELL	90° - 65°	28	2755	4000	>80	216x142
30801	3F Reno 200 WH 4000/840 ELL	90° - 65°	36	3490	4000	>80	216x142
30797	3F Reno 200 WH 3000/930 ELL	90° - 65°	38	2764	3000	>90	216x142
30805	3F Reno 200 WH 4000/930 ELL	90° - 65°	43	3116	3000	>90	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
30835	3F Reno 200 WH 2000/840 DALI ELL	90° - 65°	20	2053	4000	>80	216x142
30839	3F Reno 200 WH 2000/930 DALI ELL	90° - 65°	24	1965	3000	>90	216x142
30843	3F Reno 200 WH 3000/840 DALI ELL	90° - 65°	28	2755	4000	>80	216x142
30851	3F Reno 200 WH 4000/840 DALI ELL	90° - 65°	36	3490	4000	>80	216x142
30847	3F Reno 200 WH 3000/930 DALI ELL	90° - 65°	37	2764	3000	>90	216x142
30855	3F Reno 200 WH 4000/930 DALI ELL	90° - 65°	43	3116	3000	>90	216x142
3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30810	3F Reno 200 WH 2000/840 EP ELL	90° - 65°	21	2053	4000	>80	216x142
30814	3F Reno 200 WH 2000/930 EP ELL	90° - 65°	25	1965	3000	>90	216x142
30818	3F Reno 200 WH 3000/840 EP ELL	90° - 65°	29	2755	4000	>80	216x142
30826	3F Reno 200 WH 4000/840 EP ELL	90° - 65°	37	3490	4000	>80	216x142
30822	3F Reno 200 WH 3000/930 EP ELL	90° - 65°	38	2764	3000	>90	216x142
30830	3F Reno 200 WH 4000/930 EP ELL	90° - 65°	44	3116	3000	>90	216x142

3F Reno White Spot



Code 30281

EP | 650°C | IP20 IP44 | 0,5J | IK04

Classe II | Driver/LED SELV

Internal spotlight louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz							
30005	3F Reno 100 WH 1000/930 SPOT	37°	14	1424	3000	>90	116x95
30001	3F Reno 100 WH 1000/840 SPOT	37°	14	1550	4000	>80	116x95
30009	3F Reno 100 WH 2000/840 SPOT	37°	20	2419	4000	>80	116x95
30013	3F Reno 100 WH 2000/930 SPOT	37°	24	2316	3000	>90	116x95
3F Reno 100 - DALI electronic wiring 230V-50/60Hz							
30039	3F Reno 100 WH 1000/930 DALI SPOT	37°	14	1424	3000	>90	116x95
30035	3F Reno 100 WH 1000/840 DALI SPOT	37°	14	1550	4000	>80	116x95
30043	3F Reno 100 WH 2000/840 DALI SPOT	37°	20	2419	4000	>80	116x95
30047	3F Reno 100 WH 2000/930 DALI SPOT	37°	24	2316	3000	>90	116x95
3F Reno 100 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30022	3F Reno 100 WH 1000/930 EP SPOT	37°	15	1424	3000	>90	116x95
30018	3F Reno 100 WH 1000/840 EP SPOT	37°	15	1550	4000	>80	116x95
30026	3F Reno 100 WH 2000/840 EP SPOT	37°	21	2419	4000	>80	116x95
30030	3F Reno 100 WH 2000/930 EP SPOT	37°	25	2316	3000	>90	116x95
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
30273	3F Reno 150 WH 2000/840 SPOT	37°	20	2424	4000	>80	166x107
30277	3F Reno 150 WH 2000/930 SPOT	37°	24	2321	3000	>90	166x107
30281	3F Reno 150 WH 3000/840 SPOT	37°	28	3254	4000	>80	166x107
30285	3F Reno 150 WH 3000/930 SPOT	37°	37	3264	3000	>90	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
30307	3F Reno 150 WH 2000/840 DALI SPOT	37°	20	2424	4000	>80	166x107
30311	3F Reno 150 WH 2000/930 DALI SPOT	37°	24	2321	3000	>90	166x107
30315	3F Reno 150 WH 3000/840 DALI SPOT	37°	28	3254	4000	>80	166x107
30319	3F Reno 150 WH 3000/930 DALI SPOT	37°	37	3264	3000	>90	166x107
3F Reno 150 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30290	3F Reno 150 WH 2000/840 EP SPOT	37°	21	2424	4000	>80	166x107
30294	3F Reno 150 WH 2000/930 EP SPOT	37°	25	2321	3000	>90	166x107
30298	3F Reno 150 WH 3000/840 EP SPOT	37°	29	3254	4000	>80	166x107
30302	3F Reno 150 WH 3000/930 EP SPOT	37°	38	3264	3000	>90	166x107

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 323.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
30521	3F Reno 200 WH 2000/840 SPOT	37°	20	2413	4000	>80	216x142
30525	3F Reno 200 WH 2000/930 SPOT	37°	24	2311	3000	>90	216x142
30529	3F Reno 200 WH 3000/840 SPOT	37°	28	3239	4000	>80	216x142
30537	3F Reno 200 WH 4000/840 SPOT	37°	36	4103	4000	>80	216x142
30533	3F Reno 200 WH 3000/930 SPOT	37°	37	3249	3000	>90	216x142
30541	3F Reno 200 WH 4000/930 SPOT	37°	43	3664	3000	>90	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
30571	3F Reno 200 WH 2000/840 DALI SPOT	37°	20	2413	4000	>80	216x142
30575	3F Reno 200 WH 2000/930 DALI SPOT	37°	24	2311	3000	>90	216x142
30579	3F Reno 200 WH 3000/840 DALI SPOT	37°	28	3239	4000	>80	216x142
30587	3F Reno 200 WH 4000/840 DALI SPOT	37°	36	4103	4000	>80	216x142
30583	3F Reno 200 WH 3000/930 DALI SPOT	37°	37	3249	3000	>90	216x142
30591	3F Reno 200 WH 4000/930 DALI SPOT	37°	43	3664	3000	>90	216x142
3F Reno 200 - EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
30546	3F Reno 200 WH 2000/840 EP SPOT	37°	21	2413	4000	>80	216x142
30550	3F Reno 200 WH 2000/930 EP SPOT	37°	25	2311	3000	>90	216x142
30554	3F Reno 200 WH 3000/840 EP SPOT	37°	29	3239	4000	>80	216x142
30562	3F Reno 200 WH 4000/840 EP SPOT	37°	37	4103	4000	>80	216x142
30558	3F Reno 200 WH 3000/930 EP SPOT	37°	38	3249	3000	>90	216x142
30566	3F Reno 200 WH 4000/930 EP SPOT	37°	44	3664	3000	>90	216x142

3F Reno Black

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution: wide, spot, UGR, elliptical.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L70/B10): 80000 h. (tq+25°C)
Colour temperature available /840 and /930.
UGR version
Average luminance <500 cd/m² for radial angles >65°.

Mechanical characteristics
Passive heat dissipator in die-casting aluminium, oversized, for optimum thermal management of the LED module.
Parabolic element with graduated/concentric rings in black polycarbonate.
Transparent external lens with glossy and satin differentiated surfaces, with a cooling and anti-insect system in methacrylate.
Internal specular metallic louvre to optimise control of the luminous flux in polycarbonate in Spot, UGR and Elliptical versions.
Fastening spring clips in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Wiring on a separate unit.
Class II.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows, service areas.
In false ceilings with narrow voids.
Wide version
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
UGR version
In environments with VDTs, managerial offices and staterooms, public offices and schools.

Installation

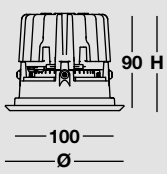
Pull-up installation.

Light Management

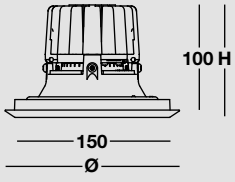
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

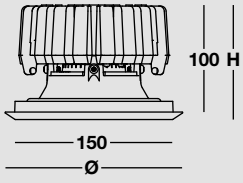
3F Reno 100
2000



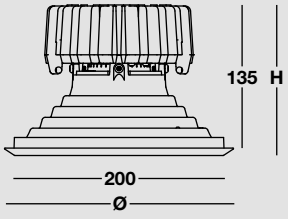
3F Reno 150
2000



3F Reno 150
3000



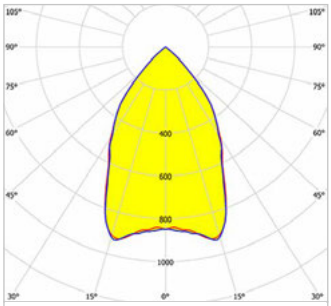
3F Reno 200
2500 - 3000 -



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 323.

3F Reno Black UGR



Code 31610 L<200 cd/m² 65°

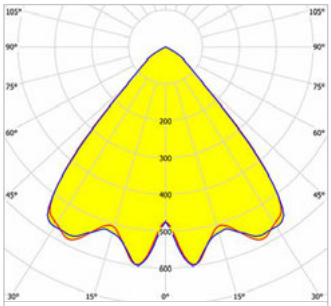
650°C | IP20 IP44 | 0,5J | IK04 | Classe II

Driver/LED SELV

150 BK - Average luminance <500 cd/m² for radial angles >65°.
200 BK - Average luminance <200 cd/m² for radial angles >65°.
Internal UGR louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
31293	3F Reno 150 BK 2000/840 UGR	65°	20	2413	4000	>80	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
31315	3F Reno 150 BK 2000/840 DALI UGR	65°	20	2413	4000	>80	166x107
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
31614	3F Reno 200 BK 2500/930 UGR	64°	29	2530	3000	>90	216x142
31610	3F Reno 200 BK 3000/840 UGR	64°	28	3183	4000	>80	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
31646	3F Reno 200 BK 2500/930 DALI UGR	64°	29	2530	3000	>90	216x142
31642	3F Reno 200 BK 3000/840 DALI UGR	64°	28	3183	4000	>80	216x142

3F Reno Black Wide



Code 31233

650°C | IP20 IP44 | 0,5J | IK04 | Classe II | Driver/LED SELV

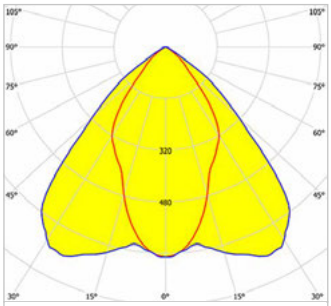
Wide lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG0 low risk, (IEC 62471) excluding versions 4000 - RG1 (further information on page 18).

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz							
30961	3F Reno 100 BK 2000/840 WIDE	83°	20	1703	4000	>80	116x95
30965	3F Reno 100 BK 2000/930 WIDE	83°	24	1631	3000	>90	116x95
3F Reno 100 - DALI electronic wiring 230V-50/60Hz							
30995	3F Reno 100 BK 2000/840 DALI WIDE	83°	20	1703	4000	>80	116x95
30999	3F Reno 100 BK 2000/930 DALI WIDE	83°	24	1631	3000	>90	116x95
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
31233	3F Reno 150 BK 3000/840 WIDE	83°	28	2338	4000	>80	166x107
31237	3F Reno 150 BK 3000/930 WIDE	83°	37	2346	3000	>90	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
31267	3F Reno 150 BK 3000/840 DALI WIDE	83°	28	2338	4000	>80	166x107
31271	3F Reno 150 BK 3000/930 DALI WIDE	83°	37	2346	3000	>90	166x107
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
31521	3F Reno 200 BK 4000/840 WIDE	84°	36	2801	4000	>80	216x142
31525	3F Reno 200 BK 4000/930 WIDE	84°	43	2501	3000	>90	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
31571	3F Reno 200 BK 4000/840 DALI WIDE	84°	36	2801	4000	>80	216x142
31575	3F Reno 200 BK 4000/930 DALI WIDE	84°	43	2501	3000	>90	216x142

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 323.

3F Reno Black Elliptical



Code 31345

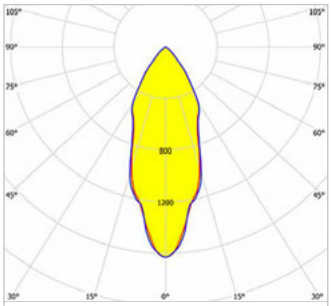
650°C | IP20 IP44 | 0,5J | IK04 | Classe II

Driver/LED SELV

Internal elliptical louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz							
31097	3F Reno 100 BK 2000/840 ELL	89° - 62°	20	1917	4000	>80	116x95
31101	3F Reno 100 BK 2000/930 ELL	89° - 62°	24	1835	3000	>90	116x95
3F Reno 100 - DALI electronic wiring 230V-50/60Hz							
31131	3F Reno 100 BK 2000/840 DALI ELL	89° - 62°	20	1917	4000	>80	116x95
31135	3F Reno 100 BK 2000/930 DALI ELL	89° - 62°	24	1835	3000	>90	116x95
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
31345	3F Reno 150 BK 3000/840 ELL	89° - 61°	28	2610	4000	>80	166x107
31349	3F Reno 150 BK 3000/930 ELL	89° - 61°	37	2618	3000	>90	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
31379	3F Reno 150 BK 3000/840 DALI ELL	89° - 61°	28	2610	4000	>80	166x107
31383	3F Reno 150 BK 3000/930 DALI ELL	89° - 61°	37	2618	3000	>90	166x107
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
31685	3F Reno 200 BK 4000/840 ELL	89° - 62°	36	3117	4000	>80	216x142
31689	3F Reno 200 BK 4000/930 ELL	89° - 62°	43	2783	3000	>90	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
31735	3F Reno 200 BK 4000/840 DALI ELL	89° - 62°	36	3117	4000	>80	216x142
31739	3F Reno 200 BK 4000/930 DALI ELL	89° - 62°	43	2783	3000	>90	216x142

3F Reno Black Spot



Code 31165

650°C | IP20 IP44 | 0,5J | IK04 | Classe II | Driver/LED SELV

Internal spotlight louvre in metallic polycarbonate.
External lens in transparent methacrylate.
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
3F Reno 100 - ON/OFF electronic wiring 230V-50/60Hz							
30893	3F Reno 100 BK 2000/840 SPOT	37°	20	2375	4000	>80	116x95
30897	3F Reno 100 BK 2000/930 SPOT	37°	24	2274	3000	>90	116x95
3F Reno 100 - DALI electronic wiring 230V-50/60Hz							
30927	3F Reno 100 BK 2000/840 DALI SPOT	37°	20	2375	4000	>80	116x95
30931	3F Reno 100 BK 2000/930 DALI SPOT	37°	24	2274	3000	>90	116x95
3F Reno 150 - ON/OFF electronic wiring 230V-50/60Hz							
31165	3F Reno 150 BK 3000/840 SPOT	37°	28	3191	4000	>80	166x107
31169	3F Reno 150 BK 3000/930 SPOT	37°	37	3201	3000	>90	166x107
3F Reno 150 - DALI electronic wiring 230V-50/60Hz							
31199	3F Reno 150 BK 3000/840 DALI SPOT	37°	28	3191	4000	>80	166x107
31203	3F Reno 150 BK 3000/930 DALI SPOT	37°	37	3201	3000	>90	166x107
3F Reno 200 - ON/OFF electronic wiring 230V-50/60Hz							
31421	3F Reno 200 BK 4000/840 SPOT	37°	36	3985	4000	>80	216x142
31425	3F Reno 200 BK 4000/930 SPOT	37°	43	3558	3000	>90	216x142
3F Reno 200 - DALI electronic wiring 230V-50/60Hz							
31471	3F Reno 200 BK 4000/840 DALI SPOT	37°	36	3985	4000	>80	216x142
31475	3F Reno 200 BK 4000/930 DALI SPOT	37°	43	3558	3000	>90	216x142

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Reno | Accessories

VS moulded glass, micro-prismatic, anti-glare, tempered, non-combustible glass, affixed to the white polycarbonate trim. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno White.

Code	Item
A01035	VS 3F RENO WH 150
A01037	VS 3F RENO WH 200

1J IK06

VS moulded glass, micro-prismatic, anti-glare, tempered, non-combustible glass, affixed to the black polycarbonate trim. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno Black.

Code	Item
A01036	VS 3F RENO BK 150
A01038	VS 3F RENO BK 200

1J IK06

VT transparent glass, tempered, not flammable, locked and in line with the trim, in white polycarbonate. Accessory suitable for versions with spot, UGR and elliptic distribution.

Accessory compatible with 3F Reno White.

Code	Item
A01023	VT 3F RENO WH 150
A01025	VT 3F RENO WH 200

1J IK06

VT transparent glass, tempered, not flammable, locked and in line with the trim, in black polycarbonate. Accessory suitable for versions with spot, UGR and elliptic distribution.

Accessory compatible with 3F Reno Black.

Code	Item
A01024	VT 3F RENO BK 150
A01026	VT 3F RENO BK 200

1J IK06

Micro-prismatic SMP antiglare diffuser in PMMA, locked and in line with the trim, in white polycarbonate. Accessory suitable for versions with wide distribution.

Accessory compatible with 3F Reno White.

Code	Item
A01046	SMP 3F RENO WH 150
A01048	SMP 3F RENO WH 200

0,7J IK05 HACCP

Micro-prismatic SMP antiglare diffuser in PMMA, locked and in line with the trim, in black polycarbonate. Accessory suitable for versions with wide distribution.

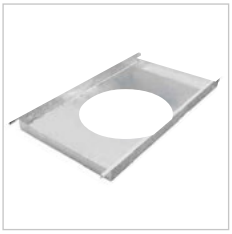
Accessory compatible with 3F Reno Black.

Code	Item
A01047	SMP 3F RENO BK 150
A01049	SMP 3F RENO BK 200

0,7J | IK05 | HACCP

Reinforcing bracket for panels 600x600, 600x1200 with exposed structure, in hot-galvanised steel.

Code	Item
A0804	SF 3F Reno 150
A0805	SF 3F Reno 200



Reinforcing bracket for metal panels 600x600 with concealed structure, in hot-galvanised steel.

Code	Item
A0806	SM 3F Reno 150
A0807	SM 3F Reno 200

White adapter ring for 3F Reno 200 installation in holes with a diameter of 220 or 255 millimetres. Realised in steel.

Accessory compatible only with 3F Reno 200 models.

Code	Item
A01090	WH adapter ring for 220 mm hole
A01091	WH adapter ring for 255 mm hole

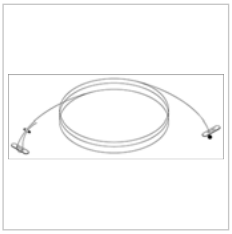
Versions for the 3F Reno 100 and 3F Reno 150 models are available on request.

White adapter ring for 3F Reno 200 installation in holes with a diameter of 300 millimetres, supplied with a reinforcement bracket for false ceilings with a thickness of less than or higher than 9 mm. Realised in steel.

Accessory compatible only with 3F Reno 200 models.

Code	Item
A01092	WH adapter ring for hole 300 mm <9 mm
A01093	WH adapter ring for hole 300 mm >9 mm

Versions for the 3F Reno 100 and 3F Reno 150 models are available on request.



Anti-fall safety cable for fixing the housing to the building structure. Length 2.5 m.

Code	Item
A0477	Safety wire

Galassia 220

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L70/B10): 80000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing and fixing brackets in galvanised steel.
Passive heat dissipator in anodised aluminium, oversized, for optimum thermal management of the LED module.
Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: architectural, commercial, exhibition areas, transit areas, corridors, shops, display windows.
In false ceilings with narrow voids.

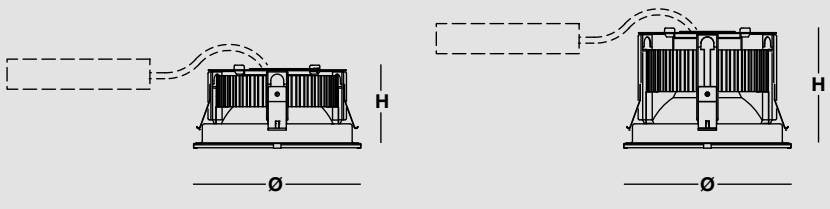
Installation

Pull-up installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

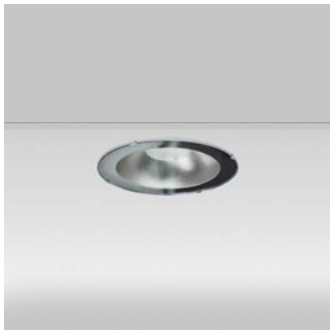


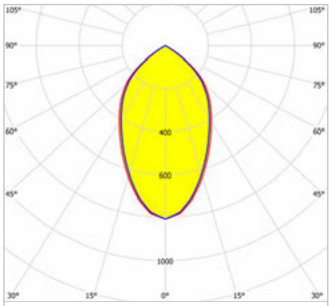
2000 - 3000 lm **4000 lm**

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 332.

Galassia 220 VT





Code 37802 L<1000 cd/m² 65°

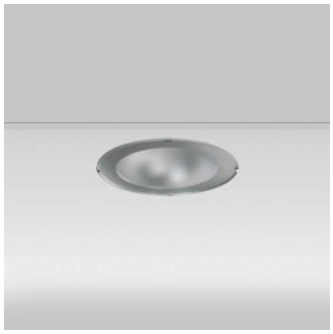
EP | 960°C | IP20 IP44 | 5J | IK08 | Classe II

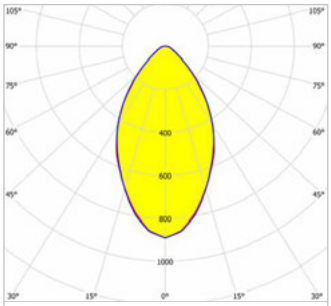
Driver/LED SELV

Average luminance <1000 cd/m² for radial angles >65°.
Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.
Circular anti-glare LED shielding lens in opal PMMA for good visual comfort.
VT transparent glass, tempered, not flammable, locked and in line with the trim.
It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
37759	Galassia 220 LED 2000 VT	63°	20	2081	4000	>80	221x103
37802	Galassia 220 LED 3000 VT	63°	28	2792	4000	>80	221x103
37834	Galassia 220 LED 4000 VT	63°	36	3537	4000	>80	221x151
DALI electronic wiring 230V-50/60Hz							
37760	Galassia 220 LED 2000 DALI VT	63°	20	2081	4000	>80	221x103
37803	Galassia 220 LED 3000 DALI VT	63°	28	2792	4000	>80	221x103
37836	Galassia 220 LED 4000 DALI VT	63°	36	3537	4000	>80	221x151
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
37761	Galassia 220 LED 2000 EP VT	63°	21	2081	4000	>80	221x103
37804	Galassia 220 LED 3000 EP VT	63°	29	2792	4000	>80	221x103

Galassia 220 VS





Code 37820

EP | 960°C | IP20 IP44 | 5J | IK08 | Classe II

Driver/LED SELV

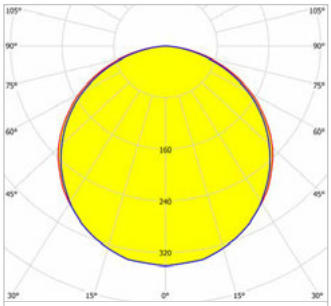
2000 - Average luminance <3000 cd/m² for radial angles >65°.
Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.
Anti-glare microprismatic VS moulded glass, tempered, not flammable, locked and in line with the trim.
It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
37777	Galassia 220 LED 2000 VS	60°	20	2330	4000	>80	221x103
37820	Galassia 220 LED 3000 VS	60°	28	3127	4000	>80	221x103
37838	Galassia 220 LED 4000 VS	60°	36	3961	4000	>80	221x151
DALI electronic wiring 230V-50/60Hz							
37778	Galassia 220 LED 2000 DALI VS	60°	20	2330	4000	>80	221x103
37821	Galassia 220 LED 3000 DALI VS	60°	28	3127	4000	>80	221x103
37840	Galassia 220 LED 4000 DALI VS	60°	36	3961	4000	>80	221x151
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
37779	Galassia 220 LED 2000 EP VS	60°	21	2330	4000	>80	221x103
37822	Galassia 220 LED 3000 EP VS	60°	29	3127	4000	>80	221x103

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 332.

Galassia 220 VOP



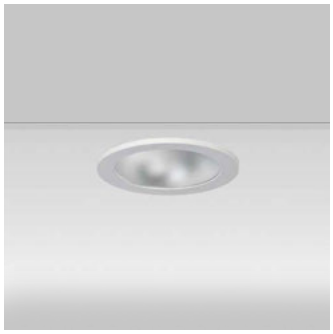
Code 37811

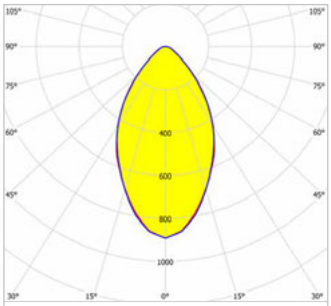
EP | 960°C | IP20 IP44 | 5J | IK08 | Classe II | Driver/LED SELV

Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.
Glazed OP opal glass, tempered, non-combustible, locked in line with the trim.
It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
37768	Galassia 220 LED 2000 VOP	114°	20	1434	4000	>80	221x103
37811	Galassia 220 LED 3000 VOP	114°	28	1925	4000	>80	221x103
37842	Galassia 220 LED 4000 VOP	114°	36	2438	4000	>80	221x151
DALI electronic wiring 230V-50/60Hz							
37769	Galassia 220 LED 2000 DALI VOP	114°	20	1434	4000	>80	221x103
37812	Galassia 220 LED 3000 DALI VOP	114°	28	1925	4000	>80	221x103
37844	Galassia 220 LED 4000 DALI VOP	114°	36	2438	4000	>80	221x151
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
37770	Galassia 220 LED 2000 EP VOP	114°	21	1434	4000	>80	221x103
37813	Galassia 220 LED 3000 EP VOP	114°	29	1925	4000	>80	221x103

Galassia 220 AB VS





Code 37587

EP | 850°C | IP20 IP44 | 5J | IK08 | Classe II

Driver/LED SELV

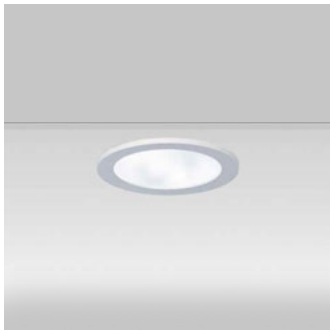
2000 - Average luminance <3000 cd/m² for radial angles >65°.
AB trim in white moulded Bayblend.
Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.
Anti-glare microprismatic VS moulded glass, tempered, not flammable, locked and in line with the trim.
It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

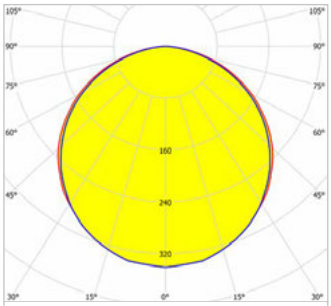
Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
37551	Galassia 220 LED AB 2000 VS	60°	20	2330	4000	>80	226x103
37587	Galassia 220 LED AB 3000 VS	60°	28	3127	4000	>80	226x103
37604	Galassia 220 LED AB 4000 VS	60°	36	3961	4000	>80	226x151
DALI electronic wiring 230V-50/60Hz							
37552	Galassia 220 LED AB 2000 DALI VS	60°	20	2330	4000	>80	226x103
37588	Galassia 220 LED AB 3000 DALI VS	60°	28	3127	4000	>80	226x103
37606	Galassia 220 LED AB 4000 DALI VS	60°	36	3961	4000	>80	226x151
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
37553	Galassia 220 LED AB 2000 EP VS	60°	21	2330	4000	>80	226x103
37589	Galassia 220 LED AB 3000 EP VS	60°	29	3127	4000	>80	226x103

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 332.

Galassia 220 AB VOP





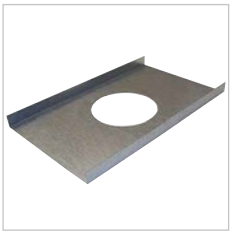
Code 37578

EP | 850°C | IP20 IP44 | 6,5J | IK08 | Classe II | Driver/LED SELV

AB trim in white moulded Bayblend.
Parabolic louvre in polished anodised aluminium, anti-glare, non-iridescent.
Glazed OP opal glass, tempered, non-combustible, locked in line with the trim.
It does not allow the access of the insects into the luminous compartment, avoiding unpleasant visual effects and extraordinary maintenance.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
37542	Galassia 220 LED AB 2000 VOP	114°	20	1434	4000	>80	226x103
37578	Galassia 220 LED AB 3000 VOP	114°	28	1925	4000	>80	226x103
37608	Galassia 220 LED AB 4000 VOP	114°	36	2438	4000	>80	226x151
DALI electronic wiring 230V-50/60Hz							
37543	Galassia 220 LED AB 2000 DALI VOP	114°	20	1434	4000	>80	226x103
37579	Galassia 220 LED AB 3000 DALI VOP	114°	28	1925	4000	>80	226x103
37610	Galassia 220 LED AB 4000 DALI VOP	114°	36	2438	4000	>80	226x151
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
37544	Galassia 220 LED AB 2000 EP VOP	114°	21	1434	4000	>80	226x103
37580	Galassia 220 LED AB 3000 EP VOP	114°	29	1925	4000	>80	226x103

Galassia | Accessories



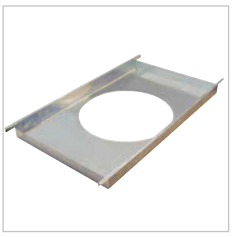
Reinforcing bracket for panels 600x600, 600x1200 with exposed structure, in hot-galvanised steel.

Code	Item
A0202	False ceiling brack. for luminaire D.220

Anti-rotation adapter for grilled ceiling with closing mats (always suggested to avoid stray light). Adapter made in steel - white colour, RAL 9010.

Code	Item
A0204	Grid adapter h40mm for luminaire D.220
A01523	Grid adapter h50mm - for luminaire D.220

On request: RAL colour.
Bracket size 289x289 mm for 50x50, 75x75, 100x100 mesh, slat 10 mm thick.



Reinforcing bracket for metal panels 600x600 with concealed structure, in hot-galvanised steel.

Code	Item
A0214	Metal pan. reinforcing bracket D.220

Lucequadro LED

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L70/B10): 80000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in white painted steel.
Passive heat dissipator in anodised aluminium, oversized, for optimum thermal management of the LED module.
Flow recuperator in specular aluminium with superficial titanium-magnesium treatment, non-iridescent.
Lock-in mounting of the glass/PMMA in the lateral seats in specular aluminium.
Fixing brackets in galvanised steel, supplied.

Electrical characteristics
In compliance with EN 60598-1.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Wiring on a separate unit.
Class II.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- asymmetric louvre
- different power levels, colour rendering indices and colour temperatures
- wiring: dimmable, CLO (more information on page 598)
- IP54 version
- ceiling version
- emergency versions

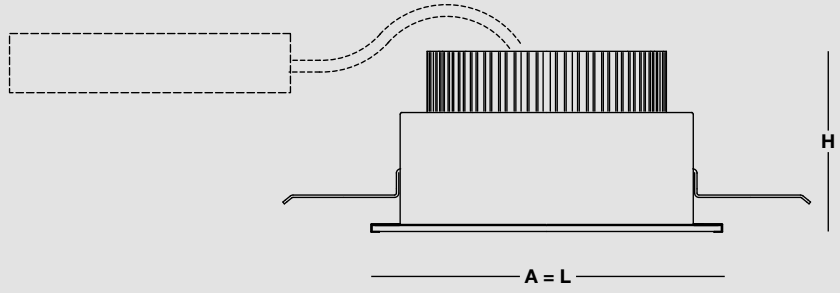
Applications

Environments: commercial, exhibition areas, transit areas, halls, shops, great halls, display windows.

Installation

Pull-up installation.

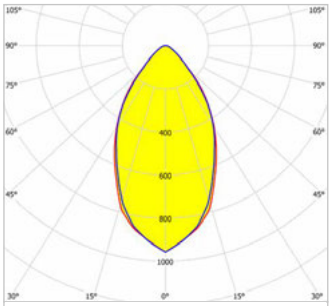
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 336.

Lucequadro LED VS



Code 36578 L<3000 cd/m² 65°

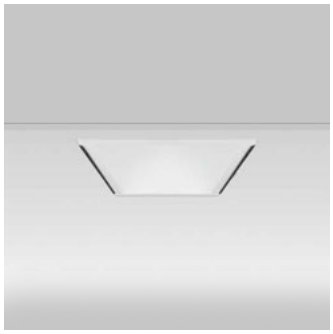
EP | 960°C | IP20 IP44 | 5J | IK08 | Classe II

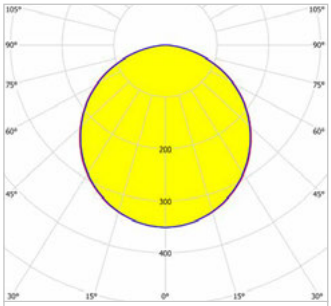
Driver/LED SELV

Average luminance <3000 cd/m² for radial angles >65°.
VS moulded glass, anti-glare, tempered, non-combustible, thickness 4 mm.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
36575	Lucequadro LED 2000 VS	58°	20	2247	4000	>80	235x235x116
36578	Lucequadro LED 3000 VS	58°	28	3016	4000	>80	235x235x116
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
36576	Lucequadro LED 2000 EP VS	58°	21	2247	4000	>80	235x235x116
36579	Lucequadro LED 3000 EP VS	58°	29	3016	4000	>80	235x235x116

Lucequadro LED VOP





Code 36584

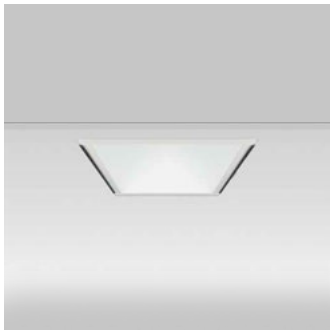
EP | 960°C | IP20 IP44 | 5J | IK08 | Classe II

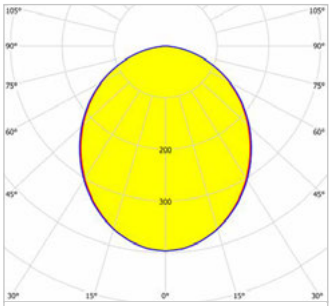
Driver/LED SELV

Glazed VOP opal glass, tempered, non-combustible, thickness 4 mm.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
36581	Lucequadro LED 2000 VOP	113°	20	1409	4000	>80	235x235x116
36584	Lucequadro LED 3000 VOP	113°	28	1891	4000	>80	235x235x116
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
36582	Lucequadro LED 2000 EP VOP	113°	21	1409	4000	>80	235x235x116
36585	Lucequadro LED 3000 EP VOP	113°	29	1891	4000	>80	235x235x116

Lucequadro LED SOP





Code 36590

EP | 650°C | IP20 IP44 | 5J | IK08 | Classe II | Driver/LED SELV

SOP opal methacrylate flat diffuser, anti-glare.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz							
36587	Lucequadro LED 2000 SOP	101°	20	2194	4000	>80	235x235x116
36590	Lucequadro LED 3000 SOP	101°	28	2945	4000	>80	235x235x116
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)							
36588	Lucequadro LED 2000 EP SOP	101°	21	2194	4000	>80	235x235x116
36591	Lucequadro LED 3000 EP SOP	101°	29	2945	4000	>80	235x235x116

Lucequadro | Accessories

Pair of reinforcing brackets for mineral fibre, metal and plasterboard panels, height 20 mm.

Code	Item
A0189	Reinf. brack. Lucequadro pan./plast.

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


PORSCHE
S VM 718

3F Emilio R

Construction characteristics

Illuminotechnical characteristics
Vertical distribution adjustable from 0° to 70°.
Lifetime (L90/B20): 30000 h. (tq+25°C)
Lifetime (L80/B20): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Mechanical characteristics
Single-piece in die-cast aluminium with passive dissipation with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.
Invisible lock for positioning the luminous flux.
Positioning arm in galvanised brass with sphere to allow for vertical positioning at angles from 0° to 65° and horizontal positioning from 0° to 360°.
Fastening spring clips in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Wiring on a separate unit.
Class II.

Source characteristics

- Compact LED module.
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours
- wiring: dimmable
- emergency versions

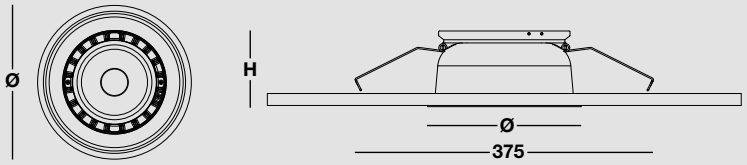
Applications

Environments: commercial, museums, shops.

Installation

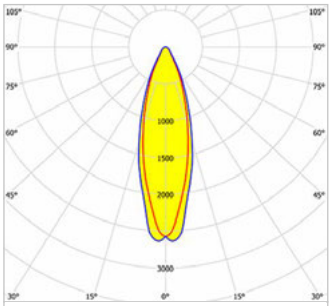
Pull-up installation.

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Emilio R Spot



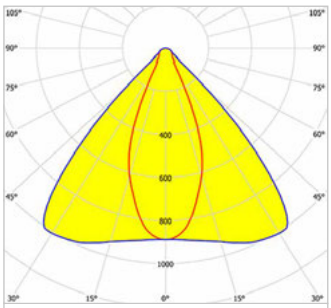
Code 21721

650°C IP20 Classe II Driver/LED SELV

Spot lens.
Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
21720	3F Emilio R LED 2000/840 SPOT	29°	19	2189	4000	>80	193x95
21721	3F Emilio R LED 2000/930 SPOT	29°	23	2000	3000	>90	193x95

3F Emilio R Elliptical



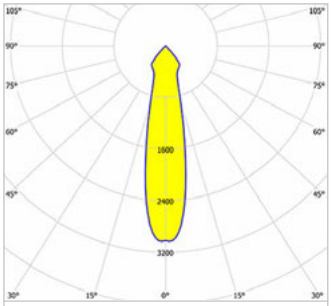
Code 21729

650°C IP20 Classe II Driver/LED SELV

Horizontal ELL elliptical lens provides extensive installation pitch.
Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
21728	3F Emilio R LED 2000/840 ELL	42° - 85°	19	2484	4000	>80	193x95
21729	3F Emilio R LED 2000/930 ELL	42° - 85°	23	2270	3000	>90	193x95

3F Emilio R Iperconcentrated



Code 21744

850°C IP20 Classe II Driver/LED SELV

Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminium.

Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x H
ON/OFF electronic wiring 230V-50/60Hz							
21736	3F Emilio R LED 2000/840 IPER	23°	19	2433	4000	>80	193x95
21737	3F Emilio R LED 2000/930 IPER	23°	23	2223	3000	>90	193x95
21744	3F Emilio R LED 3000/840 IPER	23°	28	3216	4000	>80	193x95

Zero 3F Track

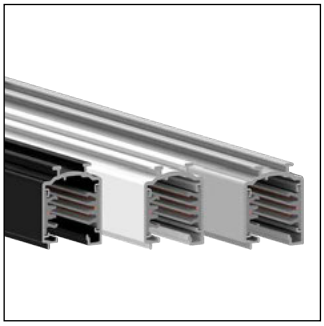
3F Zeta Track

3F Linux

3F Six

3F Emilio Track

Binario 3F



Systems and track-mounted products

Zero 3F Track

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester.
Diffuser with differentiated geometry, made of transparent methacrylate with microprismatic finish, anti-glare on the flat part and opal on the side.
Anti-glare opal methacrylate filter for brightness uniformity.
Lighting end caps in PMMA opal.
Supporting mechanical adapter.

Electrical characteristics
In compliance with EN 60598-1.
Truck adapter, 4/6-way.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)

Applications

Environments: with VDTs, meeting rooms, offices.
Environments: recreational, transit areas, corridors, schools, stairwells.
Environments where soft diffuse light is required for optimal visual comfort.

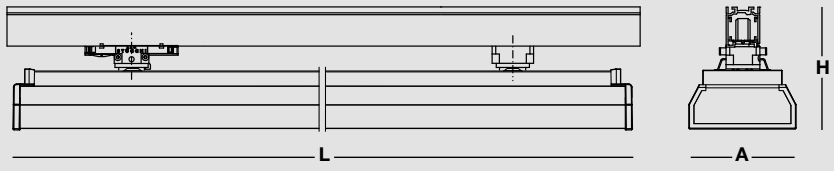
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 408).

Light Management

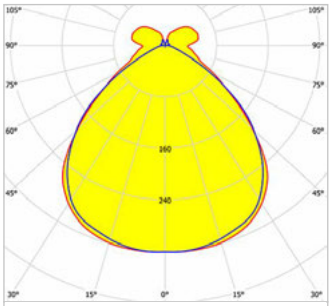
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Zero 3F Track



Code 45574 L<3000 cd/m² 65°

650°C IP40 1J IK06

Driver/LED SELV

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
45573	03F TK 18W/940 DALI L620	20	1983	4000	>90	620x119x64
45574	03F TK 35W/940 DALI L1204	40	4152	4000	>90	1204x119x64
45575	03F TK 44W/940 DALI L1506	49	5190	4000	>90	1506x119x64
45576	03F TK 53W/940 DALI L1787	57	6227	4000	>90	1787x119x64

3F Zeta Track L

Construction characteristics

Illuminotechnical characteristics
Wide direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process with adapters to busbar in white polycarbonate.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
PMMA lenses with external flat surface.
Supporting mechanical adapter.
End caps in white polycarbonate.

Electrical characteristics
In compliance with EN 60598-1.
Truck adapter, 4/6-way.

Source characteristics

- LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- housing and accessories in different RAL colours
- wiring: CLO (more information on page 598)

Applications

Environments: architectural, commercial, transit areas, cornices, boards.

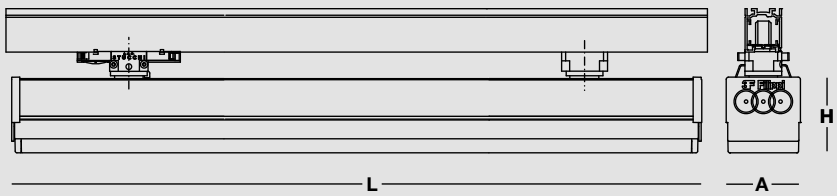
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 408).

Light Management

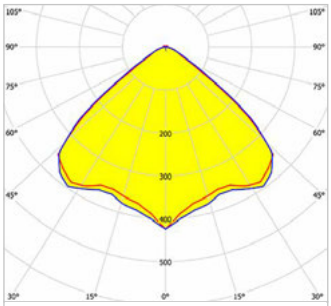
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Zeta Track L Wide



Code 47124

650°C | IP40 | 1J | IK06

Driver/LED SELV

Wide distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47136	3F Zeta TK L 15 AMPIO L605	17.5	2749	4000	>80	605x62x67
47132	3F Zeta TK L 30 AMPIO L1194	33	5498	4000	>80	1194x62x67
47124	3F Zeta TK L 50 AMPIO L1783	50	8247	4000	>80	1783x62x67
DALI electronic wiring 230V-50/60Hz						
47152	3F Zeta TK L 15 DALI AMPIO L605	17.5	2749	4000	>80	605x62x67
47148	3F Zeta TK L 30 DALI AMPIO L1194	33	5498	4000	>80	1194x62x67
47140	3F Zeta TK L 50 DALI AMPIO L1783	50	8247	4000	>80	1783x62x67

3F Zeta Track DR

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Average luminance <1500 cd/m² for radial angles >65°.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in hot-galvanised steel, painted in white polyester, obtained through rolling process with adapters to busbar in white polycarbonate.
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Rectangular transparent polycarbonate diffuser.
Semi-specular aluminium internal louvre with prismatic methacrylate filter above the louvre blades for complete shielding of the louvre compartment.
Supporting mechanical adapter.
End caps in white polycarbonate.

Electrical characteristics
In compliance with EN 60598-1.
Truck adapter, 4/6-way.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)

Applications

Environments: exhibition areas, with VDTs, halls, shops, great halls, schools.

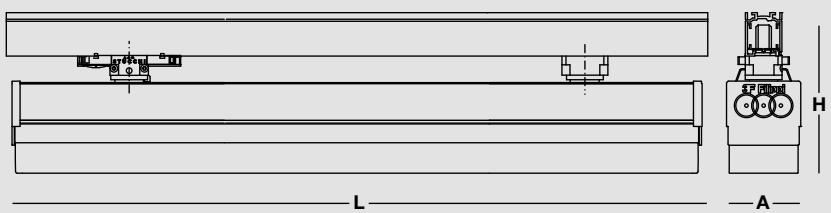
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 408).

Light Management

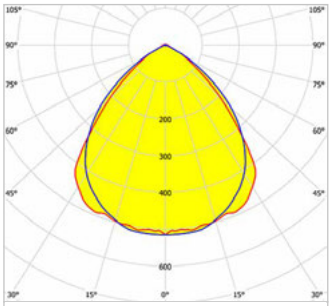
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Zeta Track DR UGR



Code 47167 L<1500 cd/m² 65°

650°C | IP40 | 1J | IK06

Driver/LED SELV

Controlled symmetric distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47167	3F Zeta TK DR UGR 1x24/940 L1194	27	2285	4000	>90	1194x62x67
47168	3F Zeta TK DR UGR 1x30/940 L1783	34	2859	4000	>90	1783x62x67
DALI electronic wiring 230V-50/60Hz						
47169	3F Zeta TK DR UGR 1x24/940 DALI L1194	27	2285	4000	>90	1194x62x67
47170	3F Zeta TK DR UGR 1x30/940 DALI L1783	34	2859	4000	>90	1783x62x67

3F Linux

> **www.3F-Filippi.com/3F Linux**

3F Linux is more than a continuous line system: it was designed to compose channels in a simple and efficient way and significantly reduce the installation and maintenance costs of the system. Whether it's a relamping or a new project, 3F Linux is the winning choice in terms of performance and ease of installation: it has already been chosen by many big players in the retail, logistics and industrial production sectors all over the world.
It is fitted with high-efficiency LED sources and features a compact body, modular components and accessories which give unrivalled freedom in terms of planning the installations.

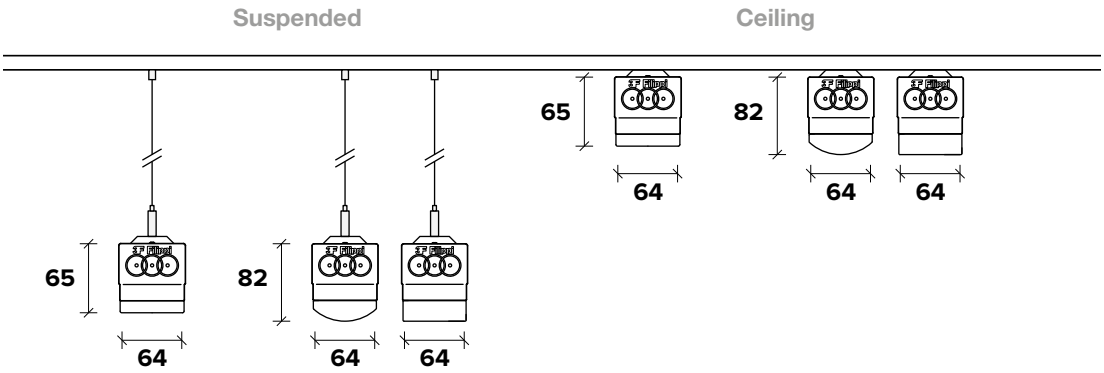
+ Overview

- Luminous efficacy up to 162 lumen/watt.
- Luminous fluxes from 3487 to 14130 lumens.
- Average luminance <1500 cd/m² (DR UGR version).
- Extensive installation pitch.
- UGR <19 (UGR version).
- Available with lenticular optics, recuperator or diffusers.
- Asymmetrical version.
- Version with electrified track.
- Module lengths optimised to reduce installation time and required accessories by up to 20%.
- Available on request with integrated sensors.
- Driver integrated in the fixture.
- Essential and functional design.
- Double anti-fall springs in case of accidental impacts.
- Through line up to 11 poles (on request).
- IP54 version for more severe applications.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Versatility of use in different environments.
- Mechanical and electrical assembly without tools.
- Union joint already assembled.
- Thanks to the FastWiring system, the installation time is drastically reduced.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

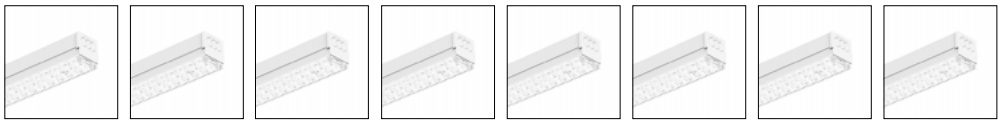
Product range

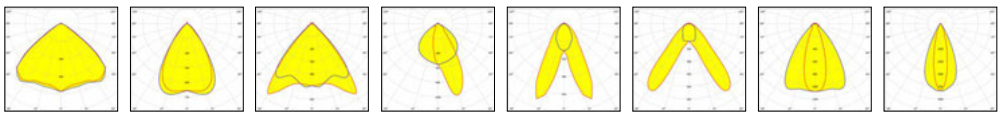
3F Linux S IP40

3F Linux L
3F Linux D
3F Linux DR



3F Linux L



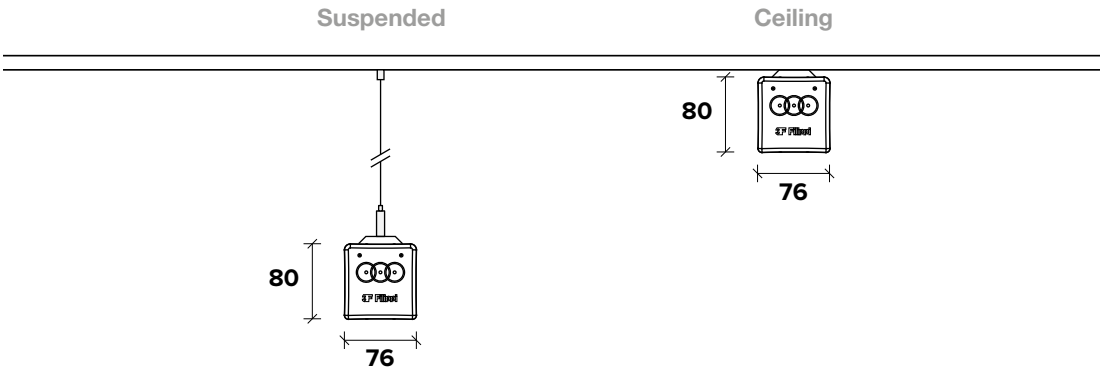
Model	Wide	Medium	UGR	AS	BAT	BAT WD	Conc	Iperconc
Average luminance for angles> 65 (cd / m²)	>3000	>3000	<3000	/	>3000	>3000	>3000	>3000
UGR	<21	<21	<19	/	<21	<21	<21	<21
Protection class	IP40 | IP54							
Photometric distribution								
Power level	40 50 60 85	40 50 60 85	50	40 50 60 85	40 50 60	40 50 60	60 85	60 85

NEW

Arrange the version that best suits your needs quickly and easily
www.3f-filippi.com/en/**3F-Linux-configurator**

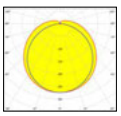
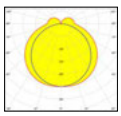
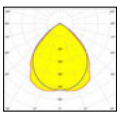
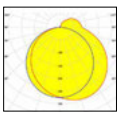
3F Linux S IP54

3F Linux L



3F Linux D
3F Linux DR



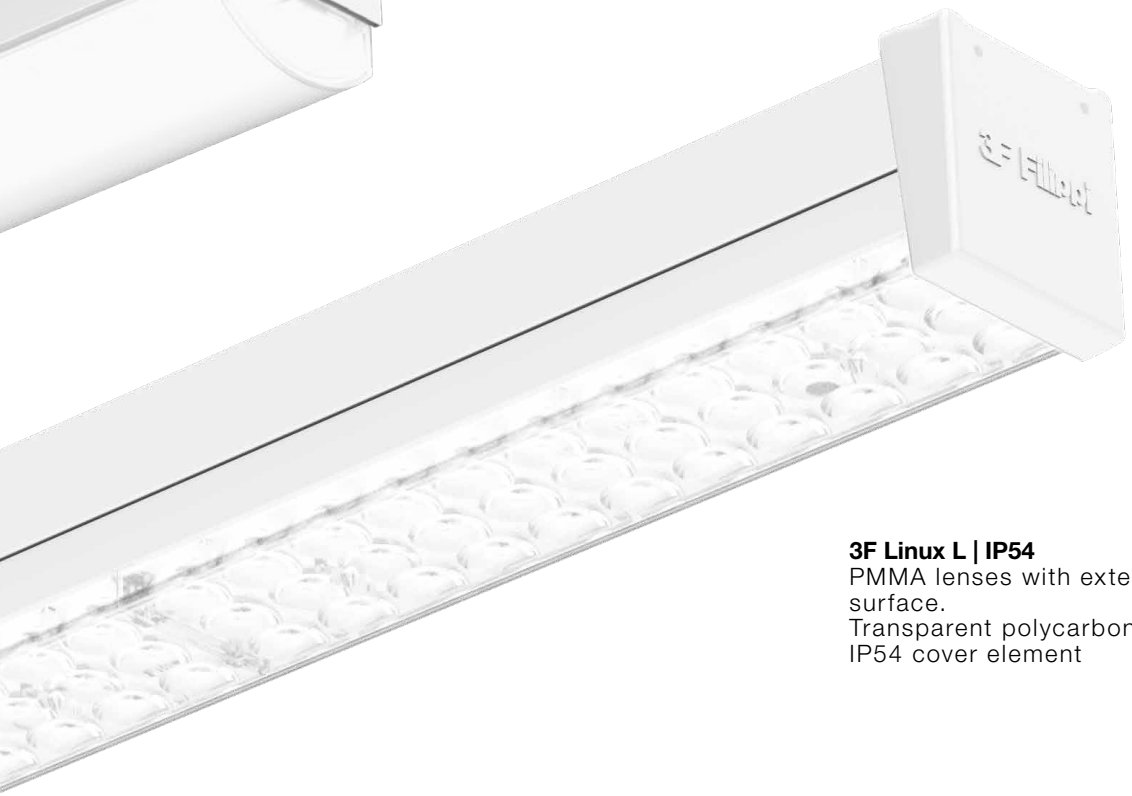

Model	D	DR	DR UGR	DR AS
Average luminance for angles> 65 (cd / m²)	>3000	>3000	<3000	/
UGR	<21	<21	<19	/
Protection class		IP40		
Photometric distribution				
Power level	2x22 2x30	2x22 2x30	1x30 2x22	2x30

Screens and finishes

3F Linux DR | IP40
Rectangular screen in self-extinguishing polycarbonate

3F Linux L | IP40
PMMA lenses with external flat surface

3F Linux D | IP40
Curved screen in self-extinguishing polycarbonate



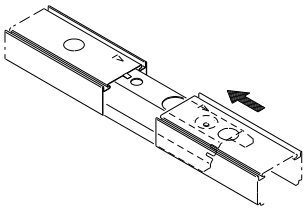
3F Linux L | IP54
PMMA lenses with external flat surface.
Transparent polycarbonate IP54 cover element

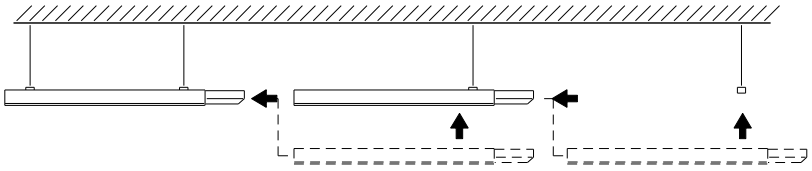
Simply modular

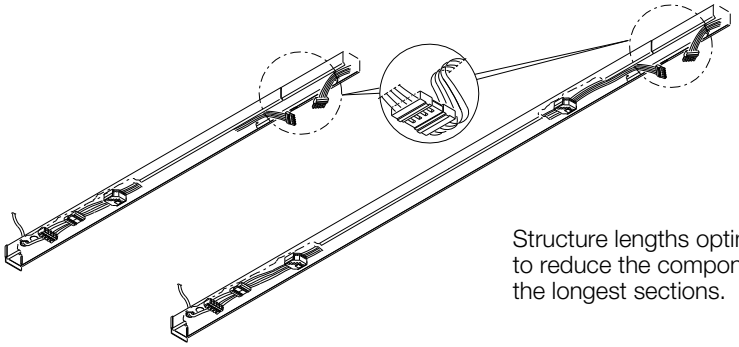
The **FastWiring system** reduces the time necessary to create a lighting channel:

1

Install the structures, connecting them together with the connecting elements (pre-fitted) and connect the power-supply lines



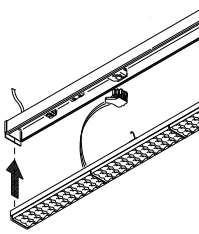


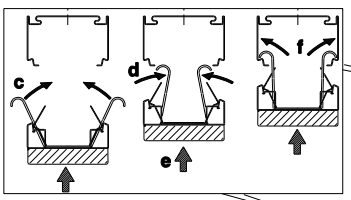


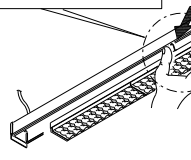
Structure lengths optimised to reduce the components in the longest sections.

2

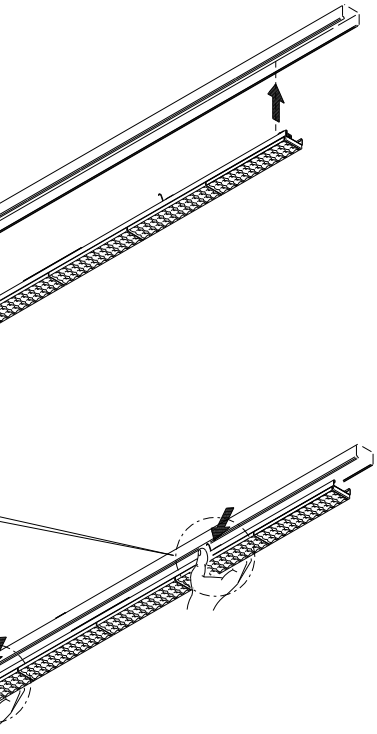
Connect the power-supply plug and secure the lighting element to the structure, moving it to the required point





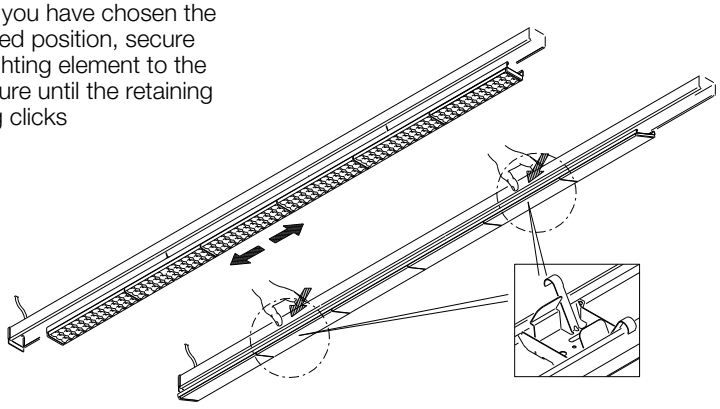


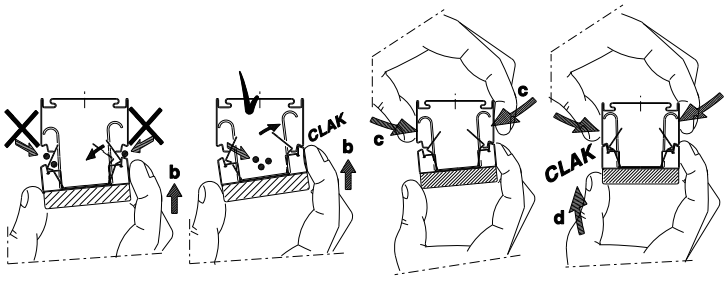
Installation requires just 3 steps, with limited tools required.



3

Once you have chosen the required position, secure the lighting element to the structure until the retaining spring clicks





3F Linux S | IP40

This fixture makes it possible to create light channels with IP40 protection.
Modular and flexible structural system with small dimensions to create continuous channels and compositions, transport electrical lines and fixing of various types of products.
Quick and easy ceiling or pendant installation.

Construction characteristics

Mechanical characteristics
Hot-galvanised wired structure, painted in polyester base white, obtained through rolling process.
Linear connecting element in hot galvanised steel for the formation of continuous channels. Standard on L3556 versions (optional for other lengths).
For the completion accessories see accessories on page 378.

On request

- structure and accessories in different RAL colours
- through-wiring up to 11 poles

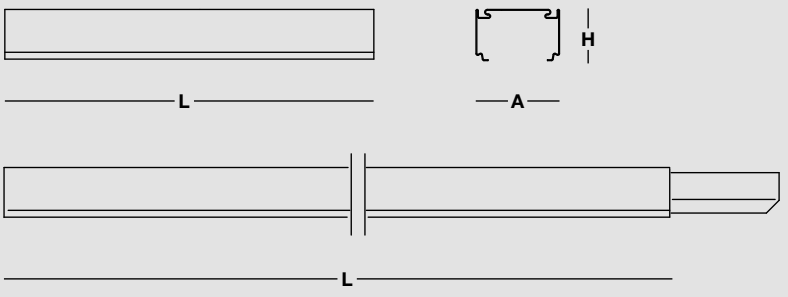
Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

Installation

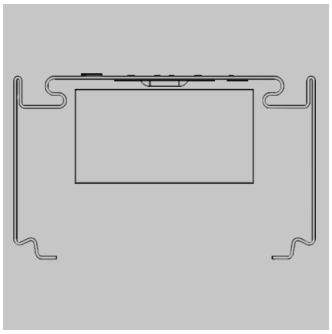
Ceiling, suspension or wall installation.
For more information, refer to the IP40 light channel composition guide (on page).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux S | IP40

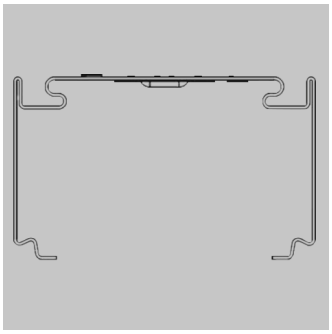


IP40 HACCP

Supporting structure with 5 or 7-pole through power supply lines with H07Z-U Halogen Free cables (2.5 mm² HT90 cross-section), equipped with quick connection start/end channel terminal blocks, non-reversible with intermediate power sockets.
2 sockets for 3556 mm structures, 1 socket for 1778 mm structures (5P=N/T/1/2/3, 7P=N/T/1/2/3/+/-).
Feeding input on top (at the beginning or in the middle of the structure).

Code	Item	Dimensions L x A x H
A20019	3F Linux S 5P L1778	1778x62x38
A20026	3F Linux S 7P L1778	1778x62x38
A20017	3F Linux S 5P L3556	3556x62x38
A20024	3F Linux S 7P L3556	3556x62x38

3F Linux S-NL | IP40



IP40

Supporting structure WITHOUT power supply line.
Polycarbonate reinforced cable supports (for use every 500 mm approx.).
Feeding input on top (at the beginning or in the middle of the structure).

Code	Item	Dimensions L x A x H
A20012	3F Linux S NL L1778	1778x62x38
A20011	3F Linux S NL L3556	3556x62x38

3F Linux S | IP54

This fixture makes it possible to create light channels with IP54 protection.

Construction characteristics

Mechanical characteristics
Hot-galvanised wired structure, painted in polyester base white, obtained through rolling process, with expanded EPDM rubber profiles.
Linear connecting element in hot galvanised steel with gasket for the formation of continuous channels, standard on L3556 versions (optional for other lengths).
Transparent polycarbonate IP54 cover element with methacrylate flexible parts.
The L3556 versions have a locking collar for joining the covers.
For the completion accessories see accessories on page 378.

Electrical characteristics
Supporting structure with 5 or 7-pole through power supply lines with H07Z-U Halogen Free cables (2.5 mm² HT90 cross-section), equipped with quick connection start/end channel terminal blocks, non-reversible with intermediate power sockets.
2 sockets for 3556 mm structures, 1 socket for 1778 mm structures (5P=N/T/1/2/3, 7P=N/T/1/2/3/+/-).
Feeding input on top at the beginning of the structure or at end cap.

On request

- structure and accessories in different RAL colours
- through-wiring up to 11 poles

Applications

Dry, dusty indoor environments, subject to occasional water splashes.
Virtually in all environments compatibly with the use of any chemicals which could compromise the use of plastic materials.
Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
For specific applications please contact our technical offices.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

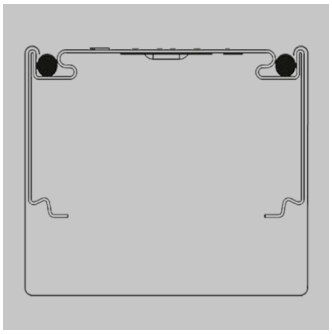
Installation

Ceiling mounted or suspension installation.
Attention: to obtain a light system with IP54 protection rating, it is necessary to use 3F Linux L light modules (or alternatively IP54 closing top) + closing terminals.
For more information, refer to the IP54 light channel composition guide (on page).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux S | IP54



CE 650°C IP54 HACCP

All product codes include the support structure and cover element.
In the L3556 versions there is also an IP54 element that is used to protect the joins between the covers.

Code	Item	Dimensions L x A x H
A20726	3F Linux 5P IP54 L1778 System	1778x64x72
A20724	3F Linux 7P IP54 L1778 System	1778x64x72
A20725	3F Linux 5P IP54 L3556 System	3556x64x72
A20723	3F Linux 7P IP54 L3556 System	3556x64x72

3F Linux L | Light modules

Construction characteristics

Illuminotechnical characteristics
Direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
PMMA lenses with external flat surface (superimposed to obtain full protection of LED modules).

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- integrated light sensor
- HACCP versions for use in the food industry
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
UGR version
Environments: staterooms, with VDTs, offices.

Installation

This lighting unit can be installed on profile 3F Linux S | IP40 and
3F Linux S | IP54 (see dedicated product pages).

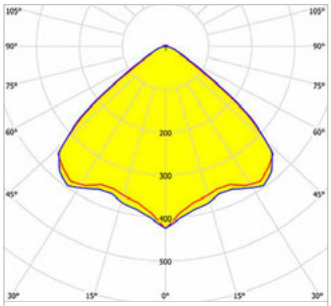
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux L Wide



Code A20127

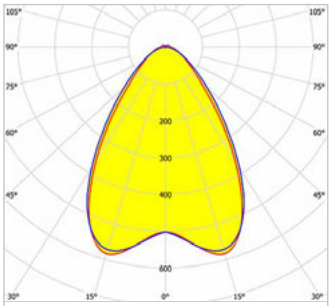
650°C | IP40 | 1J | IK06

HACCP

Wide distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20127	3F Linux L 40 LED AMPIO L1778	43	6936 IP40 6607 IP54	4000	>80	1778x62x32
A20126	3F Linux L 50 LED AMPIO L1778	50	8247 IP40 7856 IP54	4000	>80	1778x62x32
A20125	3F Linux L 60 LED AMPIO L1778	62	9855 IP40 9388 IP54	4000	>80	1778x62x32
A20124	3F Linux L 85 LED AMPIO L1778	93	14086 IP40 13418 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20141	3F Linux L 40 LED DALI AMPIO L1778	43	6936 IP40 6607 IP54	4000	>80	1778x62x32
A20140	3F Linux L 50 LED DALI AMPIO L1778	50	8247 IP40 7856 IP54	4000	>80	1778x62x32
A20139	3F Linux L 60 LED DALI AMPIO L1778	62	9855 IP40 9388 IP54	4000	>80	1778x62x32
A20138	3F Linux L 85 LED DALI AMPIO L1778	93	14086 IP40 13418 IP54	4000	>80	1778x62x32

3F Linux L Medium



Code A20755

650°C | IP40 | 1J | IK06

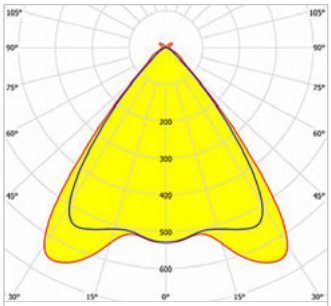
HACCP

Medium distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20757	3F Linux L 40 LED MEDIO L1778	43	6843 IP40 6499 IP54	4000	>80	1778x62x32
A20756	3F Linux L 50 LED MEDIO L1778	50	8136 IP40 7728 IP54	4000	>80	1778x62x32
A20755	3F Linux L 60 LED MEDIO L1778	62	9723 IP40 9235 IP54	4000	>80	1778x62x32
A20754	3F Linux L 85 LED MEDIO L1778	93	13898 IP40 13200 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20762	3F Linux L 40 LED DALI MEDIO L1778	43	6843 IP40 6499 IP54	4000	>80	1778x62x32
A20761	3F Linux L 50 LED DALI MEDIO L1778	50	8136 IP40 7728 IP54	4000	>80	1778x62x32
A20760	3F Linux L 60 LED DALI MEDIO L1778	62	9723 IP40 9235 IP54	4000	>80	1778x62x32
A20759	3F Linux L 85 LED DALI MEDIO L1778	93	13898 IP40 13200 IP54	4000	>80	1778x62x32

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux L UGR



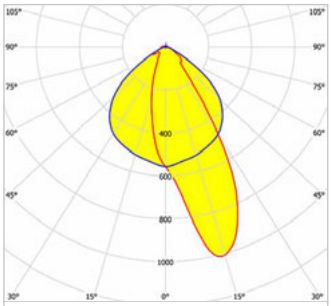
Code A20661 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06 | HACCP

Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20661	3F Linux L 50 LED UGR L1778	50	8221 IP40 7924 IP54	4000	>80	1778x62x32
A20662	3F Linux L 40 LED UGR L1778	43	6914 IP40 6664 IP54	4000	>80	1778x62x32
A20664	3F Linux L 50/940 LED UGR L1778	50	6742 IP40 6498 IP54	4000	>90	1778x62x32
A20665	3F Linux L 40/940 LED UGR L1778	43	5670 IP40 5464 IP54	4000	>90	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20667	3F Linux L 50 LED DALI UGR L1778	50	8221 IP40 7924 IP54	4000	>80	1778x62x32
A20668	3F Linux L 40 LED DALI UGR L1778	43	6914 IP40 6664 IP54	4000	>80	1778x62x32
A20670	3F Linux L 50/940 LED DALI UGR L1778	50	6742 IP40 6498 IP54	4000	>90	1778x62x32
A20671	3F Linux L 40/940 LED DALI UGR L1778	43	5670 IP40 5464 IP54	4000	>90	1778x62x32

3F Linux L AS



Code A20744

650°C | IP40 | 1J | IK06

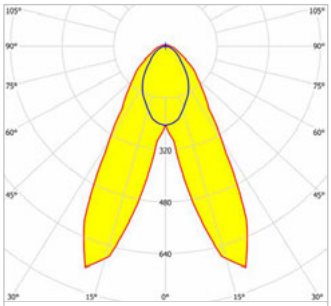
HACCP

Asymmetric distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20747	3F Linux L 40 LED AS L1778	43	6957 IP40 6664 IP54	4000	>80	1778x62x32
A20746	3F Linux L 50 LED AS L1778	50	8272 IP40 7924 IP54	4000	>80	1778x62x32
A20745	3F Linux L 60 LED AS L1778	62	9886 IP40 9469 IP54	4000	>80	1778x62x32
A20744	3F Linux L 85 LED AS L1778	93	14130 IP40 13535 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20752	3F Linux L 40 LED DALI AS L1778	43	6957 IP40 6664 IP54	4000	>80	1778x62x32
A20751	3F Linux L 50 LED DALI AS L1778	50	8272 IP40 7924 IP54	4000	>80	1778x62x32
A20750	3F Linux L 60 LED DALI AS L1778	62	9886 IP40 9469 IP54	4000	>80	1778x62x32
A20749	3F Linux L 85 LED DALI AS L1778	93	14130 IP40 13535 IP54	4000	>80	1778x62x32

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux L BAT



Code A20085

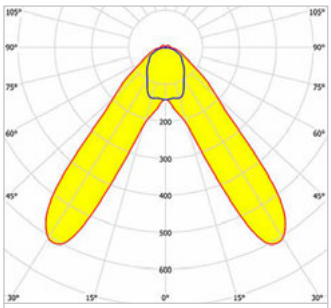
650°C | IP40 | 1J | IK06

HACCP

Double asymmetrical distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20085	3F Linux L 40 LED BAT L1778	43	6950 IP40 6599 IP54	4000	>80	1778x62x32
A20084	3F Linux L 50 LED BAT L1778	50	8264 IP40 7847 IP54	4000	>80	1778x62x32
A20083	3F Linux L 60 LED BAT L1778	62	9876 IP40 9378 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20099	3F Linux L 40 LED DALI BAT L1778	43	6950 IP40 6599 IP54	4000	>80	1778x62x32
A20098	3F Linux L 50 LED DALI BAT L1778	50	8264 IP40 7847 IP54	4000	>80	1778x62x32
A20097	3F Linux L 60 LED DALI BAT L1778	62	9876 IP40 9378 IP54	4000	>80	1778x62x32

3F Linux L BAT WD



Code A20610

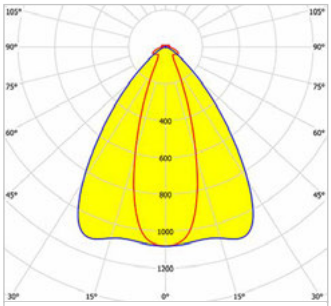
650°C | IP40 | 1J | IK06

HACCP

Wide double symmetric distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20610	3F Linux L 40 LED BAT WD L1778	43	6928 IP40 6528 IP54	4000	>80	1778x62x32
A20609	3F Linux L 50 LED BAT WD L1778	50	8238 IP40 7762 IP54	4000	>80	1778x62x32
A20608	3F Linux L 60 LED BAT WD L1778	62	9845 IP40 9276 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20624	3F Linux L 40 LED DALI BAT WD L1778	43	6928 IP40 6528 IP54	4000	>80	1778x62x32
A20623	3F Linux L 50 LED DALI BAT WD L1778	50	8238 IP40 7762 IP54	4000	>80	1778x62x32
A20622	3F Linux L 60 LED DALI BAT WD L1778	62	9845 IP40 9276 IP54	4000	>80	1778x62x32

3F Linux L Concentrated



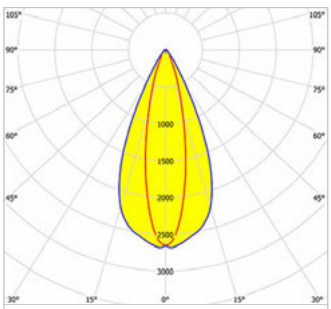
Code A20167

650°C | IP40 | 1J | IK06 | HACCP

Concentrated elliptical distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.
Recommended minimum installation height: 5 metres from the ground.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20167	3F Linux L 60 LED CONC L1778	62	9662 IP40 9154 IP54	4000	>80	1778x62x32
A20166	3F Linux L 85 LED CONC L1778	93	13810 IP40 13084 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20181	3F Linux L 60 LED DALI CONC L1778	62	9662 IP40 9154 IP54	4000	>80	1778x62x32
A20180	3F Linux L 85 LED DALI CONC L1778	93	13810 IP40 13084 IP54	4000	>80	1778x62x32

3F Linux L Iperconcentrated



Code A20684

650°C | IP40 | 1J | IK06 | HACCP

Symmetrical elliptical hyperconcentrated distribution.
Structure height (3F Linux S | IP40 + 3F Linux L) equal to 65 mm.
Structure height (3F Linux S | IP54 + 3F Linux L) equal to 71 mm.
Recommended minimum installation height: 5 metres from the ground.

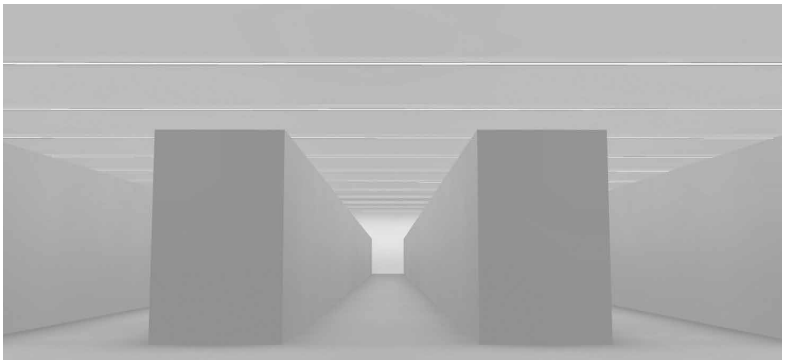
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20685	3F Linux L 60 LED IPERCONC L1778	62	9418 IP40 8910 IP54	4000	>80	1778x62x32
A20684	3F Linux L 85 LED IPERCONC L1778	93	13462 IP40 12736 IP54	4000	>80	1778x62x32
DALI electronic wiring 230V-50/60Hz						
A20699	3F Linux L 60 LED DALI IPERCONC L1778	62	9418 IP40 8910 IP54	4000	>80	1778x62x32
A20698	3F Linux L 85 LED DALI IPERCONC L1778	93	13462 IP40 12736 IP54	4000	>80	1778x62x32

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


SALDI
SALDI
SALDI
SALE
SALE
SALDI
SALDI
SALDI

3F Linux L

Design reference tables - Installation **ACROSS** aisles



Design data:

Maintenance factor	K = 0.90
Reflection	ceiling 50% walls 50% floor 40%
Shelves	height 2.20 metres reflection 40%
Work surface height	0.85 metres
Aisle width	2 metres

Luminaire: **3F Linux L 85 AMPIO**

Installation pitch (metres)	Calculation surface	Installation height (metres) 3	3.5	4	4.5	5
3	Horizontal aisle Vertical shelf	1601 813	1598 802	1571 800	1561 792	1569 798
3.5	Horizontal aisle Vertical shelf		1353 684	1348 687	1336 679	1341 686
4	Horizontal aisle Vertical shelf		1181 599	1177 600	1167 594	1172 598
4.5	Horizontal aisle Vertical shelf			1050 540	1042 529	1043 532
5	Horizontal aisle Vertical shelf				939 481	937 478
5.5	Horizontal aisle Vertical shelf					859 439

Luminaire: **3F Linux L 60 AMPIO**

Installation pitch (metres)	Calculation surface	Installation height (metres) 3	3.5	4	4.5	5
3	Horizontal aisle Vertical shelf	1196 607	1194 599	1173 598	1166 591	1171 596
3.5	Horizontal aisle Vertical shelf		1010 511	1007 513	997 508	1002 512
4	Horizontal aisle Vertical shelf		882 447	879 448	871 443	876 446
4.5	Horizontal aisle Vertical shelf			784 403	778 395	779 398
5	Horizontal aisle Vertical shelf				702 359	700 357
5.5	Horizontal aisle Vertical shelf					641 328

Luminaire: **3F Linux L 50 AMPIO**

Installation pitch (metres)	Surface surface	Installation height (metres) 3	3.5	4	4.5	5
3	Horizontal aisle Vertical shelf	1014 515	1012 508	995 507	989 501	993 506
3.5	Horizontal aisle Vertical shelf		856 434	854 435	846 430	849 435
4	Horizontal aisle Vertical shelf		748 379	745 381	739 376	743 378
4.5	Horizontal aisle Vertical shelf			666 341	660 335	660 337
5	Horizontal aisle Vertical shelf				595 305	594 303
5.5	Horizontal aisle Vertical shelf					544 278

Luminaire: **3F Linux L 40 AMPIO**

Installation pitch (metres)	Surface surface	Installation height (metres) 3	3.5	4	4.5	5
3	Horizontal aisle Vertical shelf	854 434	852 428	838 427	833 423	836 425
3.5	Horizontal aisle Vertical shelf		722 365	719 367	712 363	716 366
4	Horizontal aisle Vertical shelf		630 319	628 320	622 317	625 319
4.5	Horizontal aisle Vertical shelf			561 287	555 282	557 284
5	Horizontal aisle Vertical shelf				501 257	499 255
5.5	Horizontal aisle Vertical shelf					458 234

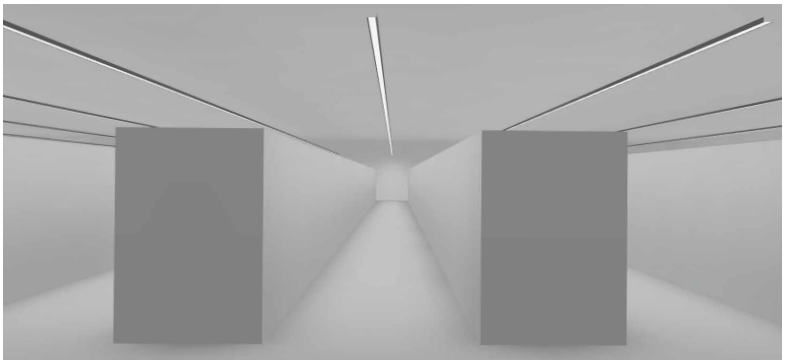
Notes:

The values in the tables are given in lux (lx).

Wide distrib.

Not recommended

Design reference tables - Installation **ALONG** aisles
Up to 5 metres height



Design data:

Maintenance factor	K = 0.90
Reflection	ceiling 50% walls 50% floor 40%
Shelves	height 2.20 metres reflection 40%
Work surface height	0.85 metres
Aisle width	2 metres

Luminaire: **3F Linux L AMPIO**

Luminaire power	Calculation surface	Installation height (metres) 3	3.25	3.5	3.75	4
85 AMPIO	Horizontal aisle	1946	1728	1604	1483	1416
	Vertical shelf	1161	1064	947	855	782
60 AMPIO	Horizontal aisle	1453	1290	1198	1108	1058
	Vertical shelf	867	795	707	639	584
50 AMPIO	Horizontal aisle	1233	1094	1015	939	897
	Vertical shelf	736	674	600	542	495
40 AMPIO	Horizontal aisle	1038	921	855	791	756
	Vertical shelf	619	568	505	457	418

Luminaire: **3F Linux L MEDIUM**

Luminaire power	Calculation surface	Installation height (metres) 3	3,25	3,5	3,75	4
85 MEDIO	Horizontal aisle	2513	2331	2170	2032	1918
	Vertical shelf	1050	1060	1034	988	934
60 MEDIO	Horizontal aisle	1877	1741	1621	1518	1432
	Vertical shelf	784	792	772	738	697
50 MEDIO	Horizontal aisle	1592	1477	1375	1287	1215
	Vertical shelf	666	672	654	625	591
40 MEDIO	Horizontal aisle	1341	1243	1158	1084	1023
	Vertical shelf	561	566	551	527	498

Luminaire: **3F Linux L BAT**

Luminaire power	Calculation surface	Installation height (metres) 3	3.25	3.5	3.75	4
60 BAT	Horizontal aisle	1408	1251	1116	995	923
	Vertical shelf	890	863	825	792	740
50 BAT	Horizontal aisle	1194	1061	947	844	783
	Vertical shelf	755	731	700	672	628
40 BAT	Horizontal aisle	1005	894	797	711	659
	Vertical shelf	636	616	589	566	529

Luminaire: **3F Linux BAT WD**

Luminaire power	Calculation surface	Installation height (metres) 3	3.25	3.5	3.75	4
60 BAT WD	Horizontal aisle	1073	915	803	699	616
	Vertical shelf	1028	969	869	763	655
50 BAT WD	Horizontal aisle	909	776	682	593	523
	Vertical shelf	872	822	737	648	555
40 BAT WD	Horizontal aisle	766	653	573	499	440
	Vertical shelf	735	692	621	545	467

Notes:
The values in the tables are given in lux (lx).

Design reference tables - Installation **ALONG** aisles
Over 5 metres height

Design data:

Reflection		**Shelves**	
ceiling	50%	height	4.5 / 5.5 / 6.5 / 7.5 metres
walls	50%	reflection	40%
floor	40%		

Work surface height 0.85 metres

Aisle width 2 metres

Luminaire: **3F Linux L CONC**

Luminaire power	Calculation surface	Installation height (metres) 5	6	7	8
85 CONC	Horizontal aisle	2106	1830	1595	1403
	Vertical shelf	541	506	473	439
60 CONC	Horizontal aisle	1573	1366	1191	1048
	Vertical shelf	404	377	353	328

3F Linux D | Light modules

Construction characteristics

Illuminotechnical characteristics
Diffused symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Curved screen in self-extinguishing polycarbonate, UV stabilised, opal, with smooth outer surface.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- asymmetric lighting distribution
- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.

Installation

This lighting unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

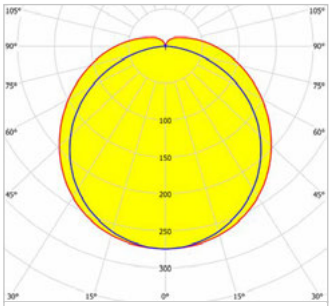
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux D



Code A20336

Diffuse distribution.
Structure height (3F Linux S + 3F Linux D) equal to 81 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20336	3F Linux D 2x22 LED L1778	49	6236	4000	>80	1778x62x47
A20335	3F Linux D 2x30 LED L1778	66	7835	4000	>80	1778x62x47
DALI electronic wiring 230V-50/60Hz						
A20350	3F Linux D 2x22 LED DALI L1778	49	6236	4000	>80	1778x62x47
A20349	3F Linux D 2x30 LED DALI L1778	66	7835	4000	>80	1778x62x47

3F Linux DR | Light modules

Construction characteristics

Illuminotechnical characteristics
Direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Light unit in hot-galvanised steel, painted in white polyester base with fixing springs and retractable safety hooks in stainless steel.
Rectangular screen in self-extinguishing polycarbonate, UV stabilised, with smooth outer surface.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Connection to the structure with mobile plug with phase selection (H05Z-U Halogen Free cable section 0,5 mm² HT90).

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- emergency versions

Applications

Environments: commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops, schools.

Installation

This lighting unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

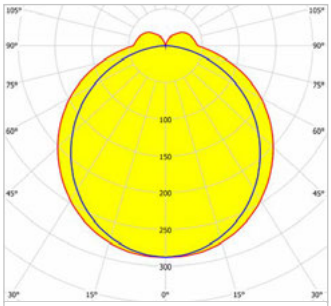
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux DR



Code A20512

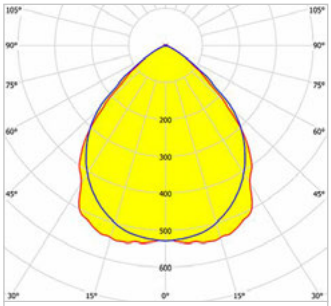
850°C | IP40 | 1J | IK06

Driver/LED SELV

Diffused symmetric distribution.
Rectangular opal polycarbonate diffuser.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20512	3F Linux DR 2x22 LED L1778	49	6253	4000	>80	1778x62x47
A20511	3F Linux DR 2x30 LED L1778	66	7856	4000	>80	1778x62x47
DALI electronic wiring 230V-50/60Hz						
A20526	3F Linux DR 2x22 LED DALI L1778	49	6253	4000	>80	1778x62x47
A20525	3F Linux DR 2x30 LED DALI L1778	66	7856	4000	>80	1778x62x47

3F Linux DR UGR



Code A20596 L<3000 cd/m² 65°

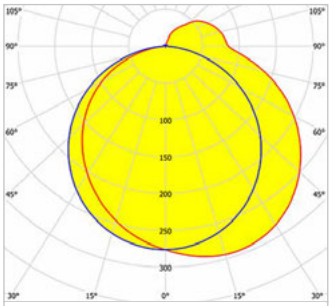
850°C | IP40 | 1J | IK06

Driver/LED SELV

Controlled symmetric distribution.
1x30 - Average luminance <1500 cd/m² for radial angles >65°.
2x22 - Average luminance <3000 cd/m² for radial angles >65°.
Rectangular transparent polycarbonate diffuser.
Semi-specular aluminium internal louvre with prismatic methacrylate filter above the louvre blades for complete shielding of the louvre compartment.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20595	3F Linux DR 1x30 LED UGR L1778	34	3487	4000	>80	1778x62x47
A20596	3F Linux DR 2x22 LED UGR L1778	49	5361	4000	>80	1778x62x47
DALI electronic wiring 230V-50/60Hz						
A20599	3F Linux DR 1x30 LED DALI UGR L1778	34	3487	4000	>80	1778x62x47
A20600	3F Linux DR 2x22 LED DALI UGR L1778	49	5361	4000	>80	1778x62x47

3F Linux DR AS



Code A20674

850°C | IP40 | 1J | IK06

Driver/LED SELV

Asymmetric distribution.
Rectangular opal polycarbonate diffuser.
Internal flow recuperator in white steel.
Structure height (3F Linux S + 3F Linux DR) equal to 81 mm.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
A20674	3F Linux DR 2x30 LED AS L1778	66	6403	4000	>80	1778x62x47
DALI electronic wiring 230V-50/60Hz						
A20679	3F Linux DR 2x30 LED DALI AS L1778	66	6403	4000	>80	1778x62x47

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


30N
31N
32N

3F Linux Track

Construction characteristics

Mechanical characteristics
Light unit in hot-galvanised steel with white polyester powder coating, with retractable fastening clips and stainless steel safety hooks.
Electrified busbar made from extruded white aluminium, Eurostandard Plus compliant.
The wires are enclosed in rigid extruded profiles made of PVC insulating material with high dielectric strength.
Length of the electrified busbar: 1500 mm.

Electrical characteristics
Connection to the structure with mobile 7-pin plug with phase selection (H05Z-U Halogen Free cable section 0.5 mm² HT90).
(L1/L2/L3/N/GRD/DA/DA) 16A/440V 2x1A/50V FELV AC (DALI).
Copper conductors.

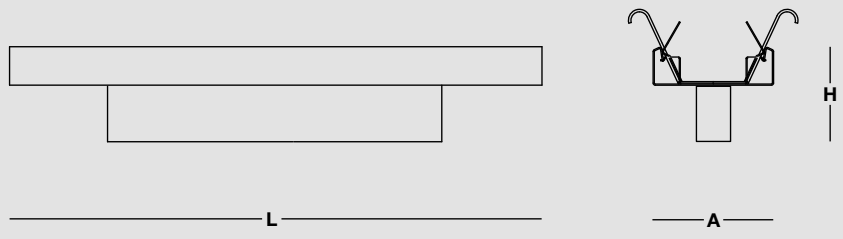
On request

- black and grey electrified busbar

Installation

This unit can be installed only on profile 3F Linux S | IP40 (see dedicated product pages).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linux Track

960°C IP20

Eurostandard Plus 6-conductor (plus earth) busbar (L1/L2/L3/N/GRD/DA/DA) 16A/440V with power supply cap and closing cap.

Code	Item	Dimensions L x A x H
A20424	3F Linux TK L1778	1778x62x57

3F Linux | Accessories

Free-position invisible sliding bracket with regulator in stainless steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20450	Slid.invis.brack.w/adj.for susp.3F Linux

The suspension cable must be made of galvanised steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg) and 2 mm (for a weight of 25 kg).

Free-position sliding bracket in stainless steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20451	Slid.invis.brack.ceiling instal.3F Linux

Free-position sliding bracket in stainless steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20453	S-shaped chain hook w/slid.bra. 3F Linux

Supplied with S-hook for galvanised steel chain.

Wall-mounting bracket, in white painted steel.

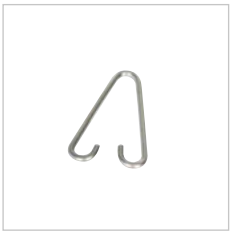
Code	Item
A0052	Wall-mounting brack

Safety screw for locking the sliding bracket, made of hot galvanised steel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20474	Safety screw locking slid.bra.3F Linux S

These accessories must ALWAYS be used with one of the following codes: A20450 - A20451 - A20453.



Hook to suspended luminaires to a chain.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20452	Stainless steel hook for chain

These accessories must ALWAYS be used with one of the following codes: A20451.

Suspension without controller, galvanised steel cable 1.5 mm diameter, load 15 kg.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20485	Suspension without adjustment - 0.5 m
A20486	Suspension without adjustment - 1 m
A20487	Suspension without adjustment - 2 m
A20488	Suspension without adjustment - 3 m
A20489	Suspension without adjustment - 4 m
A20490	Suspension without adjustment - 5 m
A20491	Suspension without adjustment - 6 m

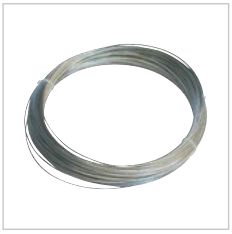
In the case of purchase of only one sliding bracket with controller (code A20450), the suspension cable must be made of galvanised steel with 49 elementary wires of minimum 1.5 mm diameter (for a weight of 15 kg).

Caddy hook to create a point from which to suspend the system or the loads to false ceilings with visible profiles.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A02562	Caddy for exposed profiles of 24 mm

To be installed on exposed profiles (width 24 mm) of false ceilings. We recommend reinforcing the false-ceiling fixing at the point where the Caddy is to be installed. Supplied complete with nut and washer. The suspension must be purchased separately.
These accessories must ALWAYS be used with one of the following codes: A20485 - A20486 - A20487 - A20488 - A20489 - A20490 - A20491.



Galvanised steel cable, diameter 1.5 mm, composed of 49 wires. 15 kg capacity (ratio 5:1).

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A0716	Coil galv. cable diam. 1.5mm - 100m The pack contains 100 metres.
A0717	Coil galv. cable diam. 1.5mm - 500m The pack contains 500 metres.
A0718	Coil galv. cable diam. 1.5mm - 1000m The pack contains 1000 metres.

These accessories must ALWAYS be used with one of the following codes: A20450, (A20452+A0714) o (A20451+A0659).

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A0714	Clamp 2 holes susp.- 100 pcs The pack contains 100 pieces.

Clamp suitable for fixing and adjustment of galvanised steel wire (diameter 1.5 mm), with quick adjustment through unlock buttons. The clamp with 2 holes allow to fix and adjust the cable on the carrier structural element (belonging to the building) or with eye screw fixing.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A0659	Adjustable clamp 2 holes - 10 pcs The pack contains 10 pieces.

This accessory can be used with one of the following codes: A20450 - A0716 - A0717 - A0718.

Element to connect in hot-galvanised steel.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20433	Linear connecting element

T-shaped connecting element in hot-galvanised steel.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20434	T-Connecting element 3F Linux

L-shaped connecting element in hot-galvanised steel.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20436	L-Connecting element 3F L Linux

Pair of closing end 3F Linux S, made of white polycarbonate.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20448	Pair of closing end 3F Linux

850°C

Safety bracket in white painted steel to secure lighting elements if installed vertically.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20478	Anti-slip term. incli. 3F Linux

This accessory must always be used in combination with end terminals.

High closing top, with a length of 1778 mm that can be cut to 889 mm, made of impact-resistant white PVC.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20442	Closing Top HIGH - L1778

650°C

IP54 high closing top, with a length of 1778 mm that can be cut to 889 mm, made of impact-resistant white PVC.

Accessory compatible with 3F Linux S | IP54.

Code	Item
A20743	IP54 - L1778 Closing Top

650°C

Cuttable low closing top, with a length of 1778 mm that can be cut, made of impact-resistant white PVC.

Accessory compatible ONLY with 3F Linux S-NL | IP40.

Code	Item
A20428	Closing Top LOW - L1778

650°C

Electric cable support. One every 50 cm is recommended. Made of polycarbonate.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20475	3F Linux Cable Support (10 pcs) The pack contains 10 pieces.

Brackets for the installation of luminaries on 3F Linux S and S-NL bars (check the compatibility with our technical departments). Made of hot galvanised steel.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20470	Pair of mounting brack. lum. 3F Linux S

Brackets for installation of 3F Linda luminaries on 3F Linux S structures. Made from hot-galvanised steel.

Code	Item
A20504 NEW	Pair brack.3F Linda instal.in 3F Linux S

Closing end 3F Linux S IP54, made of white polycarbonate.

Accessory compatible with 3F Linux S | IP54.

Code	Item
A20740	IP54 3F Linux End terminal

IP54 end terminal with a power-supply line entry hole.

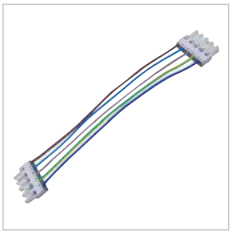
Accessory compatible with 3F Linux S | IP54.

Code	Item
A20741	IP54 3F Linux End terminal with 1 hole

IP54 end terminal with two power-supply line entry holes.

Accessory compatible with 3F Linux S | IP54.

Code	Item
A20742	IP54 3F Linux End terminal with 2 holes

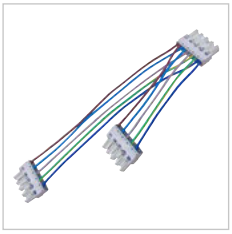


Electric branch with plug-socket to realise L-shaped connections.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20459	5-pole socket-plug L-branch 3F Linux S
A20460	7-pole socket-plug L-branch 3F Linux S

These accessories must always be used in conjunction with L connecting elements. **Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).**

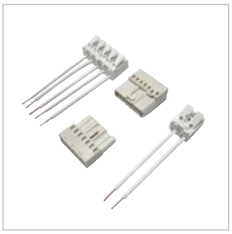


Electric branch with plug-socket to realise T-shaped connections.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20464	5-pole socket-plug T-branch 3F Linux S
A20465	7-pole socket-plug T-branch 3F Linux S

These accessories must always be used in conjunction with T connecting elements. **Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).**



Quick connection non-reversible plug-socket terminal block, for connection to the power line at the start or end of the channel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20454	5-pole socket-plug term.block 3F Linux S
A20455	7-pole socket-plug term.block 3F Linux S

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).

Quick connection non-reversible plug-socket terminal block, for connection to the power line at the centre of the channel.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A20500	Cen.pow-sup.soc-plug ter-blo.3FLinuxS 5P
A20501	Cen.pow-sup.soc-plug ter-blo.3FLinuxS 7P

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).

Connection to the earth, by means of galvanised M5 screw and nut, for Ø 6 mm hole at the end of every structure.

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A0490	Connection to the earth

Power cable for luminaires not part of the 3F Linux system.

Accessory compatible with 3F Linux S | IP40.

Code	Item
A20479	Power cable for luminaires 3P-3F Linux
A20480	Power cable for luminaires 5P-3F Linux

Accessories not compatible with 3F Linux S-NL (cod.: A20011, A20012).

Extension cord to connect some light modules interspersed with blind covers with a length of 889 mm (contact our technical department).

Accessory compatible with 3F Linux S | IP40, 3F Linux S | IP54.

Code	Item
A0801	Electric ext. with plug 3F Linux DALI-EP
A0802	Electric extension with plug 3F Linux

Attention: the code A0801 is supplied with a 5-pole electric line, while the code A0802 is supplied with a 3-pole electric line.

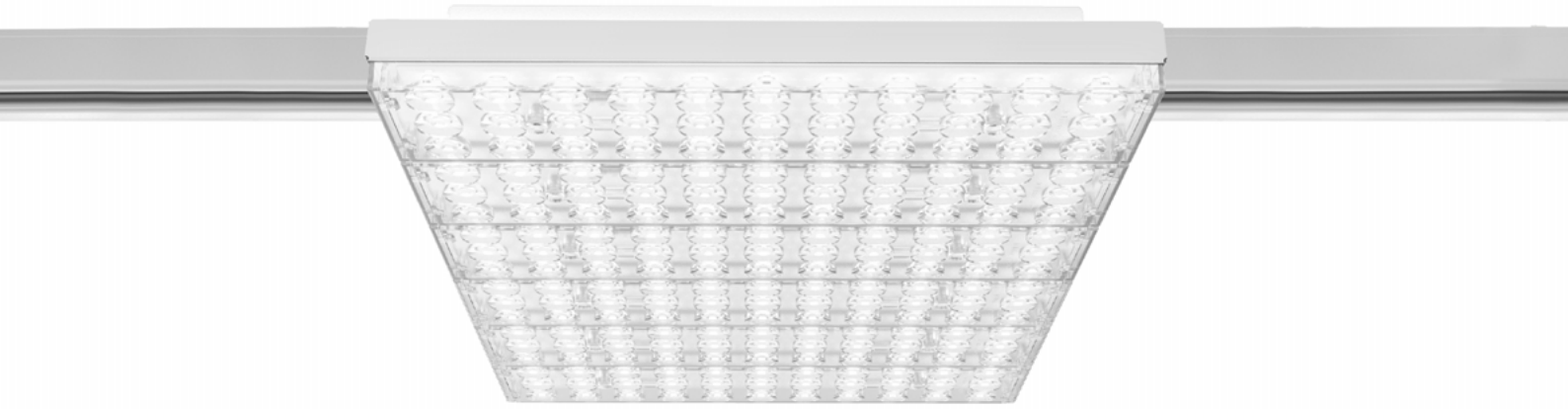
Additional contact for light unit plug.

Accessory compatible with 3F Linux S | IP40, 3F Linux L | Light modules, 3F Linux D | Light modules, 3F Linux DR | Light modules, 3F Linux Track.

Code	Item
A20476	Contact pin for 3F Linux plug (50 pcs.) The pack contains 50 pieces.

Accessory not compatible with 3F Linux S-NL (cod.: A20011, A20012).


DAL 29 OTTOBRE
AL 1° NOVEMBRE
RITIRA ALLE CASSE
IL BUONO SPESA DI 5€
5€
UTILIZZALO
DAL 2 ALL'8 NOVEMBRE
SU UNA SPESA MINIMA DI 30€
USCITA DI EMERGENZA
SPECIALE VINI
1+1=3
PRENDI 3 PAGHI 2.
Pavesini
Knorr



3F Six

> www.3F-Filippi.com/3F Six

3F Six is the new compact fixture designed by 3F Filippi.
Thanks to its compact height and flat shape with a visible edge of only 3 cm, is particularly suitable for shopping centres, exhibition areas and warehouses.
The fixture (available in both a square and rectangular version), can be installed in a flexible way on busways or electrified tracks.
Thanks to the use of six methacrylate optical lenses installed on the fixture is it possible to obtain customised luminous distribution by choosing from the eight types of optics available: wide, double asymmetric, wide double asymmetric, asymmetric, medium, concentrated, hyper concentrated and UGR.
The latter configuration, designed to be used in environments with more stringent vision requirements or where there are VDTs, uses lenses with controlled luminance and a UGR<19 glare index.
3F Six is available in a version with ON/OFF wiring or DALI control to manage the fixture and the energy consumption of the entire lighting system.

This product is also available in this version 3F Six R (page 221).

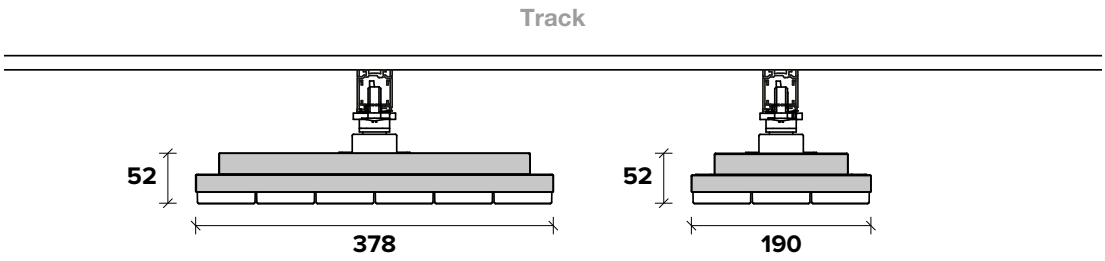
+ Overview

- Luminous efficacy up to 162 lumen/watt.
- Luminous fluxes from 6843 to 14086 lumens.
- Average luminance <3000 cd/m² (UGR version).
- Extensive installation pitch.
- UGR <19 (UGR version).
- Driver integrated in the fixture.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Versatility of use in different environments.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

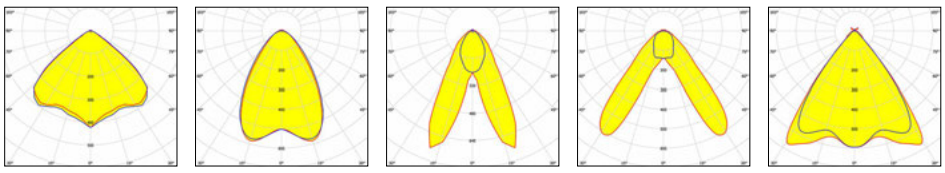
Page	Product	Lens
388	3F Six Track	•
392	3F Six Blindo	•

Product range

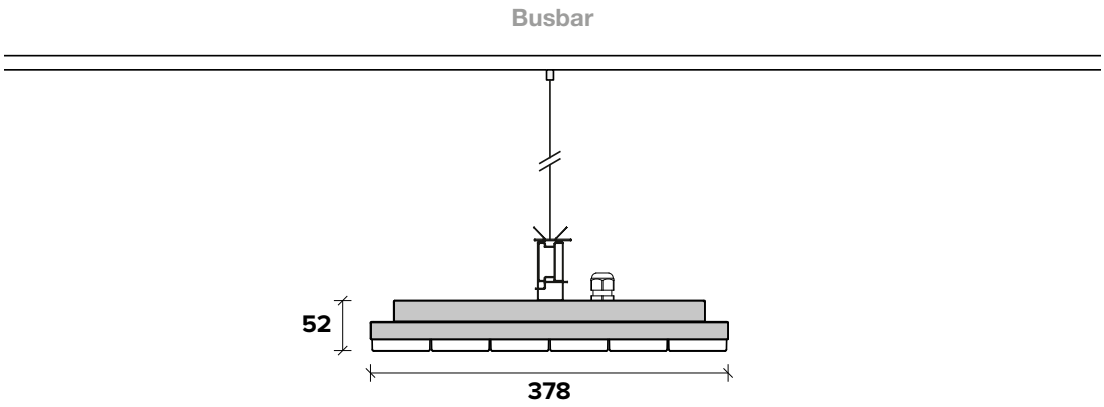
3F Six Track



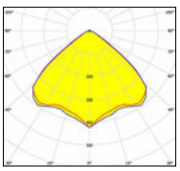
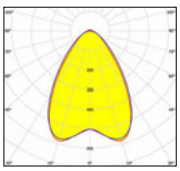
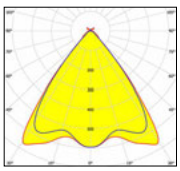
3F Six Track

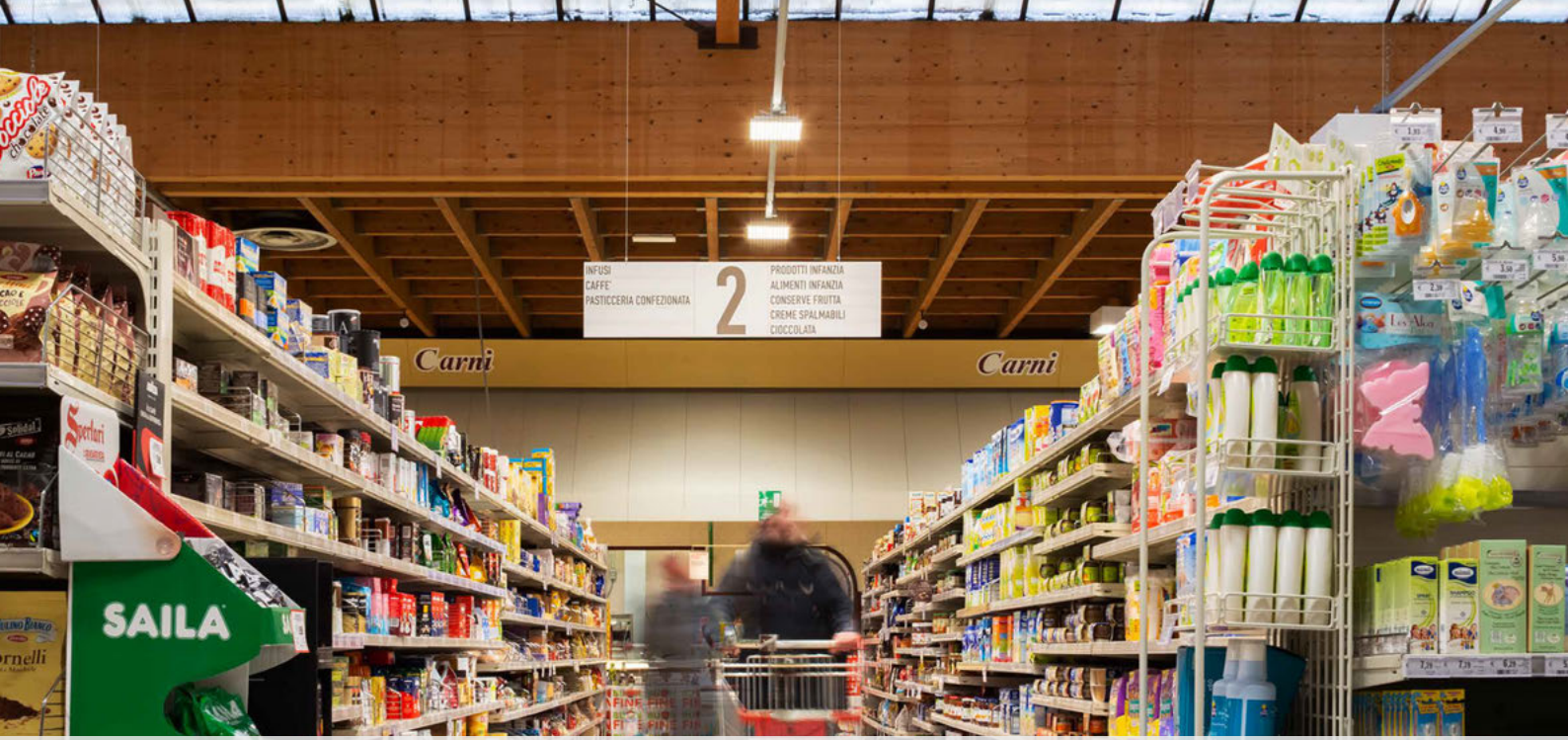
Model		Wide	Medium	BAT	BAT WD	UGR
Average luminance for angles> 65 (cd / m²)		>3000	>3000	>3000	>3000	<3000
UGR		<21	<21	<21	<21	<19
Protection class				IP40		
Photometric distribution						
Installation steps	**Dt**	1,39	1,16	/	/	1,39
	DI	1,43	1,19	/	/	1,30

3F Six Blindo





3F Six Blindo				
Model		**Wide**	**Medium**	**UGR**
Average luminance for angles> 65 (cd / m²)		>3000	>3000	<3000
UGR		<21	<21	<19
Protection class			IP40	
Photometric distribution				
Installation steps	**Dt**	1,39	1,16	1,39
	Dl	1,43	1,19	1,30



3F Six Track

Construction characteristics

Illuminotechnical characteristics
Direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Height only 52 mm.
PMMA lenses with external flat surface.
The fixture can be rotated horizontally from 0° to 330°.

Electrical characteristics
In compliance with EN 60598-1.
Truck adapter, 4/6-way.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- fixture rotation lock bracket

Applications

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
UGR version
Environments that need luminance control.

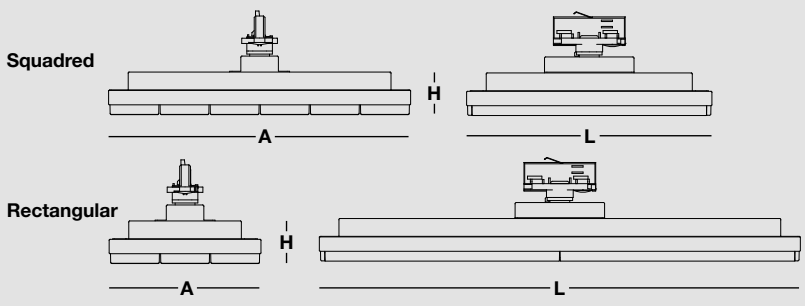
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 408).

Light Management

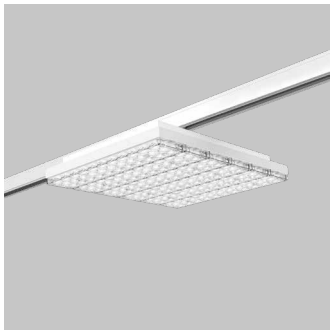
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

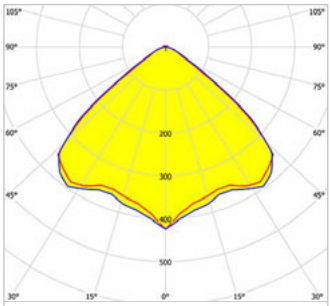
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Six Track Wide





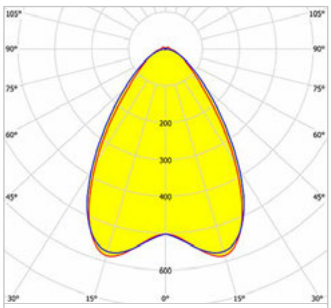
Code 47720

650°C | IP40 | 1J | IK06

Wide distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47722	3F Six TK WH 40/840 WIDE 307x378	43	6936	4000	>80	307x378x52
47742	3F Six TK WH 40/840 WIDE 190x602	43	6936	4000	>80	602x190x52
47721	3F Six TK WH 50/840 WIDE 307x378	50	8247	4000	>80	307x378x52
47741	3F Six TK WH 50/840 WIDE 190x602	50	8247	4000	>80	602x190x52
47720	3F Six TK WH 60/840 WIDE 307x378	62	9855	4000	>80	307x378x52
47740	3F Six TK WH 60/840 WIDE 190x602	62	9855	4000	>80	602x190x52
DALI electronic wiring 230V-50/60Hz						
47725	3F Six TK WH 40/840 DALI WIDE 307x378	43	6936	4000	>80	307x378x52
47745	3F Six TK WH 40/840 DALI WIDE 190x602	43	6936	4000	>80	602x190x52
47724	3F Six TK WH 50/840 DALI WIDE 307x378	50	8247	4000	>80	307x378x52
47744	3F Six TK WH 50/840 DALI WIDE 190x602	50	8247	4000	>80	602x190x52
47723	3F Six TK WH 60/840 DALI WIDE 307x378	62	9855	4000	>80	307x378x52
47743	3F Six TK WH 60/840 DALI WIDE 190x602	62	9855	4000	>80	602x190x52

3F Six Track Medium



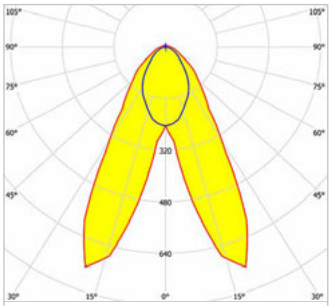
Code 47727

650°C | IP40 | 1J | IK06

Medium distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47729	3F Six TK WH 40/840 MEDIUM 307x378	43	6843	4000	>80	307x378x52
47728	3F Six TK WH 50/840 MEDIUM 307x378	50	8136	4000	>80	307x378x52
47727	3F Six TK WH 60/840 MEDIUM 307x378	62	9723	4000	>80	307x378x52
DALI electronic wiring 230V-50/60Hz						
47732	3F Six TK WH 40/840 DALI MEDIUM 307x378	43	6843	4000	>80	307x378x52
47731	3F Six TK WH 50/840 DALI MEDIUM 307x378	50	8136	4000	>80	307x378x52
47730	3F Six TK WH 60/840 DALI MEDIUM 307x378	62	9723	4000	>80	307x378x52

3F Six Track BAT



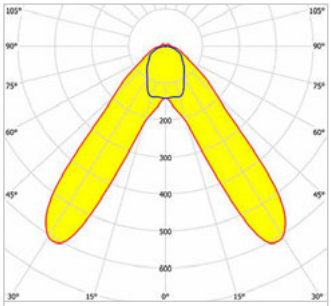
Code 47747

650°C | IP40 | 1J | IK06

Double asymmetrical distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47749	3F Six TK WH 40/840 BAT 190x602	43	6950	4000	>80	602x190x52
47748	3F Six TK WH 50/840 BAT 190x602	50	8264	4000	>80	602x190x52
47747	3F Six TK WH 60/840 BAT 190x602	62	9876	4000	>80	602x190x52
DALI electronic wiring 230V-50/60Hz						
47752	3F Six TK WH 40/840 DALI BAT 190x602	43	6950	4000	>80	602x190x52
47751	3F Six TK WH 50/840 DALI BAT 190x602	50	8264	4000	>80	602x190x52
47750	3F Six TK WH 60/840 DALI BAT 190x602	62	9876	4000	>80	602x190x52

3F Six Track BAT WD



Code 47754

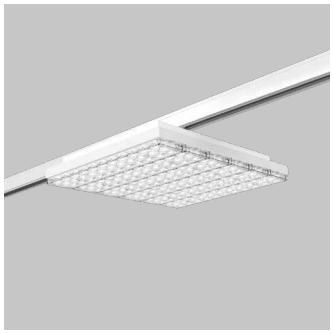
650°C | IP40 | 1J | IK06

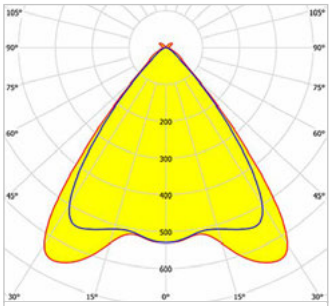
Wide double symmetric distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47756	3F Six TK WH 40/840 BAT WD 190x602	43	6928	4000	>80	602x190x52
47755	3F Six TK WH 50/840 BAT WD 190x602	50	8238	4000	>80	602x190x52
47754	3F Six TK WH 60/840 BAT WD 190x602	62	9845	4000	>80	602x190x52
DALI electronic wiring 230V-50/60Hz						
47759	3F Six TK WH 40/840 DALI BAT WD 190x602	43	6928	4000	>80	602x190x52
47758	3F Six TK WH 50/840 DALI BAT WD 190x602	50	8238	4000	>80	602x190x52
47757	3F Six TK WH 60/840 DALI BAT WD 190x602	62	9845	4000	>80	602x190x52

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Six Track UGR



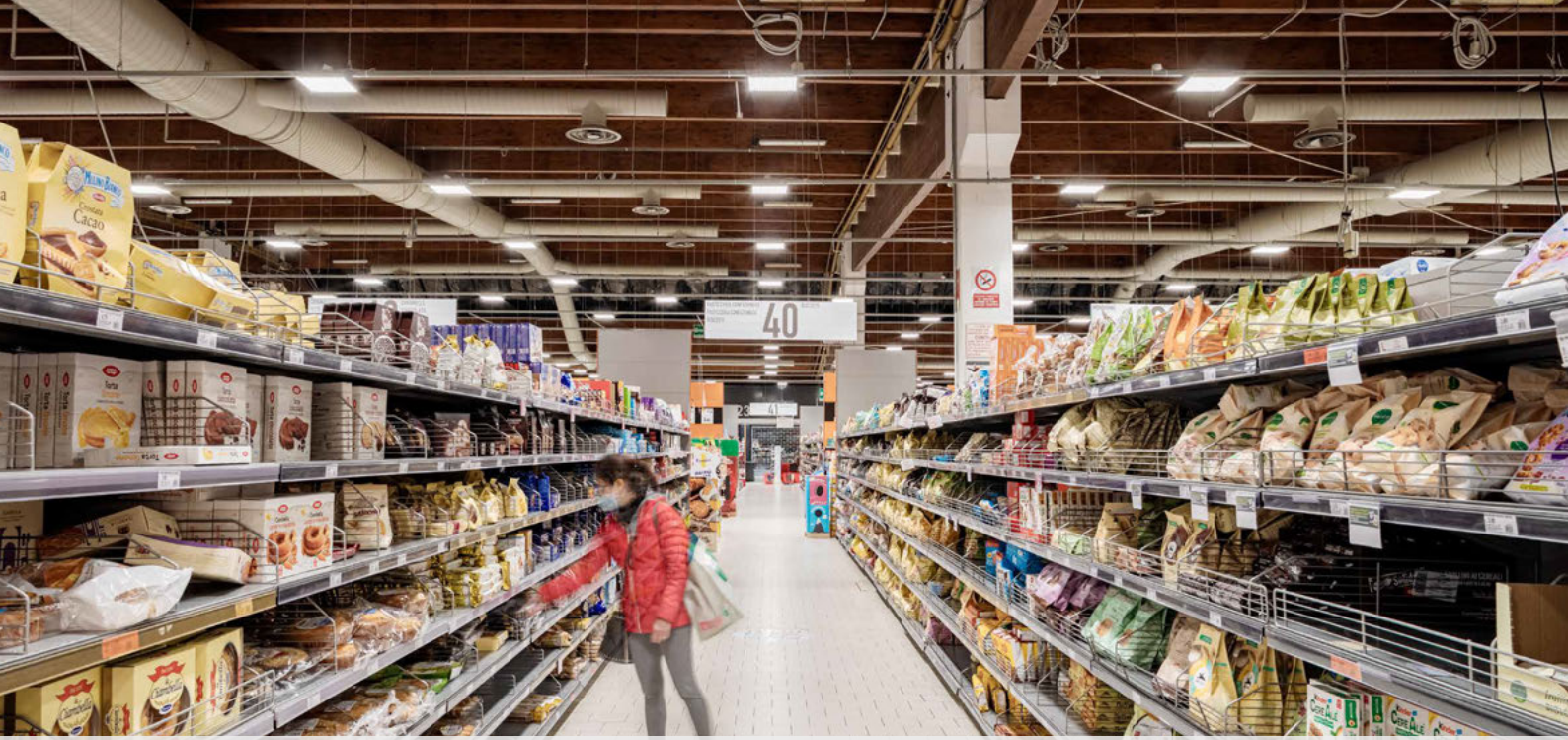


Code 47734 L<3000 cd/m² 65°

650°C | IP40 | 1J | IK06

Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47761	3F Six TK WH 40/840 UGR 190x602	43	6914	4000	>80	602x190x52
47734	3F Six TK WH 40/840 UGR 307x378	43	6914	4000	>80	307x378x52
DALI electronic wiring 230V-50/60Hz						
47762	3F Six TK WH 40/840 DALI UGR 190x602	43	6914	4000	>80	602x190x52
47735	3F Six TK WH 40/840 DALI UGR 307x378	43	6914	4000	>80	307x378x52



3F Six Blindo

Construction characteristics

Illuminotechnical characteristics
Direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in galvannealed steel, painted in white epoxy-polyester.
Height only 52 mm.
PMMA lenses with external flat surface.
Can be positioned transversally or longitudinally to the busway.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Power cable type H05Z1Z1-F
3-5x1.5 mm² that protrudes by 1 m with sheared ends.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different powers
- LED sources with different colour temperatures
- housing in different RAL colours
- wiring: CLO (more information on page 598)
- versions with rectangular shape
- different dimensions
- emergency versions

Applications

Environments: industrial, commercial, exhibition areas, transit areas, lobbies or waiting rooms, shops.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
UGR version
Environments that need luminance control.

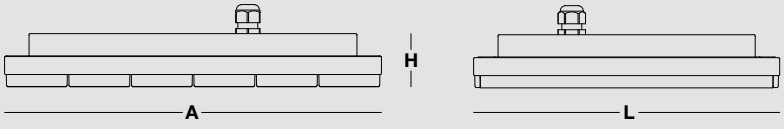
Installation

This product is suitable for installation on a busway (hooking brackets not included).

Light Management

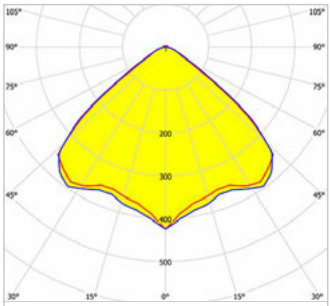
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Six Blindo Wide



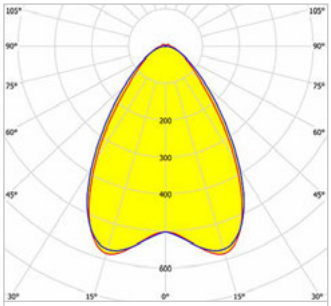
Code 47700

650°C | IP40 | 1J | IK06

Wide distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47700	3F Six WH 60/840 WIDE 307x378	62	9855	4000	>80	307x378x52
47699	3F Six WH 70/840 WIDE 307x378	72	11427	4000	>80	307x378x52
47698	3F Six WH 85/840 WIDE 307x378	89	14086	4000	>80	307x378x52
DALI electronic wiring 230V-50/60Hz						
47703	3F Six WH 60/840 DALI WIDE 307x378	62	9855	4000	>80	307x378x52
47702	3F Six WH 70/840 DALI WIDE 307x378	72	11427	4000	>80	307x378x52
47701	3F Six WH 85/840 DALI WIDE 307x378	89	14086	4000	>80	307x378x52

3F Six Blindo Medium



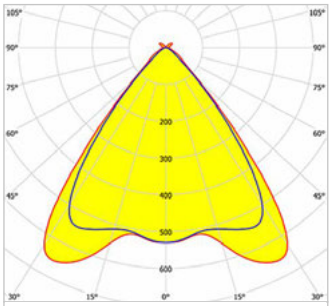
Code 47707

650°C | IP40 | 1J | IK06

Medium distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47707	3F Six WH 60/840 MEDIUM 307x378	62	9723	4000	>80	307x378x52
47706	3F Six WH 70/840 MEDIUM 307x378	72	11273	4000	>80	307x378x52
47705	3F Six WH 85/840 MEDIUM 307x378	89	13898	4000	>80	307x378x52
DALI electronic wiring 230V-50/60Hz						
47710	3F Six WH 60/840 DALI MEDIUM 307x378	62	9723	4000	>80	307x378x52
47709	3F Six WH 70/840 DALI MEDIUM 307x378	72	11273	4000	>80	307x378x52
47708	3F Six WH 85/840 DALI MEDIUM 307x378	89	13898	4000	>80	307x378x52

3F Six Blindo UGR



Code 47712 L<3000 cd/m² 65°

650°C IP40 1J IK06

Controlled symmetric distribution.
Average luminance <3000 cd/m² for radial angles >65°.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
47712	3F Six WH 40/840 UGR 307x378	43	6914	4000	>80	307x378x52
DALI electronic wiring 230V-50/60Hz						
47713	3F Six WH 40/840 DALI UGR 307x378	43	6914	4000	>80	307x378x52

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


Boulangerie Michel d'Ohain
BY FOODIE'S MARKET
Bio

3F Emilio Track

> www.3F-Filippi.com/3F Emilio Track

3F Emilio is the high-end LED spotlight designed by Belgian designers Serge and Robert Cornelissen.
The lighting body has been designed to obtain the best energy and lighting performance in various contexts.
In order to obtain excellent thermal efficiency with a high size to luminous flux ratio, the body of the spotlight has inner fins, while the outside is smooth to facilitate cleaning.
The 3F Filippi technology used in this system also allows effective control of luminance, without affecting the optical performance and visual comfort.
Its simple and refined lines, which alongside its reduced size represent an additional advantage, makes 3F Emilio the most suitable solution for numerous environments, from retail to contract.

This product is also available in this version 3F Emilio Table (page 133), 3F Emilio Wall (page 216), 3F Emilio R (page 338).

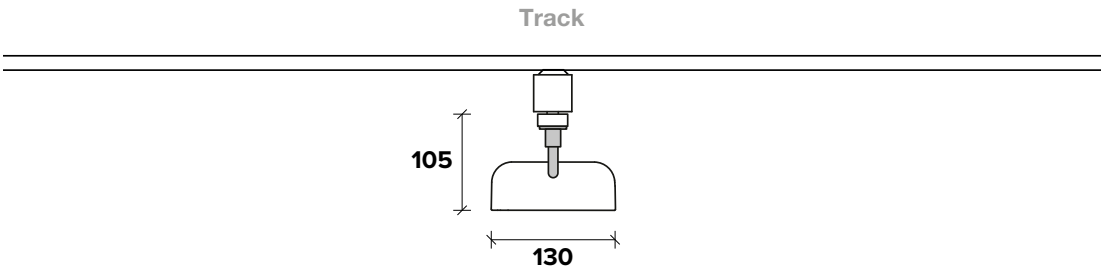
+ Overview

- Luminous efficacy up to 131 lumen/watt.
- Luminous fluxes from 1823 to 4086 lumens.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.

Page	Product	Lens
402	3F Emilio Track	•

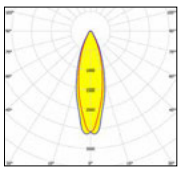
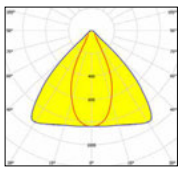
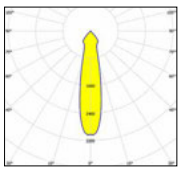
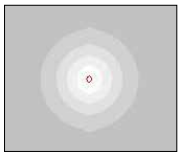
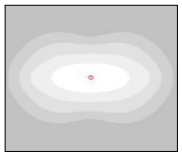
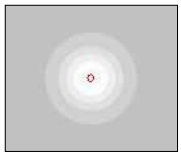
Product range

3F Emilio Track



3F Emilio Track



Model		SPOT	Elliptical	Iperconc
Beam angle		29°-39°	42°-88°	23°
CCT (K)	**BREAD**	2400	2400	2400
		2700	2700	2700
		3000	3000	3000
	MEAT	3000	3000	3000
	CRISP	3000	3000	3000
		4000	4000	4000
Photometric distribution				
				

Different accents to create your light

3F Emilio Track is the LED spotlight with a simple and refined design which, thanks to its high efficiency, represents the ideal solution for emphasising products in points of sale, even those of significant size.

- The following versions of LED sources are available:
- Warm white (2700K).
- White (3000K).
- Neutral white (4000K).
- Meat (specific version for lighting meat).
- Crisp (specific version for clothing and perfumes).
- Bread (specific version for lighting bread).

High colour rendering index (CRI) on request.

Here is a brief guide for choosing the correct colour temperature version:

	/840	/830	/827	/940	/930	/MEAT	/BREAD	/CRISP
General	•							
Fish/seafood	•			•				
Wine		•	•		•			
Fruit/veg		•			•			
Cheese/dairy		•	•		•			
Meat						•		
Deli		•			•	•		
Bread/baked goods			•				•	
Clothing				•	•			•
Chicken/rotisserie		•			•	•		
Pastries			•				•	
Perfumes	•			•				•
Flowers/plants		•		•	•			

These are just provided as design tips and are not intended to replace personal taste or the choices of individual lighting designers,rather they are meant only as a quick consultation tool.

3F Emilio Track

Construction characteristics

Illuminotechnical characteristics
Symmetrical (TK), elliptical (TK ELL) and hyperconcentrated (TK IPER) spot distribution.
Lifetime (L90/B20): 30000 h. (tq+25°C)
Lifetime (L80/B20): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG1 low risk, (IEC 62471) (further information on page 18).

Mechanical characteristics
Wired unit in polycarbonate with busbar adaptor.
Single-piece in die-cast aluminium with passive dissipation with perimeter cooling slots on upper edge, giving a crown of light effect to the fitting.
Invisible lock for positioning the luminous flux.
Lens made from transparent PMMA methacrylate with glossy surface and differentiated photo-etched.
Positioning arm in galvanised brass with sphere to allow for vertical positioning at angles from 0° to 90° and horizontal positioning from 0° to 360°.

Electrical characteristics
In compliance with EN 60598-1.
Wiring unit separate from the body, invisible and integrated into the busbar.
Class II.

Source characteristics

- Compact LED module.
- Compact LED modules, /MEAT (version for meats), /BREAD (version for bakery) / CRISP (version for wardrobe with white enhancement).
- Colour initial tolerance (MacAdam): SDCM 3.
- Zhaga Book 3 compliant.

On request

- different power levels, colour rendering indices and colour temperatures
- housing in different RAL colours

Applications

Environments: commercial, museums, shops.

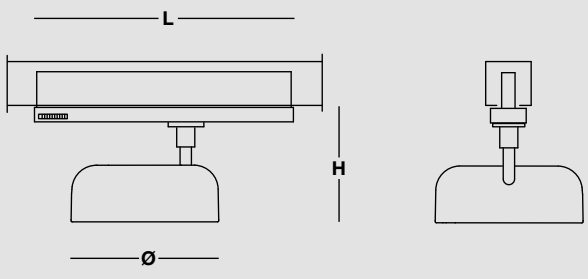
Installation

This product is suitable for installation on a 3-phase electrified busbar "Binario 3F" (on page 408).

Light Management

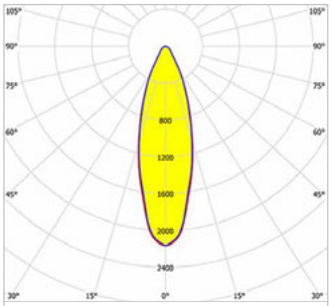
The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Emilio Track Spot



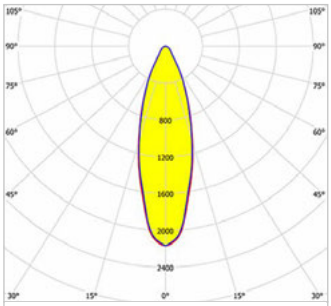
Code 47552

650°C IP20 Classe II Driver/LED SELV

Spot lens.
Body and wired unit in polycarbonate with busbar adaptor.

	Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x L x H
ON/OFF electronic wiring 230V-50/60Hz								
○	47551	3F Emilio TK LED 3000/840	29°	29	3067	4000	>80	130x230x105
○	47562	3F Emilio TK LED 2000/930	29°	29	2462	3000	>90	130x230x105
○	47555	3F Emilio TK LED 3000/830	29°	31	3106	3000	>80	130x230x105
○	47559	3F Emilio TK LED 3000/827	29°	34	3142	2700	>80	130x230x105
○	47552	3F Emilio TK LED 4000/840	31°	34	3961	4000	>80	130x230x105
○	47566	3F Emilio TK LED 4000/830	31°	34	3807	3000	>80	130x230x105
○	47561	3F Emilio TK LED 3000/940	29°	36	3137	4000	>90	130x230x105
○	47563	3F Emilio TK LED 3000/930	29°	35	2868	3000	>90	130x230x105
●	47576	3F Emilio TK BK LED 3000/840	29°	29	2822	4000	>80	130x230x105
●	47587	3F Emilio TK BK LED 2000/930	29°	29	2266	3000	>90	130x230x105
●	47580	3F Emilio TK BK LED 3000/830	29°	31	2858	3000	>80	130x230x105
●	47591	3F Emilio TK BK LED 4000/830	31°	34	3502	3000	>80	130x230x105
●	47584	3F Emilio TK BK LED 3000/827	29°	34	2891	2700	>80	130x230x105
●	47577	3F Emilio TK BK LED 4000/840	31°	34	3644	4000	>80	130x230x105
●	47588	3F Emilio TK BK LED 3000/930	29°	35	2639	3000	>90	130x230x105
●	47586	3F Emilio TK BK LED 3000/940	29°	36	2887	4000	>90	130x230x105
DALI electronic wiring 230V-50/60Hz								
○	47536	3F Emilio TK LED 2000/930 DALI	29°	29	2462	3000	>90	130x260x105
○	47535	3F Emilio TK LED 3000/830 DALI	29°	31	3106	3000	>80	130x260x105
○	47534	3F Emilio TK LED 3000/840 DALI	29°	29	3067	4000	>80	130x260x105

3F Emilio Track Spot - Meat/Bread/Crisp



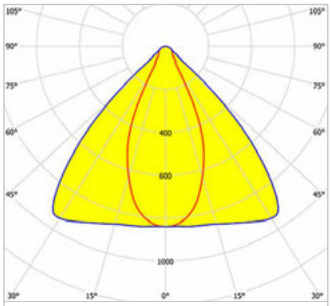
Code 47556

650°C IP20 Classe II Driver/LED SELV

Spot lens.
Meat - Specific source to light up meat and cold cuts.
Bread - Specific source to light up bread.
Crisp - specific source for illuminating textile products and enhancing white colours.
Body and wired unit in polycarbonate with busbar adaptor.

	Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x L x H
ON/OFF electronic wiring 230V-50/60Hz								
○	47556	3F Emilio TK LED 2000/MEAT	31°	32	2147	3000	87	130x230x105
○	47574	3F Emilio TK LED 2500/CRISP	31°	32	2433	3000	92	130x230x105
○	47572	3F Emilio TK LED 2000/BREAD	39°	35	1982	2400	>90	130x230x105
●	47581	3F Emilio TK BK LED 2000/MEAT	31°	32	1975	3000	87	130x230x105
●	47599	3F Emilio TK BK LED 2500/CRISP	31°	33	2238	3000	92	130x230x105
●	47597	3F Emilio TK BK LED 2000/BREAD	39°	35	1823	2400	>90	130x230x105

3F Emilio Track Elliptical



Code 47608

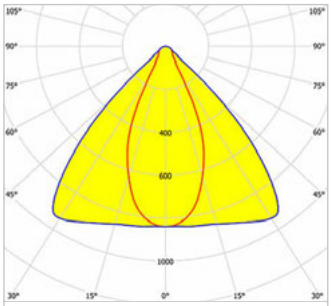
650°C IP20 Classe II Driver/LED SELV

Horizontal ELL elliptical lens provides extensive installation pitch.
Body and wired unit in white polycarbonate with busbar adaptor.

	Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x L x H
ON/OFF electronic wiring 230V-50/60Hz								
○	47607	3F Emilio TK LED 3000/840 ELL	42° - 85°	29	3203	4000	>80	130x230x105
○	47618	3F Emilio TK LED 2000/930 ELL	42° - 85°	29	2571	3000	>90	130x230x105
○	47611	3F Emilio TK LED 3000/830 ELL	42° - 85°	31	3243	3000	>80	130x230x105
○	47615	3F Emilio TK LED 3000/827 ELL	42° - 85°	34	3281	2700	>80	130x230x105
○	47608	3F Emilio TK LED 4000/840 ELL	46° - 88°	34	4086	4000	>80	130x230x105
○	47622	3F Emilio TK LED 4000/830 ELL	46° - 88°	34	3927	3000	>80	130x230x105
○	47617	3F Emilio TK LED 3000/940 ELL	42° - 85°	36	3275	4000	>90	130x230x105
○	47619	3F Emilio TK LED 3000/930 ELL	42° - 85°	35	2994	3000	>90	130x230x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Emilio Track Elliptical - Meat/Bread/Crisp



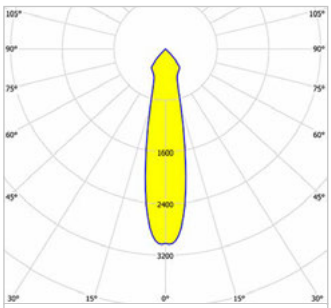
Code 47612

650°C | IP20 | Classe II | Driver/LED SELV

Horizontal ELL elliptical lens provides extensive installation pitch.
Meat - Specific source to light up meat and cold cuts.
Bread - Specific source to light up bread.
Crisp - specific source for illuminating textile products and enhancing white colours.
Body and wired unit in white polycarbonate with busbar adaptor.

	Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x L x H
ON/OFF electronic wiring 230V-50/60Hz								
○	47612	3F Emilio TK LED 2000/MEAT ELL	46° - 88°	32	2215	3000	87	130x230x105
○	47630	3F Emilio TK LED 2500/CRISP ELL	46° - 88°	33	2509	3000	92	130x230x105
○	47628	3F Emilio TK LED 2000/BREAD ELL	53° - 88°	35	1998	2400	>90	130x230x105

3F Emilio Track Iperconcentrated



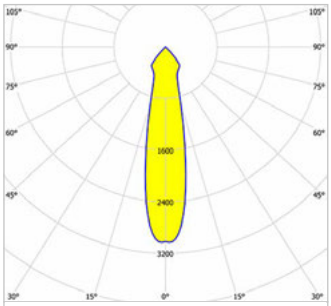
Code 47641

850°C | IP20 | Classe II | Driver/LED SELV

Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminium.
Body and wired unit in polycarbonate with busbar adaptor.

	Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x L x H
ON/OFF electronic wiring 230V-50/60Hz								
○	47640	3F Emilio TK LED 3000/840 IPER	23°	29	3137	4000	>80	130x230x105
○	47654	3F Emilio TK LED 2000/930 IPER	23°	29	2518	3000	>90	130x230x105
○	47644	3F Emilio TK LED 3000/830 IPER	23°	31	3176	3000	>80	130x230x105
○	47648	3F Emilio TK LED 3000/827 IPER	23°	34	3213	2700	>80	130x230x105
○	47645	3F Emilio TK LED 4000/830 IPER	23°	34	3794	3000	>80	130x230x105
○	47641	3F Emilio TK LED 4000/840 IPER	23°	34	3948	4000	>80	130x230x105
○	47655	3F Emilio TK LED 3000/930 IPER	23°	35	2933	3000	>90	130x230x105
○	47652	3F Emilio TK LED 3000/940 IPER	23°	36	3208	4000	>90	130x230x105
●	47668	3F Emilio TK BK LED 3000/840 IPER	23°	29	3137	4000	>80	130x230x105
●	47682	3F Emilio TK BK LED 2000/930 IPER	23°	29	2518	3000	>90	130x230x105
●	47672	3F Emilio TK BK LED 3000/830 IPER	23°	31	3176	3000	>80	130x230x105
●	47676	3F Emilio TK BK LED 3000/827 IPER	23°	34	3213	2700	>80	130x230x105
●	47673	3F Emilio TK BK LED 4000/830 IPER	23°	34	3794	3000	>80	130x230x105
●	47669	3F Emilio TK BK LED 4000/840 IPER	23°	34	3948	4000	>80	130x230x105
●	47683	3F Emilio TK BK LED 3000/930 IPER	23°	35	2933	3000	>90	130x230x105
●	47680	3F Emilio TK BK LED 3000/940 IPER	23°	36	3208	4000	>90	130x230x105

3F Emilio Track Iperconcentrated - Meat/Bread/Crisp



Code 47660

850°C IP20 Classe II Driver/LED SELV

Bright anodised parabola in semi-specular, anti-reflective, anti-iridescent aluminium.
Meat - Specific source to light up meat and cold cuts.
Bread - Specific source to light up bread.
Crisp - specific source for illuminating textile products and enhancing white colours.
Body and wired unit in polycarbonate with busbar adaptor.

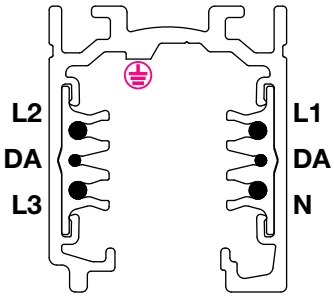
	Code	Item	Beam angle	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions ø x L x H
ON/OFF electronic wiring 230V-50/60Hz								
○	47657	3F Emilio TK LED 2000/MEAT IPER	23°	32	2140	3000	87	130x230x105
○	47664	3F Emilio TK LED 2500/CRISP IPER	23°	33	2425	3000	92	130x230x105
○	47660	3F Emilio TK LED 2000/BREAD IPER	23°	35	1975	2400	>90	130x230x105
●	47685	3F Emilio TK BK LED 2000/MEAT IPER	23°	33	2140	3000	87	130x230x105
●	47692	3F Emilio TK BK LED 2500/CRISP IPER	23°	33	2425	3000	92	130x230x105
●	47688	3F Emilio TK BK LED 2000/BREAD IPER	23°	35	1975	2400	>90	130x230x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


1961
L'annuncio di una nuova Parrocchia
1967
La consacrazione della Chiesa
1985
1988
La conversione
1993

Binario 3F

Busbar

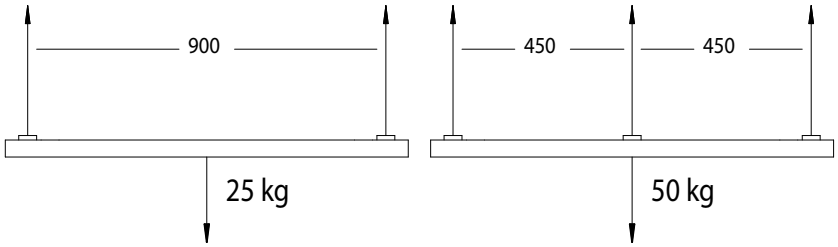


Scale: 1:1

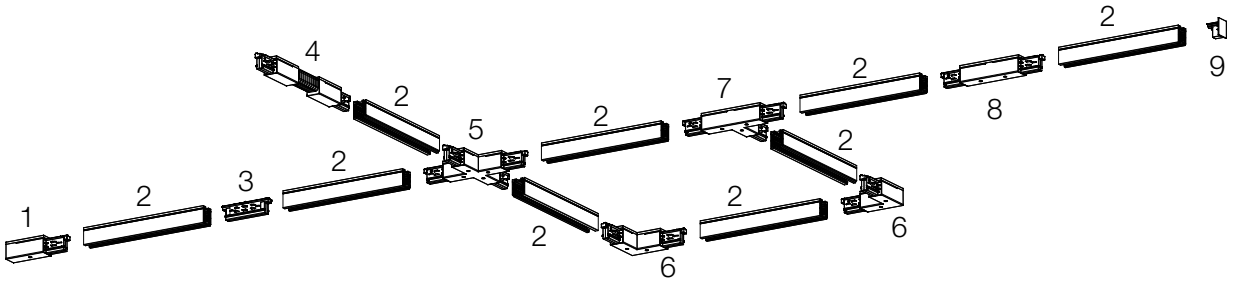
Characteristics

Binario 3F is an extruded aluminium busbar housing 6 conductors (4 for three-phase mode, 2 for DALI mode): the 3 phase conductors (with common neutral) form 3 distinct circuits, allowing 3 separate on commands.
The conductors are enclosed in rigid extruded profiles made from high-rigidity insulating material.

The versatility of this product allows the creation of ceiling-mount or suspended installations (within the maximum suspendable load limit).
EN 60570 compliant.



Structural elements

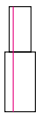


1 - Power-supply cap
2 - Binario 3F busbar
3 - Linear connecting element
4 - Flexible connecting element
5 - Cross connector
6 - L connector
7 - T connector
8 - Central power supply
9 - Closing cap

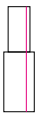
Defining the earth conductor position

Note: the side positioning of the earth contact makes the busbar structure asymmetrical and the connectors must be chosen on the basis of this. In particular, this indication applies only to the following components:

Power-supply cap

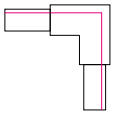


In the S (LH) version, the conductor is located on the left when looking at the composition from above.

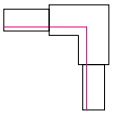


In the D (RH) version, the conductor is located on the right when looking at the composition from above.

L connector

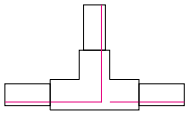


In the EXT version, the conductor is located on the outside when looking at the composition from above.

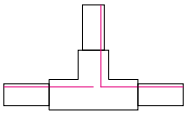


In the INT version, the conductor is located on the inside when looking at the composition from above.

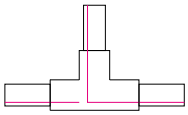
T connector



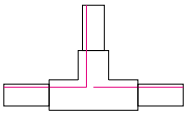
In the EXT + D (external + RHS) version, the third conductor is located on the right when looking at the composition from above.



In the INT + D (internal + RHS) version, the third conductor is located on the right when looking at the composition from above.

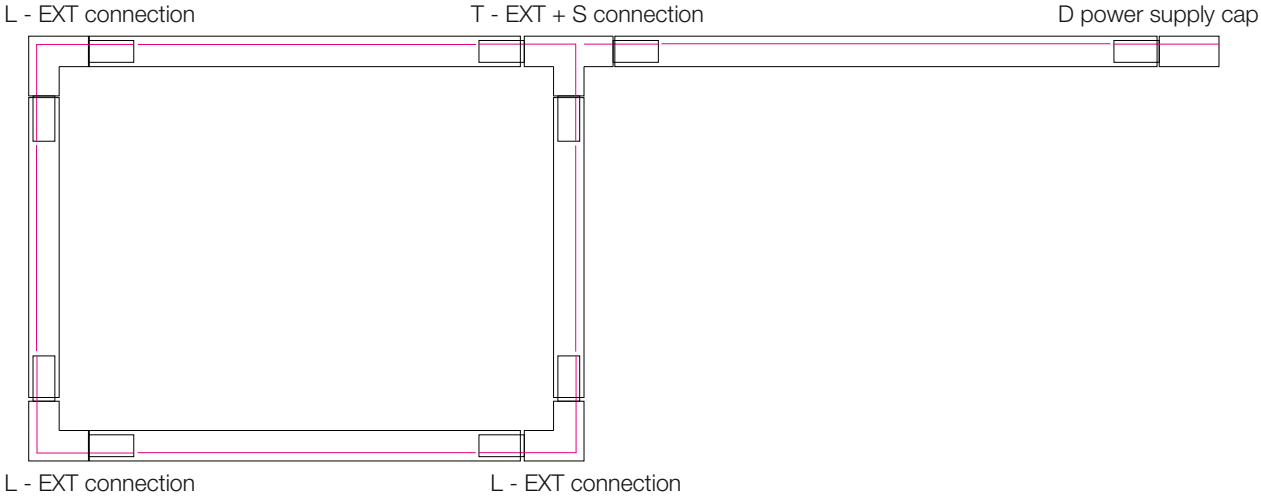


In the EXT + S (external + LHS) version, the third conductor is located on the left when looking at the composition from above.

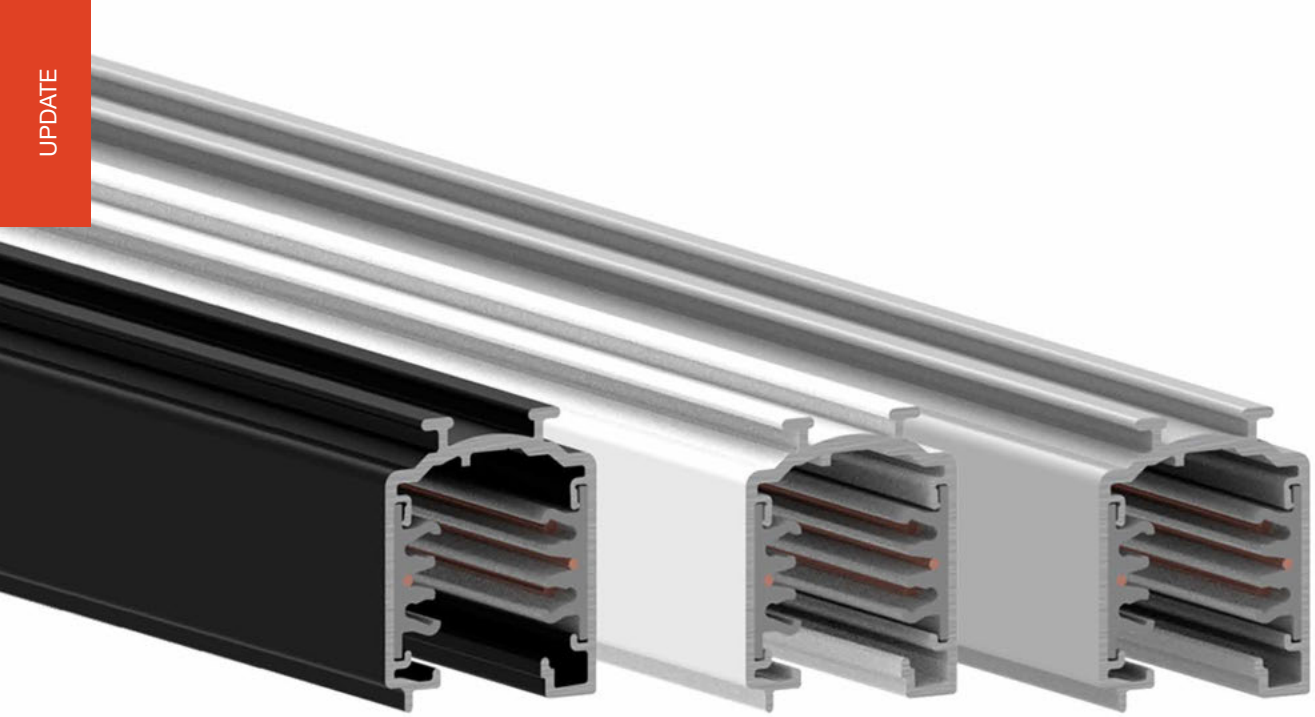


In the INT + S (internal + LHS) version, the third conductor is located on the left when looking at the composition from above.

Structure composition example - top-down view



UPDATE



Binario 3F

The Binario 3F is a mixed 3-phase system with two extra conductors for the management of any signal (eg DALI).
The system is certified according to EN 60570 and its installation must be performed by qualified personnel.
Three types of fixing:

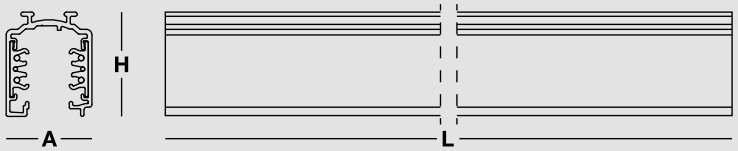
- directly on the surface (using the holes already provided in binary)
- surface mounted using the metal clip
- suspended by tension steel cables and various clamps and brackets without exceeding the maximum loads are planned

Construction characteristics

Mechanical characteristics
Electrified track made from extruded aluminium, Eurostandard Plus compliant.
The wires are enclosed in rigid extruded profiles made of PVC insulating material with high dielectric strength.
Length: 1000-2000-3000-4000 mm.

(L1/L2/L3/N/GRD/DA/DA) 16A/440V
2x1A/50V FELV AC (DALI).
Copper conductors.

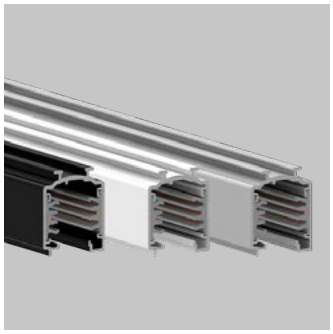
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 412.

Binario 3F



IP20

Aluminium extruded track with 6 copper conductors (L1/L2/L3/N/GRD/DA/DA) 16A/440V.

	Code	Item	Dimensions L x A x H
○	A4070 UPDATE	Binario 3F A - L1000 - WH	1000x31x38
○	A4071 UPDATE	Binario 3F A - L2000 - WH	2000x31x38
○	A4072 UPDATE	Binario 3F A - L3000 - WH	3000x31x38
○	A4073 UPDATE	Binario 3F A - L4000 - WH	4000x31x38
○	A4076 UPDATE	Binario 3F A - L1000 - GR	1000x31x38
○	A4077 UPDATE	Binario 3F A - L2000 - GR	2000x31x38
○	A4078 UPDATE	Binario 3F A - L3000 - GR	3000x31x38
○	A4079 UPDATE	Binario 3F A - L4000 - GR	4000x31x38
●	A4064 UPDATE	Binario 3F A - L1000 - BK	1000x31x38
●	A4065 UPDATE	Binario 3F A - L2000 - BK	2000x31x38
●	A4066 UPDATE	Binario 3F A - L3000 - BK	3000x31x38
●	A4067 UPDATE	Binario 3F A - L4000 - BK	4000x31x38

Binario 3F | Accessories

960°C

Power connection: polycarbonate body and copper alloy contacts. Warning: as the track structure is asymmetrical because of the grounding element placed laterally, feeding heads and connecting joints must be chosen accordingly.

Code	Item
A4174	Power-supply head DX - WH
A4166	Power-supply head DX - GR
A4209	Power-supply head DX - BK
A4196	Power-supply head SX - WH
A4190	Power-supply head SX - GR
A4218	Power-supply head SX - BK

960°C

Central power supply with polycarbonate body and copper alloy contacts.

Code	Item
A4175	Central power-supply - WH
A4167	Central power-supply - GR
A4210	Central power-supply - BK

960°C

Polycarbonate closing cap with locking screw.

Code	Item
A4180	End cap - WH
A4172	End cap - GR
A4215	End cap - BK

960°C

Linear connecting element with a polycarbonate body and copper alloy contacts.

Code	Item
A4188	Linear connecting element - WH
A4182	Linear connecting element - GR
A4217	Linear connecting element - BK

960°C

Flexible connecting element with polycarbonate body and copper alloy contacts.

Code	Item
A4176	Flexible connecting element - WH
A4168	Flexible connecting element - GR
A4211	Flexible connecting element - BK

960°C

"L"-shaped connecting element with polycarbonate body and copper alloy contacts. Warning: as the track structure is asymmetrical because of the grounding element placed laterally, feeding heads and connecting joints must be chosen accordingly.

Code	Item
A4177	L-joint - EXT - WH
A4169	L-joint - EXT - GR
A4212	L-joint - EXT - BK
A4197	L-joint - INT - WH
A4191	L-joint - INT - GR
A4219	L-joint - INT - BK

960°C

"T"-shaped connecting element with polycarbonate body and copper alloy contacts. Warning: as the track structure is asymmetrical because of the grounding element placed laterally, feeding heads and connecting joints must be chosen accordingly.

Code	Item
A4198	T-joint - EXT + DX - WH
A4178	T-joint - EXT + SX - WH
A4192	T-joint - EXT + DX - GR
A4170	T-joint - EXT + SX - GR
A4220	T-joint - EXT + DX - BK
A4213	T-joint - EXT + SX - BK
A4200	T-joint - INT + DX - WH
A4199	T-joint - INT + SX - WH
A4194	T-joint - INT + DX - GR
A4193	T-joint - INT + SX - GR
A4222	T-joint - INT + DX - BK
A4221	T-joint - INT + SX - BK

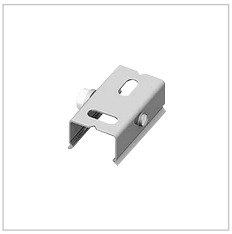
960°C

Cross-shaped connecting element with polycarbonate body and copper alloy contacts.

Code	Item
A4179	Cross joint - WH
A4171	Cross joint - GR
A4214	Cross joint - BK

PVC cover for track closing.

Code	Item
A4181	PVC closing top - L1000 - WH
A4173	PVC closing top - L1000 - GR
A4216	PVC closing top - L1000 - BK

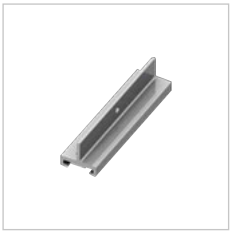


Sliding ceiling bracket with locking screw in galvanised steel.

Code	Item
A4183	Steel bracket for ceiling installation

Adjustable suspension kit with galvanised steel sliding bracket and locking screw, metal rose and steel cable with diameter of 1.5 mm.

Code	Item
A4204	Adj. susp. boss + 1.5m bracket
A4205	Adj. susp. boss + 3m bracket
A4206	Adj. susp. boss + 5m bracket

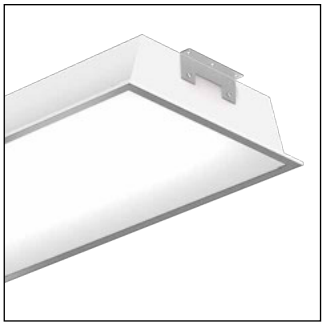


Rigid support bracket.

Code	Item
A4225 NEW	Rigid support bracket

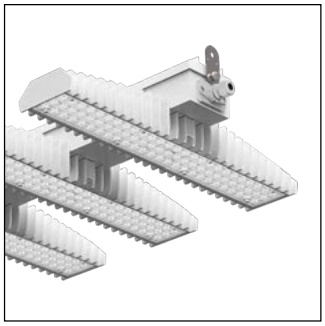
3F Tank

Beta 500



3F Linda

3F LEM



Beta 235

Beta i3F LED

Retrofit Beta A3F - i3F

Retrofit Beta 430

3F Cub

Waterproof and corrosion-proof

Page		Product	Steel	Stainless steel	Stainless steel	Polycarbonate
419		**3F Tank**				
424		3F Tank ATEX				•
430	NEW	3F Tank ICE Extreme				•
435		**Beta 500**				
438	UPDATE	Beta 500		•		
443		**3F Linda**				
448	UPDATE	3F Linda LED				•
456	NEW	3F Linda LED ATEX				•
458		3F Linda LED HS				•
460	UPDATE	3F Linda LED Transparent				•
462		3F Linda LED Ice				•
464		3F Linda LED Sensor				•
473		**3F LEM**				
480		3F LEM	•	•		
484		3F LEM High Output	•	•		
488		3F LEM Sensor	•	•		
492		3F LEM High Temperature	•	•		
496		3F LEM Sport	•	•		
498		3F LEM Sport High Output	•	•		
505		**Beta 235**				
510		Beta 235 LED Steel	•			
518		Beta 235 LED Stainless Steel			•	
524		**Beta i3F LED**				
524		Beta i3F LED	•			
530		**Retrofit Beta A3F - i3F**				
530		Retrofit Beta A3F - i3F				
534		**Retrofit Beta 430**				
534		Retrofit Beta 430				
538		**3F Cub**				
538		3F Cub LED		•		

3F Tank

> www.3F-Filippi.com/3F Tank

Safety is important in every workplace, but in high-risk production contexts it is fundamental.
3F Filippi has created 3F Tank ATEX, the light fixture that ensures maximum safety for workers and provides quality lighting at the same time.
The state-of-the-art LED sources are protected by a polycarbonate cylinder that is resistant to UV rays and ensures maximum protection from dust, water and impact.
This fixture is the ultimate answer for those looking for the safest lighting solution for more challenging industrial contexts thanks to its IK10 maximum mechanical resistance and IP69K (IP66 ATEX applications) protection rating, that makes it suitable for contexts where equipment is cleaned intensely with high-pressure water or steam.

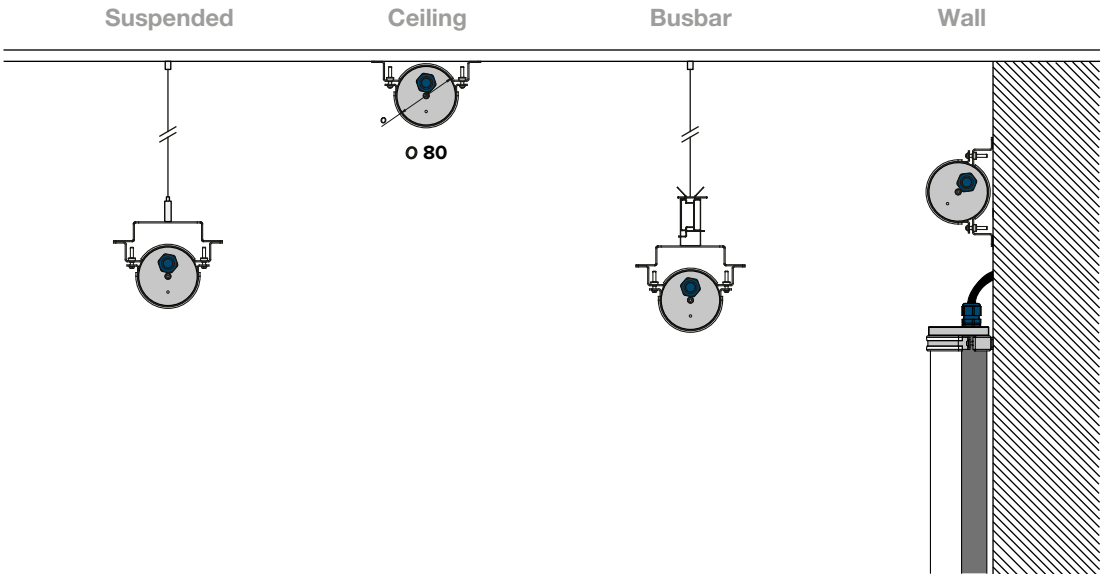
+ Overview

- Luminous efficacy up to 158 lumen/watt.
- Luminous fluxes from 1820 to 9767 lumens.
- Average luminance <3000 cd/m² (UGR version).
- Extensive installation pitch.
- UGR <19 (UGR version).
- 5 different photometric distributions.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- ATEX - Group II, Category 3D, Ex tc IIIC T85°C Dc.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).
- ICE Extreme - Version for use at low temperatures (down to -30°C).

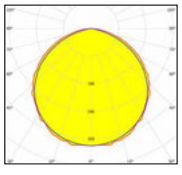
Page		Product	Polycarbonate
424		3F Tank ATEX	•
430	NEW	3F Tank ICE Extreme	•

Product range

3F Tank



3F Tank ATEX

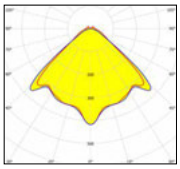
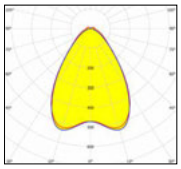
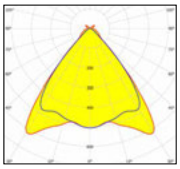
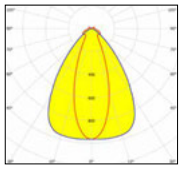
Model	Lite
Average luminance for angles> 65 (cd / m²)	>3000
UGR	<21
ATEX Certification (Excluding Ice Extreme version)	**Group II, Categoy 3D, Ex tc IIIC T85°C Dc.**
Photometric distribution	
Power level	2x29 2x18 2x22

3F Tank ATEX Lite

3F Tank ATEX
3F Tank ICE Extreme

3F Tank ATEX
3F Tank ICE Extreme




Model	Wide	Medium	UGR	Concentrated
Average luminance for angles> 65 (cd / m²)	>3000	>3000	<3000	>3000
UGR	<21	<21	<19	<21
ATEX Certification (Excluding Ice Extreme version)	**Group II, Categoy 3D, Ex tc IIIC T85°C Dc.**			
Photometric distribution				
Power level	13 45 55 70	13 45 55 70	35 40	13 45 55 70

Waterproof and corrosion-proof

Challenging environments

3F Tank ATEX meets the compliance requirements listed in two EU ATEX directives, the acronym of “ATmosphere EXplosive” relating to equipment intended for environments with explosive atmospheres and the safety conditions for those working in these particular contexts.

3F Tank ATEX is a fixture that is designed to be installed on horizontal/vertical surfaces that, thanks to its dust proof body ensures a very high level of protection in areas where explosive atmospheres may be present in the air (for short periods) in the form of flammable dust clouds .

Scale 1:1

Fixture suitable for environments with temperature from -30°C to + 40°C with a humidity degree up to 95%. The **Ice Extreme** version is not suitable for environments with explosive atmospheres ATEX.

Fixture suitable for environments with explosive atmospheres ATEX, group II, category 3D, Ex tc IIIC T85°C Dc. Compliant with directive 2014/34/EU and standard IEC/EN 60079. IP66 protection degree.

Good resistance in the marine environment and railway applications thanks to the 6082-T6 aluminium head and AISI 316 stainless steel brackets/screws.

Fixture with an IP69K protection rating designed for environments where cleaning of work areas is carried out intensely with high pressure water or steam.

Fixture suitable from a hygiene point of view to be used in production plants in the food industry (HACCP, IFS, BRC Standard).

Fixture made of polycarbonate resistant to UV rays with a HS (Hard Skin) finish that guarantees high resistance in environments where aggressive chemical agents are present (high resistance especially to ammonia NH3).

Product advantages

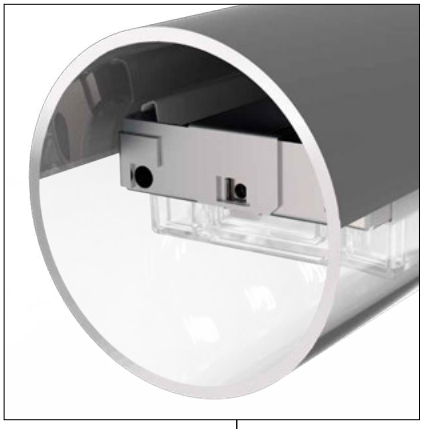
Exceptional results are obtained by paying attention to the smallest details. To develop 3F Tank ATEX and offer it as the ultimate solution we considered every single detail of the fixture very carefully.

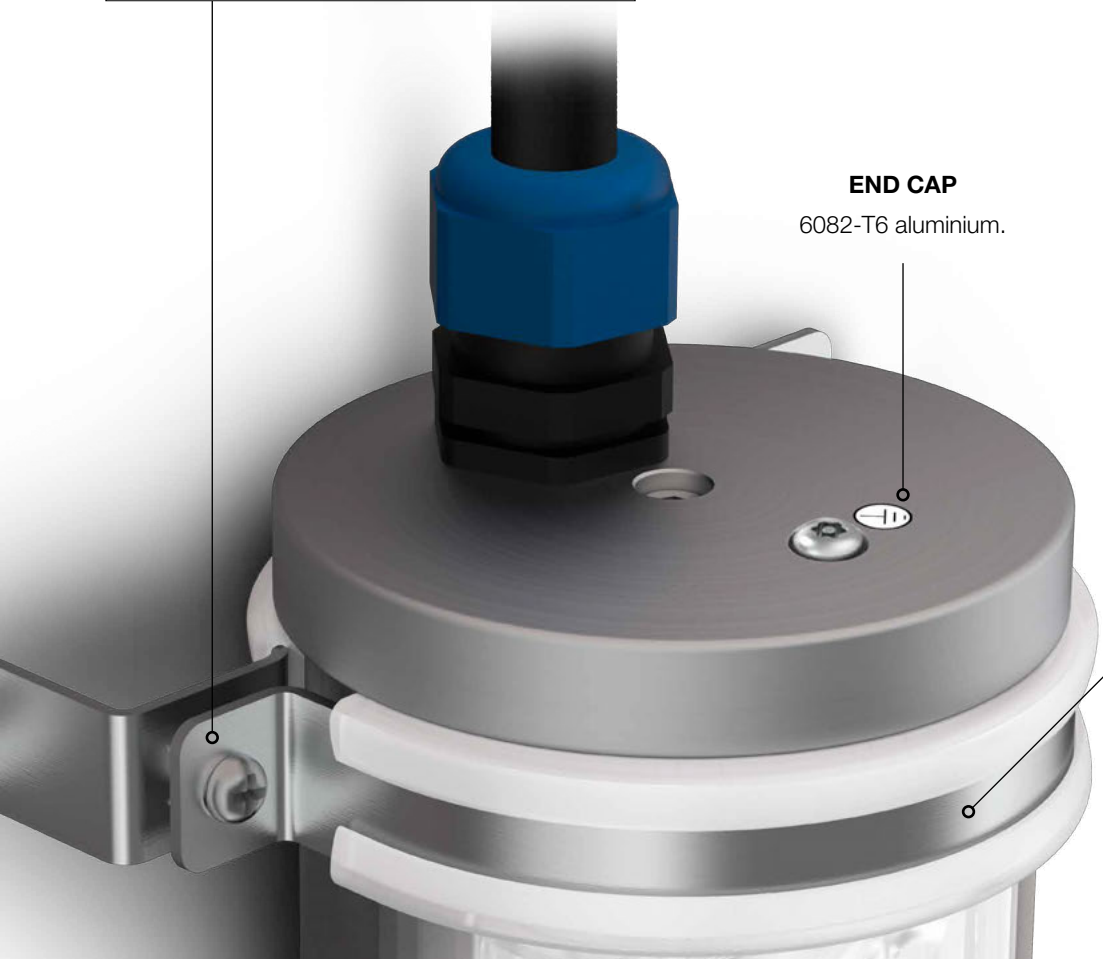
BRACKETS FOR INSTALLATION

The screws and the brackets to install the fixture are made of stainless steel to avoid oxidation and wear over time.

WATERTIGHT

A very thick polycarbonate cylinder with a high performance silicone seal ensure it is completely watertight.





END CAP

6082-T6 aluminium.

Waterproof and corrosion-proof

3F Tank ATEX

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+40°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
High thickness tubular body in high transparency and UV Resistant polycarbonate with GI-CHEM surface treatment, which guarantees resistance to aggressive chemical agents.
Aluminium 6082-T6 end caps.
NBR sealing gasket.
Gear-holder reflector in hot-dip galvanised steel, painted with white polyester base.
Fixing brackets and screws in AISI 316 stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection via M20x1.5 cable gland in fibreglass reinforced polyamide with 2m H07RN-F 3/5G1.5mm² cable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different power levels, colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598)
- AISI 316 stainless steel end caps
- emergency versions

Applications

Environments with ATEX explosive atmosphere, group II, category 3D, T85°C, Zone 22 Dc (compliance with directive 2014/34/EU and IEC/EN 60079 standard), severe industrial, food and agri-food industries, scientific and food processing laboratories, environments with high humidity, swimming pools, railway, aeronautical and port applications.
Hygienically suitable product for installation in food production plants (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7).
In environments with temperature from -20°C to +40°C, except the ones where the luminaire materials are unsuitable.
Body resistant to the following substances: Ethyl alcohol (24 hours at 20°C), aqueous detergents, hydrochloric acid (produces a slight halo), DOT4 brake oil, sulfuric acid (produces a slight halo), ammonia.
When using this data, remember that it is the result of laboratory tests, and therefore valid only under those test conditions: the data is to be considered approximate and, in the absence of practical experience, it is advisable to carry out tests under actual operating conditions.
Temperature and concentration of the chemical agent can have a decisive impact on the materials and influence the LED technology.
For specific applications please contact our technical offices.

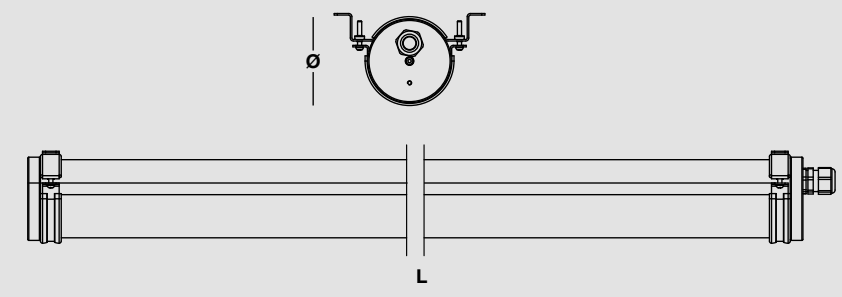
Installation

Ceiling, suspension or wall installation.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

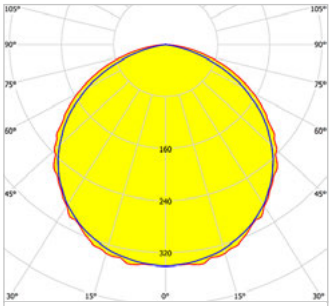
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 433.

3F Tank ATEX Lite



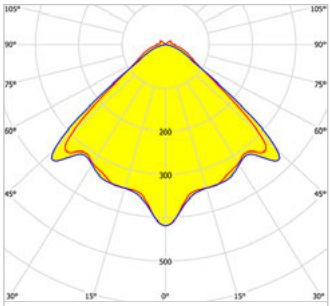
Code 56662

CE | SAFE FLICKER | 850°C | IP69K | IP66 ATEX | IK10 | Driver/LED SELV | HACCP

Diffuse distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
56660	3F Tank Lite 2x9W/840 L675	20	3056	4000	>80	676x80
56661	3F Tank Lite 2x18W/840 L1265	40	6333	4000	>80	1264x80
56662	3F Tank Lite 2x22W/840 L1560	49	7863	4000	>80	1558x80
56668	3F Tank Lite 2x9W/865 L675	20	3010	6500	>80	676x80
56669	3F Tank Lite 2x18W/865 L1265	40	6238	6500	>80	1264x80
56670	3F Tank Lite 2x22W/865 L1560	49	7745	6500	>80	1558x80
DALI electronic wiring 230V-50/60Hz						
56664	3F Tank Lite 2x9W/840 DALI L675	20	3056	4000	>80	676x80
56665	3F Tank Lite 2x18W/840 DALI L1265	40	6333	4000	>80	1264x80
56666	3F Tank Lite 2x22W/840 DALI L1560	49	7863	4000	>80	1558x80
56672	3F Tank Lite 2x9W/865 DALI L675	20	3010	6500	>80	676x80
56673	3F Tank Lite 2x18W/865 DALI L1265	40	6238	6500	>80	1264x80
56674	3F Tank Lite 2x22W/865 DALI L1560	49	7745	6500	>80	1558x80

3F Tank ATEX Wide



Code 56678

850°C | IP69K | IP66 ATEX | IK10 | HACCP

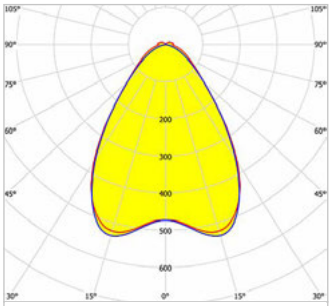
Wide distribution.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
56676	3F Tank 13W/840 WIDE L675	15	1856	4000	>80	676x80
56677	3F Tank 45W/840 WIDE L1265	50	6459	4000	>80	1264x80
56678	3F Tank 55W/840 WIDE L1560	62	8073	4000	>80	1558x80
56679	3F Tank 70W/840 WIDE L1850	74	9688	4000	>80	1852x80
56684	3F Tank 13W/865 WIDE L675	15	1828	6500	>80	676x80
56685	3F Tank 45W/865 WIDE L1265	50	6362	6500	>80	1264x80
56686	3F Tank 55W/865 WIDE L1560	62	7952	6500	>80	1558x80
56687	3F Tank 70W/865 WIDE L1850	74	9543	6500	>80	1852x80
DALI electronic wiring 230V-50/60Hz						
56680	3F Tank 13W/840 DALI WIDE L675	15	1856	4000	>80	676x80
56681	3F Tank 45W/840 DALI WIDE L1265	50	6459	4000	>80	1264x80
56682	3F Tank 55W/840 DALI WIDE L1560	62	8073	4000	>80	1558x80
56683	3F Tank 70W/840 DALI WIDE L1850	74	9688	4000	>80	1852x80
56688	3F Tank 13W/865 DALI WIDE L675	15	1828	6500	>80	676x80
56689	3F Tank 45W/865 DALI WIDE L1265	50	6362	6500	>80	1264x80
56690	3F Tank 55W/865 DALI WIDE L1560	62	7952	6500	>80	1558x80
56691	3F Tank 70W/865 DALI WIDE L1850	74	9543	6500	>80	1852x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 433.

3F Tank ATEX Medium



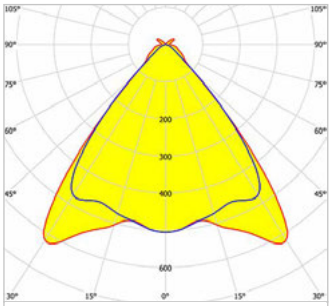
Code 56694

850°C | IP69K | IP66 ATEX | IK10 | HACCP

Medium distribution.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
56692	3F Tank 13W/840 MEDIUM L675	15	1847	4000	>80	676x80
56693	3F Tank 45W/840 MEDIUM L1265	50	6429	4000	>80	1264x80
56694	3F Tank 55W/840 MEDIUM L1560	62	8035	4000	>80	1558x80
56695	3F Tank 70W/840 MEDIUM L1850	74	9643	4000	>80	1852x80
56700	3F Tank 13W/865 MEDIUM L675	15	1820	6500	>80	676x80
56701	3F Tank 45W/865 MEDIUM L1265	50	6332	6500	>80	1264x80
56702	3F Tank 55W/865 MEDIUM L1560	62	7915	6500	>80	1558x80
56703	3F Tank 70W/865 MEDIUM L1850	74	9498	6500	>80	1852x80
DALI electronic wiring 230V-50/60Hz						
56696	3F Tank 13W/840 DALI MEDIUM L675	15	1847	4000	>80	676x80
56697	3F Tank 45W/840 DALI MEDIUM L1265	50	6429	4000	>80	1264x80
56698	3F Tank 55W/840 DALI MEDIUM L1560	62	8035	4000	>80	1558x80
56699	3F Tank 70W/840 DALI MEDIUM L1850	74	9643	4000	>80	1852x80
56704	3F Tank 13W/865 DALI MEDIUM L675	15	1820	6500	>80	676x80
56705	3F Tank 45W/865 DALI MEDIUM L1265	50	6332	6500	>80	1264x80
56706	3F Tank 55W/865 DALI MEDIUM L1560	62	7915	6500	>80	1558x80
56707	3F Tank 70W/865 DALI MEDIUM L1850	74	9498	6500	>80	1852x80

3F Tank ATEX UGR



Code 56712 L<3000 cd/m² 65°

850°C IP69K IP66 ATEX IK10 HACCP

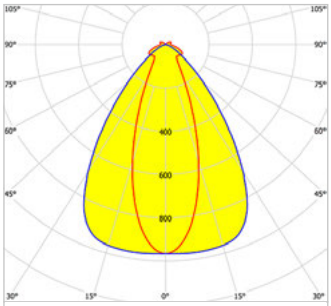
Controlled distribution.
Average luminance <3000 cd/m² for radial angles >65°.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
56708	3F Tank 35W/840 UGR L1560	39	5258	4000	>80	1558x80
56709	3F Tank 40W/840 UGR L1850	47	6311	4000	>80	1852x80
56712	3F Tank 35W/865 UGR L1560	39	5179	6500	>80	1558x80
56713	3F Tank 40W/865 UGR L1850	47	6217	6500	>80	1852x80
DALI electronic wiring 230V-50/60Hz						
56710	3F Tank 35W/840 DALI UGR L1560	39	5258	4000	>80	1558x80
56711	3F Tank 40W/840 DALI UGR L1850	47	6311	4000	>80	1852x80
56714	3F Tank 35W/865 DALI UGR L1560	39	5179	6500	>80	1558x80
56715	3F Tank 40W/865 DALI UGR L1850	47	6217	6500	>80	1852x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 433.

3F Tank ATEX Concentrated



Code 56718

850°C IP69K IP66 ATEX IK10 HACCP

Concentrated distribution.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
56716	3F Tank 13W/840 CONC L675	15	1871	4000	>80	676x80
56717	3F Tank 45W/840 CONC L1265	50	6511	4000	>80	1264x80
56718	3F Tank 55W/840 CONC L1560	62	8139	4000	>80	1558x80
56719	3F Tank 70W/840 CONC L1850	74	9767	4000	>80	1852x80
56724	3F Tank 13W/865 CONC L675	15	1843	6500	>80	676x80
56725	3F Tank 45W/865 CONC L1265	50	6414	6500	>80	1264x80
56726	3F Tank 55W/865 CONC L1560	62	8016	6500	>80	1558x80
56727	3F Tank 70W/865 CONC L1850	74	9620	6500	>80	1852x80
DALI electronic wiring 230V-50/60Hz						
56720	3F Tank 13W/840 DALI CONC L675	15	1871	4000	>80	676x80
56721	3F Tank 45W/840 DALI CONC L1265	50	6511	4000	>80	1264x80
56722	3F Tank 55W/840 DALI CONC L1560	62	8139	4000	>80	1558x80
56723	3F Tank 70W/840 DALI CONC L1850	74	9767	4000	>80	1852x80
56728	3F Tank 13W/865 DALI CONC L675	15	1843	6500	>80	676x80
56729	3F Tank 45W/865 DALI CONC L1265	50	6414	6500	>80	1264x80
56730	3F Tank 55W/865 DALI CONC L1560	62	8016	6500	>80	1558x80
56731	3F Tank 70W/865 DALI CONC L1850	74	9620	6500	>80	1852x80

NEW

3F Tank ICE Extreme

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Luminous flux at -30°C: +7%.
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
High thickness tubular body in high transparency and UV Resistant polycarbonate with GI-CHEM surface treatment, which guarantees resistance to aggressive chemical agents.
Aluminium 6082-T6 end caps.
NBR sealing gasket.
Gear-holder reflector in hot-dip galvanised steel, painted with white polyester base.
Fixing brackets and screws in AISI 316 stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection via M20x1.5 cable gland in fibreglass reinforced polyamide with 2m H07RN-F 3/5G1.5mm² cable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different light distributions
- different power levels, colour rendering indices and colour temperatures

Applications

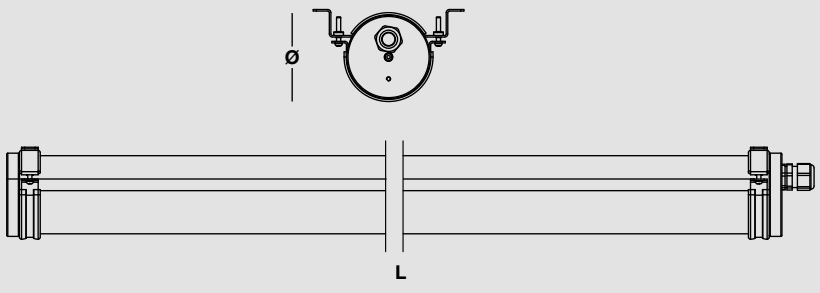
Cells with temperature from -30°C to + 40°C with a humidity degree up to 95%.
Before installation, we recommend checking that there are no contraindications to the use of and polycarbonate inside the refrigerating room.
For applications in environments in which disturbances on the power network may be present and/or involve use at low temperatures, surge protection devices should be fitted on the power supply and any causes of undervoltages eliminated.
Hygienically suitable product for installation in food production plants (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7).

For specific applications please contact our technical offices.

Installation

Ceiling, suspension or wall installation.

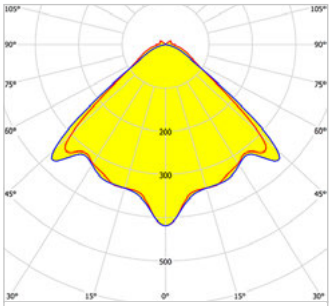
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 433.

3F Tank ICE Extreme Wide



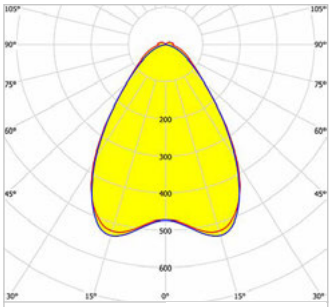
Code 52095

850°C IP69K IK10 HACCP

Wide distribution.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
52094 NEW	3F Tank ICE XT 45W/840 WIDE L1265	50	6459	4000	>80	1264x80
52095 NEW	3F Tank ICE XT 55W/840 WIDE L1560	62	8073	4000	>80	1558x80
52096 NEW	3F Tank ICE XT 70W/840 WIDE L1850	74	9688	4000	>80	1852x80

3F Tank ICE Extreme Medium



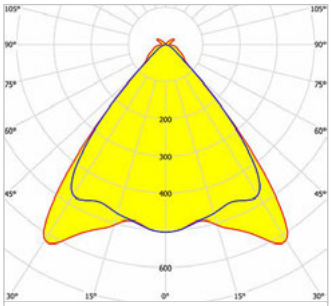
Code 52111

850°C IP69K IK10 HACCP

Medium distribution.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
52110 NEW	3F Tank ICE XT 45W/840 MEDIUM L1265	50	6429	4000	>80	1264x80
52111 NEW	3F Tank ICE XT 55W/840 MEDIUM L1560	62	8035	4000	>80	1558x80
52112 NEW	3F Tank ICE XT 70W/840 MEDIUM L1850	74	9643	4000	>80	1852x80

3F Tank ICE Extreme UGR



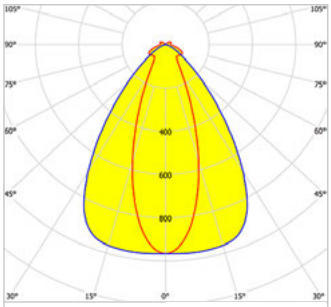
Code 52143

850°C IP69K IK10 HACCP

Controlled distribution.
Average luminance <3000 cd/m² for radial angles >65°.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
52142 NEW	3F Tank ICE XT 45W/840 UGR L1265	50	6286	4000	>80	1264x80
52143 NEW	3F Tank ICE XT 55W/840 UGR L1560	62	7857	4000	>80	1558x80
52144 NEW	3F Tank ICE XT 70W/840 UGR L1850	74	9429	4000	>80	1852x80

3F Tank ICE Extreme Concentrated



Code 52127

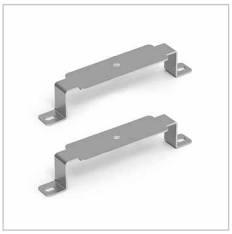
850°C IP69K IK10 HACCP

Concentrated distribution.
PMMA lenses with external flat surface.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x ø
ON/OFF electronic wiring 230V-50/60Hz						
52126 NEW	3F Tank ICE XT 45W/840 CONC L1265	50	6511	4000	>80	1264x80
52127 NEW	3F Tank ICE XT 55W/840 CONC L1560	62	8139	4000	>80	1558x80
52128 NEW	3F Tank ICE XT 70W/840 CONC L1850	74	9767	4000	>80	1852x80

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Tank | Accessories



Pair of AISI 316 stainless steel brackets for suspended installation.

Code	Item
A0305	Pair of suspension brackets

Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.

Code	Item
A0835	Pair brack.+hooks for wall

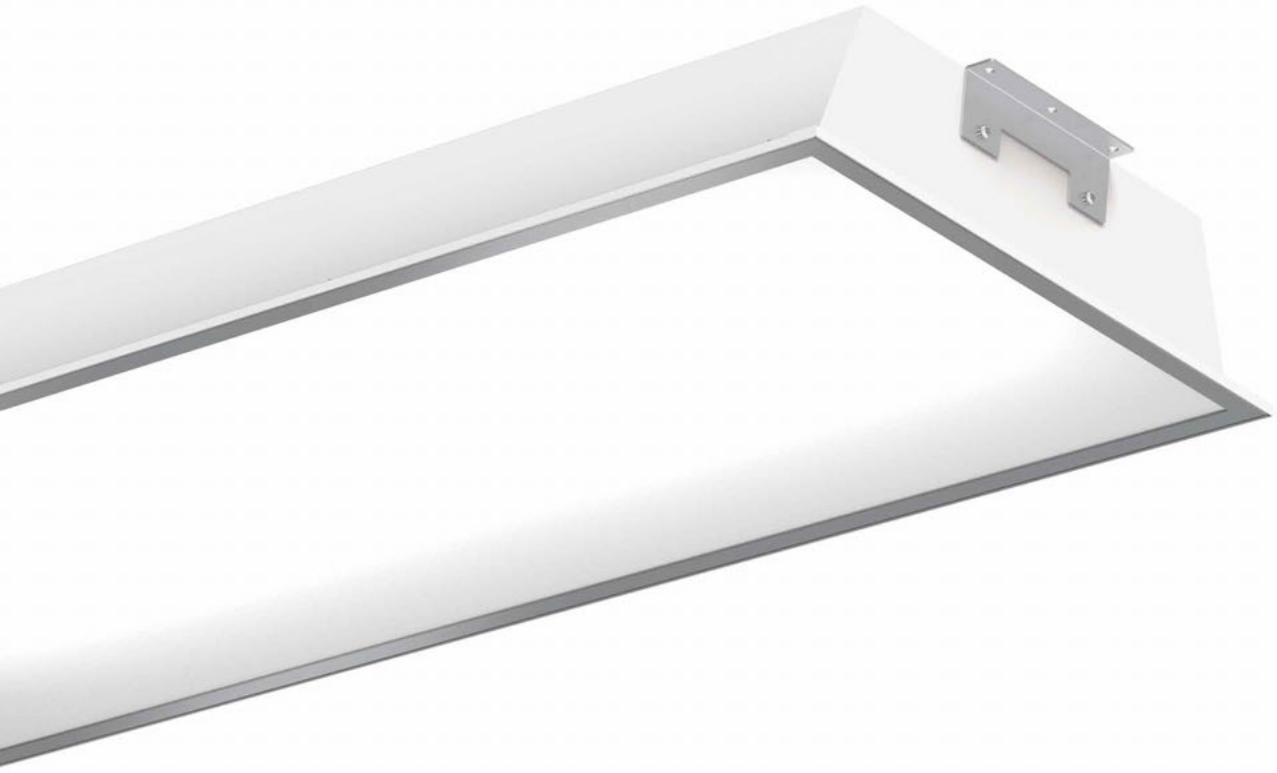
This accessory must always be used in combination with pair of suspension brackets.

Suspension with regulator, galvanised steel cable 1.5 mm diameter, load 15 kg.

Code	Item
A0660	Suspension with adjustment - 1m
A0661	Suspension with adjustment - 2 m
A0662	Suspension with adjustment - 3 m
A0663	Suspension with adjustment - 4 m
A0664	Suspension with adjustment - 5 m
A0665	Suspension with adjustment - 6 m

Attention: each product requires two suspensions with regulator.


MARTINI
BACARDÍ



Beta 500

> **www.3F-Filippi.com/Beta 500**

Beta 500 is an extremely functional product that makes solidity and power its strengths: it is the result of 3F Filippi's many years of experience in the industry.
Thanks to its high degree of protection IP66, it is totally protected against dust and powerful water jets: its shape facilitates cleaning operations and this makes it suitable for many areas of application, including food and pharmaceuticals sectors.
Product reliability has been taken care of down to the smallest detail: to obtain correct thermal management and guarantee the quality of light for many years, our designers have combined a sturdy aluminium body and a frame made of stainless steel to house first-class LEDs and drivers.
The uniformity of its light leaves maximum freedom of layout configuration in today's and future production departments, supported by innovative diffusers or "3F Lens" optics entirely developed and manufactured by 3F Filippi.
The latest generation LED sources are available with 4000K or 6500K colour temperatures, offering lighting designers a wide range of luminous fluxes (from 18,000 to more than 40,000 lumens).

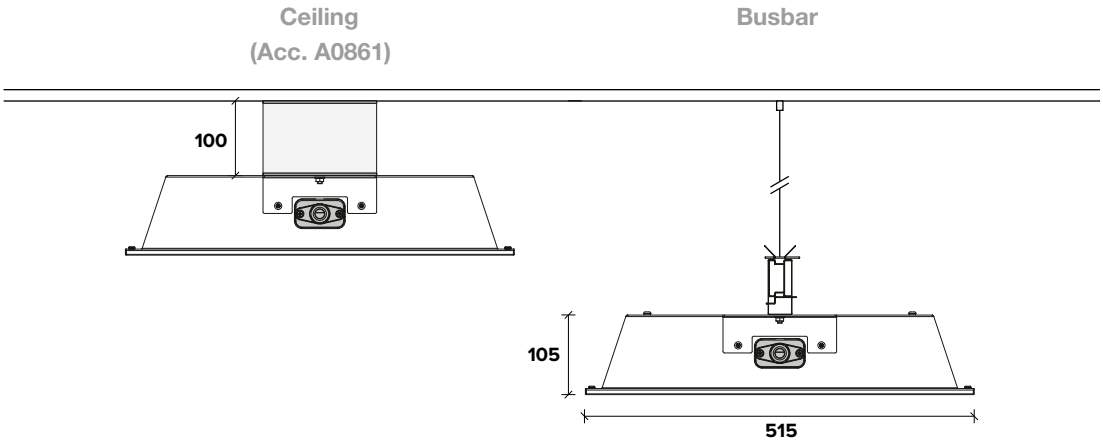
Overview

- Luminous efficacy up to 160 lumen/watt.
- Luminous fluxes from 23732 to 44310 lumens.
- Extensive installation pitch.
- Uniformly illuminated screen.
- 3 different photometric distributions.
- Quick and easy cleaning.
- Essential and functional design.
- Ease of assembly and maintenance.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

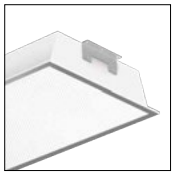
Page		Product	Stainless steel
438	UPDATE	Beta 500	•

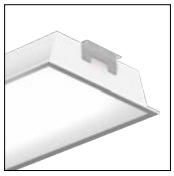
Product range

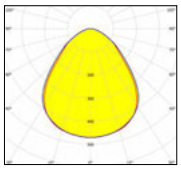
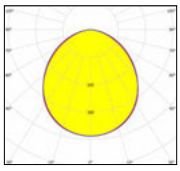
Beta 500



Beta 500

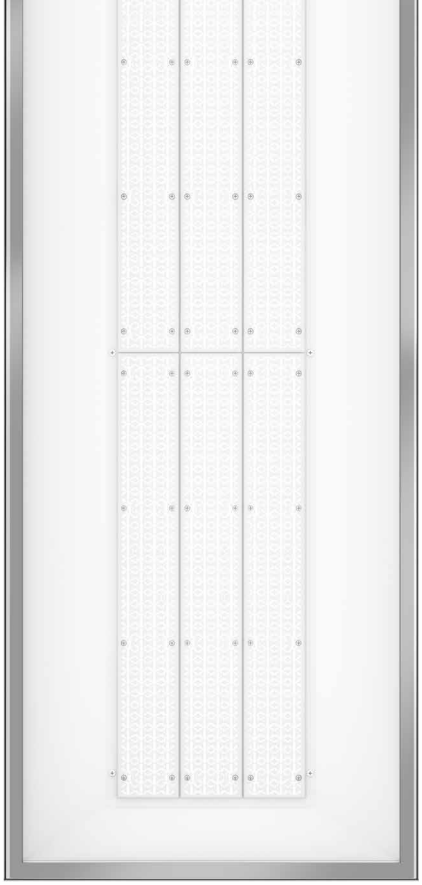




Model		SP	VA
UGR		<21	<21
Finishes		Prismatic PMMA	Frosted glass
Photometric distribution			
Installation steps	Dt	1,25	1,25
	Dl	1,25	1,25

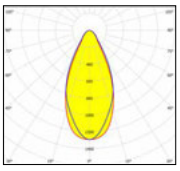
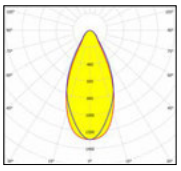
Beta 500 **SP**

Beta 500 **VA**



Beta 500 **SL** | Beta 500 **VT**

Beta 500

Model		**SL Conc**	**VT Conc**
UGR		<21	<21
Finishes		Trasparent PMMA	Trasparent glass
Photometric distribution			
Installation steps	**Dt**	0,75	0,75
	Dl	0,75	0,75

UPDATE

Beta 500

Construction characteristics

Illuminotechnical characteristics
Direct symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in white painted epoxy-polyester powder aluminium.
White aluminium non-iridescent high efficiency.
Perimetrical frame in stainless steel with vandal-proof opening and stainless steel nuts and bolts.
Polyurethane foam seal, ecological, anti-aging, installed using a continuous automatic process with no joints.
Fixing bracket in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
ON/OFF electronic wiring: twin-circuit for 200W versions 300W.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- transparent or frosted polycarbonate diffuser, laminated glass
- wiring: dimmable, CLO (more information on page 598), single-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Ambient temperature from -20°C to +45°C.
Commercial and industrial environments and warehouses.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

Installation

Ceiling mounted, suspension or busway installation.

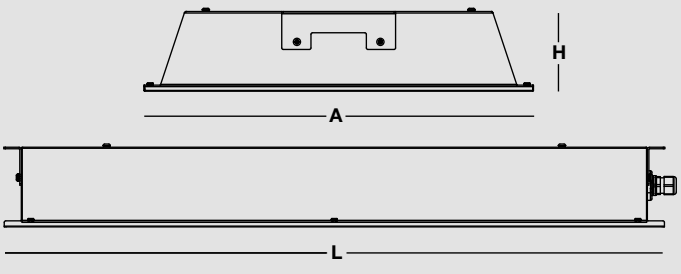
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Notes

HST glass
HST glass is composed of a tempered glass sheet which has undergone a thermal stabilisation process (Heat Soak Test) which reduces the risk of spontaneous breakage caused by nickel-sulfide inclusions inside the glass. It is not immune from harmless falling fragments, caused byshocks or, exceptionally, derived from the tempering process.
It is the user's responsibility to identify the most suitable type of diffuser for the application type.

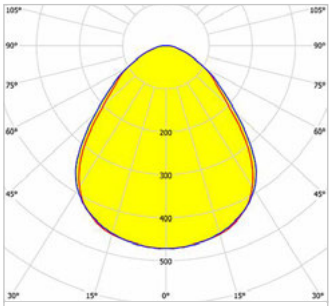
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 441.

Beta 500 SP



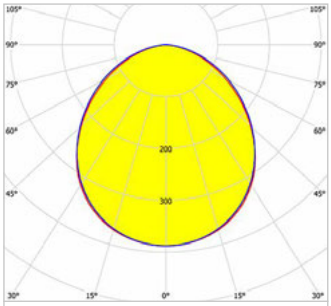
Code 52002

850°C | IP66 | 2J | IK07 | HACCP

Medium distribution.
SP transparent methacrylate diffuser, prismatic outside, antiglare.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52056 UPDATE	Beta 500 150W/840 SP L870	162	23732	4000	>80	870x515x105
52002	Beta 500 200W/840 SP L870	198	29399	4000	>80	870x515x105
52003	Beta 500 300W/840 SP L1230	298	43513	4000	>80	1230x475x130
DALI electronic wiring 230V-50/60Hz						
52057 UPDATE	Beta 500 150W/840 DALI SP L870	162	23732	4000	>80	870x515x105
52005	Beta 500 200W/840 DALI SP L870	198	29399	4000	>80	870x515x105
52006	Beta 500 300W/840 DALI SP L1230	298	43513	4000	>80	1230x475x130

Beta 500 VA



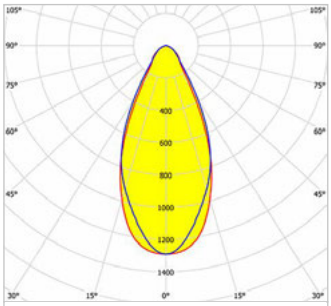
Code 52050

960°C | IP66 | 5J | IK08

Medium distribution.
Frosted glass HST tempered, non-combustible.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52072 UPDATE	Beta 500 150W/840 VA L870	162	24633	4000	>80	870x515x105
52050	Beta 500 200W/840 VA L870	198	30886	4000	>80	870x515x105
52051	Beta 500 300W/840 VA L1230	298	44417	4000	>80	1230x475x130
DALI electronic wiring 230V-50/60Hz						
52073 UPDATE	Beta 500 150W/840 DALI VA L870	162	24633	4000	>80	870x515x105
52053	Beta 500 200W/840 DALI VA L870	198	30886	4000	>80	870x515x105
52054	Beta 500 300W/840 DALI VA L1230	298	44417	4000	>80	1230x475x130

Beta 500 SL Concentrated



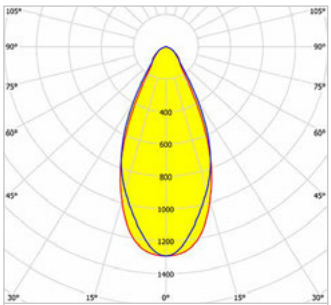
Code 52026

CE | SAFE FLICKER | D | 850°C | IP66 | 2J | IK07 | HACCP

Concentrated distribution.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
SL transparent PMMA flat diffuser.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52064 UPDATE	Beta 500 150W/840 CONC SL L870	162	24267	4000	>80	870x515x105
52026	Beta 500 200W/840 CONC SL L870	198	30001	4000	>80	870x515x105
52027	Beta 500 300W/840 CONC SL L1230	298	44310	4000	>80	1230x475x130
DALI electronic wiring 230V-50/60Hz						
52065 UPDATE	Beta 500 150W/840 DALI CONC SL L870	162	24267	4000	>80	870x515x105
52029	Beta 500 200W/840 DALI CONC SL L870	198	30001	4000	>80	870x515x105
52030	Beta 500 300W/840 DALI CONC SL L1230	298	44310	4000	>80	1230x475x130

Beta 500 VT Concentrated



Code 52038

CE | SAFE FLICKER | D | 960°C | IP66 | 5J | IK08

Concentrated distribution.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
Transparent glass HST tempered, non-combustible.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52068 UPDATE	Beta 500 150W/840 CONC VT L870	162	24267	4000	>80	870x515x105
52038	Beta 500 200W/840 CONC VT L870	198	30001	4000	>80	870x515x105
52039	Beta 500 300W/840 CONC VT L1230	298	44310	4000	>80	1230x475x130
DALI electronic wiring 230V-50/60Hz						
52069 UPDATE	Beta 500 150W/840 DALI CONC VT L870	162	24267	4000	>80	870x515x105
52041	Beta 500 200W/840 DALI CONC VT L870	198	30001	4000	>80	870x515x105
52042	Beta 500 300W/840 DALI CONC VT L1230	298	44310	4000	>80	1230x475x130

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Beta 500 | Accessories

Anti-condensation diffuser cable gland.

Code	Item
A0187	Anti-condensation cable gland

Recommended for installations in environments with temperature sudden changes or subject to condensation.

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

Stainless steel brackets for suspended installation.

Code	Item
A0858	Bracket for central suspension L870
A0859	Bracket for central suspension L1230

Suspension installation kit consisting of ceiling plate, 2 metre long galvanised steel cables and regulators.

Code	Item
A0860	Adjustable suspension kit 2m

Brackets for mounting of luminaire on ceiling.

Code	Item
A0861	Pair of brack. ceiling instal. Beta500

3F Linda

> **www.3F-Filippi.com/3F Linda**

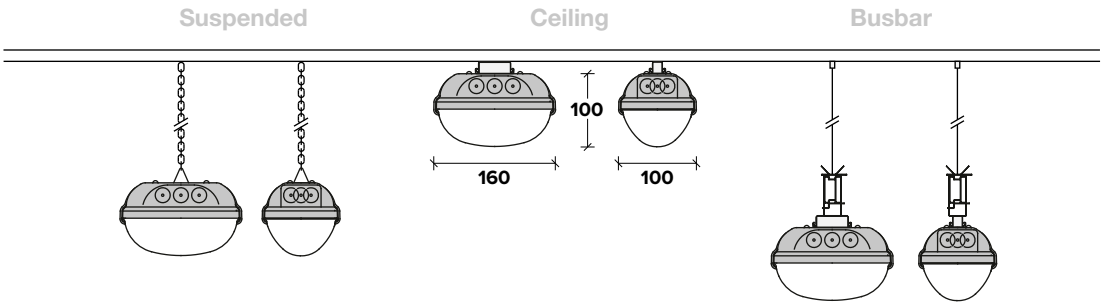
3F Linda LED has become famous for its soft and smooth lines, its patented snug fit snap-lock clips, its compact egg-shaped housing (110 millimetres maximum in the case of ceiling installation with brackets), its internal reinforcement structure and its elastic, shatterproof polycarbonate diffuser.
Thanks to its flexibility, it finds applications in residential, commercial and even food industry environments (IFS, HACCP and BRC certification).
3F Linda LED is available in three different lengths (600, 1200 and 1500 mm) with different power and luminous flux levels, and with both housing widths (100 millimetres and 160 millimetres).
Its efficient electronic wiring decreases power consumption and start-up times.
Thanks to the photo-etched diffuser, 3F Linda LED is now even higher-performance and economical, with improved diffusion and softer light, and increased visual comfort.

Overview

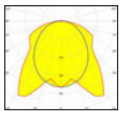
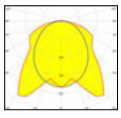
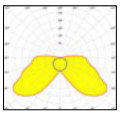
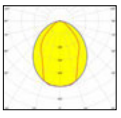
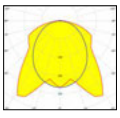
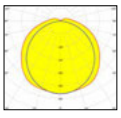
- Luminous efficacy up to 140 lumen/watt.
- Luminous fluxes from 461 to 9533 lumens.
- Extensive installation pitch.
- 5 different photometric distributions.
- Available with integrated sensors.
- Emergency version with kit integrated into the body.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Fast relamping thanks to the fixing centres compatible with previous generations.
- Versatility of use in different environments.
- ATEX - Group II, Category 3D, Ex tc IIIC T85°C Dc.
- Product suitable for use in the food industry (HACCP / IFS / BRC-Standard).

Product range

3F Linda



3F Linda

Model		Standard		HQ		Wide	Concentrated	Basic		Soft	
UGR		<21		<21		<21	<21	<21		<21	
Photometric distribution											
Dimensions		100	160	100	160	160	160	100	160	100	160
Installation steps	Dt	1,77	1,52	1,77	1,52	3,54	0,89	1,77	1,35	1,39	1,35
	Dl	1,17	1,17	1,17	1,17	1,32	1,18	1,17	1,24	1,21	1,24

3F Linda 100 mm

3F Linda 160 mm

3F Linda															
Model		**ATEX**		**Compact**		**HS**		**Transparent**		**Ice**		**Sensor**		**Sensor Bluetooth**	
UGR		<21		<21		<21		<21		<21		<21		<21	
Photometric distribution															
Dimensions		**100**	**160**	**100**	**160**	**100**	**160**	**100**	**160**	**100**	**160**	**100**	**160**	**100**	**160**
Installation steps	**Dt**	1,77	1,52	1,87	1,32	1,77	1,52	1,72	1,54	1,77	1,52	1,77	1,52	1,77	1,35
	Dl	1,17	1,17	1,39	1,45	1,17	1,17	1,16	1,17	1,17	1,17	1,17	1,17	1,17	1,24

Product advantages

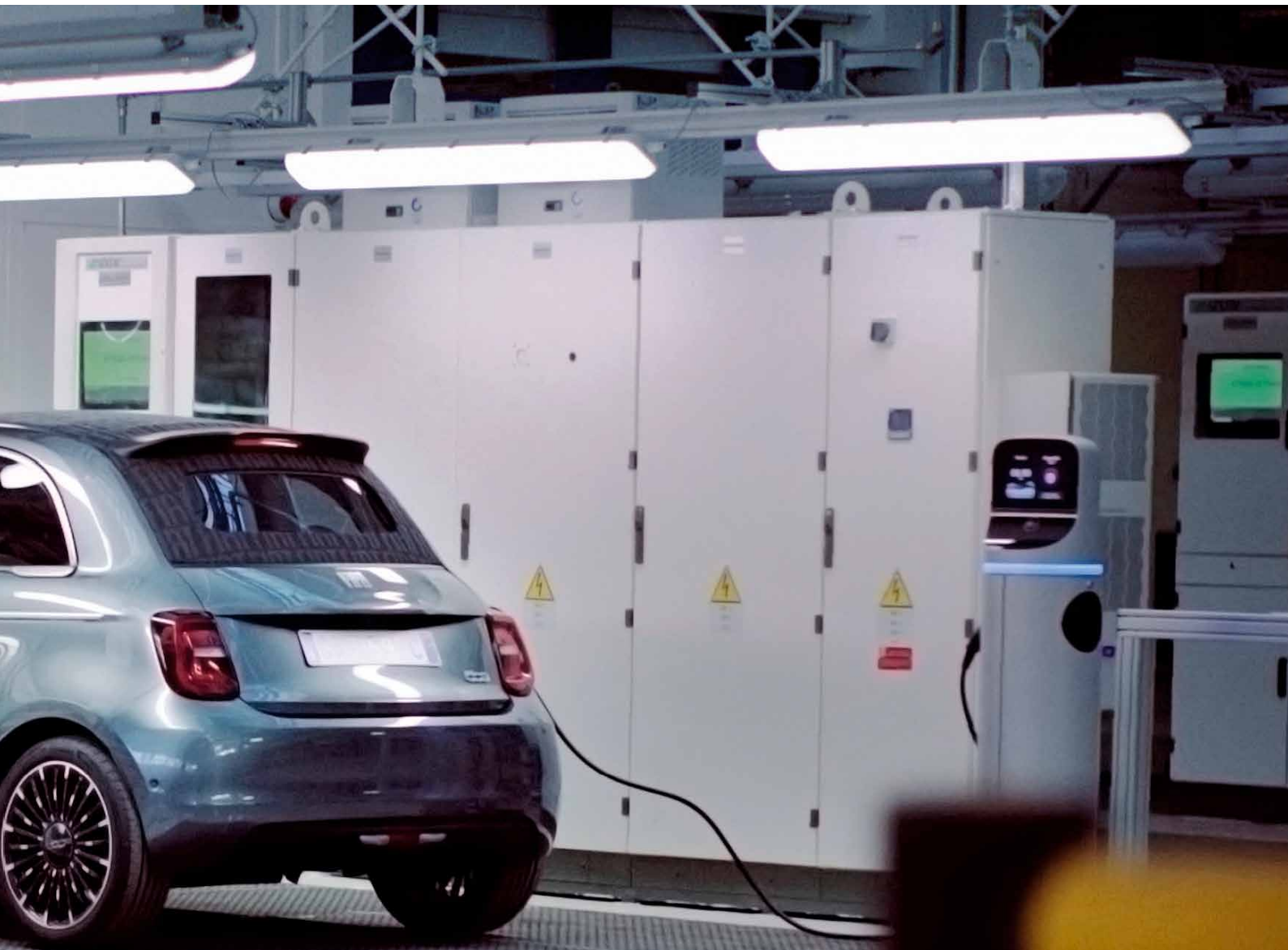
EFFICIENT AND ECOLOGICAL. FOR YOU, FOR THE WORLD.

3F Linda LED shows off the best of 3F Filippi's design philosophy in looking for the best production solutions which respect the environment and lead to a reduction in materials and energy across the whole of the product's life cycle, by:

- Reducing power consumption and increasing the efficiency of our products thanks to the introduction of intelligent electronic wiring, high-efficiency sources and optimisation of the distribution of the luminous flux, thanks also to the possibility of installing flow recuperators.
- Limited use of different materials in order to facilitate the assembly, installation and recycling phases: only polycarbonate (body, diffuser, clips), aluminium or steel (flow recuperator, gear tray and stainless-steel clips) and the copper in the wires (completely removable) are used in 3F Linda LED. Moreover, connection between components are all reversible and use completely recyclable materials, facilitating disassembly and disposal of the product at the end of its lifetime.
- Reduced ecological footprint, with products manufactured with energy from PV solar panels and product handling following a "zero-mile" philosophy.
- Installation compatibility with previous versions: the new 3F Linda LED integrates perfectly in all environments, becoming the perfect solution to update existing installations – thanks to its full compatibility with the previous fluorescent version in terms of its size and accessories.
- Reuse of these elements means that less energy is used to create new products and accessories for adaption of previous installations.

- Recyclable green packaging, like all of 3F Filippi's products, in recycled cardboard.
- Installation is quick and safe thanks to the fixing brackets made entirely of stainless steel (both the internal and external part); the weight is distributed optimally. The sliding quick connection bracket can also be adjusted to suit the thermal expansion of the luminaire even in environments with a notable temperature range. The set of three fixing brackets is supplied with each luminaire.
- For installations with direct exposure to sunlight, use of the "Beta 235" or "Beta A3F - i3F" product is recommended.
- The sliding quick connection bracket can also be adjusted to suit the thermal expansion of the luminaire even in environments with a notable temperature range. The set of three fixing brackets is supplied with each luminaire.
- 3F Linda LED is a luminaire with Fire Reaction Class 1 as per Italian Ministerial Decree of 24 June 1984 (Classification of reaction to fire and type-approval of materials for fire-prevention purposes).
- This classification meets the requirements of Italian Ministerial Decrees of 11 January 1988 (Fire-prevention standards in subways) and of 28 October 2005 (Safety in railway tunnels).

"New Fiat 500e" production line - Photo Courtesy: FCA



UPDATE

3F Linda LED

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
Stainless steel fixing brackets, L=300 mm versions excluded.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

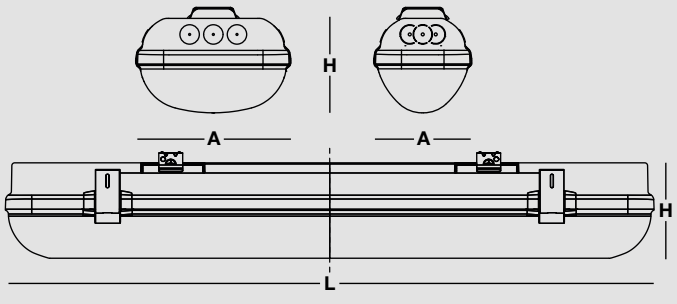
On request

- different colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598), class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Dry, dusty indoor environments, subject to occasional water splashes.
Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (further information on page 648).
Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
Suitable for illumination of public car parks and parking grounds referred to DIN 67528:2018-04.
For specific applications please contact our technical offices.

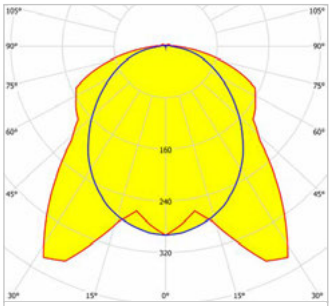
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED



Code 58616

EP ENP D 850°C IP66 20J IK10 Driver/LED SELV HACCP

Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

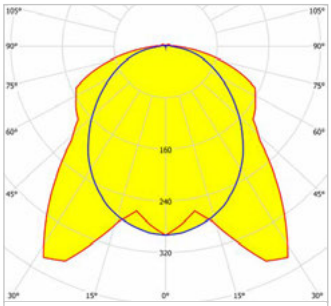
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58563	3F Linda LED 1x6W L660	7.5	1029	4000	>80	660x100x100
58561	3F Linda LED 1x12W L660	14	1918	4000	>80	660x100x100
58586 NEW	3F Linda LED 1x18W L1270	20	3442	4000	>80	1270x100x100
58608 NEW	3F Linda LED 1x22W L1570	25	4275	4000	>80	1570x100x100
58583	3F Linda LED 1x24W L1270	28	4340	4000	>80	1270x100x100
58585	3F Linda LED 1x24W/830 L1270	28	4123	3000	>80	1270x100x100
58584	3F Linda LED 1x24W/865 L1270	28	4275	6500	>80	1270x100x100
58572	3F Linda LED 2x12W L660	28	3895	4000	>80	660x160x100
58605	3F Linda LED 1x30W L1570	33.5	5391	4000	>80	1570x100x100
58607	3F Linda LED 1x30W/830 L1570	33.5	5122	3000	>80	1570x100x100
58606	3F Linda LED 1x30W/865 L1570	33.5	5310	6500	>80	1570x100x100
58597 NEW	3F Linda LED 2x18W L1270	40	6168	4000	>80	1270x160x100
58619 NEW	3F Linda LED 2x22W L1570	49	7659	4000	>80	1570x160x100
58594	3F Linda LED 2x24W L1270	54.5	7778	4000	>80	1270x160x100
58596	3F Linda LED 2x24W/830 L1270	54.5	7389	3000	>80	1270x160x100
58595	3F Linda LED 2x24W/865 L1270	54.5	7662	6500	>80	1270x160x100
58616	3F Linda LED 2x30W L1570	66	9657	4000	>80	1570x160x100
58618	3F Linda LED 2x30W/830 L1570	66	9174	3000	>80	1570x160x100
58617	3F Linda LED 2x30W/865 L1570	66	9512	6500	>80	1570x160x100
DALI electronic wiring 230V-50/60Hz						
58549	3F Linda LED 1x12W DALI L660	15	1918	4000	>80	660x100x100
58550	3F Linda LED 2x12W DALI L660	28	3895	4000	>80	660x160x100
58551	3F Linda LED 1x24W DALI L1270	28	4340	4000	>80	1270x100x100
58553	3F Linda LED 1x30W DALI L1570	33.5	5391	4000	>80	1570x100x100
58552	3F Linda LED 2x24W DALI L1270	54.5	7778	4000	>80	1270x160x100
58554	3F Linda LED 2x30W DALI L1570	66	9657	4000	>80	1570x160x100

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
58569	3F Linda LED 1x6W EP LA L660	8.5	1029	4000	>80	660x160x100
58567	3F Linda LED 1x12W EP LA L660	15	1918	4000	>80	660x160x100
58592 NEW	3F Linda LED 1x18W EP L1270	21	3442	4000	>80	1270x100x100
58614 NEW	3F Linda LED 1x22W EP L1570	26	4275	4000	>80	1570x100x100
58589	3F Linda LED 1x24W EP L1270	29	4340	4000	>80	1270x100x100
58591	3F Linda LED 1x24W/830 EP L1270	29	4123	3000	>80	1270x100x100
58590	3F Linda LED 1x24W/865 EP L1270	29	4275	6500	>80	1270x100x100
58611	3F Linda LED 1x30W EP L1570	34.5	5391	4000	>80	1570x100x100
58613	3F Linda LED 1x30W/830 EP L1570	34.5	5122	3000	>80	1570x100x100
58612	3F Linda LED 1x30W/865 EP L1570	34.5	5310	6500	>80	1570x100x100
58603 NEW	3F Linda LED 2x18W EP L1270	41	6168	4000	>80	1270x160x100
58626 NEW	3F Linda LED 2x22W EP L1570	50	7659	4000	>80	1570x160x100
58600	3F Linda LED 2x24W EP L1270	55.5	7778	4000	>80	1270x160x100
58602	3F Linda LED 2x24W/830 EP L1270	55.5	7389	3000	>80	1270x160x100
58601	3F Linda LED 2x24W/865 EP L1270	55.5	7662	6500	>80	1270x160x100
58623	3F Linda LED 2x30W EP L1570	67	9657	4000	>80	1570x160x100
58625	3F Linda LED 2x30W/830 EP L1570	67	9174	3000	>80	1570x160x100
58624	3F Linda LED 2x30W/865 EP L1570	67	9512	6500	>80	1570x160x100
ENP non-permanent emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
58705	3F Linda LED 1x12W ENP LA L660		543	4000	>80	660x160x100
58713	3F Linda LED 1x24W ENP L1270		544	4000	>80	1270x100x100

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED HQ



Code 58872

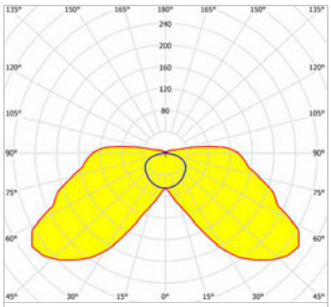
850°C | IP66 | 20J | IK10

Driver/LED SELV | HACCP

Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58867	3F Linda LED 1x12W/940 L660	14	1573	4000	>90	660x100x100
58868	3F Linda LED 2x12W/940 L660	28	3194	4000	>90	660x160x100
58869	3F Linda LED 1x24W/940 L1270	28	3559	4000	>90	1270x100x100
58870	3F Linda LED 2x24W/940 L1270	54.5	6378	4000	>90	1270x160x100
58871	3F Linda LED 1x30W/940 L1570	33.5	4421	4000	>90	1570x100x100
58872	3F Linda LED 2x30W/940 L1570	66	7919	4000	>90	1570x160x100
DALI electronic wiring 230V-50/60Hz						
58873	3F Linda LED 1x12W/940 DALI L660	15	1573	4000	>90	660x100x100
58874	3F Linda LED 2x12W/940 DALI L660	28	3194	4000	>90	660x160x100
58875	3F Linda LED 1x24W/940 DALI L1270	28	3559	4000	>90	1270x100x100
58876	3F Linda LED 2x24W/940 DALI L1270	54.5	6378	4000	>90	1270x160x100
58877	3F Linda LED 1x30W/940 DALI L1570	33.5	4421	4000	>90	1570x100x100
58878	3F Linda LED 2x30W/940 DALI L1570	66	7919	4000	>90	1570x160x100

3F Linda LED Wide



Code 58661

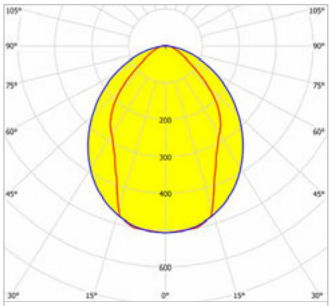
850°C | IP66 | 20J | IK10

Driver/LED SELV | HACCP

Wide distribution.
Flux recuperator in specular aluminium, high efficiency.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58659	3F Linda LED 2x24W AMPIO L1270	54.5	7761	4000	>80	1270x160x100
58661	3F Linda LED 2x30W AMPIO L1570	66	9635	4000	>80	1570x160x100

3F Linda LED Concentrated



Code 58632

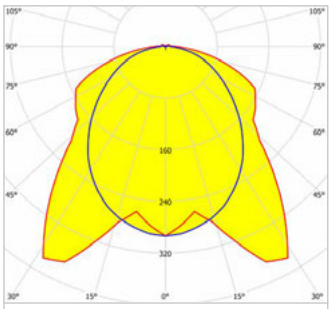
850°C IP66 20J IK10

Driver/LED SELV HACCP

Concentrated elliptical distribution.
Flux recuperator in specular aluminium, high efficiency.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58630	3F Linda LED 2x24W CONC L1270	54.5	7623	4000	>80	1270x160x100
58632	3F Linda LED 2x30W CONC L1570	66	9464	4000	>80	1570x160x100

3F Linda LED Basic



Code 58765

850°C IP66 20J IK10

Driver/LED SELV HACCP

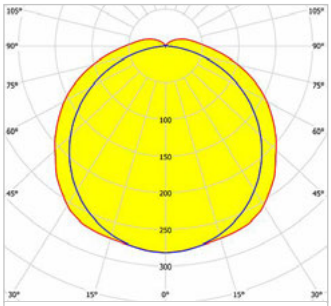
Snug fit snap-lock clips for diffuser mounting, in polycarbonate, tamper-proof screwdriver opening.
In compliance with EN 60598-1.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58762	3F Linda LED Basic 1x19W L1270	22	2956	4000	>80	1270x100x100
58764	3F Linda LED Basic 1x23W L1570	29	3708	4000	>80	1570x100x100
58766	3F Linda LED Basic ST 2x16W L1270	36	5005	4000	>80	1270x100x100
58763	3F Linda LED Basic 2x19W L1270	41	5357	4000	>80	1270x160x100
58767	3F Linda LED Basic ST 2x20W L1570	45	6291	4000	>80	1570x100x100
58765	3F Linda LED Basic 2x23W L1570	49	6722	4000	>80	1570x160x100

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED Soft



Code 58752

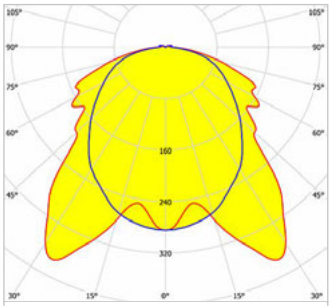
850°C | IP66 | 20J | IK10

Driver/LED SELV | HACCP

Soft opal diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
In compliance with EN 60598-1.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58731	3F Linda LED Soft 1x12W L660	14	1760	4000	>80	660x100x100
58732	3F Linda LED Soft 2x12W L660	28	3523	4000	>80	660x160x100
58733	3F Linda LED Soft 1x24W L1270	28	3984	4000	>80	1270x100x100
58734	3F Linda LED Soft 1x30W L1570	33.5	4949	4000	>80	1570x100x100
58751	3F Linda LED Soft 2x22W L1570	49	6928	4000	>80	1570x160x100
58737	3F Linda LED Soft 2x24W L1270	54.5	7036	4000	>80	1270x160x100
58752	3F Linda LED Soft 2x30W L1570	66	8735	4000	>80	1570x160x100
DALI electronic wiring 230V-50/60Hz						
58735	3F Linda LED Soft 1x24W DALI L1270	28	3984	4000	>80	1270x100x100
58736	3F Linda LED Soft 1x30W DALI L1570	33.5	4949	4000	>80	1570x100x100
58753	3F Linda LED Soft 2x22W DALI L1570	49	6928	4000	>80	1570x160x100
58738	3F Linda LED Soft 2x24W DALI L1270	54.5	7036	4000	>80	1270x160x100
58754	3F Linda LED Soft 2x30W DALI L1570	66	8735	4000	>80	1570x160x100

3F Linda LED Compact



Code 5068

EP | D | 850°C | IP66 | 20J | IK10 | Driver/LED SELV | HACCP

In compliance with EN 60598-1.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
5066 NEW	3F Linda LED 1x6W L300	7.5	883	4000	>80	300x100x100
5067 NEW	3F Linda LED 1x6W LA L300	7.5	870	4000	>80	300x160x100
5068 NEW	3F Linda LED 2x6W L300	13.5	1594	4000	>80	300x160x100
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
5069 NEW	3F Linda LED 1x6W EP LA L300	8.5	870	4000	>80	300x160x100
5070 NEW	3F Linda LED 2x6W EP L300	14.5	1594	4000	>80	300x160x100
ENP non-permanent emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
5071 NEW	3F Linda LED 1x6W ENP LA L300		557	4000	>80	300x160x100

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


MAGIRUS
BRONTO SKYLIFT F32 HDT
MAGIRUS
112

NEW

3F Linda LED ATEX

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Self-extinguishing V2 polycarbonate housing, injection
moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
Diffuser in
self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

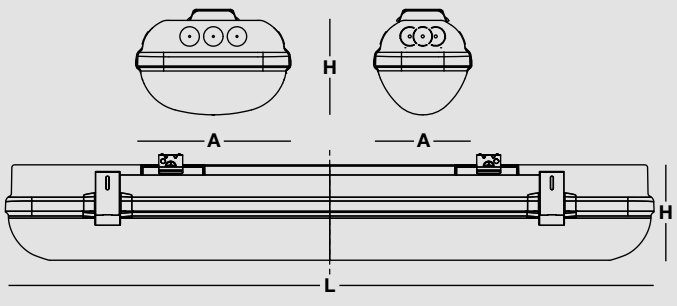
- different colour rendering indices and colour temperatures
- wiring: CLO (more information on page 598), dimmable, class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Applications

Environments with ATEX explosive atmosphere, group II, category 3D, T85°C, Zone 22 Dc (compliance with directive 2014/34/EU and IEC/EN 60079 standard), severe industrial, food and agri-food industries, scientific and food processing laboratories, environments with high humidity, swimming pools, railway, aeronautical and port applications.
Dry, dusty indoor environments, subject to occasional water splashes.

Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (further information on page 648).
Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
For specific applications please contact our technical offices.

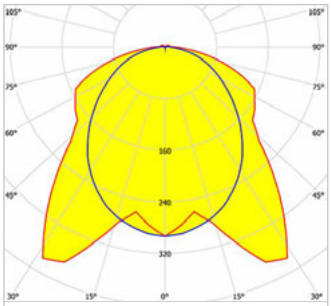
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED ATEX



Code 58471

CE | SAFE FLICKER | D | 850°C | IP66 | ATEX | 20J | IK10 | Driver/LED SELV | HACCP

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58470 NEW	3F Linda LED 1x12W ATEX 3D L660	14	1918	4000	>80	660x100x100
58471 NEW	3F Linda LED 2x12W ATEX 3D L660	28	3895	4000	>80	660x160x100
58472 NEW	3F Linda LED 1x24W ATEX 3D L1270	28	4340	4000	>80	1270x100x100
58474 NEW	3F Linda LED 1x30W ATEX 3D L1570	33.5	5391	4000	>80	1570x100x100
58473 NEW	3F Linda LED 2x24W ATEX 3D L1270	54.5	7778	4000	>80	1270x160x100
58475 NEW	3F Linda LED 2x30W ATEX 3D L1570	66	9657	4000	>80	1570x160x100

3F Linda LED HS

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Body and screen in polycarbonate with additional protective treatment for use in environments with aggressive substances.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- **Linear anti-sulfur LED modules (SiO2), with special protection against aggressive chemically-volatile substances, for standard LED technology.**
- Colour initial tolerance (MacAdam): SDCM 3.

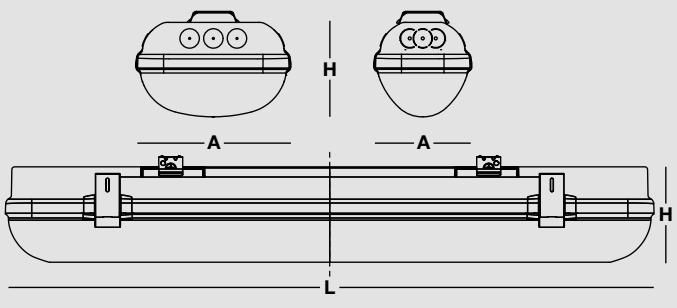
On request

- different colour temperatures
- wiring: dimmable, CLO (more information on page 598), class II
- emergency versions

Applications

Dry, dusty indoor environments, subject to occasional water splashes.
Hygienically suitable product for installation in food production plants (HACCP), IFS (Food Version 6), BRC (GSFS Food Version 7).
Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (further information on page 648).
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
Luminaire complete with linear anti-sulfur LED modules (SiO2), with special protection against aggressive chemically-volatile substances, for standard LED technology.
Body and diffuser resistant to the following substances: Ethyl alcohol (24 hours at 20°C), aqueous detergents, hydrochloric acid (leaves slight mark), DOT4 brake oil, sulphuric acid (leaves slight mark), ammonia.
When using this data, remember that it is the result of laboratory tests, and therefore valid only under those test conditions: the data is to be considered approximate and, in the absence of practical experience, it is advisable to carry out tests under actual operating conditions.
Please refer to the resistance to corrosive substances table on page 648.
The temperature and concentration of the chemical substance may significantly affect the materials and the LED technology.
For specific applications please contact our technical offices.

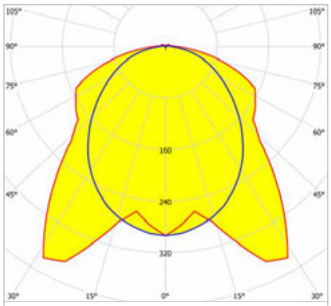
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED HS



Code 58730

850°C | IP66 | 20J | IK10

Driver/LED SELV | HACCP

Luminaire complete with linear LED modules (SiO2), with special protection against aggressive chemically-volatile substances, for standard LED technology.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58722	3F Linda LED HS 1x24W L1270	28	4340	4000	>80	1270x100x100
58724	3F Linda LED HS 1x30W L1570	33.5	5391	4000	>80	1570x100x100
58728	3F Linda LED HS 2x24W L1270	54.5	7778	4000	>80	1270x160x100
58730	3F Linda LED HS 2x30W L1570	66	9657	4000	>80	1570x160x100

UPDATE

3F Linda LED Transparent

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L92/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L75/B10): 80000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in transparent self-extinguishing V2 polycarbonate, injection moulded.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

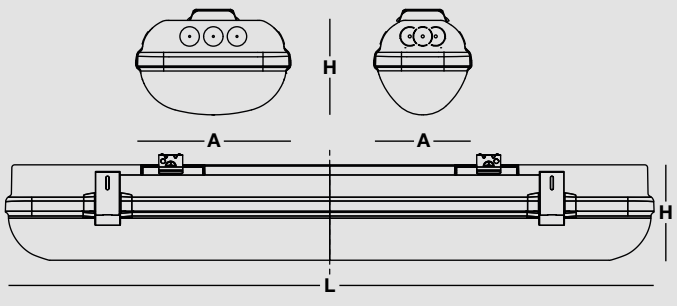
On request

- different colour rendering indices and colour temperatures
- wiring: dimmable, CLO (more information on page 598), class II
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Dry, dusty indoor environments, subject to occasional water splashes.
Environments: transit areas, parking lots.
Environments where soft diffuse light is required for optimal visual comfort.
Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (further information on page 648).
Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
Suitable for illumination of public car parks and parking grounds referred to DIN 67528:2018-04.

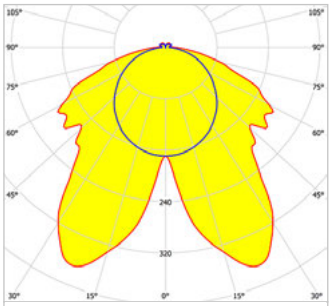
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED Transparent



Code 58856

850°C | IP66 | 20J | IK10

Driver/LED SELV | HACCP

Transparent polycarbonate housing.
Snug fit safety snap-lock clips in stainless steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58852	3F Linda LED Lite TR 1x12W L660	14	1992	4000	>80	660x100x100
58853	3F Linda LED Lite TR 1x19W L1270	22	2962	4000	>80	1270x100x100
58854	3F Linda LED Lite TR 1x23W L1570	29	3716	4000	>80	1570x100x100
58855	3F Linda LED Lite TR 2x16W L1270	36	4923	4000	>80	1270x160x100
58856	3F Linda LED Lite TR 2x20W L1570	45	6188	4000	>80	1570x160x100

Waterproof and corrosion-proof

3F Linda LED Ice

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Self-extinguishing V2 polycarbonate housing, injection
moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
Diffuser in
self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
L-N-E line terminal block with ceramic isolator protection powder-filled fuse, rapid type, 5x20 mm, of suitable capacity, breaking capacity 1500 A.
Solid single-core silicone rubber insulated wiring cable with fibreglass braid type UG4T2/2 cross section 0.75 mm².

Source characteristics

- Linear LED modules UR95.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Applications

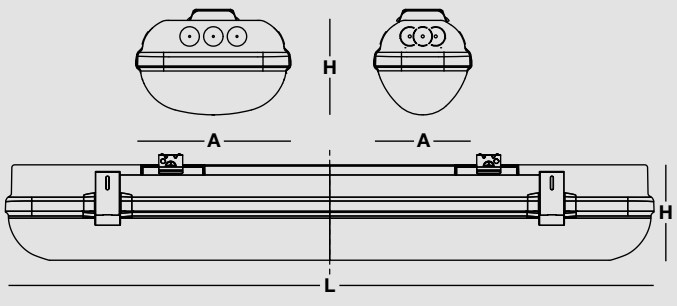
Cells with temperature from -30°C to + 40°C with a humidity degree up to 95%.
Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (further information on page 648).
For applications in environments in which disturbances on the power network may be present and/or involve use at low temperatures, surge protection devices should be fitted on the power supply and any causes of undervoltages eliminated.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

Notes

Thanks to new 3F LED technology, the advantages of using 3F Linda LED ICE technology are manifold:
- switch-on time less than 5 seconds
- unlimited on cycles
- lifetime of LED source does not decline in relation to the number of on cycles

All this results in cost reductions thanks to:
- power consumption lower than for fluorescent versions
- no heat transfer from the luminaire to the cooled environment

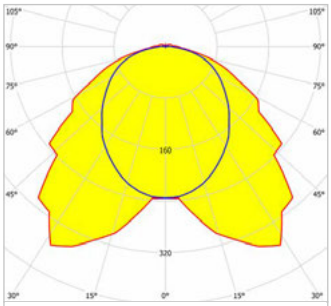
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED Ice 1x



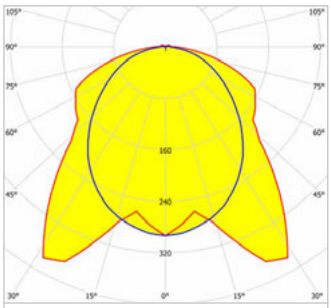
Code 58461

CE | D | ICE | 850°C | IP66 | 20J | IK10 | Driver/LED SELV | HACCP

Controlled wide distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz, fuse						
58457	3F Linda LED Ice 1x24W UR95 L1270	28	4340	4000	>80	1270x100x100
58461	3F Linda LED Ice 1x30W UR95 L1570	33.5	5391	4000	>80	1570x100x100

3F Linda LED Ice 2x

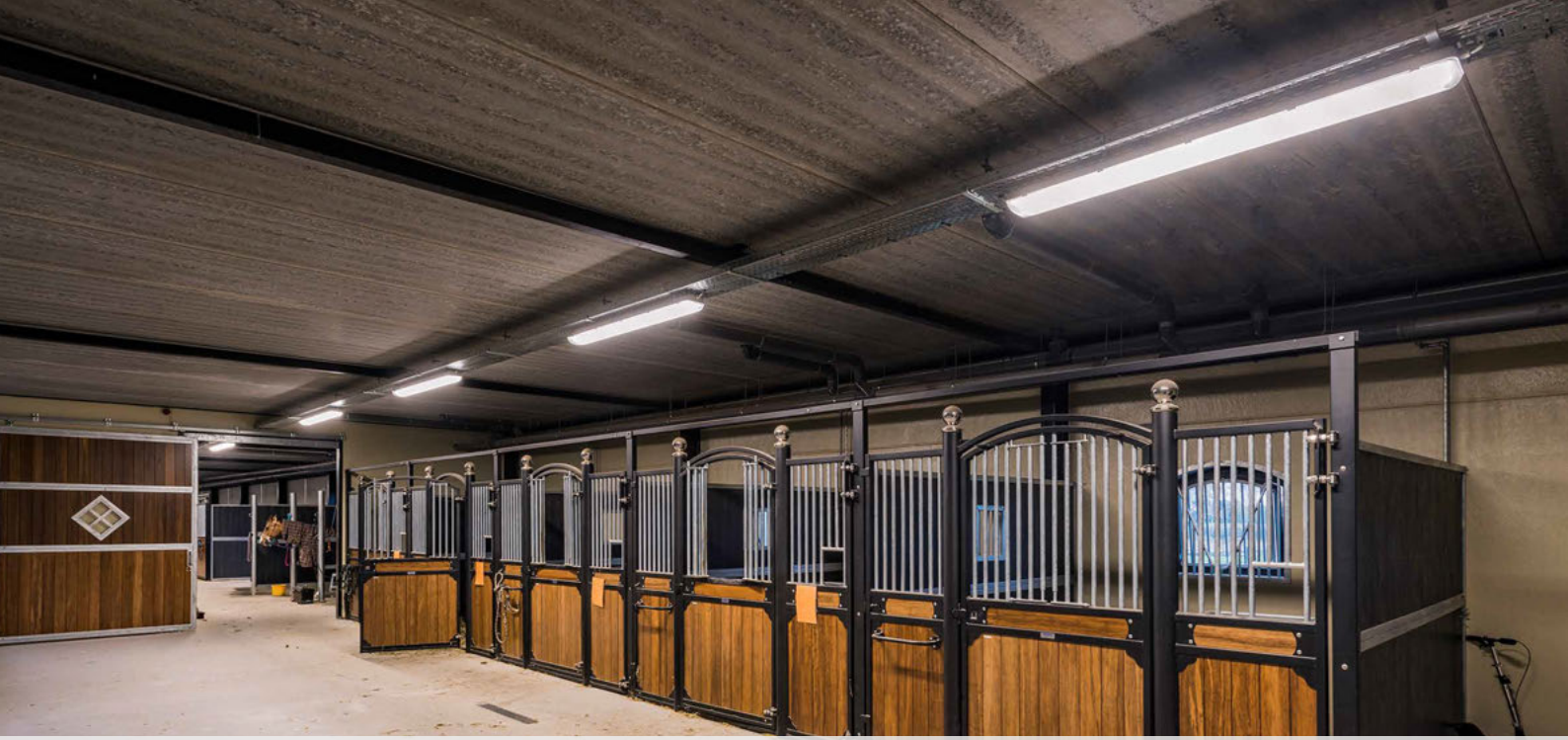


Code 58463

CE | D | ICE | 850°C | IP66 | 20J | IK10 | Driver/LED SELV | HACCP

Controlled wide distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz, fuse						
58459	3F Linda LED Ice 2x24W UR95 L1270	54.5	7778	4000	>80	1270x160x100
58463	3F Linda LED Ice 2x30W UR95 L1570	66	9657	4000	>80	1570x160x100



3F Linda LED Sensor

Construction characteristics

Illuminotechnical characteristics
Controlled symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Self-extinguishing V2 polycarbonate housing, injection moulded, RAL 7035 grey.
Ecologic anti-aging injected sealing gasket.
Gear-tray reflector unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of steel rapid devices, hinged opening.
Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded with smooth outer surface.
Snug fit safety snap-lock clips for diffuser mounting in stainless steel, screwdriver opening.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Integrated presence sensor.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

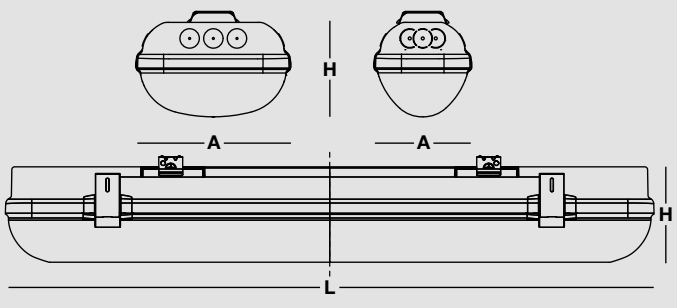
Applications

Dry, dusty indoor environments, subject to occasional water splashes.
Environments: transit areas, parking lots.
Virtually shatterproof polycarbonate compatibly with the fumes / atmospheres that compromise the elasticity of plastic materials (further information on page 648).
Not suitable in environments where chlorine fumes, ligroin, hydrocarbon mixtures, mineral oil vapours or fumes of lubricating emulsions to cool down machine tools are present.
Not suitable for installation on surfaces subject to important vibrations, exposed to weather conditions, on ropes or poles.
For specific applications please contact our technical offices.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).
Suitable for illumination of public car parks and parking grounds referred to DIN 67528:2018-04.

Light Management

For more information on 3F Sensor technology, refer to the specific chapter in the "Light Management" section.

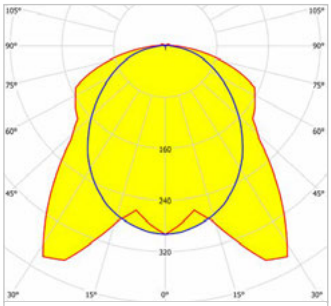
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 467.

3F Linda LED Sensor



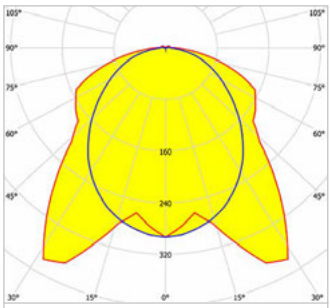
Code 58642

CE | SAFE FLICKER | D | 850°C | IP66 | 20J | IK10 | Driver/LED SELV | HACCP

Integrated presence sensor with ON/OFF function.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58638	3F Linda LED 1x30W Sensor L1570	34.5	5391	4000	>80	1570x100x100
58642	3F Linda LED 2x30W Sensor L1570	67	9657	4000	>80	1570x160x100

3F Linda LED Sensor Corridor Function



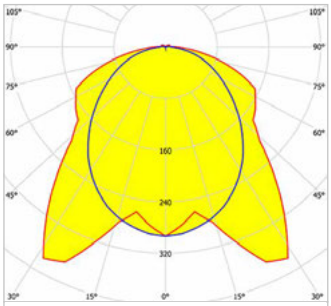
Code 58649

CE | SAFE FLICKER | D | 850°C | IP66 | 20J | IK10 | Driver/LED SELV | HACCP

Integrated presence sensor with Corridor Function mode, even with the environment free of people, the luminous flux is maintained at 10%.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58645	3F Linda LED 1x30W Sensor CF L1570	34.5	5391	4000	>80	1570x100x100
58649	3F Linda LED 2x30W Sensor CF L1570	67	9657	4000	>80	1570x160x100

3F Linda LED Sensor Bluetooth



Code 58789

CE | SAFE FLICKER | D | 850°C | IP66 | 20J | IK10 | Driver/LED SELV | HACCP

Integrated Bluetooth presence sensor that allows to adjust and create a wireless network between DALI-BLE fixtures.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
58786	3F Linda LED 1x24W Sensor DALI-BLE L1270	29	4340	4000	>80	1270x100x100
58787	3F Linda LED 1x30W Sensor DALI-BLE L1570	34.5	5391	4000	>80	1570x100x100
58788	3F Linda LED 2x24W Sensor DALI-BLE L1270	55.5	7778	4000	>80	1270x160x100
58789	3F Linda LED 2x30W Sensor DALI-BLE L1570	67	9657	4000	>80	1570x160x100

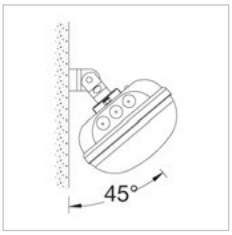
Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Linda | Accessories

Snug fit snap-lock clips for diffuser mounting, in stainless steel, safety opening.

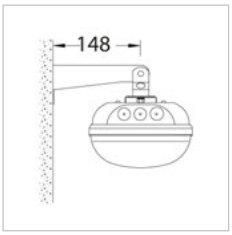
Accessory compatible with 3F Linda LED, 3F Linda LED ATEX.

Code	Item
A0160	Inox clips 3F Linda L660 -4pcs The pack contains 4 pieces.
A0161	Inox clips 3F Linda L1270 -8pcs The pack contains 8 pieces.
A0162	Inox clips 3F Linda L1570 -10pcs The pack contains 10 pieces.



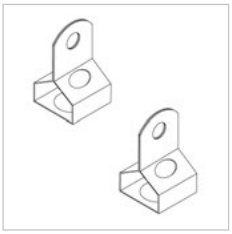
Pair of brackets and hooks in stainless steel, with nuts and bolts for fixing to 3F Linda, for ceiling or wall-mounting, single and twin-lamp luminaires. Minimum tilt angle = 45°.

Code	Item
A0449	15 GZI w/brack.+ hooks Linda L300
A0450	15 RIT w/bra.+hooks Linda L660-1270-1570



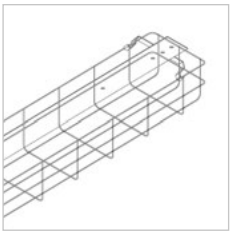
Pair of brackets and hooks in stainless steel, with nuts and bolts for fixing to 3F Linda, for wall-mounting, single and twin-lamp luminaires.

Code	Item
A0451	15 MBI w/brack.+ hooks Linda L300
A0452	15 FBR w/bra.+hooks Linda L660-1270-1570



Pair of stainless steel hooks for suspended installation, with cable clip and nuts and bolts for installation to 3F Linda.

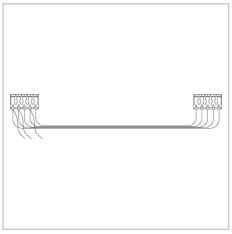
Code	Item
A0462	13 GSI (pair of susp. hooks Linda L300)
A0463	13 TRM pair of susp.hooks Linda



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod Ø 5 mm.

Code	Item
A0455	Wireguard 180x1330 3F Linda
A0456	Wireguard 180x1630 3F Linda
A0457	Wireguard 280x1330 3F Linda/3F Beta
A0458	Wireguard 280x1630 3F Linda/3F Beta

Only for luminaires fixed without hooks.



5-pole cascade connection line, stiff cable H07 V2-U, HT 90°C, 1.5 mm², terminal blocks with connection capacity 2x2.5 mm².

Accessory compatible with 3F Linda LED, 3F Linda LED ATEX, 3F Linda LED HS, 3F Linda LED Ice, 3F Linda LED Sensor.

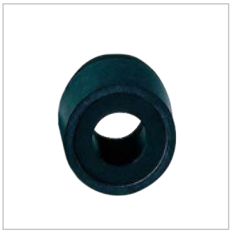
Code	Item
A0447	3F Linda through-line L1570

Accessory not compatible with ST versions of 3F Linda LED Basic.

Anti-condensation diffuser cable gland.

Code	Item
A0187	Anti-condensation cable gland

Recommended for installations in environments with temperature sudden changes or subject to condensation.



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

Pictograms for warning signs to be applied on emergency luminaire's diffusers 160 mm wide. Pictogram, 135 mm high, 240 mm long for L300 luminaires, 605 mm long for L660 luminaires. Pictograms complying with European standards concerning health and safety signals on the workplace.

Code	Item
A0464	26 CSG (pictogram P1 Linda L300)
A0465	26 MTH (pictogram P1 Linda L660)

Pictograms for warning signs to be applied on emergency luminaire's diffusers 160 mm wide. Pictogram, 135 mm high, 240 mm long for L300 luminaires, 605 mm long for L660 luminaires. Pictograms complying with European standards concerning health and safety signals on the workplace.

Code	Item
A0466	26 DVI (pictogram P2 Linda L300)
A0467	26 MVL (pictogram P2 Linda L660)

Pictograms for warning signs to be applied on emergency luminaire's diffusers 160 mm wide. Pictogram, 135 mm high, 240 mm long for L300 luminaires, 605 mm long for L660 luminaires. Pictograms complying with European standards concerning health and safety signals on the workplace.

Code	Item
A0468	26 GZM (pictogram P3 Linda L300)
A0469	26 PXN (pictogram P3 Linda L660)

Safety screw for 3F Linda locking bracket

Code	Item
A0434 NEW	Safety screw locking Linda - 20 pcs The pack contains 20 pieces.
A0435 NEW	Safety screw locking Linda - 100 pcs The pack contains 100 pieces.

VARCO
TECNICO
VIETATO
ACCEDERE
O SOSTARE

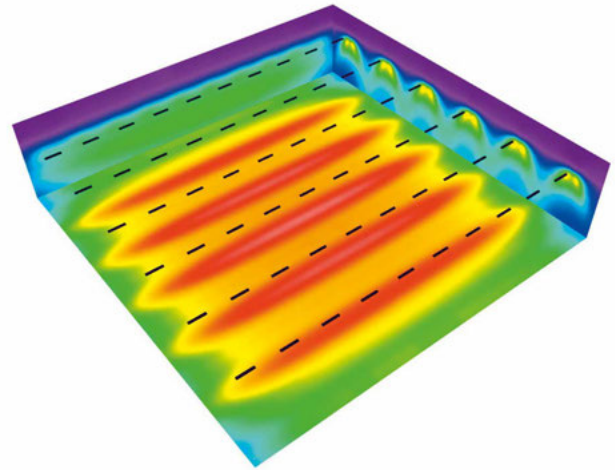
3F Linda LED

Examples of design

Comparison with waterproof Fluorescent 2x58 Starter

Design data:

Room dimensions	30x30 metres
Room height	7 metres
Installation height	5 metres
Number of luminaires:	60 luminaires
Like-for-like replacement of light points	
Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres



	Current system Waterproof Fluorescent 2x58W	Like-for-like replacement of light points 3F Linda LED Basic ST 2x20W L1570	Reduction in light points 3F Linda LED 2x30W L1570
Lighting values	300 lx	321 lx	329 lx
Number of light points	60	60	42**
Total luminaire	8,460 W (starter) 6,600 W (electronic)	2,700 W	2,940 W
Difference		-68% (starter) -59% (electronic)	-65% (starter) -55% (electronic)
Average source life	10,000 hours (starter) 18,000 hours (electronic)	>50,000 hours	>50,000 hours

2,000 hours annual operation (8 hours per day) 0.18 €/kWh

Energy costs	51€ (starter) 40€ (electronic)	16€	17€**
Energy savings for each luminaire currently installed		35€* (starter) 24€* (electronic)	34€* (starter) 23€* (electronic)

3000 hours annual operation (12 hours per day) 0.18 €/kWh

Energy costs	76€ (starter) 59€ (electronic)	24€	26€**
Energy savings for each luminaire currently installed		52€* (starter) 35€* (electronic)	50€* (starter) 33€* (electronic)

*Savings from the drastic reduction in maintenance costs should then be added to this!
**Less investment for the fixture purchase and installation

Comparison table between fluorescent and LED luminaires

Fluorescent Version			Power consumption (W)	Corresponding LED	Power consumption (W)	Savings
T8	2x58W	starter	141	3F Linda LED Basic ST 2x20W L1570	45	68%
		HF	109			59%
	2x36W	starter	90	3F Linda LED Basic ST 2x16W L1270	36	60%
		HF	71			49%
	2x18W	starter	45	3F Linda LED 1x12W L660	15	67%
		HF	35			57%
	1x58W	starter	70	3F Linda LED Basic 1x23W L1570	29	59%
		HF	55			47%
	1x36W	starter	45	3F Linda LED Basic 1x19W L1270	21	53%
		HF	36			42%
	1x18W	starter	27	3F Linda LED 1x6W L660	7.5	72%
		HF	19			61%
T5	2x49W		106	3F Linda LED Basic ST 2x20W L1570	45	58%
	2x35W		76	3F Linda LED 1x30W L1570	35	54%
	2x28W		60	3F Linda LED 1x24W L1270	28	53%
	2x14W		31	3F Linda LED 1x12W L660	15	52%
	1x80W		86	3F Linda LED 1x30W L1570	35	59%
	1x49W		53	3F Linda LED Basic 1x23W L1570	29	45%
	1x35W		38	3F Linda LED Basic 1x19W L1270	21	45%
	1x28W		31	3F Linda LED 1x12W L660	15	52%
	1x14W		16	3F Linda LED 1x6W L660	7.5	53%

Why choose 3F Linda LED?

Never-ending light

3F Linda LED is equipped with new 3F LED technology whose sources specially developed for demanding applications guarantee an operating lifetime of over 50,000 hours, at the end of which at least 90% of the LED will still be providing 90% of their initial light output! (50,000h L90/B10).

You won't believe your wallet!

- 3F LED technology allows you to save up to 60% compared to traditional sources.
- Existing luminaires can be replaced while maintaining the same light locations and wiring system, but reducing energy consumption.
- Reduced maintenance significantly lowers running costs.

Beauty which doesn't blind!

The new 3F Linda LED photo-etched diffuser cancels out all glare to provide truly enviable lighting uniformity. Its clean, elegant lines make 3F Linda LED a luminaire which can fit in perfectly with any environment.

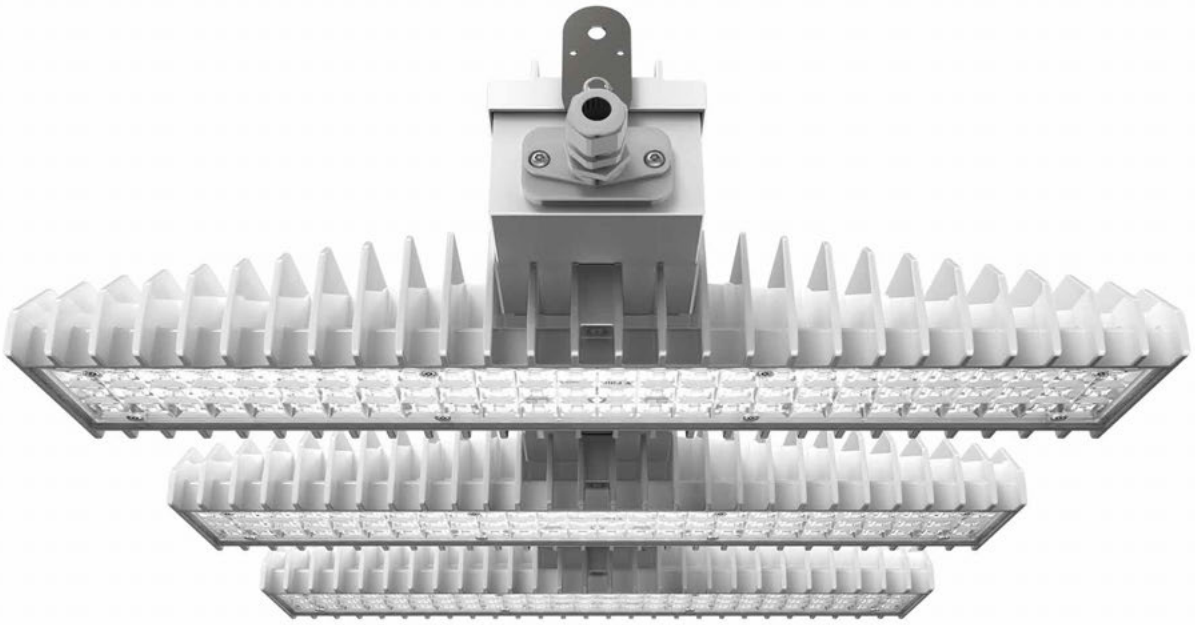
Eco-logical

3F Linda LED has been created according to the principles of Eco Design, and stands out for:
- Manufactured using energy from solar panels and assembled according to our “zero mileage” philosophy.
- Limited use of different materials, facilitating assembly, installation and recycling.
- Recyclable green packaging.

Significant reduction in maintenance costs

Longer life means less maintenance.
Less maintenance means greater savings.
Less maintenance means fewer problems.
Fewer problems means greater peace of mind.


You are in hall
30
Aisle
D
You are in hall
30
Aisle
C



3F LEM

> **www.3F-Filippi.com/3F LEM**

3F LEM is a highly specialised product, designed to satisfy customers who need to light large areas evenly.
We have designed and manufactured it with large injection-moulded shielding which permits different photometric distributions and lighting modules in aluminium alloy which are able to optimally dissipate the heat generated by the latest LED sources.
The design of the 3F LEM is based on simplification and modularity of design: "LEM" means "Light Emitting Modules", and thanks to common platforms and structures it is possible to obtain advantages for the customer in terms of the use, during installation and even when changing the sources at the end of the product life cycle.

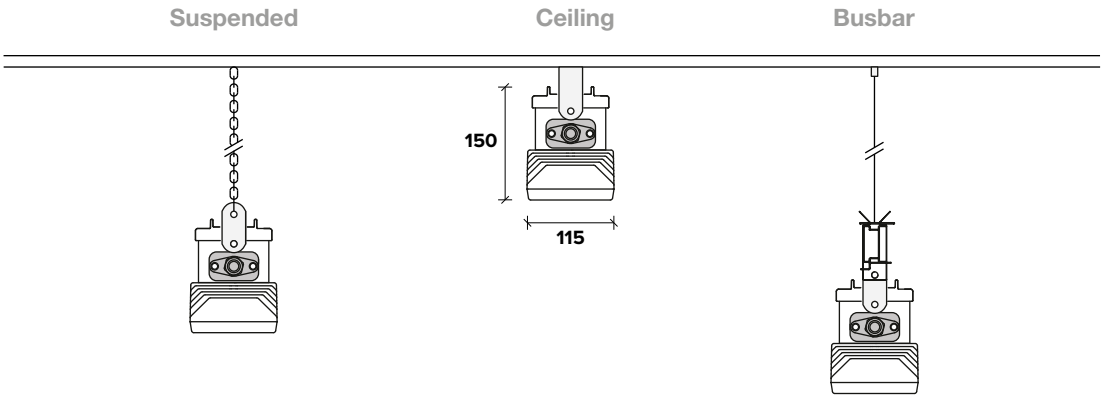
+ Overview

- Luminous efficacy up to 163 lumen/watt.
- Luminous fluxes from 7066 to 56175 lumens.
- Extensive installation pitch.
- UGR <22.
- 3 different photometric distributions.
- Resistance against ball impacts in accordance with DIN 18032-3.
- Available with integrated sensors.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.

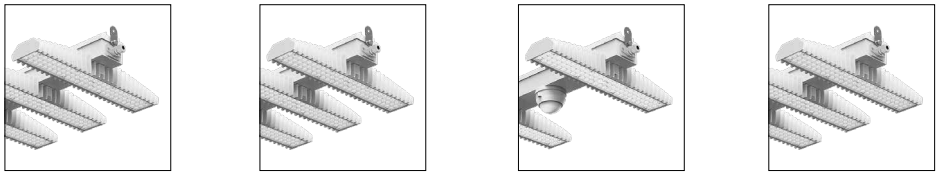
Product range

3F LEM

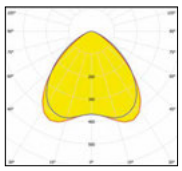
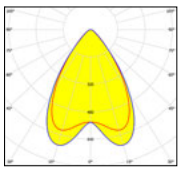
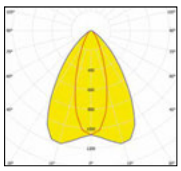
3F LEM 1
3F LEM 1+1



3F LEM

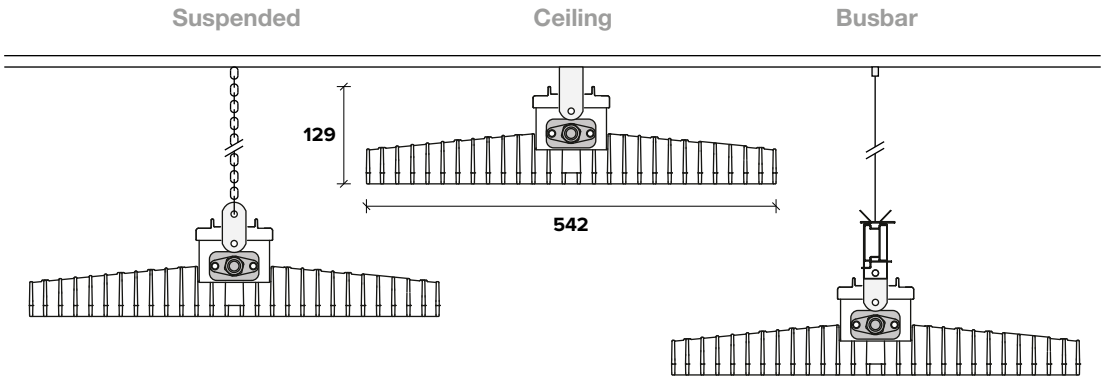


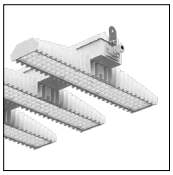
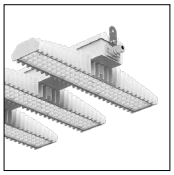
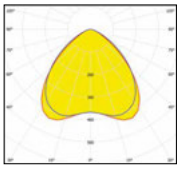
	Standard	High Output	Sensor	High Temperature
Versions	3F LEM 1 3F LEM 1+1 3F LEM 2 3F LEM 3 3F LEM 4 3F LEM 5	3F LEM 1 3F LEM 1+1 3F LEM 2 3F LEM 3 3F LEM 4 3F LEM 5	3F LEM 2 3F LEM 3 3F LEM 4	3F LEM 2 3F LEM 3 3F LEM 4 3F LEM 5

		Wide	Medium	Concentrated
Photometric distribution				
Installation steps	**Dt**	1,50	1,20	0,60
	DI	1,40	1,20	1,20
UGR		<21	<19	<21

3F LEM

3F LEM 2
3F LEM 3
3F LEM 4
3F LEM 5



3F LEM		 **Sport**	 **Sport High Output**
Versions		3F LEM 2 3F LEM 3 3F LEM 4	3F LEM 2 3F LEM 3
Photometric distribution		**Wide** 	
Installation steps	**Dt**	1,50	
	Dl	1,40	
UGR		<21	

Waterproof and corrosion-proof

Optimized distribution

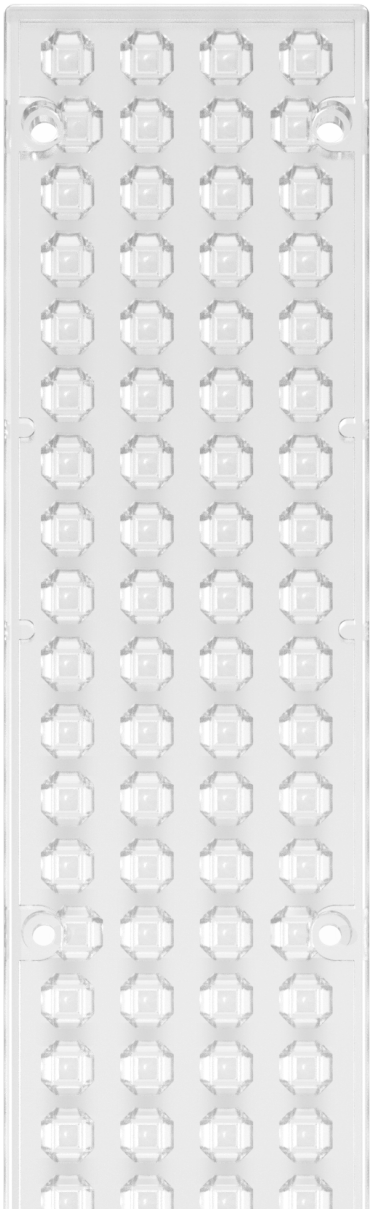
3F LEM is equipped with the highest quality LED sources with a CRI>80, but on request can be fitted with sources with CRI>90. It is also possible to obtain light with a colour temperature of 4000K (neutral white), 6500K (cold white) and, on request, 3000K (warm white).
With a UGR value of <22, we respect the vision of those who work under 3F LEM lights, as well as respecting health by ensuring all luminaires are RG0 class (photobiological risk absent).

3F LEM fully complies with all applicable illuminotechnical standards and legislation: its lighting distribution comes from careful analysis of BS EN 12464-1 which covers lighting of indoor work environments.
We have paid great attention to the requirements of the market and believe that the two different distributions are capable of satisfying even the most demanding customers:

PMMA lenses with high luminous efficiency.

WIDE
DISTRIBUTION

MEDIUM
DISTRIBUTION

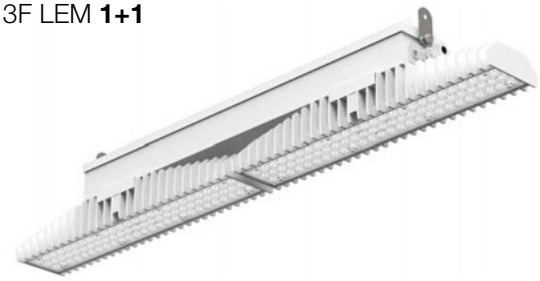


CONCENTRATED
DISTRIBUTION

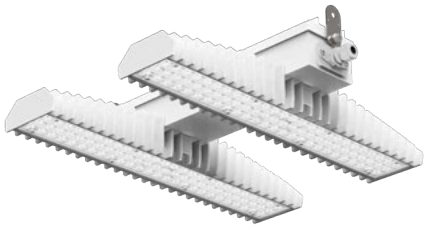
Versions

3F LEM **1**

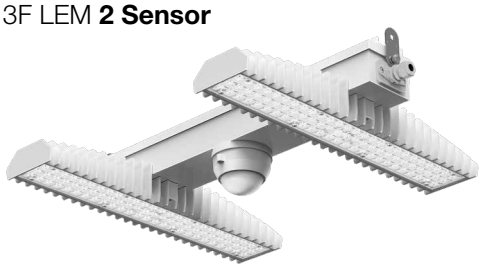
3F LEM **1+1**



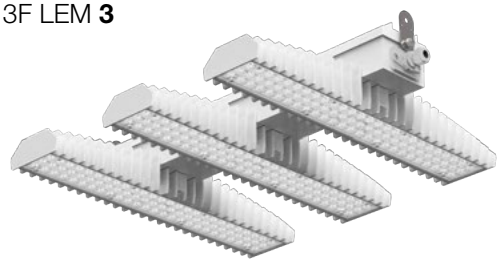
3F LEM **2**



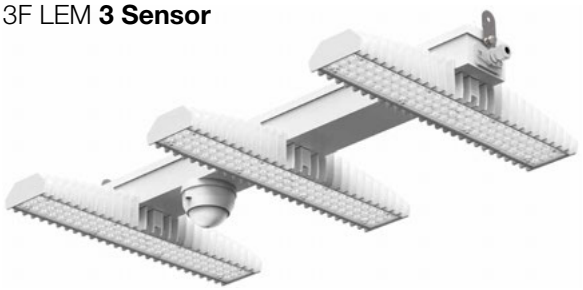
3F LEM **2 Sensor**



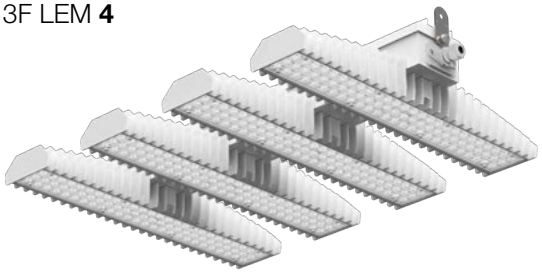
3F LEM **3**



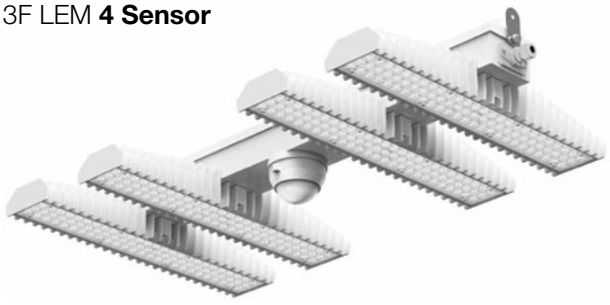
3F LEM **3 Sensor**



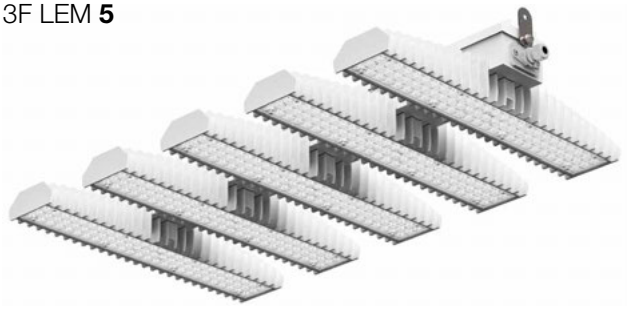
3F LEM **4**



3F LEM **4 Sensor**



3F LEM **5**



Waterproof and corrosion-proof

Product range

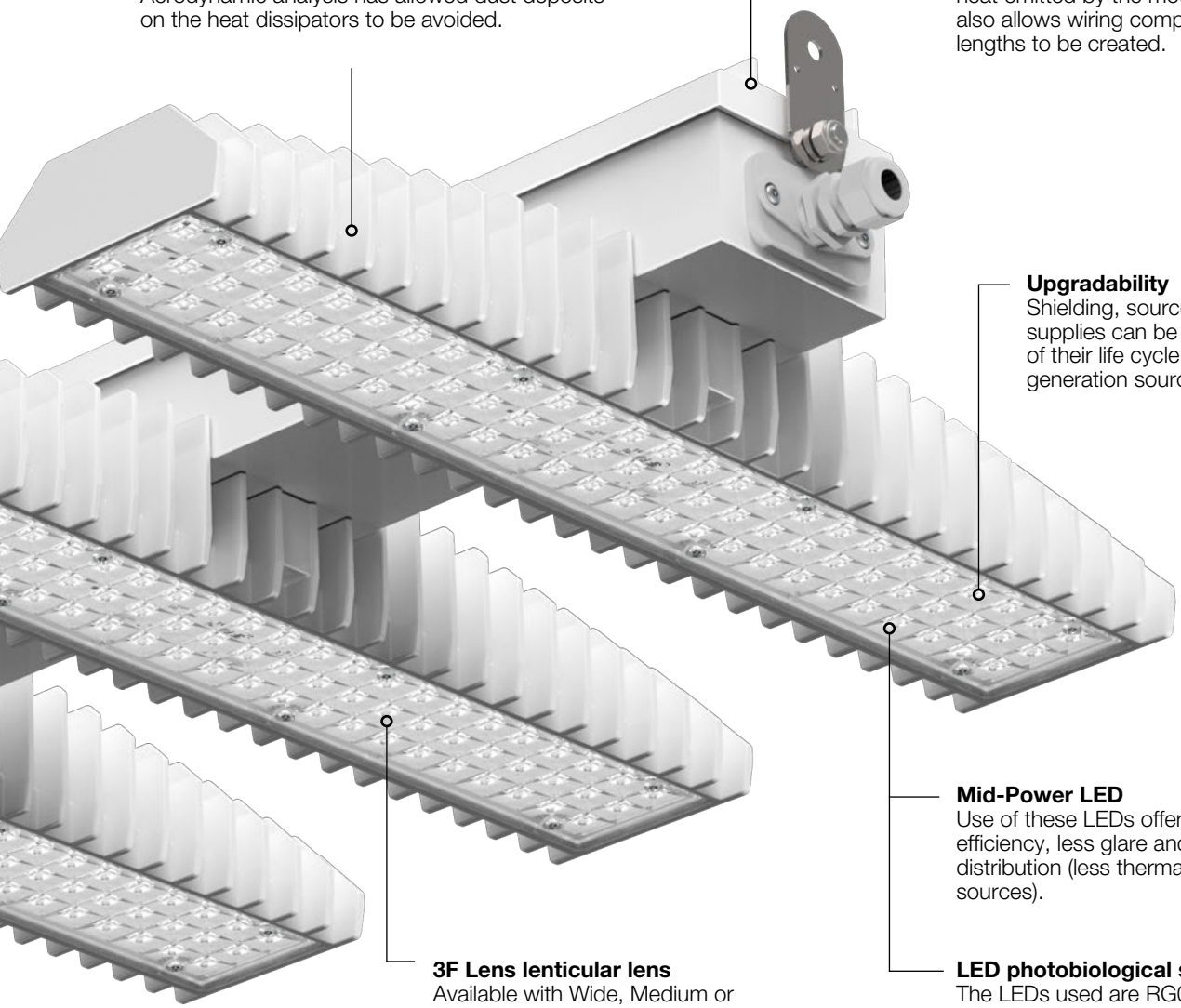
PASSION, EXPERIENCE AND EXPERTISE

3F Filippi is an Emilia-Romagna-based company, and a passion for mechanical engineering is part of our culture and expertise. It is for precisely this reason that when creating the 3F LEM heatsink module we consulted the foremost authority in the field, the mechanical engineering department at the University of Bologna.
Their precious support and expertise led to the creation of the heart of the 3F LEM, the heatsink, or dissipator, module. This is the common denominator across all modules in the product family, and the performance of LEDs depends in large part on their ability to dissipate the heat they generate. Our goal was to create a product which could be installed in high-temperature environments and which would be able to make the sources work correctly.
The result is a body made from an innovative pressure die-cast body, which can be installed in environments with temperatures up to 70°C.

Heat dissipation is not the only innovation on 3F LEM:

Air passage
3F LEM has been designed to have the best possible air passage in all installation conditions. Aerodynamic analysis has allowed dust deposits on the heat dissipators to be avoided.

Wiring compartment separate from heat dissipators
The power supplies are not affected by the heat emitted by the modules. This solution also allows wiring compartments of different lengths to be created.



Upgradability
Shielding, sources and power supplies can be replaced at the end of their life cycle, upgraded to next-generation sources.

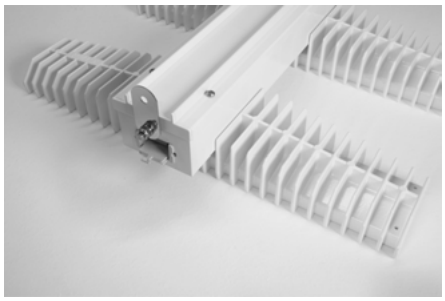
Mid-Power LED
Use of these LEDs offers improved efficiency, less glare and optimised heat distribution (less thermal stress on the sources).

3F Lens lenticular lens
Available with Wide, Medium or Concentrated controlled emission (UGR <22).

LED photobiological safety: RG0
The LEDs used are RG0 class (photobiological risk absent).

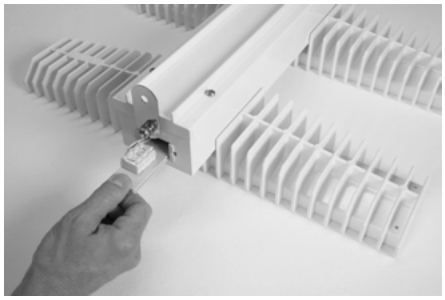
QUICK CONNECTION

Thanks to the FastWiring system, the installation time for 3f lem is significantly reduced:



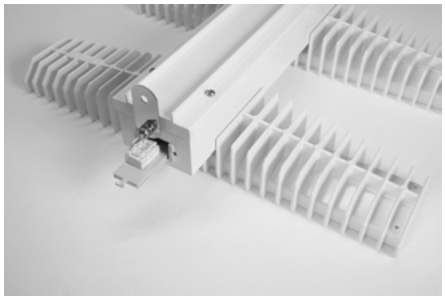
1

3F LEM is supplied with our new “FastWiring” quick connector.
Here is what it looks like when removed from the packaging.



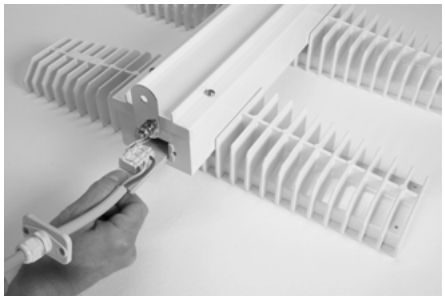
2

Remove the support by grasping the tab.



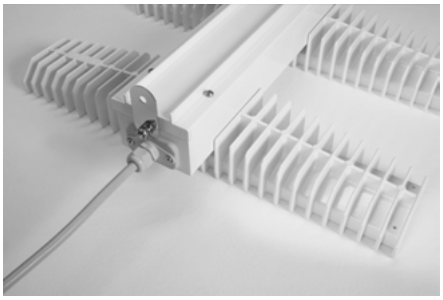
3

At this point the quick connection closing cap and the cable gland are inserted onto the cable and the electrical cables can be connected to the quick connect terminal board. No tools are required.



4

Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.



5

Done!
3F LEM is now ready for installation.

3F LEM

Construction characteristics

Illuminotechnical characteristics
Wide, medium, concentrated symmetric elliptical distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (more information on page 598)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry
- emergency versions

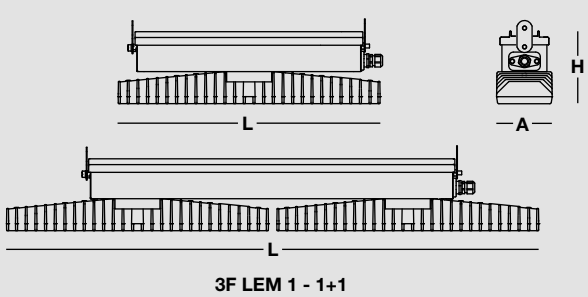
Applications

Ambient temperature from -30°C to +55°C.
Dry, dusty indoor environments, subject to occasional water splashes.
Commercial, industrial and sporting environments (with no high-flying balls), as well as warehouses.
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

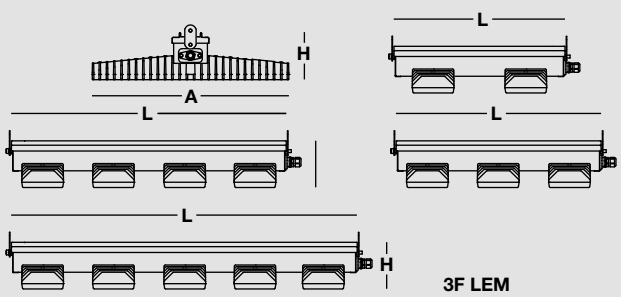
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F LEM 1 - 1+1

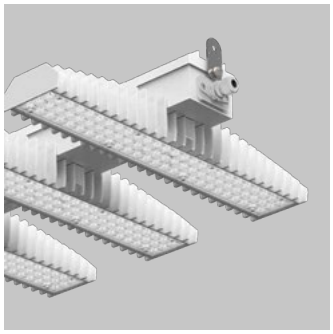


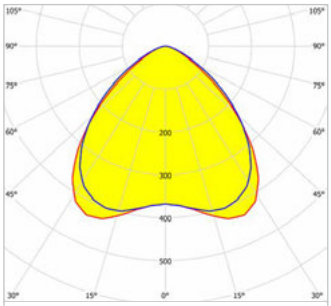
3F LEM

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM Wide





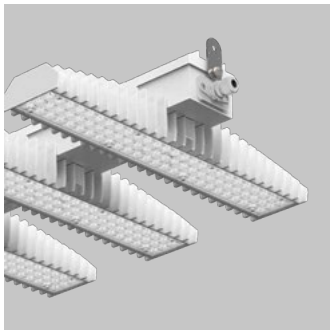
Code 58883

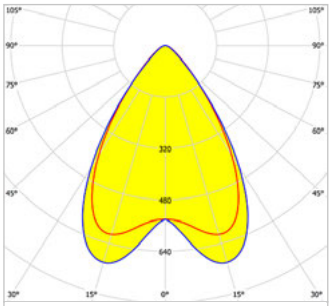
650°C | IP65 | 1J | IK06

Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58881	3F LEM 1 LED 50 CR AMPIO	56	8369	4000	>80	542x115x150
59157	3F LEM 1 LED 50/865 CR AMPIO	56	8243	6500	>80	542x115x150
58885	3F LEM 1+1 LED 100 CR AMPIO	109	16738	4000	>80	1099x115x150
59161	3F LEM 1+1 LED 100/865 CR AMPIO	109	16486	6500	>80	1099x115x150
58882	3F LEM 2 LED 100 CR AMPIO	109	16738	4000	>80	470x542x129
59158	3F LEM 2 LED 100/865 CR AMPIO	109	16486	6500	>80	470x542x129
58883	3F LEM 3 LED 150 CR AMPIO	165	25106	4000	>80	657x542x129
59159	3F LEM 3 LED 150/865 CR AMPIO	165	24730	6500	>80	657x542x129
58884	3F LEM 4 LED 200 CR AMPIO	218	33475	4000	>80	757x542x129
59160	3F LEM 4 LED 200/865 CR AMPIO	218	32973	6500	>80	757x542x129
58886	3F LEM 5 LED 250 CR AMPIO	274	41844	4000	>80	952x542x129
DALI electronic wiring 230V-50/60Hz						
58899	3F LEM 1 LED 50 DALI CR AMPIO	56	8369	4000	>80	542x115x150
58903	3F LEM 1+1 LED 100 DALI CR AMPIO	109	16738	4000	>80	1099x115x150
58900	3F LEM 2 LED 100 DALI CR AMPIO	109	16738	4000	>80	470x542x129
58901	3F LEM 3 LED 150 DALI CR AMPIO	165	25106	4000	>80	657x542x129
58902	3F LEM 4 LED 200 DALI CR AMPIO	218	33475	4000	>80	757x542x129
58904	3F LEM 5 LED 250 DALI CR AMPIO	274	41844	4000	>80	952x542x129

3F LEM Medium





Code 58893

650°C | IP65 | 1J | IK06

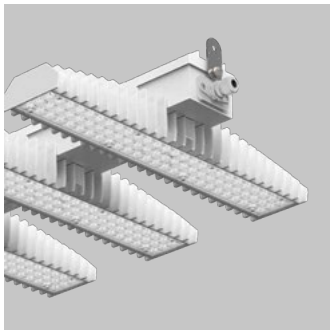
Medium distribution with square shape.

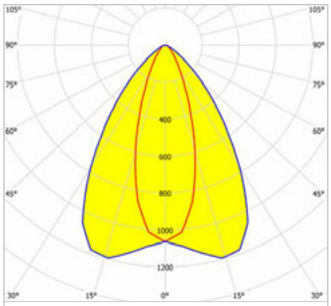
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58896	3F LEM 1+1 LED 100 CR MEDIO	109	17133	4000	>80	1099x115x150
58893	3F LEM 2 LED 100 CR MEDIO	109	17133	4000	>80	470x542x129
58894	3F LEM 3 LED 150 CR MEDIO	165	25700	4000	>80	657x542x129
58895	3F LEM 4 LED 200 CR MEDIO	218	34266	4000	>80	757x542x129
58897	3F LEM 5 LED 250 CR MEDIO	274	42833	4000	>80	952x542x129
DALI electronic wiring 230V-50/60Hz						
58914	3F LEM 1+1 LED 100 DALI CR MEDIO	109	17133	4000	>80	1099x115x150
58911	3F LEM 2 LED 100 DALI CR MEDIO	109	17133	4000	>80	470x542x129
58912	3F LEM 3 LED 150 DALI CR MEDIO	165	25700	4000	>80	657x542x129
58913	3F LEM 4 LED 200 DALI CR MEDIO	218	34266	4000	>80	757x542x129
58915	3F LEM 5 LED 250 DALI CR MEDIO	274	42833	4000	>80	952x542x129

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM Concentrated



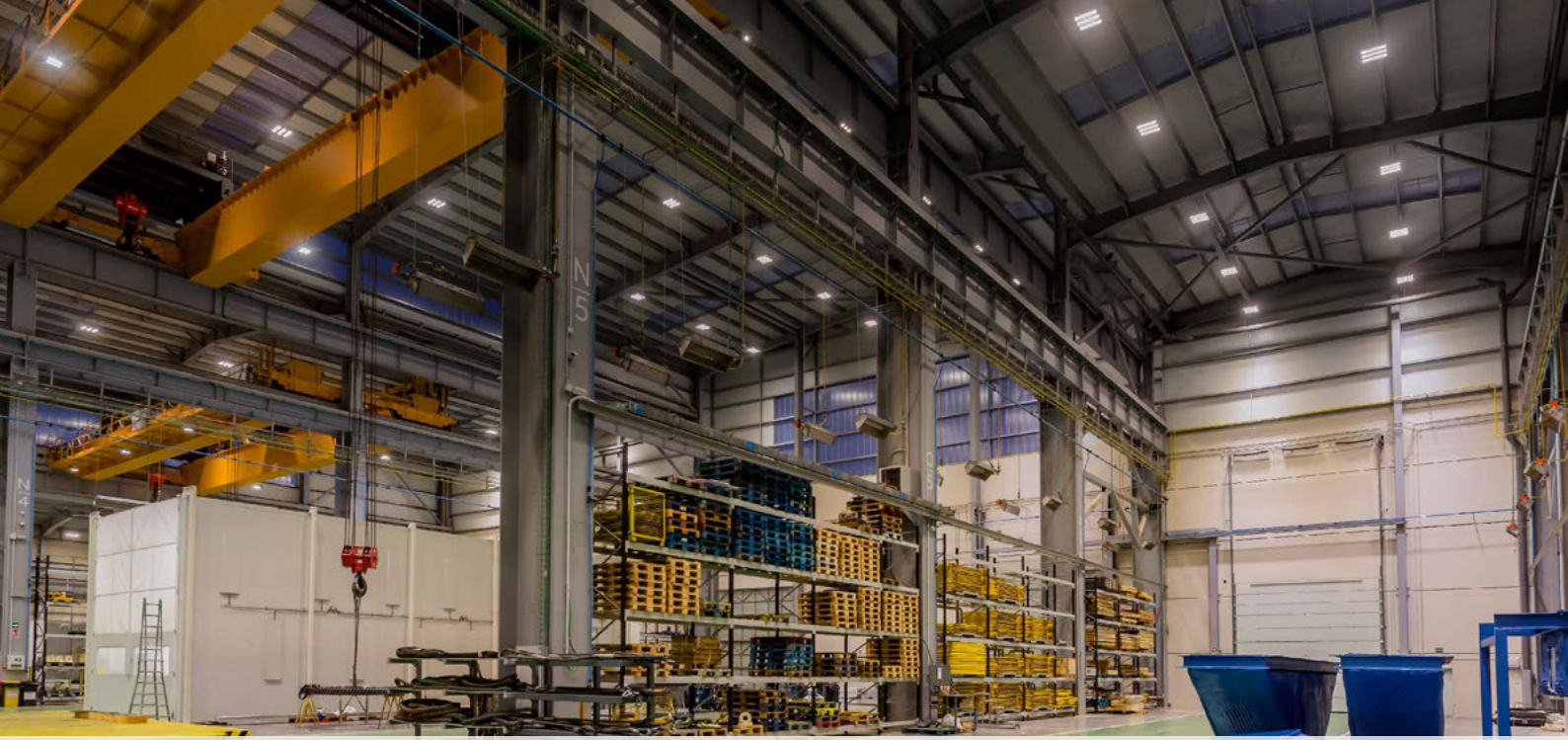


Code 58889

650°C | IP65 | 1J | IK06

Concentrated elliptical distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58887	3F LEM 1 LED 50 CR CONC	56	8567	4000	>80	542x115x150
58888	3F LEM 2 LED 100 CR CONC	109	17133	4000	>80	470x542x129
59164	3F LEM 2 LED 100/865 CR CONC	109	16876	6500	>80	470x542x129
58889	3F LEM 3 LED 150 CR CONC	165	25700	4000	>80	657x542x129
59165	3F LEM 3 LED 150/865 CR CONC	165	25314	6500	>80	657x542x129
58890	3F LEM 4 LED 200 CR CONC	218	34266	4000	>80	757x542x129
59166	3F LEM 4 LED 200/865 CR CONC	218	33752	6500	>80	757x542x129
DALI electronic wiring 230V-50/60Hz						
58905	3F LEM 1 LED 50 DALI CR CONC	56	8567	4000	>80	542x115x150
58906	3F LEM 2 LED 100 DALI CR CONC	109	17133	4000	>80	470x542x129
58907	3F LEM 3 LED 150 DALI CR CONC	165	25700	4000	>80	657x542x129
58908	3F LEM 4 LED 200 DALI CR CONC	218	34266	4000	>80	757x542x129



3F LEM High Output

Construction characteristics

Illuminotechnical characteristics
Wide, medium, concentrated symmetric elliptical distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- polycarbonate lenses (IK08)
- wiring: twin-circuit, CLO (more information on page 598)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry
- emergency versions

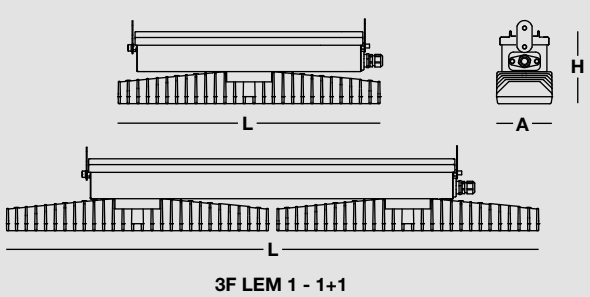
Applications

Ambient temperature from -30°C to +45°C.
Dry, dusty indoor environments, subject to occasional water splashes.
Commercial, industrial and sporting environments (with no high-flying balls), as well as warehouses.
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

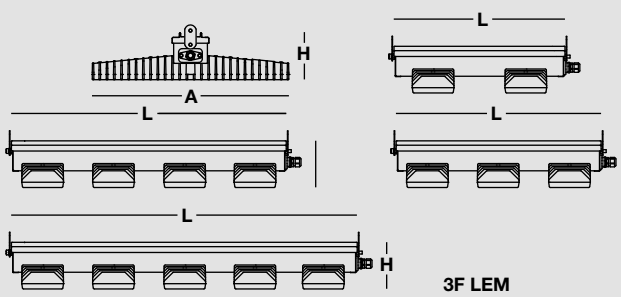
Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

Dimensions



3F LEM 1 - 1+1

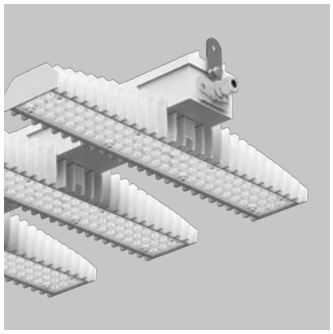


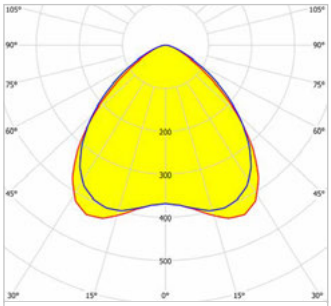
3F LEM

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM HO Wide





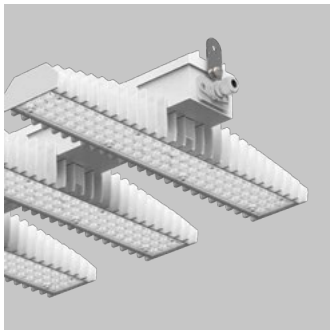
Code 58955

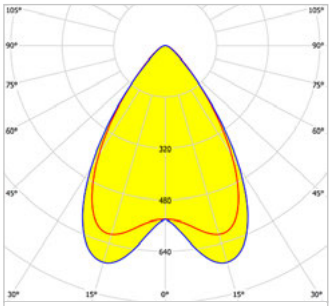
650°C | IP65 | 1J | IK06

Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58953	3F LEM 1 HO LED 70 CR AMPIO	71	10976	4000	>80	542x115x150
58957	3F LEM 1+1 HO LED 140 CR AMPIO	138	21951	4000	>80	1099x115x150
58954	3F LEM 2 HO LED 140 CR AMPIO	138	21951	4000	>80	470x542x129
58955	3F LEM 3 HO LED 210 CR AMPIO	207	32927	4000	>80	657x542x129
58956	3F LEM 4 HO LED 280 CR AMPIO	276	43902	4000	>80	757x542x129
58958	3F LEM 5 HO LED 350 CR AMPIO	345	54878	4000	>80	952x542x129
DALI electronic wiring 230V-50/60Hz						
58971	3F LEM 1 HO LED 70 DALI CR AMPIO	71	10976	4000	>80	542x115x150
58975	3F LEM 1+1 HO LED 140 DALI CR AMPIO	138	21951	4000	>80	1099x115x150
58972	3F LEM 2 HO LED 140 DALI CR AMPIO	138	21951	4000	>80	470x542x129
58973	3F LEM 3 HO LED 210 DALI CR AMPIO	207	32927	4000	>80	657x542x129
58974	3F LEM 4 HO LED 280 DALI CR AMPIO	276	43902	4000	>80	757x542x129
58976	3F LEM 5 HO LED 350 DALI CR AMPIO	345	54878	4000	>80	952x542x129

3F LEM HO Medium





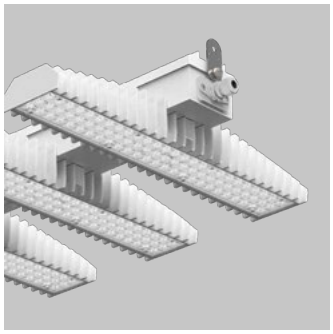
Code 58965

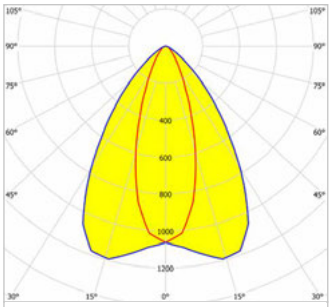
650°C | IP65 | 1J | IK06

Medium distribution with square shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58968	3F LEM 1+1 HO LED 140 CR MEDIO	138	22470	4000	>80	1099x115x150
58965	3F LEM 2 HO LED 140 CR MEDIO	138	22470	4000	>80	470x542x129
58966	3F LEM 3 HO LED 210 CR MEDIO	207	33705	4000	>80	657x542x129
58967	3F LEM 4 HO LED 280 CR MEDIO	276	44940	4000	>80	757x542x129
58969	3F LEM 5 HO LED 350 CR MEDIO	345	56175	4000	>80	952x542x129
DALI electronic wiring 230V-50/60Hz						
58986	3F LEM 1+1 HO LED 140 DALI CR MEDIO	138	22470	4000	>80	1099x115x150
58983	3F LEM 2 HO LED 140 DALI CR MEDIO	138	22470	4000	>80	470x542x129
58984	3F LEM 3 HO LED 210 DALI CR MEDIO	207	33705	4000	>80	657x542x129
58985	3F LEM 4 HO LED 280 DALI CR MEDIO	276	44940	4000	>80	757x542x129
58987	3F LEM 5 HO LED 350 DALI CR MEDIO	345	56175	4000	>80	952x542x129

3F LEM HO Concentrated





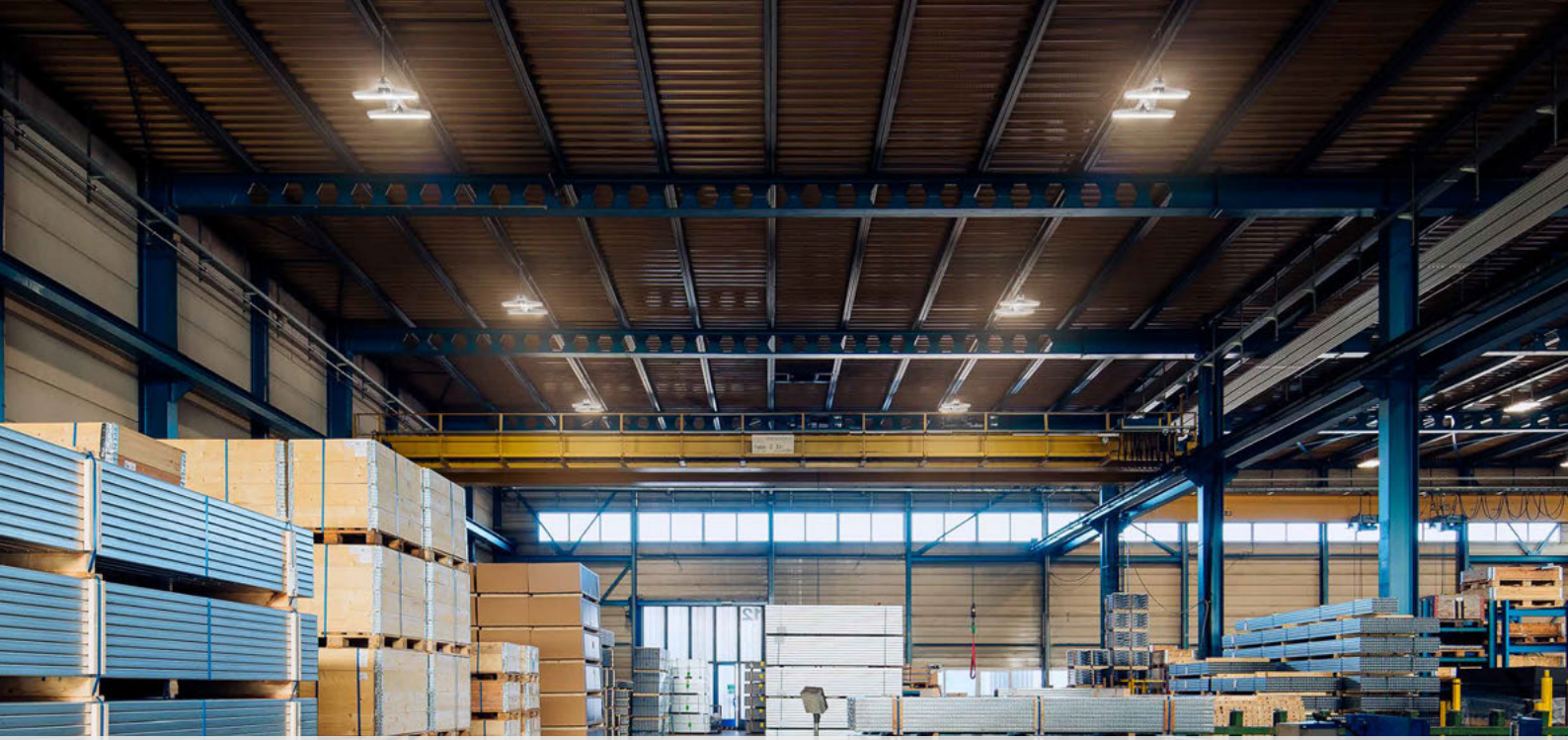
Code 58961

650°C | IP65 | 1J | IK06

Concentrated elliptical distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
58959	3F LEM 1 HO LED 70 CR CONC	71	11235	4000	>80	542x115x150
58960	3F LEM 2 HO LED 140 CR CONC	138	22470	4000	>80	470x542x129
58961	3F LEM 3 HO LED 210 CR CONC	207	33705	4000	>80	657x542x129
DALI electronic wiring 230V-50/60Hz						
58977	3F LEM 1 HO LED 70 DALI CR CONC	71	11235	4000	>80	542x115x150
58978	3F LEM 2 HO LED 140 DALI CR CONC	138	22470	4000	>80	470x542x129
58979	3F LEM 3 HO LED 210 DALI CR CONC	207	33705	4000	>80	657x542x129

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**



3F LEM Sensor

Construction characteristics

Illuminotechnical characteristics
Wide, medium, concentrated symmetric elliptical distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different power levels, colour rendering indices and colour temperatures
- presence function
- manual light intensity adjustment
- double quick connection
- polycarbonate lenses (IK08)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry
- emergency versions

Applications

Ambient temperature from -25°C to +50°C.
Recommended in environments with strong amount of natural light (or areas with staff present discontinuously).
Dry, dusty indoor environments, subject to occasional water splashes.
Commercial, industrial and sporting environments (with no high-flying balls), as well as warehouses.
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

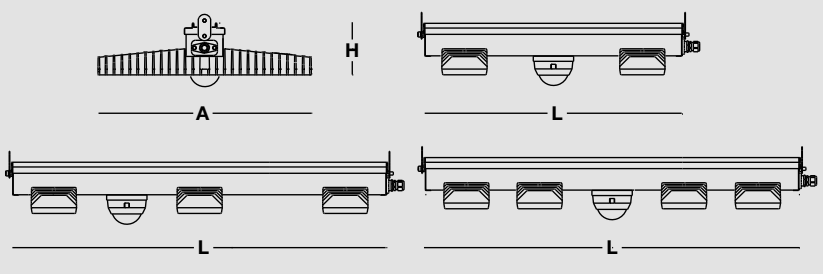
Installation

Recommended maximum height 13 m.

Light Management

The DALI SENSOR products from this product family are all fitted with DALI light sensors integrated into the luminaire (see "Light Management" chapter).

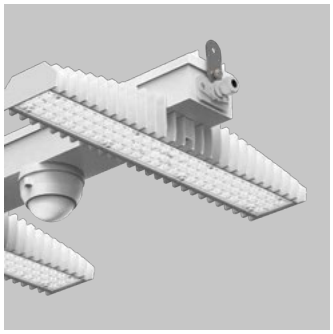
Dimensions

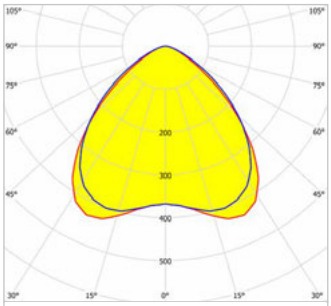


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM Sensor Wide





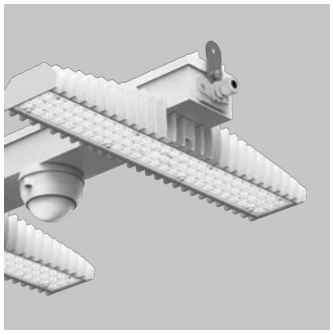
Code 59254

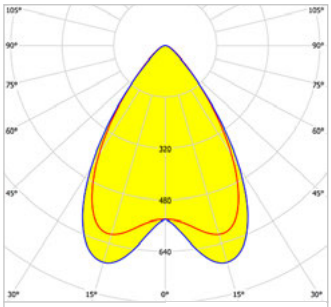
650°C | IP54 | 0,5J | IK04

Wide distribution with rectangular shape.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
59253	3F LEM 2 LED 100 DALI Sensor CR AMPIO	110	16738	4000	>80	657x542x129
59254	3F LEM 3 LED 150 DALI Sensor CR AMPIO	166	25106	4000	>80	952x542x129
59255	3F LEM 4 LED 200 DALI Sensor CR AMPIO	219	33475	4000	>80	952x542x129

3F LEM Sensor Medium





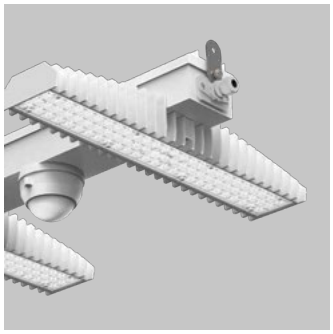
Code 59266

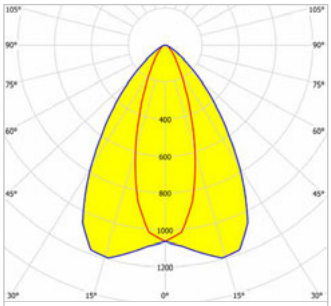
650°C | IP54 | 0,5J | IK04

Medium distribution with square shape.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
59265	3F LEM 2 LED 100 DALI Sensor CR MEDIO	110	17133	4000	>80	657x542x129
59266	3F LEM 3 LED 150 DALI Sensor CR MEDIO	166	25700	4000	>80	952x542x129
59267	3F LEM 4 LED 200 DALI Sensor CR MEDIO	219	34266	4000	>80	952x542x129

3F LEM Sensor Concentrated





Code 59260

650°C | IP54 | 0,5J | IK04

Concentrated elliptical distribution.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic wiring 230V-50/60Hz						
59259	3F LEM 2 LED 100 DALI Sensor CR CONC	110	17133	4000	>80	657x542x129
59260	3F LEM 3 LED 150 DALI Sensor CR CONC	166	25700	4000	>80	952x542x129
59261	3F LEM 4 LED 200 DALI Sensor CR CONC	219	34266	4000	>80	952x542x129

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


M 5
N 5

3F LEM High Temperature

Construction characteristics

Illuminotechnical characteristics
Wide, medium, concentrated symmetric elliptical distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Luminous flux at +70°C: -13.5%.
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and galvanised steel anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent polycarbonate, fixed to the LED modules.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

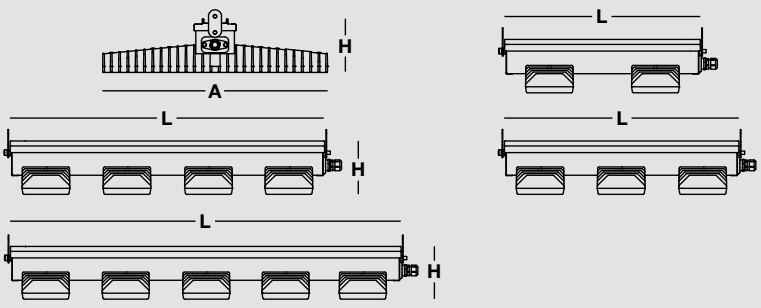
On request

- different power levels, colour rendering indices and colour temperatures
- double quick connection
- wiring: twin-circuit, dimmable, CLO (more information on page 598)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- HACCP versions for use in the food industry

Applications

Ambient temperature from -30°C to +70°C.
Dry, dusty indoor environments, subject to occasional water splashes.
Commercial, industrial and sporting environments (with no high-flying balls), as well as warehouses.
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

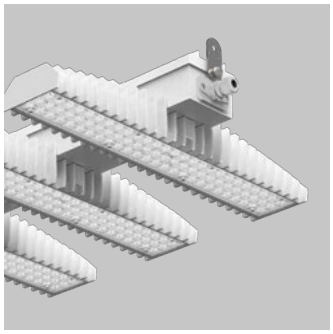
Dimensions

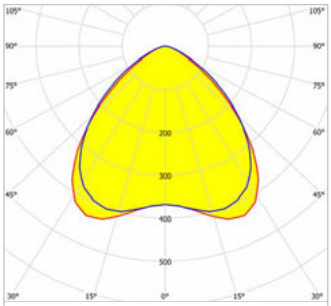


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM HT Wide





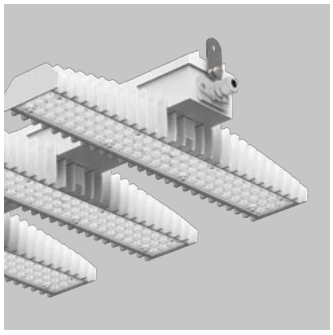
Code 59027

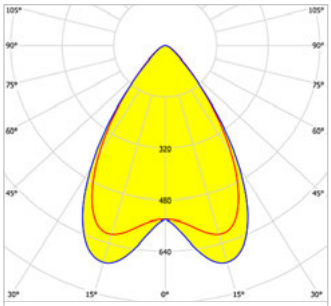
850°C | IP65 | 5J | IK08

Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
59026	3F LEM 2 HT LED 60 CR AMPIO	68	10615	4000	>80	470x542x129
59027	3F LEM 3 HT LED 90 CR AMPIO	102	15922	4000	>80	657x542x129
59028	3F LEM 4 HT LED 120 CR AMPIO	136	21230	4000	>80	757x542x129
59030	3F LEM 5 HT LED 150 CR AMPIO	170	26537	4000	>80	952x542x129

3F LEM HT Medium





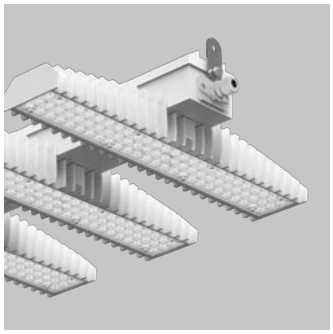
Code 59039

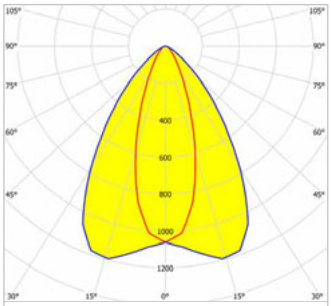
850°C | IP65 | 5J | IK08

Medium distribution with square shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
59039	3F LEM 4 HT LED 120 CR MEDIO	136	21725	4000	>80	757x542x129
59041	3F LEM 5 HT LED 150 CR MEDIO	170	27156	4000	>80	952x542x129

3F LEM HT Concentrated





Code 59033

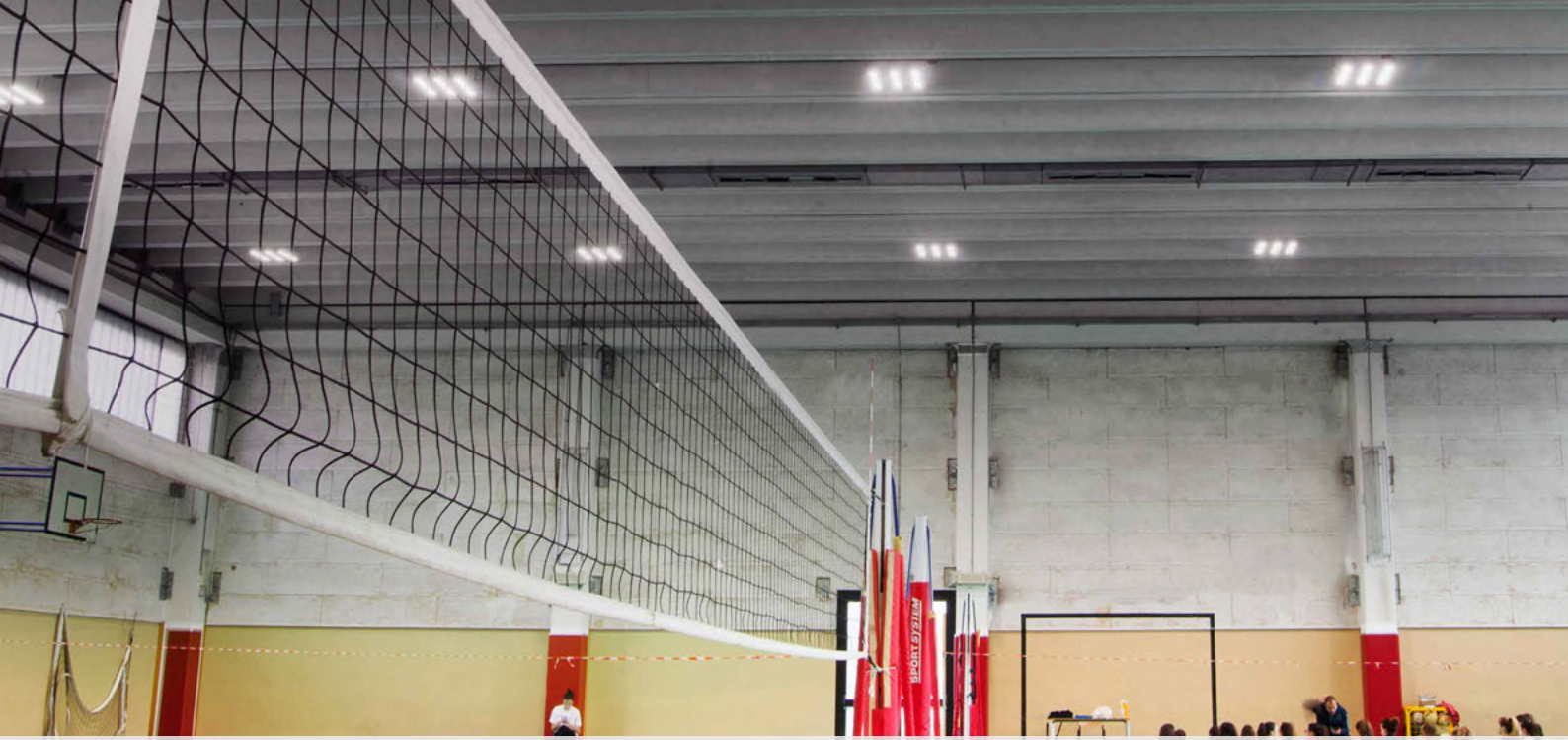
850°C | IP65 | 5J | IK08

Concentrated elliptical distribution.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
59032	3F LEM 2 HT LED 60 CR CONC	68	10863	4000	>80	470x542x129
59033	3F LEM 3 HT LED 90 CR CONC	102	16294	4000	>80	657x542x129
59034	3F LEM 4 HT LED 120 CR CONC	136	21725	4000	>80	757x542x129

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


SA05
SA06
SA07
SA08



3F LEM Sport

Construction characteristics

Illuminotechnical characteristics
Wide symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and steel in white colour, specially strengthened, anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

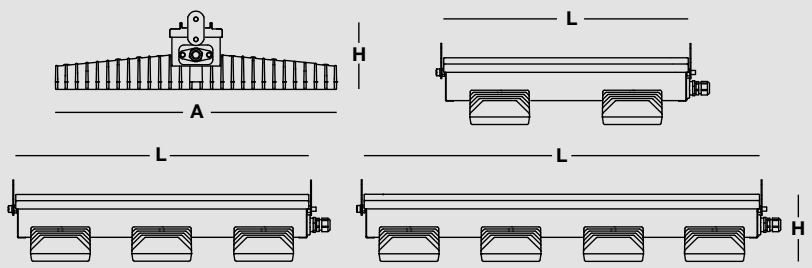
On request

- different powers or colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (more information on page 598)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Ambient temperature from -30°C to +55°C.
Luminaire suitable for gyms as weel as sports, commercial, exhibition and industrial environments.
Resistance against ball impacts in accordance with DIN 18032-3 (more information on page 646).
Dry, dusty indoor environments, subject to occasional water splashes.

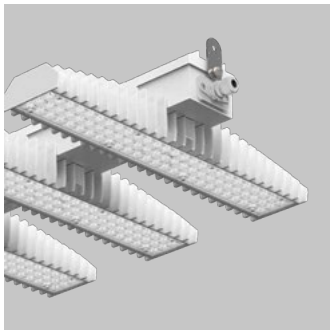
Dimensions

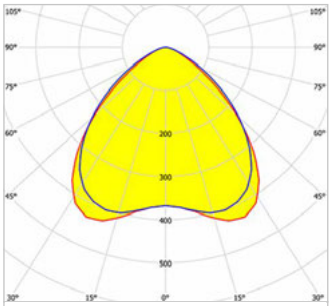


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM Sport Wide





Code 59080

650°C | IP65 | 1J | IK06

Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
59080	3F LEM 2 SPORT LED 100 CR AMPIO	109	16738	4000	>80	470x542x129
59081	3F LEM 3 SPORT LED 150 CR AMPIO	165	25106	4000	>80	657x542x129
59082	3F LEM 4 SPORT LED 200 CR AMPIO	218	33475	4000	>80	757x542x129
59275	3F LEM 2 SPORT LED 100/940 CR AMPIO	109	13725	4000	>90	470x542x129
59276	3F LEM 3 SPORT LED 150/940 CR AMPIO	165	20587	4000	>90	657x542x129
59277	3F LEM 4 SPORT LED 200/940 CR AMPIO	218	27450	4000	>90	757x542x129
DALI electronic wiring 230V-50/60Hz						
59093	3F LEM 2 SPORT LED 100 DALI CR AMPIO	109	16738	4000	>80	470x542x129
59094	3F LEM 3 SPORT LED 150 DALI CR AMPIO	165	25106	4000	>80	657x542x129
59095	3F LEM 4 SPORT LED 200 DALI CR AMPIO	218	33475	4000	>80	757x542x129
59281	3F LEM 2 SPORT LED 100/940 DALI CR AMPIO	109	13725	4000	>90	470x542x129
59282	3F LEM 3 SPORT LED 150/940 DALI CR AMPIO	165	20587	4000	>90	657x542x129
59283	3F LEM 4 SPORT LED 200/940 DALI CR AMPIO	218	27450	4000	>90	757x542x129

3F LEM Sport High Output

Construction characteristics

Illuminotechnical characteristics
Wide symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Passive modular heatsinks in die-casted aluminium, painted in white colour.
To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.
Wiring body in aluminium and steel in white colour, specially strengthened, anchored solidly to the sinks and thermally separated.
3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.
Fixing brackets in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.
Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

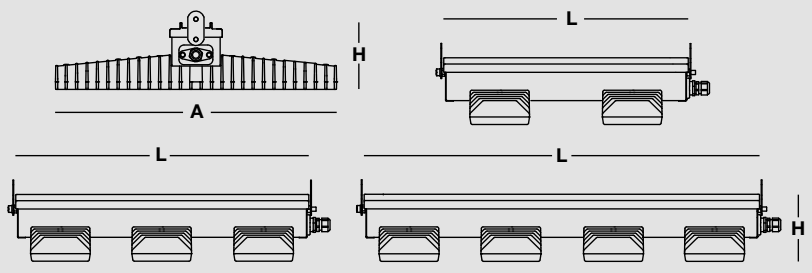
On request

- different powers or colour temperatures
- double quick connection
- polycarbonate lenses (IK08 - 5J)
- wiring: twin-circuit, CLO (more information on page 598)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Ambient temperature from -30°C to +45°C.
Luminaire suitable for gyms as weel as sports, commercial, exhibition and industrial environments.
Resistance against ball impacts in accordance with DIN 18032-3 (more information on page 646).
Dry, dusty indoor environments, subject to occasional water splashes.

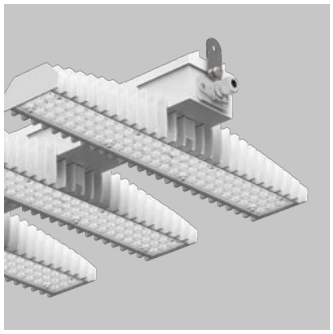
Dimensions

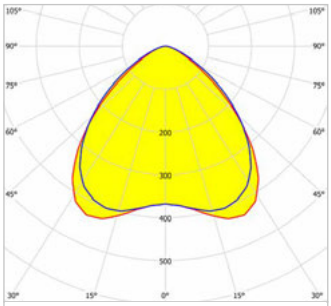


Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 500.

3F LEM Sport HO Wide





Code 59119

650°C | IP65 | 1J | IK06

Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
59119	3F LEM 2 HO SPORT LED 140 CR AMPIO	138	21951	4000	>80	470x542x129
59120	3F LEM 3 HO SPORT LED 210 CR AMPIO	207	32927	4000	>80	657x542x129
59287	3F LEM 2 HO SPORT LED 140/940 CR AMPIO	147	17143	4000	>90	470x542x129
59288	3F LEM 3 HO SPORT LED 210/940 CR AMPIO	222	25715	4000	>90	657x542x129
DALI electronic wiring 230V-50/60Hz						
59132	3F LEM 2 HO SPORT LED 140 DALI CR AMPIO	138	21951	4000	>80	470x542x129
59133	3F LEM 3 HO SPORT LED 210 DALI CR AMPIO	207	32927	4000	>80	657x542x129
59293	3F LEM 2 HO SPORT LED 140/940 DALI CR AMPIO	147	17143	4000	>90	470x542x129
59294	3F LEM 3 HO SPORT LED 210/940 DALI CR AMPIO	222	25715	4000	>90	657x542x129

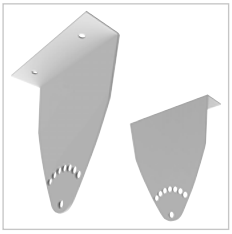
Waterproof and corrosion-proof

3F LEM | Accessories

Brackets for mounting of luminaire on ceiling or on bus ducts, stainless steel.

Code	Item
A0652	Pair of brack. ceiling instal. 3F LEM

Please note: these brackets do NOT provide free orientation of the luminaire. To allow free orientation, accessories A0651+A0632 must be installed.



Brackets for ceiling mounting, in hot-galvanised steel painted in white polyester.

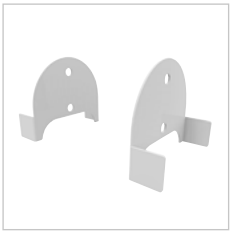
Code	Item
A0632	Pair of brack. ceiling instal. 3F LEM

The bracket A0632 allows the luminaire to be ceiling mounted without the possibility to rotate it. To allow free orientation, both accessories (A0651+A0632) must be installed.

Brackets for wall mounting, in in hot-galvanised steel painted in white polyester.

Code	Item
A0654	Pair of wall brackets - 3F LEM

The bracket A0654 allows the luminaire to be wall mounted without the possibility to rotate it. To allow free orientation, both accessories (A0651+A0654) must be installed.



Additional bracket that, combined with the A0654 or A0632 accessories, makes it possible for the luminaires to be oriented on the ceiling or the wall, in hot-galvanised steel painted in white polyester.

Code	Item
A0651	Bracket rotation support 3F LEM

This accessory must ALWAYS be used with one of the following codes: A0632 - A0654.

Brackets for rotating luminaries mounted on ceilings or on bus ducts.

Code	Item
A0776	Horiz. rot. bracket 90° 3F LEM 1-2
A0777	Horiz. rot. brack. 90° 3F LEM 3-2 Sensor
A0778	Horizontal rotating bracket 90° 3F LEM 4

Dust covers for food processing areas in white-painted galvanised steel.

Code	Item
A0728	Cover for food appl. 3F LEM 1
A0733	Cov.food appl.single mod.3F LEM(2-3-4-5)

For a LEM 3, for example, 3 pcs of the cod. A0733 must be ordered. Not available for the 1+1 version.
Note: the maximum ambient operating temperatures of the fixtures decrease by 10°C in all families, except for the High Output versions in which the reduction is 5°C. The reduction in the luminous flux emitted is equal to 3% in all models in the range.

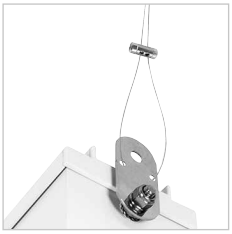
HACCP

Snap hooks clips for chain suspension, galvanised steel.

Code	Item
A0653	Pair of fixing carab.for chain instal.

Glass with gasket to protect the louvre compartment from dust. Recommended for use in very dirty environments.

Code	Item
A0811	Transparent glass with gasket (10pcs) The pack contains 10 pieces.
A0812	Moulded glass with gasket (10pcs) The pack contains 10 pieces.



Anti-fall safety cable Ø 2 mm for fastening the body to the building structure.

Code	Item
A0242	15SS galvanized steel cable coil 100m The pack contains 100 metres.
A0243	15BF galvanized steel cable coil 500m The pack contains 500 metres.

Coupling accessory A0714 to one of the two safety cables (A0242 or A0243) provides an anti-fall kit fixing and adjusting the cable on the load-bearing element of the building structure. The cable passes between the two passage holes on the hanging brackets mounted on the 3F LEM. Suitable for environments subject to impacts or seismic zones.

Clamp in nickel-plated brass suitable for fixing and adjustment of galvanised steel wire (diameter 1,25 mm - 1,5 mm - 2 mm), complete with locking screws. The 2 hole clamp allows to block and adjust the cable on a bearing element (part of the building) or on rounded eye bolt.

Code	Item
A0714	Clamp 2 holes susp.- 100 pcs The pack contains 100 pieces.

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM Sensor.

Code	Item
A3021	IR DALI - Remote controller

CE

IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM Sensor.

Code	Item
A3020	IR DALI - Programmer

IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Accessory compatible with 3F LEM Sensor.

Code	Item
A3022	IR - Adapter for Smartphone

Accessory always required to exclude the sensor presence function.

3F LEM

Examples of design

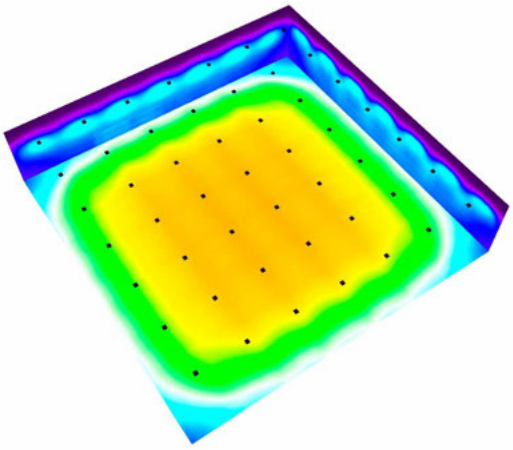
Comparison to 400W JM reflector

Design data:

Room dimensions	50x50 metres
Room height	11 metres
Installation height	10 metres

Like-for-like replacement of light points

Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres



	Current system 400 JM reflector	Like-for-like replacement of light points 3F LEM 2 HO LED 140	Reduction in light points 3F LEM 4 HO LED 280
Lighting values	290 lx	385 lx (MEDIO) - 361 lx (AMPIO)	325 lx (MEDIO) - 301 lx (AMPIO)
Number of light points	49	49	20
Total luminaire	21.560 W	6.762 W	5.520 W
Difference		-69%	-74%
Average source life	8.000 hours	>100.000 hours	>100.000 hours

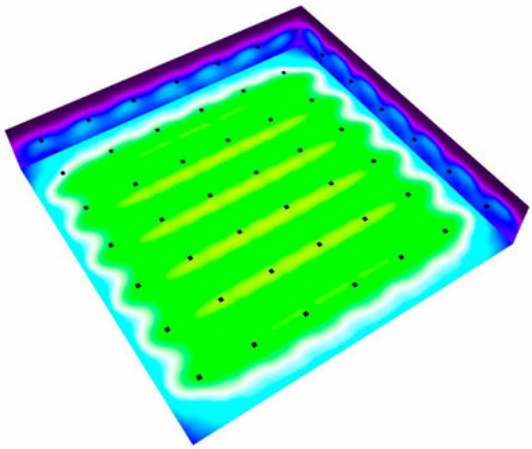
Comparison to 250W JM reflector

Design data:

Room dimensions	50x50 metres
Room height	8 metres
Installation height	7 metres

Like-for-like replacement of light points

Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres



	Current system 250 JM reflector	Like-for-like replacement of light points 3F LEM 2 LED 100	Reduction in light points 3F LEM 2 LED 100
Lighting values	174 lx	287 lx (MEDIO) - 276 lx (AMPIO)	247 lx (MEDIO) - 237 lx (AMPIO)
Number of light points	49	49	42
Total luminaire	14.210 W	5.390 W	4.620 W
Difference		-62%	-67%
Average source life	8.000 hours	>100.000 hours	>100.000 hours


Accettazione
Cassa

Beta 235

> **www.3F-Filippi.com/Beta 235**

An extremely versatile lighting body, 3F Beta 235 is the ideal lighting design solution for working environments requiring increased levels of protection.
It is equipped with LED sources with very high luminous fluxes (135 lm/W) and is particularly suitable for environments such as warehouses, garages and production areas thanks to the wide range of operation, from -20° C to 45° C.
Available in 655 mm, 1,265 mm and 1,565 mm widths, 3F Beta 235 is composed of a steel or stainless steel body and offers a choice between a glass or polycarbonate diffuser to achieve the best performance for the specific installation location.
In addition to the technical performance and high strength of this product is its ease of installation and maintenance: the new quick connection reduces installation time and makes the work of the installers much easier.

This product is also available in this version Beta i3F LED (page 524).

Overview

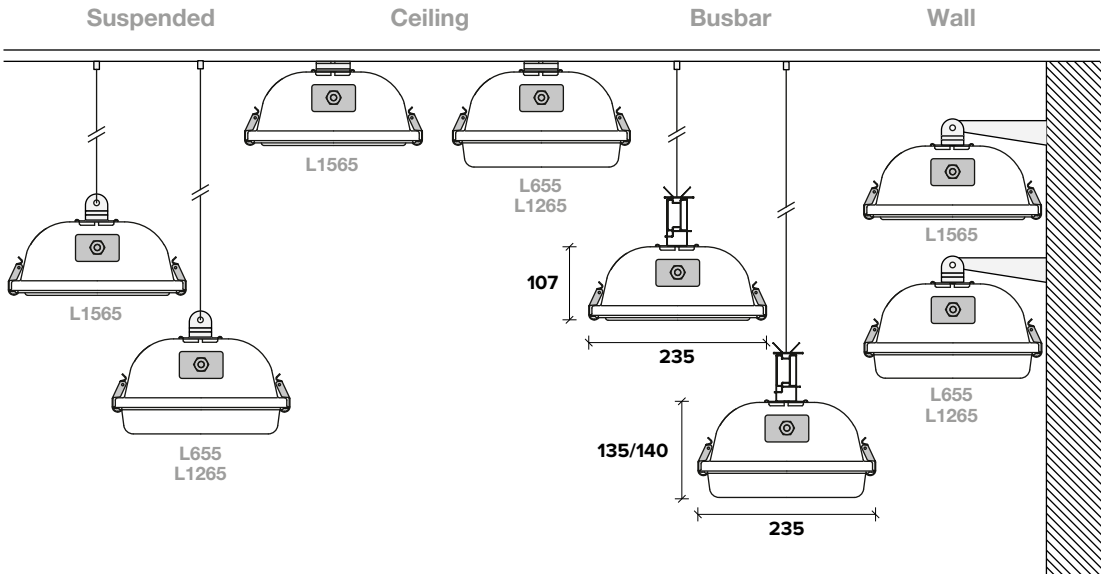
- Luminous efficacy up to 149 lumen/watt.
- Luminous fluxes from 3372 to 16990 lumens.
- Extensive installation pitch.
- 4 different photometric distributions.
- Quick and easy cleaning.
- Essential and functional design.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.
- Fast relamping thanks to the fixing centres compatible with previous generations.
- Versatility of use in different environments.
- Thanks to the FastWiring system, the installation time is drastically reduced.

Page	Product	Steel	Stainless steel
510	Beta 235 LED Steel	•	
518	Beta 235 LED Stainless Steel		•

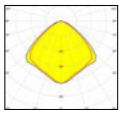
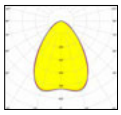
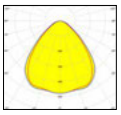
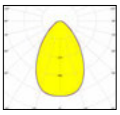
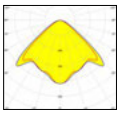
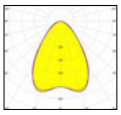
Product range

Beta 235

Polycarbonate screen

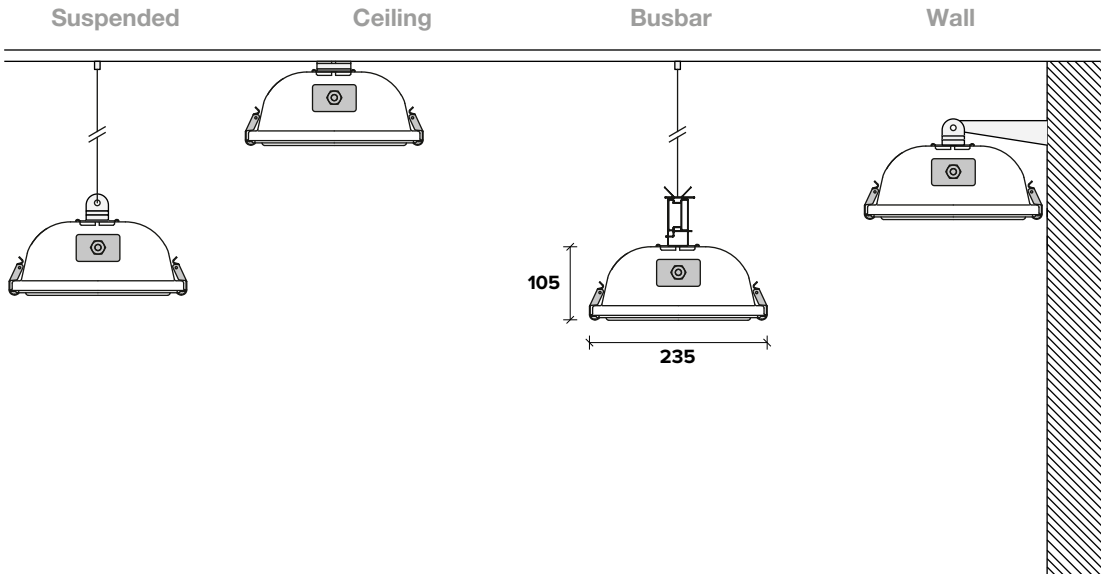


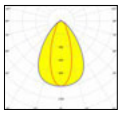
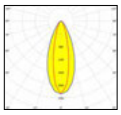
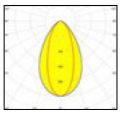
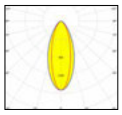
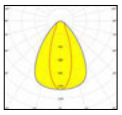
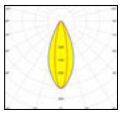
Beta 235

Model	PC Wide	PC Medium	VS Wide	VS Medium	VT Wide	VT Medium
UGR	<21	<19	<21	<19	<21	<19
Finishes	Steel | Stainless steel					
Photometric distribution						
Installation steps **Dt**	1,20	1,17	1,30	1,00	1,20	1,20
Dl	1,30	1,16	1,30	1,00	1,20	1,19

Beta 235

Glass screen



Beta 235		PC Conc	PC Iperconc	VS Conc	VS Iperconc	VT Conc	VT Iperconc
Model							
UGR		<19	<19	<19	<19	<19	<19
Finishes		Steel | Stainless steel					
Photometric distribution							
Installation steps	**Dt**	0,60	0,40	0,60	0,50	0,60	0,40
	Dl	1,10	0,70	0,90	0,70	1,10	0,70

Waterproof and corrosion-proof

Product advantages

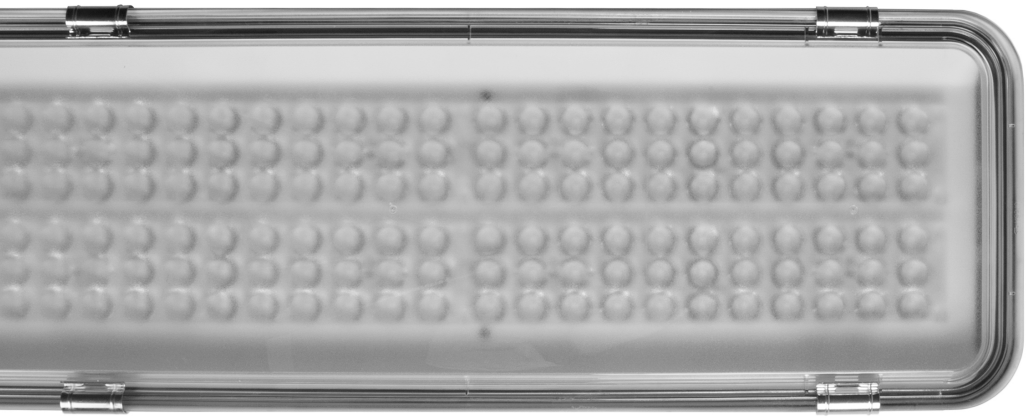
SCREENS AND FINISHES

Beta 235 is available in two different versions and three different diffuser types:

Finishes

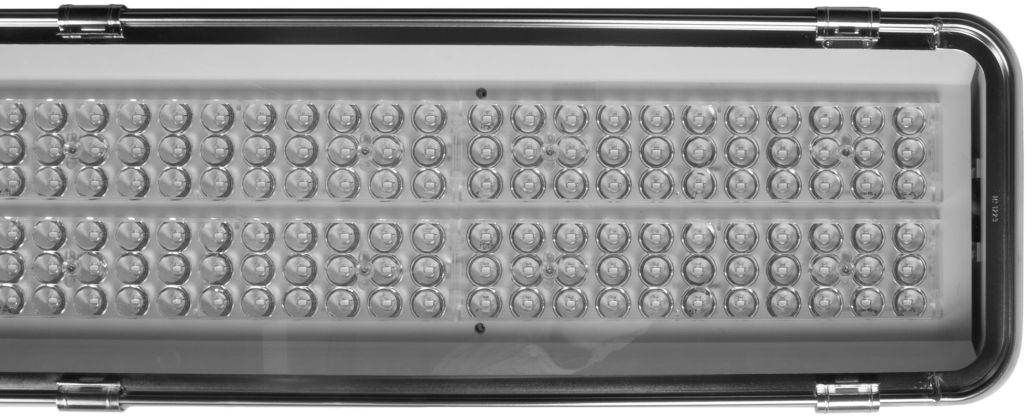
Steel

Stainless steel



PC
Polycarbonate Diffuser

VS
Moulded Glass



VT
Transparent Glass

QUICK CONNECTION

Thanks to the FastWiring system, the installation time for Beta 235 is significantly reduced:

1

Beta 235 is supplied with our new “FastWiring” quick connector.
Here is what it looks like when removed from the packaging.

2

Remove the support by grasping the tab.

3

At this point the quick connection closing cap and the cable gland are inserted onto the cable and the electrical cables can be connected to the quick connect terminal board. No tools are required.

4

Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.

5

Done!
Beta 235 is now ready for installation.

Waterproof and corrosion-proof

Beta 235 LED Steel

Construction characteristics

Illuminotechnical characteristics
Symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Single-piece housing in pressed steel, powder-coated in white epoxy-polyester.
Ecologic anti-aging injected sealing gasket.
Highly reflective white polyester painted, hot-dip galvanised steel, oversized cable housing reflector, fixed to the body with screws.
PMMA lenses with external flat surface.
Galvanised steel snap-lock clips for attaching screens (safety n° 4 per fixture).

Electrical characteristics
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Source characteristics

- LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- different powers
- laminated glass
- wiring: CLO (more information on page 598), twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Ambient temperature from -20°C to +45°C.
Dry, dusty indoor environments, subject to occasional water splashes.
Industrial environments, warehouses, environments requiring safety luminaires, such as prisons, thanks to the clips that can be locked by bolts (on request).
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.
PC version
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
VT version
On request, HACCP versions for use in the food industry.

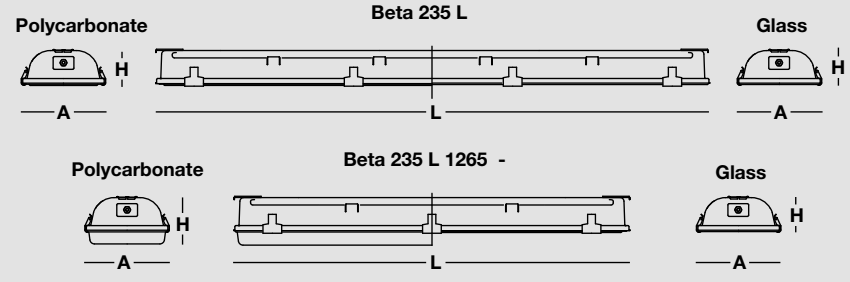
Installation

Ceiling, suspended, on busbar or wall-mounted.
For mounting hooks and brackets see accessories on page 522.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

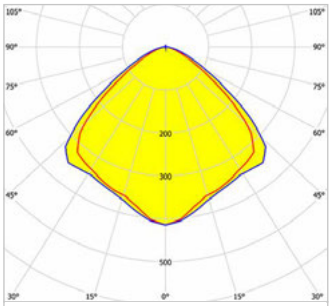
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 522.

Beta 235 LED 75 PC Wide



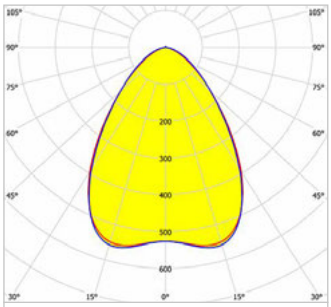
Code 52762

850°C | IP65 | 20J | 10J L1565 | IK09 L1565 | IK10 | HACCP

Wide symmetric lighting distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection moulded.
Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52931	Beta 235 LED 751x25 AMPIO L655	27.5	3683	4000	>80	655x235x140
52930	Beta 235 LED 752x20 AMPIO L655	42	6247	4000	>80	655x235x140
52849	Beta 235 LED 751x50 AMPIO L1265	56	7365	4000	>80	1265x235x135
52765	Beta 235 LED 751x60 AMPIO L1565	65	9259	4000	>80	1565x235x107
52846	Beta 235 LED 752x45 AMPIO L1265	92	13014	4000	>80	1265x235x135
52762	Beta 235 LED 752x55 AMPIO L1565	112	16300	4000	>80	1565x235x107
DALI electronic wiring 230V-50/60Hz						
52807	Beta 235 LED 751x60 DALI AMPIO L1565	65	9259	4000	>80	1565x235x107
52888	Beta 235 LED 752x45 DALI AMPIO L1265	92	13014	4000	>80	1265x235x135
52804	Beta 235 LED 752x55 DALI AMPIO L1565	112	16300	4000	>80	1565x235x107

Beta 235 LED 75 PC Medium



Code 52552

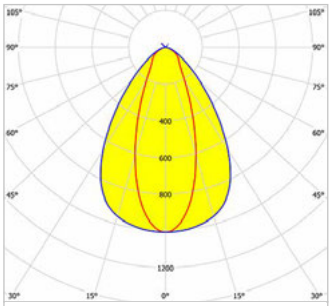
850°C | IP65 | 20J | 10J L1565 | IK09 L1565 | IK10 | HACCP

Medium symmetric distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection moulded.
Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52567	Beta 235 LED 751x50 MEDIO L1265	56	6834	4000	>80	1265x235x135
52553	Beta 235 LED 751x60 MEDIO L1565	65	8813	4000	>80	1565x235x107
52566	Beta 235 LED 752x45 MEDIO L1265	92	12002	4000	>80	1265x235x135
52552	Beta 235 LED 752x55 MEDIO L1565	112	15424	4000	>80	1565x235x107
DALI electronic wiring 230V-50/60Hz						
52574	Beta 235 LED 751x50 DALI MEDIO L1265	56	6834	4000	>80	1265x235x135
52560	Beta 235 LED 751x60 DALI MEDIO L1565	65	8813	4000	>80	1565x235x107
52573	Beta 235 LED 752x45 DALI MEDIO L1265	92	12002	4000	>80	1265x235x135
52559	Beta 235 LED 752x55 DALI MEDIO L1565	112	15424	4000	>80	1565x235x107

Waterproof and corrosion-proof

Beta 235 LED 75 PC Concentrated



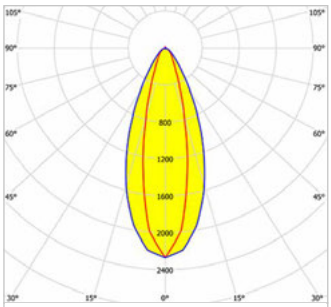
Code 52510

850°C | IP65 | 20J | 10J L1565 | IK09 L1565 | IK10 | HACCP

Concentrated elliptical distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection moulded.
Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52511	Beta 235 LED 751x60 CONC L1565	65	8813	4000	>80	1565x235x107
52524	Beta 235 LED 752x45 CONC L1265	92	12133	4000	>80	1265x235x135
52510	Beta 235 LED 752x55 CONC L1565	112	15461	4000	>80	1565x235x107
DALI electronic wiring 230V-50/60Hz						
52518	Beta 235 LED 751x60 DALI CONC L1565	65	8813	4000	>80	1565x235x107
52531	Beta 235 LED 752x45 DALI CONC L1265	92	12133	4000	>80	1265x235x135
52517	Beta 235 LED 752x55 DALI CONC L1565	112	15461	4000	>80	1565x235x107

Beta 235 LED 75 PC Iperconcentrated



Code 52764

850°C | IP65 | 20J | 10J L1565 | IK09 L1565 | IK10 | HACCP

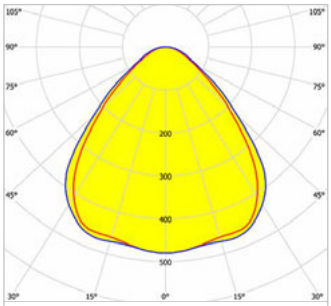
Symmetrical elliptical hyperconcentrated distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection moulded.
Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).
Recommended minimum installation height: 4 metres from the ground.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52848	Beta 235 LED 752x45 IPERCONC L1265	92	11820	4000	>80	1265x235x135
52764	Beta 235 LED 752x55 IPERCONC L1565	112	15293	4000	>80	1565x235x107
DALI electronic wiring 230V-50/60Hz						
52890	Beta 235 LED 752x45 DALI IPERCONC L1265	92	11820	4000	>80	1265x235x135
52806	Beta 235 LED 752x55 DALI IPERCONC L1565	112	16990	4000	>80	1565x235x107

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 522.

Beta 235 LED 76 VS Wide



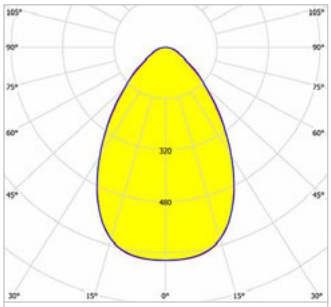
Code 52776

960°C | IP65 | 10J | IK09

Wide symmetric lighting distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52937	Beta 235 LED 761x25 AMPIO VS L655	27.5	3372	4000	>80	655x235x110
52936	Beta 235 LED 762x20 AMPIO VS L655	42	5566	4000	>80	655x235x110
52863	Beta 235 LED 761x50 AMPIO VS L1265	56	6743	4000	>80	1265x235x105
52779	Beta 235 LED 761x60 AMPIO VS L1565	65	8429	4000	>80	1565x235x105
52860	Beta 235 LED 762x45 AMPIO VS L1265	92	11596	4000	>80	1265x235x105
52776	Beta 235 LED 762x55 AMPIO VS L1565	112	14491	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52821	Beta 235 LED 761x60 DALI AMPIO VS L1565	65	8429	4000	>80	1565x235x105
52902	Beta 235 LED 762x45 DALI AMPIO VS L1265	92	11596	4000	>80	1265x235x105
52818	Beta 235 LED 762x55 DALI AMPIO VS L1565	112	14491	4000	>80	1565x235x105

Beta 235 LED 76 VS Medium



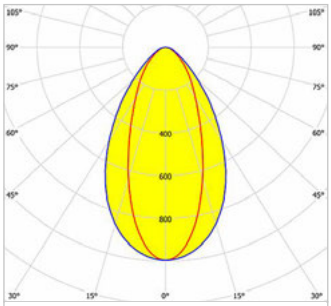
Code 52556

960°C | IP65 | 10J | IK09

Medium symmetric distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52571	Beta 235 LED 761x50 MEDIO VS L1265	56	6328	4000	>80	1265x235x105
52557	Beta 235 LED 761x60 MEDIO VS L1565	65	7911	4000	>80	1565x235x105
52570	Beta 235 LED 762x45 MEDIO VS L1265	92	10969	4000	>80	1265x235x105
52556	Beta 235 LED 762x55 MEDIO VS L1565	112	13708	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52578	Beta 235 LED 761x50 DALI MEDIO VS L1265	56	6328	4000	>80	1265x235x105
52564	Beta 235 LED 761x60 DALI MEDIO VS L1565	65	7911	4000	>80	1565x235x105
52577	Beta 235 LED 762x45 DALI MEDIO VS L1265	92	10969	4000	>80	1265x235x105
52563	Beta 235 LED 762x55 DALI MEDIO VS L1565	112	13708	4000	>80	1565x235x105

Beta 235 LED 76 VS Concentrated



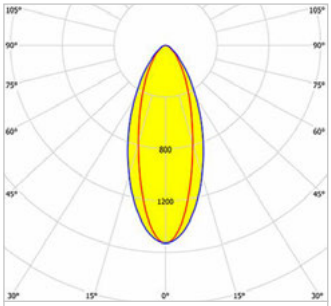
Code 52514

960°C | IP65 | 10J | IK09

Concentrated elliptical distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52515	Beta 235 LED 761x60 CONC VS L1565	65	7932	4000	>80	1565x235x105
52528	Beta 235 LED 762x45 CONC VS L1265	92	11103	4000	>80	1265x235x105
52514	Beta 235 LED 762x55 CONC VS L1565	112	13876	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52522	Beta 235 LED 761x60 DALI CONC VS L1565	65	7932	4000	>80	1565x235x105
52535	Beta 235 LED 762x45 DALI CONC VS L1265	92	11103	4000	>80	1265x235x105
52521	Beta 235 LED 762x55 DALI CONC VS L1565	112	13876	4000	>80	1565x235x105

Beta 235 LED 76 VS Iperconcentrated



Code 52778

960°C | IP65 | 10J | IK09

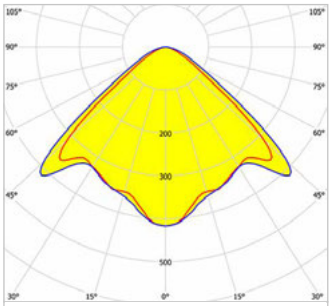
Symmetrical elliptical hyperconcentrated distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in galvanised steel.
Recommended minimum installation height: 4 metres from the ground.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52862	Beta 235 LED 762x45 IPERCONC VS L1265	92	11133	4000	>80	1265x235x105
52778	Beta 235 LED 762x55 IPERCONC VS L1565	112	13913	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52904	Beta 235 LED 762x45 DALI IPERCONC VS L1265	92	11133	4000	>80	1265x235x105
52820	Beta 235 LED 762x55 DALI IPERCONC VS L1565	112	13913	4000	>80	1565x235x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 522.

Beta 235 LED 76 VT Wide



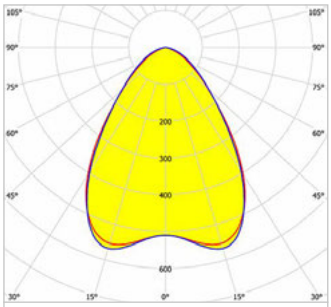
Code 52769

960°C | IP65 | 10J | IK09

Wide symmetric lighting distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52856	Beta 235 LED 761x50 AMPIO VT L1265	56	7539	4000	>80	1265x235x105
52772	Beta 235 LED 761x60 AMPIO VT L1565	65	9425	4000	>80	1565x235x105
52853	Beta 235 LED 762x45 AMPIO VT L1265	92	13103	4000	>80	1265x235x105
52769	Beta 235 LED 762x55 AMPIO VT L1565	112	16375	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52814	Beta 235 LED 761x60 DALI AMPIO VT L1565	65	9425	4000	>80	1565x235x105
52895	Beta 235 LED 762x45 DALI AMPIO VT L1265	92	13103	4000	>80	1265x235x105
52811	Beta 235 LED 762x55 DALI AMPIO VT L1565	112	16375	4000	>80	1565x235x105

Beta 235 LED 76 VT Medium



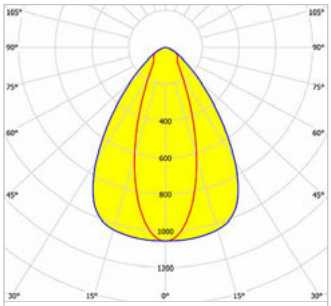
Code 52554

960°C | IP65 | 10J | IK09

Medium symmetric distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52569	Beta 235 LED 761x50 MEDIO VT L1265	56	7108	4000	>80	1265x235x105
52555	Beta 235 LED 761x60 MEDIO VT L1565	65	8885	4000	>80	1565x235x105
52568	Beta 235 LED 762x45 MEDIO VT L1265	92	12417	4000	>80	1265x235x105
52554	Beta 235 LED 762x55 MEDIO VT L1565	112	15517	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52576	Beta 235 LED 761x50 DALI MEDIO VT L1265	56	7108	4000	>80	1265x235x105
52562	Beta 235 LED 761x60 DALI MEDIO VT L1565	65	8885	4000	>80	1565x235x105
52575	Beta 235 LED 762x45 DALI MEDIO VT L1265	92	12417	4000	>80	1265x235x105
52561	Beta 235 LED 762x55 DALI MEDIO VT L1565	112	15517	4000	>80	1565x235x105

Beta 235 LED 76 VT Concentrated



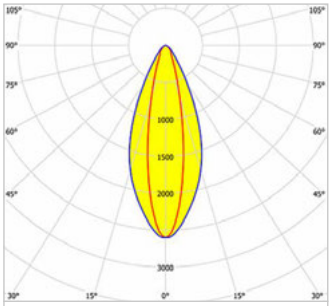
Code 52512

960°C | IP65 | 10J | IK09

Concentrated elliptical distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52513	Beta 235 LED 761x60 CONC VT L1565	65	8823	4000	>80	1565x235x105
52526	Beta 235 LED 762x45 CONC VT L1265	92	12402	4000	>80	1265x235x105
52512	Beta 235 LED 762x55 CONC VT L1565	112	15498	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52520	Beta 235 LED 761x60 DALI CONC VT L1565	65	8823	4000	>80	1565x235x105
52533	Beta 235 LED 762x45 DALI CONC VT L1265	92	12402	4000	>80	1265x235x105
52519	Beta 235 LED 762x55 DALI CONC VT L1565	112	15498	4000	>80	1565x235x105

Beta 235 LED 76 VT Iperconcentrated



Code 52771

960°C | IP65 | 10J | IK09

Symmetrical elliptical hyperconcentrated distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in galvanised steel.
Recommended minimum installation height: 4 metres from the ground.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52855	Beta 235 LED 762x45 IPERCONC VT L1265	92	12297	4000	>80	1265x235x105
52771	Beta 235 LED 762x55 IPERCONC VT L1565	112	15368	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52897	Beta 235 LED 762x45 DALI IPERCONC VT L1265	92	12297	4000	>80	1265x235x105
52813	Beta 235 LED 762x55 DALI IPERCONC VT L1565	112	15368	4000	>80	1565x235x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**


Accettazione
Beta
KG. 3000

Beta 235 LED Stainless Steel

Construction characteristics

Illuminotechnical characteristics
Symmetric distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing in AISI 304 stainless steel, pressed in one single piece.
Oversized gear-tray reflector unit in highly reflective white painted hot-galvanised steel.
PMMA lenses with external flat surface.
Stainless steel snap-lock clips for attaching screens (safety n° 4 per fixture).

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Source characteristics

- LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- different powers
- laminated glass
- wiring: CLO (more information on page 598), twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Applications

Ambient temperature from -20°C to +45°C.
Dry, dusty indoor environments, subject to occasional water splashes.
Any environments except the ones where the luminaire materials are unsuitable.
Environments requiring safety luminaires, such as prisons, thanks to the clips that can be locked by bolts (on request).
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.
PC version
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).
VT version
On request, HACCP versions for use in the food industry.

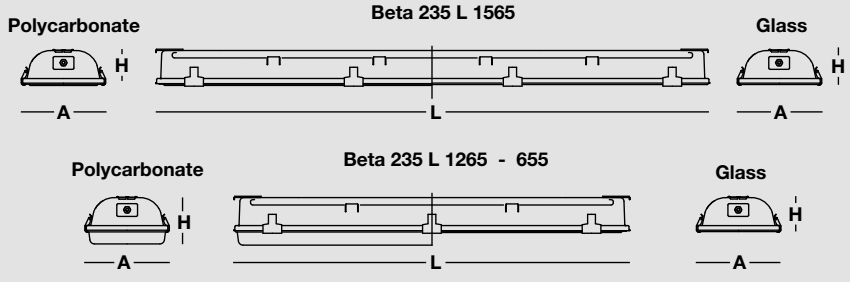
Installation

Ceiling, suspended, on busbar or wall-mounted.
For mounting hooks and brackets see accessories on page 522.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

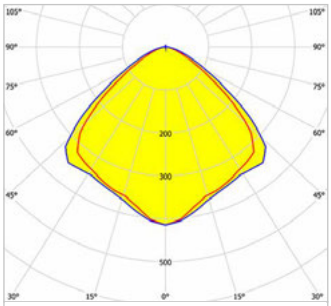
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 522.

Beta 235 LED 92 PC Wide



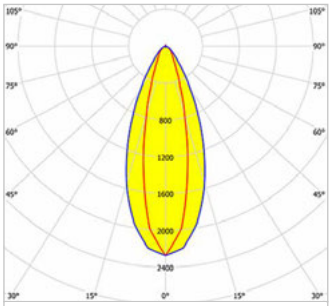
Code 52783

850°C | IP65 | 20J | 10J L1565 | IK09 L1565 | IK10 | HACCP

Wide symmetric lighting distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection moulded.
Attention: the diffuser supplied with our L655 and L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52940	Beta 235 LED 921x25 AMPIO L655	27.5	3620	4000	>80	655x235x140
52939	Beta 235 LED 922x15 AMPIO L655	34.5	4736	4000	>80	655x235x140
52870	Beta 235 LED 921x50 AMPIO L1265	56	7241	4000	>80	1265x235x135
52786	Beta 235 LED 921x60 AMPIO L1565	65	9103	4000	>80	1565x235x107
52867	Beta 235 LED 922x40 AMPIO L1265	80	11407	4000	>80	1265x235x135
52783	Beta 235 LED 922x50 AMPIO L1565	99	14290	4000	>80	1565x235x107
DALI electronic wiring 230V-50/60Hz						
52828	Beta 235 LED 921x60 DALI AMPIO L1565	65	9103	4000	>80	1565x235x107
52909	Beta 235 LED 922x40 DALI AMPIO L1265	80	11407	4000	>80	1265x235x135
52825	Beta 235 LED 922x50 DALI AMPIO L1565	99	14290	4000	>80	1565x235x107

Beta 235 LED 92 PC Iperconcentrated



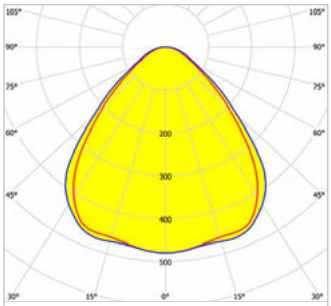
Code 52785

850°C | IP65 | 20J | 10J L1565 | IK09 L1565 | IK10 | HACCP

Symmetrical elliptical hyperconcentrated distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection moulded.
Attention: the diffuser supplied with our L1265 long luminaires is higher than the one which is supplied with our L1565 long versions (please consult Dimensions table).
Recommended minimum installation height: 4 metres from the ground.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52869	Beta 235 LED 922x40 IPERCONC L1265	80	10368	4000	>80	1265x235x135
52785	Beta 235 LED 922x50 IPERCONC L1565	99	13409	4000	>80	1565x235x107
DALI electronic wiring 230V-50/60Hz						
52911	Beta 235 LED 922x40 DALI IPERCONC L1265	80	10368	4000	>80	1265x235x135
52827	Beta 235 LED 922x50 DALI IPERCONC L1565	99	13409	4000	>80	1565x235x107

Beta 235 LED 93 VS Wide



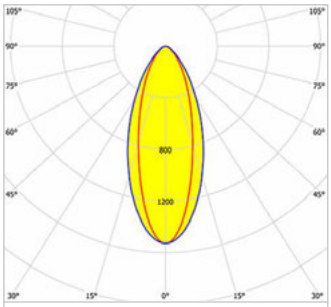
Code 52797

960°C | IP65 | 10J | IK09

Wide symmetric lighting distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52946	Beta 235 LED 931x25 AMPIO VS L655	27.5	3313	4000	>80	655x235x110
52945	Beta 235 LED 932x15 AMPIO VS L655	34.5	4222	4000	>80	655x235x110
52884	Beta 235 LED 931x50 AMPIO VS L1265	56	6627	4000	>80	1265x235x105
52800	Beta 235 LED 931x60 AMPIO VS L1565	65	8284	4000	>80	1565x235x105
52881	Beta 235 LED 932x40 AMPIO VS L1265	80	10169	4000	>80	1265x235x105
52797	Beta 235 LED 932x50 AMPIO VS L1565	99	12710	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52842	Beta 235 LED 931x60 DALI AMPIO VS L1565	65	8284	4000	>80	1565x235x105
52923	Beta 235 LED 932x40 DALI AMPIO VS L1265	80	10169	4000	>80	1265x235x105
52839	Beta 235 LED 932x50 DALI AMPIO VS L1565	99	12710	4000	>80	1565x235x105

Beta 235 LED 93 VS Iperconcentrated



Code 52799

960°C | IP65 | 10J | IK09

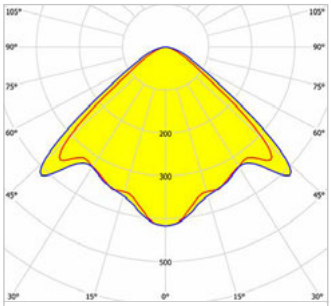
Symmetrical elliptical hyperconcentrated distribution.
VS moulded anti-glare glass, non-combustible, single-piece perimeter frame in stainless steel.
Recommended minimum installation height: 4 metres from the ground.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52883	Beta 235 LED 932x40 IPERCONC VS L1265	80	9756	4000	>80	1265x235x105
52799	Beta 235 LED 932x50 IPERCONC VS L1565	99	12194	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52925	Beta 235 LED 932x40 DALI IPERCONC VS L1265	80	9756	4000	>80	1265x235x105
52841	Beta 235 LED 932x50 DALI IPERCONC VS L1565	99	12194	4000	>80	1565x235x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 522.

Beta 235 LED 93 VT Wide



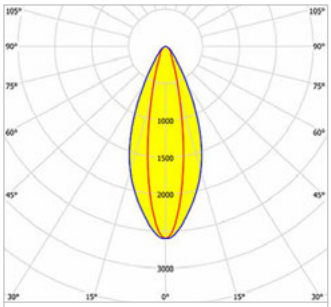
Code 52790

960°C | IP65 | 10J | IK09

Wide symmetric lighting distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in stainless steel.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52877	Beta 235 LED 931x50 AMPIO VT L1265	56	7415	4000	>80	1265x235x105
52793	Beta 235 LED 931x60 AMPIO VT L1565	65	9269	4000	>80	1565x235x105
52874	Beta 235 LED 932x40 AMPIO VT L1265	80	11487	4000	>80	1265x235x105
52790	Beta 235 LED 932x50 AMPIO VT L1565	99	14357	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52835	Beta 235 LED 931x60 DALI AMPIO VT L1565	65	9269	4000	>80	1565x235x105
52916	Beta 235 LED 932x40 DALI AMPIO VT L1265	80	11487	4000	>80	1265x235x105
52832	Beta 235 LED 932x50 DALI AMPIO VT L1565	99	14357	4000	>80	1565x235x105

Beta 235 LED 93 VT Iperconcentrated



Code 52792

960°C | IP65 | 10J | IK09

Symmetrical elliptical hyperconcentrated distribution.
VT transparent glass, non-combustible, single-piece perimeter frame in stainless steel.
Recommended minimum installation height: 4 metres from the ground.

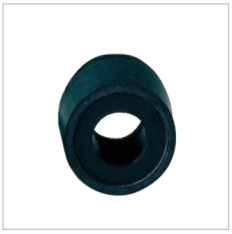
Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
52876	Beta 235 LED 932x40 IPERCONC VT L1265	80	10781	4000	>80	1265x235x105
52792	Beta 235 LED 932x50 IPERCONC VT L1565	99	13475	4000	>80	1565x235x105
DALI electronic wiring 230V-50/60Hz						
52918	Beta 235 LED 932x40 DALI IPERCONC VT L1265	80	10781	4000	>80	1265x235x105
52834	Beta 235 LED 932x50 DALI IPERCONC VT L1565	99	13475	4000	>80	1565x235x105

Beta 235 | Accessories

Anti-condensation diffuser cable gland.

Code	Item
A0187	Anti-condensation cable gland

Recommended for installations in environments with temperature sudden changes or subject to condensation.

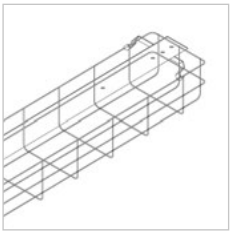


Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

Snap hooks clips for chain suspension, galvanised steel.

Code	Item
A0653	Pair of fixing carab.for chain instal.



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod Ø 5 mm.

Code	Item
A0457	Wireguard 280x1330 3F Linda/3F Beta
A0458	Wireguard 280x1630 3F Linda/3F Beta

Only for luminaires fixed without hooks.

Pair of mounting brackets and hooks for ceiling mounting, with nuts and bolts for fastening the luminaire, everything in stainless steel.

Code	Item
A0324	Pair fixed brack. for ceiling Beta 235

Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.

Code	Item
A0835	Pair brack.+hooks for wall

Pair of steel hooks for suspended installation, with nuts and bolts for luminaire fastening.

Code	Item
A0836	Pair of galv.hooks for susp.- Beta 235
A0837	Pair of stain.steel hooks susp.-Beta 235

In case of chain suspension installation, ALWAYS use one of the following codes: A0653.

Pair of hooks in galvanised steel for suspended installation, with nuts and bolts for luminaire fastening.

Code	Item
A0838	Pair of S-hooks for chain - Beta 235

Safety screw for locking to busbar.

Code	Item
A0325	Mounting kit on busbar - Beta 235

Beta i3F LED

Construction characteristics

Illuminotechnical characteristics
Wide or concentrated direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Single-piece housing in pressed steel, powder-coated in white epoxy-polyester.
Oversized flux recuperator in specular aluminium, with titanium-magnesium surface treatment, non-iridescent.
Gear-tray unit in hot-galvanised steel, painted in white polyester, fixed to the housing by means of "Ribloc" rapid devices in galvanised steel, hinged opening.
Stainless steel screen fixing clips.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
The luminaires with EP permanent emergency wiring on board comply with EN 60598-2-22 standard, high risk areas excluded.
Entry for power-supply cable at one end cap, through M20x1,5 self-extinguishing nylon cable gland.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- different powers
- laminated glass
- wiring: dimmable, CLO (more information on page 598), twin-circuit, class II
- safety snap-lock clips
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- body in painted aluminium or stainless steel
- emergency versions

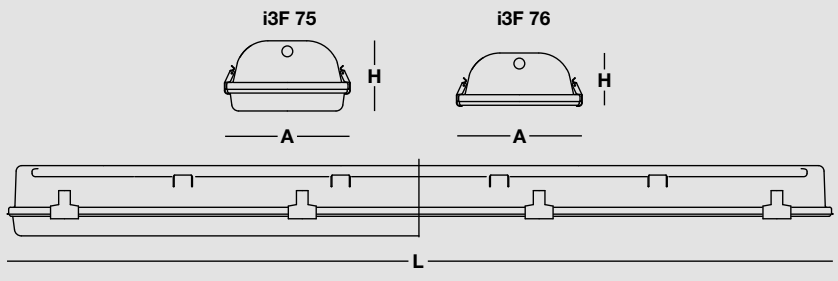
Applications

Ambient temperature from -20°C to +35°C.
Dry, dusty indoor environments, subject to occasional water splashes.
Industrial environments, warehouses, environments requiring safety luminaires, such as prisons, thanks to the clips that can be locked by bolts (on request).
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

Installation

Ceiling, suspended, on busbar or wall-mounted.
For mounting hooks and brackets see accessories on page 528.

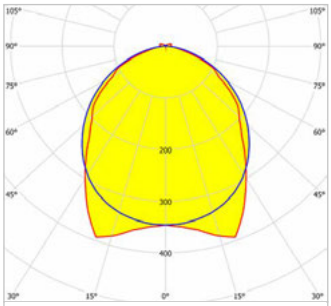
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 528.

Beta i3F LED 75 PC Wide



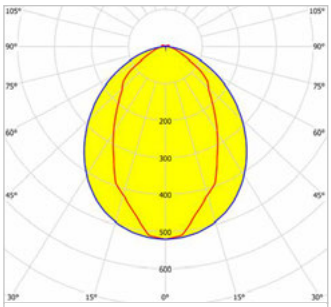
Code 55600

EP | D | 850°C | IP65 | 20J | IK10 | Driver/LED SELV | HACCP

Wide distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection molded, sealing gasket, hinged opening.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
55596	i3F LED 752x12W AMPIO L655	28	3732	4000	>80	655x235x140
55598	i3F LED 752x24W AMPIO L1265	54	7471	4000	>80	1265x235x135
55600	i3F LED 752x30W AMPIO L1565	66	9351	4000	>80	1565x235x135
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
55607	i3F LED 752x12W EP AMPIO L655	29	3732	4000	>80	655x235x140
55609	i3F LED 752x24W EP AMPIO L1265	55	7471	4000	>80	1265x235x135
55611	i3F LED 752x30W EP AMPIO L1565	67	9351	4000	>80	1565x235x135

Beta i3F LED 75 PC Concentrated



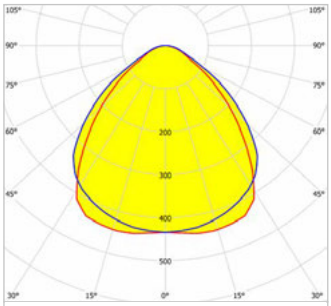
Code 55006

EP | D | 850°C | IP65 | 20J | IK10 | Driver/LED SELV | HACCP

Concentrated elliptical distribution.
Polycarbonate screen etched internally, V2 self-extinguishing, UV stabilised, injection molded, sealing gasket, hinged opening.
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry (HACCP / IFS / BRC-Standard).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
55006	i3F LED 752x30W CONC L1565	66	9236	4000	>80	1565x235x135
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
55017	i3F LED 752x30W EP CONC L1565	67	9236	4000	>80	1565x235x135

Beta i3F LED 76 VS Wide



Code 55138

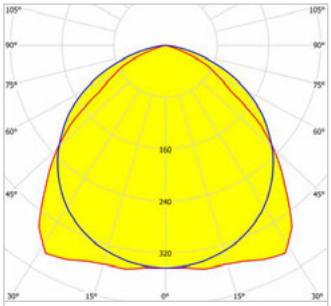
CE | SAFE FLICKER | EP | D | 960°C | IP65 | 10J | IK09

Driver/LED SELV

Wide distribution.
VS molded antiglare glass, non-combustible, monobloc perimetrical frame in galvanised steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
55134	i3F LED 762x12W AMPIO VS L655	28	3388	4000	>80	655x235x110
55136	i3F LED 762x24W AMPIO VS L1265	54	6783	4000	>80	1265x235x105
55138	i3F LED 762x30W AMPIO VS L1565	66	8489	4000	>80	1565x235x105
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
55145	i3F LED 762x12W EP AMPIO VS L655	29	3388	4000	>80	655x235x110
55147	i3F LED 762x24W EP AMPIO VS L1265	55	6783	4000	>80	1265x235x105
55149	i3F LED 762x30W EP AMPIO VS L1565	67	8489	4000	>80	1565x235x105

Beta i3F LED 76 VT Wide



Code 55072

CE | SAFE FLICKER | EP | D | 960°C | IP65 | 10J | IK09

Driver/LED SELV

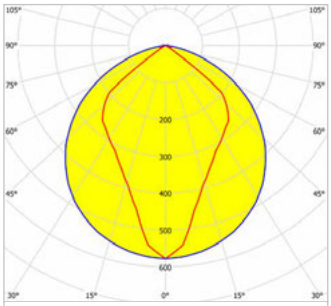
Wide distribution.
VT transparent glass, non-combustible, monobloc perimetrical frame in galvanised steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
55072	i3F LED 762x30W AMPIO VT L1565	66	9402	4000	>80	1565x235x105
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
55083	i3F LED 762x30W EP AMPIO VT L1565	67	9402	4000	>80	1565x235x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 528.

Beta i3F LED 76 VT Concentrated



Code 55666

EP | D | 960°C | IP65 | 10J | IK09

Driver/LED SELV

Concentrated elliptical distribution.
VT transparent glass, non-combustible, monobloc perimetrical frame in galvanised steel, with sealing gasket, hinged opening.
On request, HACCP versions for use in the food industry.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz						
55666	i3F LED 762x30W CONC VT L1565	66	9454	4000	>80	1565x235x105
EP maintained emergency wiring, 1hr duration with 24hrs recharge (BLF emergency fluxes indicated in the datasheets)						
55677	i3F LED 762x30W EP CONC VT L1565	67	9454	4000	>80	1565x235x105

Beta i3F LED | Accessories

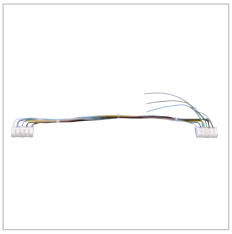
Pair of mounting brackets and hooks for wall-mounting, with nuts and bolts for luminaire fastening, everything in stainless steel.

Code	Item
A0503	15 CD pair of bracket/hooks A3F

Pair of steel hooks for suspended installation, with nuts and bolts for luminaire fastening.

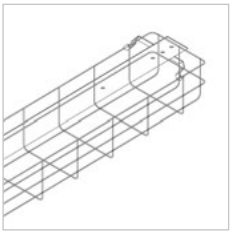
Code	Item
A0500	13 DH pair susp.galv.steel hooks i3F
A0501	13 HC pair susp.stain.steel hooks A3F

In case of chain suspension installation, ALWAYS use one of the following codes: A0653.



5-pole cascade connection line, stiff cable H07 V2-U, HT 90°C, 1.5 mm², terminal blocks with connection capacity 2x2.5 mm².

Code	Item
A0508	20 TKA (casc. conn. line i3F/A3F 1265)
A0509	20 ZFE (casc. conn. line i3F/A3F 1565)



Wire-guard for applications in dry environments, against shocks coming from any directions, galvanised steel rod Ø 5 mm.

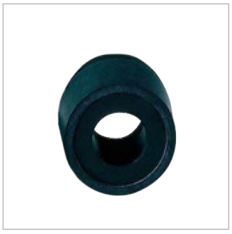
Code	Item
A0457	Wireguard 280x1330 3F Linda/3F Beta
A0458	Wireguard 280x1630 3F Linda/3F Beta

Only for luminaires fixed without hooks.

Anti-condensation diffuser cable gland.

Code	Item
A0187	Anti-condensation cable gland

Recommended for installations in environments with temperature sudden changes or subject to condensation.



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

Snap hooks clips for chain suspension, galvanised steel.

Code	Item
A0653	Pair of fixing carab.for chain instal.

Retrofit Beta A3F - i3F

Construction characteristics

Illuminotechnical characteristics
Wide or concentrated direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Gear-tray in hot galvanised steel, painted in white polyester, to be fixed to the body by rapid devices "Ribloc".
2x40W version
PMMA lenses with external flat surface. For installations prior to 2010, the hinge opening is lost.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- retrofit Kit for luminaires of length 655mm (1-2x18W), power 1x36W - 1x58W, for Beta Stainless A3F 92-93, for Beta Ice 90
- wiring: dimmable, CLO (more information on page 598), twin-circuit, different powers
- version with asymmetric lighting distribution
- wide flux recuperator to increase luminous flux by 5%
- different colour rendering indices and colour temperatures
- emergency versions

Installation

Correct installation of the retrofit LED kit, compliant with EN 60598-1 and CE marked, must be only performed by qualified personnel to ensure compliance with the national installation standards.

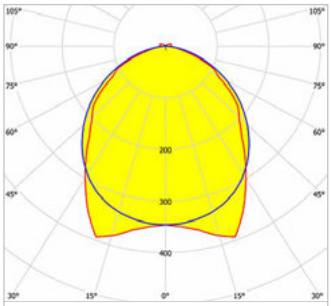
Notes

Evaluate the use of moulded anti-glare glass according to the application.

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 533.

Kit LED Retrofit for polycarbonate diffuser



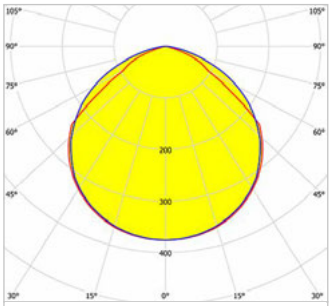
Code A5027

40W 650°C | 850°C | Driver/LED SELV

Wide or concentrated symmetric lighting distribution.
Flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent (only for 2x22W CONCENTRATED version).
Internal transparent methacrylate lenses (only for 2x40W version).
Diffuser in self-extinguishing V2 polycarbonate, photo-engraved interior, UV stabilised, injection moulded, with smooth outer surface, sealing gasket.
The high output versions are NOT SELV.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Version without recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz						
A5057	Kit LED i3F 75,A3F 90-92 L1265 2x18W +PC	40	5952	4000	>80	1265x235x135
A5027	Kit LED I3F 75, A3F 90, A3F 92-L1565 - 2X22W+PC	49	6996	4000	>80	1565x235x135
A5026	KIT LED i3F 75, A3F 90-L1565 - 2x30W+PC	66	8790	4000	>80	1565x235x135
Version with CONCENTRATED recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz						
A5013	Kit LED I3F75,A3F 90,A3F 92-L1565-2X22W CONC+PC	49	7351	4000	>80	1565x235x135
High output version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5215	Kit LED i3F 75,A3F 90 - L1565 - L 2x40W AMPIO + PC	80	11519	4000	>80	1565x235x135
High output version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5217	Kit LED i3F 75,A3F 90 - L1565 - L 2x40W CONC + PC	80	11124	4000	>80	1565x235x135

Kit LED Retrofit for glass diffuser



Code A5118

40W
650°C

850°C

Driver/LED
SELV

Wide or concentrated symmetric lighting distribution.
Flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent (only for 2x22W CONCENTRATED version).
Internal transparent methacrylate lenses (only for 2x40W version).
Glass diffuser is NOT included in the kit.
The high output versions are NOT SELV.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Version without recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz						
A5148	KIT LED i3F 76,A3F 91,A3F 93-L1265-2x18W	40	5549	4000	>80	1265x235x105
A5118	Kit LED I3F 76, A3F 91, A3F 93 - L1565-2X22W	49	6938	4000	>80	1565x235x135
A5117	KIT LED i3F 76, A3F 91 - L1565-2x30W	66	8718	4000	>80	1565x235x105
Version with CONCENTRATED recuperator - Driver/LED SELV - ON/OFF electronic wiring 230V-50/60Hz						
A5104	Kit LED I3F 76, A3F 91, A3F 93-L1565-2X22W CONC	49	7525	4000	>80	1565x235x135
High output version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5210	Kit LED i3F 76,A3F 91 - L1565 - L 2x40W AMPIO	80	11397	4000	>80	1565x235x105
High output version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5212	Kit LED i3F 76,A3F 91 - L1565 - L 2x40W CONC	80	11260	4000	>80	1565x235x105

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Retrofit Beta A3F - i3F | Accessories

960°C | 10J | IK09

Moulded anti-glare glass for retrofit LED kit, non-combustible, tempered, mounted and locked by a galvanised steel mono-block perimetrical frame with a sealing gasket. For installations prior to 2010, the hinge opening is lost. On request: versions with stainless steel frame for Beta 2x A3F91 - A3F93.

Code	Item
A5184	Moulded glass Beta 2x i3F 76 - L1565
A5185	Moulded glass Beta 2x i3F 76 - L1265

Retrofit Beta 430

Construction characteristics

Illuminotechnical characteristics
Wide or concentrated direct distribution.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt,
(IEC 62471) (further information on page 18).

Mechanical characteristics
Gear-tray unit hot-galvanised steel, painted in white polyester.
PMMA lenses with external flat surface.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the
EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Twin-circuit.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- wiring: CLO (more information on page 598), dimmable, different powers
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- emergency versions

Installation

Correct installation of the retrofit LED kit, compliant with EN 60598-1 and CE marked, must be only performed by qualified personnel to ensure compliance with the national installation standards.

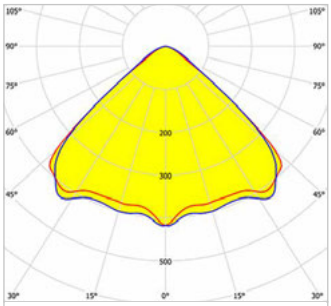
Notes

Evaluate the use of moulded anti-glare glass according to the application.

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 536.

Retrofit Kit to replace the 4x49W T5 Amalgam or the 4x58W T8 version



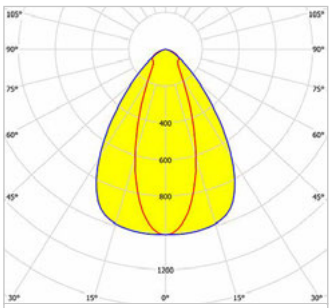
Code A5308

650°C

Wide or concentrated symmetric lighting distribution.
Transparent methacrylate lenses.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5308	Kit LED Beta 430 - L1551- 2X65W AMPIO	132	19059	4000	>80	1551x430x159
Version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5309	Kit LED Beta 430 - L1551- 2X65W CONC	132	17934	4000	>80	1551x430x159

Retrofit Kit to replace the 4x80W - 6x49W T5 Amalgam version



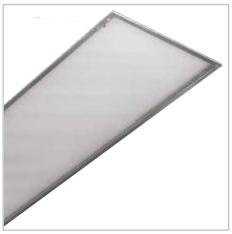
Code A5312

650°C

Wide or concentrated symmetric lighting distribution.
Transparent methacrylate lenses.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Version with WIDE lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5311	Kit LED Beta 430 - L1551- 3X65W AMPIO	198	28079	4000	>80	1551x430x159
Version with CONCENTRATED lenses - ON/OFF electronic wiring 230V-50/60Hz						
A5312	Kit LED Beta 430 - L1551- 3X65W CONC	198	27315	4000	>80	1551x430x159

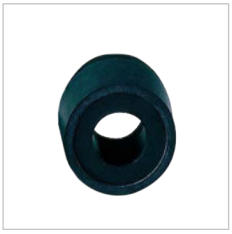
Retrofit Beta 430 | Accessories



Moulded anti-glare glass for retrofit LED kit, non-combustible, tempered, mounted and locked by a galvanised steel mono-block perimetrical frame with a sealing gasket. For installations prior to 2010, the hinge opening is lost.

Code	Item
A5322	Moulded glass with frame Beta 430-L1551

5J IK08



Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm


cordstrap

3F Cub LED

Construction characteristics

Illuminotechnical characteristics
Wide symmetric distribution.
Lifetime (L90/B10): 30000 h. (tq+25°C)
Lifetime (L85/B10): 50000 h. (tq+25°C)
Lifetime (L80/B20): 80000 h. (tq+25°C)
Lifetime (L70/B20): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Housing with double casing in pressed aluminium, powder-coated in white epoxy-polyester, hinged opening.
Quick connection in polycarbonate M20x1.5 cable gland for access to the terminal block.
Ecologic anti-aging injected sealing gaskets.
Stainless steel clips.
Total flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent.
Fixing bracket.

Electrical characteristics
In compliance with EN 60598-1.
Compliance with the EN 60598-2-22 standard for power supply from a centralised CPSS emergency system must be verified in the technical data sheets of each individual device on our website.
Quick connection.

Source characteristics

- Linear LED modules.
- Colour initial tolerance (MacAdam): SDCM 3.

On request

- different colour rendering indices and colour temperatures
- concentrated distribution
- laminated glass
- wiring: single-circuit, CLO (more information on page 598)
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- double quick connection
- HACCP versions for use in the food industry
- retrofit LED kit
- emergency versions

Applications

100W version
Ambient temperature from -20°C to +45°C.
150W version
Ambient temperature from -20°C to +40°C.

Environments: commercial, industrial, sports, stores, sports halls, gymnasiums. Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.
Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.
SP version
Luminaires suitable, from a hygienic point of view, for use in production plants in the food industry
(HACCP / IFS / BRC-Standard).

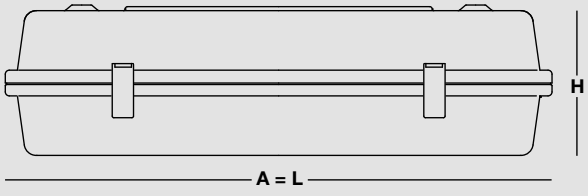
Installation

Suspension mounted on a bus bar or with a chain attached to the ceiling.
For brackets see accessories on page 541.

Light Management

The DALI products of this family can be controlled manually with the technology 3F Easy Dim or even automatically and manually using the 3F Smart Dimming technology (see "Light Management" chapter).

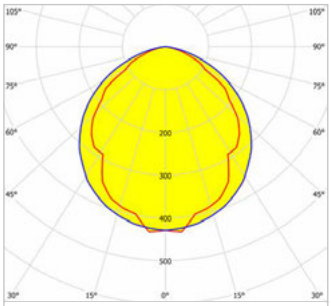
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 541.

3F Cub LED VT



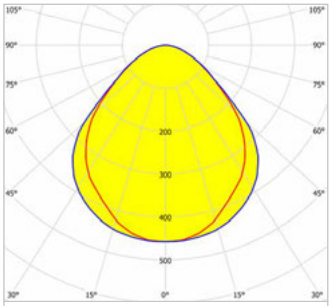
Code 56333

960°C | IP64 | 20J | IK10

Transparent glass VT tempered, non-combustible.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz, twin-circuit						
56330	3F CUB LED 100W CR VT	108	14957	4000	>80	680x680x187
56333	3F CUB LED 150W CR VT	159	22234	4000	>80	680x680x187
DALI electronic wiring 230V-50/60Hz						
56332	3F CUB LED 100W DALI CR VT	108	14957	4000	>80	680x680x187
56335	3F CUB LED 150W DALI CR VT	159	22234	4000	>80	680x680x187

3F Cub LED SP



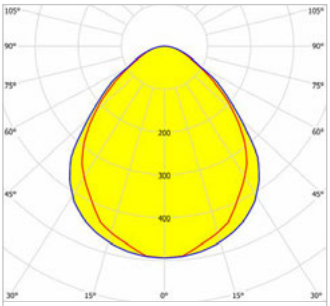
Code 56347

650°C | IP64 | 5J | IK08

SP transparent methacrylate diffuser, prismatic outside, antiglare.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz, twin-circuit						
56344	3F CUB LED 100W CR SP	108	14098	4000	>80	680x680x187
56347	3F CUB LED 150W CR SP	159	20844	4000	>80	680x680x187
DALI electronic wiring 230V-50/60Hz						
56346	3F CUB LED 100W DALI CR SP	108	14098	4000	>80	680x680x187
56349	3F CUB LED 150W DALI CR SP	159	20844	4000	>80	680x680x187

3F Cub LED VS



Code 56340

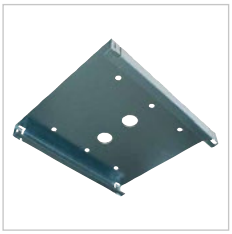
960°C | IP64 | 20J | IK10

VS moulded glass, anti-glare, tempered, non-combustible.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz, twin-circuit						
56337	3F CUB LED 100W CR VS	108	13762	4000	>80	680x680x187
56340	3F CUB LED 150W CR VS	159	20415	4000	>80	680x680x187
DALI electronic wiring 230V-50/60Hz						
56339	3F CUB LED 100W DALI CR VS	108	13762	4000	>80	680x680x187
56342	3F CUB LED 150W DALI CR VS	159	20415	4000	>80	680x680x187

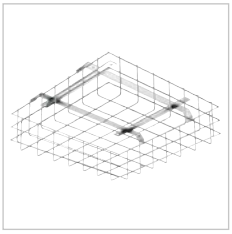
Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F Cub | Accessories



Ceiling-mounted bracket in hot-galvanised steel.

Code	Item
A0213	Ceiling-mounted bracket



Wire-guard for indoor dry applications, with double fastening (wire-guard and luminaire), for shocks coming from any directions, not transmitting the shocks to the luminaire but to the ceiling; in galvanised steel rod Ø 5 mm. To install it, ceiling-mounted bracket code A0213 is always necessary.

Code	Item
A0210	Wireguard 3F Cub

Reducing sealing ring, dedicated to the use of cables with an external diameter of up to 8 mm.

Code	Item
A0521	Reducing sealing ring diam.8mm

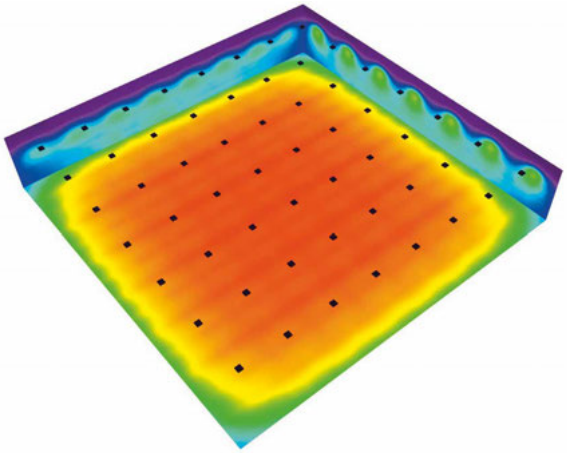
3F Cub LED

Examples of design

Comparison to 400W JM reflector

Design data:

Room dimensions	50x50 metres
Room height	9 metres
Installation height	8 metres
Number of luminaires	56 luminaires (6.3x7.1 metre grid)
Like-for-like replacement of light points	
Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres

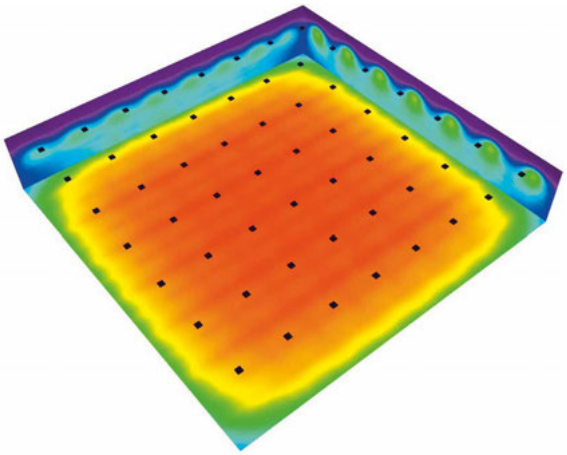


	400W JM reflector	3F Cub LED 150W CR VT	Difference
Lighting values	345 lx	381 lx	**+ 10%**
Luminaire power	440 W	163 W	**- 63%**
Circuit type	Single circuit (100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	No	Yes, depending on requirements	
Source life	8,000 hours	>50,000 hours	+42,000 hours

Comparison to 3F Cub R90 4x55 IP43

Design data:

Room dimensions	50x50 metres
Room height	9 metres
Installation height	8 metres
Number of luminaires:	56 luminaires (6.3x7.1 metre grid)
Like-for-like replacement of light points	
Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres

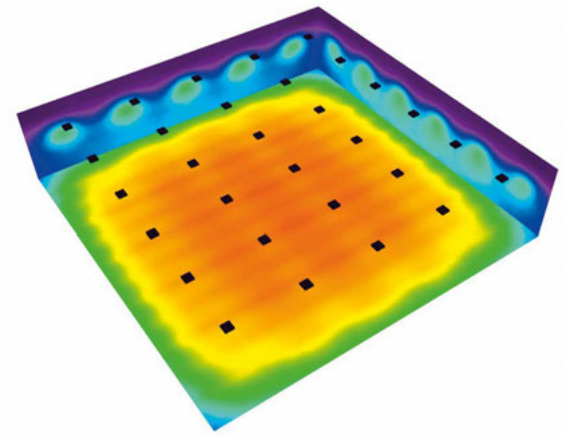


	3F Cub R90 4x55 IP43	3F Cub LED 150W CR VT	Difference
Lighting values	334 lx	381 lx	**+ 14%**
Luminaire power	240 W	163 W	**- 32%**
Circuit type	Twin circuit (50% - 100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	Yes, depending on requirements	Yes, depending on requirements	
Source life	15,000 hours	>50,000 hours	+35,000 hours

Comparison to 3F Cub 4x55 VT IP64

Design data:

Room dimensions	30x30 metres
Room height	7 metres
Installation height	6 metres
Number of luminaires:	30 luminaires (6x5 metre grid)
Like-for-like replacement of light points	
Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres



	3F Cub 4x55 CR VT IP64	3F Cub LED 100W CR VT	Difference
Lighting values	334 lx	380 lx	**+ 14%**
Luminaire power	240 W	110 W	**- 54%**
Circuit type	Twin circuit (50% - 100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	Yes, depending on requirements	Yes, depending on requirements	
Source life	15,000 hours	>50,000 hours	+35,000 hours

Why choose 3F Cub LED?

Never-ending light

3F Cub LED is equipped with new 3F LED technology whose sources specially developed for demanding applications guarantee an operating lifetime of over 50,000 hours, at the end of which at least 50% of the LED will still be providing 80% of their initial light output.

You won't believe your wallet!

- 3F LED technology allows you to save up to 60% compared to traditional sources.
- Existing luminaires can be replaced while maintaining the same light locations and wiring system, but reducing energy consumption.
- Reduced maintenance significantly lowers running costs.

Beauty which doesn't blind!

The 3F Cub LED diffuser attenuates or cancels out all glare and creates a truly enviable lighting uniformity (in relation to the installation height).
Its clean, elegant lines make 3F Cub LED a luminaire which can fit in perfectly with any environment.

Eco-logical

3F Cub LED has been created according to the principles of Eco Design, and stands out for:
- Manufactured using energy from solar panels and assembled according to our “zero mileage” philosophy.
- Limited use of different materials, facilitating assembly, installation and recycling.
- Recyclable green packaging.

Significant reduction in maintenance costs

Longer life means less maintenance.
Less maintenance means greater savings.
Less maintenance means fewer problems.
Fewer problems means greater peace of mind.

3F Manta

3F 66

Outdoor

3F Manta

> www.3F-Filippi.com/3F Manta

3F Manta was created to bring the outstanding lighting technology that our company has been offering for over 60 years inside production facilities, retail areas, and architectural spaces outdoors. Thanks to the intense activity in its research laboratories, 3F Filippi is launching its first lighting fixture for outdoor work areas, a cutting edge solution dedicated to lighting private areas where vehicles and pedestrians pass through such as parking lots, perimeter areas of production facilities, loading/unloading docks, and other areas that refer to regulation EN 12464-2 "Lighting of outdoor work areas".
3F Manta is the result of precise design covering every facet, from the mechanical elements to the use of cutting-edge technological components.
The sum of the individual details makes this fixture the ideal answer to the expectations of those who are looking for perfect, durable outdoor lighting.

+ Overview

- Luminous efficacy up to 139 lumen/watt.
- Luminous fluxes from 6193 to 22451 lumens.
- Extensive installation pitch.
- 3 different photometric distributions.
- Available on request with integrated sensors.
- Quick and easy cleaning.
- Essential and functional design.
- LED sources with colour rendering: >70, >80.
- Class wiring: Class I, Class II.
- EcoDesign: power supplies and sources replaceable at the end of product life.
- Ease of assembly and maintenance.

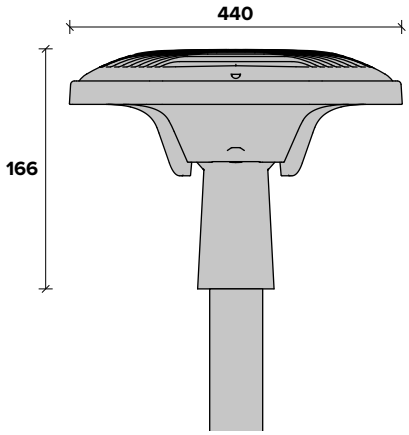
Page	Product	Wall	Bollard
558	3F Manta	•	•

Product range

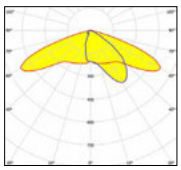
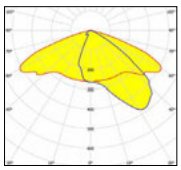
Pole

3F Manta

Pole installation



3F HD
3F HD R
Direct Emission

	Wide	Medium
Insulation classes	Class I | Class II	
Protection class	IP66	
Mechanical strength to impact	IK08	
Photometric distribution		

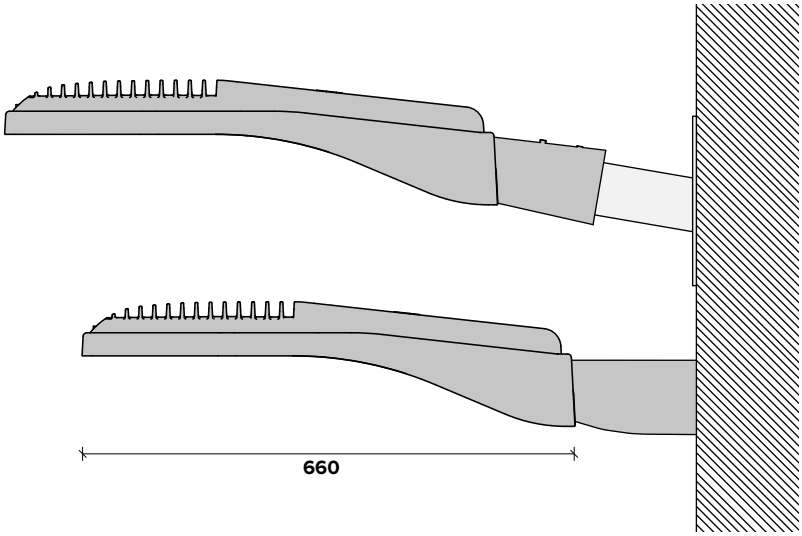
3F Manta

Wall installation

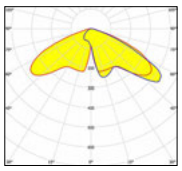
Wall

(Acc. A01479)

(Acc. A01480)



3F HD
Direct / Indirect Emission

	Front
Insulation classes	Class I | Class II
Protection class	IP66
Mechanical strength to impact	IK08
Photometric distribution	

Precision optics

For 3F Manta we developed an ad hoc multifaceted optics, with total luminous flux recovery cells, entirely made of semi-specular high reflection aluminium with titanium and magnesium surface treatment, without iridescence and luminous contrasts.

The aluminium allows the optical performance to be maintained over time, even in the most severe weather conditions, unlike chrome elements.

The versatile and mechanically solid optical group is comprised of:

8 completely separate optical compartments for maximum flux recovery.

Versatile parabolic sides, with double optical focus, designed to provide different beam angles and optimise installation in different applications.

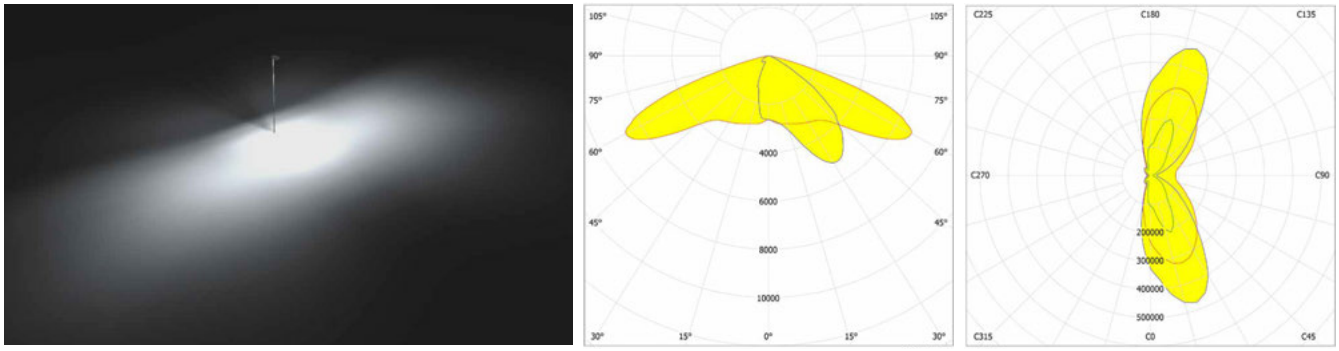
Specifically modelled blades to create the right optical shielding and optimise asymmetrical frontal distribution without flux dispersion on the back of the fixture.

In designing and creating 3F Manta, special attention was paid to the light distribution, which is perfectly controlled and guarantee the cancellation of light pollution (in compliance with current standards). The distributions, with three different optics, are designed for lighting large spaces, meeting the depth or width requirements.

WIDE

Asymmetric Optic Front 30° - Side 60°

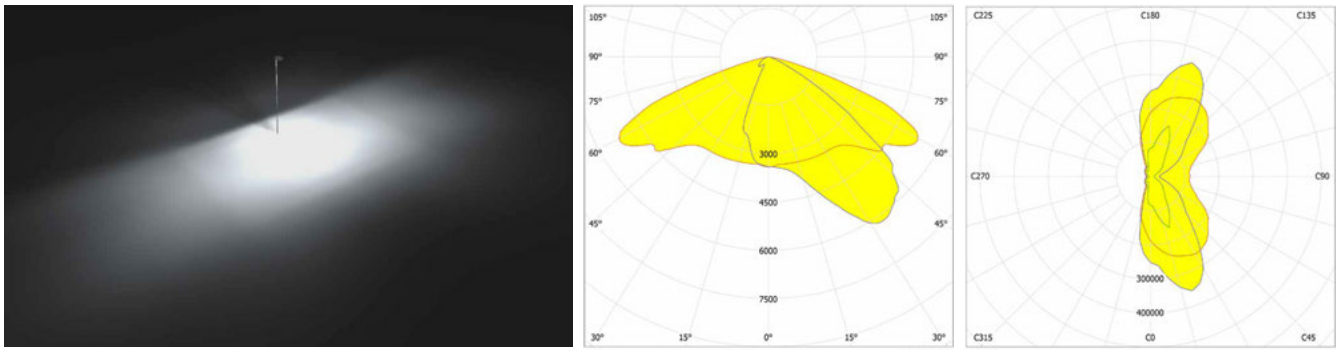
Asymmetric distribution with wide bilateral emission.



MEDIUM

Asymmetric Optic Front 40° - Side 60°

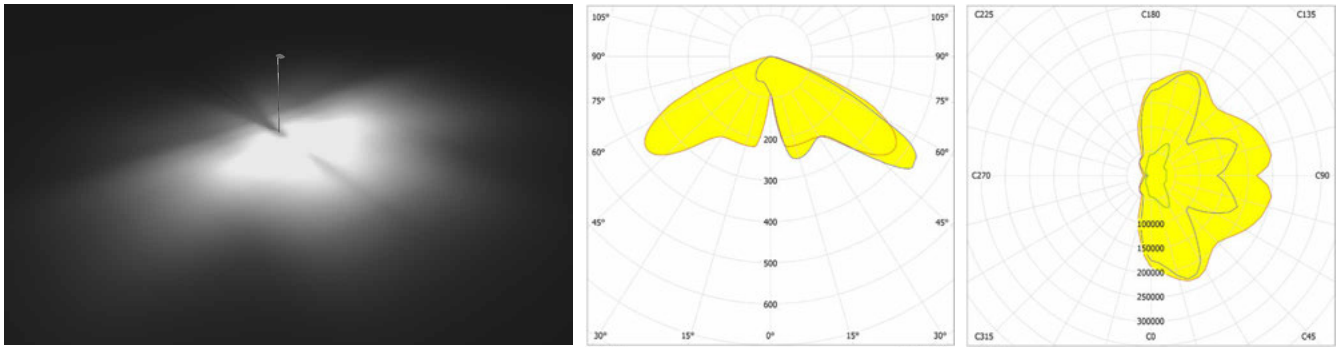
Asymmetric distribution with medium bilateral emission.



FRONT

Asymmetric Optic Front 50° - Side 50°

Asymmetric distribution with wide bilateral and front emission.

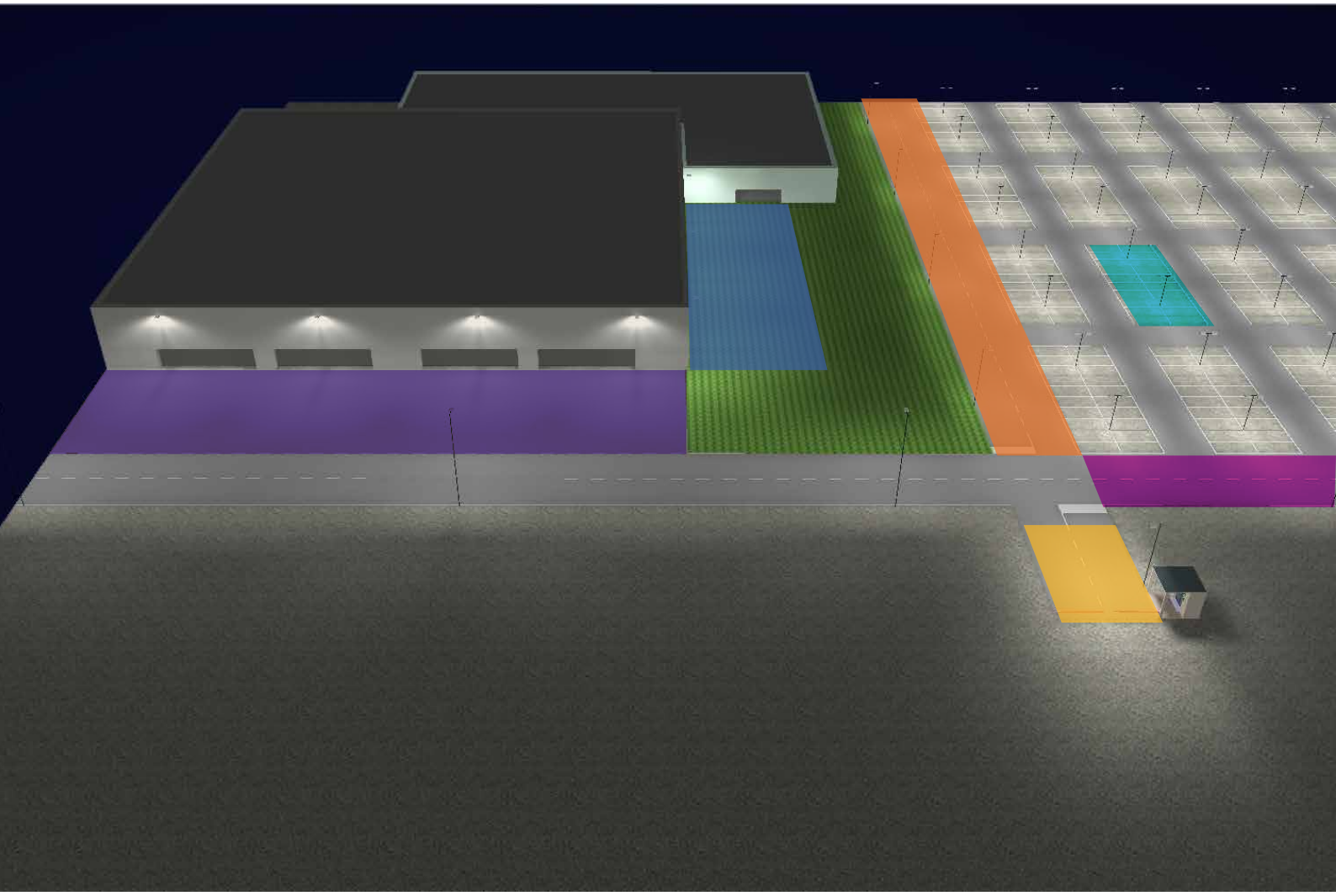


Design examples

Loading / unloading area
Wall installation
3F Manta 135/830 Wide
Installation height 8 m
Installation spacing 20 m
Average illumination at the ground 35 lux

Site perimeter
Pole installation
3F Manta 50/830 Front
Installation height 8 m
Installation spacing 20 m
Average illumination at the ground 10 lux

Perimeter road
Pole installation
3F Manta 75/830 Wide
Installation height 8 m
Installation spacing 32 m
Average illumination at the ground 25 lux



Input
Pole installation
3F Manta 185/830 Medium
Installation height 8 m
Average illumination at the ground 50 lux

Roadway
Pole installation
3F Manta 100/830 Wide
Installation height 12 m
Installation spacing 48 m
Average illumination at the ground 20 lux

Parking Lot
Pole installation
3F Manta 50/830 Medium
Installation height 5 m
Installation spacing 15 m
Average illumination at the ground 65 lux


VETRICERAMICI

Product advantages

SAFETY AND RELIABILITY

3F Manta is made with top quality components to ensure excellent performance in every aspect.
The cutting-edge technology also make 3F Manta a reliable technical solution that maintains its performance over time.

Since 1952 we have been working to facilitate the work of planners and installers, even through very strict tests that we perform in our CTFs Level 2 certified laboratories under the supervision of a recognised Third Party: 3F Manta followed strict internal protocols to minimise any faults over the longest possible period of time.

Stainless Steel hardware
They prevent oxidation over time and are also used inside the body, allowing easy access even in severe weather conditions.

Aluminium optics
They allow the photometric performance to remain constant over time.

Gasket in polyurethane
The watertight seal and IP66 protection rating are also guaranteed by the gaskets made of polyurethane, which is particularly resistant to weather and pollution.

Nema Socket - Ready (Zhaga Book 18)
The upper part of the fixture is made ready for the installation of devices created for the creation of Smart Lighting solutions (sensors, wireless antennas, video cameras, etc.).

SPD System
The SPD (Surge Protective Device) technology ensures adequate protection against atmospheric or electrical surges.

NTC System
The LED module is equipped with a thermistor to prevent exceeding the expected operating temperatures.

INSTALLATION AND MAINTENANCE

The 3F Filippi Team has designed and developed 3F Manta considering many technical and practical aspects.
Among these, our technicians were very attentive to installation and maintenance of the fixture in order to facilitate the installers' work, allowing them to reduce work times and operate with maximum safety.

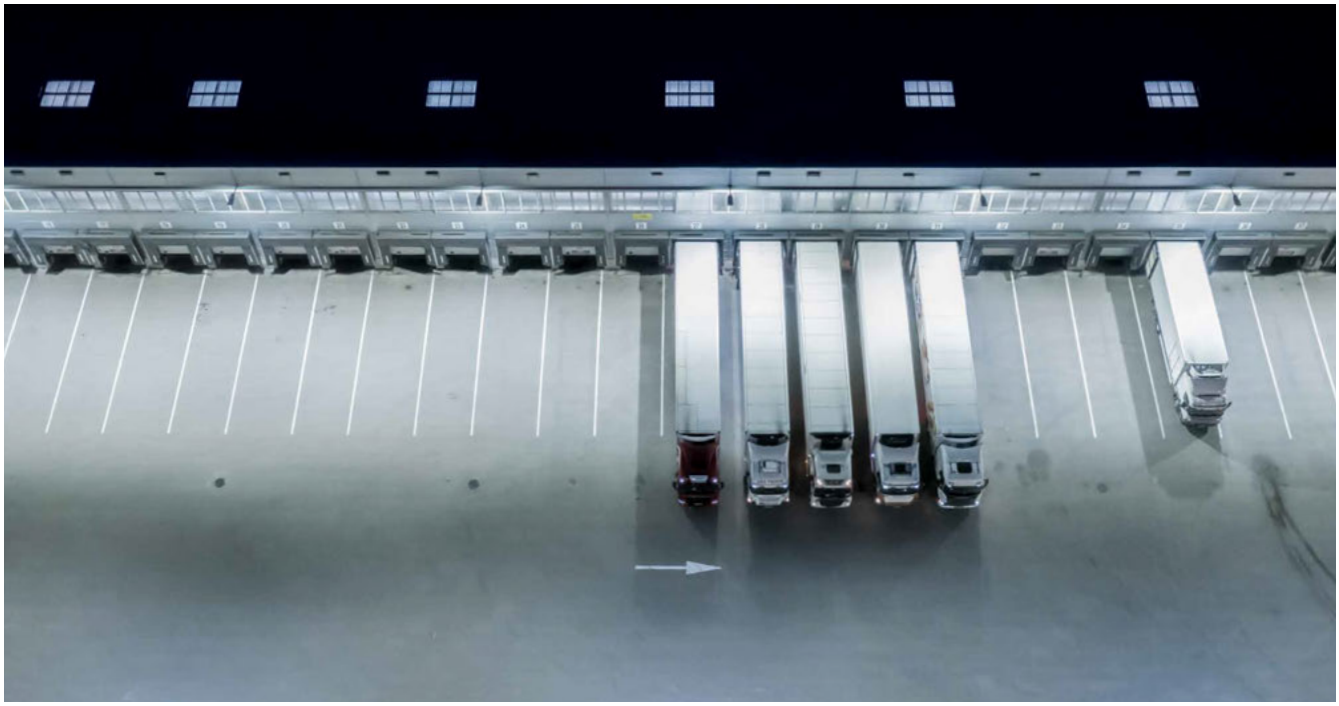
INSULATION CLASSES

3F Manta is available in two insulation Classes:
Class I - connection to the earth system is necessary and mandatory.
Class II - connection to the earth system is prohibited.
This version is simplified for installation in systems without the earthing system.

Practical and flexible installation
The wide 40° adjustment angle allows the luminaire to be tilted based on different needs, even after installation is complete.

Safe and quick installation
The bayonet terminal block and the anticlosure block eliminate the risk of accidents when working on the luminaire.

Work well at night



During the design phase of 3F Manta fundamental factors to support work in external areas were taken into consideration:

- correct perception of space and objects to identify possible dangers and workers working alone
- maximum light diffusion in work areas and attenuation of shadows and glare to reduce visual adaptation time when moving from lit to dark environments and vice versa
- compliance with regulations on limiting upward dispersion of luminous flux in Zone 1 (UNI 10819) and sources with temperatures of 3000K (to align ourselves with recommendations from main regional regulations)

For this reason we equipped our fixtures with the best LED sources available with different colour rendering indexes:

CRI 70 for:

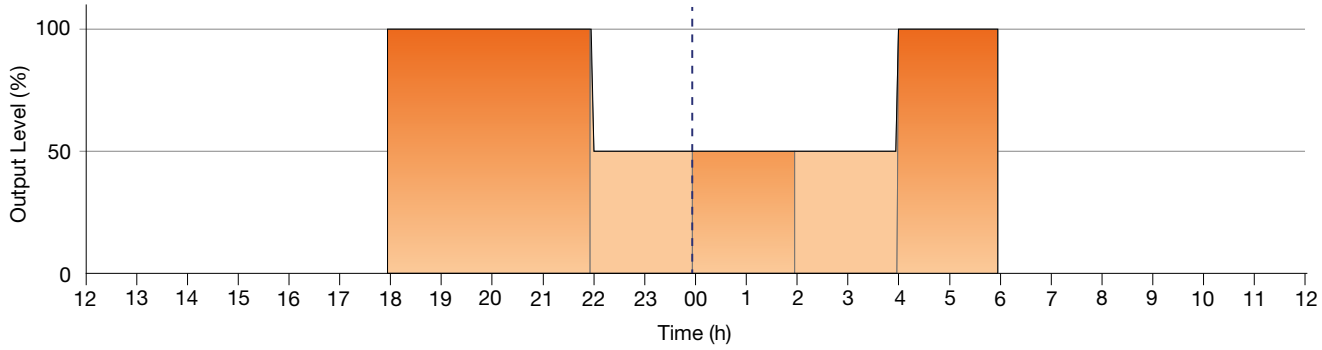
- roads
- traffic areas
- open areas
- car parks

CRI 80 for:

- maintenance areas
- vehicle loading/unloading areas
- work areas with reading systems and where tools are used
- passenger passage areas
- fruit and vegetable markets
- port and airport areas

Virtual midnight

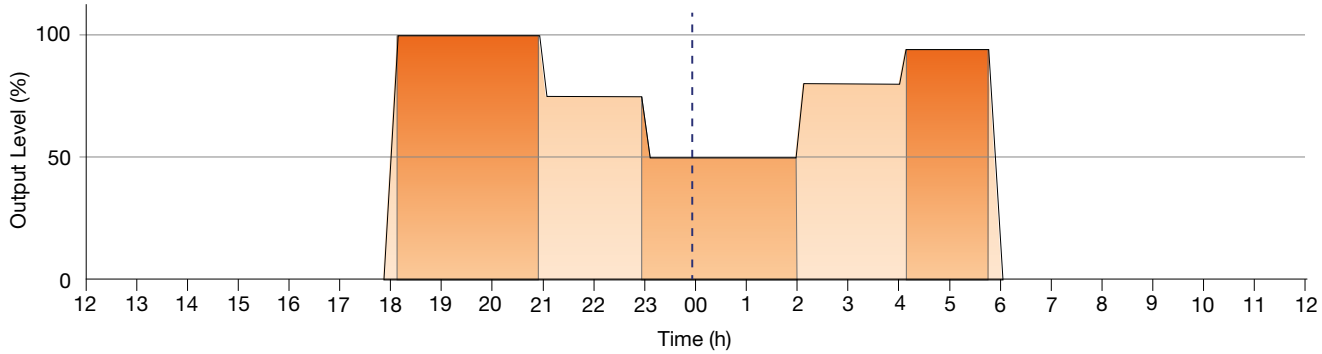
In order to further increase energy savings when lighting outdoor areas (and others), when the light does not need to be operating at full power, the “virtual midnight” system allows the creation of a stand-alone control of the fixtures without the need for an external control infrastructure or any change to the existing system.
It consists of activating a multi-level power reduction on the luminaire through a self-learning process that, based on previous times when switched on or off, determines the hypothetical “virtual midnight” between when it was switched on (sunset) and off (sunrise).
“Virtual midnight” is the reference point for applying the reduction of the output power according to the selected profile.
The default setting regulates it on two power levels: 100% and 50%.
A microprocessor calculates the reduction time starting from “virtual midnight”. The default setting calls for 2 hours before and 4 hours after “virtual midnight” as follows:



The system allows the implementation of customised adjustment profiles (optionals to be requested specifically during the order process), which allow even greater control flexibility. In fact, it is possible to:

1. Set the output levels in an interval between 10% and 100%, with 1% increases divided over 5 different time intervals.
2. Create the passage from one adjustment level to the next by means of a fade with a programmed duration.
3. Switch the light on and off through a fade. This function allows further energy savings during the twilight stages.
4. Activate an adjustments that also takes into account the sunrise and sunset in the location described by the geographic coordinates in order to further optimise the power reduction periods.

The graph below shows an example of a programming profiles that summarizes the possibilities described in points 1, 2, and 3.



3F Manta

Construction characteristics

Illuminotechnical characteristics
Asymmetric distribution with frontal, wide or medium bilateral.
No higher ULOR emission.
Lifetime (L93/B10): 30000 h. (tq+25°C)
Lifetime (L90/B10): 50000 h. (tq+25°C)
Lifetime (L85/B10): 80000 h. (tq+25°C)
Lifetime (L80/B10): 100000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Aerodynamically-shaped die-cast aluminium double-shell body for low wind resistance, equipped with fins to optimize the cooling of the internal components.
Shell closure using stainless steel screws on stainless steel bushings, with hinged opening for easy access to the wiring compartment, equipped with system against accidental closure.
Polyester powder coating with degreasing pre-treatment and phosphate layer deposit on the metal, UV stabilised, corrosion resistant, anthracite colour, salt spray resistance ISO 9227 >1000 h.
Parabolic cellular optics with total recovery, entirely made of semi-specular high reflection aluminium with titanium and magnesium surface treatment, to maintain optical performance over time.
Polyurethane foam seals, ecological, anti-aging, installed using a continuous automatic process with no joints.
VT extra transparent tempered glass diffuser, 4 mm thick, non-combustible.
Stainless steel internal and external screws.

Electrical characteristics
In compliance with EN 60598-1, EN 60598-2-3.
Flicker: <10%.
Safety break switch to shut off the power supply when opening the device.
SPD type 2+3 (combined) device to protect against voltage surges up to 10 kV in common and differential mode.
Thermal protection of the LED module via NTC sensor (Negative Temperature Coefficient).
M20x1.5 IP68 nylon cable gland for feeding input (cables with an min-max diameter 6-13mm).
Pressure compensating valve with anti-condensation effect.

Source characteristics

- Squared LED module with special protection against aggressive chemically-volatile substances, for standard LED technology.
- Colour initial tolerance (MacAdam): SDCM 5.

On request

- different power levels, colour rendering indices and colour temperatures
- wiring: DALI, CLO (more information on page 598), D1-10V, Wireless
- Customised Virtual Midnight up to 5 independent intervals / levels
- watertight socket / plug connectors

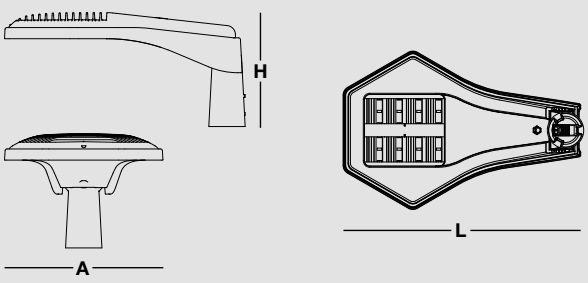
Applications

Ambient temperature from -30°C to +45°C.
Outdoor environments, general lighting, work and roadway lighting, transit areas and building perimeters, parking lots, trade fairs.
Control of light pollution, in accordance with the legislative requirements in force.

Installation

Pole or wall mounted using always necessary accessories (see on page 562).

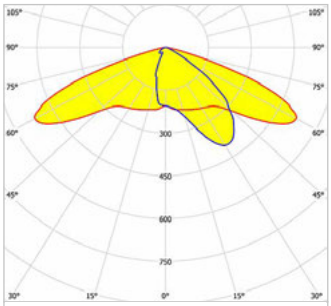
Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 562.

3F Manta Wide



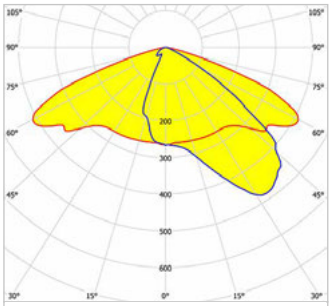
Code 7003

960°C | IP66 | 5J | IK08

Asymmetric distribution with wide bilateral.
This model is available in two different Protection Classes against electric shock (more information on page 640).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Class I - ON/OFF electronic wiring 230V-50/60Hz						
7001	3F Manta AN 50/730 WIDE	53	6950	3000	>70	660x440x166
7002	3F Manta AN 75/730 WIDE	78	9717	3000	>70	660x440x166
7003	3F Manta AN 100/730 WIDE	103	13101	3000	>70	660x440x166
7004	3F Manta AN 135/730 WIDE	149	17458	3000	>70	660x440x166
7022	3F Manta AN 50/830 WIDE	53	6227	3000	>80	660x440x166
7023	3F Manta AN 75/830 WIDE	78	8707	3000	>80	660x440x166
7024	3F Manta AN 100/830 WIDE	103	11738	3000	>80	660x440x166
7025	3F Manta AN 135/830 WIDE	149	15642	3000	>80	660x440x166
Class II - ON/OFF electronic wiring 230V-50/60Hz						
7026	3F Manta AN 50/730 II WIDE	53	6950	3000	>70	660x440x166
7027	3F Manta AN 75/730 II WIDE	78	9717	3000	>70	660x440x166
7028	3F Manta AN 100/730 II WIDE	103	13101	3000	>70	660x440x166
7029	3F Manta AN 135/730 II WIDE	149	17458	3000	>70	660x440x166
7030	3F Manta AN 50/830 II WIDE	53	6227	3000	>80	660x440x166
7031	3F Manta AN 75/830 II WIDE	78	8707	3000	>80	660x440x166
7032	3F Manta AN 100/830 II WIDE	103	11738	3000	>80	660x440x166
7033	3F Manta AN 135/830 II WIDE	149	15642	3000	>80	660x440x166

3F Manta Medium



Code 7011

03 | SAFE FLICKER | D | 960°C | IP66 | 5J | IK08

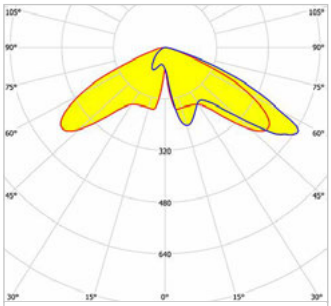
Asymmetric distribution with medium bilateral.
This model is available in two different Protection Classes against electric shock (more information on page 640).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Class I - ON/OFF electronic wiring 230V-50/60Hz						
7009	3F Manta AN 50/730 MEDIUM	53	6912	3000	>70	660x440x166
7010	3F Manta AN 75/730 MEDIUM	78	9663	3000	>70	660x440x166
7011	3F Manta AN 100/730 MEDIUM	103	13028	3000	>70	660x440x166
7012	3F Manta AN 135/730 MEDIUM	149	17360	3000	>70	660x440x166
7020	3F Manta AN 185/730 MEDIUM	195	22451	3000	>70	660x440x166
7035	3F Manta AN 50/830 MEDIUM	53	6193	3000	>80	660x440x166
7036	3F Manta AN 75/830 MEDIUM	78	8658	3000	>80	660x440x166
7037	3F Manta AN 100/830 MEDIUM	103	11673	3000	>80	660x440x166
7038	3F Manta AN 135/830 MEDIUM	149	15555	3000	>80	660x440x166
7039	3F Manta AN 185/830 MEDIUM	195	20116	3000	>80	660x440x166
Class II - ON/OFF electronic wiring 230V-50/60Hz						
7040	3F Manta AN 50/730 II MEDIUM	53	6912	3000	>70	660x440x166
7041	3F Manta AN 75/730 II MEDIUM	78	9663	3000	>70	660x440x166
7042	3F Manta AN 100/730 II MEDIUM	103	13028	3000	>70	660x440x166
7043	3F Manta AN 135/730 II MEDIUM	149	17360	3000	>70	660x440x166
7044	3F Manta AN 185/730 II MEDIUM	195	22451	3000	>70	660x440x166
7045	3F Manta AN 50/830 II MEDIUM	53	6193	3000	>80	660x440x166
7046	3F Manta AN 75/830 II MEDIUM	78	8658	3000	>80	660x440x166
7047	3F Manta AN 100/830 II MEDIUM	103	11673	3000	>80	660x440x166
7048	3F Manta AN 135/830 II MEDIUM	149	15555	3000	>80	660x440x166
7049	3F Manta AN 185/830 II MEDIUM	195	20116	3000	>80	660x440x166

Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

Accessories on page 562.

3F Manta Front



Code 7051

960°C | IP66 | 5J | IK08

Asymmetric distribution with deep bilateral.
This model is available in two different Protection Classes against electric shock (more information on page 640).

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Class I - ON/OFF electronic wiring 230V-50/60Hz						
7051	3F Manta AN 50/730 FRONT	51	7242	3000	>70	660x440x166
7052	3F Manta AN 75/730 FRONT	76	10266	3000	>70	660x440x166
7053	3F Manta AN 100/730 FRONT	105	12830	3000	>70	660x440x166
7054	3F Manta AN 135/730 FRONT	141	15913	3000	>70	660x440x166
7055	3F Manta AN 50/830 FRONT	51	6474	3000	>80	660x440x166
7056	3F Manta AN 75/830 FRONT	76	9177	3000	>80	660x440x166
7057	3F Manta AN 100/830 FRONT	105	11969	3000	>80	660x440x166
7058	3F Manta AN 135/830 FRONT	141	14226	3000	>80	660x440x166
Class II - ON/OFF electronic wiring 230V-50/60Hz						
7059	3F Manta AN 50/730 II FRONT	51	7242	3000	>70	660x440x166
7060	3F Manta AN 75/730 II FRONT	76	10266	3000	>70	660x440x166
7061	3F Manta AN 100/730 II FRONT	105	12830	3000	>70	660x440x166
7062	3F Manta AN 135/730 II FRONT	141	15913	3000	>70	660x440x166
7063	3F Manta AN 50/830 II FRONT	51	6474	3000	>80	660x440x166
7064	3F Manta AN 75/830 II FRONT	76	9177	3000	>80	660x440x166
7065	3F Manta AN 100/830 II FRONT	105	11969	3000	>80	660x440x166
7066	3F Manta AN 135/830 II FRONT	141	14226	3000	>80	660x440x166

3F Manta | Accessories

Pole mount in die-cast aluminium with the same paint treatment as the body (for Ø 60 mm and Ø 76 mm poles) equipped with special teeth for adjusting the inclination on the head of the device by ± 20° with an adjustment pitch of 5°. Possibility of installing on vertical pole (pole head) and horizontal pole (arm). Mounting on the device using the supplied stainless steel screws on self-locking stainless steel nuts.

Code	Item
A0439	Pole mounting diameter 60mm
A0440	Pole mounting diameter 76mm

Not suitable for fixing on fibreglass pole.

Reducer in galvanised steel, suitable for poles with a diameter of 76 mm.

Code	Item
A0441	Reducer from 76 mm to 60 mm

To install this accessory, it is always necessary to use the pole connection code A0439.

Galvanised steel bracket for fixing on flat facades. 3 mm thick and 200 mm long arm. Powder coated polyester paint, anthracite colour. This bracket DOES NOT allow adjustment of the inclination of the product.

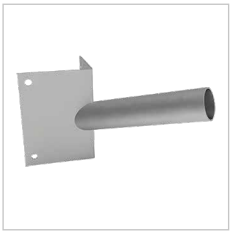
Code	Item
A01480	Fixed position wall bracket

Options on request: painting in different RAL colour.

Galvanised steel bracket for fixing on flat facades. Arm length 250 mm, diameter 60 mm, inclination of 15°. This bracket allows adjustment of the inclination of the product.

Code	Item
A01479	Wall bracket 15° diam 60mm

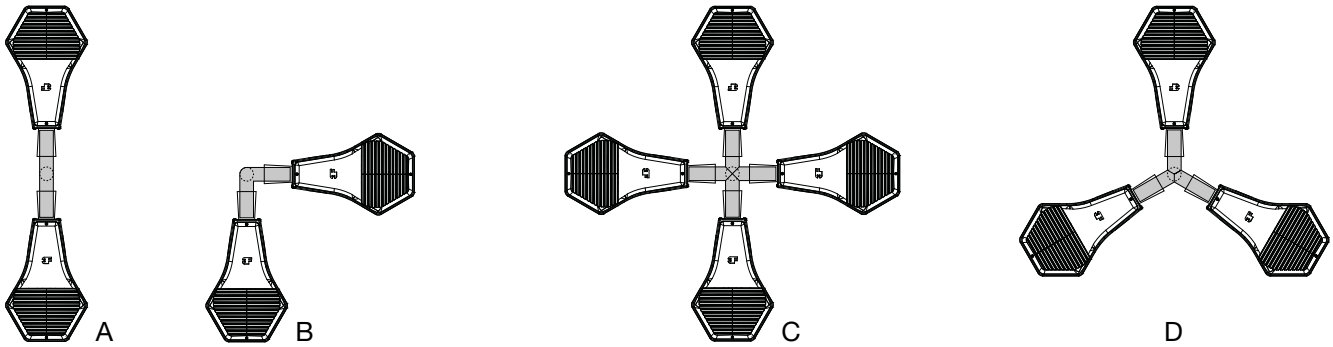
To install this accessory, it is always necessary to use the pole connection code A0439. Options on request: painting in RAL colours / 500 mm outreach / horizontal pole.



Galvanised steel bracket for fixing on the corner between facades. Arm length 250 mm, diameter 60 mm, inclination of 15°. This bracket allows adjustment of the inclination of the product.

Code	Item
A01481	Corner wall bracket 15° diam 60mm

To install this accessory, it is always necessary to use the pole connection code A0439. Options on request: painting in RAL colours / 500 mm outreach / horizontal pole.



If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.

3F 66 LED

Construction characteristics

Illuminotechnical characteristics
Downward bilateral distribution.
Lifetime (L75/B10): 30000 h. (tq+25°C)
Lifetime (L70/B10): 50000 h. (tq+25°C)
Photobiological safety in compliance with IEC/TR 62778: RG0 risk exempt, (IEC 62471) (further information on page 18).

Mechanical characteristics
Self-extinguishing V2 polycarbonate housing, injection
moulded, RAL 7035 grey.
Flow recuperator in specular aluminium with superficial titanium-magnesium treatment, non-iridescent.
Transparent PMMA diffuser, injection moulded, with smooth outer surface and differentiated prismatic inner surface.
Sealing gaskets between housing and diffuser in ecological anti-aging EPDM.
Diffuser safety seal with 4 latches attaching it to the housing, in stainless steel.

Electrical characteristics
In compliance with EN 60598-1.
Double insulated cables.
Line entry at rear through rubber seal or at side after drilling.
Class II.

Source characteristics

- LED modules.
- Colour initial tolerance (MacAdam): SDCM 4.

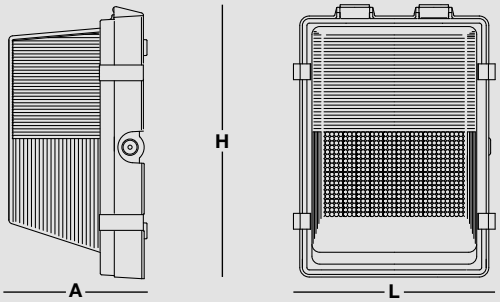
On request

- LED sources with different colour temperatures
- different powers
- emergency versions

Applications

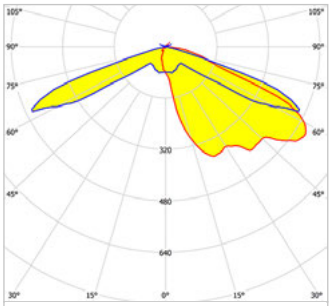
Wall mounting, particularly suitable for outdoor lighting of civil and industrial buildings, porticos, underpasses and walkways.
Downwards bilateral controlled distribution allows to optimise the perimeter lighting uniformity of buildings.
Control of light pollution, in accordance with the legislative requirements in force.

Dimensions



Performances are measured and certified by our CTFs stage 2 Photometric Laboratory (more information on page 10).
Datasheets, product updates and specifications on our website: **www.3f-filippi.com**

3F 66 LED



Code 8357

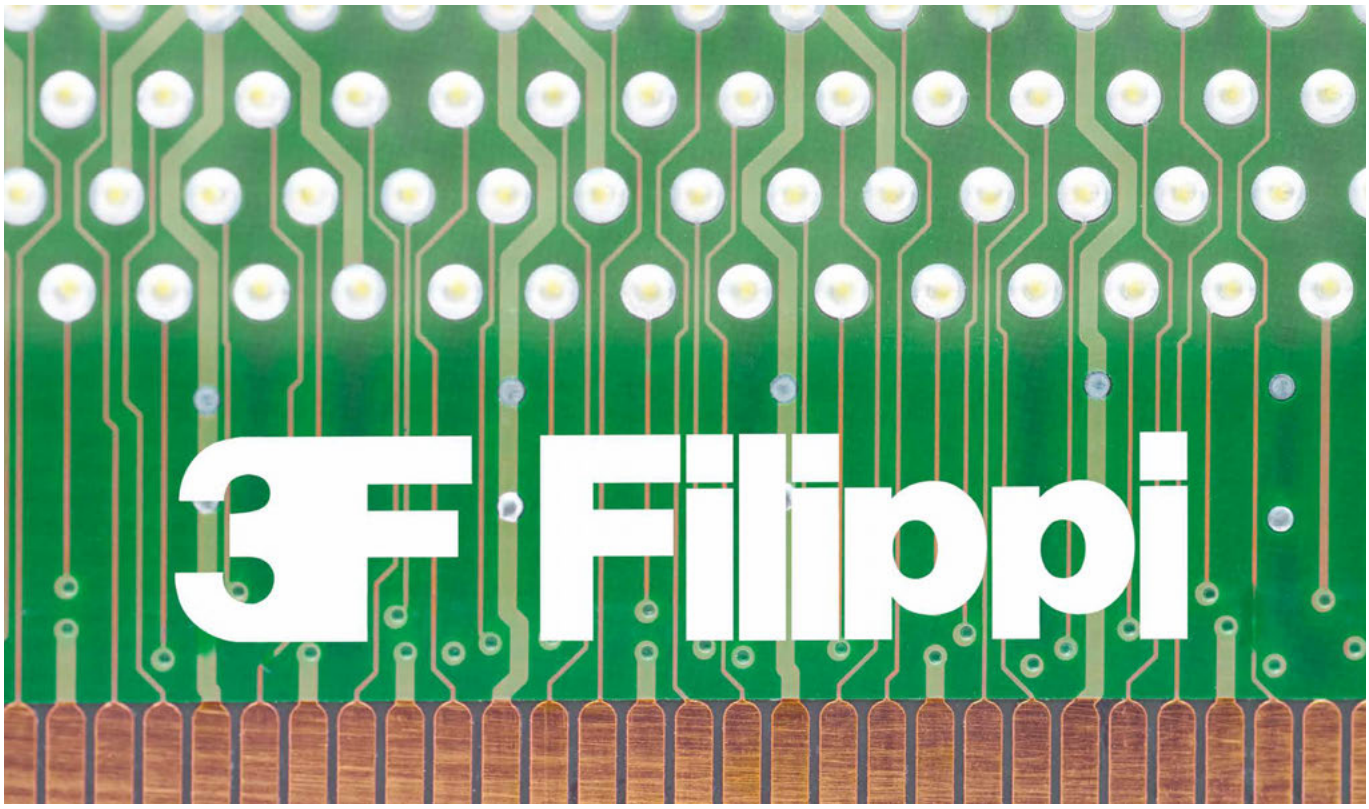
650°C | IP65 | 5J | IK08 | Classe II | Driver/LED SELV

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
ON/OFF electronic wiring 230V-50/60Hz, fuse						
8357	3F 66 1 LED 6 II	9	774	4000	>80	255x176x344
8358	3F 66 2 LED 12 II	15	1530	4000	>80	255x176x344

Light Management

Light Management

Good for you, excellent for the environment



3F Filippi is always at the forefront of energy savings and improving the efficiency of systems: this is why we are constantly striving to create luminaires which are able to interact with environments and with the people who live and work there.

One of the most important aspects of managing workplaces is certainly the lighting: it is indeed proven that poor illumination is not only harmful to workers, but creates both direct (higher power consumption or waste) and indirect (worker illness, decreases in productivity, stress or even physical issues) economic problems.

Good lighting may often seem difficult to obtain, but in reality small measures can obtain big results.
Here are three useful tips:

- **Let in the sun**: natural light improves quality of life and saves you money!
- **Use low-energy sources:** luminaires fitted with LED sources are the best weapons in cutting costs, especially when they are optimised like those manufactured by 3F Filippi.
- **Use luminaires with luminous fluxes which can be regulated according to requirements**: dimming the luminaires lets you lower electricity consumption by up to 80%, at the same time creating a more pleasant and functional working environment.

Systems which are able to regulate the artificial lighting on the basis of the available natural light can be created, using only the power required to maintain an appropriate level of lighting in the environment, allowing you to save up to 80% on electricity bills.
After performing analyses alongside lighting designers, we noticed that adopting control systems which can regulate lighting on the basis of the available natural light provides wide margins for improving the energy efficiency of systems, particularly during the summer months.
Adopting systems such as KNX - which can also be used throughout the building for automating all types of systems (HVAC, lighting, opening, blinds etc.) - combined with measurement of the natural light level provides excellent results, in part due to intelligent positioning of light measurement sensors in relation to the position of the workplace and geographical orientation.

3F Filippi offers light regulation systems to help you save energy and protect the environment: from manual regulation systems to luminaires able to turn on and off thanks to integrated brightness and presence sensors, energy management systems linked to building automation, right through to components which help you to create made-to-measure lighting installations with ease.

3F Filippi is at your side to offer you the best solutions both for your environment and your workers.

3F Smart Lighting

3F Easy Dim
Manual regulation systems which allow you to adjust the luminous flux of the luminaires.

3F Smart Dimming
Stand-alone sensors for ON/OFF control and regulation (DALI versions only) of groups of luminaires

3F Sensor
Luminaires with integrated ON-OFF radar movement sensor

3F DALI Sensor
DALI luminaires with integrated DALI sensor for automatic regulation and on/off control of the luminous flux on the basis of the natural light

3F Sensor Bluetooth
Fixtures with DALI-BLE motion radar sensors to turn on and regulate groups of fixtures

3F HCL for TW fixtures
TW Tunable White fixtures for manual or automatic variation (with HCL systems) of colour temperature

3F CLO
Automatic regulation system which compensates for the decline in luminous flux, providing a constant level of lighting over time

3F & KNX
Luminaires equipped with DALI driver able to interface with KNX systems for automated remote management of the technological systems of a building

3F Wireless
A 868MHz wireless control and regulation system that allows for communication between light fixtures and sensors

3F Bluetooth
Bluetooth adjustment and control system, allows communication between lighting devices and management via APP

These lighting management systems comply with UNI EN 15232 "Energy performance of buildings. Impact of Building Automation, Controls and Building Management" which introduces four energy efficiency categories for the control functions of building technical systems.

Introducing **3F Smart Lighting** control and light management systems - even in systems already equipped with high-efficiency light sources - can provide significant further energy efficiency improvements.

A great advantage of automated systems, like **3F Sensor, 3F DALI Sensor** and **3F Smart Dimming**, is that regulation is completely automatic, without any requirement for operators to intervene, ensuring that the systems is constantly adapting itself to the required conditions.

3F Filippi lighting and Smart Buildings

Both for new builds and for existing systems, the costs of implementing these solutions are more than offset by simplification **of the electrical wiring and corresponding installation: this** reduction in conductors, conduits, power and control switchboards means that the time required to see a return on investment is drastically reduced.

Our sales and technical offices are at your disposal to support you in choosing the best solutions available; these can also be customised to the application you require.

3F Easy Dim

Savings in your hands

Characteristics

3F Easy Dim technology lets you regulate luminous flux in an easy, low-cost and customisable manner.
In terms of the system, it is composed of a commercially available push-button (up to 6 ballasts) and a DALI repeater (to manage up to 64 ballasts). This mode allows you to perform the following functions:

- Turning the luminaire **ON/OFF.**
- **Manual regulation of the luminaire's luminous flux** on the basis of specific requirements.

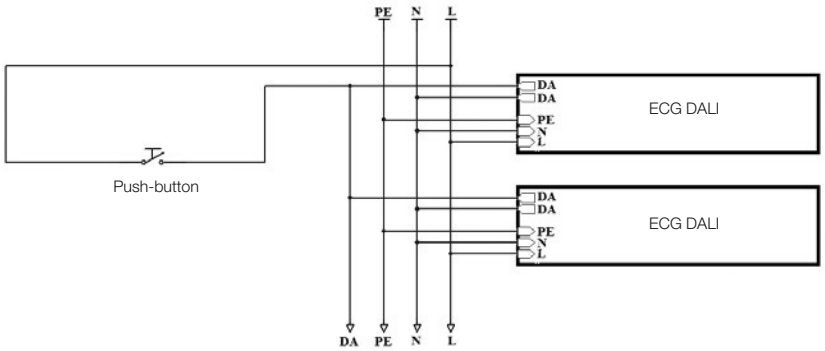
Advantages

The advantage of this technology is that it gives the user the possibility to customise the quantity of light present in the environment depending on taste and requirements, while using genuinely low-cost components. The control provided is manual, and as such savings will depend on how it is managed.

Savings

- **Installation phase**: up to 6 ballasts with PUSH DIM function, controlled via a commercially available push-button (environments without interference). Between 7 and 64 ballasts requires a DALI repeater.
- **Use**: if the luminous flux output is below 100%, power consumption of the luminaire is significantly reduced.

Up to 6 ballasts



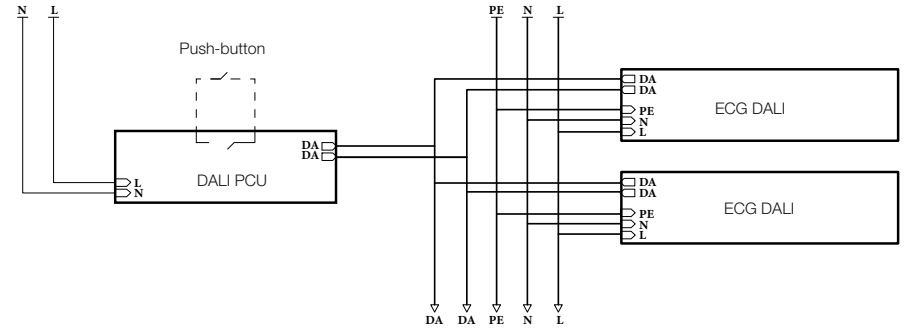
N.b.: in environments where there is signal interference present, and with dimmer wire lengths of over 20 metres, the installation of a DALI repeater is advisable.

Results obtainable
- **Manually turning the luminaire** ON/OFF.
- **Manual regulation of the luminaire's luminous flux** on the basis of user requirements.

Compatible luminaires
Any luminaire from the 3F Filippi range, as long as it is equipped with DALI PUSH DIM ballast.

Components required
- 1 commercial push-button.

Up to 25 ballasts

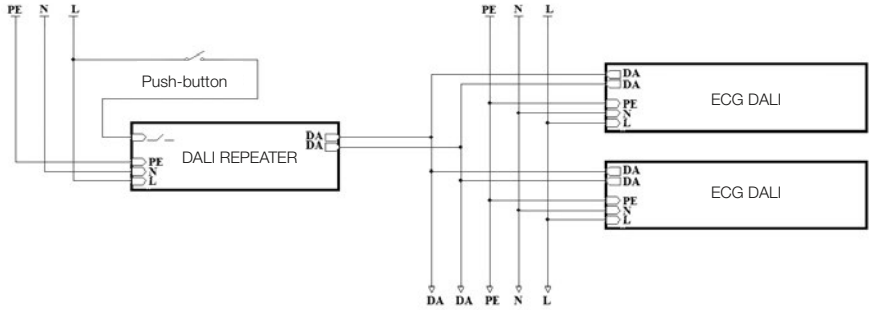


Results obtainable
- **Manually turning the luminaire** ON/OFF.
- **Manual regulation of the luminaire's luminous flux** on the basis of user requirements.

Compatible luminaires
Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

Components required
- 1 commercial push-button.
- 1 DALI PCU fixture for each button (button cable length 15 cm – max 100 cm).

Up to 64 ballasts



Results obtainable
- **Manually turning the luminaire** ON/OFF.
- **Manual regulation of the luminaire's luminous flux** on the basis of user requirements.

Compatible luminaires
Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

Components required
- 1 commercial push-button.
- 1 DALI repeater.

3F Easy Dim | Accessories

Signal Repeater for expansion of DALI systems (64 drivers - 300 metres of line), size 189x30x21 mm, integrated installation into the device or into the Box (cod. A3010).

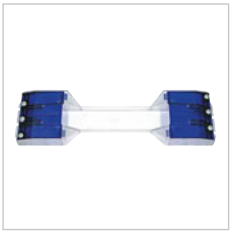
Code	Item
A3008	DALI ext - Repeater

CE IP20

Signal Repeater for expansion of DALI systems (64 drivers - 300 metres of line), size 96x72x62 mm, DIN rail mounting.

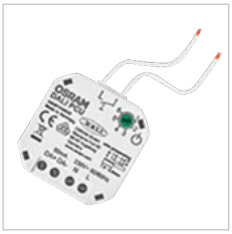
Code	Item
A3009	DALI DIN - Repeater

CE IP20



Box mounted housing DALI Repeater ext (cod. A3008), size 261x71x27 mm.

Code	Item
A3010	DALI - Box for repeater



DALI control panel for recessed installation, dimensions 48x49x22 mm, allows to regulate the flow power on/off of a up to a maximum of 25 DALI drivers (max 300 m in a line) with just one commercial button (normally open).

Code	Item
A3007	DALI PCU - push button interface

CE IP20

3F Sensor

A small revolution bringing you big advantages

Available luminaires

3F Petra LED Sensor - 3F Linda Sensor
3F Linda LED Sensor CF

Characteristics

Sensor technology allows you to make savings and manage your lighting systems in an easy, low-cost and customisable manner without investing significant capital in costly systems.
What we have done is extremely simple: we have incorporated an ON/OFF high-frequency (HF) 5.8GHz radar movement sensor inside the luminaire.

Advantages

The advantages of this technology create significant savings for the end customer:
- **Time savings during installation**: integrating these functions inside the luminaire means it is no longer necessary to install a network of sensors (and corresponding wiring) and connect it to the luminaires.
- **Cost savings**: you save money on installation time, electrical supplies and system calibration time.
- **Ease of installation**: it is no longer necessary to create or modify electrical systems. Just connect the luminaires to the mains
- **Customisation of brightness levels**: each luminaire "works" independently from the others, allowing you to create "made to measure" lighting.

Products equipped with 3F Sensor technology are individual, independent luminaires which cannot be connected together.

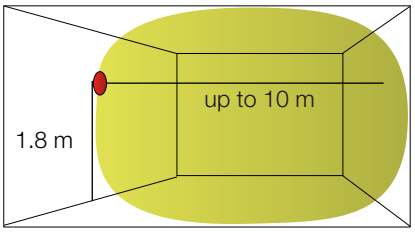
Savings

In practical terms, the advantages are real and tangible in these aspects for the end customer:
- **Installation**: to create a network of luminaires, it is no longer necessary to connect them physically; this means you no longer have to spend extra for wiring supplies and installation time.
- **Independence and precision**: Each luminaire is independent; this means that lights turn on in an increasingly localised and precise manner, with corresponding electricity savings.
- **Simplicity**: dimming and presence sensors are integrated and already operational. All that is left for you to do is to connect the phase, neutral and earth wires: wasting time setting up and adjusting the system is a thing of the past!
- **Integration with existing installations**: the same lighting connections, using standard electrical wiring: this means not wasting money adapting the systems.

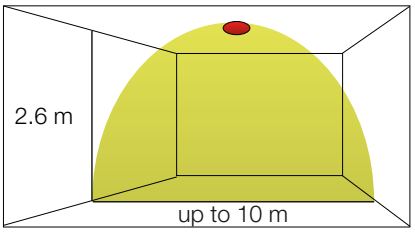
3F Sensor: saves you money even before the light is turned on.

Versions	Sensor	Corridor Sensor Function
Standard position (no movement)	Luminaire off	Kept on at 10% power
Automatic	Via ON/OFF high-frequency (HF) 5.8GHz radar movement sensor	
Mounting height	Wall installation at max 2.7 metres - Ceiling installation at max 4 metres	
Twilight function	Daylight / 300 lux / 150 lux / Twilight / Night / Programmable mode (default setting “daylight”)	
On time	From 10 seconds to 30 minutes (default setting 900s)	
Sensitivity/detection field	20% - 30% - 50% - 75% - 100% (default setting 75%)	

Sensitivity



Luminaire wall installation



Installation Ceiling luminaires

RADAR technology goes beyond glass, wood and plasterboard, therefore for the correct functioning of the luminaire, the sensor detection field (see instruction sheet) must be adjusted according to the type of installation/room.

3F Sensor

Components required

- ON/OFF high-frequency (HF) 5.8GHz radar movement sensor incorporated in the luminaire.
- Luminaires with standard ON/OFF driver.

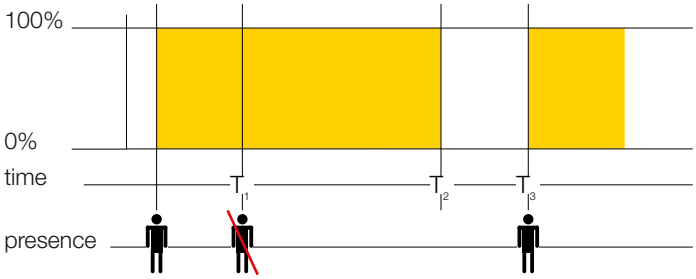
Results obtainable

- Luminaire switching on the basis of the chosen light level (deactivated by default, but can be modified to meet requirements) and movement of persons within the range of the sensor.
- Regulation of the luminaire's on time, on the basis of specific requirements.

Available luminaires

3F Petra LED Sensor, 3F Linda LED Sensor.

Operation graph



Legend:

T_1 --> T_2 - latency time managed by the sensor - **default 900s**

T_2 --> T_3 - period of zero luminous flux - **unlimited time**

3F Sensor CF

Components required

- ON/OFF high-frequency (HF) 5.8GHz radar movement sensor incorporated in the luminaire.
- Luminaires with DALI driver programmed with Corridor Function (CF).

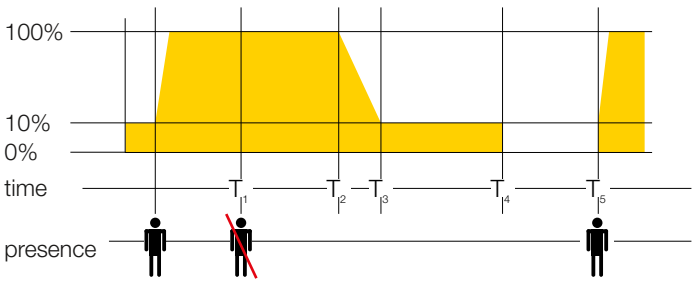
Results obtainable

- Two lighting levels (100% with movement, 10% without movement and then after 3 minutes 0%).
- The luminaire's luminous flux cannot be dimmed.

Available luminaires

3F Linda LED Sensor CF.

Operation graph



Legend:

T_1 --> T_2 - latency time managed by the sensor - **default 900s**

T_2 --> T_3 - luminous flux decrease time - **0,7 seconds**

T_3 --> T_4 - luminous flux maintenance time 10% - **180 seconds**

T_4 --> T_5 - period of luminous flux 0% - **unlimited time**

3F Bluetooth Sensor

Fixtures available

3F Linda Sensor DALI-BLE

Components

1. DALI-Bluetooth regulator with a high frequency radar motion detector (HF) 5.8GHz, integrated inside the fixture.
2. Smartphone or Tablet app to configure fixtures.

Obtainable result

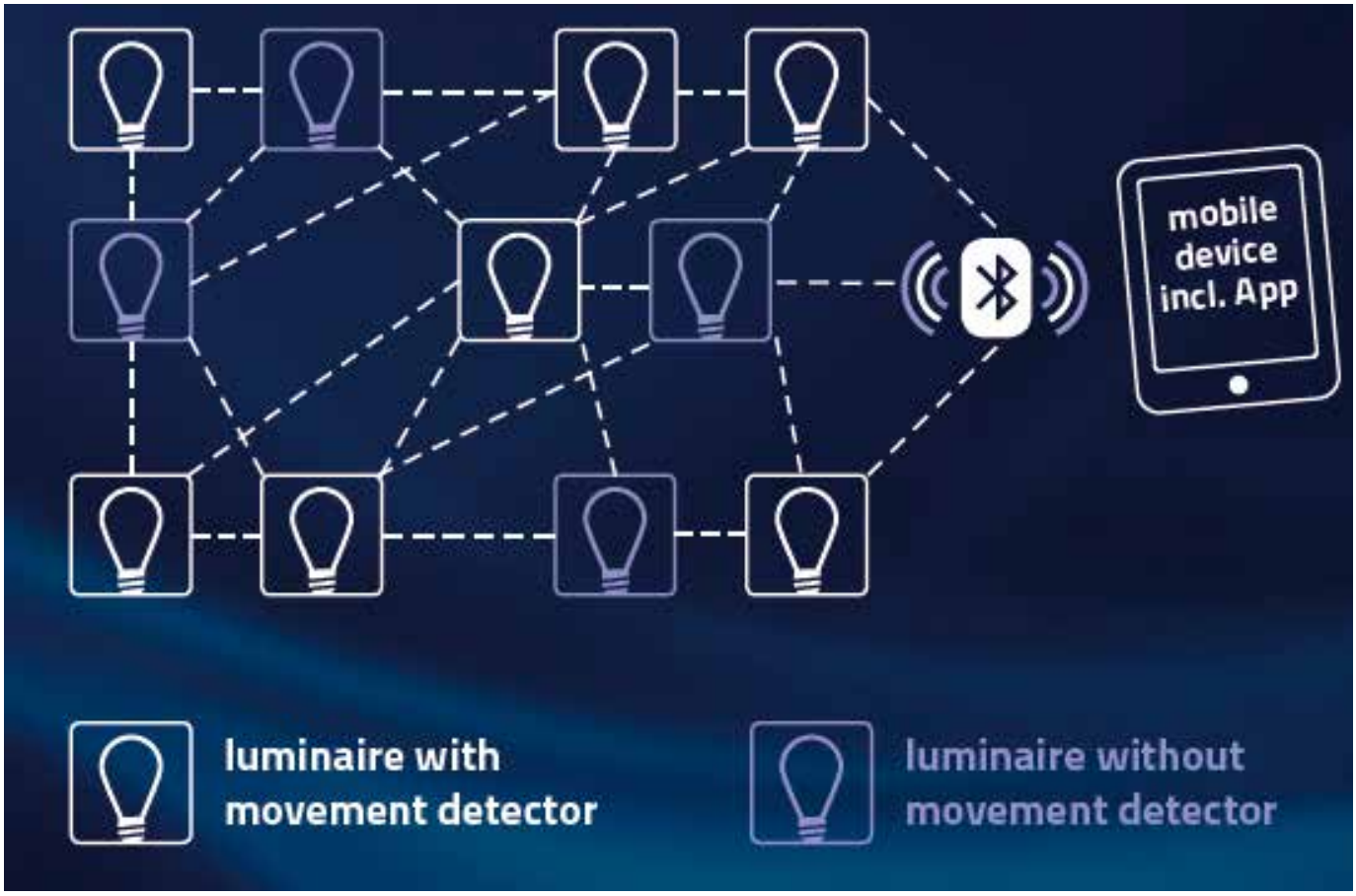
1. The fixture switches on according to the brightness level chosen (default disabled but can be changed as needed) and the movement of people within the range of the sensor.
2. Preferred functions can be programmed using the APP.
3. It is also possible to set up a mesh network between DALI-BLE fixtures using Wireless Bluetooth communication.
4. The presence function can be excluded.
5. The corridor function can be set up with personalised times and levels.
6. Configure groups of fixtures (master-slave) without modifying the electrical system.

Characteristics

We have integrated a high frequency DALI radar motion detector (HF) 5.8GHz inside the fixture that operates Bluetooth with other DALI-BLE fixtures.
The onboard sensor makes it possible to regulate individual or groups of fixtures or profiles for a complete installation.
The distance between the fixtures can be up to 20 m for indoor installations. Fixtures with 3F Sensor Bluetooth technology can be managed in the following way:

1. Individually - every fixture turns on/off according to movement and adjusts according to programmed behaviour on the APP
2. Master-Slave configuration --- using the APP it is possible to create groups of fixtures to manage each area

RADAR technology goes beyond glass, wood and plasterboard; therefore for the correct functioning of the luminaire, the sensor detection field (see instruction sheet) must be adjusted according to the type of installation/room.



Advantages

It is not necessary to modify the existing electrical system, you just need to connect the fixtures to the power grid, saving on installation time.
3F Sensor DALI-BLE technology unlike 3F Sensor allows for:

1. Bluetooth communication between fixtures
2. the creation of groups of fixtures without any other physical connections different function profiles that can be easily programmed by the end user using an APP on a Tablet or Smartphone (available for iOS and Android) for example:
    - Sensitivity 10 ... 100%
    - Hold time 5 seconds ... 60 minutes
    - Daylight sensor 1 Lux ... 500 Lux; ; teach in
    - DIM level 0 ... 100 %
    - Program Mode On / Off, Permanent, Corridor,
    - Soft-DIM: active / inactive

3F DALI Sensor

Available luminaires

3F LEM LED DALI Sensor

Characteristics

Luminaires with 3F DALI Sensor technology are equipped with a DALI brightness and presence sensor which allows the luminous flux to be switched on/off and regulated automatically on the basis of the natural light (to exclude the presence detection, accessory A3022 and the BEG APP are required).

Luminaires with 3F DALI Sensor technology can be installed in the two following ways:

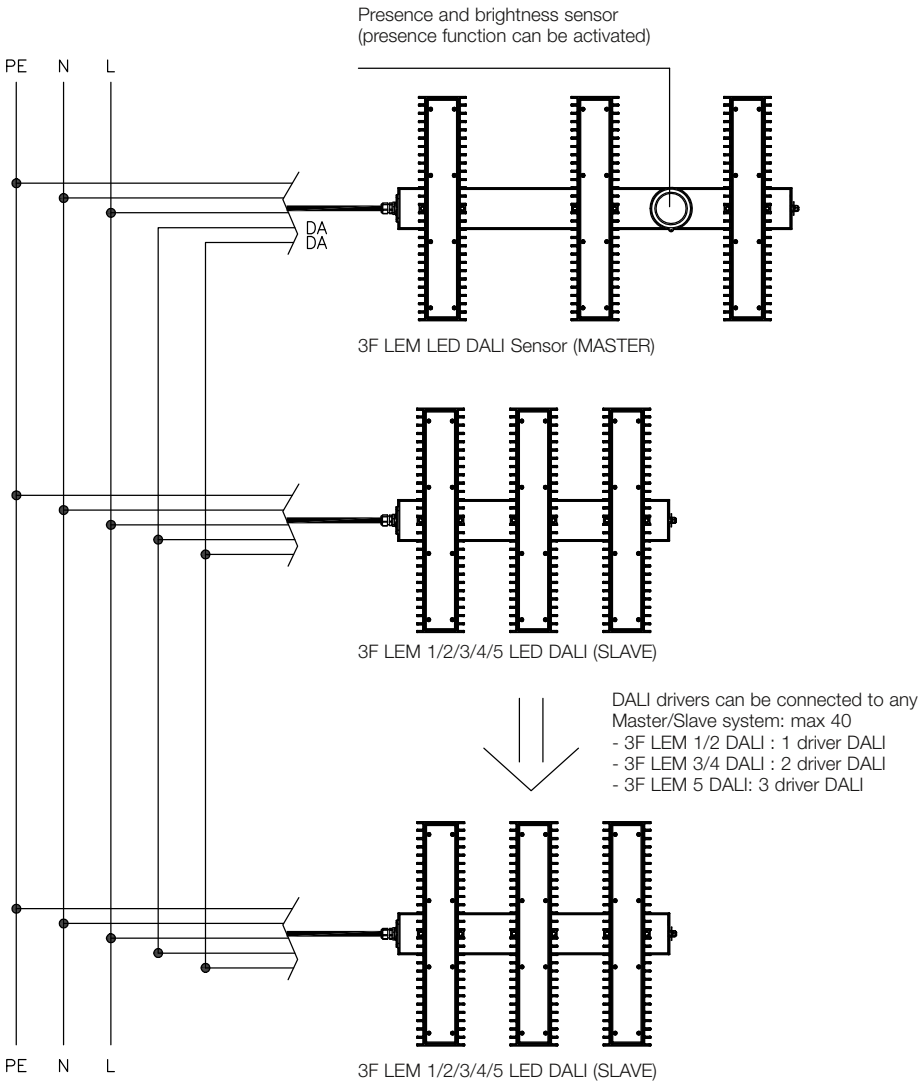
1. **Individually** - each luminaire switches on/off and regulates its flow independently with respect to the other luminaires, and it is therefore no longer necessary to create or modify existing electrical systems, only to connect the luminaires to the mains supply, thus reducing installation times.

2. **Master - Slave configuration** – each 3F DALI Sensor luminaire can be connected to other standard 3F dimmable DALI luminaires by following the method given in the application examples. In this case, switching on/off and regulation of the luminous flux will be managed in zones/groups of luminaires, saving on the number of sensors in the field.

In both solutions, the initial programming of the sensor can be performed simply and conveniently with the use of the DALI IR programmer (code A3020) or the IR adapter for Smartphones (code A3022).
For technical specifications and for further information, see the details in the **“3F Smart Dimming accessories”** chapter, or contact our technical department.

Typical application example for 3F LEM DALI Sensor

Connection diagram for broadcast operation, between the 3F Travetta LED DALI LS luminaire (with integrated DALI presence and brightness sensor - MASTER function) and 3F Travetta LED DALI luminaires (equipped with DALI drivers - SLAVE function).
Allows the level of lighting to be kept constant between all connected luminaires, on the basis of the natural light, as well as centralised on/off commands when motion is detected and with the twilight threshold set. (to exclude the presence detection, accessory A3022 and the BEG APP are required)



IMPORTANT: the DALI line of the MASTER luminaires cannot be connected to buttons!
If you require manual regulation, contact our technical department.

3F Smart Dimming

Characteristics

Smart Dimming technology allows you to make savings and manage your lighting systems in an easy, low-cost and customisable manner without investing significant capital in costly systems.
Products in this range have functions such as:

- Turning on and automatically regulating the luminaire **on the basis of the chosen level of brightness.**
- Luminaire switching **on the basis of presence** of persons in the radius of operation of the luminaire (the detection area can be extended using slave sensors).
- **Manual regulation and ON/OFF** via accessory remote controls or push-buttons.

Advantages

The advantages of this technology offer significant energy savings for the end customer, calculated as being up to 80% compared to an on-off solution with combined sensors for light and presence regulation. It is also possible to create made-to-measure lighting based on the requirements of the environment and the light level required.

Savings

The advantages are real and tangible in these aspects for the end customer:
- **Quick, simple installation.**
- **Energy savings.**
- **Reduced time to see return on investment.**

Installation Reference - Corridor function

Standard position: the power output of the luminaires is dimmed to 10%, thus obtaining a minimum level of lighting.

3F Sensor

As soon as the luminaires detect the presence of persons, or the level of natural light falls below a minimum set threshold, the CF function is activated and they switch to 100% power output for the set duration (this can be regulated during installation).

Results obtainable

- Luminous flux of 10% at rest, 100% flux when presence is detected via relay sensor.
- Activation of 100% of luminous flux depending on the amount of natural light and/or presence of personnel.
- Extension of the presence detection area through the use of slave sensors.

Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast with Corridor Function (to be specified when ordering).

Components required

- Luminaire with activated DALI driver with Corridor Function.
- IR adaptor for smartphones (optional) for managing the sensor.
- ON/OFF IR programmer (optional).
- 1 on-off Sensor A or 1 on/off-ext Sensor A (range of operation 10 metres).

or

- 1 on-off Sensor B or 1 on/off-ext Sensor B (range of operation 24 metres).

or

- 1 on-off CORR sensor or 1 on/off-ext CORR sensor (diameter of operation: tangential 40m, frontal 20m), can be used for installation heights up to 2.70m.

In order to extend the presence detection area, it is possible to use:

- 1 Sensor A SLAVE or 1 Sensor A SLAVE-ext.

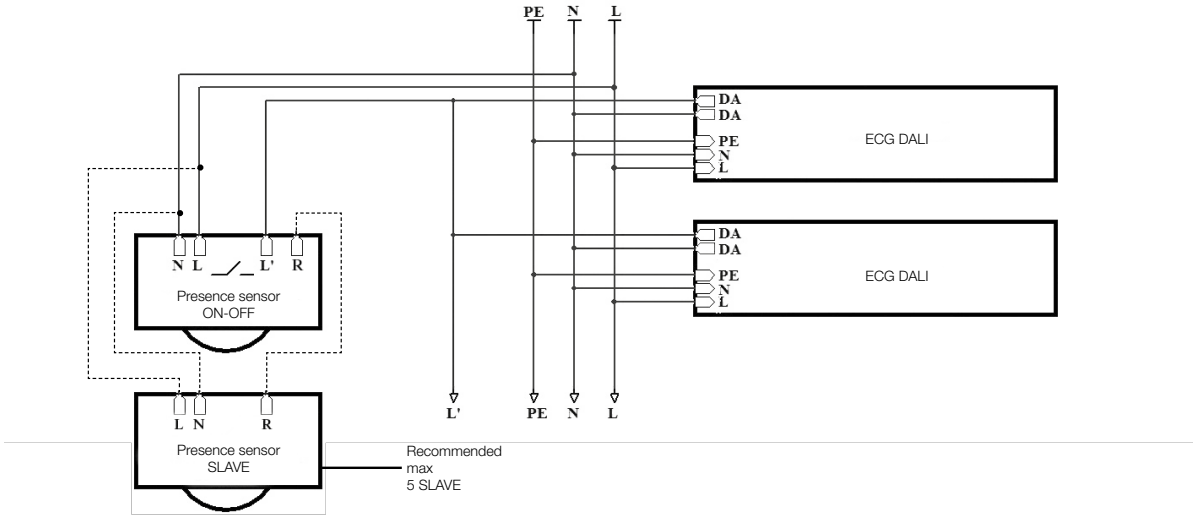
or

- 1 Sensor B SLAVE or 1 Sensor B SLAVE-ext.

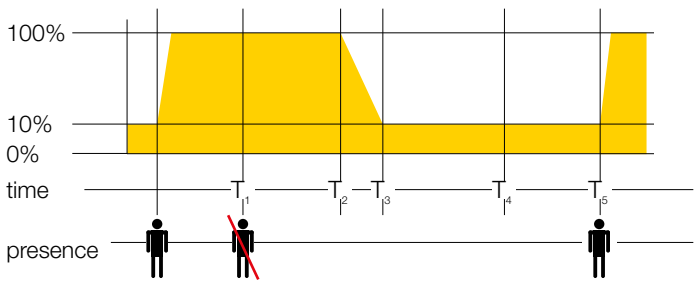
or

- 1 Sensor CORR SLAVE or 1 Sensor CORR SLAVE-ext.

Wiring diagram



Operation graph



Legend:

T_1 --> T_2 - latency time managed by the sensor - **default 900s**

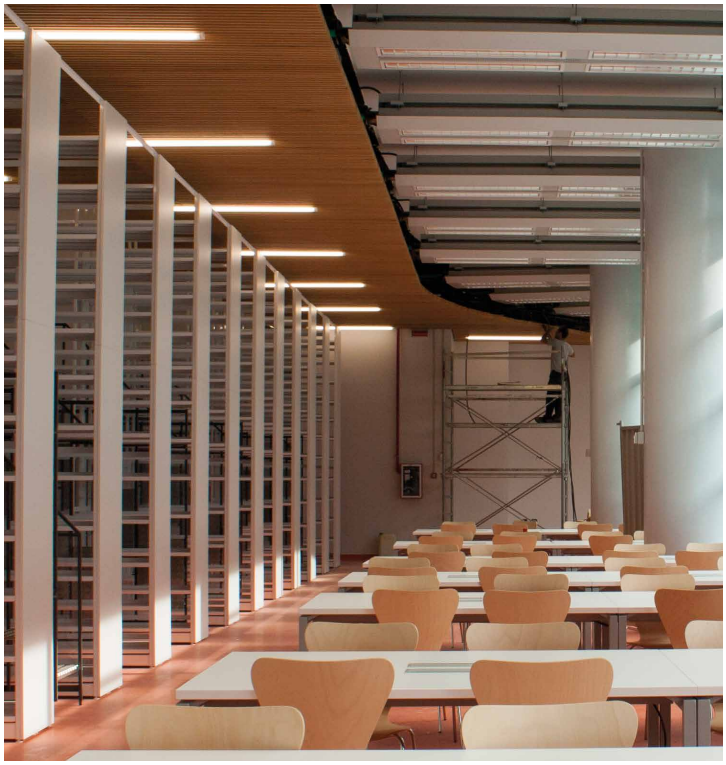
T_2 --> T_3 - luminous flux decrease time - **0,7 seconds**

T_3 --> T_4 - luminous flux maintenance time 10% - **unlimited time**

3F Smart Dimming

Installation Reference - Office / Open space

Up to 40 drivers/ballasts - Installation height up to 4 metres



Results obtainable

- **Manual ON/OFF/regulation** of the luminaire via optional remote control or push-button.
- **Automatic regulation of the luminaire's light flow** depending on the amount of natural light and/or presence of personnel.
- Extension of the presence detection area through the use of slave sensors.

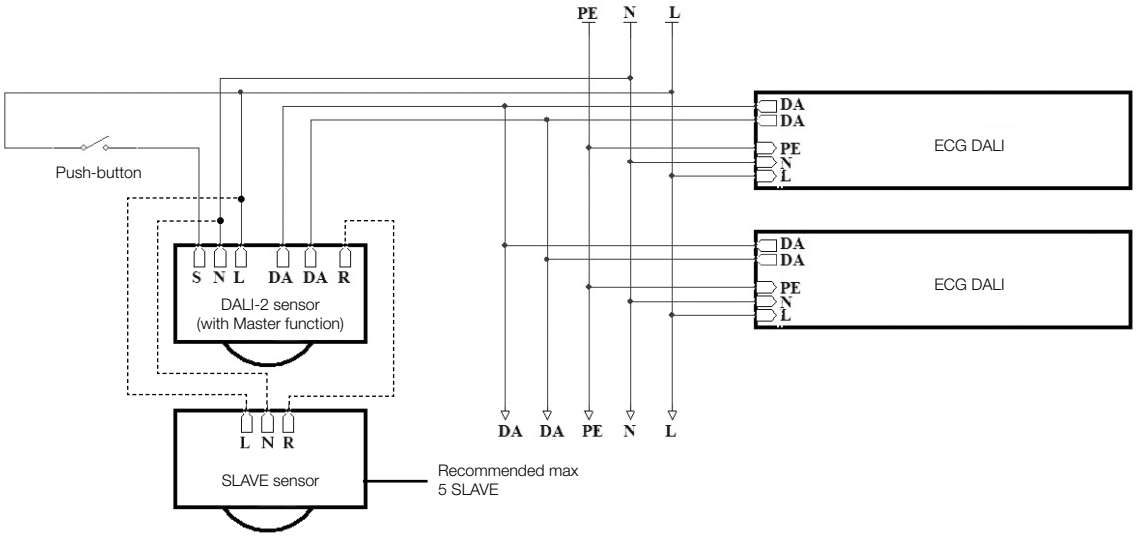
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

Components required

- 1 commercially available push-button (optional).
- Luminaire with DALI driver.
- 1 DALI Sensor A (recessed/ceiling mount).
- IR adaptor for Smartphones (optional).
- DALI IR programmer (optional).
- DALI IR remote control (optional).
- 1 Sensor A SLAVE or 1 Sensor A SLAVE-ext (optional for extending the presence detection area).

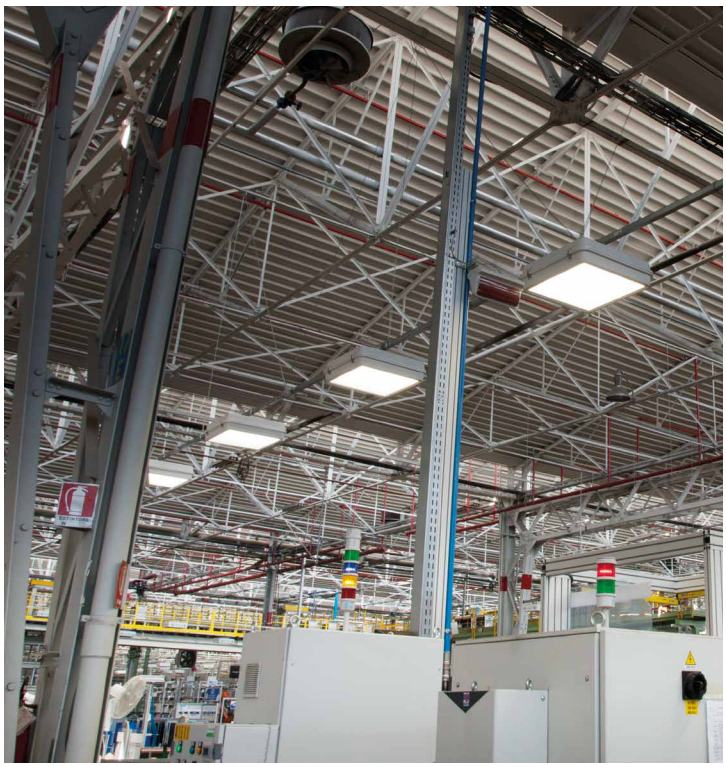
Wiring diagram



Note: to deactivate presence sensing, accessory A3022 and the BEG APP are required.

Installation Reference - Industrial / Gymnasiums

Up to 40 ballasts - Installation height between 4 and 9 metres



Results obtainable

- **Manual ON/OFF/regulation** of the luminaire via optional remote control or push-button.
- **Automatic regulation of the luminaire's light flow** depending on the amount of natural light and/or presence of personnel.
- Extension of the presence detection area through the use of slave sensors.

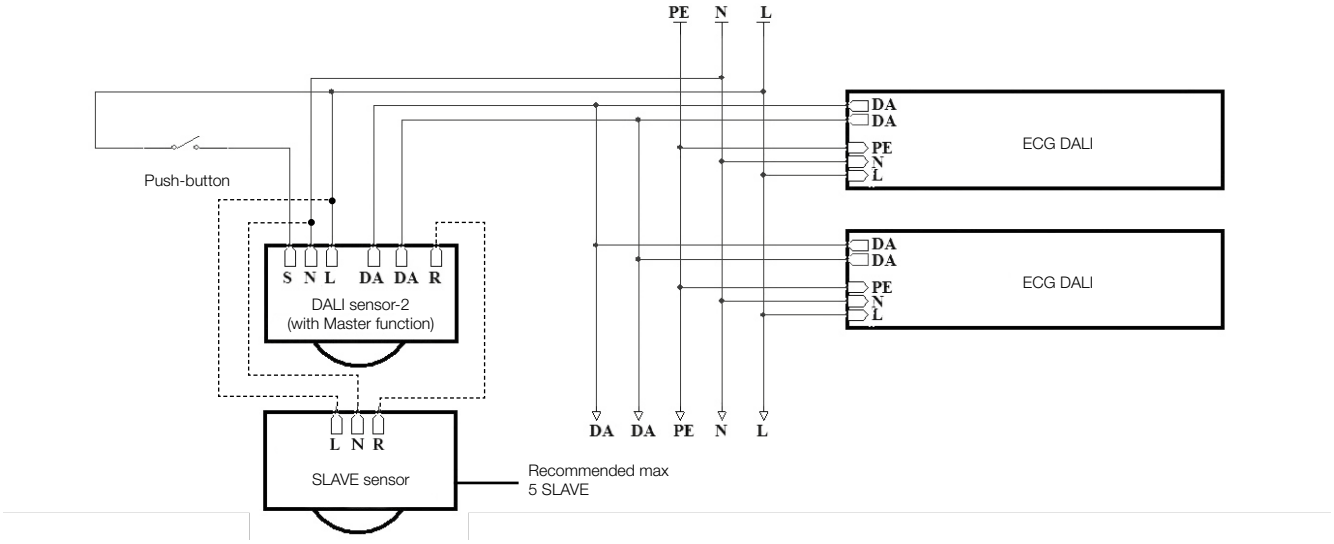
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.

Components required

- 1 commercially available push-button (optional).
- Luminaire with DALI driver.
- 1 DALI Sensor B (recessed/ceiling mount).
- IR adaptor for Smartphones (optional).
- DALI IR programmer (optional).
- DALI IR remote control (optional).
- 1 Sensor B SLAVE or 1 Sensor B SLAVE-ext (optional for extending the presence detection area).

Wiring diagram

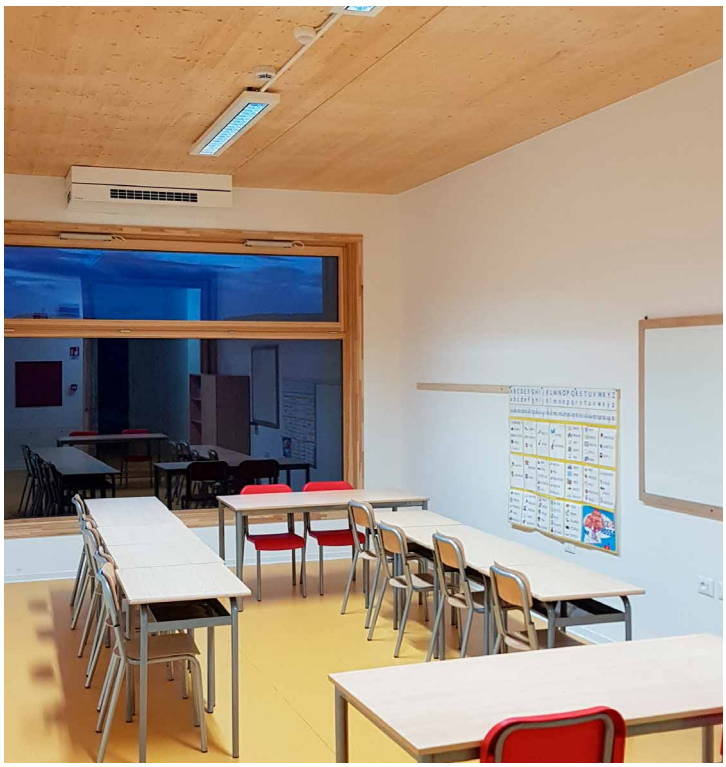


Note: to deactivate presence sensing, accessory A3022 and the BEG APP are required.

3F Smart Dimming

Installation Reference - School classroom

Up to 50 ballasts



Results obtainable

- **Manual ON/OFF/regulation** of the luminaire via optional remote control or push-button.
- **Automatic regulation of the luminous flux** of the luminaires in a differentiated manner depending on the natural light present in two different areas: the sensor measures the brightness at two points (for example, near the window and in the darkest area of the classroom), and adjusts the fluxes of the luminaires lighting those areas as a consequence.
- Extension of the presence detection area through the use of slave sensors.

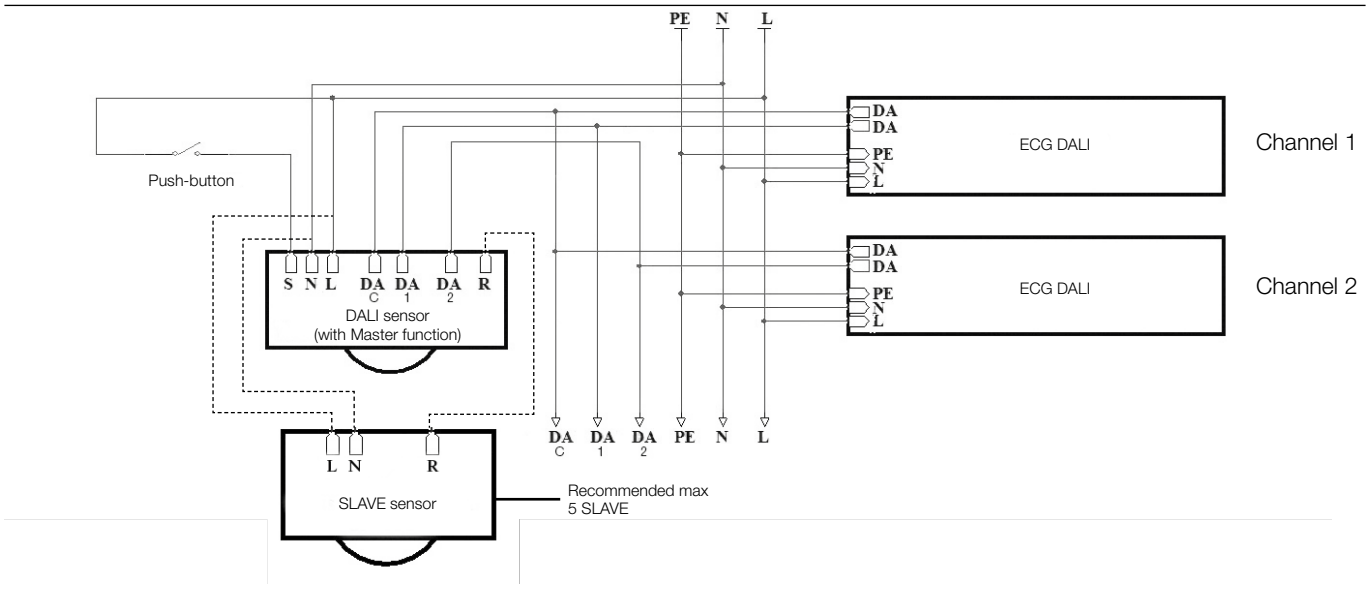
Compatible luminaires

Any luminaire from the 3F Filippi range, as long as it is equipped with DALI ballast.
On request, can also be implemented with 1-10V components (drivers and sensors).

Components required

- 1 commercially available push-button (optional).
- Luminaire with DALI driver.
- 1 Dual-DALI Sensor B.
- IR adaptor for Smartphones (optional).
- DALI IR programmer (optional).
- DALI IR remote control (optional).
- 1 Sensor B SLAVE or 1 Sensor B SLAVE-ext (optional for extending the presence detection area).

Wiring diagram



Note: to deactivate presence sensing, accessory A3022 and the BEG APP are required.

3F Smart Dimming | Accessories

Type A sensors (H max = 5mt)

Presence detector On/Off, recessed, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated twilight sensor. IP20 protection degree.

Code	Item
A3013	A on/off - Sensor

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.

CE IP20

Presence detector On/Off, ceiling mounted, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated twilight sensor. IP20/IP54 rated (exposed part).

Code	Item
A3014	A on/off-ext - Sensor

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.

CE IP20 IP54

Presence detector On/Off, recessed, with one DALI-2 interface, can be controlled remotely, circular detection area Ø 10 m, with Master function. Integrated light sensor for automatic constant light control. Drive up to 40 DALI drivers. IP20 protection degree.

Code	Item
A3039 NEW	A DALI-2 - Sensor

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.

CE IP20

IP54 base for ceiling installation of A DALI-2 Sensor.

Code	Item
A3040 NEW	IP54 ceiling base for A DALI-2 sensor

CE IP54

Recessed Slave presence detector, compatible with sensors with Master function, such as Sensor A DALI-2 and Sensor A on/off, circular detection area Ø 10 m. IP20 protection degree.

Code	Item
A3025	A SLAVE - Sensor

CE IP20

Type A sensors (H max = 5mt)

Ceiling mounted Slave presence detector, compatible with sensors with Master function, such as Sensor A DALI-2 and Sensor A on/off, circular detection area Ø 10 m. IP20/IP54 rated (exposed part).

Code	Item
A3026	A SLAVE-ext - Sensor

On request: IP54 cap code A3024, to obtain total IP54 rating.

CE IP20 IP54

Type B sensors (H max = 10mt)

Presence detector On/Off, recessed, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated twilight sensor. IP20 protection degree.

Code	Item
A3018	B on/off - Sensor

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.

CE IP20

Presence detector On/Off, ceiling mounted, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated twilight sensor. IP20/IP54 rated (exposed part).

Code	Item
A3019	B on/off-ext - Sensor

On request: IP54 cap code A3024, to obtain total IP54 rating. On request: programming with remote control code A3023 or with smartphone via accessory code A3022.

CE IP20 IP54

Presence detector On/Off, recessed, with one DALI-2 interface, can be controlled remotely, circular detection area Ø 24 m, with Master function. Integrated light sensor for automatic constant light control. Drive up to 40 DALI drivers. IP20 protection degree.

Code	Item
A3041 NEW	B DALI-2 - Sensor

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.

CE IP20

IP54 base for ceiling installation of B DALI-2 Sensor.

Code	Item
A3042 NEW	IP54 ceiling base for B DALI-2 sensor

CE IP54

Type B sensors (H max = 10mt)

Recessed Slave presence detector, compatible with sensors with Master function, such as Sensor B DALI-2 and Sensor B on/off, circular detection area Ø 24 m. IP20 protection degree.

Code	Item
A3027	B SLAVE - Sensor

CE IP20

Ceiling mounted Slave presence detector, compatible with sensors with Master function, such as Sensor B DALI-2 and Sensor B on/off, circular detection area Ø 24 m. IP54 protection degree.

Code	Item
A3028	B SLAVE-ext - Sensor

CE IP54

Presence detector, recessed, with two DALI interfaces, can be controlled remotely, circular detection area Ø 24 m, with Master function. Two integrated light sensors for automatic constant light control. Drive up to 50 digital electronic drivers for each channel. IP20 protection degree.

Code	Item
A3015	B Dual-DALI - Sensor

On request: programming/regulation with remote control code A3020 and A3021 or with Smartphone via accessory code A3022.

CE IP20

Type B GH sensors (H max = 16mt)

Presence detector with one DALI-2 interface, ceiling mounted, for mounting at great heights, transverse detection area Ø 30 m, with Master function. Maximum installation height 16 m. Telescopic external light sensor for precise light measurement in a single application. Integrated twilight sensor. IP54 protection degree.

Code	Item
A3043 NEW	DALI-2 Sensor - Type B - GH

CE IP54

IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors), especially for long distances.

Code	Item
A3038	IR DALI GH - Programmer

CE

Type Corr sensors

Presence detector On/Off, recessed, special for corridors, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, detection area tangential Ø 40 m, frontal Ø 20 m, with Master function. Maximum installation height 2.70 m. Integrated twilight sensor. IP20 protection degree.

Code	Item
A3029	Corridor on/off - Sensor

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.

CE IP20

Presence detector On/Off, ceiling mounted, special for corridors, single channel (normally open, potential free) with a maximum load of 2 kW (with power factor 0.9), can be controlled remotely, detection area tangential Ø 40 m, frontal Ø 20 m, with Master function. Maximum installation height 2.70 m. Integrated twilight sensor. IP54 protection degree.

Code	Item
A3030	Corridor on/off-ext - Sensor

On request: programming with remote control code A3023 or with smartphone via accessory code A3022.

CE IP54

Corridors detection area lens for B DALI-2 recessed and/or surface mounted sensors.

Code	Item
A3044 NEW	Corridor det. lens for B DALI-2 sensor

CE

Recessed Slave presence detector, special for corridors, compatible with sensors with Master function, such as Sensor Corr DALI and Sensor Corr on/off, tangential detection area Ø 40 m, frontal Ø 20 m. IP20 protection degree. Maximum installation height 2.70 m.

Code	Item
A3033	Corridor SLAVE - Sensor

CE IP20

Ceiling mounted Slave presence detector, special for corridors, compatible with sensors with Master function, such as DALI Corr sensor and Corr sensor on/off, tangential detection area Ø 40 m, frontal Ø 20 m. IP54 protection degree. Maximum installation height 2.70 m.

Code	Item
A3034	Corridor SLAVE-ext - Sensor

CE IP54

Cap for ceiling mounted sensors

Cap for ceiling mounted sensors, to obtain IP54 rating (total) for H 15 mm. Compatible with the following sensors:

- Sensor A on/off ext code A3014
- Sensor B on/off ext code A3019
- Sensor A SLAVE ext code A3026

Code	Item
A3024	IP54 White fixing

CE IP54

Sensor programmers

IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Code	Item
A3020	IR DALI - Programmer

CE

IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

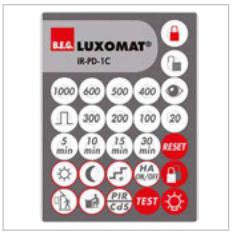
Code	Item
A3021	IR DALI - Remote controller

CE

IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Code	Item
A3022	IR - Adapter for Smartphone

CE



IR remote control for programming on/off sensors incompatible with DALI and Slave sensors).

Code	Item
A3023	IR on/off - Programmer

CE

3F HCL for Tunable White fixtures

System to vary colour temperature

The new standard EN 12464-1:2021 elaborates on the importance of lighting concepts in the workplace and the impact lighting has on circadian rhythms and moods leading to improved performance and well-being of people.

People and their requirements have always been at the centre of our attention when designing our products.

Thanks to the new HCL luminaires, ensuring the comfort and health of the individual finds a new point of reference thanks to a solution which can actively stimulate biorhythms.

Natural light is one of the most important sensory stimuli for our body, and it also has an enormous effect on our mental and emotional state. For this reason, HCL luminaires have been designed to replicate natural light, taking the following requirements into consideration:

- Dynamism of light over time
- Dynamism of colour temperature over time
- Symmetrical light diffusion
- Freedom of use for each individual

The latest research in the sector has shown that those who work in environments with windows and good lighting are exposed to 173% more natural light during working hours and sleep on average 46 minutes longer (each night) compared to others, as they are less affected by problems such as insomnia. The result is a general increase in well-being.
There is ever-increasing evidence to support the fact that exposure to light during the day, particularly during the morning, is beneficial to health in terms of its effects on mood, mental lucidity and the metabolism.

Light influences mood and can trigger both positive and negative emotions.

HCL luminaires allow users to change both intensity and temperature of the emitted light, thus improving comfort and increasing the feeling of well-being.

A third photoreceptor in the human eye was discovered in 2001, which is responsible for our light response for regulating our biological clock and circadian rhythms.

Recent studies (performed by Lighting Europe) have shown that HCL luminaires improve concentration as well as the safety and efficiency of the workplace or training and school environments. For this reason, 3F Filippi has decided to create a series of new luminaires to help people feel better by putting their requirements at the centre of the design, also from a biological point of view.

In order to take proper advantage of these luminaires, it is essential that:
- The artificial light follows the cycle of the natural light
- The management systems can also be manually adjusted, according to each user's sensitivity
- Right from the lighting design stage, factors such as exposure of the environment to natural light, the users' biological situations and the tasks they must perform are taken into account
- Always consult a qualified and reliable lighting designer

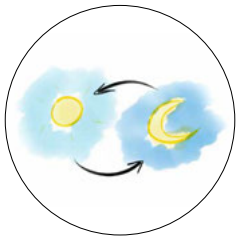
If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.

Biorhythms depend on signals which derive from the quantity and the quality of natural light and the environmental colour temperature. The brain is stimulated:
- by cold light present during daylight hours (6,500 K) which allows us to be more active and concentrate harder.
- by warm light present in the morning and evening (2,700K) which induces a greater level of relaxation.

Thanks to HCL technology, everyone can improve their sleep cycles, mental and emotional states by themselves.

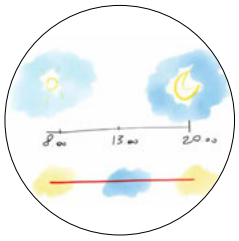
HCL technology allows for:

Comfort and well-being, particularly in environments in which a lot of time is spent.



Lighting which follows the **natural** daylight cycle.

Less **environmental stress**, which reduces physical and mental exertion.

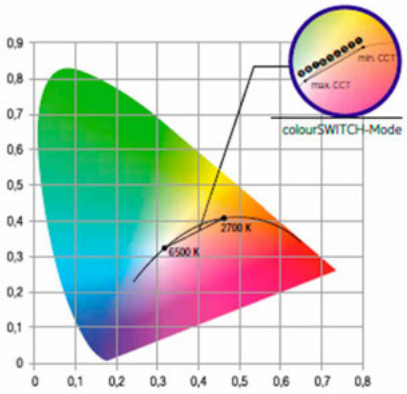


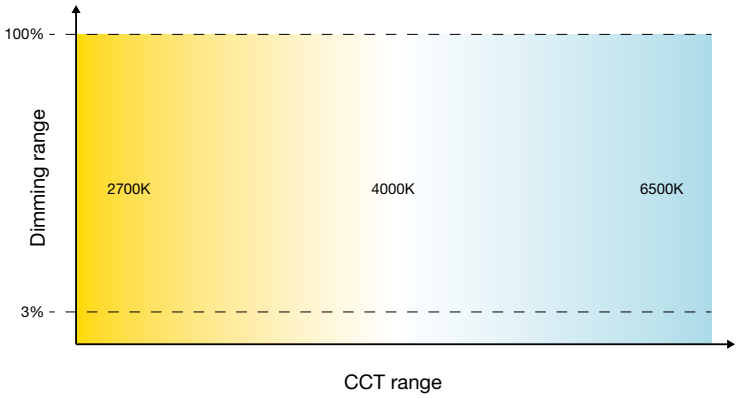
Automatic and/or manual management of the light intensity **and** colour **temperature.**

Characteristics:
- Control of variation of the white colour temperature (Tunable-white).
- Simulated changing of daylight over the course of the day.
- Modulation of the colour temperature along the Planck curve from 2700K to 6500K.
- Colour rendering index CRI >80.
- Colour tolerance: 3 MacAdam ellipses.
- LED source luminous efficiency - up to 155 lm/W.

2-channel DT8 driver - constant colorimetric on all attenuation levels

Second generation drivers provide even more room for maneuver in terms of design with the advanced adjustment range from 3% to 100%. Color temperatures are precisely controlled and with infinite variability, while the drivers reliably maintain the selected range between all attenuation levels.





The TW Tunable White fixtures can be regulated using two different systems:
1. Wired automatic control system
2. 3F Bluetooth control system

Wired control system

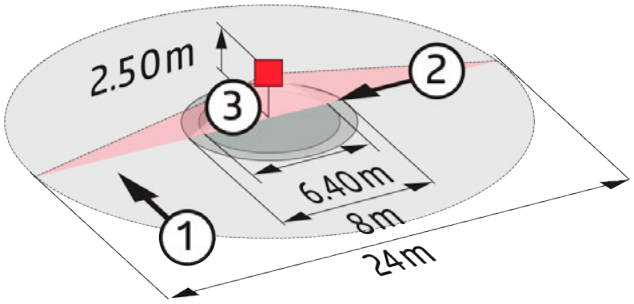
Features

The HCL DT8 presence and light sensors allow the management of a group of Tunable White (TW) devices, up to a maximum of 50 drivers.

The sensors have the following characteristics:

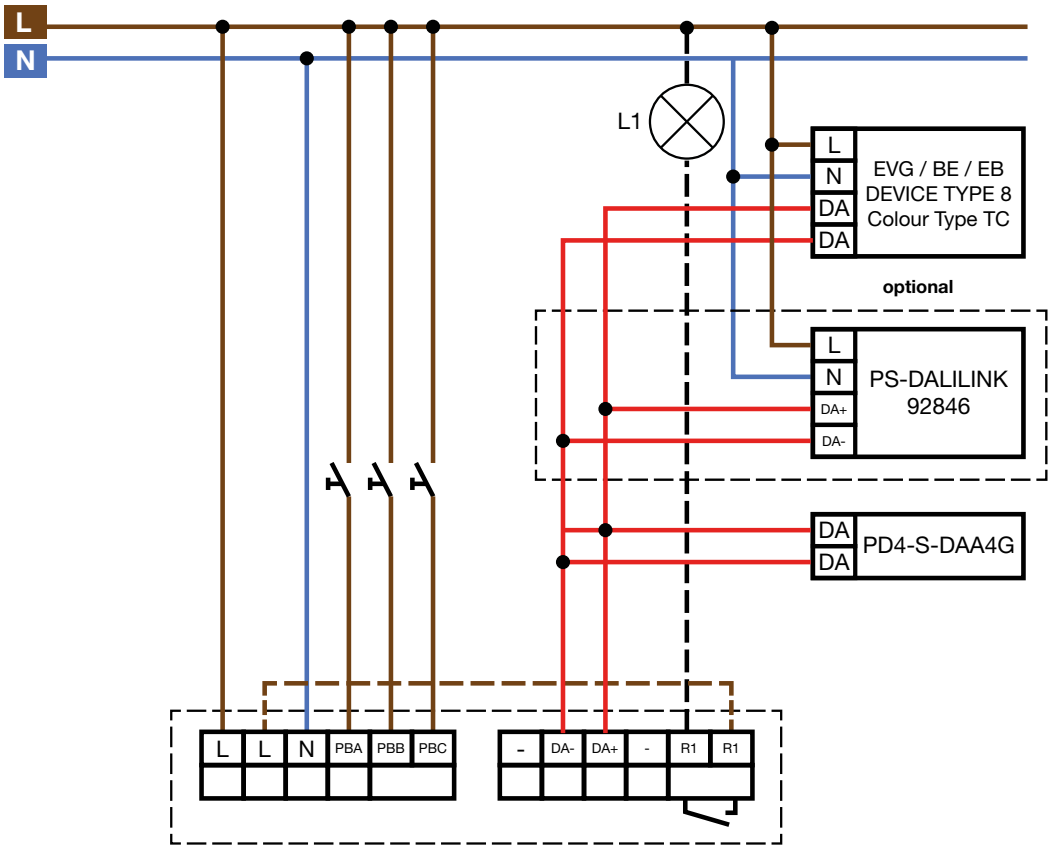
- Integrated presence detector capable of controlling up to 50 DALI DT8 devices
- Integrated brightness detected for automatic adjustment of the luminous flux of the luminaires, based on the supply of natural light
- Integrated clock for automatically adjusting the color temperature following the circadian rhythm by programming from the free APP
- n. 3 output channels for HCL control of 3 groups of TW devices
- n. 1 DALI output channel
- n. 1 relay output channel (max 300W LED)
- n. 3 NO button inputs: 1 button to adjust the luminous flux of the HCL channel, 1 button for DALI channel control and 1 button for relay channel control

Detection scheme



1. Transversal approach to the detector
2. Frontal approach to the detector
3. Fixed position: h 2,5 m

Electrical connection diagram



Wired control systems (HCL) | Accessories

Recessed presence detector with integrated clock for the management and control of Tunable White (TW) devices, remotely controllable, circular detection area Ø 24 m, equipped with Master function. Integrated light sensor for automatic regulation of constant light n. 3 output channels for HCL control of n. 3 groups of TW appliances, n. 1 DALI output channel, n. 1 relay output channel (max 300 W LED). Drive up to 50 DALI drivers. Maximum installation height 10 m.

Code	Item
A3045 NEW	HCL2 DT8 - Sensor

CE IP20

Ceiling presence detector with integrated clock for the management and control of Tunable White (TW) devices, remotely controllable, circular detection area Ø 24 m, equipped with Master function. Integrated light sensor for automatic regulation of constant light n. 3 output channels for HCL control of n. 3 groups of TW appliances, n. 1 DALI output channel, n. 1 relay output channel (max 300 W LED). Drive up to 50 DALI drivers. Maximum installation height 10 m.

Code	Item
A3046 NEW	HCL2 DT8-ext - Sensor

CE

IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Code	Item
A3022	IR - Adapter for Smartphone

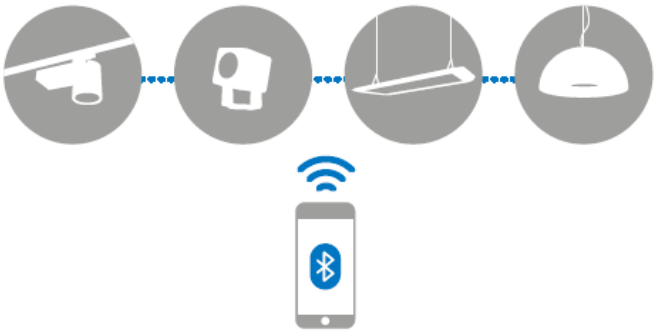
Mandatory accessory for programming the HCL DT8 sensors.

CE

3F Bluetooth

Characteristics

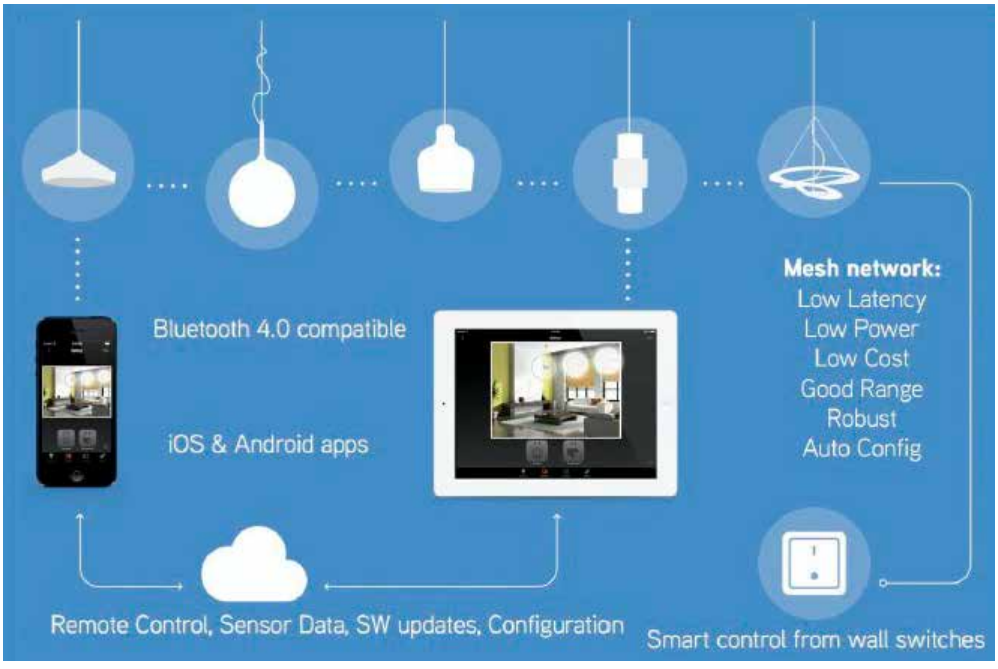
3F Bluetooth is the completely wireless regulation system that can manage DALI and Tunable White DALI DT8 fixtures.
Thanks to the intuitive simplicity of the application developed for iOS and Android all you need is a mobile phone or another mobile device and anyone can create and manage their own lighting system autonomously by controlling fixtures individually or in groups according to the needs and functions required.
It can also be managed through standard handsets using specific accessories



Functions

With the 3F Bluetooth management system it is possible to create a “mesh network” of fixtures which can be managed using mobile devices or handsets:

- Turn the fixtures on/off
- Regulate luminous intensity
- Regulate colour temperature
- Configure lighting scenes
- Configure animated scenes (dynamic scenes or different sequences of scenes).
- Timer Function: set fade times between scenes and animated scenes, programme the date and duration
- Geolocation: by activating this function it is possible to programme to turn the fixtures on/off that can be associated automatically to sunrise and sunset independently of the time of year (astronomical clock).
- Cloud Function: allows to share different fixtures and access the network remotely. Remote access one fixture which acts as an access point while the others connect via the Cloud.



3F Bluetooth control systems | Accessories

BLE DALI radio module, a wireless control unit with a DALI interface. The module can only be used in a closed system and must not be connected to an existing DALI network. The module is Bluetooth controlled using an app for Smartphones and Tablets using Bluetooth 4.0 technology. The fixtures automatically create an adaptive, robust and reliable Bluetooth mesh network allowing a large number of devices to be controlled in a simple and efficient way.

Code	Item
A3090	BLE DALI Radio Module

IP20

For further details regarding all the functions obtainable from Bluetooth accessories, please contact our technical offices.

BLE radio panel, Bluetooth user interface for wall installation. The BLE radio panel in addition to switching the light fixtures on and off allows to dim, change the colour temperature in the case of fixtures equipped with such technology, individual control of fixtures and to manage lighting or animation scenes.

Code	Item
A3091	BLE DALI Radio push-button panel

IP40

Extender IP20 1T5352, allows for Bluetooth control with DALI interface. Generates a local DALI bus with the capacity to drive up to 64 devices. Allows for control of groups of fixtures in indoor applications. It is also equipped with a relay that can control non-dimmable fixtures up to a maximum of 6A.

Code	Item
A3095	IP20 1T5352 EXTENDER

IP20

BLE DALI IP67 1E3048 radio module to control individual fixtures externally equipped with a DALI driver. The module needs to be positioned in order to receive the radio signal. The distance from the lighting fixtures can be up to 50 m.

Code	Item
A3096	IP67 BLE 1E3048 Radio Module

IP67

Extender IP67 1E3049, allows for Bluetooth control with DALI interface. Generates a local DALI bus with the capacity to drive up to 64 devices. Allows for control of groups of fixtures in outdoor applications.

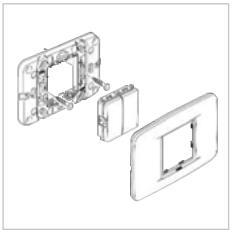
Code	Item
A3097	IP67 1E3049 EXTENDER

IP67

BLE radio control, flat four button command with a 2.4 GHz radio transmitter, standard Bluetooth Low Energy, energy harvesting power supplied by the integrated electrodynamic generator, optional version with dedicated colour buttons Eikon 20506 or 20506.2, Arké 19506 or 19506.2 or Plana 14506 or 14506.2 - 2 modules.

Code	Item
A3099	BLE Radio control

CE IP40



Arkè support kit, 2 buttons (4 switches) and a terminal panel to control the transmitter (code A3099).

Code	Item
A3100	Kit ArkE support buttons plate for A3099

CE

3F & KNX

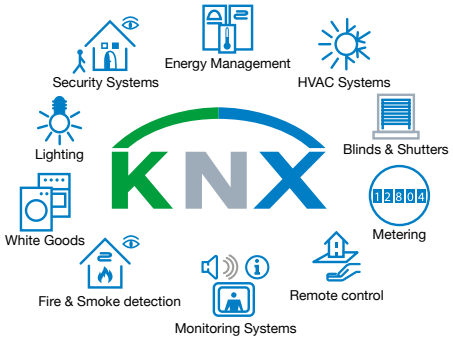
Building automation with KNX systems.

3F & KNX

Characteristics

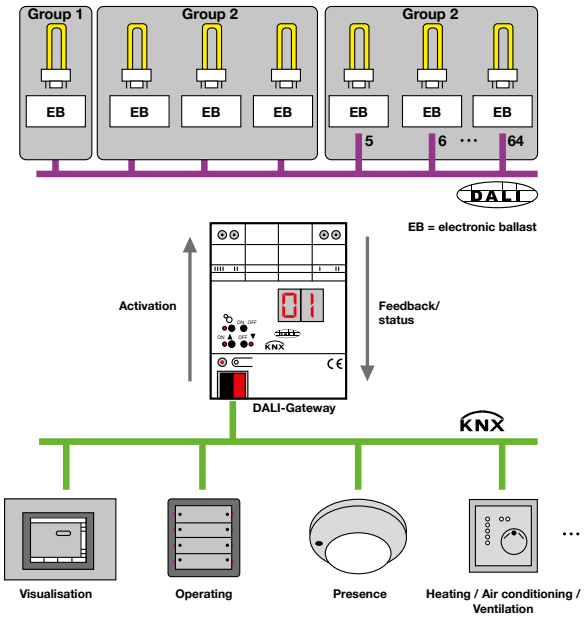
KNX is a worldwide open standard which meets the most important European and international standards and offers automated and decentralised management of technological systems for: commercial, industrial, public and office buildings, schools and many other structures besides.

KNX can be used in all applications and for control functions in buildings: from lighting to blinds, security, HVAC supervision, control of plumbing and alarms, energy management, electricity meters, domestic appliances, audio systems etc.



KNX improves comfort and security, as well as providing a strong contribution to energy savings (up to 50% for lighting and heating management) and to reducing environmental impact.
The KNX system can be used both in new and existing buildings.
KNX installations can be easily expanded and adapted to meet new requirements, quickly and with minimal financial investment (for example when new tenants enter a commercial building).

Example connection diagrams:



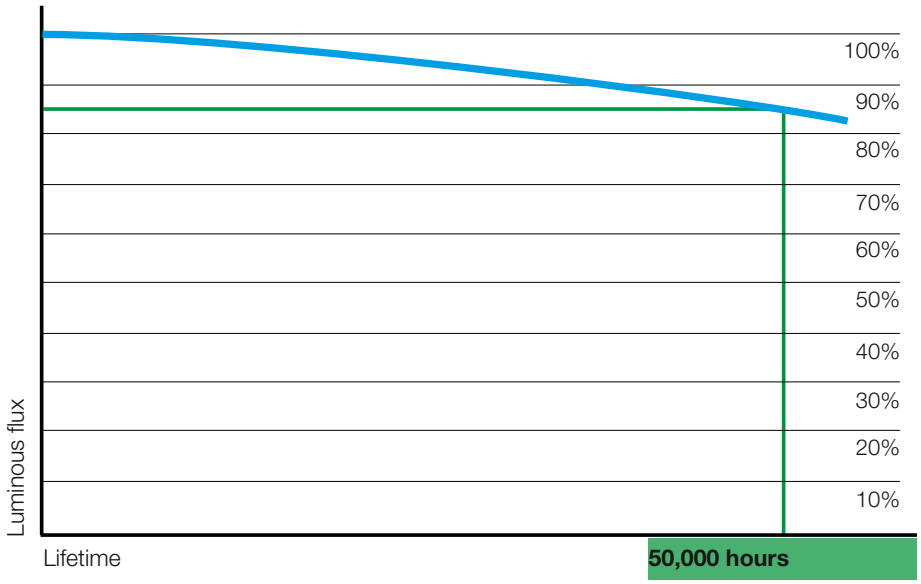
3F Filippi really believes in this standard, and it is for this reason that we offer a range of luminaires equipped with DALI ballasts which are able to interface with KNX systems seamlessly: the connection between the network and the luminaire occurs via gateways which allow information and commands to be transmitted via the LAN network.

3F CLO

Time passes, the light stays the same

Introduction

The initial luminous flux of light sources diminishes gradually over time.
The percentage of decay of the luminous output referred to the hours of useful operation (50,000 hours) is determined with the parameter “L”. LED sources classified as L85 (*) when they reach 50,000 hours will supply 85% of the initial output.



(*) data extrapolated from LM-80 (IES - Illuminating Engineering Society of North America) tests, performed as per standards after 6,000 hours of operation and calculated on the basis of the IESNA TM-21-11 guideline "Projecting Long Term Lumen Maintenance of LED Light Sources".

The task of the lighting designer is to look at all possible systems that can achieve energy savings for the final customer.
3F Filippi has always worked alongside professionals in the industry to find and transmit knowledge for a greener future.

What is CLO?

CLO is the acronym of Constant Light Output which is a function of the most evolved drivers to allow fixtures to emit constant output, following natural decay of LED source due to ageing.
Fixtures equipped with this function initially emit, and subsequently in a constant way, a luminous output decreased by 15% in consideration of the decay of the light.
At the same time the fixture has a reduced initial energy consumption (on average 15%) and an increasing regular consumption until it reaches the declared 100%.
The datasheets of fixtures equipped with this technology will show the initial Power and the final Power (for normal size electrical system)

What are the advantages of CLO?

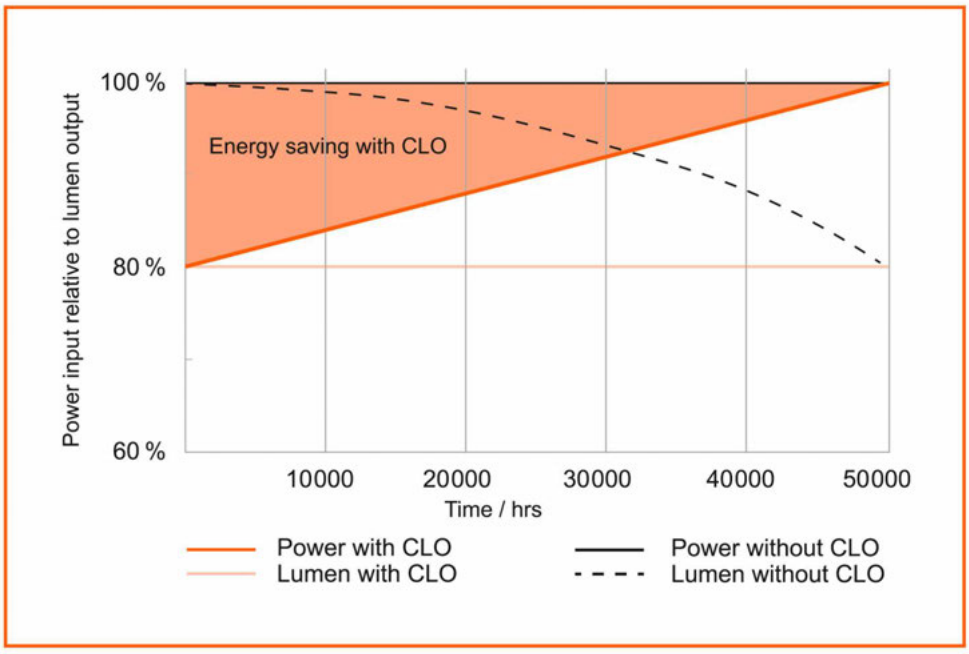
Constant L100 luminous output for the entire life of the fixture.
Thanks to this technology adopted by 3F Filippi, it is no longer necessary to oversize from the first day of use the lighting system (on average 15%) as was done in the past, with an unprovoked energy expenditure.
This makes it possible to design lighting projects with K=1.00 maintenance factors, given that the fixture considers this integrated decay factor right from the first time it is turned on.

Energy savings
The drivers are designed in the Company to feed the LED sources initially at reduced power to then increase gradually over time.
Using the CLO function the energy savings that can be achieved over the life of the fixture is around 10% without any manual or system maintenance. You save simply without realising it.

CLO and lighting design

The light fixtures will be constant throughout their entire life.
Drivers with the CLO function are able to compensate for the decay in luminous output of the LED sources and avoid output peaks/ excess power at the beginning of the installation while maintaining the required luminance values constant over time.
Energy consumption will increase over time to reach maximum consumption which would normally occur when first turned on, only after 50,000 operating hours.

Lighting levels required by regulations are ensured from the first to the last day without wasting any energy.



If you require more information, do not hesitate to contact our Sales Network or our Technical Offices.

3F Wireless

Wireless management and regulation of lighting systems

Introduction

Artificial lighting involves high energy consumption, due to the power used and the number of hours the system is switched on.
Our LED luminaires, which are particularly efficient, allow existing systems to be updated, significantly reducing the power used and thus guaranteeing a fast return on investment. In order to achieve further energy savings, and therefore more significant economic advantages over the entire life cycle of the system, we recommend the use of control systems which are able to regulate the brightness of the luminaires on the basis of the natural light and presence of persons.
Replacing simply the lighting bodies without the need to run new cables for regulation of the luminaires is possible using a wireless system to let the luminaires communicate, and with appropriate sensors.
For this, 3F Filippi offers 3F Wireless technology, which allows luminaires and sensors to communicate via Radio Frequency signals using 868 MHz Mesh Network technology.

Characteristics

Thanks to the 3F Wireless control modules, it is possible to manage DALI digital dimmable luminaires and sensors directly via wireless, without running new cables for regulation of the luminaires.
The radio communication system is reliable and secure, protected against interception by robust encryption algorithms.

Advantages

3F Wireless technology is particularly suitable for retrofitting to existing networks which do not have regulation systems; by simply installing new LED luminaires with wireless kits, without modifying the existing electrical system, it is possible to obtain a management and regulation system with features such as:

- **Cloud Lighting**
  Software allows management of the systems both via local networks (intranet) and via cloud architecture, based on a web (internet) connection.
- **Monitoring of consumption**
  The system is able to control all types of luminaire and monitor the system's power consumption. By using the various hardware and software solutions available, it is possible to incorporate the system into Building Automation systems.
- **Mesh Network**
  Communication between the 3F Wireless modules (luminaires, sensors, servers) uses Radio Frequency signals with 868 MHz Mesh Network technology: an extremely robust and secure solution thanks to encryption of the transmitted data. Each wireless node receives, regenerates and retransmits the commands received in order to extend the range of the entire system.
- **Supervision and Control**
  Software allows configuration, monitoring and control of each integrated system and each connected device, both via manual operations and automatic algorithms, based on a calendar, events and conditional logic.
- **Smartphone configuration**
  Any mobile device (tablet or smartphone) can be used to configure and control the sensors. The integrated application (Web-App) is displayed via the device's web browser, without the need to install any app on the device.

Savings

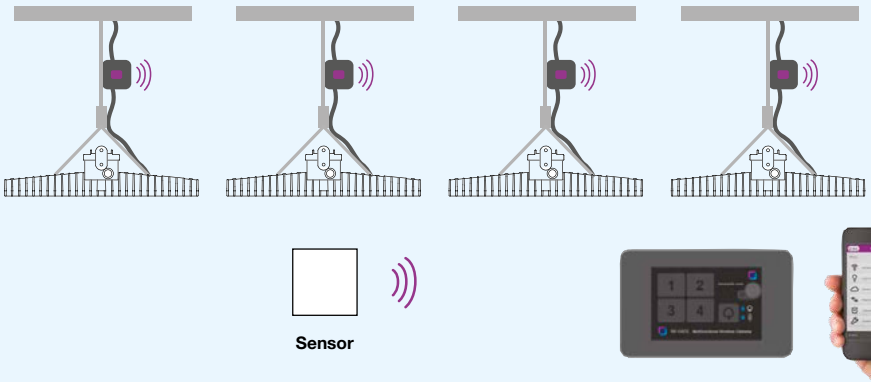
The advantages are real and tangible in these aspects for the end customer:
- **Installation:** the luminaires and sensors are connected via wireless, without running new cables for regulation of the luminaires; this means not spending more money for electrical supplies and installation labour.
- **Integration with existing installations**: the same lighting connections, using standard electrical wiring: this means not wasting money adapting the systems.
- **Energy savings:** the use of sensors combined with installation of analogue or digital dimmable luminaires permits significant energy savings for the end customer, calculated as being up to 80% compared to a solution with ON/OFF sensors.
- **Quicker return on investment:** savings in the materials and hours of labour for installation and/or updating of the existing systems, combined with the savings offered by the dimmable systems, provides a fast return on investment.

System architecture - What components are required?

Stand-alone. Each luminaire is equipped with a wireless control module which receives commands directly from the **brightness and presence sensor**. The entire wireless system is configured via **BLE RF Gateway** and **Smartphone** with dedicated App.

Stand-alone

The controllers and sensors work independently, without needing to be connected to the server. Configuration of the system can be performed simply and intuitively via the app.

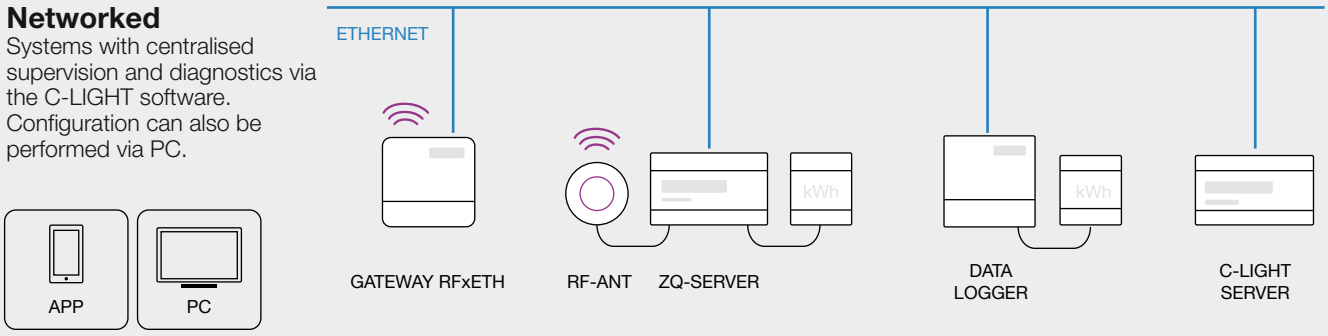


Networked. Depending on requirements, the system can also be integrated with the servers which manage all necessary information, and the following can be connected to the system:

- **Buttons/switches** programmed to bring up control scenes.
- **Energy meters** to monitor the system's power consumption.
- **Control device:** a switch and/or a PC can be connected via the Ethernet interface, or even a Wifi Access Point to allow use of a mobile device (Tablet, Smartphone).

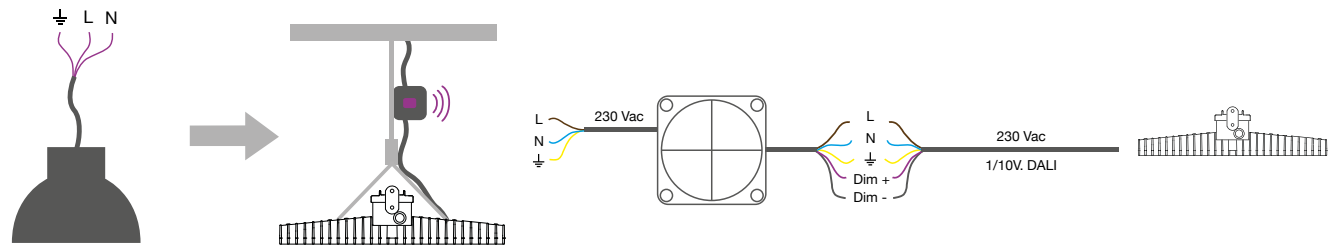
Networked

Systems with centralised supervision and diagnostics via the C-LIGHT software. Configuration can also be performed via PC.



How to connect?

Management of the regulation system without modifying the existing system.
One of the fundamental advantages of using a wireless control system is not having to modify the existing electrical system or, in the case of a new installation, to avoid running dedicated cables for regulation of the luminaires. One-by-one replacement of the individual lighting bodies therefore does not require any additional connection beyond the power supply line.



Existing luminaire

Incorporated wireless module

3F Wireless | Accessories

Portable 868 MHz Bluetooth Gateway, equipped with on button and 4 x configurable buttons for sending wireless commands; battery powered (9V), with integrated digital lux metre for configuration of the wireless systems, in combination with the free App for smartphones (App Store and Google Play). Can be wall mounted for use as a wireless push-button panel: see instructions given on technical data sheet.

Code	Item
A3052	Gateway RF BLE

CE IP20

868 MHz wireless controller for the management of a DALI or D1-10V driver (possibility to connect through a DALI cable no. 4 driver, "broadcast" command), equipped with 500VA relay output and integrated wire antenna, housed inside a box made of plastic material 110x110x45mm, IP54 protection rating. 230Vac power supply.

Code	Item
A3055	RFxNODE IP54 Module

CE IP54

Brightness and movement sensor for high environment (Hmax 16m), equipped with 868 MHz wireless controller for the management of a DALI or D1-10V driver (possibility to connect via a DALI cable n.4 driver, "broadcast" command), 500VA relay output and integrated wire antenna, housed inside a box made of plastic material 110x110x45mm, IP54 protection rating. 230Vac power supply.

Code	Item
A3056	RFxSENSOR IP54 Sensor

CE IP54

Brightness and movement sensor for high environment (Hmax 16m), equipped with 868 MHz wireless controller for the management of a DALI or D1-10V driver (possibility to connect via a DALI cable n.4 driver, "broadcast" command or addressed), 500VA relay output, digital input, potential free contact and integrated wire antenna, housed inside a 110x110x45mm plastic case, IP54 protection rating. 230Vac power supply.

Code	Item
A3057	DALI-SENSE-HB IP54 Sensor

CE IP54

868 MHz wireless controller to manage a DALI or D1-10V driver (it is possible to connect 2 “broadcast” command DALI drivers using a cable), compatible with Philips Xitanium SR and Osram DEXAL, dimensions 83x30x19 mm, IP20 protection rating. DALI or 12 Vdc power supply.

Code	Item
A3058	RFxDRIVER IP20 Module

CE IP20

IP66 polypropylene, RAL 7035 colour box, dimensions 110x110x66 mm, to house the RFxDRIVER wireless control module.

Code	Item
A3059	IP66 Box for wireless module

CE IP66

DALI-SENSE-BMS manages a group of DALI/DALI DT8 fixtures that are cabled in automatic and manual mode using integrated brightness and movement sensors. DALI-SENSE-BMS works in an interconnected mode with all other components in the system and can therefore be used to create multi-group applications and can be centralised via Ethernet with BMS and third-party software.

Code	Item
A3060	DALI-SENSE-BMS Sensor

CE IP20

SERVER to control cables DALI fixtures (max 64 drivers) and wireless 868 MHz. Includes the web-based xSERVER Setup app to configure the system. Ethernet interface. Powered DALI interface. 4 digital inputs, 4 digital outputs. RS485 interface. USB Input. SMA connector for external antenna. 24 Vdc power astronomical clock. DIN rail installation (L=105 mm).

Code	Item
A3062	ZQxSERVER Server

CE IP20

Gateway, module for centralisation of 868 MHz wireless nodes on the TCP/IP network. Ethernet interface. Integrated antenna. 230 Vac power supply. IP54.

Code	Item
A3063	RFxETH Gateway

CE IP54

App free to configure wireless 868 MHz ZETAQLAB devices, available for Apple (iOS) and Android Smartphones and Tablets.

DALI-SENSE App allows you to configure the operating parameters and working methods of the wireless multisensory DALI-SENSE and to manage the DALI fixtures connected manually. The DALISENSE App is compatible with Smartphones and Tablets with a Bluetooth Low Energy interface with Android or iOS operating systems and can connect directly with the DALISENSE sensors using a Bluetooth LE interface.

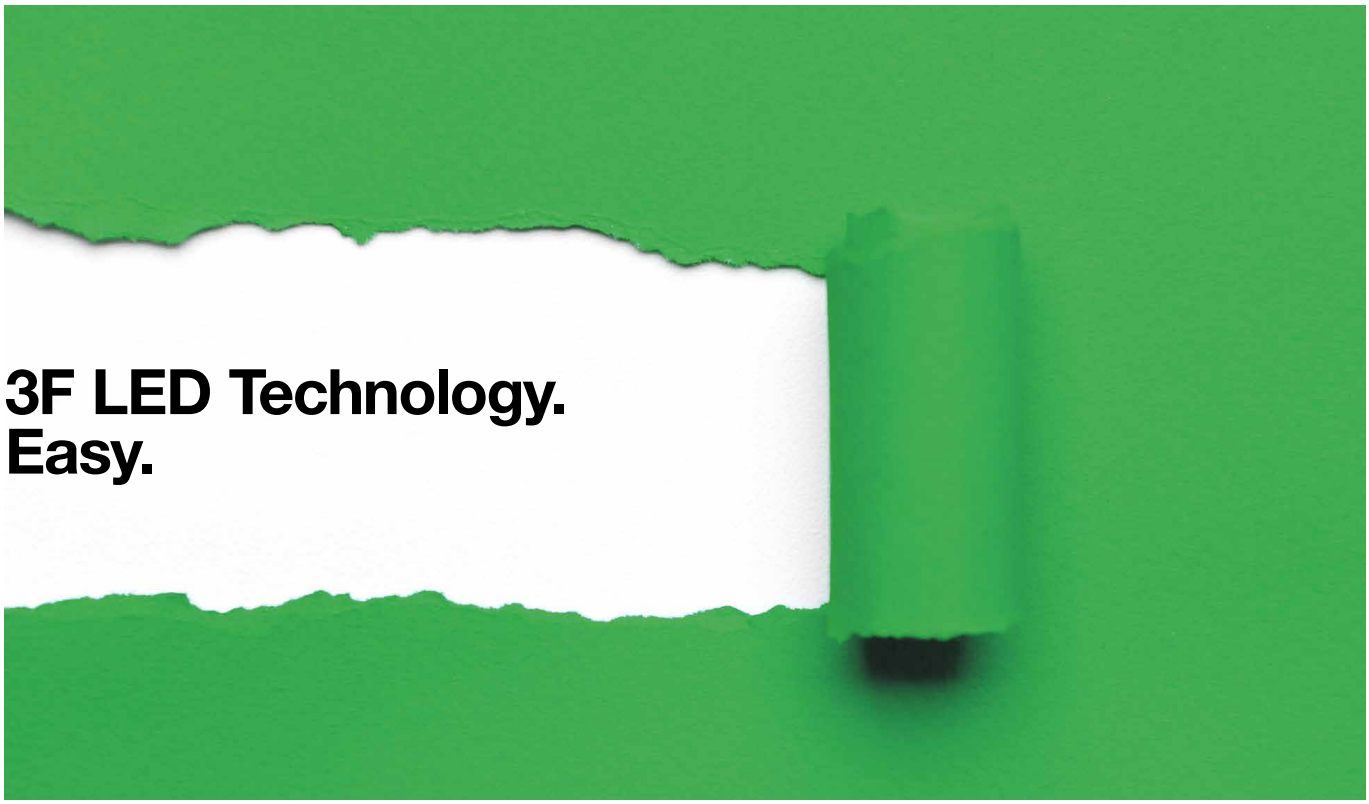
Software for local (intranet) and remote (internet) systems management that makes it possible to configure, monitor and control all integrated systems and all fixtures connected through manual operations and by using automatic algorithms based on calendar events and conditional logic. The software also allows to archive and export data relating to energy consumption and carry out automatic tests on Emergency devices and UPS, allowing to export the register of various activities, as prescribed by current regulations. For more information contact the headquarters or regional offices.


PASTICCERIA INDUSTRIALE
BISCOTTI
2
CAFFÈ / INFUSI
CEREALI
FETTE BISCOTTATE
3
EDICOLA
LIBRI
GIOCATTOLO
CANCELLERIA

Infopoint

3F LED Technology

The real revolution is simplicity



Introduction

3F Filippi has put more than 60 years of experience in the field to work alongside its designers to create its new LED product line.
And the difference is plain to see: in a market full of efficient light sources which is evolving and developing from one day to the next, 3F Filippi has decided to equip its luminaires with sources manufactured using the highest quality components available.

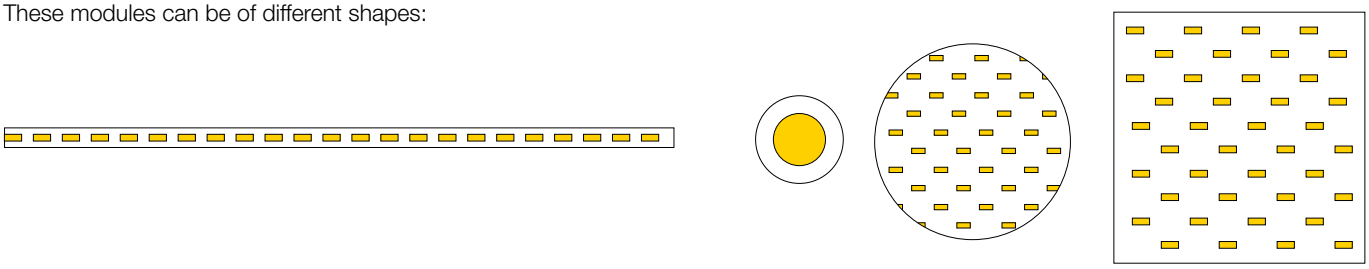
Unfortunately, one of the most common problems for lighting designers is the lack of a common standard to regulate how lighting companies advertise the performance of their products: these "tricks" hinder comprehension and comparability of products.
For this reason, we have decided to shed light on the matter with this guide, by explaining LEDs and their most important characteristics simply yet exhaustively.

It is important to remember that the original technical features of LED lighting will change according to the operating conditions of each luminaire, and as such, it is incorrect to assume that every LED has the same characteristics in terms of service life, decrease of luminous flux (L) life expectancy (B), etc.

What is an LED?

LEDs are electronic components which emit light when an electrical current passes through them – the name, indeed, is an acronym for Light Emitting Diode. This is possible thanks to the optical properties of some semiconductors which emit photons when current is passed through them.

When a group of LEDs are installed on a printed circuit, this is known as an LED module.
These modules can be of different shapes:



linear COB circular square

What are the advantages of 3F LED technology?

Illuminotechnical

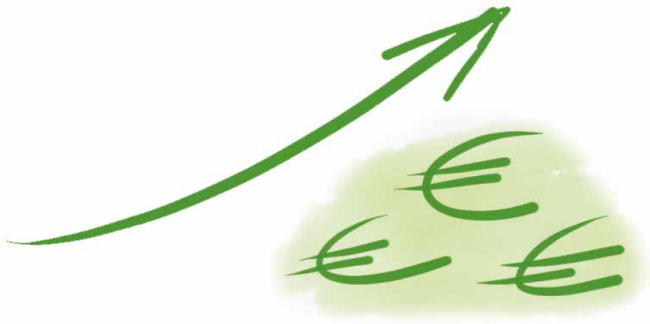
- High luminous efficiency LED: up to 200 lm/W
- Immediate on
- Control of the light flow, directed light
- Absence of emission of IR and UV components
- Very long lifetime, > 50,000 hours (professional range)
- Lower power than traditional light sources with equal light output
- Increased brightness
- Adjustment of luminous flux from as low as 1%

Environmental

- Mercury free
- Lower CO_2 emissions thanks to lower power
- Less use of polluting materials in LED production
- Less heat lost to the environment

For the customer

- Reduction of energy costs
- Reduction of maintenance costs
- Fast return on investment



Comparison chart between luminaires of the same length

	Total luminaire of luminaire	Total energy consumption	Annual saving
2x58W Fluorescent Wiring low-loss EEI=B2	141W	€102	0%
2x58W Fluorescent Wiring EEI A2 electronic wiring	109W	€78	24%
2x30W LED wiring ballast	70W	€50	51%
2x22W LED electronic ballast	49W	€35	66%

Table supposes electricity cost of €0.18 per kWh and total annual operation of 4,000 hours.

3F LED Technology

What are the aspects to consider when choosing an LED luminaire?

Reference standards

When studying and designing products, 3F Filippi refers to the most recent specific reference standards:

IEC 62722-2-1
Luminaire performance - Part 2-1: Particular requirements for LED luminaires

IEC 62717
LED modules for general lighting - Performance requirements

CIE 121
The Photometry and Goniophotometry of Luminaires

IEC TR 62778
Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires

IEC EN 62471
Photobiological safety of lamps and lamp systems

IEC EN 60598-1
Luminaires: General requirements and tests

REGULATION (EU) No. 1194/2012
sets out the rules for the application of European Parliament and European Council Directive 2009/125/EC on the specifics of environmentally-friendly design of directional lamps, lamps with light-emitting diodes and other relevant equipment.

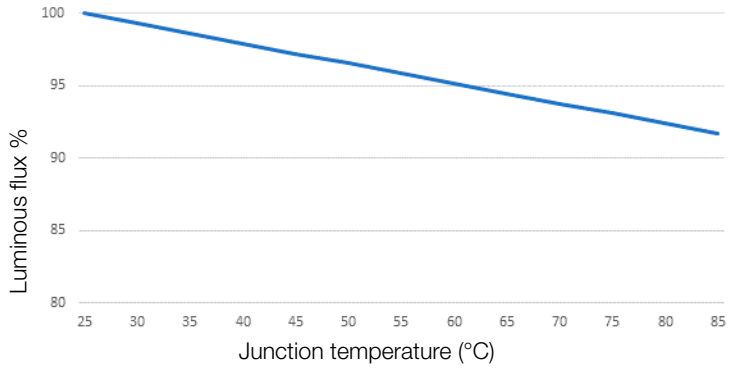
Ideal operating temperature

In order for LED modules to be able to function correctly and ensure a long lifetime (>50,000 h), a limited drop in luminous flux over time (>L85) and high luminous efficiency (>140 lm/W), they must be able to correctly dissipate the heat they generate.
The rated data for LEDs applies only if the junction temperature (Tj) is not exceeded. For this reason, at 3F Filippi , we perform a series of thermal and illuminotechnical tests on our LED luminaires, which allow us to achieve the best combination of heat dissipation, luminous flux and rated power.

Ambient performance temperature “tq” (IEC 62722-2-1)

The "tq" value indicates the nominal ambient temperature recorded around the tested luminaire.
IEC standard 62722-2-1 “Luminaire performance - Part 2-1: Particular requirements for LED luminaires”, requires the manufacturer to declare the technical performance data relating to the ambient temperature (tq) of +25°C. The luminous output, total power and the service life expectancy of fixtures indicated in official documents (web site, datasheets and photometric curves), therefore refer to the performance ambient temperature tq +25°C (according to EN13032 standard requirements by the 3F Filippi CTFs2 certified photometric laboratory).
In order for designers to evaluate the decays of different operating durations in advance and to set up maintenance programmes on the system 3F Filippi also includes the useful life (L) and life expectancy values (B) on the datasheet which refer to:
30,000 hours, at performance ambient temperature (tq+25°C);
50,000 hours, at performance ambient temperature (tq+25°C);
80,000 hours, at performance ambient temperature (tq+25°C);
100,000 hours, at performance ambient temperature (tq+25°C)
50,000 hours, at the maximum operating temperature (tmax) for luminaires with operating temperatures greater than tq + 25° C.

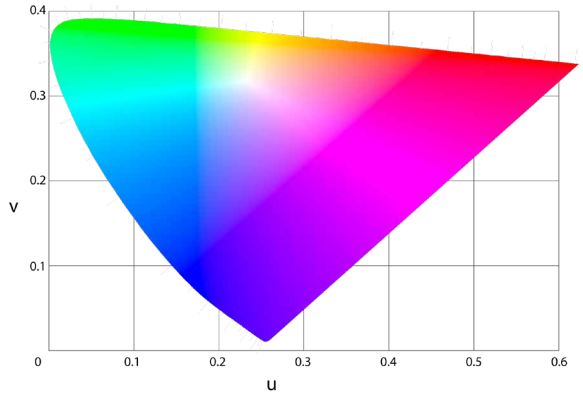
Thermal management



LED Junction temperature	Tj 25°C	Tj 60°C
Lumens	1000	950
System	178 lm/W	169 lm/W
Useful life (@50,000h)	L 100	L 85
Life expectancy	B 0	B 10

To increase LED luminaires’ reliability to the maximum, correct thermal dissipation is essential.
The temperature is fundamentally important as it influences the luminosity and lifetime of the LED component.
3F Filippi pays great attention to this factor and as a result we develop luminaires which ensure optimum heat dissipation.
Above a chart that correlates the performance values at different junction temperatures Tj.

Colour rendering index (CRI)



The colour rendering index is an important parameter for the performance of a light source, and evaluates the source's ability to provide an accurate perception of an object's real colours.
All LEDs used by 3F Filippi have colour rendering Ra>80, with a typical average value of around 85.
Where not already provided for, high colour rendering of Ra>90 can be requested on some products.

The CRI index of 100 has always been attributed to traditional incandescent sources, with a continuous spectrum but poor in shades of blue (therefore not very suitable for the enhancement of objects with dominant blue).
The LED sources, despite having a continuous spectrum with peaks on specific colors, have a maximum CRI of 98.

Below are the two main methods of measuring the color rendering of the light source or of what is emitted by the lighting luminaire (through its lenses, refractors or optical filters).

In the product documentation, the colorimetric characteristics are expressed both through the CRI method and through the TM30 method in order to provide the designer with all the information necessary for choosing the best light according to the specific need in the application to be illuminated.

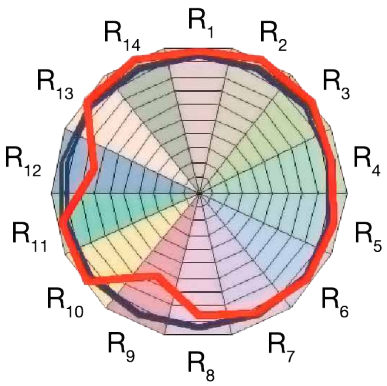
CRI method
CRI (Color Rendering Index) is a measurement method for assessing the ability to recognize a color, developed by CIE 13.3.
The Ra parameter provides an average indication over the entire light spectrum and is obtained from the average of the color rendering indexes of 8 unsaturated colors (normally individually referred to as R1 to R8).

The less used parameter Re, on the other hand, provides a more precise average indication of the entire light spectrum obtained in fact from the average of the color rendering indexes of 14 colors (normally called individually from R1 to R14).
The added reference colors are the 6 most common typologies in daily life.

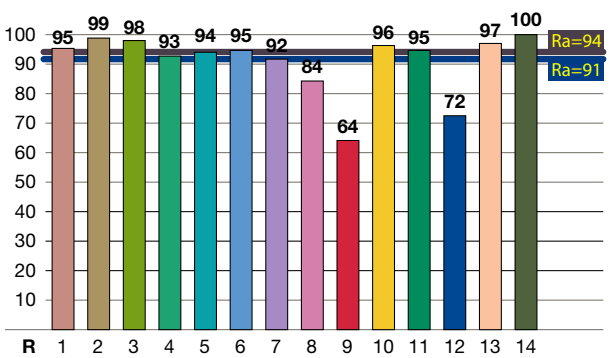
Index 100 means that the exposed color is recognized in a perfect way, as in sunlight, while lower indices indicate a greater growing difficulty in recognizing that particular color.

Auto:
ref.illuminant -
Planckian radiator
CCT=4159 K

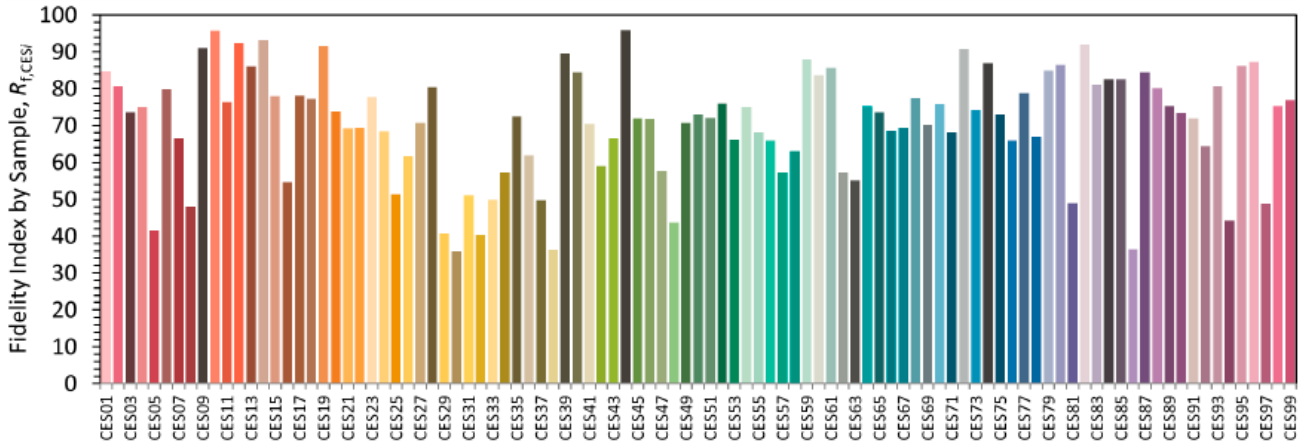
R_a=94
R_e=91



Auto: ref.illuminant - Planckian adiator CCT=4159 K



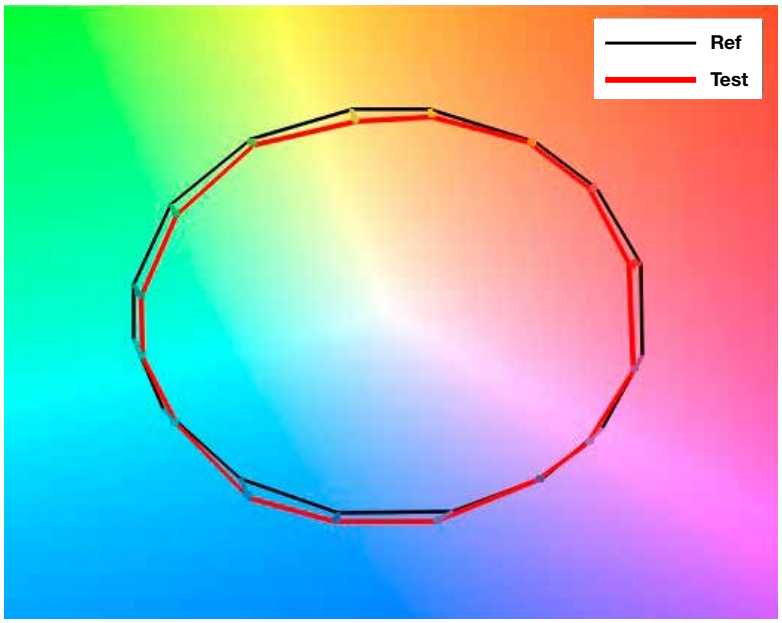
TM 30 method
Very precise measurement method developed by the American IES (Illuminating Engineering Society), according to the TM30 as it is based on the color rendering comparison of 99 sample colors (Color Evaluation Samples - CES).

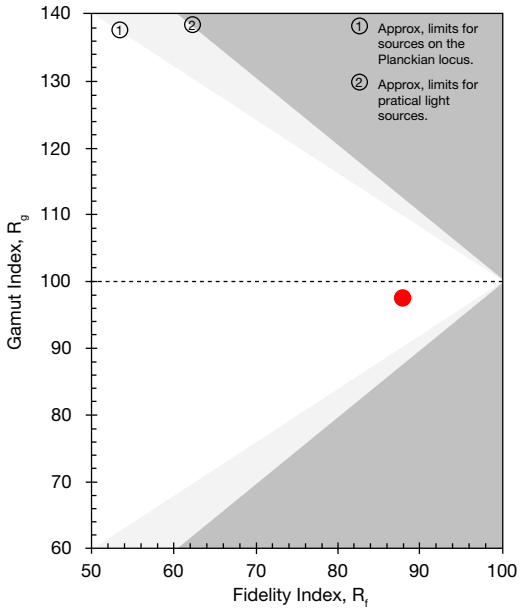


The spectroradiometric measurement provides the evaluation of two quantities:

- Rf Loyalty index
- Rg Saturation index (Gamut)

It also introduces important indications on the ability of the various sources to restore the fidelity of the materials and the color distortion diagram that represents the variations in hue and saturation of each source.





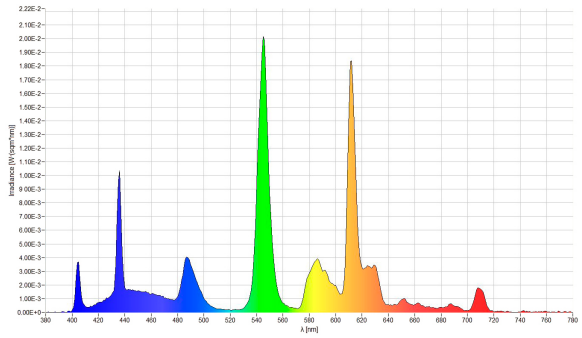
Rf (Fidelity) is similar to CRI but more precise and provides indications about the fidelity of color rendering.
Its maximum value is 100.

Rg (Gamut) provides an indication of the source's ability to reproduce color saturation (amplitude of the color gamut).
A value of 100 indicates that, on average, the test source does not change the hue and saturation of the ESCs, compared with the sample source.
A value> 100 indicates an increase in color saturation and therefore more vivid colors.
A value <100 indicates a decrease in saturation.

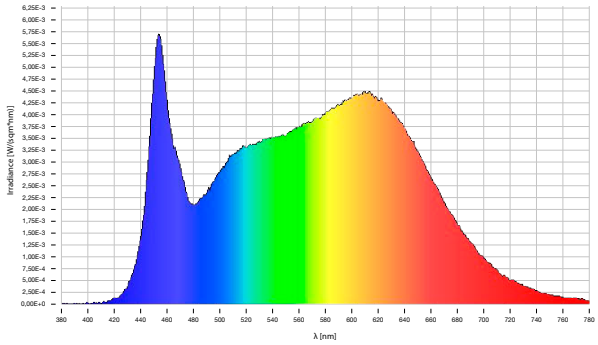
Combined with each other, "Rf" and "Rg" allow you to define the color rendering of a light source in a differentiated but more complete way.

Colorimetry and light spectrum

Typical light spectrum of fluorescence

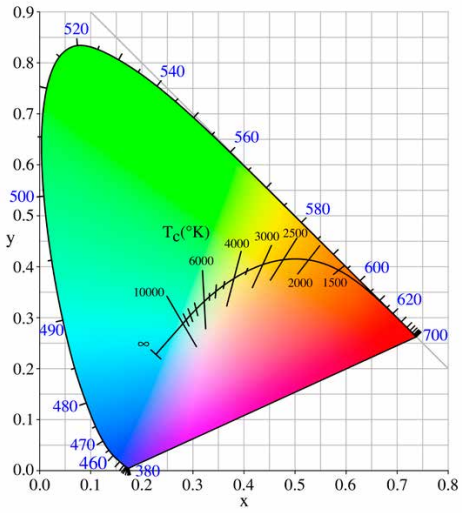


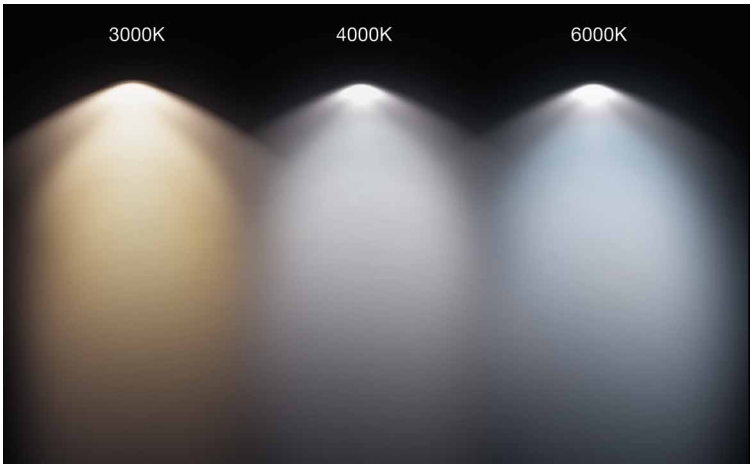
Typical light spectrum of LED



LED sources have a light spectrum with greater uniformity across the whole range of colours.
Unlike traditional light sources, LEDs do not have interruptions in colour, thus ensuring complete and much-improved vision of the entire colour spectrum - very similar to that seen with natural light.

Correlated Color Temperature (CCT)





The CCT correlated color temperature is expressed in Kelvin and is defined on the basis of comparison with the light emitted by an ideal black body of reference at the different temperatures. A source will therefore have a color temperature of 4,000K, when the light emitted will have the same hue as that of the black body brought to the reference temperature of 4,000K.
It is important to specify that CCT is totally independent of the color rendering of the source and does not provide any information on it.

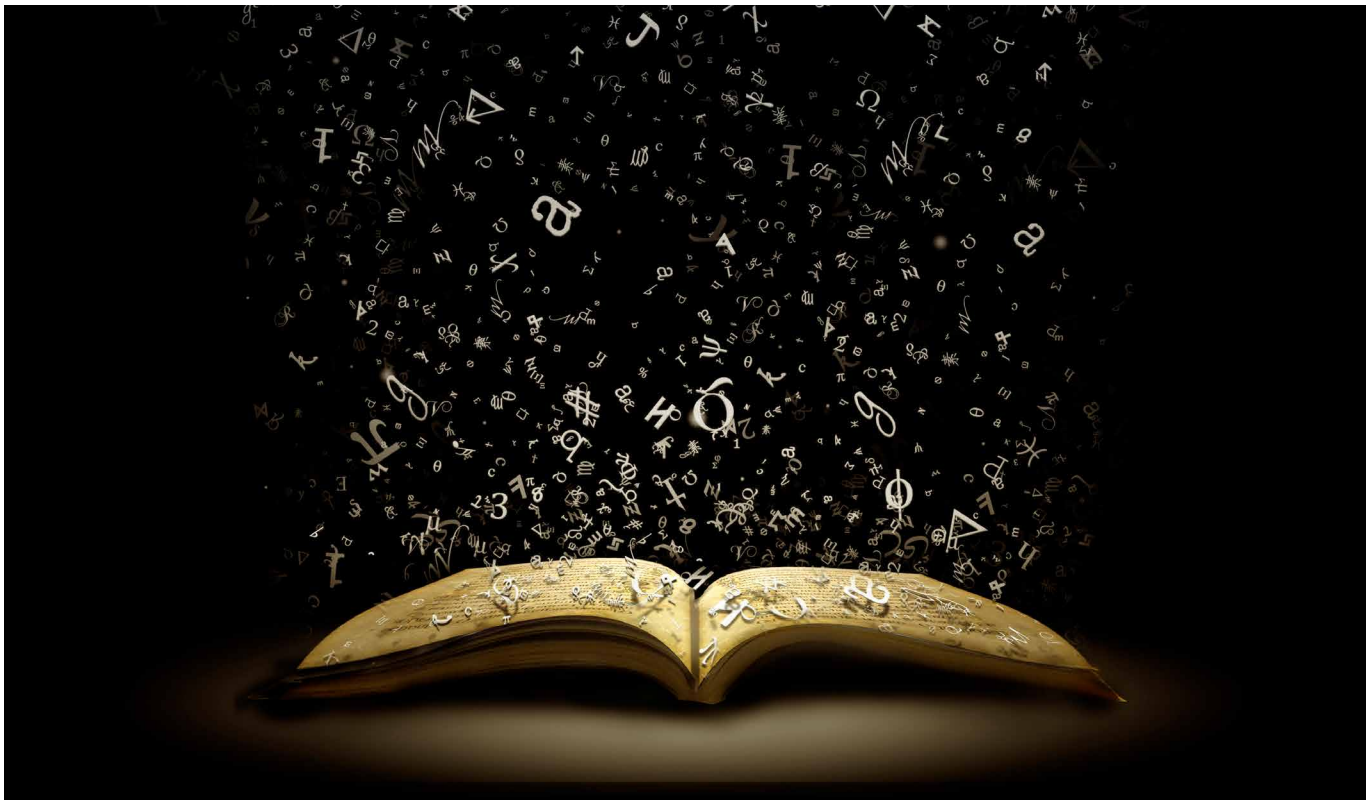
A warm light normally hovers around 3,000K, a neutral white hovers around 4,000K while a cold white hovers around 6,000K.

Chemical compatibility

For LED luminaires, care must be taken to ensure chemical compatibility with the individual LED chips which, when exposed to given organic compounds, for example substances containing sulphur (S), chlorine (C) or other halogens (ammonia, diesel etc.) are liable to sulphuration (or oxidation) of the component.
Sulphuration can cause reductions in flow and useful lifetime, a change in chromatic co-ordinates and, in extreme cases, interruption of the electrical circuit and breaking of the junction.
Even for the LEDs inside IP65 lighting bodies, which also benefit from significant protection, this cannot be considered absolute.
On request: for particularly corrosive applications, LED modules with special protection can be used.

3F LED Technology

Glossary

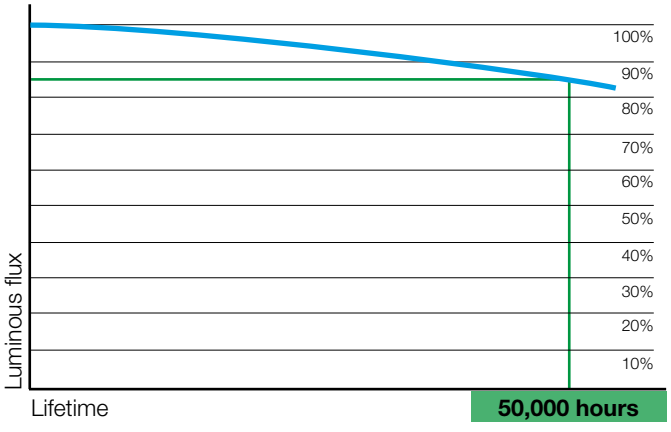


Luminous flux
The luminous flux, or light flow, coming from the luminaire represents the quantity of light actually coming out of the device, as its value is defined having already taken into account the luminous efficiency of the luminaire.

Luminaire luminous efficiency
EN 13032 requires the use of Absolute photometry for luminaires with LED light sources as only the total flux of the luminaire can be measured.In this case the LOR (Light Output Ratio) is consequently 100% and the parameters ULOR (Upward Light Output Ratio) and DLOR (Downward Light Output Ratio) allow the percentages of Direct and Indirect emission beyond the 90° horizontal plane to be determined if necessary.

Luminous efficacy of the luminaire
The luminous efficacy of the luminaire is the most useful parameter for the designer to determine the right lighting luminaire because provides the practical data between the light emission and the overall absorption of the lighting luminaire.

Relative humidity UR
For correct maintenance and operation of traditional LED modules over time, the maximum permissible humidity on the component is 85%. For specific applications, UR95 LED modules may be required, guaranteeing correct operation at humidity values of up to 95%.

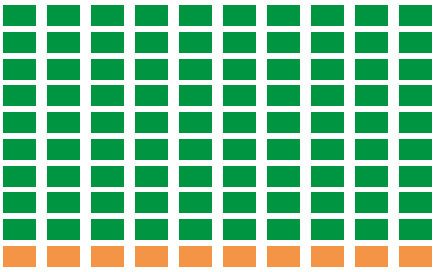


Lifetime (L value)
As previously mentioned, LED sources, unlike traditional lighting, do not tend to suddenly blow at the end of their lifetime; LEDs rather have a gradual reduction of their luminous output overtime before completely running out after a very long time.

The percentage decline of the luminous flux with reference to the useful number of operating hours (usually 50,000 hours) is therefore determined with the parameter “L”.
L85:50000h therefore means that, having reached 50,000 h of operation, the LED module still provides 85% of its initial luminous flux.

LED life expectancy (B value)
In LED ratings the value B, followed by a value normally between 10 and 50, indicates the quality of the component used as it defines the percentage of components which, after the normal 50,000 h has elapsed, maintain their rated luminous flux.

An LED with declared values of L85/B10=50,000h indicates that on reaching 50,000h, 90% (B10) of the components will have a residual luminous flux of at least 85% of the initial value (L85).
If, in the listed characteristics of the LED luminaire, the value B is not indicated, this is considered to be a B50 device - or in other words, 50% of the LEDs do not guarantee the average useful life value indicated.
We should clarify that this parameter is strongly influenced by the operating conditions of the LED inside the luminaire, and the result is therefore a combination of the quality of the component and good research.



equal to or more than 85% of the initial flux

less than 85% of the initial flux

LED failure rate (C value)
This value indicates the percentage of LEDs which are no longer operational at the end of their lifetime.
This value can be indicated with two combinations:
- L85/B10/C0: 50,000 hours - indicates that after 50,000 hours, the percentage of LEDs no longer working is 0%.
- L85/B10: 50,000 hours - L0/C10: 200,000 hours - indicates that after 200,000 hours, the percentage of LEDs no longer working is 10%.

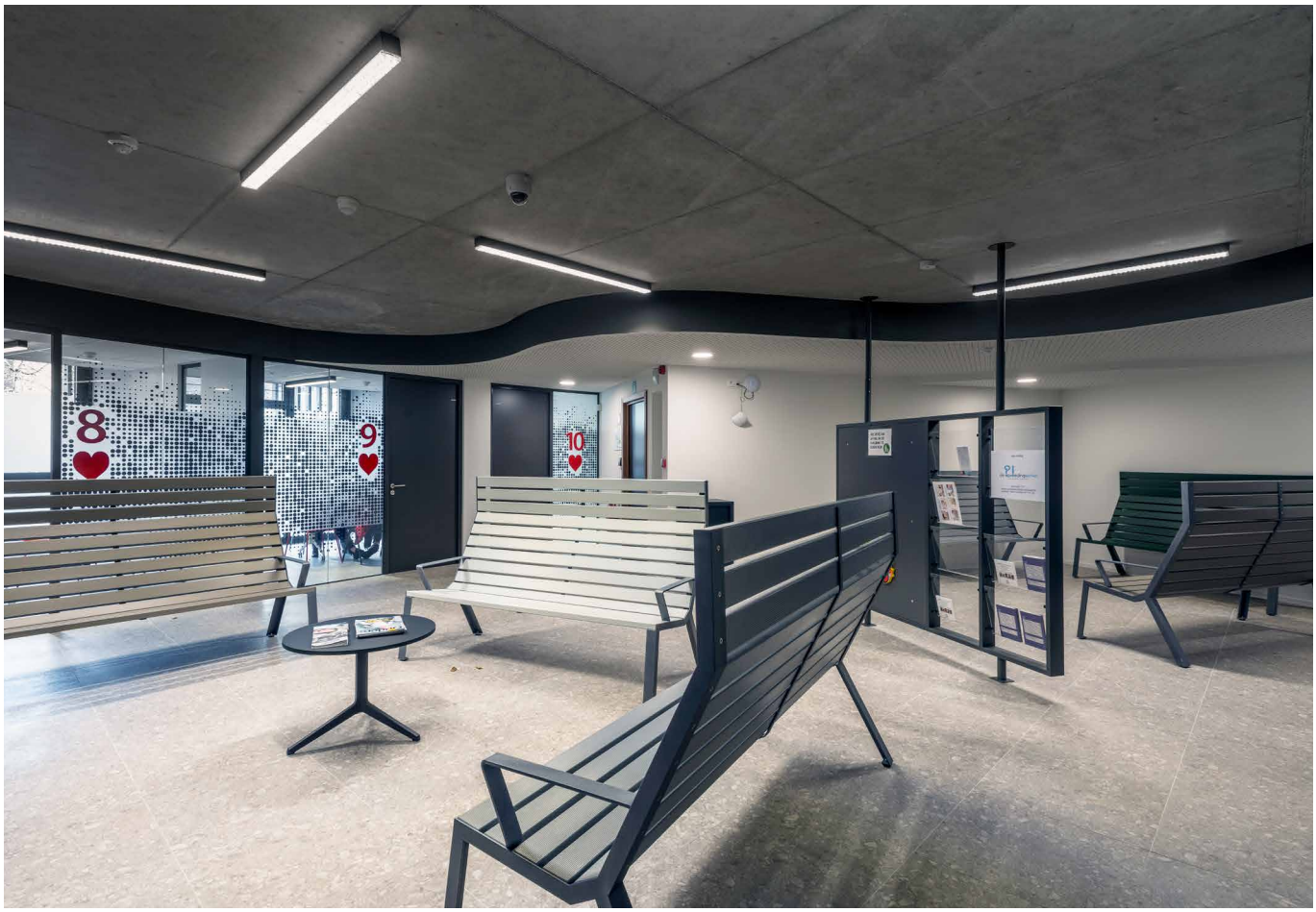
All LEDs used by 3F Filippi have a failure rate C0 after 50,000 hours. If this value is not indicated, it should be considered C0.

Colour tolerance (MacAdam ellipses) - SDCM
Measurement of the chromatic co-ordinates performed during production of the LED allows selection (known as Binning) to classify the LEDs on the basis of their chromatic differences.
This classification, performed via analysis of the so-called MacAdam ellipses (which express colour deviations on the XY axes), allows constant tonality to be obtained among the individual LEDs in the same group and an SDCM (Standard Deviation of Colour Matching) which can be classified as:
- With the value 1 there is no chromatic difference between the individual LEDs.
- With values 2 and 3 the difference is not visible to the human eye and the LEDs are considered of good quality.
- With a value of 4, the difference begins to become visible to the human eye.
- As the value increases, the difference is increasingly noticeable, and the type of application will dictate whether these differences in colouration in the LED group used are acceptable or not.

3F Filippi provides both the initial value and the value over time. Indeed, due to the consumption of phosphors present in the LEDs, the colour tolerance can change over time.
All LEDs used by 3F Filippi always have an initial colour tolerance value of less than 3 MacAdams SDCM, and a colour tolerance value over time of less than 3.

3F LED Technology

Flicker



Fixtures with the **“SAFE FLICKER”** logo have parameters of **P_{st}^{LM}=1 and SVM≤0,4**, in **compliance with regulations IEC TR 61547-1 and IEC TR 63158**, to ensure a more comfortable and safe light.

- **P_{st}^{LM} (Short-Term flicker)**

Quantifies visible Flicker that is harmful to human health caused by the modulation of light in the frequency range between 0.3Hz and 80Hz.
The recommended threshold is P_{st}^{LM} =1.
Note – This value was determined based on a representative test group of people and identifies the average perception threshold of visible flicker.

- **SVM (Stroboscopic Visibility Measure)**

Quantifies stroboscopic effects that can occur in situations relating to objects in movement in the presence of modulation of light in the frequency range between 80Hz and 20KHz.
SVM=0,4 represents the visibility threshold in a test group of people that quantifies the stroboscopic effect in defined laboratory conditions.

Fixtures that do not bear the “SAFE FLICKER” logo on the other hand show the flicker value declared by the driver manufacturer which is not determined according to IEC criteria.

Constant renewal of drivers will bring about the introduction of new models in line with IEC requirements.
For more details and/or specific needs please contact our technical department.

Technical details

Flicker is defined as “the rapid variation of the intensity of a light source over time”; in particular that relating to the frequency range between 0-80Hz.

When fluctuations on the other hand belong to the interval between 80Hz-2KHz this are called “Stroboscopic effects” in which light fluctuation produces an incorrect perception of the movement of objects lit by the same source by a static observer.

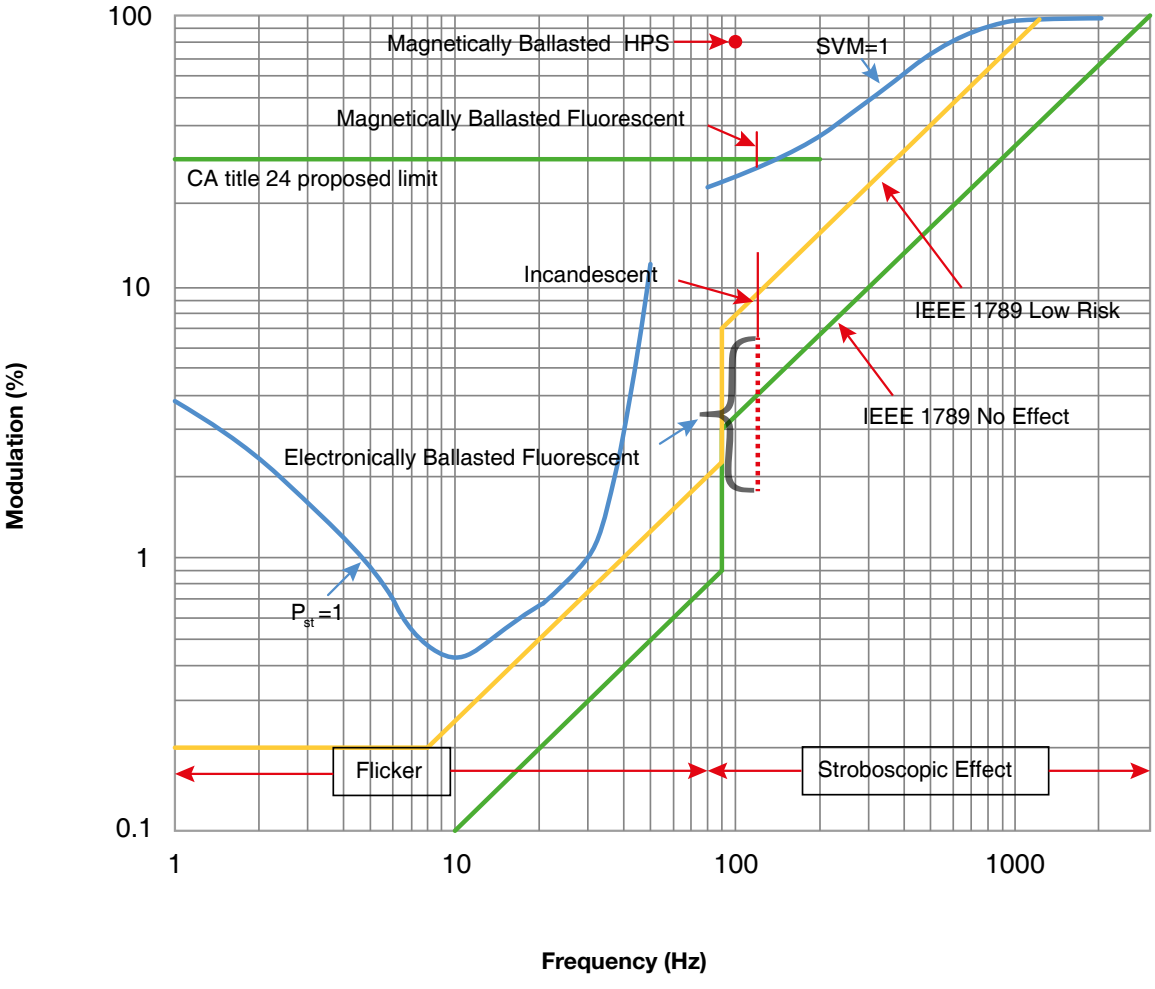
This phenomenon became increasingly important following the introduction of LED light sources for general lighting given the combination of the following aspects:

- LED sources are characterised by a high speed response to fluctuations in the power supply which translate into variations of the light emitted
- Unwanted residual fluctuations of the driving current of LED sources generated by the electronic power supplies used
- Modulation of the driving current of LED sources for example PWM (Pulse Width Modulation), necessary to adjust the emission level
- Any instability in the operation of dimmers connected externally to the LED source power supplies

This fluctuation in light intensity, according to the frequency, intensity, viewing angle, level of light in the environment, age of the observer and their sensitivity level, can be perceptible on a conscious and/or unconscious level and generate a series of side effects depending on the sensitivity level such as: headaches, visual fatigue, distraction etc.

In order to mitigate the risks on health in lighting contexts using LED sources, recommendations have been developed for the American market (see: IEEE Std 1789™-2015), and the European market with Technical Reports IEC TR 61547-1 and IEC TR 63158.

The graphic below summarises the limits provided for in the two different “regulations”, based on different evaluation mechanisms to establish when a fixture is “SAFE” for observers.



Built-in Emergency lighting

LED emergency wiring characteristics

The emergency fluxes (BLF) of the individual luminaires are indicated in the technical datasheets that can be downloaded from our website.
Wiring created with emergency lighting systems with the following characteristics:
- Rigid cables cross sectional area 0.50-0.75-1 mm² (0.75-1 mm² also Class II), HT heat resistant PVC 90°C, CEI 20-20.
- 230V-50/60Hz electronic inverter with protection against excessive battery discharge.
- Sealed Nickel-Cadmium or Nickel-Metal Hydride NiMH.
- LED to signal presence of power supply and battery charging.
- Recharge time 24 hrs.
- Running time = 1h minimum under heaviest working conditions.
- 3-pole terminal block with incorporated disconnecting fuse for standard power supply live-earthing-neutral (LTN).
- 2 pole terminal block for power supply of the emergency recharging line.
- Complies with IIEC 60598-1, CEI EN 60598-1 (CEI 34-21) and CEI EN 60598-2-22 (CEI 34-22).
- Suitable for rooms with temperature from 5°C to +25°C.
- Excluding high risk areas.

On request:
- Emergency mode with 3 hours duration, 24 hours recharge, or 1.5 hours duration and 12 hours recharge (according to feasibility), maintaining the same percentage of the standard luminous flux.
- Emergency lighting with 2 hours battery life and 12 hours charging (according to feasibility), for the emergency lighting luminous flux percentage contact our Sales team or our technical department.
- Wiring with intelligent control systems and centralised or local self-diagnostics of emergency lighting.

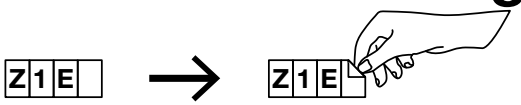
EP LED permanent emergency lighting

When power is on, EP luminaires operate like normal luminaires.
The LED module connected to the emergency kit turns on or remains on automatically in the absence of mains voltage.
The luminous flux declared on the datasheets are the minimum required for the entire duration of nominal autonomy as required by the regulation CEI EN 60598-2-22 and are those to be considered in the design phase. The luminous flux indicated are the OUTPUT ratio of the fixture.

ENP non-permanent emergency LED lighting

In ENP luminaires, the LED module switches on only in emergency mode, when there is a power cut.
The luminous flux declared on the datasheets are the minimum required for the entire duration of nominal autonomy as required by the regulation CEI EN 60598-2-22 and are those to be considered in the design phase. The luminous flux indicated are the OUTPUT ratio of the fixture.

Centralised emergency lighting power supply



IEC/EN 60598-2-22
Fixtures in compliance with EN 60598-2-22 to power a centralised emergency system CPSS (Central Power Supply System), not integrated into the fixture – excluding high risk areas.

230Vdc Centralised power supply (As an example and subject to change without notice)
Normally when the centralised source is in 230Vdc direct current (nominal), in emergency lighting the following functions occur:
- Fixtures equipped with DALI drivers by default reduce their power and as a consequence their output flow by 15%.
- Fixtures equipped with NON ADJUSTABLE drivers maintain their power and as a result their output flow at a maximum level.

230Vac Centralised power supply (As an example and subject to change without notice)
When the centralised source is in 230Vac alternating current, in emergency lighting the following functions occur:
- Fixtures equipped with DALI drivers by default increase their power and as a result their output flow at a maximum level (100%) (when the DALI system fails).
- Fixtures equipped with NON ADJUSTABLE drivers maintain their power and as a result their output flow at a maximum level.

To check compliance with EN 60598-2-22 and AC/DC operating see the datasheets that can be downloaded from the website.

Assessment of compatibility between the centralised source and drivers as well as compliance with switching times between normal and emergency power supplies and battery life is the exclusive responsibility of the electrical systems designer.

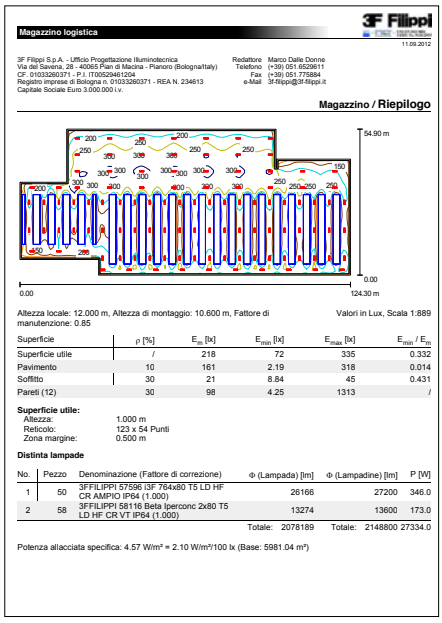
For more information please do not hesitate to contact our Sales Network or Technical Department.

Lighting engineering

Professional lighting engineering design and free consultancy

3F Filippi supplies its customers with a free lighting engineering design service thanks to the Dialux software which allows them to:

- Consult the photometric characteristics of the luminaire in order to establish the correct application.
- Calculate and check the level of illumination, luminance, as well as the uniformity over horizontal work surfaces (such as work tops and ceiling), vertical work surfaces (such as walls or inclined virtual planes, vertical walls in the room, etc.) and to perform calculation for irregular layouts. With these results, data sheets can be produced with the values shown in point-by-point, isolux, tables, room surfaces, as well as 2D and 3D views of the environment.



Magazzino logistica

11.09.2012

3F Filippi S.p.A. - Ufficio Progettazione Illuminotecnica
Via del Savena, 28 - 40065 Pian di Macina - Pianoro (Bologna/Italy)
CF. 01033260371 - P.I. IT00529461204
Registro imprese di Bologna n. 01033260371 - REA N. 234613
Capitale Sociale Euro 3.000.000 i.v.

Redattore Marco Dalle Donne
Telefono (+39) 051.6529611
Fax (+39) 051.775884
e-Mail 3Filippi@3F-filippi.it

Magazzino / Riepilogo

Altezza locale: 12.000 m, Altezza di montaggio: 10.600 m, Fattore di manutenzione: 0.85

Valori in Lux, Scala 1:889

Superficie	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	E_{min} / E_m
Superficie utile	/	218	72	335	0.332
Pavimento	10	161	2.19	318	0.014
Soffitto	30	21	8.84	45	0.431
Pareti (12)	30	98	4.25	1313	/

Superficie utile:
Altezza: 1.000 m
Reticolo: 123 x 54 Punti
Zona margine: 0.500 m

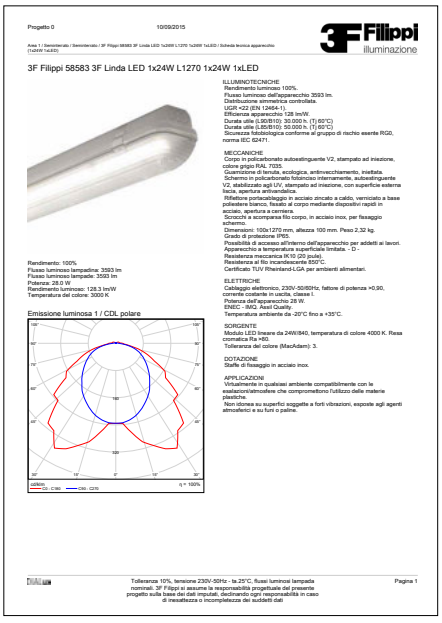
Distinta lampade

No.	Pezzo	Denominazione (Fattore di correzione)	Φ (Lampada) [lm]	Φ (Lampadine) [lm]	P [W]
1	50	3FFILIPPI 57596 i3F 764x80 T5 LD HF CR AMPIO IP64 (1.000)	26166	27200	346.0
2	58	3FFILIPPI 58116 Beta Iperconc 2x80 T5 LD HF CR VT IP64 (1.000)	13274	13600	173.0
			Totale: 2078189	Totale: 2148800	27334.0

Potenza allacciata specifica: 4.57 W/m² = 2.10 W/m²/100 lx (Base: 5981.04 m²)

Medium and point-by-point illumination on all surfaces of the environment.

Graphical representations on the surfaces of the environment with the following documents: graph of values, rendering with staggered colours, isolines, tables, etc..



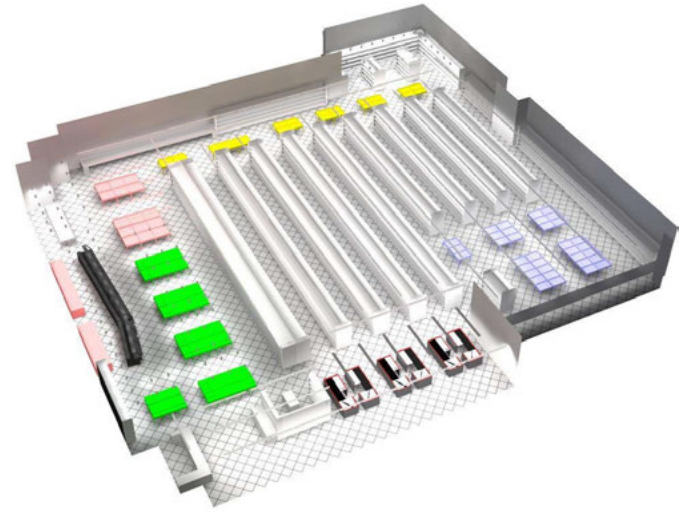
Progetto 0 10/09/2015

3F Filippi 58583 3F Linda LED 1x24W L1270 1x24W 1xLED

Emissione luminosa 1 / CDL polare

Pagina 1

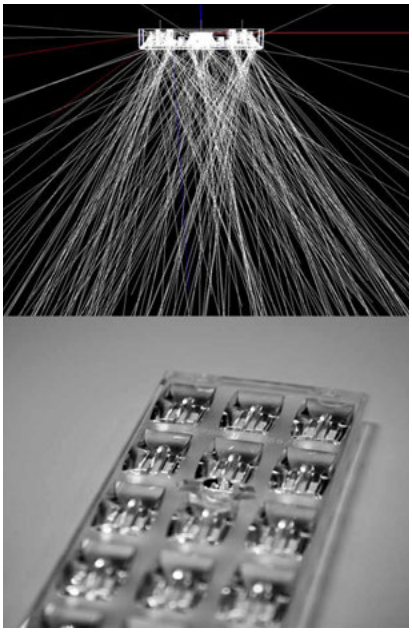
Product datasheet with indication of the lighting, mechanical and electrical characteristics.



Rendering of a calculation environment

- To make the calculations more precise and create very realistic environments, architectural and furnishing elements can be placed inside the program's simulation environment.
- The software and the 3F Filippi plug-in are available free to designers, installers and electrical distributors.
- Updates of photometric files and of the lighting engineering software can be downloaded free of charge from our website.
- For further information, contact our technical consultants.

3F Filippi is UNI EN ISO 9001 certified for lighting engineering design too.



3F Filippi guarantees photometric data sheets, according to the latest European and international recommendations and standards, thanks to the support of the photometric laboratory, in line with official European laboratories.
The photometric tests are performed by procedures in accordance with the UNI EN 13032 and CIE 121 standards.
3F Filippi has the most advanced computer programs for research and optimisation of louvres and flow recuperators in order to achieve maximum efficiency and suitable light distribution for the most widely varying applications.
This commitment has been recognised and certified by the CSQ (Italian Company Quality Systems Certification) also for the entire phase of lighting engineering design, thus allowing operation under a Quality Assurance system that also covers interior lighting design in accordance with good engineering practice.

Our ISO 9001 certification, awarded by CSQ (certificate no. 9130.3FFI) can be viewed on our website in the "Certifications and Guarantees" section.

3F Filippi, as further guarantee of the quality of its products and care to meet the strictest standards, is a sustainer of the most lighting engineering associations in the world:

AIDI (The Italian Illumination Association) carries out incisive and constant scientific, cultural and technical reporting to spread knowledge of lighting issues.

www.aidiluce.it

ASSIL (Italian Lighting Producers' Association) provides technical and normative support for quality and performance improvements of lighting technology on the market, while helping respect people's visual comfort, energy-efficiency requirements and environmental protection.

www.assil.it

IESNA (Illuminating Engineering Society of North America) is the American lighting body which promulgates lighting engineering standards on the American market for designers, producers and professionals in the sector.

www.iesna.org

Lighting engineering calculation software

Don't trust in words. Make your own calculations.

On our website we provide data sheets, product updates and specifications for our products - all of which are freely available and free of charge.

The Eulumdat files which you can find online can be used in any lighting engineering program, allowing you to continue using the software you prefer (e.g. DIALux, LITESTAR 4D Litecalc, AGi32 or 3D Studio Max).

In particular, 3F Filippi has decided to collaborate more closely with the software-houses Relux and DIAL to create plug-ins for their lighting engineering calculation programs:

RELUX® light simulation tools

Relux

DIAL - DIALux evo

For particular requirements or to make a comparison, contact our Sales Network.

Lighting engineering

Standards - Indoor lighting

EN 12464-1: 2021
Illumination of interior workplaces

This European standard for illumination of interior workplaces replaces the previous one from 2011, with an increase in the importance of illumination to allow workers to perform their visual tasks efficiently and accurately.

Lighting values are unchanged: the design must include calculation of a maintenance factor that considers both decrease of luminous flux of lamps and level of dust accumulation in the room.

Three calculation areas are defined:

1) TASK AREA

Task area where mean and maintained illuminances (Em) are required as minimum values and for normal visual conditions.
If the task area cannot be determined, the whole area of the room at an illuminance specified by the designer shall be considered and the uniformity shall be as indicated in the table of values, always not less than Uo≥ 0.40.

NB: When more than one task is carried out in the area, the requirements for all individual tasks must be met.

Illuminance scale:

5	7,5	10	15	20	30	50	75	100	150	200	300	500	750	1000	1500	2000	3000	5000	7500	10000

These levels can be increased or decreased (modified Em) by 1 step if up to 2 modifier conditions are applied, or by 2 steps if more than 2 modifier conditions are applied.

Context modifiers for increase of maintained illuminance:
- visual work is critical;
- errors are costly to rectify;
- accuracy, higher productivity or increased concentration is of great importance;
- task details are of unusually small size or low contrast;
- the task is undertaken for an unusually long time;
- the task area or activity area has a low daylight provision;
- the visual capacity of the worker is below normal.

Context modifiers for decrease of required maintained illuminance:
- task details are of an unusually large size or high contrast;
- the task is undertaken for an unusually short time.

2) IMMEDIATE SURROUNDING AREA

Area of at least 50 cm around the task area requiring minimal lighting changes to avoid visual stress and discomfort.
The size and position of the immediate surrounding area must be stated and documented.

The illuminance of the immediate surrounding area may be lower than the illuminance on the task area, but shall be not less than the values given below for each illuminance scale.

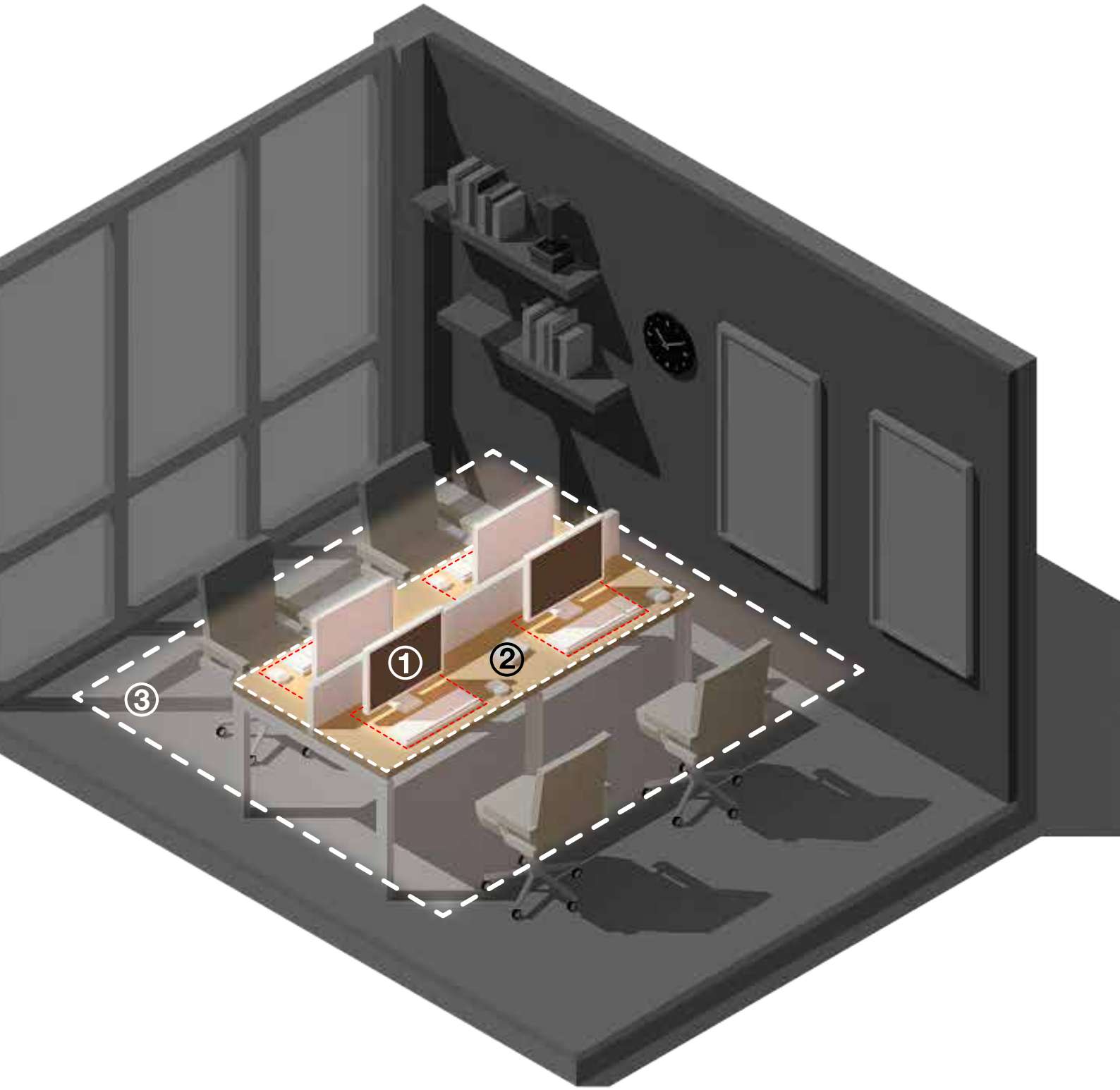
The uniformity of the area must always be at least U ≥ 0,40.

Task Area	Immediate surrounding area
≥ 750 lx	500 lx
500 lx	300 lx
300 lx	200 lx
200 lx	150 lx
≤ 150 lx	same as task area

3) BACKGROUND AREA

The background area is a horizontal area on floor level and it is adjacent to the immediate surrounding area within the limits of space. For larger rooms the band shall be at least 3 m wide. To avoid high impact on uniformity from calculation points near the wall, a band next to the wall can be excluded from the calculation except when the task area is in or extends into this border area. The width of this band is specified as 15 % of the smallest dimension of the area under consideration or 0,5 m (whichever of the two is smaller).

The required maintained illuminance shall be at least 1/3 of the value of the immediate surrounding area and the illuminance uniformity must always be at least Uo ≥ 0,10.
The size and position of the background area shall be stated and documented.


①
②
③

Lighting engineering

Standards - Indoor lighting

CYLINDRICAL ILLUMINANCE AND MODELLING

For a good visual communication and recognition of objects it becomes very important to assess the volume of space occupied by people, highlight objects, reveal texture and improve the appearance of people within the space.
The terms that describe this lighting conditions are:
• Cylindrical illuminance;
• Modelling.

Cylindrical illuminance
The cylindrical illuminance $\bar{E}z$ is calculated from the average of the vertical illuminances around the measuring point.
Special attention is given to those spaces where visual recognition and communication is of higher importance.
The required maintained average cylindrical illuminance ($\bar{E}m,z$) to be determined on a horizontal plane. The height of the horizontal plane shall be 1,2 m for seated people and 1,6 m for standing people above the floor.
The uniformity of the average cylindrical illuminance shall be Uo ≥ 0,10.

Modelling
The lighting should not be too directional or it will produce harsh shadows, neither should it be too diffuse or the modelling effect will be lost entirely, resulting in a very dull luminous environment.
Modelling describes the balance between diffuse and directed light and should be considered as ratio of cylindrical to horizontal illuminance at a point is an indicator of modelling. Good modelling is achieved with a value between 0,3 and 0,6.
Daylight has a large impact on modelling. For this reason, the benefits can compensate the above values.

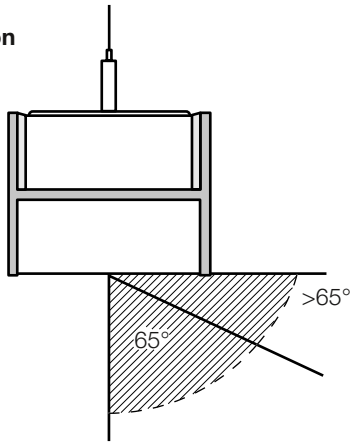
Surfaces illuminance
Illuminance on walls and ceilings (Em wall e Em ceiling), together with surface reflection factors, contribute to the illuminance value of the task and to the perception of room brightness.
I valori minimi di illuminamento medio sono riportati dalla norma in tabella e le uniformità delle singole superfici dovrà essere sempre almeno Uo ≥ 0,10.
In areas with high distance to the ceiling or where the surfaces do not contribute to the perception of brightness (e.g. industrial halls) the illuminance levels can be accepted with reduced values or exclude the high parts of walls and ceiling.

LIMITS OF THE LUMINAIRE LUMINANCE

The average luminance limits of luminaires required by EN 12464-1: 2021 to avoid disturbing reflections on computer screens:

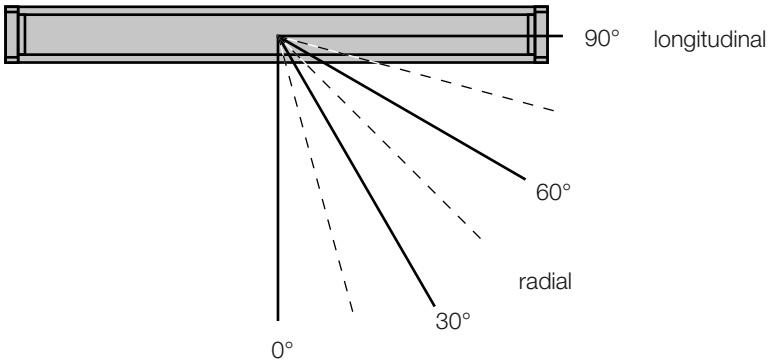
Limits for the average luminaire luminance for radial angles >65°		
Screen high state luminance	High luminance screen L > 200 cd·m^{-2}	Medium luminance screen L ≤ 200 cd·m^{-2}
Case **A** (positive polarity and normal requirements concerning colour and details of the shown information, as used in office, education, etc.)	≤ 3000 cd.m^{-2}	≤ 1500 cd·m^{-2}
Case **B** (negative polarity and/or higher requirements concerning colour and details of the shown information, as used for CAD, colour inspection, etc.)	≤ 1500 cd·m^{-2}	≤ 1000 cd·m^{-2}

Section



Luminance <1000/1500/3000 cd/m²
for angles> 65°

View from top



U.G.R. - Unified Glare Rating

EN 12464-1 requires for each individual application/activity a UGR limit value (RUGL) which can only be determined from the UGR table provided by the manufacturer of the luminaire for standard reference conditions such as regular room, one type of luminaire and symmetrical arrangement.

In case these conditions are not applicable it is possible:
- Consider possible practices for implementing the calculation (see Appendix A of the standard).
- Consider, only if the observer's position and viewing direction are known, determining the value using the point UGR formula for analysis purposes only. In this case, the values resulting from the formula must be considered as a reference only, and not obligatory for compliance with the limits required by the standard, and may be useful to the designer for evaluating the optimal position of the operator inside the room.

It should be noted that the UGR value required by the standard for compliance with the individual application is an installation value obtained from various factors (room dimensions, reflections, characteristics and installation orientation of the luminaire, etc.) and therefore must be calculated for each project.

UGR is a unified international index developed by CIE (Commission Internationale de l'Eclairage) in publication 117 of 1995, to **evaluate direct glare** in every specific application based on the position of luminaires, room characteristics (dimensions, reflections), and on the observation point of workers.
UGR reference values on CIE tables range between 10 and 30 in steps of 3 units (10, 13, 16, 19, 22, 25 and 28) and apply to both directions of view (transverse and longitudinal) to the luminaire: the lower the value, the less direct glare.
European standard EN 12464-1 for the lighting of indoor workplaces requires a UGR value for every application.
Respecting the UGR value in workplaces with VDTs is a necessary but not sufficient condition because the average luminance requirement for luminaires (1000-3000 cd/m^2) is still in effect (see the tables on the previous pages for specific values).

Example of calculation
office with 15W OCW luminaire
EN 12464-1 requires a UGR value of ≤19 for this application.
Data for room and installation:

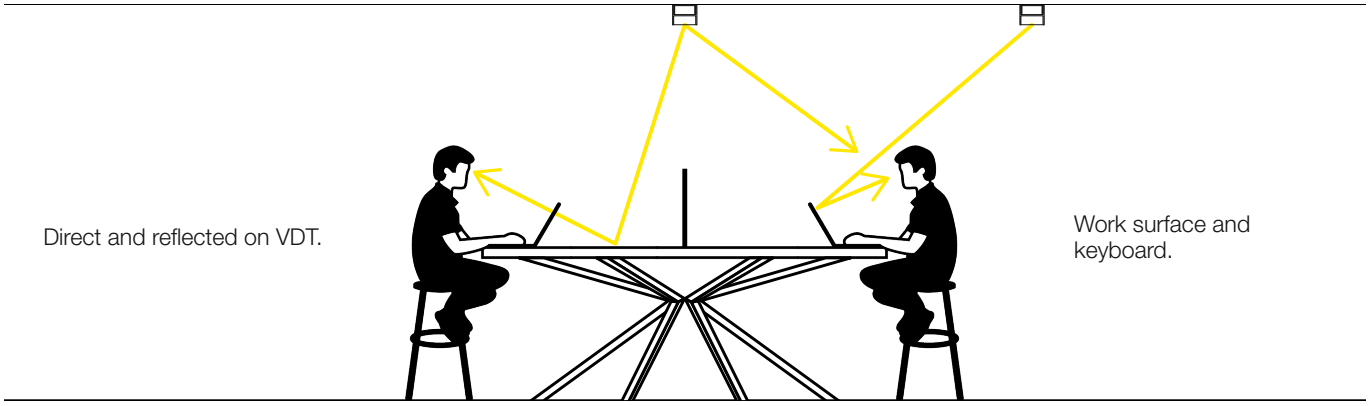
- Room height: 3.2 m
- Height from worker's eye to luminaire H: 3.2-1.2= 2 m
- Transverse distance: 8.0 m ÷ 2 m = 4H
- Longitudinal distance: 16.0 m ÷ 2 m = 8H
- Reflection index: Ceiling 70%; Walls 50%; Floor 20%.

Calculations
- Transverse UGR: 15.2 Value in direction of observation transverse to luminaires.
- Longitudinal UGR: 11.6 Value in direction of observation longitudinal to luminaires.

UGR Table - office luminaire 15W OCW

Ceiling		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor		20	20	20	20	20	20	20	20	20	20
Enviroments		**Transverse view of luminaire**					**Longitudinal view of luminaire**				
X	**Y**										
2H	2H	14.9	15.6	15.1	15.8	16.0	09.4	10.1	09.7	10.3	10.5
	3H	14.9	15.6	15.2	15.8	16.0	10.1	10.7	10.3	11.0	11.2
	4H	15.0	15.6	15.3	15.8	16.1	104	11.0	10.7	11.3	11.5
	6H	15.0	15.6	15.3	15.9	16.2	10.7	11.3	110.	11.5	11.8
	8H	15.0	15.6	15.4	15.9	16.2	10.8	11.3	11.1	11.6	11.9
	12H	15.0	15.6	15.4	15.9	16.2	10.8	11.3	11.2	11.6	12.0
4H	2H	14.7	15.4	15.0	15.6	15.9	09.6	10.2	09.9	10.5	10.7
	3H	14.9	15.4	15.7	15.7	16.0	10.5	11.0	10.9	11.3	11.6
	4H	15.0	15.5	15.8	15.8	16.1	11.0	11.4	11.4	11.8	12.1
	6H	15.1	15.5	15.9	15.9	16.3	11.4	11.8	11.8	12.2	12.5
	8H	15.2	15.5	15.9	15.9	16.3	11.6	11.9	12.0	12.3	12.7
	12H	15.2	15.5	15.9	15.9	16.3	11.6	11.9	12.1	12.3	12.8
8H	4H	15.0	15.3	15.4	15.7	16.1	11.2	11.6	11.6	11.9	12.3
	6H	15.2	15.5	15.6	15.9	16.3	11.8	12.0	12.2	12.4	12.9
	8H	15.3	15.5	15.7	15.9	16.4	12.0	12.2	12.4	12.6	13.1
	12H	15.3	15.5	15.8	16.0	16.5	12.1	12.3	12.6	12.7	13.2
12H	4H	15.0	15.3	15.4	15.7	16.1	11.2	11.5	11.7	11.9	12.3
	6H	15.2	15.4	15.6	15.8	16.3	11.8	12.0	12.3	12.5	12.9
	8H	15.3	15.5	15.8	15.9	16.4	12.1	12.2	12.5	12.7	13.2

GLARE



Lighting engineering

Reflection coefficients to use for lighting calculations

Reflections in % of painted surfaces and materials (ceiling max 85%; walls max 50%; floor max 30%).

White	75 ÷ 85
Light cream	70 ÷ 80
Yellow	60 ÷ 70
Light grey	45 ÷ 65
Pink	45 ÷ 55
Light red	20 ÷ 30
Medium grey	20 ÷ 40
Light blue, green	35 ÷ 55
Dark grey, green, red	10 ÷ 20
Black	03 ÷ 05

Panels in light-coloured mineral fibre	75 ÷ 85
Panels in light-coloured wood	50 ÷ 60
Plaster	70 ÷ 80
White paper	70 ÷ 80
Window panes	06 ÷ 08
Light-coloured curtains with narrow mesh	65 ÷ 70
Light-coloured curtains with wide mesh	35 ÷ 40
Cement, rough concrete	20 ÷ 30
Light-coloured marble	40 ÷ 60
Granite	15 ÷ 20

Maintenance factors to use for lighting calculations

The lighting of a room is the result of the interaction between the luminaires, their condition of use, the aging of the sources and the environment in which they are installed.

The reference standard is certainly ISO/CIE TS 22012 "Light and lighting - Maintenance factor determination - Way of working" which provides the designer with various information attachments with examples and reference values to be considered during the design phase.

The maintenance factor f_m is determined by the following formula:

$$f_M = f_{LF} \cdot f_S \cdot f_{LM} \cdot f_{SM}$$

f_{LF} (Luminous flux factor) is the decay factor of the luminous flux of the source over time (for LEDs it is the declared factor Lx).
The luminous flux (lumen) of an operating source gradually decreases over time.
This reduction depends on the type of light source and on the operating conditions related to the thermal management of the lighting luminaire.
This factor is defined on the basis of the drop in luminous flux before performing maintenance (changing the lamp or luminaire).
In the case of CLO (Constant light output) drivers the factor to be considered is 1.

f_S (Survival factor) represents the mortality rate of the light sources.
After a certain period of time the light sources can go out. This phenomenon suddenly reduces the level of lighting inside the rooms.
In the case of sources that do not have mortality due to their technology (for example the LED), this factor must be considered equal to 1.

f_{LM} (Luminaire maintenance factor) represents the reduction of the luminous flux of the luminaire due to dirt.
Dirt and dust present in almost all environments accumulate on the lamp, considerably reducing the amount of light emitted.
When they accumulate on the surfaces of the luminaire, the amount of light reflected or transmitted by these surfaces is also reduced.
This factor depends on the environment where the lighting luminaire is located, on the type of construction characteristics (for example: luminaire with or without screen, indirect lighting with greater dust deposit, degree of protection, any chimney effect that removes dust from the surfaces reflective), expected cleaning cycle (every 1-2-3-… years).

f_{SM} (Surface maintenance factor) represents the reduction of reflections on the surfaces of the room due to dirt.
Dirt on the surfaces of rooms tends to reduce the amount of reflected light.
Clean surfaces maintain the ambient lighting level more.
This factor depends on the type of activity carried out and the type of processing, for example in an office with weekly cleaning and repainting at regular intervals, this maintenance factor will be higher than in a factory with monthly cleaning intervals and repainting to be carried out only in case of real need.

Lighting engineering

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
TRANSIT AREAS AND ROOMS FOR GENERAL USE IN BUILDINGS							
Circulation areas and corridors (Illumination on the floor.)	100	0,4	40	28	50	50	30
Stairs, escalators, moving walkways, lifts, hoists (Illumination on the floor.)	100	0,4	40	25	50	50	30
Area in front of lifts, lifts and escalators (Illumination on the floor.)	200	0,4	40	25	75	75	50
Loading ramps/bays	150	0,4	40	25	50	50	-
Building entrance with canopy	30	0,4	-	-	-	-	-
COMMON SPACES IN BUILDINGS							
Canteens and break areas	200	0,4	80	22	75	75	50
Rest rooms	100	0,4	80	22	50	50	30
Exercise rooms	300	0,4	80	22	100	100	75
Cloakrooms, toilets, bathrooms, changing rooms, lockers, showers, washbasins and toilets	200	0,4	80	25	75	75	50
General cleaning	100	0,4	-	-	50	50	30
OFFICES							
Filing and copying	300	0,4	80	19	100	100	100
Writing, typing, reading, data processing, CAD workstations, conference and meeting rooms	500	0,6	80	19	150	150	100
Technical drawing	750	0,7	80	16	150	150	100
Reception desk	300	0,6	80	22	100	100	75
Archives	200	0,4	80	25	75	75	50
SCHOOLS							
Nurseries: Playroom and crèche	300	0,4	80	22	100	100	75
Kindergartens: classrooms for handicrafts	300	0,6	80	19	100	100	75
Classrooms - general activities, auditorium, reading rooms	500	0,6	80	19	150	150	100
Classrooms used by young children - general activities	300	0,6	80	19	150	150	100
Seating areas in auditoriums and training rooms	200	0,6	80	19	75	75	50
Blackboards and screens (Vertical illuminance.)	500	0,7	80	19	-	-	-
Display board (Vertical illuminance.)	200	0,6	80	19	-	-	-
Computer room	300	0,6	80	19	100	100	75
Art education classrooms in art schools (4 000 K ≤ Tcp ≤ 6 500 K)	750	0,7	90	19	150	150	100
Technical drawing rooms	750	0,6	80	19	150	150	100
Classrooms for technical education and handicraft workshops	500	0,6	80	19	150	150	100
Preparation rooms and workshops	500	0,6	80	22	150	150	100
Entrances	200	0,4	80	22	75	75	50
Circulation areas, corridors, storage of teaching materials (Illumination on the floor.)	100	0,4	80	25	50	50	30
Stairs (Illumination on the floor.)	150	0,4	80	25	50	50	30
Common rooms for students and lecture hall	200	0,4	80	22	75	75	50
Teachers' rooms	300	0,6	80	19	100	100	50
Buildings, gyms, swimming pools (See also EN 12193.)	300	0,6	80	22	100	75	30
Canteen	200	0,4	80	22	75	75	50
Kitchen	500	0,6	80	22	100	100	75

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
LIBRARIES							
Shelves (Vertical illumination on shelves.)	200	0,4	80	19	-	-	-
Reading areas	500	0,6	80	19	100	100	50
Public service areas	500	0,6	80	19	150	150	50
General lighting	300	0,4	80	22	75	75	50
COMMON SPACES IN PUBLIC PLACES							
Inputs	100	0,4	80	22	50	50	30
Wardrobe	200	0,4	80	25	75	75	50
Waiting rooms	200	0,4	80	22	75	75	50
Ticket offices	300	0,6	80	22	75	75	50
RESTAURANTS AND HOTELS							
Reception desk, cashier's desk, doorman's desk	300	0,6	80	22	100	100	75
Kitchen	500	0,6	80	22	100	100	75
Self-service restaurants	200	0,4	80	22	75	75	50
Buffet	300	0,6	80	22	75	75	50
Conference rooms	500	0,6	80	19	150	150	100
Corridors (Illumination on the floor.)	100	0,4	80	25	50	50	30
THEATRES, CONCERT HALLS, CINEMAS, PLACES OF ENTERTAINMENT							
Test rooms	300	0,6	80	22	100	100	75
fitting rooms	300	0,6	90	22	100	100	75
Spectator seats - maintenance, cleaning (Illumination on the floor.)	200	0,5	80	22	50	50	30
Stage area - facilities (Illumination on the floor.)	300	0,4	80	25	75	75	30
INDOOR PARKING							
Entrance/exit ramps (day) (Illumination on the floor.)	300	0,4	40	25	75	75	50
Traffic lanes, internal ramps, pedestrian paths, entrance/exit ramps (at night) (Illumination on the floor.)	75	0,4	40	25	50	50	30
Parking areas - not open to the public (Illumination on the floor.)	75	0,25	40	-	50	30	15
Parking areas - open to the public with a large number of users (shopping centres, etc.) (Illumination on the floor.)	150	0,4	40	-	50	50	15
Ticket office	300	0,6	80	19	75	75	50
COMMERCIAL AND/OR EXHIBITION AREAS							
Sales areas	300	0,4	80	22	75	75	30
Cash desks	500	0,6	80	19	100	75	30
Packaging desk	500	0,6	80	22	100	-	50
Storage area	300	0,4	80	25	50	-	-
Changing room / dressing room	300	0,4	90	-	-	-	-
Trade fairs, exhibition halls (general lighting)	300	0,4	80	22	50	50	30
CONTROL ROOMS							
Plant rooms, switch room	200	0,4	80	25	50	50	30
Mail sorting, control panels	500	0,6	80	19	150	150	100
Surveillance station	300	0,6	80	19	100	100	75

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Refrigerated warehouses							
Warehouses, storage areas (200 lx if continuously occupied)	100	0,4	80	25	50	50	30
Handling, packaging, shipping areas	300	0,6	80	25	100	50	30
Handout	200	0,4	80	25	-	-	-
Logistics and warehouses							
Loading/unloading area	200	0,4	80	25	50	50	30
Packing and grouping area	300	0,5	80	25	100	100	30
Configuration and editing	750	0,6	80	22	150	150	30
Open goods depot	200	0,4	80	25	50	50	30
Warehouse aisles: with staff and storage shelves (Illumination on the floor.)	150	0,5	80	25		-	30
Storage shelves - front (On the shelf side of the corridor.)	75	0,4	80	-	-	-	-
Central logistic corridor (heavy traffic)	300	0,6	80	25	100	100	30
Automated areas (unmanned)	75	0,4	80	25			
Agriculture							
Loading and handling of goods, moving equipment	200	0,4	80	25	50	50	-
Livestock buildings	50	0,4	40	-	-	-	-
Preparation of fodder, dairies, tool washing, sick animal areas, farrowing cells	200	0,6	80	25	50	50	-
Ovens, bakeries and pastry shops							
Preparation, baking	300	0,6	80	22	100	100	50
Finishing, glazing, decorating	500	0,7	80	22	150	150	75
Cement, concrete and brick industry							
Drying	50	0,4	20	28	-	-	-
Preparation of materials, oven and mixer work	200	0,4	40	28	50	50	-
General machining, coarse shaping	300	0,6	80	25	100	100	-
Ceramic, tile and glass industry							
Drying	50	0,4	20	28	-	-	-
Preparation, general machining, enamelling, laminating, moulding, forming of simple parts, assembly, glassblowing	300	0,6	80	25	100	100	-
Glass grinding, engraving, polishing, precision forming, glass instrument manufacture	750	0,7	80	19	150	150	100
Optical glass and crystal grinding, hand grinding and engraving	750	0,7	80	16	150	150	100
Precision work, e.g. decorative grinding, hand-painting (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	16	150	150	100
Manufacture of synthetic precious stones (4 000 K ≤ Tcp ≤ 6 500 K)	1 500	0,7	90	16	150	150	100
Chemical, plastic and rubber industry							
Remote controlled process plant	50	0,4	20	-	-	-	-
Process plant with limited manual intervention	150	0,4	40	28	50	50	30
Workstations in process plants with continuous staff presence	300	0,6	80	25	100	100	50
Precision measurement environments, laboratories	500	0,6	80	19	150	150	75
Pharmaceutical and tyre production	500	0,6	80	22	150	150	75
Colour control (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	19	150	150	100
Cutting, finishing, inspection	750	0,7	80	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Electrical and electronics industry							
Large coil winding, cable and wire manufacture, coil impregnation and galvanising, coarse assembly (e.g. large transformers)	300	0,6	80	25	100	100	50
Medium-sized coil winding, medium assembly (e.g. electrical panels)	500	0,6	80	22	150	150	75
Winding small reels, fine assembly (e.g. telephones, radios and IT equipment such as computers)	750	0,7	80	19	150	150	100
Precision assembly (e.g. measuring instruments, printed circuit boards)	1 000	0,7	80	16	150	150	100
Electronic laboratory, testing, fine-tuning	1 500	0,7	80	16	150	150	100
Food industries							
Workplaces in breweries, malt fermentation, sugar factories, tobacco fermentation and drying, fermentation cellars, washing, barrel filling, cleaning, sieving, peeling, cooking in canning and chocolate factories	200	0,4	80	25	50	50	30
Sorting and washing products, chopping, mixing, packaging, Vegetable and fruit cutting and sorting	300	0,6	80	25	100	100	50
Workstations and critical areas in slaughterhouses, butchers, dairies, mills, filtering in sugar refineries	500	0,6	80	25	150	150	75
Gastronomic production, kitchen work, cigar and cigarette production, glass and bottle control, product control, garnishing, sorting	500	0,6	80	22	150	150	75
Laboratories (4 000 K ≤ Tcp ≤ 6 500 K)	500	0,6	80	19	150	150	100
Colour inspection	1 000	0,7	90	19	150	150	100
Foundries							
Maintenance tunnels, basements, etc.	50	0,4	20	-	-	-	-
Platforms	100	0,4	40	25	50	50	30
Sand preparation, changing rooms, workstations at the cupola and mixer, casting area, detaching area, machine moulding	200	0,4	80	25	50	50	30
Manual core moulding	300	0,6	80	25	100	100	50
Die-casting	300	0,6	80	25	100	100	50
Model construction	500	0,6	80	22	150	150	75
Laundries and dry cleaners							
Garment collection, marking and sorting, dry cleaning and washing, Ironing, steam ironing	300	0,6	80	25	100	100	50
Inspection and repair	750	0,7	80	19	150	150	100
Leather industry							
Interior work, tank, pit	200	0,4	80	25	75	75	30
Fleshing, fulling, pulling, polishing of skins	300	0,4	80	25	100	100	50
Saddlery work, shoe manufacture: stitching, polishing, shaping, cutting, drilling, leather dyeing (by machine), shoe and glove manufacture	500	0,6	80	22	150	150	100
Selection (4 000 K ≤ Tcp ≤ 6 500 K)	500	0,6	90	22	150	150	100
Quality control	1 000	0,7	80	19	150	150	100
Colour inspection (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Metal working and transformation							
Welding, die forging, drawing workshop, tube construction, cold forming, galvanising	300	0,6	80	25	75	75	30
Machining: coarse and medium: tolerance ≥ 0.1 mm, sheet processing: thickness <5mm	300	0,6	80	22	75	75	30
Precision machining; grinding; tolerances < 0.1 mm	500	0,7	80	19	150	150	75
Coarse assembly, free forging and laminate processing: thickness ≥ 5 mm	200	0,6	80	25	50	50	30
Medium assembly	300	0,6	80	25	75	75	30
Fine assembly	500	0,6	80	22	150	150	75
Precision assembly, scribing, inspection, tool making and cutting tools	750	0,7	80	19	150	150	100
Surface preparation and painting	750	0,7	80	25	150	150	100
Equipment, preparation of templates and gauges, precision mechanics, micromechanics	1 000	0,7	80	19	150	150	100
Paper industry and paper objects							
Dough preparation and refining	200	0,4	80	25	50	50	30
Paper manufacturing and converting, paper and corrugated board machinery, paperboard manufacture	300	0,6	80	25	75	75	50
Binding work, e.g. folding, sorting, gluing, cutting, embossing, sewing	500	0,6	80	22	150	150	100
Power plants							
Fuel supply system	50	0,4	20	-	-	-	-
Boiler rooms	100	0,4	40	28	50	50	30
Annexed rooms, e.g.: pump rooms, condenser rooms, internal control panels, machine rooms	200	0,4	80	25	50	50	30
Control stations	500	0,7	80	19	150	150	100
Printworks							
Cutting, gilding, relief printing, stone engraving, stone and plate work, printing machines, matrix construction, sheet sorting and hand printing	500	0,6	80	19	150	150	75
Character editing, retouching, lithography	1 000	0,7	80	19	150	150	100
Colour control in polychrome prints (4 000 K ≤ Tcp ≤ 6 500 K)	1 500	0,7	90	16	150	150	100
Engraving on steel and copper	2 000	0,7	80	16	150	150	100
Rolling mills, iron and steel processing							
Production systems without manual intervention	50	0,4	20	-	-	-	-
Production plants with occasional manual intervention	150	0,4	40	28	50	50	30
Production equipment with continuous manual intervention, furnace	200	0,6	80	25	50	50	30
Rolling stock, maintenance tunnels, belt section, underground, etc.	50	0,4	20	-	-	-	-
Rolling train, winders, cutting line	300	0,6	40	25	75	75	30
Control platforms, control panels	300	0,6	80	22	75	75	30
Testing, measurement and control	500	0,6	80	22	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
INDUSTRIAL AND CRAFT ENVIRONMENTS							
Textile processing and manufacturing							
Workstations at the side of the washing tanks, opening of bales	200	0,6	60	25	50	50	30
Carding, washing, ironing, drawing, combing, sizing, gluing, punching cartons, pre-spinning, spinning jute and hemp	300	0,6	40	22	100	100	50
Warping, weaving, braiding, knitting, spinning, twisting, reeling, bobbinage	500	0,6	60	22	150	150	75
Sewing, fine knitting, linking, darning	750	0,7	80	22	150	150	100
Hand drawing, weft drawing (4 000 K ≤ Tcp ≤ 6 500 K)	750	0,7	90	22	150	150	100
Finishing, dyeing, manufacturing hair	500	0,6	80	22	150	150	100
Drying chamber	100	0,4	60	28	50	50	30
Automatic fabric printing	500	0,6	90	25	100	100	50
Knotting, weft control, trimmings	1 000	0,7	80	19	150	150	100
Colour control, fabric control (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	19	150	150	100
Invisible mending (4 000 K ≤ Tcp ≤ 6 500 K)	1 500	0,7	90	19	150	150	100
Automotive							
Bodywork and assembly (automatic line), Large parts printing department	300	0,6	80	25	100	50	30
Bodywork and assembly (manual welding), Printing department visual inspection	500	0,6	80	22	150	50	30
Painting, spraying chamber, polishing chamber	750	0,7	80	22	150	150	30
Painting, inspection, touching up and polishing, final inspection (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	19	150	150	30
Upholstery production (manual)	1 000	0,7	80	19	150	50	30
Assembly of sub-parts (doors, dashboard, upholstery, chassis), engine and mechanical assembly, transport line final assembly	750	0,7	80	22	150	50	30
Working with electronics (4 000 K ≤ Tcp ≤ 6 500 K)	750	0,6	90	22	150	50	30
General vehicle services, repair and testing	500	0,6	80	22	100	50	30
Lavorazione e manifattura del legno							
Processi automatici, per esempio: essiccatura, fabbricazione compensato	50	0,4	40	28	-	-	-
Camere del vapore	150	0,4	40	28	50	50	30
Lavori al banco di falegnameria, incollaggio, assemblaggio, sega	300	0,6	80	25	100	100	50
Lucidatura, verniciatura, falegnameria di fantasia	750	0,7	80	22	150	150	100
Lavorazioni su macchine per lavorazione del legno, per esempio: tornitura, scannellatura, sgrossatura, ribassatura, taglio, segatura, cavatura	500	0,6	80	19	150	150	75
Selezione legno per impiallacciatura, intarsio, lavoro di intarsio (4 000 K ≤ Tcp ≤ 6 500 K)	750	0,7	90	22	150	150	100
Verifica e controllo di qualità (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
HEALTHCARE STRUCTURES							
General use rooms							
Waiting rooms and service lifts	200	0,4	80	22	75	75	30
Corridors: during the day and cleaning (Illumination on the floor.)	100	0,4	80	22	50	50	30
Corridors: during the night (Illumination on the floor.)	50	0,4	80	22	-	-	-
Multi-purpose corridors (e.g. pre-examinations of patients) (Illumination at task level.)	200	0,6	80	22	75	75	50
Day rooms	300	0,6	80	22	75	75	50
Lifts, passenger and visitor lifts (Illumination on the floor.)	100	0,6	80	22	50	50	30
Staff rooms	300	0,6	80	19	100	100	50
Night light, surveillance light (Illumination on the floor. 2 200 K ≤ Tcp ≤ 3 000 K)	5	-	80	-	-	-	-
Toilets, patient toilets	200	0,4	90	22	75	75	50
Maternity wards							
Lanes (General lighting) (Illumination on the floor.)	100	0,4	80	19	50	50	30
Simple visit and reading light	300	0,6	80	19	100	100	75
Delivery rooms (General lighting)	300	0,6	90	19	100	100	75
Diagnostic and examination rooms							
Infirmary	500	0,6	80	19	150	150	100
General lighting (4 000 K ≤ Tcp ≤ 5 000 K)	500	0,6	90	19	150	150	100
Examination and treatment (4 000 K ≤ Tcp ≤ 5 000 K)	1 000	0,7	90	19	150	150	100
Analysis rooms							
General lighting	300	0,6	80	19	100	100	75
Analysis with image amplifiers and television systems	50	-	80	19	-	-	-
Treatment rooms (general)							
Dialysis, plaster cast	500	0,6	80	19	150	150	100
Dermatology	500	0,6	90	19	150	150	100
Endoscopy, medical baths, massage and radiotherapy	300	0,6	80	19	100	100	75
Sterilisation and disinfection	500	0,6	80	22	100	100	75
Operating theatres							
Pre-operative local and recovery	500	0,6	90	19	150	150	100
Area surrounding the operating zone	1 000	0,6	90	19	150	150	100
Operating theatre	1 000	0,6	90	19	-	-	-
Autopsy and dissection table	5 000	0,7	90	-	150	150	100
Resuscitation and intensive care							
General lighting (Illumination on the floor.)	300	0,6	90	19	50	50	30
Simple visit (Illumination at bed level)	500	0,6	90	19	100	100	75
Examination and treatment (Illumination at bed level)	1 000	0,7	90	19	150	150	100
Night surveillance	20	-	90	19	-	-	-
Laboratories and pharmacies							
General lighting	500	0,6	80	19	150	150	100
Colour control (4 000 K ≤ Tcp ≤ 6 500 K)	1 000	0,7	90	19	150	150	100

Average illuminations maintained by EN 12464-1: 2021 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
TRANSPORT							
Airports							
Arrival and departure halls, baggage claim areas	200	0,4	80	22	75	75	30
Connecting zones	150	0,4	80	22	50	50	30
Information desks, reception	500	0,7	80	19	150	150	100
Customs and passport control	500	0,7	80	19	150	150	100
Waiting rooms	200	0,4	80	22	50	50	30
Luggage storage	200	0,4	80	25	50	50	30
Security control zones	300	0,6	80	19	100	100	75
Air traffic control tower	500	0,6	80	16	50	-	-
Hangar: Repair and testing, Motor control zones, Measurement zones	500	0,6	80	22	50	50	30
Railway installations							
Subways, platforms, stairs and escalators with small number of passengers (Illumination on the floor.)	50	0,3	80	-	-	-	-
Subways, platforms, stairs and escalators with medium number of passengers (Illumination on the floor.)	100	0,4	80	-	-	-	-
Subways, platforms, stairs and escalators with large numbers of passengers (Illumination on the floor.)	200	0,5	80	-	-	-	-
Atria and counters (Illumination on the floor.)	200	0,5	80	28	75	75	50
Ticket offices and luggage storage	300	0,5	80	19	100	100	75
Waiting rooms	200	0,4	80	22	75	75	30
Entrances, station halls	200	0,4	80	-	75	75	30
Switch rooms and installations	200	0,5	80	28	50	50	30
Railway control centre (dispatch area)	200	0,5	80	16	-	-	-
Access tunnels (Illumination on the floor.)	50	0,4	20	-	-	-	-
Coarse assembly work in maintenance halls	200	0,4	80	-	-	-	-
Medium assembly work in maintenance halls	300	0,5	80	-	-	-	-
Fine assembly work in maintenance halls	500	0,6	80	-	-	-	-
Precision assembly work in maintenance halls	750	0,7	80	-	-	-	-
Traffic zones in railway vehicle maintenance halls (without vehicle traffic)	100	0,25	80	-	-	-	-
Traffic zones in railway vehicle maintenance halls (with vehicle traffic)	150	0,4	80	-	-	-	-

LEGEND

Ēm Average illuminance maintained on the task plane, if not specified, generally referred to a height of 0.85 m from the floor for civil work areas and 1 m industrial and floor for transit areas.

Uo Illuminance uniformity in the reference plane.

Ra Minimum colour rendering index of the light source (see page 611 and 612).

Tcp Correlated colour temperature of the light source.

RUGL Unified “limit” value of glare within the room based on installation characteristics (room size and reflections, luminaire type, operator viewing direction, luminaire layout) developed by the CIE and required by European standard EN 12464-1 (See page 627).

Ēm z Average illuminance maintained cylindrical (see page 626).

Ēm wall Average illuminance maintained on the walls of the room.

Ēm ceiling Average illuminance maintained on the ceiling of the room.

Emergency lighting EN 1838 : 2013 (**indoor environments**)

Main tasks and activities	Ēm lx	Uo	Ra	R UGL	Ēm,z lx	Ēm, wall lx Uo≥0,10	Ēm, ceiling lx
EMERGENCY LIGHTING (EN 1838 : 2013)							
General lighting (minimum value) (Illumination on the floor.)	0,5	-	80	-	-	-	-
Escape routes (minimum value in the middle of the route) (Illumination on the floor. Escape route width 2m.)	1	-	80	-	-	-	-
Exit routes in public places such as theatres, cinemas, concert halls, entertainment (minimum value D.M.) (Illuminance 1m above the floor.)	2	-	80	-	-	-	-
Stairs and proximity to emergency exits (minimum value D.M.) (Illuminance 1m above the floor.)	5	-	80	-	-	-	-
High-risk task area (minimum value) (Illuminance on the floor. Illuminance >10% expected under standard power conditions.)	15	0,1	80	-	-	-	-
Fire-fighting equipment, call point and first aid point (minimum value) (Vertical illuminance.)	5	-	-	-	-	-	-
For all calculations the light contribution from ambient inter-reflections must be ignored. In the case of indirect or upward directed luminaires only the first surface reflection may be considered.							

Illuminations in indoor sports environments (EN 12193 : 2019)

Activities	Reference area	Category	Horizontal illuminance (PA)		Vertical illuminance		Ra
			Ēm (lx)	Uo	Ēm (lx)	Uo	
Bowls	PA 13,7-40 x 1,8-4,5 m	III	300	0,50	--	--	60
		II	500	0,80	--	--	60
		I	500	0,80	--	--	80
School sports competitions (physical education)	PA 10 x 10 m TA 17 x 17 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Judo	PA 10 x 10 m TA 17 x 17 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Freestyle wrestling	PA 9 x 9 m TA 12x 12 m	III	200	0,50	1000	0,80	60
		II	500	0,70	1000	0,80	60
		I	750	0,70	1000	0,80	80
Swim	PA 25-50 x 15-22 m	III	200	0,50	--	--	60
		II	300	0,70	--	--	60
		I	500	0,70	--	--	80
Basketball	PA 28 x 15 m TA 32 x 19 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Volleyball	PA 24 x 15 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Boxing (300 lx for training in all categories.)	PA 7,1 x 11,1 m	III	500	0,50	--	--	60
		II	1000	0,80	--	--	60
		I	2000	0,80	--	--	80
Tennis	PA 30 x15 m TA 36 x18 m	III	300	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Fencing (Vertical illuminance at 1.5m from floor level)	PA 14 x 2 m TA 18 x 5 m	III	300	0,70	200	0,70	60
		II	500	0,70	300	0,70	60
		I	750	0,70	500	0,70	80
Weight lifting	PA 4 x 4 m TA 6 x 6 m	III	200	0,50	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Table tennis	PA 9 x 4,5 m	III	300	0,70	--	--	60
		II	500	0,70	--	--	60
		I	750	0,70	--	--	80
Archery (Vertical illuminance based on 25 m distance (for 50 m distance, doubled illuminance levels))	PA 18-30 x 1,3 m	III	200	0,50	1000	0,80	60
		II	200	0,50	1000	0,80	60
		I	200	0,50	1000	0,80	80

LEGEND

PA: Actual playing area for the performance of a given sport.

TA: Area generally comprising the main area (PA) plus an additional safety area outside the main area. The illuminance and uniformity of this area should be >75% of that of the main area (PA).

Categories according to the level of competition carried out
Category I : Very high level competition (international and national competitions with many spectators and long viewing distances.
Category II : Intermediate level competition (regional or local competitions with medium spectators and medium viewing distances. Suitable for high level training.
Category III : Low level competition (local competitions with low presence or absence of spectators. Suitable for general training, physical education, school sports competitions or recreational activities.

Luminaire installation: No luminaires should be positioned on the part of the ceiling above the main area.

Average illuminations maintained by EN 12464-2: 2012 (**outdoor environments**)

Outdoor activities, task and activities	Ēm (lx)	Uo	R UGL	Ra
GENERAL AREAS AND CLEANING OF WORKPLACES				
Pavements	5	0,25	50	20
Circulation areas with slow vehicles (max. 10 km/h)	10	0,25	50	20
Movement of vehicles (max 40 km/h)	20	0,40	45	20
Pedestrian crossings and loading/unloading from vehicles	50	0,40	50	20
AIRPORTS				
Hangar parking	20	0,10	55	20
Terminal parking	20	0,25	50	20
Loading Zone	20	0,25	50	20
Aircraft maintenance area	200	0,50	45	60
INDUSTRIAL SITES AND WAREHOUSES				
Loading and unloading of large solid goods	20	0,25	55	20
Loading and unloading of goods, lifting and descending areas for cranes	50	0,40	50	20
Covered loading areas, information reading, use of tools	100	0,50	45	20
Demanding installations and inspections	200	0,50	45	60
PARKING AREAS				
Light traffic (parking of shops and homes, bicycle parks)	5	0,25	56	20
Medium traffic (parking of supermarkets, offices, industrial plants, sports and multipurpose complexes)	10	0,25	50	20
Heavy traffic (parking in large shopping centers and complexes of sports and multipurpose buildings)	20	0,25	50	20
RAILWAYS AND TRAMWAYS				
Open areas, train stops	5	0,20	55	20
Open areas, small number of passengers (e.g. rural and local trains)	10	0,25	50	20
Open areas, average number of passengers (e.g. suburban or regional trains or intercity services)	20	0,30	45	20
Open areas, large number of passengers (e.g. intercity services)	50	0,40	45	20
Open areas, freight areas	20	0,40	50	20
Covered areas, small number of passengers (e.g. suburban or regional trains or intercity services)	50	0,40	45	40
Covered areas, large number of passengers (e.g. intercity services)	100	0,50	45	40
Covered areas, goods areas, short-term service	50	0,40	45	20
Covered areas, goods areas, continuous service	100	0,50	45	40
Tracks in passenger station areas, including parking areas	10	0,25	50	20
Sidewalks in railway areas, open pedestrian bridges	10	0,25	50	20
Level crossings	20	0,40	45	20
Maintenance areas for trains and locomotives	20	0,40	50	40
Maintenance areas for railway yards	30	0,40	50	20
Stairways, small number of passengers	50	0,40	45	40
Stairways, large number of passengers	100	0,50	45	40
Inspection pit	100	0,50	40	40

LEGEND

Ēm: Average horizontal illuminances maintained referring to the reference surface of the application.

Uo: Minimum uniformity of illumination on the reference plane.

Ra: Minimum color rendering indexes for sources (see pages 611 and 612).

RUGL: Limit value of the glare Rg (Glare Rating) based on the observation characteristics and the layout of the luminaires, developed by the CIE and required by the European standard EN 12464-2.

Electrical engineering and electronics

Marks and standards

The single European mark ENEC (European Norms Electrical Certification) certifies that a luminaire conforms to EN European standards. IMQ is one of the European certification bodies belonging to ENEC. Luminaires approved by IMQ on the basis of European standards are therefore ENEC-certified.

All 3F Filippi luminaires bear the CE marking. This marking attests to be fact that the luminaires conform to the requirements set out in Community Directives for electrical materials and that they may be freely marketed throughout the European Union.
Directives applicable to lighting products are:

- the 2014/35/UE low-voltage directive
- the 2014/30/UE electromagnetic compatibility directive
- the 2014/34/UE ATEX “ATmosphere EXplosive” directive
- the RoHS 2011/65/EU directive
- the Ecodesign directive 2009/125/EC
- the 2017/2102/EU directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- the 2012/19/EU directive on waste electrical and electronic equipment (WEEE)
- the 2019/2020/EU directive, setting eco-design requirements for light sources and separate ballasts

The acronym EN refers to the European standards issued by CENELEC (European Committee for Electro-technical Standardisation). These must be adopted by all EU member states by means of national regulatory bodies (in Italy, the CEI).
For luminaires, the reference standards are EN IEC 60598-1 and IEC 60598-2-22 (luminaires for emergency lighting).
Compliance with these standards ensures that the luminaires are properly manufactured and can be used to build electrical systems that conform to the requirements stipulated by the applicable legislation (for example, Italian Decree Law no. 37 of 22 January 2008).

Protection against electric shock
Standard EN IEC 60598-1.
Luminaires are divided into four classes according to the type of protection provided against electric shock.

	Main features of the material	Safety precautions voltage	Symbols
Class 0	No earthing protection device	Environment without earth	
Class I	Earthing protection device provided	Connection to protective earth	
Class II	Additional insulation but no earthing protection device	No precaution necessary	
Class III	Intended for very low safety voltage	Connection to very low safety voltage	

Electrical engineering and electronics

Explosive atmospheres (ATEX)

ATEX is the French acronym for “ATmosphères EXplosives”, which means “explosive atmospheres”.
The risk arising from explosive atmospheres derives from a concentration of flammable substances such as gas, vapours, mists and dust and their exposure to ignition sources like sparks, electric arcs, static electricity, optical radiation, high temperatures and hot surfaces.
The ATEX 2014/34/EU Directive (relating to protective equipment and systems intended to be used in potentially explosive atmospheres), published by the Official Journal of the European Union (n° OJ EU L96) on 29th of March 2014 and implemented on the 30 March 2014, pursuant to article 43, ratified the repeal of the previous Directive 94/9/CE with effect from the 20 April 2016, without a transitional period. This applies to all electrical and mechanical products intended for potentially dangerous places.
The general requirements for fixtures are outlined in EN IEC 60079-0 that defines the general requirements relating to the manufacture of electrical equipment intended to be used in environments with explosive atmospheres given the presence of flammable gas, vapours, mists and dust.
Classification of explosive atmospheres is carried out based on the recommendations of legislation EN 60079-10-1 (gas), EN 60079-10-2 (dust) that divides dangerous areas into zones based on the probability of the formation and persistence of the explosive atmosphere.
Electrical products must be ATEX certified to be used in environments with dangerous atmospheres.

Example of **ATEX certification: ⟨Ex⟩ II 3D Ex Tc IIIC T85 ° C Dc**

Legend:
⟨Ex⟩ = Specific mark of explosion protection.
II = Group II: equipment for surface work belongs to this group.
3D = Category 3 - equipment or protective systems that guarantee a normal level of protection - D: Dust
Ex tc = Protection method by means of “t“ enclosures in the presence of combustible dusts
IIIC = Conductive dust
T85 ° C = Maximum allowed surface temperature of the equipment
Dc = Level of protection (EPL Dc): equipment for explosive atmospheres due to the presence of dust, with an "increased" level of protection which does not constitute a source of ignition during normal operation and which may have additional protections to ensure that it remains inactive how ignition source in the event of regular and expected failures.

Directive 2014/34/EU classifies and divides ATEX equipment into two groups:

Group I: equipment for work in mines with the presence of mine gas and/or combustible dust is included in this group. Group I in turn is divided into 2 categories:
- M1 - equipment or systems of protection that guarantee a very high level of protection; they must remain operational in the presence of explosive atmospheres.
- M2 - equipment or systems of protection that guarantee a high level of protection; they must be de-energised in the presence of gas.

Group II: equipment for work on the surface is included in this group.
Group II in turn is divided into 3 categories on the basis of the level of protection (area of use); the categories are identified as number 1, 2, 3 followed by the letter G (Gas) or D (Dust).

- Category 1 - equipment or systems of protection that guarantee a very high level of protection; for areas in which explosive atmospheres caused by mixtures of air and gases, vapours or mists or by air/dust mixtures are present continuously, for long periods or frequently. Equipment in this category must ensure the requisite level of protection, even in the event of rare incidents relating to equipment.

- Category 2 - equipment or systems of protection that guarantee a high level of protection; for use in areas in which explosive atmospheres caused by gases, vapours, mists or air/dust mixtures are likely to occur occasionally. Equipment in this category must ensure the requisite level of protection, even in the event of frequently occurring disturbances or equipment faults which normally have to be taken into account.

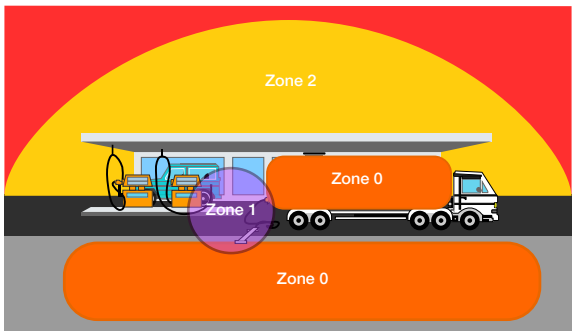
- Category 3 - equipment or systems of protection that guarantee a normal level of protection; for use in areas in which explosive atmospheres caused by gases, vapours, mists, or air/dust mixtures are unlikely to occur or, if they do occur, are likely to do so only infrequently and for a short period only. Equipment in this category must ensure the requisite level of protection during normal operation.

To summarise:

Dust	**Gas**
1D Suitability in zones 20, 21 and 22	**1G** Suitability in zones 0, 1 and 2
2D Suitability in zones 21 and 22	**2G** Suitability in zones 1 and 2
3D Suitability in zone 22	**3G** Suitability in zone 2

ATEX (G) for zones with GAS

Areas classified for the presence of gas, mists or vapours on the basis of the probability of the existence of the explosive atmosphere are divided into three zones:



Zone 0	Zone 1	Zone 2
An area in which an explosive mixture of gas is continuously present or frequently present for long periods.	An area in which an explosive mixture is likely to occur occasionally in normal operation.	An area in which an explosive mixture is not likely to occur in normal operation and if it occurs it will exist only for a short time.

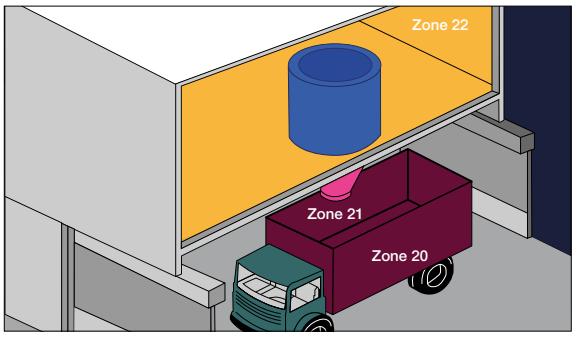
The fault conditions for which the device is safe, indicated in the marking, are the following:
Ga: Equipment for explosive atmospheres due to the presence of gas, with a "very high" level of protection which is not a source of ignition during normal operation or in the event of an expected failure or when subject to a rare failure.

Gb: Equipment for use in explosive atmospheres due to the presence of gas, with a "high" level of protection that is not a source of ignition during normal operation or when subject to expected malfunctions, although not on a regular basis.

Gc: Equipment for use in explosive atmospheres due to the presence of gas, with an "increased" level of protection, which is not a source of ignition during normal operation and which has some additional protective measures to ensure that it remains a source ignition not active in the event of regularly expected events (for example for a lamp failure).

ATEX (D) for zones with Dust

In areas classified for the presence of dust the zones are identified on the basis of the frequency and duration of the formation of an explosive atmosphere:



Zone 20	Zone 21	Zone 22
An area in which an explosive mixture of dust in the form of a dust cloud is continuously present or frequently present for long periods .	An area in which an explosive mixture of dust in the form of a dust cloud, is likely to occur occasionally in normal operation.	An area in which an explosive mixture of dust in the form of a dust cloud, is not likely to occur in normal operation and if it occurs it will exist only for a short time.

The fault conditions for which the device is safe, indicated in the marking, are the following:
From: Equipment for explosive atmospheres due to the presence of combustible dusts, which has a “very high” level of protection and which is not a source of ignition in normal operation or when subject to rare failures.

Db: Equipment for explosive atmospheres due to the presence of combustible dusts, which has a "high" level of protection and which does not constitute a source of ignition in normal operation or when subject to expected failures, although not in a regular manner.

Dc: Equipment for explosive atmospheres due to the presence of dust, with an "increased" level of protection which does not constitute a source of ignition during normal operation and which may have additional protections to ensure that it remains inactive as a source of ignition in the event of faults regular and expected.

Compliance procedures

For equipment to be marked there are various compliance procedures according to the product function and the category they belong to.

- All electrical equipment in Category 1 and Category 2 must mandatorily be certified by ATEX (Notified Bodies), or bodies to which the national authority has assigned the task of verifying conformity with the Directive. Companies that manufacture electrical equipment in Category 1 and Category 2 are obliged to report and audit the quality systems and the identification number of the body must be displayed on the data plate label alongside the CE marking.
- All electrical equipment in Category 3 can be self-certified by the manufacturer (CE marking), with internal manufacturing controls.

Electrical engineering and electronics

Electronic wiring

The wiring of the Halogen Free LED luminaires are made with leading brand electronic drivers, which ensure extremely high levels of reliability and efficiency.

The main technical specifications of the typical LED drivers:
- 230Vac, 50-60Hz power supply, with tolerance+/- 10% of line voltage.
- 230Vdc power supply, with tolerance +/- 10%.
- Power factor greater than 0.95 (in general, with exceptions).
- Efficiency > 90%.
- Suitable for centralised emergency lighting pursuant to EN 50172 and EN 60598-2-22.
- ENEC certification.
- Thermal and short-circuit protection against overloads and voltage surges.
- Protection against excess temperatures.
- Suitable for environments with temperatures from -20°C to +30°C.
- Suitable for environments with max RH 85% (driver + LED).
- Protection class I; on request, we can check if it is possible to manufacture the luminaires with protection class II.
- Constant current LED power supply.
- Very low FLICKER value <4%: this value is not consciously perceivable to humans and does not interfere with video filming.

LED driver types:
3F Filippi uses two constant current driver types, depending on the type of luminaire:

- SELV (Driver/LED SELV) **Safety Extra Low Voltage** output, below 60Vdc.
  SELV Driver/LED devices can be used in total safety.
- NON SELV without output voltages greater than 60Vdc, which may represent a hazard if touched.
  NON SELV Driver/LED luminaires may only be opened by a qualified electrician with special tools.

Installation notes:
For correct choice of the protective circuit breakers, check the inrush current and instructions provided by the manufacturers of the LED drivers. To assist in this task, when requested 3F Filippi will provide the technical data sheets for the drivers used and specify the quantity for each luminaire. These indications relate to the bill of materials at the time of communication and thus may be subject to changes due to technical developments and/or provisioning and production requirements; data should therefore be checked before proceeding with the order.

For use at low temperatures (down to -30°C) and/or high humidity environments, we recommend use of ICE series luminaires which provide protection against RH of up to 95% for the entire wiring system (driver + LED).

For applications in environments in which disturbances on the power network may be present and/or involve use at low temperatures, surge protection devices should be fitted on the power supply and any causes of undervoltages eliminated.

For further information on use in harsh conditions, for instance with the presence of corrosive chemicals, extreme temperatures, high humidity (e.g. composting systems, cold stores, mushroom beds, greenhouses, swimming pools, saunas, spas etc.), contact our Technical department.

Dimmable electronic wiring

Dimmable electronic drivers allow manually or automatically controlled “dynamic light systems” to be designed, in which the light level can be adapted to the visual task and/or to variation of natural light entering from the outside (see chapter on “Light Management”).
In addition to the advantages of electronic wiring, dimmable drivers allow the light level to be adjusted over an extremely wide range, optimising the lighting system for energy savings and visual comfort.
The lamps are dimmed by a control signal carried by wires directly to the ballast from devices such as potentiometers, buttons, light and/or presence sensors, used individually or managed by control units.
Dimmable electronic wiring can be implemented with:
- Drivers with 1-10V interface, with dimming by means of an analogue signal ranging from 1V DC (minimum light) to 10V (maximum light). For signals <1V the device switches off.
- Drivers with DALI interface, with digital dimming according to the new standard Digital Addressable Lighting Interface protocol.

Dimmable electronic wiring, particularly DALI type, also allows creation of appropriate lighting systems for applications in plants managed by intelligent (Bus) systems.
For further information on use in harsh conditions, for instance with the presence of corrosive chemicals, extreme temperatures, high humidity (e.g. composting systems, cold stores, mushroom beds, greenhouses, swimming pools, saunas, spas etc.), contact our Technical department.

General information for luminaires with DALI drivers

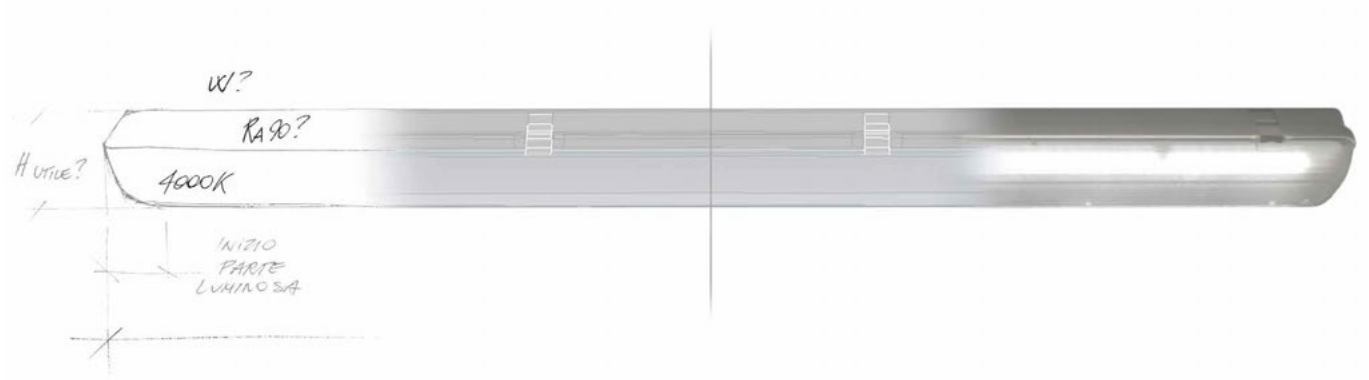
Devices with DALI drivers can be used in systems without a control system (centralized and/or stand-alone) with provided that a "bridge" is made on the DA-DA terminals of the luminaire or on the DA-DA circuits of the supplied power cable, if present.
3F Filippi however recommends connecting DALI devices to control systems (centralized/stand-alone/DALI repeater).
3F Filippi shall therefore bear no responsibility for any “malfunctions” of DALI luminaires installed in systems without a regulation system, or with a poorly programmed one.
Assessing compatibility between regulation systems and drivers, as well as finding the technical data required for lighting design, are the sole responsibility of the designer of the electrical system.
To assist in this task, when requested 3F Filippi will provide the technical data sheets for the drivers used and specify the quantity for each luminaire. These indications relate to the bill of materials at the time of communication and thus may be subject to changes due to technical developments and/or provisioning and production requirements; data should therefore be checked before proceeding with the order.

Mechanics and Design

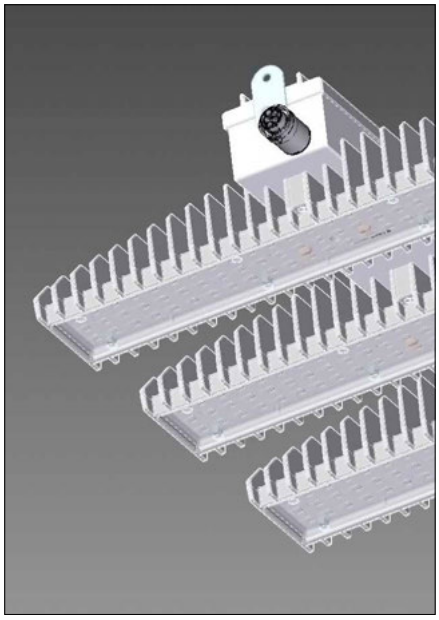
From the design to the finished product

For 3F Filippi, attention to detail, the quality of the light and the reliability of our products are the starting point on the path we travel alongside our customers.
Efficiency is the culmination of our journey – we create a light that can show and give emotion, while hiding its technical soul, able to highlight what it illuminates.

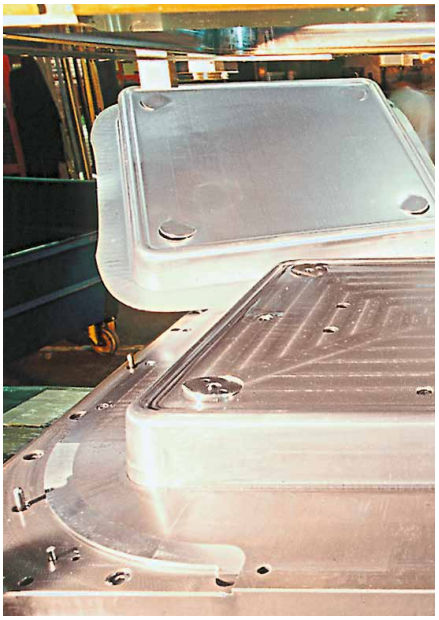
The right product starts first with a discussion, to gain an understanding of the customer's needs and expectations.



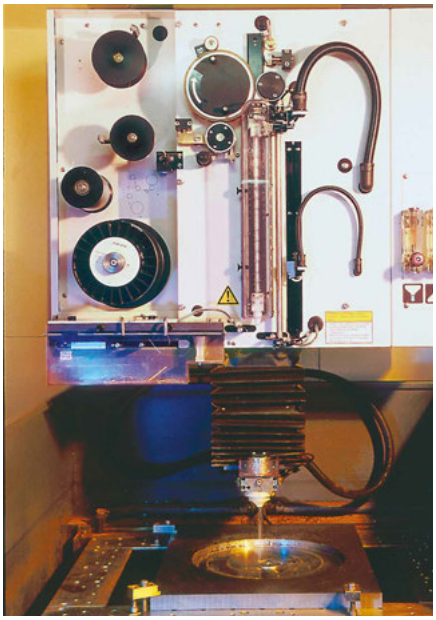
Our products are made with a craftsman's passion and constant innovation, research and attention to design and details:
they combine aesthetics and functionality, elements of precision and new technologies, maintenance and reliability facilities, and are excellent value for money.
3F Filippi's entire production is performed inside the headquarters in Pian di Macina (province of Bologna, Italy), from moulding of plastics and metals to machining and soldering and painting, all totally automated.
The thoroughness and precision of the checks throughout every phase of the company's processes guarantee constant quality of all our products over time.



3D modelling



Mould



EDM tool

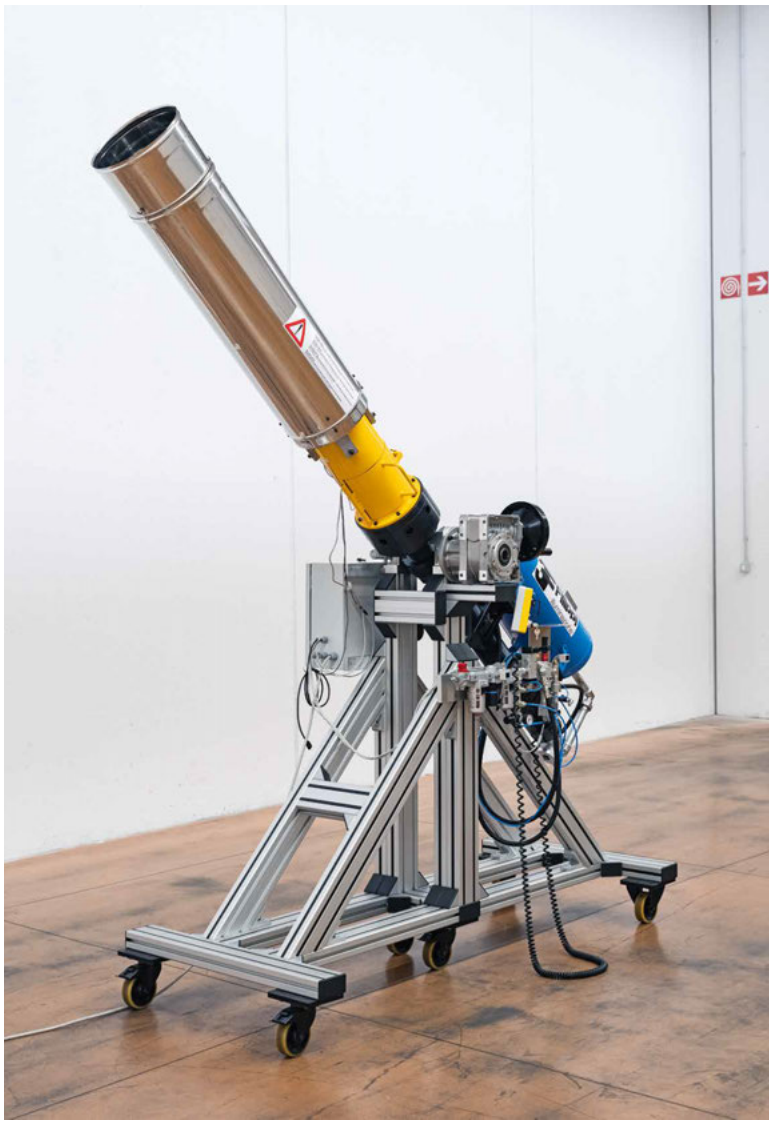
Our care for the environment goes hand-in-hand with our 0-mile production, whereby all our products are assembled in the same Bologna plant where they are produced.

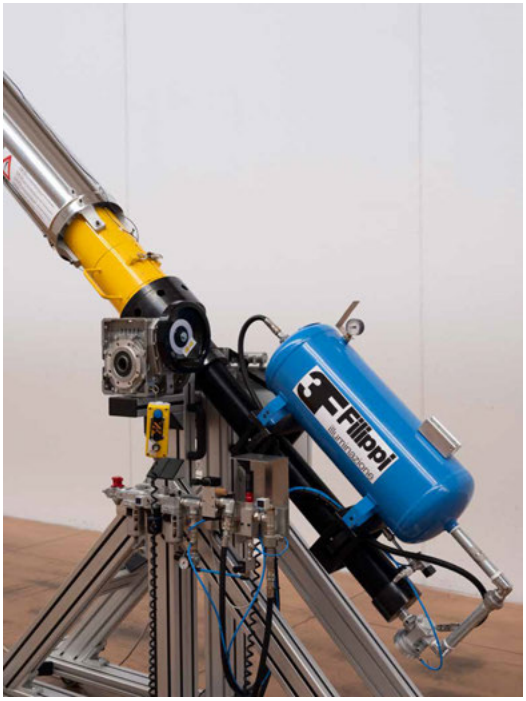
Ball throw resistance certification (DIN 18032-3)

This certification ensures the suitability of the device in gyms, environments with gymnastic and sports activities.

3F LEM Sport luminaires (codes 59080 and 59081) are certified "Resistant to throwing the ball according to DIN 18032-3" CSI certification (IMQ group).

3F Filippi for the luminaires deriving from the standards issues an appropriate declaration of conformity and suitability following scrupulous tests laboratory.
The tests are performed in the 3F Filippi laboratories using a handball ball-gun.
The speed and launch angle of the gun is adjustable to meet the requirements of DIN 18032-3





Test for ceiling luminaires
The device is hit 36 times by a handball (almost half a kilo) at a speed of 16.5 ± 0.8 m/s (~ 60 km/h).
12 times the ball must be thrown perpendicularly against the device and 12 times from two different directions (transversal and longitudinal) at an angle of 60°.

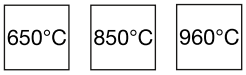
Test for wall luminaires
The device is hit 54 times by a handball (almost half a kilo) at a speed of 23.5 ± 1.2 m/s (~ 85 km/h).
For 30 times the ball must be thrown at 90° perpendicularly against the device and for 12 times from two different directions (transverse and longitudinal) at an angle of 45°.

At the end of the tests, the luminaire must not show any alterations that limit its solidity, operation and safety.

Mechanics

Marks and standards

Luminaires with electronic wiring bearing this mark are versions with **limited surface temperature** (EN 60598-2-24), and therefore suitable for installation in environments with greater risk in case of fire as per variant V3 of IEC 64-8.



Flame and ignition resistance
650°C, 850°C, 960°C. The materials in luminaires bearing this mark have passed the glow-wire test at these temperatures in compliance with EN 60598-1 (IEC 34-21).

Temperature class
Standard 50014 defines the temperature classes as the maximum temperature of the external surface of the housing of the luminaire in the case of abnormal operation (EN 60598-1 Appendix C):
T1 max 450°C, T2 max 300°C, T3 max 200°C, T4 max 135°C, T5 max 100°C, T6 max 85°C.

Luminaires not suitable for direct installation on normally flammable surfaces (suitable only for installation on non-flammable surfaces).

Note: the symbol is present in edition 9 of IEC EN 60598-1. Unless otherwise indicated by the above symbol, luminaires are suitable for installation on normally flammable surfaces. A surface is considered normally flammable if its ignition temperature is at least 200°C and if it does not deform or soften at such a temperature.

Mechanical strength
Luminaires must have adequate mechanical strength and be built to sustain stress deriving from any unprotected treatment during normal use.
Luminaires with a closing diffuser must pass a test with impact energy of 6.5J; impact is produced by letting a 50 mm diameter, 0.51 kg steel ball fall from a height of 1.3 metres, in compliance with IEC EN 60598-1 (CEI 34-21).
The IK Code designates the level of protection of electrical equipment housings against mechanical impact (EN 62262 and IEC 70-4).

Ingress protection of housing (IP rating)
As per IEC 60598-1.

1st number: protection against penetration by solid objects and against contact with live parts.

0	No special protection.
1	Protected against solid objects larger than 50 mm. E.g. hands.
2	Protected against solid objects larger than 12 mm. E.g. fingers.
3	Protected against solid objects larger than 2.5 mm. E.g. tools.
4	Protected against solid objects larger than 1 mm. E.g. threads or tapes.
5	Protected against dust penetration that could damage the luminaire.
6	Fully protected against dust.

2nd number: protection against penetration by liquids.

0	No special protection.
1	Protected against vertical water drips.
2	Protected against vertical water drips when tilted up to 15°.
3	Protected against rain when tilted up to 60°.
4	Protected against splashes of water from any direction.
5	Protected against jets of water coming from any direction.
6	Totally protected against sea waves or powerful jets of water.
7	Protected against the effects of temporary submersion in water.
8 m	Protected against the effects of continuous submersion for long periods with indications of the maximum depth in metres.
9 (80°C)	Protected against the effects of high pressure and high temperature water.
9 (15°C)	Protected against the effects of high pressure cold water.
9K	Protected against the effects of cleaning with high pressure water or steam. The standard "ISO 20653 Road vehicles (IP code)" introduces code “K” that describes the special requirements for road vehicles not covered by "EN 60529 (IP code)".

Protection of housing from impacts (IK rating)
Requirements as per IEC 34-139.
Luminaires - application of code IEC 62262 IK

0.2 J	Resistance to a blow from an object weighing 200 g dropped from a height of 10 cm.	IK02
0.5 J	Resistance to a blow from an object weighing 250 g dropped from a height of 20 cm.	IK04
1 J	Resistance to a blow from an object weighing 500 g dropped from a height f 20 cm.	IK06
2 J	Resistance to a blow from an object weighing 500 g dropped from a height of 40 cm.	IK07
5 J	Resistance to a blow from an object weighing 1.7 kg dropped from a height of 30 cm.	IK08
10 J	Resistance to a blow from an object weighing 5 kg dropped from a height of 20 cm.	IK09
20 J	Resistance to a blow from an object weighing 5 kg dropped from a height of 40 cm.	IK10

Coating and standard colours

1. Polyester-based paint, **white** or **grey Ral 9006**, UV stabilised, on hot galvanised steel sheet. Salt spray resistance over 500hrs.

2. Epoxy-polyester powder-coated in **white Ral 9010**, or **grey Ral 9006**, UV stabilised, applied with triboelectric system for constant and uniform thickness, oven polymerised at 180°C, with phosphate degreasing pretreatment using heavy iron salts. Salt spray resistance of 500h.

Resistance to corrosive substances

Chemical substance	Methacrylate	Polycarbonate	Glass	Aluminium	Steel	Stainless steel
Acetone	–	–	•	•	•	•
Acetic acid up to 10%	–	Δ	•	–	Δ	•
Arsenic acid up to 20%	•	•	Δ	–	Δ	
Citric acid up to 10%	•	•	•	Δ	Δ	Δ
Hydrochloric acid up to 20%	•	•	Δ	–	–	–
Chromic acid	Δ	Δ	Δ	Δ	Δ	Δ
Formic acid up to 30%	Δ	–	–	–	Δ	Δ
Nitric acid up to 20%	Δ	Δ	Δ	–	–	Δ
Sulphuric acid up to 30%	•	•	Δ	–	–	–
Seawater	•	•	Δ	Δ	Δ	Δ
Ethyl alcohol	–	•	•	•	Δ	Δ
Isopropyl alcohol	Δ	–	•	Δ	Δ	Δ
Ammonia	•	–	Δ	•	Δ	•
Aniline	–	–	•	•	•	•
Petrol	•	Δ	•	•	•	•
Benzole	–	–	•	Δ	Δ	Δ
Bromine	–	Δ	•	Δ		
White lime	•	Δ		–	•	•
Diesel oils	•	Δ		•	•	•
Sea climate	•	•	Δ	Δ	Δ	Δ
Liquid chlorine (fumes)	–	–	–	•	–	–
Chloroform	–	–	•	•	•	Δ
Calcium chloride	•	•	•	•	Δ	Δ
Ferric chloride	•	Δ		Δ	Δ	
Hexane	•	Δ	•	•	Δ	Δ
Ether	–	–		•	•	•
Petroleum ether	•	Δ		•	•	•
Ethyl ether	•	–	•	•	•	
Phenols	–	–	•	Δ	•	•
Glycerine	•	Δ	•	•	•	•
Hydrocarbons	–	–	•	•	•	•
Methanol	–	–	•	Δ	•	•
Silicone oils	Δ	•	•	•	•	
Food oils and fats	•	Δ	•	•	•	
Mineral oils	•	–	•	•	•	•
Vegetable oils	Δ	•	•			•
Diesel oil - naphtha	–	–	•	•	•	•
Ozone	•	–	•	•	Δ	•
Potassium permanganate	•	•	•	Δ	•	•
PVC with plasticizers	–	–	•	•	•	
Soda	•	•	–	–	–	Δ
Caustic soda	•	–	–	–		•
Zinc sulphate	•	•		•	Δ	Δ
Aluminium sulphate	•	•	•	•	Δ	Δ
Copper sulphate	•	•	•	•	Δ	Δ
Carbon tetrachloride	–	–	•	•	•	•
Toluene	–	Δ		•	•	•
Trichloroethylene	–	–		•	Δ	Δ

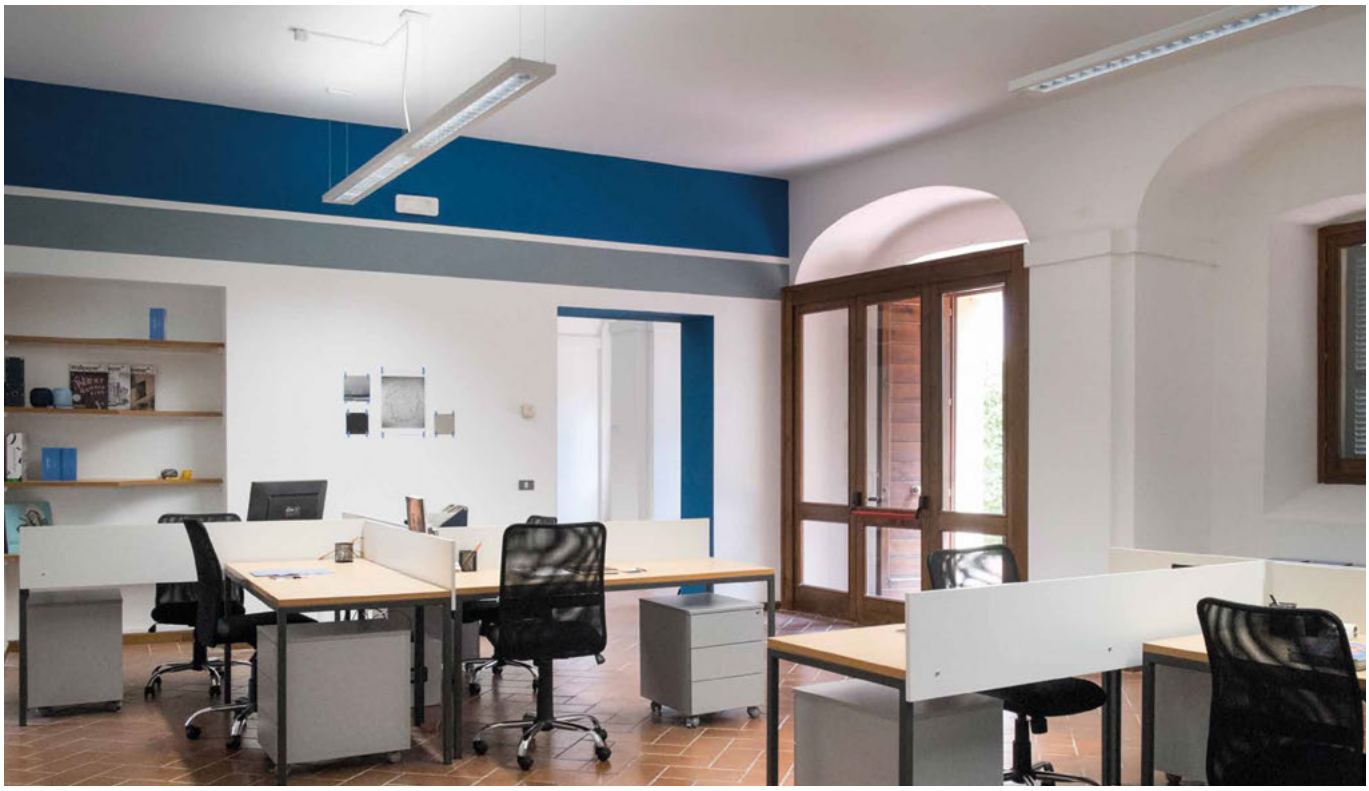
The table only provides a rough indication of the maximum amount of various chemical agents in different compositions.
When using these data, bear in mind that they are the results of laboratory tests and are therefore only valid under the same conditions in which the tests were performed; the data should therefore be considered indicative, and it is advisable to perform tests in their actual usage conditions if practical experience is not available.

It is not possible to talk about "compatibility" in general terms, since this depends on:
- Concentration.
- Temperature.
- Contact type.
- Contact duration.
- Mechanical action during contact.
- Simultaneous presence of multiple chemical compounds.
- The function of the potentially attacked material, mechanical stress to which it is exposed and numerous other factors, which are highly variable, making the indications given in this table truthful but general, and therefore not exhaustive.

Some versions of 3F luminaires are also proposed with laminated glass which, in addition to being resistant to the substances listed above, allows for these to be used in environments with food products or with machines with moving parts, with sudden temperature changes and, in general, in all environments requiring total protection against falling fragments.

• = resistant
Δ = relatively resistant, suitability to be evaluated on basis of application
– = not resistant

Get the best from 3F Filippi



How to use our products correctly

3F Filippi take the utmost care when designing and manufacturing our luminaires so that they stand the test of time.
Below are some important indications on how to use our products correctly: following these will allow you to enjoy our products for as long as possible.

- 3F Filippi can only guarantee products exclusively when they are installed according to the installation instructions provided with the luminaires. We therefore recommend you do not install our products in any other way than those indicated. In the event that you have differing requirements, please contact our Sales Network or the 3F Filippi Headquarters to request a technical assessment.
- As with installation, maintenance of 3F Filippi products must also be performed according to the instructions: we therefore recommend keeping these safe so that you can consult them before performing any kind of work on the luminaire.
- 3F Filippi products must only be installed on supports which are not subject to vibrations and mechanical stress – this is critical for their correct operation. In the event that it is not possible to avoid this kind of installation, you are invited to contact our Sales Network or the 3F Filippi Headquarters to request a technical assessment.
- Turning on a luminaire leads to an environmental "load" which is often not justified. Despite 3F Filippi's commitment to offering our customers the best energy-saving systems, using lighting only when strictly necessary is still the best way to save money and respect the environment.
- Correct and sensible lighting design can help save more money than you might think: 3F Filippi recommends that lighting projects are carried out by professional, reliable designers who can recommend the best solutions both for you and the environment. Lighting should only be used when necessary.
- 3F Filippi strongly believe in reusing raw materials, and for this reason we are constantly optimising our products to make them more environmentally-friendly. For example, we use a high percentage of recycled board in our packaging, and our luminaires are all produced in a single plant powered by solar panels: these simple measures allow us to limit transport and optimise resources. 3F Filippi invites users to do the same by recycling packaging after installation and correctly disposing of luminaires at the end of their life-cycle.

Analytical guide

July 2022

General conditions of sale

The acceptance of orders is always subject to the following conditions:

- The delivery terms are not binding and due to force majeure, they can be changed at any time without recognizing any damage or requests for penalties.
- Goods are delivered ex-works.
- Samples are always supplied carriage forward and invoiced.
- Goods travel at the customer's risk with any means of shipment, both carriage forward and carriage paid.
- The purchaser may not demand the partial or total cancellation of orders nor indemnification for delays and reductions of supply caused by force majeure.
- Payments will be valid if made directly to our headquarters.
- VAT is payable by the customer.
- The Court in whose district the seller has its headquarters will have exclusive jurisdiction in the event of any and all disputes.

Articles on request

Articles marked **On Request** are not normally in our warehouse. Where not specified, delivery dates and prices are to be arranged from time to time based on quantity, production availability, and material procurement times.

Because we are constantly improving our products, the luminaires supplied may differ in details, dimensions, equipment, and accessories from the dimensions and illustrations shown in this catalogue. Therefore, quantities, volumes, and indicated weights are not binding.

Sale through electrical distributors

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A0052	Wall-mounting brack	1	0.001	0.340	162, 178, 192, 207, 213, 378
A0090	Bracket/5-pole terminal block	1		0.100	215
A0160	Inox clips 3F Linda L660 -4pcs	1		0.050	467
A0161	Inox clips 3F Linda L1270 -8pcs	1		0.070	467
A0162	Inox clips 3F Linda L1570 -10pcs	1		0.095	467
A0170	15BS Brackets - L320-L400-L560	1		0.123	262, 291
A0173	15HI Brackets - L320-L350-L450	1		0.115	261, 281
A0174	15DP Brackets - L560	1		0.145	291
A0175	15GF Brackets - L560	1		0.150	291
A0176	15XB Brackets - L560	1		0.150	291
A0177	15ZH Brackets - L320-L350-L560	1		0.115	261, 281, 291
A0179	15LB Brackets - L320-350 met.pan.	1		0.090	262, 281
A0187	Anti-condensation cable gland	1		0.020	298, 303, 441, 468, 522, 528
A0189	Reinf. brack. Lucequadro pan./plast.	1		0.480	336
A0202	False ceiling brack. for luminaire D.220	1		0.800	332
A0204	Grid adapter h40mm for luminaire D.220	1		0.750	332
A0210	Wireguard 3F Cub	1		5.445	541
A0213	Ceiling-mounted bracket	1		0.885	541
A0214	Metal pan. reinforcing bracket D.220	1		1.200	332
A0242	15SS galvanized steel cable coil 100m	1		2.570	501
A0243	15BF galvanized steel cable coil 500m	1		8.700	501
A0305	Pair of suspension brackets	1		0.130	433
A0324	Pair fixed brack. for ceiling Beta 235	1		0.255	522
A0325	Mounting kit on busbar - Beta 235	1		0.035	523
A0434	Safety screw locking Linda - 20 pcs	1		0.016	468
A0435	Safety screw locking Linda - 100 pcs	1		0.160	468
A0439	Pole mounting diameter 60mm	1		1.360	562
A0440	Pole mounting diameter 76mm	1		1.080	562
A0441	Reducer from 76 mm to 60 mm	1		1.500	562
A0447	3F Linda through-line L1570	1		0.175	467
A0449	15 GZI w/brack.+ hooks Linda L300	1		0.130	467
A0450	15 RIT w/bra.+hooks Linda L660-1270-1570	1		0.125	467
A0451	15 MBI w/brack.+ hooks Linda L300	1		0.246	467
A0452	15 FBR w/bra.+hooks Linda L660-1270-1570	1		0.245	467
A0455	Wireguard 180x1330 3F Linda	1		3.235	162, 467
A0456	Wireguard 180x1630 3F Linda	1		3.535	162, 467
A0457	Wireguard 280x1330 3F Linda/3F Beta	1		3.720	467, 522, 528
A0458	Wireguard 280x1630 3F Linda/3F Beta	1		4.125	467, 522, 528
A0462	13 GSI (pair of susp. hooks Linda L300)	1		0.060	467
A0463	13 TRM pair of susp.hooks Linda	1		0.061	467
A0464	26 CSG (pictogram P1 Linda L300)	1		0.025	468
A0465	26 MTH (pictogram P1 Linda L660)	1		0.025	468
A0466	26 DVI (pictogram P2 Linda L300)	1		0.015	468
A0467	26 MVL (pictogram P2 Linda L660)	1		0.030	468
A0468	26 GZM (pictogram P3 Linda L300)	1		0.010	468
A0469	26 PXN (pictogram P3 Linda L660)	1		0.025	468
A0477	Safety wire	1		0.035	254, 261, 281, 298, 303, 324
A0490	Connection to the earth	1		0.005	383
A0500	13 DH pair susp.galv.steel hooks i3F	1		0.110	528
A0501	13 HC pair susp.stain.steel hooks A3F	1		0.110	528
A0503	15 CD pair of bracket/hooks A3F	1		0.290	528
A0508	20 TKA (casc. conn. line i3F/A3F 1265)	1		0.200	528
A0509	20 ZFE (casc. conn. line i3F/A3F 1565)	1		0.200	528
A0521	Reducing sealing ring diam.8mm	1		0.025	298, 303, 441, 468, 501 522, 528, 536, 541
A0537	Pair of flush ceiling mounting brackets	1		0.290	298, 303
A0579	Safety wire with brackets	1		0.050	145, 227, 276, 298, 303
A0620	Spool stain.ste.cab.diam. 1,25mm 100 m	1		1.015	179
A0622	Clamp 1 hole suspension - 100 pcs	1		0.355	179
A0632	Pair of brack. ceiling instal. 3F LEM	1		0.350	500
A0651	Bracket rotation support 3F LEM	1		0.220	500

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A0652	Pair of brack. ceiling instal. 3F LEM	1		0.105	500
A0653	Pair of fixing carab.for chain instal.	1		0.050	501, 522, 528
A0654	Pair of wall brackets - 3F LEM	1		2.530	500
A0659	Adjustable clamp 2 holes - 10 pcs	1		0.395	192, 286, 380
A0660	Suspension with adjustment - 1m	1		0.100	162, 191, 433
A0661	Suspension with adjustment - 2 m	1		0.070	162, 191, 433
A0662	Suspension with adjustment - 3 m	1		0.100	162, 191, 433
A0663	Suspension with adjustment - 4 m	1		0.135	162, 191, 433
A0664	Suspension with adjustment - 5 m	1		0.140	162, 191, 433
A0665	Suspension with adjustment - 6 m	1		0.145	162, 191, 433
A0679	5 pole rectangular rose (no cable) WH	1		0.075	62, 123, 162, 179, 192
A0686	596x596 Diagon frame ceiling instal.	1		3.170	254
A0702	Suction cup for Diagon maintenance	1		0.100	254
A0714	Clamp 2 holes susp.- 100 pcs	1		0.515	62, 191, 286, 379, 501
A0716	Coil galv. cable diam. 1.5mm - 100m	1		1.175	62, 191, 286, 379
A0717	Coil galv. cable diam. 1.5mm - 500m	1		7.340	62, 191, 286, 379
A0718	Coil galv. cable diam. 1.5mm - 1000m	1		12.045	62, 191, 286, 379
A0720	Wieland (white plug)	1		0.100	261, 281
A0721	Wago (white plug)	1		0.100	261, 281
A0722	Ensto white plug + adapter	1		0.100	261, 281
A0725	Wieland (black plug)	1		0.100	261, 281
A0726	Wago (black plug)	1		0.100	261, 281
A0727	Ensto black plug + adapter	1		0.100	261, 281
A0728	Cover for food appl. 3F LEM 1	1		0.900	500
A0733	Cov.food appl.single mod.3F LEM(2-3-4-5)	1		0.940	500
A0776	Horiz. rot. bracket 90° 3F LEM 1-2	1		1.000	500
A0777	Horiz. rot. brack. 90° 3F LEM 3-2 Sensor	1		1.600	500
A0778	Horizontal rotating bracket 90° 3F LEM 4	1		2.000	500
A0798	621x621 frame + brackets	1		1.650	227, 261, 276, 281, 298
A0801	Electric ext. with plug 3F Linux DALI-EP	1		0.180	383
A0802	Electric extension with plug 3F Linux	1		0.080	383
A0804	SF 3F Reno 150	1		0.850	324
A0805	SF 3F Reno 200	1		0.755	324
A0806	SM 3F Reno 150	1		1.350	324
A0807	SM 3F Reno 200	1		1.350	324
A0811	Transparent glass with gasket (10pcs)	1		5.120	501
A0812	Moulded glass with gasket (10pcs)	1		5.000	501
A0820	Pair of sliding brack. + reg. susp. 3F Solo	1		0.130	123
A0821	Pair of sliding brack. ceiling 3F Solo	1		0.290	123
A0828	Trittico fixing metal panels 60x60	1		1.400	108
A0829	Trittico fixing mineral fiber pan. 60x60	1		1.900	108
A0830	Fixing Trittico plasterboard WH	1		1.070	108
A0831	Fixing Trittico plasterboard BK	1		1.070	108
A0835	Pair brack.+hooks for wall	1		0.260	433, 522
A0836	Pair of galv.hooks for susp.- Beta 235	1		0.085	522
A0837	Pair of stain.steel hooks susp.-Beta 235	1		0.100	522
A0838	Pair of S-hooks for chain - Beta 235	1		0.045	523
A0858	Bracket for central suspension L870	1		0.950	441
A0859	Bracket for central suspension L1230	1		1.450	441
A0860	Adjustable suspension kit 2m	1		0.180	441
A0861	Pair of brack. ceiling instal. Beta500	1		0.800	441
A0870	White conn. elem. with boss for lum.	1		0.420	178
A0872	White conn.elem. to wall w/boss for lum.	1		0.340	178
A0875	Connecting bracket Travetta	1		0.090	178
A0877	Bracket for T-branch for 3F Travetta	1		0.110	178
A0878	Bracket for X-branch for 3F Travetta	1		0.110	178
A0892	White connect.elem.190x190 3F Travetta	1		0.900	178
A0894	White connect.elem.190x210 3F Travetta	1		0.715	178
A0895	White connect.elem.190x510 3F Travetta	1		1.850	178
A0896	White connect.elem.190x810 3F Travetta	1		2.505	178

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A0897	White connect.elem.190x1110 3F Travetta	1		3.380	178
A0941	White con.elem.lum/wall 810 3F Travetta	1		2.850	178
A0942	Wh.conn.elem.lum/wall 1110 3F Travetta	1		3.950	178
A0951	White branch elem. 190x310 3F Travetta	1		1.100	178
A0952	White branches elem. 190x460 3F Travetta	1		1.650	178
A3007	DALI PCU - push button interface	1		0.070	572
A3008	DALI ext - Repeater	1		0.105	572
A3009	DALI DIN - Repeater	1		0.190	572
A3010	DALI - Box for repeater	1		0.130	572
A3013	A on/off - Sensor	1		0.250	585
A3014	A on/off-ext - Sensor	1		0.250	585
A3015	B Dual-DALI - Sensor	1		0.280	587
A3018	B on/off - Sensor	1		0.280	586
A3019	B on/off-ext - Sensor	1		0.280	586
A3020	IR DALI - Programmer	1		0.135	502, 589
A3021	IR DALI - Remote controller	1		0.180	501, 589
A3022	IR - Adapter for Smartphone	1		0.080	502, 589, 593
A3023	IR on/off - Programmer	1		0.100	589
A3024	IP54 White fixing	1		0.200	589
A3025	A SLAVE - Sensor	1		0.325	585
A3026	A SLAVE-ext - Sensor	1		0.300	586
A3027	B SLAVE - Sensor	1		0.300	587
A3028	B SLAVE-ext - Sensor	1		0.350	587
A3029	Corridor on/off - Sensor	1		0.300	588
A3030	Corridor on/off-ext - Sensor	1		0.350	588
A3033	Corridor SLAVE - Sensor	1		0.300	588
A3034	Corridor SLAVE-ext - Sensor	1		0.350	588
A3038	IR DALI GH - Programmer	1		0.350	587
A3039	A DALI-2 - Sensor	1		0.290	585
A3040	IP54 ceiling base for A DALI-2 sensor	1		0.200	585
A3041	B DALI-2 - Sensor	1		0.290	586
A3042	IP54 ceiling base for B DALI-2 sensor	1		0.200	586
A3043	DALI-2 Sensor - Type B - GH	1		0.350	587
A3044	Corridor det. lens for B DALI-2 sensor	1		0.200	588
A3045	HCL2 DT8 - Sensor	1		0.450	593
A3046	HCL2 DT8-ext - Sensor	1		0.490	593
A3052	Gateway RF BLE	1		0.250	602
A3055	RFxNODE IP54 Module	1		0.405	602
A3056	RFxSENSOR IP54 Sensor	1		0.250	602
A3057	DALI-SENSE-HB IP54 Sensor	1		0.250	602
A3058	RFxDRIVER IP20 Module	1		0.030	602
A3059	IP66 Box for wireless module	1		0.150	603
A3060	DALI-SENSE-BMS Sensor	1		0.060	603
A3062	ZQxSERVER Server	1		0.250	603
A3063	RFxETH Gateway	1		0.250	603
A3090	BLE DALI Radio Module	1		0.070	595
A3091	BLE DALI Radio push-button panel	1		0.315	595
A3095	IP20 1T5352 EXTENDER	1		0.215	595
A3096	IP67 BLE 1E3048 Radio Module	1		0.150	595
A3097	IP67 1E3049 EXTENDER	1		0.400	595
A3099	BLE Radio control	1		0.030	596
A3100	Kit ArkE support buttons plate for A3099	1		0.060	596
A4064	Binario 3F A - L1000 - BK	1		1.005	411
A4065	Binario 3F A - L2000 - BK	1		2.200	411
A4066	Binario 3F A - L3000 - BK	1		3.020	411
A4067	Binario 3F A - L4000 - BK	1		4.105	411
A4070	Binario 3F A - L1000 - WH	1		1.005	411
A4071	Binario 3F A - L2000 - WH	1		2.200	411
A4072	Binario 3F A - L3000 - WH	1		3.020	411
A4073	Binario 3F A - L4000 - WH	1		4.105	411

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A4076	Binario 3F A - L1000 - GR	1		1.005	411
A4077	Binario 3F A - L2000 - GR	1		2.200	411
A4078	Binario 3F A - L3000 - GR	1		3.020	411
A4079	Binario 3F A - L4000 - GR	1		4.105	411
A4166	Power-supply head DX - GR	1		0.105	412
A4167	Central power-supply - GR	1		0.200	412
A4168	Flexible connecting element - GR	1		0.210	412
A4169	L-joint - EXT - GR	1		0.200	413
A4170	T-joint - EXT + SX - GR	1		0.290	413
A4171	Cross joint - GR	1		0.390	413
A4172	End cap - GR	1		0.010	412
A4173	PVC closing top - L1000 - GR	1		0.120	413
A4174	Power-supply head DX - WH	1		0.105	412
A4175	Central power-supply - WH	1		0.445	412
A4176	Flexible connecting element - WH	1		0.395	412
A4177	L-joint - EXT - WH	1		0.330	413
A4178	T-joint - EXT + SX - WH	1		0.330	413
A4179	Cross joint - WH	1		0.390	413
A4180	End cap - WH	1		0.025	412
A4181	PVC closing top - L1000 - WH	1		0.095	413
A4182	Linear connecting element - GR	1		0.050	412
A4183	Steel bracket for ceiling installation	1		0.020	414
A4188	Linear connecting element - WH	1		0.050	412
A4190	Power-supply head SX - GR	1		0.265	412
A4191	L-joint - INT - GR	1		0.200	413
A4192	T-joint - EXT + DX - GR	1		0.290	413
A4193	T-joint - INT + SX - GR	1		0.290	413
A4194	T-joint - INT + DX - GR	1		0.290	413
A4196	Power-supply head SX - WH	1		0.105	412
A4197	L-joint - INT - WH	1		0.335	413
A4198	T-joint - EXT + DX - WH	1		0.330	413
A4199	T-joint - INT + SX - WH	1		0.465	413
A4200	T-joint - INT + DX - WH	1		0.200	413
A4204	Adj. susp. boss + 1.5m bracket	1		0.065	414
A4205	Adj. susp. boss + 3m bracket	1		0.075	414
A4206	Adj. susp. boss + 5m bracket	1		0.160	414
A4209	Power-supply head DX - BK	1		0.255	412
A4210	Central power-supply - BK	1		0.200	412
A4211	Flexible connecting element - BK	1		0.210	412
A4212	L-joint - EXT - BK	1		0.255	413
A4213	T-joint - EXT + SX - BK	1		0.290	413
A4214	Cross joint - BK	1		0.390	413
A4215	End cap - BK	1		0.090	412
A4216	PVC closing top - L1000 - BK	1		0.070	413
A4217	Linear connecting element - BK	1		0.130	412
A4218	Power-supply head SX - BK	1		0.120	412
A4219	L-joint - INT - BK	1		0.200	413
A4220	T-joint - EXT + DX - BK	1		0.290	413
A4221	T-joint - INT + SX - BK	1		0.350	413
A4222	T-joint - INT + DX - BK	1		0.350	413
A4225	Rigid support bracket	1		0.065	414
A5013	Kit LED I3F75,A3F 90,A3F 92-L1565-2X22W CONC+PC	1	0.039	3.000	531
A5026	KIT LED i3F 75, A3F 90-L1565 - 2x30W+PC	1	0.020	3.225	531
A5027	Kit LED I3F 75, A3F 90, A3F 92-L1565 - 2X22W+PC	1	0.020	3.190	531
A5057	Kit LED i3F 75,A3F 90-92 L1265 2x18W +PC	1	0.017	2.680	531
A5104	Kit LED I3F 76, A3F 91, A3F 93-L1565-2X22W CONC	1	0.039	2.630	532
A5117	KIT LED i3F 76, A3F 91 - L1565-2x30W	1	0.006	2.035	532
A5118	Kit LED I3F 76, A3F 91, A3F 93 - L1565-2X22W	1	0.006	1.840	532
A5148	KIT LED i3F 76,A3F 91,A3F 93-L1265-2x18W	1	0.009	1.650	532
A5184	Moulded glass Beta 2x i3F 76 - L1565	1		4.690	533

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A5185	Moulded glass Beta 2x i3F 76 - L1265	1		3.985	533
A5210	Kit LED i3F 76,A3F 91 - L1565 - L 2x40W AMPIO	1	0.013	3.720	532
A5212	Kit LED i3F 76,A3F 91 - L1565 - L 2x40W CONC	1	0.006	3.200	532
A5215	Kit LED i3F 75,A3F 90 - L1565 - L 2x40W AMPIO + PC	1	0.039	5.155	531
A5217	Kit LED i3F 75,A3F 90 - L1565 - L 2x40W CONC + PC	1	0.039	4.795	531
A5308	Kit LED Beta 430 - L1551- 2X65W AMPIO	1	0.073	6.300	535
A5309	Kit LED Beta 430 - L1551- 2X65W CONC	1	0.067	5.500	535
A5311	Kit LED Beta 430 - L1551- 3X65W AMPIO	1	0.073	7.245	535
A5312	Kit LED Beta 430 - L1551- 3X65W CONC	1	0.073	7.060	535
A5322	Moulded glass with frame Beta 430-L1551	1		7.900	536
A01023	VT 3F RENO WH 150	1		0.210	323
A01024	VT 3F RENO BK 150	1		0.160	323
A01025	VT 3F RENO WH 200	1		0.300	323
A01026	VT 3F RENO BK 200	1		0.300	323
A01035	VS 3F RENO WH 150	1		0.200	323
A01036	VS 3F RENO BK 150	1		0.165	323
A01037	VS 3F RENO WH 200	1		0.395	323
A01038	VS 3F RENO BK 200	1		0.370	323
A01046	SMP 3F RENO WH 150	1		0.100	323
A01047	SMP 3F RENO BK 150	1		0.100	324
A01048	SMP 3F RENO WH 200	1		0.240	323
A01049	SMP 3F RENO BK 200	1		0.240	324
A01090	WH adapter ring for 220 mm hole	1		0.310	324
A01091	WH adapter ring for 255 mm hole	1		0.280	324
A01092	WH adapter ring for hole 300 mm <9 mm	1		1.390	324
A01093	WH adapter ring for hole 300 mm >9 mm	1		1.148	324
A01314	White rectangular case fixed susp. 0,3m	1		0.110	179
A01315	White rectangular case fixed susp. 0,5m	1		0.105	179
A01317	White rectangular case fixed susp. 1m	1		0.115	179
A01318	White rectangular case adj. susp. 1 m	1		0.135	179
A01321	Wired fixed susp. 5P wh.rect.case 0,3m	1		0.285	179
A01322	Wired fixed susp. 5P wh.rect.case 0,5m	1		0.410	179
A01324	Wired fixed susp. 5P wh.rect.case 1m	1		0.530	179
A01325	Wired adj. susp. 5P wh.rect.case 1 m	1		0.450	179
A01368	Travetta B joint closing cap	1		0.090	179
A01479	Wall bracket 15° diam 60mm	1		2.865	562
A01480	Fixed position wall bracket	1		2.755	562
A01481	Corner wall bracket 15° diam 60mm	1		3.125	562
A01485	ZK700-900EL DRIVER ON-OFF DIP-SWITCH	1		0.170	231
A01486	DELT40C-MEL DRIVER DALI DIP-SWITCH	1		0.218	231
A01489	3FLPLAFO604 - 60x60 ceiling frame kit	1		0.850	227
A01490	3FLPLAFO603 - 60x60 ceiling frame kit	1		0.580	232
A01491	3FLPLAFO1203 - 30x120 ceiling frame kit	1		0.900	232
A01492	3FKTLP-SPU - Suspension with adjustment - 1,5m	1		0.110	232
A01493	3FKTLPW1-MS - Built-in springs	1		0.110	232
A01494	3FKTEMR03 - Kit EP 3h	1		0.580	232
A01495	600x600 carter for metal panels	1		1.750	232
A01523	Grid adapter h50mm - for luminaire D.220	1		0.800	332
A01528	Slid.brack.w/reg.susp.instal. 3F HD100	1		0.060	61
A01530	Ceiling/recessed sliding brack. 3F HD50	1		0.020	61
A01531	Ceiling/recessed sliding brack. 3F HD100	1		0.045	61
A01532	Slid.brack.w/reg.susp.instal. 3F HD50	1		0.035	61
A01536	Channels diffusers 3F HD50 - FDP - 6m	1		1.100	60, 77
A01537	Channels diffusers 3F HD50 - FDP - 9m	1		1.345	60, 77
A01538	Channels diffusers 3F HD50 - FDP - 15m	1		1.600	60, 77
A01540	Channels diffusers 3F HD50 - FDO - 6m	1		0.750	60, 77
A01541	Channels diffusers 3F HD50 - FDO - 9m	1		1.000	60, 77
A01542	Channels diffusers 3F HD50 - FDO - 15m	1		1.500	60, 77
A01544	Channels diffusers 3F HD100 - FDP - 6m	1		2.120	60, 77
A01545	Channels diffusers 3F HD100 - FDP - 9m	1		2.815	60, 77

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A01546	Channels diffusers 3F HD100 - FDP - 15m	1		4.225	60, 77
A01548	Channels diffusers 3F HD100 - FDO - 6m	1		1.600	60, 77
A01549	Channels diffusers 3F HD100 - FDO - 9m	1		2.300	60, 77
A01550	Channels diffusers 3F HD100 - FDO - 15m	1		3.900	60, 77
A01552	Pair of end caps for 3F HD50 WH channel FD	1		0.240	61
A01553	Pair of end caps for 3F HD50 BK channel FD	1		0.145	61
A01554	Pair of end caps for 3F HD50 AL channel FD	1		0.110	61
A01555	Pair of end caps for 3F HD100 WH channel FD	1		0.265	61
A01556	Pair of end caps for 3F HD100 BK channel FD	1		0.140	61
A01557	Pair of end caps for 3F HD100 AL channel FD	1		0.140	61
A01558	Pair end caps for 3F HD50 WH channel OC	1		0.110	60
A01559	Pair end caps for 3F HD50 BK channel OC	1		0.250	60
A01560	Pair end caps for 3F HD50 AL channel OC	1		0.110	60
A01561	Pair end caps 3F HD50R WH chan. FD	1		0.075	77
A01562	Pair end caps 3F HD100R WH chan. FD	1		0.160	77
A01563	Dilator joint FD channels>15m - HD50 WH	1		0.090	60, 77
A01564	Dilator joint FD channels>15m - HD100 WH	1		0.130	60, 77
A01565	Pair fixing brack. plasterboard 3F HD50R	1		0.145	77
A01566	Pair fixing brack.plasterboard 3F HD100R	1		0.275	77
A01567	3F HD - 5P socket/plug terminal block	1		0.035	62, 78
A01568	Dilator joint FD channels>15m - HD50 BK	1		0.090	60, 77
A01569	Dilator joint FD channels>15m - HD100 BK	1		0.130	60, 77
A01570	Dilator joint FD channels>15m - HD50 AL	1		0.090	60, 77
A01571	Pair of end caps 3F HD50R WH channel GSP	1		0.130	60, 77
A01572	Dilator joint FD channels>15m - HD100 AL	1		0.080	77
A01573	Pair of end caps 3F HD100R WH chann GSP	1		0.170	77
A01574	Pair of end caps 3F HD50R WH channel OCW	1		0.080	77
A01578	Pair of end caps for 3F HD50 WH channel GSP	1		0.110	61
A01579	Pair of end caps for 3F HD50 BK channel GSP	1		0.110	61
A01580	Pair of end caps for 3F HD50 AL channel GSP	1		0.110	61
A01581	Pair of end caps for 3F HD100 WH channel GSP	1		0.140	61
A01582	Pair of end caps for 3F HD100 BK channel GSP	1		0.225	61
A01583	Pair of end caps for 3F HD100 AL channel GSP	1		0.140	61
A02562	Caddy for exposed profiles of 24 mm	1		0.025	191, 379
A20011	3F Linux S NL L3556	1	0.011	3.580	357
A20012	3F Linux S NL L1778	1	0.011	1.735	357
A20017	3F Linux S 5P L3556	1	0.011	4.235	357
A20019	3F Linux S 5P L1778	1	0.011	2.020	357
A20024	3F Linux S 7P L3556	1	0.011	4.420	357
A20026	3F Linux S 7P L1778	1	0.011	2.155	357
A20083	3F Linux L 60 LED BAT L1778	1	0.009	2.700	365
A20084	3F Linux L 50 LED BAT L1778	1	0.009	2.650	365
A20085	3F Linux L 40 LED BAT L1778	1	0.009	2.650	365
A20097	3F Linux L 60 LED DALI BAT L1778	1	0.009	2.780	365
A20098	3F Linux L 50 LED DALI BAT L1778	1	0.009	2.700	365
A20099	3F Linux L 40 LED DALI BAT L1778	1	0.009	2.700	365
A20124	3F Linux L 85 LED AMPIO L1778	1	0.009	2.700	361
A20125	3F Linux L 60 LED AMPIO L1778	1	0.009	2.640	361
A20126	3F Linux L 50 LED AMPIO L1778	1	0.009	2.665	361
A20127	3F Linux L 40 LED AMPIO L1778	1	0.009	2.670	361
A20138	3F Linux L 85 LED DALI AMPIO L1778	1	0.009	2.705	361
A20139	3F Linux L 60 LED DALI AMPIO L1778	1	0.009	2.725	361
A20140	3F Linux L 50 LED DALI AMPIO L1778	1	0.009	2.700	361
A20141	3F Linux L 40 LED DALI AMPIO L1778	1	0.009	2.725	361
A20166	3F Linux L 85 LED CONC L1778	1	0.009	2.635	366
A20167	3F Linux L 60 LED CONC L1778	1	0.009	2.650	366
A20180	3F Linux L 85 LED DALI CONC L1778	1	0.009	2.630	366
A20181	3F Linux L 60 LED DALI CONC L1778	1	0.009	2.635	366
A20335	3F Linux D 2x30 LED L1778	1	0.018	2.870	371
A20336	3F Linux D 2x22 LED L1778	1	0.018	2.780	371

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A20349	3F Linux D 2x30 LED DALI L1778	1	0.018	2.795	371
A20350	3F Linux D 2x22 LED DALI L1778	1	0.018	3.000	371
A20424	3F Linux TK L1778	1	0.018	3.520	377
A20428	Closing Top LOW - L1778	1		0.295	381
A20433	Linear connecting element	1		0.170	191, 380
A20434	T-Connecting element 3F Linux	1		0.640	380
A20436	L-Connecting element 3F L Linux	1		0.365	380
A20442	Closing Top HIGH - L1778	1		0.585	381
A20448	Pair of closing end 3F Linux	1		0.035	380
A20450	Slid.invis.brack.w/adj.for susp.3F Linux	1		0.048	378
A20451	Slid.invis.brack.ceiling instal.3F Linux	1		0.030	378
A20452	Stainless steel hook for chain	1		0.015	191, 378
A20453	S-shaped chain hook w/slid.bra. 3F Linux	1		0.060	378
A20454	5-pole socket-plug term.block 3F Linux S	1		0.065	382
A20455	7-pole socket-plug term.block 3F Linux S	1		0.090	382
A20459	5-pole socket-plug L-branch 3F Linux S	1		0.090	382
A20460	7-pole socket-plug L-branch 3F Linux S	1		0.200	382
A20464	5-pole socket-plug T-branch 3F Linux S	1		0.250	382
A20465	7-pole socket-plug T-branch 3F Linux S	1		0.300	382
A20470	Pair of mounting brack. lum. 3F Linux S	1		0.050	381
A20474	Safety screw locking slid.bra.3F Linux S	1		0.007	378
A20475	3F Linux Cable Support (10 pcs)	1		0.100	381
A20476	Contact pin for 3F Linux plug (50 pcs.)	1		0.175	383
A20478	Anti-slip term. incli. 3F Linux	1		0.060	192, 380
A20479	Power cable for luminaires 3P-3F Linux	1		0.060	383
A20480	Power cable for luminaires 5P-3F Linux	1		0.180	383
A20485	Suspension without adjustment - 0.5 m	1		0.030	62, 123, 286, 379
A20486	Suspension without adjustment - 1 m	1		0.035	62, 123, 286, 379
A20487	Suspension without adjustment - 2 m	1		0.045	62, 123, 286, 379
A20488	Suspension without adjustment - 3 m	1		0.060	62, 286, 379
A20489	Suspension without adjustment - 4 m	1		0.225	62, 286, 379
A20490	Suspension without adjustment - 5 m	1		0.090	62, 286, 379
A20491	Suspension without adjustment - 6 m	1		0.085	62, 286, 379
A20500	Cen.pow-sup.soc-plug ter-blo.3FLinuxS 5P	1		0.100	383
A20501	Cen.pow-sup.soc-plug ter-blo.3FLinuxS 7P	1		0.150	383
A20504	Pair brack.3F Linda instal.in 3F Linux S	1		0.050	381
A20511	3F Linux DR 2x30 LED L1778	1	0.018	2.885	373
A20512	3F Linux DR 2x22 LED L1778	1	0.018	2.795	373
A20525	3F Linux DR 2x30 LED DALI L1778	1	0.018	2.855	373
A20526	3F Linux DR 2x22 LED DALI L1778	1	0.018	2.860	373
A20595	3F Linux DR 1x30 LED UGR L1778	1	0.018	3.290	373
A20596	3F Linux DR 2x22 LED UGR L1778	1	0.018	3.350	373
A20599	3F Linux DR 1x30 LED DALI UGR L1778	1	0.018	3.320	373
A20600	3F Linux DR 2x22 LED DALI UGR L1778	1	0.018	3.335	373
A20608	3F Linux L 60 LED BAT WD L1778	1	0.009	2.745	365
A20609	3F Linux L 50 LED BAT WD L1778	1	0.009	2.650	365
A20610	3F Linux L 40 LED BAT WD L1778	1	0.009	2.650	365
A20622	3F Linux L 60 LED DALI BAT WD L1778	1	0.009	2.700	365
A20623	3F Linux L 50 LED DALI BAT WD L1778	1	0.009	2.700	365
A20624	3F Linux L 40 LED DALI BAT WD L1778	1	0.009	2.700	365
A20661	3F Linux L 50 LED UGR L1778	1	0.009	2.725	363
A20662	3F Linux L 40 LED UGR L1778	1	0.009	2.650	363
A20664	3F Linux L 50/940 LED UGR L1778	1	0.009	2.725	363
A20665	3F Linux L 40/940 LED UGR L1778	1	0.009	2.650	363
A20667	3F Linux L 50 LED DALI UGR L1778	1	0.009	2.750	363
A20668	3F Linux L 40 LED DALI UGR L1778	1	0.009	2.700	363
A20670	3F Linux L 50/940 LED DALI UGR L1778	1	0.009	2.700	363
A20671	3F Linux L 40/940 LED DALI UGR L1778	1	0.009	2.700	363
A20674	3F Linux DR 2x30 LED AS L1778	1	0.018	3.580	374
A20679	3F Linux DR 2x30 LED DALI AS L1778	1	0.018	3.200	374

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
A20684	3F Linux L 85 LED IPERCONC L1778	1	0.009	2.650	366
A20685	3F Linux L 60 LED IPERCONC L1778	1	0.009	2.650	366
A20698	3F Linux L 85 LED DALI IPERCONC L1778	1	0.009	2.650	366
A20699	3F Linux L 60 LED DALI IPERCONC L1778	1	0.009	2.650	366
A20723	3F Linux 7P IP54 L3556 System	1	0.021	6.190	359
A20724	3F Linux 7P IP54 L1778 System	1	0.011	3.070	359
A20725	3F Linux 5P IP54 L3556 System	1	0.021	6.250	359
A20726	3F Linux 5P IP54 L1778 System	1	0.011	2.990	359
A20740	IP54 3F Linux End terminal	1		0.055	382
A20741	IP54 3F Linux End terminal with 1 hole	1		0.065	382
A20742	IP54 3F Linux End terminal with 2 holes	1		0.180	382
A20743	IP54 - L1778 Closing Top	1		0.720	381
A20744	3F Linux L 85 LED AS L1778	1	0.009	2.650	364
A20745	3F Linux L 60 LED AS L1778	1	0.009	2.665	364
A20746	3F Linux L 50 LED AS L1778	1	0.009	2.650	364
A20747	3F Linux L 40 LED AS L1778	1	0.009	2.660	364
A20749	3F Linux L 85 LED DALI AS L1778	1	0.009	2.700	364
A20750	3F Linux L 60 LED DALI AS L1778	1	0.009	2.700	364
A20751	3F Linux L 50 LED DALI AS L1778	1	0.009	2.700	364
A20752	3F Linux L 40 LED DALI AS L1778	1	0.009	2.700	364
A20754	3F Linux L 85 LED MEDIO L1778	1	0.009	2.550	362
A20755	3F Linux L 60 LED MEDIO L1778	1	0.009	2.545	362
A20756	3F Linux L 50 LED MEDIO L1778	1	0.009	2.650	362
A20757	3F Linux L 40 LED MEDIO L1778	1	0.009	2.650	362
A20759	3F Linux L 85 LED DALI MEDIO L1778	1	0.009	2.575	362
A20760	3F Linux L 60 LED DALI MEDIO L1778	1	0.009	2.565	362
A20761	3F Linux L 50 LED DALI MEDIO L1778	1	0.009	2.700	362
A20762	3F Linux L 40 LED DALI MEDIO L1778	1	0.009	2.565	362
1855	03F 14W/840 L620	1	0.006	1.550	153
1856	03F 28W/840 L1204	1	0.010	2.570	153
1857	03F 35W/840 L1506	1	0.012	3.100	153
1858	03F 42W/840 L1787	1	0.014	3.665	153
1859	03F 18W/940 L620	1	0.006	1.525	153
1860	03F 35W/940 L1204	1	0.010	2.575	153
1861	03F 44W/940 L1506	1	0.012	3.265	153
1862	03F 53W/940 L1787	1	0.014	5.800	153
1863	03F 14W/840 DALI L620	1	0.006	1.480	153
1864	03F 28W/840 DALI L1204	1	0.010	2.560	153
1865	03F 35W/840 DALI L1506	1	0.012	3.195	153
1866	03F 42W/840 DALI L1787	1	0.014	5.800	153
1867	03F 18W/940 DALI L620	1	0.006	2.000	153
1868	03F 35W/940 DALI L1204	1	0.010	2.610	153
1869	03F 44W/940 DALI L1506	1	0.012	3.095	153
1870	03F 53W/940 DALI L1787	1	0.014	3.780	153
1871	03F 28W/840 EP L1204	1	0.010	2.910	153
1872	03F 35W/840 EP L1506	1	0.012	5.500	153
1873	03F 42W/840 EP L1787	1	0.014	6.600	153
1874	03F 35W/940 EP L1204	1	0.010	4.600	153
1875	03F 44W/940 EP L1506	1	0.012	5.500	153
1876	03F 53W/940 EP L1787	1	0.014	6.600	153
1877	03F 28W/840 DALI EP L1204	1	0.010	4.600	153
1878	03F 35W/840 DALI EP L1506	1	0.012	5.500	153
1879	03F 42W/840 DALI EP L1787	1	0.014	6.600	153
1880	03F 35W/940 DALI EP L1204	1	0.010	4.600	153
1881	03F 44W/940 DALI EP L1506	1	0.012	5.500	153
1882	03F 53W/940 DALI EP L1787	1	0.014	6.600	153
1883	03F 14W/840 AS L620	1	0.007	1.770	154
1884	03F 28W/840 AS L1204	1	0.011	4.000	154
1885	03F 35W/840 AS L1506	1	0.013	4.900	154
1886	03F 42W/840 AS L1787	1	0.015	6.000	154

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
1887	03F 18W/940 AS L620	1	0.007	2.200	154
1888	03F 35W/940 AS L1204	1	0.011	4.000	154
1889	03F 44W/940 AS L1506	1	0.013	4.900	154
1890	03F 53W/940 AS L1787	1	0.015	6.000	154
1891	03F HO 18W/840 L620	1	0.006	1.550	154
1892	03F HO 35W/840 L1204	1	0.010	2.570	154
1893	03F HO 44W/840 L1506	1	0.012	3.100	154
1894	03F HO 53W/840 L1787	1	0.014	3.665	154
1895	03F HO 18W/840 DALI L620	1	0.006	1.550	154
1896	03F HO 35W/840 DALI L1204	1	0.010	2.570	154
1897	03F HO 44W/840 DALI L1506	1	0.012	3.100	154
1898	03F HO 53W/840 DALI L1787	1	0.014	3.665	154
1905	03F 28W/840 DALI 5P SC L1204	1	0.010	2.870	157
1906	03F 35W/840 DALI 5P SC L1506	1	0.012	3.400	157
1907	03F 42W/840 DALI 5P SC L1787	1	0.014	3.665	157
1912	03F 28W/840 DALI 5P CC L1204	1	0.010	2.870	157
1913	03F 35W/840 DALI 5P CC L1506	1	0.012	3.400	157
1914	03F 42W/840 DALI 5P CC L1787	1	0.014	3.665	157
1918	03F 28W/840 DALI 5P EC L1204	1	0.010	2.870	158
1919	03F 35W/840 DALI 5P EC L1506	1	0.012	3.400	158
1920	03F 42W/840 DALI 5P EC L1787	1	0.014	3.665	158
1930	03F 28W DT8 TW L1204	1	0.010	2.570	161
1931	03F 35W DT8 TW L1506	1	0.012	3.100	161
1932	03F 42W DT8 TW L1787	1	0.014	3.665	161
1959	MIRA PAR LED 4x12W IND L675	1	0.014	3.480	215
1960	Mira Par LED 4x12W DALI IND L675	1	0.014	3.480	215
1961	MIRA PAR LED DE 4x12W L675	1	0.014	3.415	215
1963	Mira Par LED DE 4x12W DALI L675	1	0.014	3.480	215
2326	3F Eldorado 29/840 DALI LGS 596	1	0.038	6.000	143
2327	3F Eldorado 39/840 DALI LGS 596	1	0.038	6.000	143
2328	3F Eldorado 29/840 DALI LGS 621	1	0.041	6.000	143
2329	3F Eldorado 39/840 DALI LGS 621	1	0.041	6.000	143
2330	3F Eldorado 29+30/840 DALI LGS+OP 596	1	0.038	6.500	145
2331	3F Eldorado 39+30/840 DALI LGS+OP 596	1	0.038	6.500	145
2332	3F Eldorado 29+30/840 DALI LGS+OP 621	1	0.041	6.500	145
2333	3F Eldorado 39+30/840 DALI LGS+OP 621	1	0.041	6.500	145
5066	3F Linda LED 1x6W L300	1	0.004	0.700	454
5067	3F Linda LED 1x6W LA L300	1	0.006	0.800	454
5068	3F Linda LED 2x6W L300	1	0.006	0.900	454
5069	3F Linda LED 1x6W EP LA L300	1	0.006	1.200	454
5070	3F Linda LED 2x6W EP L300	1	0.006	1.250	454
5071	3F Linda LED 1x6W ENP LA L300	1	0.006	1.100	454
6063	3F Filoluce WH 16+23W/830 Touch DALI	1	0.260	19.715	131
6064	3F Filoluce BK 16+23W/830 Touch DALI	1	0.260	19.715	131
6065	3F Filoluce AN 16+23W/830 Touch DALI	1	0.260	19.715	131
6066	3F Filoluce RD 16+23W/830 Touch DALI	1	0.260	19.715	131
6090	3F Emilio Table WH 1000/930 PCD	1	0.035	5.134	137
6098	3F Filoluce WH 16+23W/840 Touch DALI	1	0.260	19.715	131
6099	3F Filoluce BK 16+23W/840 Touch DALI	1	0.260	19.715	131
6100	3F Filoluce AN 16+23W/840 Touch DALI	1	0.260	19.715	131
6101	3F Filoluce RD 16+23W/840 Touch DALI	1	0.260	19.715	131
6128	3F C8 WH 30/840 DALI GSP L1480	1	0.015	4.500	165
6130	3F C8 WH DI 30+8/840 DALI GSP L1480	1	0.015	3.565	167
6136	3F C8 BK 30/840 DALI GSP L1480	1	0.015	4.500	165
6138	3F C8 BK DI 30+8/840 DALI GSP L1480	1	0.015	3.645	167
6140	3F C8 WH HO 44/840 DALI GSP L1480	1	0.015	4.500	165
6142	3F C8 WH DI HO 44+8/840 DALI GSP L1480	1	0.015	4.800	167
6148	3F C8 BK HO 44/840 DALI GSP L1480	1	0.015	4.500	165
6150	3F C8 BK DI HO 44+8/840 DALI GSP L1480	1	0.015	3.650	167
6157	3F Trittico WH 12+12+15/830 DALI H300	1	0.038	3.400	107

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
6158	3F Trittico BK 12+12+15/830 DALI H300	1	0.038	3.400	107
6160	3F Trittico WH 12+12+15/830 DALI H500	1	0.038	3.700	107
6161	3F Trittico BK 12+12+15/830 DALI H500	1	0.038	3.700	107
6163	3F Trittico WH 12+12+15/830 DALI H800	1	0.038	4.000	107
6164	3F Trittico BK 12+12+15/830 DALI H800	1	0.038	4.000	107
6200	3F HD50 WH 13/840 DALI FDP L1214	1	0.006	2.940	40
6201	3F HD50 WH 16/840 DALI FDP L1508	1	0.008	3.380	40
6202	3F HD50 WH 32/840 DALI FDP L2975	1	0.015	7.500	40
6204	3F HD50 WH 13/840 DALI FDO L1214	1	0.006	2.940	42
6205	3F HD50 WH 16/840 DALI FDO L1508	1	0.008	3.380	42
6206	3F HD50 WH 32/840 DALI FDO L2975	1	0.015	7.500	42
6208	3F HD50 WH 13/840 DALI GSP L1214	1	0.006	2.940	38
6209	3F HD50 WH 16/840 DALI GSP L1508	1	0.008	3.260	38
6210	3F HD50 WH 32/840 DALI GSP L2975	1	0.015	7.500	38
6215	3F HD50 WH 12/830 DALI OCW L1214	1	0.006	3.280	37
6216	3F HD50 WH 15/830 DALI OCW L1508	1	0.008	4.200	37
6217	3F HD50 WH 30/830 DALI OCW L2975	1	0.015	7.570	37
6219	3F HD100 WH 22/840 DALI FDP L1214	1	0.011	3.875	40
6220	3F HD100 WH 26/840 DALI FDP L1508	1	0.013	4.695	40
6221	3F HD100 WH 52/840 DALI FDP L2975	1	0.027	8.270	40
6223	3F HD100 WH 22/840 DALI FDO L1214	1	0.011	3.875	42
6224	3F HD100 WH 26/840 DALI FDO L1508	1	0.013	4.695	42
6225	3F HD100 WH 52/840 DALI FDO L2975	1	0.027	8.270	42
6227	3F HD100 WH 22/840 DALI GSP L1214	1	0.011	3.875	38
6228	3F HD100 WH 26/840 DALI GSP L1508	1	0.013	4.695	38
6229	3F HD100 WH 52/840 DALI GSP L2975	1	0.027	8.270	38
6236	3F HD50 WH 13/840 DALI 5P FD L1174	1	0.006	3.210	49
6237	3F HD50 WH 16/840 DALI 5P FD L1468	1	0.008	3.635	49
6241	3F HD50 WH 32/840 DALI 5P FD L2935	1	0.015	6.725	49
6245	3F HD50 WH 13/840 DALI 5P GSP L1174	1	0.006	3.210	48
6246	3F HD50 WH 16/840 DALI 5P GSP L1468	1	0.008	3.635	48
6250	3F HD50 WH 32/840 DALI 5P GSP L2935	1	0.015	6.725	48
6260	3F HD50 WH 12/830 DALI 5P OCW L1174	1	0.006	3.475	47
6261	3F HD50 WH 15/830 DALI 5P OCW L1468	1	0.008	4.400	47
6262	3F HD50 WH 30/830 DALI 5P OCW L2935	1	0.015	8.800	47
6266	3F HD100 WH 22/840 DALI 5P FD L1174	1	0.011	4.250	49
6267	3F HD100 WH 26/840 DALI 5P FD L1468	1	0.013	5.150	49
6271	3F HD100 WH 52/840 DALI 5P FD L2935	1	0.027	8.475	49
6275	3F HD100 WH 22/840 DALI 5P GSP L1174	1	0.011	4.550	48
6276	3F HD100 WH 26/840 DALI 5P GSP L1468	1	0.013	5.450	48
6280	3F HD100 WH 52/840 DALI 5P GSP L2935	1	0.027	9.075	48
6285	3F HD50 BK 13/840 DALI FDP L1214	1	0.006	2.940	40
6286	3F HD50 BK 16/840 DALI FDP L1508	1	0.008	3.380	40
6287	3F HD50 BK 32/840 DALI FDP L2975	1	0.015	7.500	40
6289	3F HD50 BK 13/840 DALI FDO L1214	1	0.006	2.940	42
6290	3F HD50 BK 16/840 DALI FDO L1508	1	0.008	3.380	42
6291	3F HD50 BK 32/840 DALI FDO L2975	1	0.015	7.500	42
6293	3F HD50 BK 13/840 DALI GSP L1214	1	0.006	2.940	38
6294	3F HD50 BK 16/840 DALI GSP L1508	1	0.008	3.260	38
6295	3F HD50 BK 32/840 DALI GSP L2975	1	0.015	7.500	38
6300	3F HD50 BK 12/830 DALI OCB L1214	1	0.006	3.280	37
6301	3F HD50 BK 15/830 DALI OCB L1508	1	0.008	4.200	37
6302	3F HD50 BK 30/830 DALI OCB L2975	1	0.015	7.570	37
6304	3F HD100 BK 22/840 DALI FDP L1214	1	0.011	3.875	40
6305	3F HD100 BK 26/840 DALI FDP L1508	1	0.013	4.695	40
6306	3F HD100 BK 52/840 DALI FDP L2975	1	0.027	8.270	40
6308	3F HD100 BK 22/840 DALI FDO L1214	1	0.011	3.875	42
6309	3F HD100 BK 26/840 DALI FDO L1508	1	0.013	4.695	42
6310	3F HD100 BK 52/840 DALI FDO L2975	1	0.027	8.270	42
6312	3F HD100 BK 22/840 DALI GSP L1214	1	0.011	3.875	38

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
6313	3F HD100 BK 26/840 DALI GSP L1508	1	0.013	4.695	38
6314	3F HD100 BK 52/840 DALI GSP L2975	1	0.027	8.270	38
6321	3F HD50 BK 13/840 DALI 5P FD L1174	1	0.006	3.210	49
6322	3F HD50 BK 16/840 DALI 5P FD L1468	1	0.008	3.635	49
6326	3F HD50 BK 32/840 DALI 5P FD L2935	1	0.015	6.725	49
6330	3F HD50 BK 13/840 DALI 5P GSP L1174	1	0.006	3.210	48
6331	3F HD50 BK 16/840 DALI 5P GSP L1468	1	0.008	3.635	48
6335	3F HD50 BK 32/840 DALI 5P GSP L2935	1	0.015	6.725	48
6345	3F HD50 BK 12/830 DALI 5P OCB L1174	1	0.006	3.475	47
6346	3F HD50 BK 15/830 DALI 5P OCB L1468	1	0.008	4.400	47
6347	3F HD50 BK 30/830 DALI 5P OCB L2935	1	0.015	8.800	47
6351	3F HD100 BK 22/840 DALI 5P FD L1174	1	0.011	4.250	49
6352	3F HD100 BK 26/840 DALI 5P FD L1468	1	0.013	5.150	49
6356	3F HD100 BK 52/840 DALI 5P FD L2935	1	0.027	8.475	49
6360	3F HD100 BK 22/840 DALI 5P GSP L1174	1	0.011	4.550	48
6361	3F HD100 BK 26/840 DALI 5P GSP L1468	1	0.013	5.450	48
6365	3F HD100 BK 52/840 DALI 5P GSP L2935	1	0.027	9.075	48
6370	3F HD50 AL 13/840 DALI FDP L1214	1	0.006	2.940	40
6371	3F HD50 AL 16/840 DALI FDP L1508	1	0.008	3.380	40
6372	3F HD50 AL 32/840 DALI FDP L2975	1	0.015	7.500	40
6374	3F HD50 AL 13/840 DALI FDO L1214	1	0.006	2.940	42
6375	3F HD50 AL 16/840 DALI FDO L1508	1	0.008	3.380	42
6376	3F HD50 AL 32/840 DALI FDO L2975	1	0.015	7.500	42
6378	3F HD50 AL 13/840 DALI GSP L1214	1	0.006	2.940	38
6379	3F HD50 AL 16/840 DALI GSP L1508	1	0.008	3.260	38
6380	3F HD50 AL 32/840 DALI GSP L2975	1	0.015	7.500	38
6385	3F HD50 AL 12/830 DALI OCB L1214	1	0.006	3.280	37
6386	3F HD50 AL 15/830 DALI OCB L1508	1	0.008	4.200	37
6387	3F HD50 AL 30/830 DALI OCB L2975	1	0.015	7.570	37
6389	3F HD100 AL 22/840 DALI FDP L1214	1	0.011	3.875	40
6390	3F HD100 AL 26/840 DALI FDP L1508	1	0.013	4.695	40
6391	3F HD100 AL 52/840 DALI FDP L2975	1	0.027	8.270	40
6393	3F HD100 AL 22/840 DALI FDO L1214	1	0.011	3.875	42
6394	3F HD100 AL 26/840 DALI FDO L1508	1	0.013	4.695	42
6395	3F HD100 AL 52/840 DALI FDO L2975	1	0.027	8.270	42
6397	3F HD100 AL 22/840 DALI GSP L1214	1	0.011	3.875	38
6398	3F HD100 AL 26/840 DALI GSP L1508	1	0.013	4.695	38
6399	3F HD100 AL 52/840 DALI GSP L2975	1	0.027	8.270	38
6406	3F HD50 AL 13/840 DALI 5P FD L1174	1	0.006	3.210	49
6407	3F HD50 AL 16/840 DALI 5P FD L1468	1	0.008	3.635	49
6411	3F HD50 AL 32/840 DALI 5P FD L2935	1	0.015	6.725	49
6415	3F HD50 AL 13/840 DALI 5P GSP L1174	1	0.006	3.210	48
6416	3F HD50 AL 16/840 DALI 5P GSP L1468	1	0.008	3.635	48
6420	3F HD50 AL 32/840 DALI 5P GSP L2935	1	0.015	6.725	48
6430	3F HD50 AL 12/830 DALI 5P OCB L1174	1	0.006	3.475	47
6431	3F HD50 AL 15/830 DALI 5P OCB L1468	1	0.008	4.400	47
6432	3F HD50 AL 30/830 DALI 5P OCB L2935	1	0.015	8.800	47
6436	3F HD100 AL 22/840 DALI 5P FD L1174	1	0.011	4.250	49
6437	3F HD100 AL 26/840 DALI 5P FD L1468	1	0.013	5.150	49
6441	3F HD100 AL 52/840 DALI 5P FD L2935	1	0.027	8.475	49
6445	3F HD100 AL 22/840 DALI 5P GSP L1174	1	0.011	4.550	48
6446	3F HD100 AL 26/840 DALI 5P GSP L1468	1	0.013	5.450	48
6450	3F HD100 AL 52/840 DALI 5P GSP L2935	1	0.027	9.075	48
6455	3F HD50DI WH 13+20/840 DALI FDP L1214	1	0.006	3.200	53
6456	3F HD50DI WH 16+26/840 DALI FDP L1508	1	0.008	3.800	53
6457	3F HD50DI WH 32+52/840 DALI FDP L2975	1	0.015	9.600	53
6459	3F HD50DI WH 13+20/840 DALI FDO L1214	1	0.006	3.200	54
6460	3F HD50DI WH 16+26/840 DALI FDO L1508	1	0.008	3.800	54
6461	3F HD50DI WH 32+52/840 DALI FDO L2975	1	0.015	9.600	54
6463	3F HD50DI WH 13+20/840 DALI GSP L1214	1	0.006	3.200	52

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
6464	3F HD50DI WH 16+26/840 DALI GSP L1508	1	0.008	3.600	52
6465	3F HD50DI WH 32+52/840 DALI GSP L2975	1	0.015	9.600	52
6470	3F HD50DI WH 12+20/830 DALI OCW L1214	1	0.006	3.855	51
6471	3F HD50DI WH 15+26/830 DALI OCW L1508	1	0.008	4.465	51
6472	3F HD50DI WH 30+52/830 DALI OCW L2975	1	0.015	8.615	51
6474	3F HD100DI WH 22+20/840 DALI FDP L1214	1	0.011	4.200	53
6475	3F HD100DI WH 26+26/840 DALI FDP L1508	1	0.013	4.890	53
6476	3F HD100DI WH 52+52/840 DALI FDP L2975	1	0.027	9.625	53
6478	3F HD100DI WH 22+20/840 DALI FDO L1214	1	0.011	4.200	54
6479	3F HD100DI WH 26+26/840 DALI FDO L1508	1	0.013	4.890	54
6480	3F HD100DI WH 52+52/840 DALI FDO L2975	1	0.027	9.625	54
6482	3F HD100DI WH 22+20/840 DALI GSP L1214	1	0.011	4.200	52
6483	3F HD100DI WH 26+26/840 DALI GSP L1508	1	0.013	4.890	52
6484	3F HD100DI WH 52+52/840 DALI GSP L2975	1	0.027	9.625	52
6491	3F HD50DI WH 13+20/840 DALI 5P FD L1174	1	0.006	3.500	59
6492	3F HD50DI WH 16+26/840 DALI 5P FD L1468	1	0.008	4.200	59
6496	3F HD50DI WH 32+52/840 DALI 5P FD L2935	1	0.015	10.200	59
6500	3F HD50DI WH 13+20/840 DALI 5P GSP L1174	1	0.006	3.700	58
6501	3F HD50DI WH 16+26/840 DALI 5P GSP L1468	1	0.008	4.500	58
6505	3F HD50DI WH 32+52/840 DALI 5P GSP L2935	1	0.015	10.600	58
6515	3F HD50DI WH 12+20/830 DALI 5P OCW L1174	1	0.006	3.860	57
6516	3F HD50DI WH 15+26/830 DALI 5P OCW L1468	1	0.008	4.895	57
6517	3F HD50DI WH 30+52/830 DALI 5P OCW L2935	1	0.015	9.300	57
6521	3F HD100DI WH 22+20/840 DALI 5P FD L1174	1	0.011	4.500	59
6522	3F HD100DI WH 26+26/840 DALI 5P FD L1468	1	0.013	5.200	59
6526	3F HD100DI WH 52+52/840 DALI 5P FD L2935	1	0.027	10.000	59
6530	3F HD100DI WH 22+20/840 DALI 5P GSP L1174	1	0.011	4.700	58
6531	3F HD100DI WH 26+26/840 DALI 5P GSP L1468	1	0.013	5.500	58
6535	3F HD100DI WH 52+52/840 DALI 5P GSP L2935	1	0.027	10.500	58
6540	3F HD50DI BK 13+20/840 DALI FDP L1214	1	0.006	3.200	53
6541	3F HD50DI BK 16+26/840 DALI FDP L1508	1	0.008	3.800	53
6542	3F HD50DI BK 32+52/840 DALI FDP L2975	1	0.015	9.600	53
6544	3F HD50DI BK 13+20/840 DALI FDO L1214	1	0.006	3.200	54
6545	3F HD50DI BK 16+26/840 DALI FDO L1508	1	0.008	3.800	54
6546	3F HD50DI BK 32+52/840 DALI FDO L2975	1	0.015	9.600	54
6548	3F HD50DI BK 13+20/840 DALI GSP L1214	1	0.006	3.200	52
6549	3F HD50DI BK 16+26/840 DALI GSP L1508	1	0.008	3.600	52
6550	3F HD50DI BK 32+52/840 DALI GSP L2975	1	0.015	9.600	52
6555	3F HD50DI BK 12+20/830 DALI OCB L1214	1	0.006	3.855	51
6556	3F HD50DI BK 15+26/830 DALI OCB L1508	1	0.008	4.465	51
6557	3F HD50DI BK 30+52/830 DALI OCB L2975	1	0.015	8.615	51
6559	3F HD100DI BK 22+20/840 DALI FDP L1214	1	0.011	4.200	53
6560	3F HD100DI BK 26+26/840 DALI FDP L1508	1	0.013	4.890	53
6561	3F HD100DI BK 52+52/840 DALI FDP L2975	1	0.027	9.625	53
6563	3F HD100DI BK 22+20/840 DALI FDO L1214	1	0.011	4.200	54
6564	3F HD100DI BK 26+26/840 DALI FDO L1508	1	0.013	4.890	54
6565	3F HD100DI BK 52+52/840 DALI FDO L2975	1	0.027	9.625	54
6567	3F HD100DI BK 22+20/840 DALI GSP L1214	1	0.011	4.200	52
6568	3F HD100DI BK 26+26/840 DALI GSP L1508	1	0.013	4.890	52
6569	3F HD100DI BK 52+52/840 DALI GSP L2975	1	0.027	9.625	52
6576	3F HD50DI BK 13+20/840 DALI 5P FD L1174	1	0.006	3.500	59
6577	3F HD50DI BK 16+26/840 DALI 5P FD L1468	1	0.008	4.200	59
6581	3F HD50DI BK 32+52/840 DALI 5P FD L2935	1	0.015	10.200	59
6585	3F HD50DI BK 13+20/840 DALI 5P GSP L1174	1	0.006	3.700	58
6586	3F HD50DI BK 16+26/840 DALI 5P GSP L1468	1	0.008	4.500	58
6590	3F HD50DI BK 32+52/840 DALI 5P GSP L2935	1	0.015	10.600	58
6600	3F HD50DI BK 12+20/830 DALI 5P OCB L1174	1	0.006	3.860	57
6601	3F HD50DI BK 15+26/830 DALI 5P OCB L1468	1	0.008	4.895	57
6602	3F HD50DI BK 30+52/830 DALI 5P OCB L2935	1	0.015	9.300	57
6606	3F HD100DI BK 22+20/840 DALI 5P FD L1174	1	0.011	4.500	59

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
6607	3F HD100DI BK 26+26/840 DALI 5P FD L1468	1	0.013	5.200	59
6611	3F HD100DI BK 52+52/840 DALI 5P FD L2935	1	0.027	10.000	59
6615	3F HD100DI BK 22+20/840 DALI 5P GSP L1174	1	0.011	4.700	58
6616	3F HD100DI BK 26+26/840 DALI 5P GSP L1468	1	0.013	5.500	58
6620	3F HD100DI BK 52+52/840 DALI 5P GSP L2935	1	0.027	10.500	58
6625	3F HD50DI AL 13+20/840 DALI FDP L1214	1	0.006	3.200	53
6626	3F HD50DI AL 16+26/840 DALI FDP L1508	1	0.008	3.800	53
6627	3F HD50DI AL 32+52/840 DALI FDP L2975	1	0.015	9.600	53
6629	3F HD50DI AL 13+20/840 DALI FDO L1214	1	0.006	3.200	54
6630	3F HD50DI AL 16+26/840 DALI FDO L1508	1	0.008	3.800	54
6631	3F HD50DI AL 32+52/840 DALI FDO L2975	1	0.015	9.600	54
6633	3F HD50DI AL 13+20/840 DALI GSP L1214	1	0.006	3.200	52
6634	3F HD50DI AL 16+26/840 DALI GSP L1508	1	0.008	3.600	52
6635	3F HD50DI AL 32+52/840 DALI GSP L2975	1	0.015	9.600	52
6640	3F HD50DI AL 12+20/830 DALI OCB L1214	1	0.006	3.855	51
6641	3F HD50DI AL 15+26/830 DALI OCB L1508	1	0.008	4.465	51
6642	3F HD50DI AL 30+52/830 DALI OCB L2975	1	0.015	8.615	51
6644	3F HD100DI AL 22+20/840 DALI FDP L1214	1	0.011	4.200	53
6645	3F HD100DI AL 26+26/840 DALI FDP L1508	1	0.013	4.890	53
6646	3F HD100DI AL 52+52/840 DALI FDP L2975	1	0.027	9.625	53
6648	3F HD100DI AL 22+20/840 DALI FDO L1214	1	0.011	4.200	54
6649	3F HD100DI AL 26+26/840 DALI FDO L1508	1	0.013	4.890	54
6650	3F HD100DI AL 52+52/840 DALI FDO L2975	1	0.027	9.625	54
6652	3F HD100DI AL 22+20/840 DALI GSP L1214	1	0.011	4.200	52
6653	3F HD100DI AL 26+26/840 DALI GSP L1508	1	0.013	4.890	52
6654	3F HD100DI AL 52+52/840 DALI GSP L2975	1	0.027	9.625	52
6661	3F HD50DI AL 13+20/840 DALI 5P FD L1174	1	0.006	3.500	59
6662	3F HD50DI AL 16+26/840 DALI 5P FD L1468	1	0.008	4.200	59
6666	3F HD50DI AL 32+52/840 DALI 5P FD L2935	1	0.015	10.200	59
6670	3F HD50DI AL 13+20/840 DALI 5P GSP L1174	1	0.006	3.700	58
6671	3F HD50DI AL 16+26/840 DALI 5P GSP L1468	1	0.008	4.500	58
6675	3F HD50DI AL 32+52/840 DALI 5P GSP L2935	1	0.015	10.600	58
6685	3F HD50DI AL 12+20/830 DALI 5P OCB L1174	1	0.006	3.860	57
6686	3F HD50DI AL 15+26/830 DALI 5P OCB L1468	1	0.008	4.895	57
6687	3F HD50DI AL 30+52/830 DALI 5P OCB L2935	1	0.015	9.300	57
6691	3F HD100DI AL 22+20/840 DALI 5P FD L1174	1	0.011	4.500	59
6692	3F HD100DI AL 26+26/840 DALI 5P FD L1468	1	0.013	5.200	59
6696	3F HD100DI AL 52+52/840 DALI 5P FD L2935	1	0.027	10.000	59
6700	3F HD100DI AL 22+20/840 DALI 5P GSP L1174	1	0.011	4.700	58
6701	3F HD100DI AL 26+26/840 DALI 5P GSP L1468	1	0.013	5.500	58
6705	3F HD100DI AL 52+52/840 DALI 5P GSP L2935	1	0.027	10.500	58
6710	3F HD50R WH 13/840 DALI FDP L1188	1	0.006	4.700	70
6711	3F HD50R WH 16/840 DALI FDP L1482	1	0.007	5.100	70
6712	3F HD50R WH 32/840 DALI FDP L2949	1	0.015	9.400	70
6714	3F HD50R WH 13/840 DALI FDO L1188	1	0.006	4.700	71
6715	3F HD50R WH 16/840 DALI FDO L1482	1	0.007	5.100	71
6716	3F HD50R WH 32/840 DALI FDO L2949	1	0.015	9.400	71
6718	3F HD50R WH 13/840 DALI GSP L1188	1	0.006	4.700	69
6719	3F HD50R WH 16/840 DALI GSP L1482	1	0.007	5.100	69
6720	3F HD50R WH 32/840 DALI GSP L2949	1	0.015	9.400	69
6725	3F HD50R WH 12/830 DALI OCW L1188	1	0.006	3.500	69
6726	3F HD50R WH 15/830 DALI OCW L1482	1	0.007	3.800	69
6727	3F HD50R WH 30/830 DALI OCW L2949	1	0.015	7.600	69
6729	3F HD100R WH 22/840 DALI FDP L1188	1	0.010	4.975	70
6730	3F HD100R WH 26/840 DALI FDP L1482	1	0.012	5.400	70
6731	3F HD100R WH 52/840 DALI FDP L2949	1	0.024	10.000	70
6733	3F HD100R WH 22/840 DALI FDO L1188	1	0.010	4.975	71
6734	3F HD100R WH 26/840 DALI FDO L1482	1	0.012	5.400	71
6735	3F HD100R WH 52/840 DALI FDO L2949	1	0.024	10.000	71
6737	3F HD100R WH 22/840 DALI GSP L1188	1	0.010	4.975	69

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
6738	3F HD100R WH 26/840 DALI GSP L1482	1	0.012	5.400	69
6739	3F HD100R WH 52/840 DALI GSP L2949	1	0.024	10.000	69
6746	3F HD50R WH 13/840 DALI 5P FD L1174	1	0.006	4.900	76
6747	3F HD50R WH 16/840 DALI 5P FD L1468	1	0.007	5.300	76
6751	3F HD50R WH 32/840 DALI 5P FD L2935	1	0.015	9.800	76
6755	3F HD50R WH 13/840 DALI 5P GSP L1174	1	0.006	4.900	75
6756	3F HD50R WH 16/840 DALI 5P GSP L1468	1	0.007	5.300	75
6760	3F HD50R WH 32/840 DALI 5P GSP L2935	1	0.015	9.800	75
6770	3F HD50R WH 12/830 DALI 5P OCW L1174	1	0.006	3.700	75
6771	3F HD50R WH 15/830 DALI 5P OCW L1468	1	0.007	4.335	75
6772	3F HD50R WH 30/830 DALI 5P OCW L2935	1	0.015	8.000	75
6776	3F HD100R WH 22/840 DALI 5P FD L1174	1	0.010	5.175	76
6777	3F HD100R WH 26/840 DALI 5P FD L1468	1	0.012	5.600	76
6781	3F HD100R WH 52/840 DALI 5P FD L2935	1	0.024	10.400	76
6785	3F HD100R WH 22/840 DALI 5P GSP L1174	1	0.010	5.575	75
6786	3F HD100R WH 26/840 DALI 5P GSP L1468	1	0.012	6.000	75
6790	3F HD100R WH 52/840 DALI 5P GSP L2935	1	0.024	10.900	75
6793	3F HD50 WH HO 22/840 DALI GSP L1214	1	0.006	2.940	39
6794	3F HD50 WH HO 26/840 DALI GSP L1508	1	0.008	3.260	39
6795	3F HD50 WH HO 52/840 DALI GSP L2975	1	0.015	7.500	39
6796	3F HD100 WH HO 36/840 DALI GSP L1214	1	0.011	3.875	39
6797	3F HD100 WH HO 44/840 DALI GSP L1508	1	0.013	4.695	39
6798	3F HD100 WH HO 88/840 DALI GSP L2975	1	0.027	8.270	39
6799	3F HD50 BK HO 22/840 DALI GSP L1214	1	0.006	2.940	39
6800	3F HD50 BK HO 26/840 DALI GSP L1508	1	0.008	3.260	39
6801	3F HD50 BK HO 52/840 DALI GSP L2975	1	0.015	7.500	39
6802	3F HD100 BK HO 36/840 DALI GSP L1214	1	0.011	3.875	39
6803	3F HD100 BK HO 44/840 DALI GSP L1508	1	0.013	4.695	39
6804	3F HD100 BK HO 88/840 DALI GSP L2975	1	0.027	8.270	39
6805	3F HD50 AL HO 22/840 DALI GSP L1214	1	0.006	2.940	39
6806	3F HD50 AL HO 26/840 DALI GSP L1508	1	0.008	3.260	39
6807	3F HD50 AL HO 52/840 DALI GSP L2975	1	0.015	7.500	39
6808	3F HD100 AL HO 36/840 DALI GSP L1214	1	0.011	3.875	39
6809	3F HD100 AL HO 44/840 DALI GSP L1508	1	0.013	4.695	39
6810	3F HD100 AL HO 88/840 DALI GSP L2975	1	0.027	8.270	39
6811	3F HD50 WH HO 22/840 DALI FDP L1214	1	0.006	2.940	41
6812	3F HD50 WH HO 26/840 DALI FDP L1508	1	0.008	3.380	41
6813	3F HD50 WH HO 52/840 DALI FDP L2975	1	0.015	7.500	41
6814	3F HD100 WH HO 36/840 DALI FDP L1214	1	0.011	3.875	41
6815	3F HD100 WH HO 44/840 DALI FDP L1508	1	0.013	4.695	41
6816	3F HD100 WH HO 88/840 DALI FDP L2975	1	0.027	8.270	41
6817	3F HD50 BK HO 22/840 DALI FDP L1214	1	0.006	2.940	41
6818	3F HD50 BK HO 26/840 DALI FDP L1508	1	0.008	3.380	41
6819	3F HD50 BK HO 52/840 DALI FDP L2975	1	0.015	7.500	41
6820	3F HD100 BK HO 36/840 DALI FDP L1214	1	0.011	3.875	41
6821	3F HD100 BK HO 44/840 DALI FDP L1508	1	0.013	4.695	41
6822	3F HD100 BK HO 88/840 DALI FDP L2975	1	0.027	8.270	41
6823	3F HD50 AL HO 22/840 DALI FDP L1214	1	0.006	2.940	41
6824	3F HD50 AL HO 26/840 DALI FDP L1508	1	0.008	3.380	41
6825	3F HD50 AL HO 52/840 DALI FDP L2975	1	0.015	7.500	41
6826	3F HD100 AL HO 36/840 DALI FDP L1214	1	0.011	3.875	41
6827	3F HD100 AL HO 44/840 DALI FDP L1508	1	0.013	4.695	41
6828	3F HD100 AL HO 88/840 DALI FDP L2975	1	0.027	8.270	41
6829	3F HD50 WH HO 22/840 DALI FDO L1214	1	0.006	2.940	43
6830	3F HD50 WH HO 26/840 DALI FDO L1508	1	0.008	3.380	43
6831	3F HD50 WH HO 52/840 DALI FDO L2975	1	0.015	7.500	43
6832	3F HD100 WH HO 36/840 DALI FDO L1214	1	0.011	3.875	43
6833	3F HD100 WH HO 44/840 DALI FDO L1508	1	0.013	4.695	43
6834	3F HD100 WH HO 88/840 DALI FDO L2975	1	0.027	8.270	43
6835	3F HD50 BK HO 22/840 DALI FDO L1214	1	0.006	2.940	43

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
6836	3F HD50 BK HO 26/840 DALI FDO L1508	1	0.008	3.380	43
6837	3F HD50 BK HO 52/840 DALI FDO L2975	1	0.015	7.500	43
6838	3F HD100 BK HO 36/840 DALI FDO L1214	1	0.011	3.875	43
6839	3F HD100 BK HO 44/840 DALI FDO L1508	1	0.013	4.695	43
6840	3F HD100 BK HO 88/840 DALI FDO L2975	1	0.027	8.270	43
6841	3F HD50 AL HO 22/840 DALI FDO L1214	1	0.006	2.940	43
6842	3F HD50 AL HO 26/840 DALI FDO L1508	1	0.008	3.380	43
6843	3F HD50 AL HO 52/840 DALI FDO L2975	1	0.015	7.500	43
6844	3F HD100 AL HO 36/840 DALI FDO L1214	1	0.011	3.875	43
6845	3F HD100 AL HO 44/840 DALI FDO L1508	1	0.013	4.695	43
6846	3F HD100 AL HO 88/840 DALI FDO L2975	1	0.027	8.270	43
6847	3F HD50R WH HO 22/840 DALI GSP L1188	1	0.006	4.700	70
6848	3F HD50R WH HO 26/840 DALI GSP L1482	1	0.007	5.100	70
6849	3F HD50R WH HO 52/840 DALI GSP L2949	1	0.015	9.400	70
6850	3F HD100R WH HO 36/840 DALI GSP L1188	1	0.010	4.975	70
6851	3F HD100R WH HO 44/840 DALI GSP L1482	1	0.012	5.400	70
6852	3F HD100R WH HO 88/840 DALI GSP L2949	1	0.024	10.000	70
6853	3F HD50R WH HO 22/840 DALI FDP L1188	1	0.006	4.700	71
6854	3F HD50R WH HO 26/840 DALI FDP L1482	1	0.007	5.100	71
6855	3F HD50R WH HO 52/840 DALI FDP L2949	1	0.015	9.400	71
6856	3F HD100R WH HO 36/840 DALI FDP L1188	1	0.010	4.975	71
6857	3F HD100R WH HO 44/840 DALI FDP L1482	1	0.012	5.400	71
6858	3F HD100R WH HO 88/840 DALI FDP L2949	1	0.024	10.000	71
6859	3F HD50R WH HO 22/840 DALI FDO L1188	1	0.006	4.700	72
6860	3F HD50R WH HO 26/840 DALI FDO L1482	1	0.007	5.100	72
6861	3F HD50R WH HO 52/840 DALI FDO L2949	1	0.015	9.400	72
6862	3F HD100R WH HO 36/840 DALI FDO L1188	1	0.010	4.975	72
6863	3F HD100R WH HO 44/840 DALI FDO L1482	1	0.012	5.400	72
6864	3F HD100R WH HO 88/840 DALI FDO L2949	1	0.024	10.000	72
6868	3F HD100 WH 22 DT8 TW FDP L1214	1	0.011	3.975	45
6869	3F HD100 WH 26 DT8 TW FDP L1508	1	0.013	4.795	45
6870	3F HD100 WH 52 DT8 TW FDP L2975	1	0.027	8.370	45
6871	3F HD100 BK 22 DT8 TW FDP L1214	1	0.011	3.975	45
6872	3F HD100 BK 26 DT8 TW FDP L1508	1	0.013	4.795	45
6873	3F HD100 BK 52 DT8 TW FDP L2975	1	0.027	8.370	45
6874	3F HD100 AL 22 DT8 TW FDP L1214	1	0.011	3.975	45
6875	3F HD100 AL 26 DT8 TW FDP L1508	1	0.013	4.795	45
6876	3F HD100 AL 52 DT8 TW FDP L2975	1	0.027	8.370	45
7001	3F Manta AN 50/730 WIDE	1	0.048	11.670	559
7002	3F Manta AN 75/730 WIDE	1	0.048	12.190	559
7003	3F Manta AN 100/730 WIDE	1	0.048	12.180	559
7004	3F Manta AN 135/730 WIDE	1	0.048	12.800	559
7009	3F Manta AN 50/730 MEDIUM	1	0.048	11.660	560
7010	3F Manta AN 75/730 MEDIUM	1	0.048	12.800	560
7011	3F Manta AN 100/730 MEDIUM	1	0.048	12.230	560
7012	3F Manta AN 135/730 MEDIUM	1	0.048	12.800	560
7020	3F Manta AN 185/730 MEDIUM	1	0.048	12.415	560
7022	3F Manta AN 50/830 WIDE	1	0.048	11.595	559
7023	3F Manta AN 75/830 WIDE	1	0.048	12.110	559
7024	3F Manta AN 100/830 WIDE	1	0.048	11.955	559
7025	3F Manta AN 135/830 WIDE	1	0.048	12.800	559
7026	3F Manta AN 50/730 II WIDE	1	0.048	12.800	559
7027	3F Manta AN 75/730 II WIDE	1	0.048	12.205	559
7028	3F Manta AN 100/730 II WIDE	1	0.048	12.800	559
7029	3F Manta AN 135/730 II WIDE	1	0.048	12.800	559
7030	3F Manta AN 50/830 II WIDE	1	0.048	11.670	559
7031	3F Manta AN 75/830 II WIDE	1	0.048	12.800	559
7032	3F Manta AN 100/830 II WIDE	1	0.048	12.800	559
7033	3F Manta AN 135/830 II WIDE	1	0.048	12.800	559
7035	3F Manta AN 50/830 MEDIUM	1	0.048	12.800	560

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
7036	3F Manta AN 75/830 MEDIUM	1	0.048	12.800	560
7037	3F Manta AN 100/830 MEDIUM	1	0.048	12.800	560
7038	3F Manta AN 135/830 MEDIUM	1	0.048	12.800	560
7039	3F Manta AN 185/830 MEDIUM	1	0.048	12.800	560
7040	3F Manta AN 50/730 II MEDIUM	1	0.048	12.800	560
7041	3F Manta AN 75/730 II MEDIUM	1	0.048	12.800	560
7042	3F Manta AN 100/730 II MEDIUM	1	0.048	12.800	560
7043	3F Manta AN 135/730 II MEDIUM	1	0.048	12.800	560
7044	3F Manta AN 185/730 II MEDIUM	1	0.048	12.800	560
7045	3F Manta AN 50/830 II MEDIUM	1	0.048	12.800	560
7046	3F Manta AN 75/830 II MEDIUM	1	0.048	12.800	560
7047	3F Manta AN 100/830 II MEDIUM	1	0.048	12.800	560
7048	3F Manta AN 135/830 II MEDIUM	1	0.048	12.800	560
7049	3F Manta AN 185/830 II MEDIUM	1	0.048	12.390	560
7051	3F Manta AN 50/730 FRONT	1	0.048	12.300	561
7052	3F Manta AN 75/730 FRONT	1	0.048	12.800	561
7053	3F Manta AN 100/730 FRONT	1	0.048	12.800	561
7054	3F Manta AN 135/730 FRONT	1	0.048	12.800	561
7055	3F Manta AN 50/830 FRONT	1	0.048	12.800	561
7056	3F Manta AN 75/830 FRONT	1	0.048	12.070	561
7057	3F Manta AN 100/830 FRONT	1	0.048	12.800	561
7058	3F Manta AN 135/830 FRONT	1	0.048	12.800	561
7059	3F Manta AN 50/730 II FRONT	1	0.048	12.800	561
7060	3F Manta AN 75/730 II FRONT	1	0.048	12.800	561
7061	3F Manta AN 100/730 II FRONT	1	0.048	12.800	561
7062	3F Manta AN 135/730 II FRONT	1	0.048	12.800	561
7063	3F Manta AN 50/830 II FRONT	1	0.048	12.800	561
7064	3F Manta AN 75/830 II FRONT	1	0.048	12.800	561
7065	3F Manta AN 100/830 II FRONT	1	0.048	12.800	561
7066	3F Manta AN 135/830 II FRONT	1	0.048	12.800	561
8357	3F 66 1 LED 6 II	1	0.017	2.350	565
8358	3F 66 2 LED 12 II	1	0.017	2.425	565
10048	P 250 28W LED LGS 596x596	1	0.023	5.915	213
10049	P 250 28W LED DALI LGS 596x596	1	0.023	5.200	213
10051	P 250 28W LED OP 596x596	1	0.023	5.535	213
10053	P 250 28W LED DALI OP 596x596	1	0.023	5.535	213
10591	3F Zeta DR UGR 2x18 LED L1194	1	0.008	3.500	190
10592	3F Zeta DR UGR 1x24 LED L1194	1	0.008	3.435	190
10593	3F Zeta DR UGR 2x18 LED DALI L1194	1	0.008	3.565	190
10594	3F Zeta DR UGR 1x24 LED DALI L1194	1	0.008	3.500	190
10598	3F Zeta DR UGR 2x9 LED L605	1	0.004	3.000	190
10599	3F Zeta DR UGR 1x12 LED L605	1	0.004	1.830	190
10600	3F Zeta DR UGR 2x9 LED DALI L605	1	0.004	3.000	190
10601	3F Zeta DR UGR 1x12 LED DALI L605	1	0.004	2.800	190
10605	3F Zeta L AS 40 LED L1489	1	0.010	3.595	185
10606	3F Zeta L AS 40 LED DALI L1489	1	0.010	4.000	185
10607	3F Zeta L AS 40 LED EP L1489	1	0.010	4.800	185
10731	3F Travetta LED 1x18W OP L1290	1	0.018	4.485	170
10732	3F Travetta LED 1x22W OP L1590	1	0.022	5.555	170
10734	3F Travetta LED 2x18W OP L1290	1	0.018	4.685	170
10735	3F Travetta LED 2x22W OP L1590	1	0.022	5.660	170
10747	3F Travetta LED DI 2x15W 2MG L1590	1	0.022	5.480	173
10748	3F Travetta LED DI 2x22W 2MG L1590	1	0.022	5.410	173
10758	3F Travetta LED DI 2x15W/940 2MG L1590	1	0.022	5.200	173
10759	3F Travetta LED DI 2x22W/940 2MG L1590	1	0.022	5.410	173
10763	3F TRAV. LED 2X22W DALI DT8 TW 2MG L1590	1	0.022	6.500	177
10775	3F Travetta LED 1x40W OP L2200	1	0.028	7.000	170
10777	3F Travetta LED 2x40W OP L2200	1	0.028	7.500	170
10839	3F Zeta L UGR 40/940 LED L1489	1	0.010	3.665	184
10840	3F Zeta L UGR 30/940 LED L1194	1	0.008	3.040	184

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
10841	3F Zeta L UGR 40/940 LED DALI L1489	1	0.010	4.000	184
10842	3F Zeta L UGR 30/940 LED DALI L1194	1	0.008	3.500	184
10843	3F Zeta L UGR 40 LED EP L1489	1	0.010	4.800	184
10844	3F Zeta L UGR 30 LED EP L1194	1	0.008	4.300	184
10845	3F Zeta L UGR 40/940 LED EP L1489	1	0.010	4.800	184
10846	3F Zeta L UGR 30/940 LED EP L1194	1	0.008	4.300	184
10848	P 202x24W LED VS IP54 196x1231	1	0.022	6.200	207
10851	P 203x10W LED VS IP54 596x596	1	0.032	7.450	207
10852	P 204x10W LED VS IP54 596x596	1	0.032	7.800	207
10856	P 202x24W LED SP IP54 196x1231	1	0.022	5.060	207
10859	P 203x10W LED SP IP54 596x596	1	0.032	5.865	207
10860	P 204x10W LED SP IP54 596x596	1	0.032	6.115	207
10863	3F Zeta L UGR 40 LED L1489	1	0.010	4.000	184
10864	3F Zeta L UGR 30 LED L1194	1	0.008	3.005	184
10866	3F Zeta L UGR 40 LED DALI L1489	1	0.010	4.000	184
10867	3F Zeta L UGR 30 LED DALI L1194	1	0.008	3.145	184
10870	3F Zeta D 1x22 LED L1489	1	0.010	3.600	187
10871	3F Zeta D 1x18 LED L1194	1	0.008	3.010	187
10872	3F Zeta D 1x9 LED L605	1	0.004	1.650	187
10873	3F Zeta D 2x22 LED L1489	1	0.010	3.725	187
10874	3F Zeta D 2x18 LED L1194	1	0.008	3.020	187
10875	3F Zeta D 2x9 LED L605	1	0.004	1.635	187
10877	3F Zeta DR 1x22 LED L1489	1	0.010	3.615	189
10878	3F Zeta DR 1x18 LED L1194	1	0.008	3.055	189
10879	3F Zeta DR 1x9 LED L605	1	0.004	2.800	189
10880	3F Zeta DR 2x22 LED L1489	1	0.010	3.710	189
10881	3F Zeta DR 2x18 LED L1194	1	0.008	3.070	189
10882	3F Zeta DR 2x9 LED L605	1	0.004	3.000	189
10886	3F Zeta DR AS 1x30 LED L1489	1	0.010	4.255	189
10887	3F Zeta DR AS 2x22 LED L1489	1	0.010	4.280	189
10891	3F Zeta L 50 LED L1783	1	0.012	5.400	183
10892	3F Zeta L 40 LED L1489	1	0.010	3.590	183
10893	3F Zeta L 30 LED L1194	1	0.008	3.040	183
10894	3F Zeta L 15 LED L605	1	0.004	4.110	183
10898	3F Mirella BK 40 SP L1480	1	0.027	6.245	85
10899	3F Mirella BK 60 SP L2200	1	0.039	8.700	85
10900	3F Mirella BK 40 DALI SP L1480	1	0.027	6.270	85
10901	3F Mirella BK 60 DALI SP L2200	1	0.039	8.980	85
10902	3F Mirella BK DI 40+8 SP L1480	1	0.027	6.400	89
10903	3F Mirella BK DI 60+14 SP L2200	1	0.039	9.100	89
10904	3F Mirella BK DI 40+8 DALI SP L1480	1	0.027	6.500	89
10905	3F Mirella BK DI 60+14 DALI SP L2200	1	0.039	9.550	89
10909	3F Mirella BK 40 OP L1480	1	0.027	6.100	86
10910	3F Mirella BK 60 OP L2200	1	0.039	8.700	86
10911	3F Mirella BK 40 DALI OP L1480	1	0.027	6.200	86
10912	3F Mirella BK 60 DALI OP L2200	1	0.039	8.800	86
10913	3F Mirella BK DI 40+8 OP L1480	1	0.027	6.040	90
10914	3F Mirella BK DI 60+14 OP L2200	1	0.039	9.100	90
10915	3F Mirella BK DI 40+8 DALI OP L1480	1	0.027	6.500	90
10916	3F Mirella BK DI 60+14 DALI OP L2200	1	0.039	9.200	90
10920	3F Mirella WH 40 SP L1480	1	0.027	6.100	85
10921	3F Mirella WH 60 SP L2200	1	0.039	8.700	85
10922	3F Mirella WH 40 DALI SP L1480	1	0.027	6.200	85
10923	3F Mirella WH 60 DALI SP L2200	1	0.039	8.800	85
10924	3F Mirella WH DI 40+8 SP L1480	1	0.027	6.400	89
10925	3F Mirella WH DI 60+14 SP L2200	1	0.039	9.100	89
10926	3F Mirella WH DI 40+8 DALI SP L1480	1	0.027	6.630	89
10927	3F Mirella WH DI 60+14 DALI SP L2200	1	0.039	9.200	89
10931	3F Mirella WH 40 OP L1480	1	0.027	6.100	86
10932	3F Mirella WH 60 OP L2200	1	0.039	8.700	86

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
10933	3F Mirella WH 40 DALI OP L1480	1	0.027	6.200	86
10934	3F Mirella WH 60 DALI OP L2200	1	0.039	8.800	86
10935	3F Mirella WH DI 40+8 OP L1480	1	0.027	6.400	90
10936	3F Mirella WH DI 60+14 OP L2200	1	0.039	9.100	90
10937	3F Mirella WH DI 40+8 DALI OP L1480	1	0.027	6.500	90
10938	3F Mirella WH DI 60+14 DALI OP L2200	1	0.039	9.200	90
10942	3F Mirella AL 40 SP L1480	1	0.027	6.100	85
10943	3F Mirella AL 60 SP L2200	1	0.039	8.700	85
10944	3F Mirella AL 40 DALI SP L1480	1	0.027	6.200	85
10945	3F Mirella AL 60 DALI SP L2200	1	0.039	8.800	85
10946	3F Mirella AL DI 40+8 SP L1480	1	0.027	6.400	89
10947	3F Mirella AL DI 60+14 SP L2200	1	0.039	9.100	89
10948	3F Mirella AL DI 40+8 DALI SP L1480	1	0.027	6.500	89
10949	3F Mirella AL DI 60+14 DALI SP L2200	1	0.039	9.200	89
10953	3F Mirella AL 40 OP L1480	1	0.027	6.100	86
10954	3F Mirella AL 60 OP L2200	1	0.039	8.700	86
10955	3F Mirella AL 40 DALI OP L1480	1	0.027	6.200	86
10956	3F Mirella AL 60 DALI OP L2200	1	0.039	8.800	86
10957	3F Mirella AL DI 40+8 OP L1480	1	0.027	6.400	90
10958	3F Mirella AL DI 60+14 OP L2200	1	0.039	9.100	90
10959	3F Mirella AL DI 40+8 DALI OP L1480	1	0.027	6.500	90
10960	3F Mirella AL DI 60+14 DALI OP L2200	1	0.039	9.200	90
10961	3F Zeta D 1x22 LED DALI L1489	1	0.010	4.000	187
10962	3F Zeta D 1x18 LED DALI L1194	1	0.008	3.500	187
10964	3F Zeta D 2x22 LED DALI L1489	1	0.010	3.725	187
10965	3F Zeta D 2x18 LED DALI L1194	1	0.008	3.700	187
10967	3F Zeta DR 1x22 LED DALI L1489	1	0.010	4.000	189
10968	3F Zeta DR 1x18 LED DALI L1194	1	0.008	3.500	189
10970	3F Zeta DR 2x22 LED DALI L1489	1	0.010	3.760	189
10971	3F Zeta DR 2x18 LED DALI L1194	1	0.008	3.700	189
10973	3F Zeta DR AS 1x30 LED DALI L1489	1	0.010	4.500	189
10974	3F Zeta DR AS 2x22 LED DALI L1489	1	0.010	4.325	189
10975	3F Zeta L 50 LED DALI L1783	1	0.012	5.400	183
10976	3F Zeta L 40 LED DALI L1489	1	0.010	3.695	183
10977	3F Zeta L 30 LED DALI L1194	1	0.008	3.025	183
10980	3F Zeta D 1x22 LED EP L1489	1	0.010	4.800	187
10982	3F Zeta D 2x22 LED EP L1489	1	0.010	5.000	187
10984	3F Zeta DR 1x22 LED EP L1489	1	0.010	4.800	189
10986	3F Zeta DR 2x22 LED EP L1489	1	0.010	5.000	189
10987	3F Zeta L 50 LED EP L1783	1	0.012	6.000	183
10988	3F Zeta L 40 LED EP L1489	1	0.010	4.800	183
10997	3F Zeta DR UGR 2x22 LED L1783	1	0.012	4.800	190
10998	3F Zeta DR UGR 1x30 LED L1783	1	0.012	5.400	190
10999	3F Zeta DR UGR 2x22 LED DALI L1783	1	0.012	4.935	190
11000	3F Zeta DR UGR 1x30 LED DALI L1783	1	0.012	4.840	190
11001	3F Zeta DR UGR 2x22 LED EP L1783	1	0.012	6.100	190
11002	3F Zeta DR UGR 1x30 LED EP L1783	1	0.012	6.000	190
11003	3F Zeta DR UGR 2x22/940 LED L1783	1	0.012	5.500	190
11004	3F Zeta DR UGR 2x22/940 LED DALI L1783	1	0.012	5.500	190
11026	3F Zeta L UGR 50 LED L1783	1	0.012	5.400	184
11027	3F Zeta L UGR 50/940 LED L1783	1	0.012	5.400	184
11028	3F Zeta L UGR 50 LED DALI L1783	1	0.012	5.400	184
11029	3F Zeta L UGR 50/940 LED DALI L1783	1	0.012	5.400	184
11030	3F Zeta L UGR 50 LED EP L1783	1	0.012	6.000	184
11031	3F Zeta L UGR 50/940 LED EP L1783	1	0.012	6.000	184
11481	3F Travetta LED 1x22W DALI 2MG L1590	1	0.022	5.510	169
11484	3F Travetta LED 2x22W DALI 2MG L1590	1	0.022	5.670	169
11494	3F Travetta LED 1x18W DALI OP L1290	1	0.018	3.800	170
11495	3F Travetta LED 1x22W DALI OP L1590	1	0.022	4.800	170
11497	3F Travetta LED 2x18W DALI OP L1290	1	0.018	4.000	170

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
11498	3F Travetta LED 2x22W DALI OP L1590	1	0.022	5.000	170
11503	3F Travetta LED DI 2x15W DALI 2MG L1590	1	0.022	5.495	173
11504	3F Travetta LED DI 2x22W DALI 2MG L1590	1	0.022	5.465	173
11511	3F Travetta LED 1x40W DALI OP L2200	1	0.028	7.000	170
11513	3F Travetta LED 2x40W DALI OP L2200	1	0.028	7.500	170
11515	3F Travetta LED 1x30W/940 DALI 2MG L1590	1	0.022	5.510	169
11516	3F Travetta LED 2x22W/940 DALI 2MG L1590	1	0.022	5.670	169
11522	3F Trav. LED DI 2x15W DALI LS 2MG L1590	1	0.022	5.300	175
11523	3F Trav. LED DI 2x22W DALI LS 2MG L1590	1	0.022	5.300	175
11528	3F Travetta LED 1x24W LGS L1290	1	0.018	4.610	169
11530	3F Travetta LED 1x30W LGS L1590	1	0.022	5.570	169
11531	3F Travetta LED 2x18W LGS L1290	1	0.018	4.670	169
11533	3F Travetta LED 2x22W LGS L1590	1	0.022	5.675	169
11537	3F Travetta LED 1x24W DALI LGS L1290	1	0.018	4.585	169
11539	3F Travetta LED 1x30W DALI LGS L1590	1	0.022	5.560	169
11540	3F Travetta LED 2x18W DALI LGS L1290	1	0.018	4.710	169
11542	3F Travetta LED 2x22W DALI LGS L1590	1	0.022	5.740	169
11566	3F Travetta LED 1x24W/940 LGS L1290	1	0.018	3.800	169
11567	3F Travetta LED 1x30W/940 LGS L1590	1	0.022	5.570	169
11568	3F Travetta LED 2x18W/940 LGS L1290	1	0.018	4.000	169
11569	3F Travetta LED 2x22W/940 LGS L1590	1	0.022	5.675	169
11570	3F Travetta LED 1x24W/940 DALI LGS L1290	1	0.018	3.800	169
11571	3F Travetta LED 1x30W/940 DALI LGS L1590	1	0.022	4.800	169
11572	3F Travetta LED 2x18W/940 DALI LGS L1290	1	0.018	4.000	169
11573	3F Travetta LED 2x22W/940 DALI LGS L1590	1	0.022	5.740	169
11596	3F Trav. LED DI 2x15W/940 DALI 2MG L1590	1	0.022	5.495	173
11597	3F Trav. LED DI 2x22W/940 DALI 2MG L1590	1	0.022	5.465	173
11599	3F Travetta LED DI 2x22W LGS L1590	1	0.022	6.000	174
11600	3F Travetta LED DI 2x30W LGS L1590	1	0.022	6.000	174
11602	3F Travetta LED DI 2x22W/940 LGS L1590	1	0.022	6.000	174
11603	3F Travetta LED DI 2x30W/940 LGS L1590	1	0.022	6.000	174
11629	3F Travetta LED DI 2x22W DALI LGS L1590	1	0.022	6.000	174
11630	3F Travetta LED DI 2x30W DALI LGS L1590	1	0.022	6.000	174
11632	3F Trav. LED DI 2x22W/940 DALI LGS L1590	1	0.022	6.000	174
11633	3F Trav. LED DI 2x30W/940 DALI LGS L1590	1	0.022	6.000	174
11656	3F Travetta LED DI 2x18W LGS L1290	1	0.018	4.400	174
11657	3F Travetta LED DI 2x24W LGS L1290	1	0.018	4.400	174
11658	3F Travetta LED DI 2x18W/940 LGS L1290	1	0.018	4.400	174
11659	3F Travetta LED DI 2x24W/940 LGS L1290	1	0.018	4.400	174
11660	3F Travetta LED DI 2x18W DALI LGS L1290	1	0.018	4.400	174
11661	3F Travetta LED DI 2x24W DALI LGS L1290	1	0.018	4.400	174
11662	3F Trav. LED DI 2x18W/940 DALI LGS L1290	1	0.018	4.400	174
11663	3F Trav. LED DI 2x24W/940 DALI LGS L1290	1	0.018	4.400	174
12126	3F Diagon P 25W/830 SOFT UGR 596x596	1	0.016	6.875	195
12127	3F Diagon P 25W/830 DALI SOFT UGR 596x596	1	0.016	6.600	195
12128	3F Diagon P 25W/830 EP SOFT UGR 596x596	1	0.016	7.200	195
12130	3F Diagon P 25W/840 SOFT UGR 596x596	1	0.016	6.970	195
12131	3F Diagon P 25W/840 DALI SOFT UGR 596x596	1	0.016	6.950	195
12132	3F Diagon P 25W/840 EP SOFT UGR 596x596	1	0.016	7.200	195
12134	3F Diagon P 39W/930 SOFT UGR 596x596	1	0.016	6.900	195
12135	3F Diagon P 39W/930 DALI SOFT UGR 596x596	1	0.016	6.600	195
12136	3F Diagon P 39W/930 EP SOFT UGR 596x596	1	0.016	7.795	195
12138	3F Diagon P 39W/940 SOFT UGR 596x596	1	0.016	6.865	195
12139	3F Diagon P 39W/940 DALI SOFT UGR 596x596	1	0.016	6.945	195
12140	3F Diagon P 39W/940 EP SOFT UGR 596x596	1	0.016	7.200	195
12142	3F Diagon P 25W DT8 TW SOFT UGR 596x596	1	0.016	6.400	197
12675	P 201x30W LED 2US 156x1531	1	0.022	5.165	205
12680	P 202x24W LED 2US 196x1231	1	0.022	4.870	205
12682	P 202x30W LED 2US 196x1531	1	0.028	6.055	205
12687	P 202x24W LED 2US 270x1231	1	0.030	5.780	205

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
12689	P 202x30W LED 2US 270x1531	1	0.040	6.700	205
12692	P 203x10W LED 2US 596x596	1	0.032	5.530	205
12815	P 251x30W LED SP 156x1531	1	0.015	4.685	209
12820	P 252x24W LED SP 196x1231	1	0.015	4.745	209
12822	P 252x30W LED SP 196x1531	1	0.019	5.545	209
12824	P 253x10W LED SP 596x596	1	0.023	5.135	209
12826	P 254x10W LED SP 596x596	1	0.023	5.390	209
12835	P 251x30W LED OP 156x1531	1	0.015	5.035	209
12840	P 252x24W LED OP 196x1231	1	0.015	4.400	209
12842	P 252x30W LED OP 196x1531	1	0.019	5.705	209
12844	P 253x10W LED OP 596x596	1	0.023	5.440	209
12846	P 254x10W LED OP 596x596	1	0.023	5.595	209
12855	P 251x30W LED LGS 156x1531	1	0.015	5.025	210
12860	P 252x24W LED LGS 196x1231	1	0.015	4.400	210
12862	P 252x30W LED LGS 196x1531	1	0.019	5.600	210
12864	P 253x10W LED LGS 596x596	1	0.023	5.500	210
12866	P 254x10W LED LGS 596x596	1	0.023	5.695	210
12870	3F Mirella SF BK 40 SP L1480	1	0.027	6.100	93
12871	3F Mirella SF BK 60 SP L2200	1	0.039	8.700	93
12872	3F Mirella SF BK 40 DALI SP L1480	1	0.027	6.200	93
12873	3F Mirella SF BK 60 DALI SP L2200	1	0.039	8.800	93
12874	3F Mirella SF BK DI 40+8 SP L1480	1	0.027	6.400	95
12875	3F Mirella SF BK DI 60+14 SP L2200	1	0.039	9.100	95
12876	3F Mirella SF BK DI 40+8 DALI SP L1480	1	0.027	6.500	95
12877	3F Mirella SF BK DI 60+14 DALI SP L2200	1	0.039	9.200	95
12892	3F Mirella SF WH 40 SP L1480	1	0.027	6.100	93
12893	3F Mirella SF WH 60 SP L2200	1	0.039	8.700	93
12894	3F Mirella SF WH 40 DALI SP L1480	1	0.027	6.200	93
12895	3F Mirella SF WH 60 DALI SP L2200	1	0.039	8.800	93
12896	3F Mirella SF WH DI 40+8 SP L1480	1	0.027	6.400	95
12897	3F Mirella SF WH DI 60+14 SP L2200	1	0.039	9.100	95
12898	3F Mirella SF WH DI 40+8 DALI SP L1480	1	0.027	6.500	95
12899	3F Mirella SF WH DI 60+14 DALI SP L2200	1	0.039	9.200	95
12914	3F Mirella SF AL 40 SP L1480	1	0.027	6.100	93
12915	3F Mirella SF AL 60 SP L2200	1	0.039	8.700	93
12916	3F Mirella SF AL 40 DALI SP L1480	1	0.027	6.200	93
12917	3F Mirella SF AL 60 DALI SP L2200	1	0.039	8.800	93
12918	3F Mirella SF AL DI 40+8 SP L1480	1	0.027	6.400	95
12919	3F Mirella SF AL DI 60+14 SP L2200	1	0.039	9.100	95
12920	3F Mirella SF AL DI 40+8 DALI SP L1480	1	0.027	6.500	95
12921	3F Mirella SF AL DI 60+14 DALI SP L2200	1	0.039	9.200	95
12960	3F Mirella Floor SF BK 23+23	1	0.012	15.310	99
12961	3F Mirella Floor SF WH 23+23	1	0.012	15.310	99
12964	3F Mirella Floor SF BK 23+23 Touch DALI	1	0.012	15.310	99
12965	3F Mirella Floor SF WH 23+23 Touch DALI	1	0.012	15.310	99
21244	L 323x10W LED SP 596x596	1	0.031	4.840	259
21245	L 324x10W LED SP 596x596	1	0.031	4.865	259
21256	L 323x10W LED DALI SP 596x596	1	0.031	5.015	259
21257	L 324x10W LED DALI SP 596x596	1	0.031	4.965	259
21262	L 323x10W LED EP SP 596x596	1	0.031	5.415	259
21263	L 324x10W LED EP SP 596x596	1	0.031	5.020	259
21287	L 322x18W LED SP 296x1196	1	0.039	5.400	259
21290	L 322x18W LED DALI SP 296x1196	1	0.039	5.510	259
21293	L 322x18W LED EP SP 296x1196	1	0.039	5.835	259
21580	L 323x10W LED LGS 596x596	1	0.031	5.190	260
21581	L 324x10W LED LGS 596x596	1	0.031	5.215	260
21586	L 323x10W LED DALI LGS 596x596	1	0.031	5.000	260
21587	L 324x10W LED DALI LGS 596x596	1	0.031	5.230	260
21589	L 323x10W LED EP LGS 596x596	1	0.031	5.900	260
21590	L 324x10W LED EP LGS 596x596	1	0.031	5.795	260

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
21600	L 322x18W LED LGS 296x1196	1	0.039	5.400	260
21603	L 322x18W LED DALI LGS 296x1196	1	0.039	5.770	260
21606	L 322x18W LED EP LGS 296x1196	1	0.039	5.900	260
21617	L 323x10W LED SP 599x599	1	0.029	4.840	259
21618	L 323x10W/940 LED SP 599x599	1	0.029	4.840	259
21619	L 323x10W LED DALI SP 599x599	1	0.029	4.840	259
21620	L 323x10W/940 LED DALI SP 599x599	1	0.029	4.840	259
21621	L 323x10W LED EP SP 599x599	1	0.029	5.415	259
21622	L 323x10W/940 LED EP SP 599x599	1	0.029	5.415	259
21623	L 324x10W LED LGS 599x599	1	0.029	4.840	260
21624	L 324x10W/940 LED LGS 599x599	1	0.029	4.840	260
21625	L 324x10W LED DALI LGS 599x599	1	0.029	4.840	260
21626	L 324x10W/940 LED DALI LGS 599x599	1	0.029	4.840	260
21627	L 324x10W LED EP LGS 599x599	1	0.029	5.415	260
21628	L 324x10W/940 LED EP LGS 599x599	1	0.029	5.415	260
21720	3F Emilio R LED 2000/840 SPOT	1	0.007	1.600	339
21721	3F Emilio R LED 2000/930 SPOT	1	0.007	1.375	339
21728	3F Emilio R LED 2000/840 ELL	1	0.007	1.385	339
21729	3F Emilio R LED 2000/930 ELL	1	0.007	1.400	339
21736	3F Emilio R LED 2000/840 IPER	1	0.007	1.600	339
21737	3F Emilio R LED 2000/930 IPER	1	0.007	1.600	339
21744	3F Emilio R LED 3000/840 IPER	1	0.007	1.600	339
21856	L 650 28W/840 DALI LGS 596x596	1	0.037	7.500	301
21857	L 650 42W/840 DALI LGS 596x596	1	0.037	7.500	301
21858	L 650 63W/840 DALI LGS 596x596	1	0.037	7.500	301
21859	L 650 28W/840 DALI LGS 599x599	1	0.041	7.600	301
21860	L 650 42W/840 DALI LGS 599x599	1	0.041	7.600	301
21861	L 650 63W/840 DALI LGS 599x599	1	0.041	7.600	301
21862	L 650 28W/840 DALI EP LGS 596x596	1	0.037	8.100	301
21863	L 650 42W/840 DALI EP LGS 596x596	1	0.037	8.100	301
21864	L 650 63W/840 DALI EP LGS 596x596	1	0.037	8.100	301
21865	L 650 28W/840 DALI EP LGS 599x599	1	0.041	8.200	301
21866	L 650 42W/840 DALI EP LGS 599x599	1	0.041	8.200	301
21867	L 650 63W/840 DALI EP LGS 599x599	1	0.041	8.200	301
21868	L 650 35W/940 DALI LGS 596x596	1	0.037	7.500	301
21869	L 650 52W/940 DALI LGS 596x596	1	0.037	7.500	301
21870	L 650 75W/940 DALI LGS 596x596	1	0.037	7.500	301
21871	L 650 35W/940 DALI LGS 599x599	1	0.041	7.700	301
21872	L 650 52W/940 DALI LGS 599x599	1	0.041	7.700	301
21873	L 650 75W/940 DALI LGS 599x599	1	0.041	7.700	301
21874	L 650 35W/940 DALI EP LGS 596x596	1	0.037	8.100	301
21875	L 650 52W/940 DALI EP LGS 596x596	1	0.037	8.100	301
21876	L 650 75W/940 DALI EP LGS 596x596	1	0.037	8.100	301
21877	L 650 35W/940 DALI EP LGS 599x599	1	0.041	8.200	301
21878	L 650 52W/940 DALI EP LGS 599x599	1	0.041	8.200	301
21879	L 650 75W/940 DALI EP LGS 599x599	1	0.041	8.200	301
21880	L 650 28W/840 DALI VSS 596x596	1	0.037	10.200	302
21881	L 650 42W/840 DALI VSS 596x596	1	0.037	10.200	302
21882	L 650 63W/840 DALI VSS 596x596	1	0.037	10.200	302
21883	L 650 28W/840 DALI VSS 599x599	1	0.041	10.300	302
21884	L 650 42W/840 DALI VSS 599x599	1	0.041	10.300	302
21885	L 650 63W/840 DALI VSS 599x599	1	0.041	10.300	302
21886	L 650 28W/840 DALI EP VSS 596x596	1	0.037	10.800	302
21887	L 650 42W/840 DALI EP VSS 596x596	1	0.037	10.800	302
21888	L 650 63W/840 DALI EP VSS 596x596	1	0.037	10.800	302
21889	L 650 28W/840 DALI EP VSS 599x599	1	0.041	10.900	302
21890	L 650 42W/840 DALI EP VSS 599x599	1	0.041	10.900	302
21891	L 650 63W/840 DALI EP VSS 599x599	1	0.041	10.900	302
21892	L 650 35W/940 DALI VSS 596x596	1	0.037	10.200	302
21893	L 650 52W/940 DALI VSS 596x596	1	0.037	10.200	302

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
21894	L 650 75W/940 DALI VSS 596x596	1	0.037	10.200	302
21895	L 650 35W/940 DALI VSS 599x599	1	0.041	10.300	302
21896	L 650 52W/940 DALI VSS 599x599	1	0.041	10.300	302
21897	L 650 75W/940 DALI VSS 599x599	1	0.041	10.300	302
21898	L 650 35W/940 DALI EP VSS 596x596	1	0.037	10.800	302
21899	L 650 52W/940 DALI EP VSS 596x596	1	0.037	10.800	302
21900	L 650 75W/940 DALI EP VSS 596x596	1	0.037	10.800	302
21901	L 650 35W/940 DALI EP VSS 599x599	1	0.041	10.900	302
21902	L 650 52W/940 DALI EP VSS 599x599	1	0.041	10.900	302
21903	L 650 75W/940 DALI EP VSS 599x599	1	0.041	10.900	302
22230	3F Six R 85/840 WIDE 596x596	1	0.029	5.150	225
22231	3F Six R 70/840 WIDE 596x596	1	0.029	5.150	225
22232	3F Six R 60/840 WIDE 596x596	1	0.029	5.150	225
22233	3F Six R 85/840 DALI WIDE 596x596	1	0.029	5.150	225
22234	3F Six R 70/840 DALI WIDE 596x596	1	0.029	5.150	225
22235	3F Six R 60/840 DALI WIDE 596x596	1	0.029	5.150	225
22237	3F Six R 85/840 MEDIUM 596x596	1	0.029	5.150	225
22238	3F Six R 70/840 MEDIUM 596x596	1	0.029	5.150	225
22239	3F Six R 60/840 MEDIUM 596x596	1	0.029	5.150	225
22240	3F Six R 85/840 DALI MEDIUM 596x596	1	0.029	5.150	225
22241	3F Six R 70/840 DALI MEDIUM 596x596	1	0.029	5.150	225
22242	3F Six R 60/840 DALI MEDIUM 596x596	1	0.029	5.150	225
22244	3F Six R 40/840 UGR 596x596	1	0.029	5.150	226
22245	3F Six R 40/840 DALI UGR 596x596	1	0.029	5.150	226
22701	L 323x10W/940 LED SP 596x596	1	0.031	4.870	259
22702	L 324x10W/940 LED SP 596x596	1	0.031	4.930	259
22703	L 323x10W/940 LED DALI SP 596x596	1	0.031	4.905	259
22704	L 324x10W/940 LED DALI SP 596x596	1	0.031	4.545	259
22705	L 323x10W/940 LED EP SP 596x596	1	0.031	5.900	259
22706	L 324x10W/940 LED EP SP 596x596	1	0.031	6.100	259
22709	L 324x10W/940 LED LGS 596x596	1	0.031	5.320	260
22710	L 324x10W/940 LED DALI LGS 596x596	1	0.031	4.765	260
22711	L 324x10W/940 LED EP LGS 596x596	1	0.031	6.100	260
22716	L 323x10W/940 LED 2S 596x596	1	0.031	4.850	258
22717	L 323x10W/940 LED EP 2S 596x596	1	0.031	5.150	258
22718	L 323x10W/940 LED DALI 2S 596x596	1	0.031	4.725	258
22722	L 323x10W/940 LED 2MG 596x596	1	0.031	4.610	257
22723	L 323x10W/940 LED EP 2MG 596x596	1	0.031	5.150	257
22724	L 323x10W/940 LED DALI 2MG 596x596	1	0.031	4.185	257
22767	L 480 24W LED GSP 80x1210	1	0.009	3.005	285
22768	L 480 30W LED GSP 80x1510	1	0.011	3.625	285
22770	L 480 24W LED DALI GSP 80x1210	1	0.009	3.000	285
22771	L 480 30W LED DALI GSP 80x1510	1	0.011	3.800	285
22773	L 480 24W LED OP 80x1210	1	0.009	2.900	285
22774	L 480 30W LED OP 80x1510	1	0.011	3.700	285
22776	L 480 24W LED DALI OP 80x1210	1	0.009	3.000	285
22777	L 480 30W LED DALI OP 80x1510	1	0.011	3.800	285
22782	L 362x12W LED OCW 296x1196	1	0.014	5.530	283
22783	L 362x12W LED DALI OCW 296x1196	1	0.014	5.625	283
22786	L 362x12W LED OCW 308x1246	1	0.015	6.800	283
22787	L 362x12W LED DALI OCW 308x1246	1	0.015	7.000	283
22790	3FLP6060UGR-830	1	0.014	2.605	231
22791	3FLP6060UGR-840	1	0.014	2.810	231
22792	3FLP6060UGR-930	1	0.014	2.640	231
22793	3FLP6060UGR-940	1	0.014	2.640	231
22794	3FLP30120UGR-940	1	0.015	2.765	231
22821	L 600 28W/840 DALI LGS 596x596	1	0.037	5.600	293
22822	L 600 42W/840 DALI LGS 596x596	1	0.037	5.600	293
22823	L 600 63W/840 DALI LGS 596x596	1	0.037	5.600	293
22824	L 600 28W/840 DALI LGS 599x599	1	0.041	5.600	293

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
22825	L 600 42W/840 DALI LGS 599x599	1	0.041	5.600	293
22826	L 600 63W/840 DALI LGS 599x599	1	0.041	5.600	293
22827	L 600 28W/840 DALI LGS 621x621	1	0.041	5.700	294
22828	L 600 42W/840 DALI LGS 621x621	1	0.041	5.700	294
22829	L 600 63W/840 DALI LGS 621x621	1	0.041	5.700	294
22830	L 600 28W/840 DALI EP LGS 596x596	1	0.037	6.100	293
22831	L 600 42W/840 DALI EP LGS 596x596	1	0.037	6.100	293
22832	L 600 63W/840 DALI EP LGS 596x596	1	0.037	6.800	293
22833	L 600 28W/840 DALI EP LGS 599x599	1	0.041	6.100	293
22834	L 600 42W/840 DALI EP LGS 599x599	1	0.041	6.100	293
22835	L 600 63W/840 DALI EP LGS 599x599	1	0.041	6.300	293
22836	L 600 28W/840 DALI EP LGS 621x621	1	0.041	6.200	294
22837	L 600 42W/840 DALI EP LGS 621x621	1	0.041	6.200	294
22838	L 600 63W/840 DALI EP LGS 621x621	1	0.041	6.400	294
22839	L 600 35W/940 DALI LGS 596x596	1	0.037	5.600	293
22840	L 600 52W/940 DALI LGS 596x596	1	0.037	5.600	293
22841	L 600 75W/940 DALI LGS 596x596	1	0.037	5.600	293
22842	L 600 35W/940 DALI LGS 599x599	1	0.041	5.600	293
22843	L 600 52W/940 DALI LGS 599x599	1	0.041	5.600	293
22844	L 600 75W/940 DALI LGS 599x599	1	0.041	5.600	293
22845	L 600 35W/940 DALI LGS 621x621	1	0.041	5.700	294
22846	L 600 52W/940 DALI LGS 621x621	1	0.041	5.700	294
22847	L 600 75W/940 DALI LGS 621x621	1	0.041	5.700	294
22848	L 600 35W/940 DALI EP LGS 596x596	1	0.037	6.100	293
22849	L 600 52W/940 DALI EP LGS 596x596	1	0.037	6.100	293
22850	L 600 75W/940 DALI EP LGS 596x596	1	0.037	6.300	293
22851	L 600 35W/940 DALI EP LGS 599x599	1	0.041	6.100	293
22852	L 600 52W/940 DALI EP LGS 599x599	1	0.041	6.100	293
22853	L 600 75W/940 DALI EP LGS 599x599	1	0.041	6.300	293
22854	L 600 35W/940 DALI EP LGS 621x621	1	0.041	6.200	294
22855	L 600 52W/940 DALI EP LGS 621x621	1	0.041	6.200	294
22856	L 600 75W/940 DALI EP LGS 621x621	1	0.041	6.400	294
22857	L 600 28W/840 DALI VS 596x596	1	0.037	7.600	295
22858	L 600 42W/840 DALI VS 596x596	1	0.037	7.600	295
22859	L 600 63W/840 DALI VS 596x596	1	0.037	7.600	295
22860	L 600 28W/840 DALI VS 599x599	1	0.041	7.600	295
22861	L 600 42W/840 DALI VS 599x599	1	0.041	7.600	295
22862	L 600 63W/840 DALI VS 599x599	1	0.041	7.600	295
22863	L 600 28W/840 DALI VS 621x621	1	0.041	7.700	296
22864	L 600 42W/840 DALI VS 621x621	1	0.041	7.700	296
22865	L 600 63W/840 DALI VS 621x621	1	0.041	7.700	296
22866	L 600 28W/840 DALI EP VS 596x596	1	0.037	8.100	295
22867	L 600 42W/840 DALI EP VS 596x596	1	0.037	8.100	295
22868	L 600 63W/840 DALI EP VS 596x596	1	0.037	8.300	295
22869	L 600 28W/840 DALI EP VS 599x599	1	0.041	8.100	295
22870	L 600 42W/840 DALI EP VS 599x599	1	0.041	8.100	295
22871	L 600 63W/840 DALI EP VS 599x599	1	0.041	8.300	295
22872	L 600 28W/840 DALI EP VS 621x621	1	0.041	8.200	296
22873	L 600 42W/840 DALI EP VS 621x621	1	0.041	8.200	296
22874	L 600 63W/840 DALI EP VS 621x621	1	0.041	8.400	296
22875	L 600 35W/940 DALI VS 596x596	1	0.037	7.600	295
22876	L 600 52W/940 DALI VS 596x596	1	0.037	7.600	295
22877	L 600 75W/940 DALI VS 596x596	1	0.037	7.600	295
22878	L 600 35W/940 DALI VS 599x599	1	0.041	7.600	295
22879	L 600 52W/940 DALI VS 599x599	1	0.041	7.600	295
22880	L 600 75W/940 DALI VS 599x599	1	0.041	7.600	295
22881	L 600 35W/940 DALI VS 621x621	1	0.041	7.700	296
22882	L 600 52W/940 DALI VS 621x621	1	0.041	7.700	296
22883	L 600 75W/940 DALI VS 621x621	1	0.041	7.700	296
22884	L 600 35W/940 DALI EP VS 596x596	1	0.037	8.100	295

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
22885	L 600 52W/940 DALI EP VS 596x596	1	0.037	8.100	295
22886	L 600 75W/940 DALI EP VS 596x596	1	0.037	8.300	295
22887	L 600 35W/940 DALI EP VS 599x599	1	0.041	8.100	295
22888	L 600 52W/940 DALI EP VS 599x599	1	0.041	8.100	295
22889	L 600 75W/940 DALI EP VS 599x599	1	0.041	8.300	295
22890	L 600 35W/940 DALI EP VS 621x621	1	0.041	8.200	296
22891	L 600 52W/940 DALI EP VS 621x621	1	0.041	8.200	296
22892	L 600 75W/940 DALI EP VS 621x621	1	0.041	8.400	296
22893	L 600 35W/940 DALI VSS 596x596	1	0.037	7.600	297
22894	L 600 52W/940 DALI VSS 596x596	1	0.037	7.600	297
22895	L 600 75W/940 DALI VSS 596x596	1	0.037	7.600	297
22899	L 600 35W/940 DALI VSS 621x621	1	0.041	7.700	297
22900	L 600 52W/940 DALI VSS 621x621	1	0.041	7.700	297
22901	L 600 75W/940 DALI VSS 621x621	1	0.041	7.700	297
22902	L 600 35W/940 DALI EP VSS 596x596	1	0.037	8.100	297
22903	L 600 52W/940 DALI EP VSS 596x596	1	0.037	8.100	297
22904	L 600 75W/940 DALI EP VSS 596x596	1	0.037	8.300	297
22908	L 600 35W/940 DALI EP VSS 621x621	1	0.041	8.200	297
22909	L 600 52W/940 DALI EP VSS 621x621	1	0.041	8.200	297
22910	L 600 75W/940 DALI EP VSS 621x621	1	0.041	8.400	297
23002	3F Diagon 25W/830 596x596	1	0.012	4.100	243
23006	3F Diagon 25W/830 DALI 596x596	1	0.012	4.070	243
23010	3F Diagon 25W/830 EP 596x596	1	0.012	4.900	243
23024	3F Diagon 19W/840 596x596	1	0.012	4.080	243
23025	3F Diagon 15W/840 596x596	1	0.012	4.075	243
23026	3F Diagon 25W/840 596x596	1	0.012	4.085	243
23027	3F Diagon 39W/840 596x596	1	0.012	4.045	243
23028	3F Diagon 19W/840 DALI 596x596	1	0.012	3.995	243
23029	3F Diagon 15W/840 DALI 596x596	1	0.012	4.040	243
23030	3F Diagon 25W/840 DALI 596x596	1	0.012	4.060	243
23031	3F Diagon 39W/840 DALI 596x596	1	0.012	4.075	243
23032	3F Diagon 19W/840 EP 596x596	1	0.012	4.900	243
23033	3F Diagon 15W/840 EP 596x596	1	0.012	4.760	243
23034	3F Diagon 25W/840 EP 596x596	1	0.012	4.900	243
23035	3F Diagon 39W/840 EP 596x596	1	0.012	4.900	243
23098	3F Diagon 25W/930 596x596	1	0.012	4.100	243
23102	3F Diagon 25W/930 DALI 596x596	1	0.012	3.975	243
23106	3F Diagon 25W/930 EP 596x596	1	0.012	4.865	243
23122	3F Diagon 25W/940 596x596	1	0.012	3.980	243
23123	3F Diagon 39W/940 596x596	1	0.012	4.125	243
23126	3F Diagon 25W/940 DALI 596x596	1	0.012	3.955	243
23127	3F Diagon 39W/940 DALI 596x596	1	0.012	3.955	243
23130	3F Diagon 25W/940 EP 596x596	1	0.012	4.835	243
23131	3F Diagon 39W/940 EP 596x596	1	0.012	4.835	243
23386	3F Diagon 25W/830 621x621	1	0.013	4.150	244
23390	3F Diagon 25W/830 DALI 621x621	1	0.013	4.300	244
23394	3F Diagon 25W/830 EP 621x621	1	0.013	5.100	244
23408	3F Diagon 19W/840 621x621	1	0.013	4.300	244
23409	3F Diagon 15W/840 621x621	1	0.013	4.300	244
23410	3F Diagon 25W/840 621x621	1	0.013	4.300	244
23411	3F Diagon 39W/840 621x621	1	0.013	4.300	244
23412	3F Diagon 19W/840 DALI 621x621	1	0.013	4.300	244
23413	3F Diagon 15W/840 DALI 621x621	1	0.013	4.300	244
23414	3F Diagon 25W/840 DALI 621x621	1	0.013	4.300	244
23415	3F Diagon 39W/840 DALI 621x621	1	0.013	4.275	244
23416	3F Diagon 19W/840 EP 621x621	1	0.013	5.100	244
23417	3F Diagon 15W/840 EP 621x621	1	0.013	5.100	244
23418	3F Diagon 25W/840 EP 621x621	1	0.013	5.100	244
23419	3F Diagon 39W/840 EP 621x621	1	0.013	5.100	244
23482	3F Diagon 25W/930 621x621	1	0.013	4.230	244

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
23486	3F Diagon 25W/930 DALI 621x621	1	0.013	4.285	244
23490	3F Diagon 25W/930 EP 621x621	1	0.013	5.100	244
23506	3F Diagon 25W/940 621x621	1	0.013	4.300	244
23507	3F Diagon 39W/940 621x621	1	0.013	4.300	244
23510	3F Diagon 25W/940 DALI 621x621	1	0.013	4.300	244
23511	3F Diagon 39W/940 DALI 621x621	1	0.013	4.300	244
23514	3F Diagon 25W/940 EP 621x621	1	0.013	5.100	244
23515	3F Diagon 39W/940 EP 621x621	1	0.013	5.100	244
23785	3F Diagon FCL 19W/840 599x599	1	0.037	4.685	251
23786	3F Diagon FCL 25W/840 599x599	1	0.037	4.545	251
23787	3F Diagon FCL 19W/840 DALI 599x599	1	0.037	4.685	251
23788	3F Diagon FCL 25W/840 DALI 599x599	1	0.037	4.550	251
23789	3F Diagon FCL 19W/840 EP 599x599	1	0.037	5.300	251
23790	3F Diagon FCL 25W/840 EP 599x599	1	0.037	5.300	251
23795	3F Diagon FCH 19W/840 599x599	1	0.037	4.555	251
23796	3F Diagon FCH 25W/840 599x599	1	0.037	4.500	251
23797	3F Diagon FCH 19W/840 DALI 599x599	1	0.037	4.500	251
23798	3F Diagon FCH 25W/840 DALI 599x599	1	0.037	4.500	251
23799	3F Diagon FCH 19W/840 EP 599x599	1	0.037	5.300	251
23800	3F Diagon FCH 25W/840 EP 599x599	1	0.037	5.300	251
23812	3F Diagon 25W/840 SOFT UGR 596x596	1	0.012	4.085	245
23813	3F Diagon 25W/840 EP SOFT UGR 596x596	1	0.012	4.900	245
23814	3F Diagon 25W/840 DALI SOFT UGR 596x596	1	0.012	4.100	245
23816	3F Diagon 25W DT8 TW SOFT UGR 596x596	1	0.012	4.105	247
23819	3F Diagon 25W/840 SOFT UGR 621x621	1	0.013	4.300	245
23820	3F Diagon 25W/840 EP SOFT UGR 621x621	1	0.013	5.100	245
23821	3F Diagon 25W/840 DALI SOFT UGR 621x621	1	0.013	4.300	245
23823	3F Diagon 25W DT8 TW SOFT UGR 621x621	1	0.013	4.300	247
23826	3F Diagon 25W/830 SOFT UGR 596x596	1	0.012	3.980	245
23827	3F Diagon 25W/830 EP SOFT UGR 596x596	1	0.012	4.655	245
23828	3F Diagon 25W/830 DALI SOFT UGR 596x596	1	0.012	4.105	245
23830	3F Diagon 25W/830 SOFT UGR 621x621	1	0.013	4.300	245
23831	3F Diagon 25W/830 EP SOFT UGR 621x621	1	0.013	5.100	245
23832	3F Diagon 25W/830 DALI SOFT UGR 621x621	1	0.013	4.300	245
23834	3F Diagon 39W/940 SOFT UGR 596x596	1	0.012	4.090	245
23835	3F Diagon 39W/940 EP SOFT UGR 596x596	1	0.012	4.855	245
23836	3F Diagon 39W/940 DALI SOFT UGR 596x596	1	0.012	4.030	245
23838	3F Diagon 39W/940 SOFT UGR 621x621	1	0.013	4.300	245
23839	3F Diagon 39W/940 EP SOFT UGR 621x621	1	0.013	5.100	245
23840	3F Diagon 39W/940 DALI SOFT UGR 621x621	1	0.013	4.300	245
23842	3F Diagon 39W/930 SOFT UGR 596x596	1	0.012	4.100	245
23843	3F Diagon 39W/930 EP SOFT UGR 596x596	1	0.012	4.900	245
23844	3F Diagon 39W/930 DALI SOFT UGR 596x596	1	0.012	3.960	245
23846	3F Diagon 39W/930 SOFT UGR 621x621	1	0.013	4.300	245
23847	3F Diagon 39W/930 EP SOFT UGR 621x621	1	0.013	5.100	245
23848	3F Diagon 39W/930 DALI SOFT UGR 621x621	1	0.013	4.300	245
23853	3F Diagon FP 25W/840 SOFT UGR 599x599	1	0.037	4.500	252
23854	3F Diagon FP 25W/840 EP SOFT UGR 599x599	1	0.037	5.300	252
23855	3F Diagon FP 25W/840 DALI SOFT UGR 599x599	1	0.037	4.665	252
23857	L 340 25W/840 LGS 596x596	1	0.032	4.950	269
23858	L 340 38W/840 LGS 596x596	1	0.032	4.950	269
23859	L 340 45W/840 LGS 596x596	1	0.032	4.950	269
23860	L 340 25W/840 LGS 621x621	1	0.038	5.100	269
23861	L 340 38W/840 LGS 621x621	1	0.038	5.100	269
23862	L 340 45W/840 LGS 621x621	1	0.038	5.100	269
23863	L 340 25W/840 DALI LGS 596x596	1	0.032	4.950	269
23864	L 340 38W/840 DALI LGS 596x596	1	0.032	4.950	269
23865	L 340 45W/840 DALI LGS 596x596	1	0.032	4.950	269
23866	L 340 25W/840 DALI LGS 621x621	1	0.038	5.100	269
23867	L 340 38W/840 DALI LGS 621x621	1	0.038	5.100	269

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
23868	L 340 45W/840 DALI LGS 621x621	1	0.038	5.100	269
23869	L 340 25W/840 EP LGS 596x596	1	0.032	5.750	269
23870	L 340 38W/840 EP LGS 596x596	1	0.032	5.750	269
23871	L 340 45W/840 EP LGS 596x596	1	0.032	5.750	269
23872	L 340 25W/840 EP LGS 621x621	1	0.038	5.900	269
23873	L 340 38W/840 EP LGS 621x621	1	0.038	5.900	269
23874	L 340 45W/840 EP LGS 621x621	1	0.038	5.900	269
23881	L 340 29W/940 LGS 596x596	1	0.032	4.950	269
23882	L 340 45W/940 LGS 596x596	1	0.032	4.950	269
23883	L 340 29W/940 LGS 621x621	1	0.038	5.100	269
23884	L 340 45W/940 LGS 621x621	1	0.038	5.100	269
23885	L 340 29W/940 DALI LGS 596x596	1	0.032	4.950	269
23886	L 340 45W/940 DALI LGS 596x596	1	0.032	4.950	269
23887	L 340 29W/940 DALI LGS 621x621	1	0.038	5.100	269
23888	L 340 45W/940 DALI LGS 621x621	1	0.038	5.100	269
23889	L 340 29W/940 EP LGS 596x596	1	0.032	5.750	269
23890	L 340 45W/940 EP LGS 596x596	1	0.032	5.750	269
23891	L 340 29W/940 EP LGS 621x621	1	0.038	5.900	269
23892	L 340 45W/940 EP LGS 621x621	1	0.038	5.900	269
23897	L 340 25W/840 VS IP65V 596x596	1	0.032	6.950	271
23898	L 340 38W/840 VS IP65V 596x596	1	0.032	6.950	271
23899	L 340 45W/840 VS IP65V 596x596	1	0.032	6.950	271
23900	L 340 25W/840 VS IP65V 621x621	1	0.038	7.100	271
23901	L 340 38W/840 VS IP65V 621x621	1	0.038	7.100	271
23902	L 340 45W/840 VS IP65V 621x621	1	0.038	7.100	271
23903	L 340 25W/840 DALI VS IP65V 596x596	1	0.032	6.950	271
23904	L 340 38W/840 DALI VS IP65V 596x596	1	0.032	6.950	271
23905	L 340 45W/840 DALI VS IP65V 596x596	1	0.032	6.950	271
23906	L 340 25W/840 DALI VS IP65V 621x621	1	0.038	7.100	271
23907	L 340 38W/840 DALI VS IP65V 621x621	1	0.038	7.100	271
23908	L 340 45W/840 DALI VS IP65V 621x621	1	0.038	7.100	271
23909	L 340 25W/840 EP VS IP65V 596x596	1	0.032	7.750	271
23910	L 340 38W/840 EP VS IP65V 596x596	1	0.032	7.750	271
23911	L 340 45W/840 EP VS IP65V 596x596	1	0.032	7.750	271
23912	L 340 25W/840 EP VS IP65V 621x621	1	0.038	7.900	271
23913	L 340 38W/840 EP VS IP65V 621x621	1	0.038	7.900	271
23914	L 340 45W/840 EP VS IP65V 621x621	1	0.038	7.900	271
23921	L 340 29W/940 VS IP65V 596x596	1	0.032	6.950	271
23922	L 340 45W/940 VS IP65V 596x596	1	0.032	6.950	271
23923	L 340 29W/940 VS IP65V 621x621	1	0.038	7.100	271
23924	L 340 45W/940 VS IP65V 621x621	1	0.038	7.100	271
23925	L 340 29W/940 DALI VS IP65V 596x596	1	0.032	6.950	271
23926	L 340 45W/940 DALI VS IP65V 596x596	1	0.032	6.950	271
23927	L 340 29W/940 DALI VS IP65V 621x621	1	0.038	7.100	271
23928	L 340 45W/940 DALI VS IP65V 621x621	1	0.038	7.100	271
23929	L 340 29W/940 EP VS IP65V 596x596	1	0.032	7.750	271
23930	L 340 45W/940 EP VS IP65V 596x596	1	0.032	7.750	271
23931	L 340 29W/940 EP VS IP65V 621x621	1	0.038	7.900	271
23932	L 340 45W/940 EP VS IP65V 621x621	1	0.038	7.900	271
23937	L 343x10W/840 SP 596x596	1	0.032	4.240	273
23938	L 343x10W/840 DALI SP 596x596	1	0.032	4.275	273
23939	L 343x10W/840 EP SP 596x596	1	0.032	4.740	273
23940	L 343x12W/940 SP 596x596	1	0.032	4.900	273
23941	L 343x12W/940 DALI SP 596x596	1	0.032	4.275	273
23942	L 343x12W/940 EP SP 596x596	1	0.032	5.700	273
23953	L 340 25W DALI DT8 TW LGS 596x596	1	0.032	4.950	275
23954	L 340 25W DALI DT8 TW LGS 621x621	1	0.038	5.100	275
23957	L 343x10W/840 SP 621x621	1	0.038	5.050	273
23958	L 343x10W/840 DALI SP 621x621	1	0.038	5.050	273
23959	L 343x10W/840 EP SP 621x621	1	0.038	5.650	273

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
23960	L 343x12W/940 SP 621x621	1	0.038	5.050	273
23961	L 343x12W/940 DALI SP 621x621	1	0.038	5.050	273
23962	L 343x12W/940 EP SP 621x621	1	0.038	5.650	273
23972	L 340 25W/840 LGS IP65V 596x596	1	0.032	5.000	270
23973	L 340 38W/840 LGS IP65V 596x596	1	0.032	5.000	270
23974	L 340 45W/840 LGS IP65V 596x596	1	0.032	5.000	270
23975	L 340 25W/840 LGS IP65V 621x621	1	0.038	5.100	270
23976	L 340 38W/840 LGS IP65V 621x621	1	0.038	5.100	270
23977	L 340 45W/840 LGS IP65V 621x621	1	0.038	5.100	270
23978	L 340 25W/840 DALI LGS IP65V 596x596	1	0.032	5.000	270
23979	L 340 38W/840 DALI LGS IP65V 596x596	1	0.032	5.000	270
23980	L 340 45W/840 DALI LGS IP65V 596x596	1	0.032	5.000	270
23981	L 340 25W/840 DALI LGS IP65V 621x621	1	0.038	5.100	270
23982	L 340 38W/840 DALI LGS IP65V 621x621	1	0.038	5.100	270
23983	L 340 45W/840 DALI LGS IP65V 621x621	1	0.038	5.100	270
23984	L 340 25W/840 EP LGS IP65V 596x596	1	0.032	5.800	270
23985	L 340 38W/840 EP LGS IP65V 596x596	1	0.032	5.800	270
23986	L 340 45W/840 EP LGS IP65V 596x596	1	0.032	5.800	270
23987	L 340 25W/840 EP LGS IP65V 621x621	1	0.038	5.900	270
23988	L 340 38W/840 EP LGS IP65V 621x621	1	0.038	5.900	270
23989	L 340 45W/840 EP LGS IP65V 621x621	1	0.038	5.900	270
23996	L 340 29W/940 LGS IP65V 596x596	1	0.032	5.000	270
23997	L 340 45W/940 LGS IP65V 596x596	1	0.032	5.000	270
23998	L 340 29W/940 LGS IP65V 621x621	1	0.038	5.100	270
23999	L 340 45W/940 LGS IP65V 621x621	1	0.038	5.100	270
24000	L 340 29W/940 DALI LGS IP65V 596x596	1	0.032	5.000	270
24001	L 340 45W/940 DALI LGS IP65V 596x596	1	0.032	5.000	270
24002	L 340 29W/940 DALI LGS IP65V 621x621	1	0.038	5.100	270
24003	L 340 45W/940 DALI LGS IP65V 621x621	1	0.038	5.100	270
24004	L 340 29W/940 EP LGS IP65V 596x596	1	0.032	5.800	270
24005	L 340 45W/940 EP LGS IP65V 596x596	1	0.032	5.800	270
24006	L 340 29W/940 EP LGS IP65V 621x621	1	0.038	5.900	270
24007	L 340 45W/940 EP LGS IP65V 621x621	1	0.038	5.900	270
24048	3F Diagon FP 19W/840 599x599	1	0.037	4.500	252
24049	3F Diagon FP 25W/840 599x599	1	0.037	4.620	252
24050	3F Diagon FP 19W/840 DALI 599x599	1	0.037	4.500	252
24051	3F Diagon FP 25W/840 DALI 599x599	1	0.037	4.615	252
24052	3F Diagon FP 19W/840 EP 599x599	1	0.037	5.300	252
24053	3F Diagon FP 25W/840 EP 599x599	1	0.037	5.300	252
28826	L 323x10W LED 2S 596x596	1	0.031	4.730	258
28828	L 322x18W LED 2S 296x1196	1	0.039	5.155	258
28829	L 323x10W LED EP 2S 596x596	1	0.031	5.250	258
28831	L 322x18W LED EP 2S 296x1196	1	0.039	6.000	258
28838	L 323x10W LED DALI 2S 596x596	1	0.031	4.770	258
28840	L 322x18W LED DALI 2S 296x1196	1	0.039	5.200	258
28844	L 323x10W LED 2MG 596x596	1	0.031	4.710	257
28846	L 322x18W LED 2MG 296x1196	1	0.039	5.485	257
28847	L 323x10W LED EP 2MG 596x596	1	0.031	5.245	257
28849	L 322x18W LED EP 2MG 296x1196	1	0.039	6.000	257
28856	L 323x10W LED DALI 2MG 596x596	1	0.031	4.775	257
28858	L 322x18W LED DALI 2MG 296x1196	1	0.039	5.200	257
30001	3F Reno 100 WH 1000/840 SPOT	1	0.004	0.720	316
30005	3F Reno 100 WH 1000/930 SPOT	1	0.004	0.735	316
30009	3F Reno 100 WH 2000/840 SPOT	1	0.004	0.730	316
30013	3F Reno 100 WH 2000/930 SPOT	1	0.004	0.700	316
30018	3F Reno 100 WH 1000/840 EP SPOT	1	0.004	1.500	316
30022	3F Reno 100 WH 1000/930 EP SPOT	1	0.004	1.500	316
30026	3F Reno 100 WH 2000/840 EP SPOT	1	0.004	1.500	316
30030	3F Reno 100 WH 2000/930 EP SPOT	1	0.004	1.500	316
30035	3F Reno 100 WH 1000/840 DALI SPOT	1	0.004	0.700	316

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
30039	3F Reno 100 WH 1000/930 DALI SPOT	1	0.004	0.740	316
30043	3F Reno 100 WH 2000/840 DALI SPOT	1	0.004	0.775	316
30047	3F Reno 100 WH 2000/930 DALI SPOT	1	0.004	0.805	316
30069	3F Reno 100 WH 1000/840 WIDE	1	0.004	0.720	312
30073	3F Reno 100 WH 1000/930 WIDE	1	0.004	0.720	312
30077	3F Reno 100 WH 2000/840 WIDE	1	0.004	0.715	312
30081	3F Reno 100 WH 2000/930 WIDE	1	0.004	0.725	312
30086	3F Reno 100 WH 1000/840 EP WIDE	1	0.004	1.260	312
30090	3F Reno 100 WH 1000/930 EP WIDE	1	0.004	1.500	312
30094	3F Reno 100 WH 2000/840 EP WIDE	1	0.004	1.270	312
30098	3F Reno 100 WH 2000/930 EP WIDE	1	0.004	1.500	312
30103	3F Reno 100 WH 1000/840 DALI WIDE	1	0.004	0.720	312
30107	3F Reno 100 WH 1000/930 DALI WIDE	1	0.004	0.700	312
30111	3F Reno 100 WH 2000/840 DALI WIDE	1	0.004	0.765	312
30115	3F Reno 100 WH 2000/930 DALI WIDE	1	0.004	0.775	312
30205	3F Reno 100 WH 1000/840 ELL	1	0.004	0.730	314
30209	3F Reno 100 WH 1000/930 ELL	1	0.004	0.740	314
30213	3F Reno 100 WH 2000/840 ELL	1	0.004	0.745	314
30217	3F Reno 100 WH 2000/930 ELL	1	0.004	0.750	314
30222	3F Reno 100 WH 1000/840 EP ELL	1	0.004	1.500	314
30226	3F Reno 100 WH 1000/930 EP ELL	1	0.004	1.285	314
30230	3F Reno 100 WH 2000/840 EP ELL	1	0.004	1.500	314
30234	3F Reno 100 WH 2000/930 EP ELL	1	0.004	1.500	314
30239	3F Reno 100 WH 1000/840 DALI ELL	1	0.004	0.700	314
30243	3F Reno 100 WH 1000/930 DALI ELL	1	0.004	0.740	314
30247	3F Reno 100 WH 2000/840 DALI ELL	1	0.004	0.770	314
30251	3F Reno 100 WH 2000/930 DALI ELL	1	0.004	0.790	314
30273	3F Reno 150 WH 2000/840 SPOT	1	0.008	0.815	316
30277	3F Reno 150 WH 2000/930 SPOT	1	0.008	0.800	316
30281	3F Reno 150 WH 3000/840 SPOT	1	0.008	1.300	316
30285	3F Reno 150 WH 3000/930 SPOT	1	0.008	1.485	316
30290	3F Reno 150 WH 2000/840 EP SPOT	1	0.008	1.600	316
30294	3F Reno 150 WH 2000/930 EP SPOT	1	0.008	1.600	316
30298	3F Reno 150 WH 3000/840 EP SPOT	1	0.008	2.100	316
30302	3F Reno 150 WH 3000/930 EP SPOT	1	0.008	2.100	316
30307	3F Reno 150 WH 2000/840 DALI SPOT	1	0.008	0.800	316
30311	3F Reno 150 WH 2000/930 DALI SPOT	1	0.008	0.870	316
30315	3F Reno 150 WH 3000/840 DALI SPOT	1	0.008	1.300	316
30319	3F Reno 150 WH 3000/930 DALI SPOT	1	0.008	1.300	316
30341	3F Reno 150 WH 2000/840 WIDE	1	0.008	0.800	312
30345	3F Reno 150 WH 2000/930 WIDE	1	0.008	0.810	312
30349	3F Reno 150 WH 3000/840 WIDE	1	0.008	1.450	312
30353	3F Reno 150 WH 3000/930 WIDE	1	0.008	1.455	312
30358	3F Reno 150 WH 2000/840 EP WIDE	1	0.008	1.600	312
30362	3F Reno 150 WH 2000/930 EP WIDE	1	0.008	1.600	312
30366	3F Reno 150 WH 3000/840 EP WIDE	1	0.008	2.000	312
30370	3F Reno 150 WH 3000/930 EP WIDE	1	0.008	2.100	312
30375	3F Reno 150 WH 2000/840 DALI WIDE	1	0.008	0.840	312
30379	3F Reno 150 WH 2000/930 DALI WIDE	1	0.008	0.850	312
30383	3F Reno 150 WH 3000/840 DALI WIDE	1	0.008	1.500	312
30387	3F Reno 150 WH 3000/930 DALI WIDE	1	0.008	1.510	312
30408	3F Reno 150 WH 1500/840 UGR	1	0.006	0.825	311
30409	3F Reno 150 WH 2000/840 UGR	1	0.008	0.895	311
30419	3F Reno 150 WH 1500/840 EP UGR	1	0.006	1.375	311
30420	3F Reno 150 WH 2000/840 EP UGR	1	0.008	1.600	311
30430	3F Reno 150 WH 1500/840 DALI UGR	1	0.006	0.830	311
30431	3F Reno 150 WH 2000/840 DALI UGR	1	0.008	0.865	311
30453	3F Reno 150 WH 2000/840 ELL	1	0.008	0.810	314
30457	3F Reno 150 WH 2000/930 ELL	1	0.008	0.800	314
30461	3F Reno 150 WH 3000/840 ELL	1	0.008	1.460	314

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
30465	3F Reno 150 WH 3000/930 ELL	1	0.008	1.300	314
30470	3F Reno 150 WH 2000/840 EP ELL	1	0.008	1.370	314
30474	3F Reno 150 WH 2000/930 EP ELL	1	0.008	1.600	314
30478	3F Reno 150 WH 3000/840 EP ELL	1	0.008	2.100	314
30482	3F Reno 150 WH 3000/930 EP ELL	1	0.008	2.100	314
30487	3F Reno 150 WH 2000/840 DALI ELL	1	0.008	0.800	314
30491	3F Reno 150 WH 2000/930 DALI ELL	1	0.008	0.800	314
30495	3F Reno 150 WH 3000/840 DALI ELL	1	0.008	1.520	314
30499	3F Reno 150 WH 3000/930 DALI ELL	1	0.008	1.530	314
30521	3F Reno 200 WH 2000/840 SPOT	1	0.011	0.975	317
30525	3F Reno 200 WH 2000/930 SPOT	1	0.011	1.100	317
30529	3F Reno 200 WH 3000/840 SPOT	1	0.011	1.500	317
30533	3F Reno 200 WH 3000/930 SPOT	1	0.011	1.500	317
30537	3F Reno 200 WH 4000/840 SPOT	1	0.011	1.630	317
30541	3F Reno 200 WH 4000/930 SPOT	1	0.011	1.635	317
30546	3F Reno 200 WH 2000/840 EP SPOT	1	0.011	1.900	317
30550	3F Reno 200 WH 2000/930 EP SPOT	1	0.011	1.900	317
30554	3F Reno 200 WH 3000/840 EP SPOT	1	0.011	2.300	317
30558	3F Reno 200 WH 3000/930 EP SPOT	1	0.011	2.300	317
30562	3F Reno 200 WH 4000/840 EP SPOT	1	0.011	2.300	317
30566	3F Reno 200 WH 4000/930 EP SPOT	1	0.011	2.300	317
30571	3F Reno 200 WH 2000/840 DALI SPOT	1	0.011	1.000	317
30575	3F Reno 200 WH 2000/930 DALI SPOT	1	0.011	1.100	317
30579	3F Reno 200 WH 3000/840 DALI SPOT	1	0.011	1.500	317
30583	3F Reno 200 WH 3000/930 DALI SPOT	1	0.011	1.500	317
30587	3F Reno 200 WH 4000/840 DALI SPOT	1	0.011	1.500	317
30591	3F Reno 200 WH 4000/930 DALI SPOT	1	0.011	1.500	317
30621	3F Reno 200 WH 2000/840 WIDE	1	0.011	0.960	313
30625	3F Reno 200 WH 2000/930 WIDE	1	0.011	0.970	313
30629	3F Reno 200 WH 3000/840 WIDE	1	0.011	1.590	313
30633	3F Reno 200 WH 3000/930 WIDE	1	0.011	1.605	313
30637	3F Reno 200 WH 4000/840 WIDE	1	0.011	1.615	313
30641	3F Reno 200 WH 4000/930 WIDE	1	0.011	1.605	313
30646	3F Reno 200 WH 2000/840 EP WIDE	1	0.011	1.900	313
30650	3F Reno 200 WH 2000/930 EP WIDE	1	0.011	1.515	313
30654	3F Reno 200 WH 3000/840 EP WIDE	1	0.011	2.150	313
30658	3F Reno 200 WH 3000/930 EP WIDE	1	0.011	2.300	313
30662	3F Reno 200 WH 4000/840 EP WIDE	1	0.011	2.130	313
30666	3F Reno 200 WH 4000/930 EP WIDE	1	0.011	2.300	313
30671	3F Reno 200 WH 2000/840 DALI WIDE	1	0.011	1.055	313
30675	3F Reno 200 WH 2000/930 DALI WIDE	1	0.011	1.000	313
30679	3F Reno 200 WH 3000/840 DALI WIDE	1	0.011	1.655	313
30683	3F Reno 200 WH 3000/930 DALI WIDE	1	0.011	1.655	313
30687	3F Reno 200 WH 4000/840 DALI WIDE	1	0.011	1.670	313
30691	3F Reno 200 WH 4000/930 DALI WIDE	1	0.011	1.685	313
30721	3F Reno 200 WH 2000/840 UGR	1	0.011	0.970	311
30725	3F Reno 200 WH 2000/930 UGR	1	0.011	0.980	311
30726	3F Reno 200 WH 3000/840 UGR	1	0.011	1.620	311
30730	3F Reno 200 WH 2500/930 UGR	1	0.011	1.625	311
30737	3F Reno 200 WH 2000/840 EP UGR	1	0.011	1.900	311
30741	3F Reno 200 WH 2000/930 EP UGR	1	0.011	1.520	311
30742	3F Reno 200 WH 3000/840 EP UGR	1	0.011	2.300	311
30746	3F Reno 200 WH 2500/930 EP UGR	1	0.011	2.300	311
30753	3F Reno 200 WH 2000/840 DALI UGR	1	0.011	1.010	311
30757	3F Reno 200 WH 2000/930 DALI UGR	1	0.011	1.085	311
30758	3F Reno 200 WH 3000/840 DALI UGR	1	0.011	1.670	311
30762	3F Reno 200 WH 2500/930 DALI UGR	1	0.011	1.500	311
30785	3F Reno 200 WH 2000/840 ELL	1	0.011	0.970	315
30789	3F Reno 200 WH 2000/930 ELL	1	0.011	1.100	315
30793	3F Reno 200 WH 3000/840 ELL	1	0.011	1.500	315

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
30797	3F Reno 200 WH 3000/930 ELL	1	0.011	1.500	315
30801	3F Reno 200 WH 4000/840 ELL	1	0.011	1.500	315
30805	3F Reno 200 WH 4000/930 ELL	1	0.011	1.630	315
30810	3F Reno 200 WH 2000/840 EP ELL	1	0.011	1.900	315
30814	3F Reno 200 WH 2000/930 EP ELL	1	0.011	1.900	315
30818	3F Reno 200 WH 3000/840 EP ELL	1	0.011	2.300	315
30822	3F Reno 200 WH 3000/930 EP ELL	1	0.011	2.300	315
30826	3F Reno 200 WH 4000/840 EP ELL	1	0.011	2.300	315
30830	3F Reno 200 WH 4000/930 EP ELL	1	0.011	2.300	315
30835	3F Reno 200 WH 2000/840 DALI ELL	1	0.011	1.010	315
30839	3F Reno 200 WH 2000/930 DALI ELL	1	0.011	1.100	315
30843	3F Reno 200 WH 3000/840 DALI ELL	1	0.011	1.500	315
30847	3F Reno 200 WH 3000/930 DALI ELL	1	0.011	1.500	315
30851	3F Reno 200 WH 4000/840 DALI ELL	1	0.011	1.500	315
30855	3F Reno 200 WH 4000/930 DALI ELL	1	0.011	1.500	315
30893	3F Reno 100 BK 2000/840 SPOT	1	0.004	0.700	322
30897	3F Reno 100 BK 2000/930 SPOT	1	0.004	0.750	322
30927	3F Reno 100 BK 2000/840 DALI SPOT	1	0.004	0.700	322
30931	3F Reno 100 BK 2000/930 DALI SPOT	1	0.004	0.840	322
30961	3F Reno 100 BK 2000/840 WIDE	1	0.004	0.725	320
30965	3F Reno 100 BK 2000/930 WIDE	1	0.004	0.730	320
30995	3F Reno 100 BK 2000/840 DALI WIDE	1	0.004	0.765	320
30999	3F Reno 100 BK 2000/930 DALI WIDE	1	0.004	0.775	320
31097	3F Reno 100 BK 2000/840 ELL	1	0.004	0.730	321
31101	3F Reno 100 BK 2000/930 ELL	1	0.004	0.700	321
31131	3F Reno 100 BK 2000/840 DALI ELL	1	0.004	0.700	321
31135	3F Reno 100 BK 2000/930 DALI ELL	1	0.004	0.700	321
31165	3F Reno 150 BK 3000/840 SPOT	1	0.008	1.300	322
31169	3F Reno 150 BK 3000/930 SPOT	1	0.008	1.300	322
31199	3F Reno 150 BK 3000/840 DALI SPOT	1	0.008	1.300	322
31203	3F Reno 150 BK 3000/930 DALI SPOT	1	0.008	1.300	322
31233	3F Reno 150 BK 3000/840 WIDE	1	0.008	1.300	320
31237	3F Reno 150 BK 3000/930 WIDE	1	0.008	1.475	320
31267	3F Reno 150 BK 3000/840 DALI WIDE	1	0.008	1.500	320
31271	3F Reno 150 BK 3000/930 DALI WIDE	1	0.008	1.510	320
31293	3F Reno 150 BK 2000/840 UGR	1	0.008	0.810	319
31315	3F Reno 150 BK 2000/840 DALI UGR	1	0.008	0.860	319
31345	3F Reno 150 BK 3000/840 ELL	1	0.008	1.300	321
31349	3F Reno 150 BK 3000/930 ELL	1	0.008	1.485	321
31379	3F Reno 150 BK 3000/840 DALI ELL	1	0.008	1.300	321
31383	3F Reno 150 BK 3000/930 DALI ELL	1	0.008	1.300	321
31421	3F Reno 200 BK 4000/840 SPOT	1	0.011	1.300	322
31425	3F Reno 200 BK 4000/930 SPOT	1	0.011	1.300	322
31471	3F Reno 200 BK 4000/840 DALI SPOT	1	0.011	1.675	322
31475	3F Reno 200 BK 4000/930 DALI SPOT	1	0.011	1.300	322
31521	3F Reno 200 BK 4000/840 WIDE	1	0.011	1.620	320
31525	3F Reno 200 BK 4000/930 WIDE	1	0.011	1.615	320
31571	3F Reno 200 BK 4000/840 DALI WIDE	1	0.011	1.705	320
31575	3F Reno 200 BK 4000/930 DALI WIDE	1	0.011	1.715	320
31610	3F Reno 200 BK 3000/840 UGR	1	0.011	1.605	319
31614	3F Reno 200 BK 2500/930 UGR	1	0.011	1.615	319
31642	3F Reno 200 BK 3000/840 DALI UGR	1	0.011	1.680	319
31646	3F Reno 200 BK 2500/930 DALI UGR	1	0.011	1.500	319
31685	3F Reno 200 BK 4000/840 ELL	1	0.011	1.500	321
31689	3F Reno 200 BK 4000/930 ELL	1	0.011	1.610	321
31735	3F Reno 200 BK 4000/840 DALI ELL	1	0.011	1.665	321
31739	3F Reno 200 BK 4000/930 DALI ELL	1	0.011	1.500	321
34229	3F Petra OP 300 12W LED	1	0.013	1.105	199
34230	3F Petra OP 300 12W LED DALI	1	0.013	1.105	199
34231	3F Petra OP 300 12W LED EP	1	0.013	1.510	199

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
34233	3F Petra OP 300 12W LED Sensor	1	0.013	1.185	201
34234	3F Petra OP 300 12W/940 LED	1	0.013	1.105	199
34235	3F Petra OP 300 12W/940 LED DALI	1	0.013	1.105	199
34236	3F Petra OP 300 12W/940 LED EP	1	0.020	1.500	199
34330	3F Petra OP 380 22W LED	1	0.020	1.770	199
34331	3F Petra OP 380 22W LED DALI	1	0.020	1.770	199
34332	3F Petra OP 380 22W LED EP	1	0.020	2.245	199
34334	3F Petra OP 380 22W LED Sensor	1	0.020	1.875	201
34335	3F Petra OP 380 22W/940 LED	1	0.020	1.770	199
34336	3F Petra OP 380 22W/940 LED DALI	1	0.020	1.770	199
34337	3F Petra OP 380 22W/940 LED EP	1	0.020	2.245	199
34407	3F Petra OP 620 50W LED	1	0.058	4.790	199
34408	3F Petra OP 620 50W LED DALI	1	0.058	4.790	199
34409	3F Petra OP 620 50W LED EP	1	0.058	5.170	199
34411	3F Petra OP 620 50W LED SO	1	0.090	5.855	203
36575	Lucequadro LED 2000 VS	1	0.008	2.310	335
36576	Lucequadro LED 2000 EP VS	1	0.016	3.400	335
36578	Lucequadro LED 3000 VS	1	0.008	2.335	335
36579	Lucequadro LED 3000 EP VS	1	0.016	3.400	335
36581	Lucequadro LED 2000 VOP	1	0.008	2.320	335
36582	Lucequadro LED 2000 EP VOP	1	0.016	3.400	335
36584	Lucequadro LED 3000 VOP	1	0.008	2.350	335
36585	Lucequadro LED 3000 EP VOP	1	0.016	3.400	335
36587	Lucequadro LED 2000 SOP	1	0.008	2.015	336
36588	Lucequadro LED 2000 EP SOP	1	0.016	3.200	336
36590	Lucequadro LED 3000 SOP	1	0.008	2.040	336
36591	Lucequadro LED 3000 EP SOP	1	0.016	3.200	336
37542	Galassia 220 LED AB 2000 VOP	1	0.008	1.780	331
37543	Galassia 220 LED AB 2000 DALI VOP	1	0.008	2.500	331
37544	Galassia 220 LED AB 2000 EP VOP	1	0.014	3.500	331
37551	Galassia 220 LED AB 2000 VS	1	0.008	1.760	330
37552	Galassia 220 LED AB 2000 DALI VS	1	0.008	2.500	330
37553	Galassia 220 LED AB 2000 EP VS	1	0.014	3.500	330
37578	Galassia 220 LED AB 3000 VOP	1	0.008	1.800	331
37579	Galassia 220 LED AB 3000 DALI VOP	1	0.008	2.500	331
37580	Galassia 220 LED AB 3000 EP VOP	1	0.014	3.500	331
37587	Galassia 220 LED AB 3000 VS	1	0.008	2.500	330
37588	Galassia 220 LED AB 3000 DALI VS	1	0.008	2.500	330
37589	Galassia 220 LED AB 3000 EP VS	1	0.014	3.500	330
37604	Galassia 220 LED AB 4000 VS	1	0.012	2.465	330
37606	Galassia 220 LED AB 4000 DALI VS	1	0.012	3.000	330
37608	Galassia 220 LED AB 4000 VOP	1	0.012	3.000	331
37610	Galassia 220 LED AB 4000 DALI VOP	1	0.012	3.000	331
37759	Galassia 220 LED 2000 VT	1	0.008	1.800	327
37760	Galassia 220 LED 2000 DALI VT	1	0.008	1.920	327
37761	Galassia 220 LED 2000 EP VT	1	0.014	2.425	327
37768	Galassia 220 LED 2000 VOP	1	0.008	1.875	329
37769	Galassia 220 LED 2000 DALI VOP	1	0.008	2.500	329
37770	Galassia 220 LED 2000 EP VOP	1	0.014	2.675	329
37777	Galassia 220 LED 2000 VS	1	0.008	1.915	328
37778	Galassia 220 LED 2000 DALI VS	1	0.008	2.500	328
37779	Galassia 220 LED 2000 EP VS	1	0.014	3.500	328
37802	Galassia 220 LED 3000 VT	1	0.008	2.500	327
37803	Galassia 220 LED 3000 DALI VT	1	0.008	2.500	327
37804	Galassia 220 LED 3000 EP VT	1	0.014	3.500	327
37811	Galassia 220 LED 3000 VOP	1	0.008	1.900	329
37812	Galassia 220 LED 3000 DALI VOP	1	0.008	2.500	329
37813	Galassia 220 LED 3000 EP VOP	1	0.014	2.690	329
37820	Galassia 220 LED 3000 VS	1	0.008	1.915	328
37821	Galassia 220 LED 3000 DALI VS	1	0.008	2.500	328

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
37822	Galassia 220 LED 3000 EP VS	1	0.014	2.600	328
37834	Galassia 220 LED 4000 VT	1	0.012	3.000	327
37836	Galassia 220 LED 4000 DALI VT	1	0.012	2.600	327
37838	Galassia 220 LED 4000 VS	1	0.012	2.565	328
37840	Galassia 220 LED 4000 DALI VS	1	0.012	3.000	328
37842	Galassia 220 LED 4000 VOP	1	0.012	2.565	329
37844	Galassia 220 LED 4000 DALI VOP	1	0.012	2.725	329
45573	03F TK 18W/940 DALI L620	1	0.007	2.300	343
45574	03F TK 35W/940 DALI L1204	1	0.011	2.970	343
45575	03F TK 44W/940 DALI L1506	1	0.013	3.525	343
45576	03F TK 53W/940 DALI L1787	1	0.015	4.120	343
47124	3F Zeta TK L 50 AMPIO L1783	1	0.018	4.335	345
47132	3F Zeta TK L 30 AMPIO L1194	1	0.012	3.165	345
47136	3F Zeta TK L 15 AMPIO L605	1	0.007	1.890	345
47140	3F Zeta TK L 50 DALI AMPIO L1783	1	0.018	6.100	345
47148	3F Zeta TK L 30 DALI AMPIO L1194	1	0.012	3.095	345
47152	3F Zeta TK L 15 DALI AMPIO L605	1	0.007	2.900	345
47167	3F Zeta TK DR UGR 1x24/940 L1194	1	0.012	3.730	347
47168	3F Zeta TK DR UGR 1x30/940 L1783	1	0.018	5.060	347
47169	3F Zeta TK DR UGR 1x24/940 DALI L1194	1	0.012	3.730	347
47170	3F Zeta TK DR UGR 1x30/940 DALI L1783	1	0.018	5.060	347
47509	3F Emilio P LED 3000/840	1	0.004	1.255	217
47532	3F Emilio P LED 3000/840 DALI	1	0.004	1.255	217
47534	3F Emilio TK LED 3000/840 DALI	1	0.004	0.900	403
47535	3F Emilio TK LED 3000/830 DALI	1	0.004	0.900	403
47536	3F Emilio TK LED 2000/930 DALI	1	0.004	0.930	403
47551	3F Emilio TK LED 3000/840	1	0.004	0.915	403
47552	3F Emilio TK LED 4000/840	1	0.004	0.910	403
47555	3F Emilio TK LED 3000/830	1	0.004	0.925	403
47556	3F Emilio TK LED 2000/MEAT	1	0.004	0.935	404
47559	3F Emilio TK LED 3000/827	1	0.004	0.900	403
47561	3F Emilio TK LED 3000/940	1	0.004	0.900	403
47562	3F Emilio TK LED 2000/930	1	0.004	0.900	403
47563	3F Emilio TK LED 3000/930	1	0.004	0.915	403
47566	3F Emilio TK LED 4000/830	1	0.004	0.925	403
47572	3F Emilio TK LED 2000/BREAD	1	0.004	0.920	404
47574	3F Emilio TK LED 2500/CRISP	1	0.004	0.900	404
47576	3F Emilio TK BK LED 3000/840	1	0.004	0.900	403
47577	3F Emilio TK BK LED 4000/840	1	0.004	0.900	403
47580	3F Emilio TK BK LED 3000/830	1	0.004	0.900	403
47581	3F Emilio TK BK LED 2000/MEAT	1	0.004	0.930	404
47584	3F Emilio TK BK LED 3000/827	1	0.004	0.900	403
47586	3F Emilio TK BK LED 3000/940	1	0.004	0.900	403
47587	3F Emilio TK BK LED 2000/930	1	0.004	0.945	403
47588	3F Emilio TK BK LED 3000/930	1	0.004	0.925	403
47591	3F Emilio TK BK LED 4000/830	1	0.004	0.900	403
47597	3F Emilio TK BK LED 2000/BREAD	1	0.004	0.900	404
47599	3F Emilio TK BK LED 2500/CRISP	1	0.004	0.900	404
47607	3F Emilio TK LED 3000/840 ELL	1	0.004	0.900	404
47608	3F Emilio TK LED 4000/840 ELL	1	0.004	0.935	404
47611	3F Emilio TK LED 3000/830 ELL	1	0.004	0.920	404
47612	3F Emilio TK LED 2000/MEAT ELL	1	0.004	0.935	405
47615	3F Emilio TK LED 3000/827 ELL	1	0.004	0.900	404
47617	3F Emilio TK LED 3000/940 ELL	1	0.004	0.900	404
47618	3F Emilio TK LED 2000/930 ELL	1	0.004	0.925	404
47619	3F Emilio TK LED 3000/930 ELL	1	0.004	0.935	404
47622	3F Emilio TK LED 4000/830 ELL	1	0.004	0.935	404
47628	3F Emilio TK LED 2000/BREAD ELL	1	0.004	0.935	405
47630	3F Emilio TK LED 2500/CRISP ELL	1	0.004	0.900	405
47640	3F Emilio TK LED 3000/840 IPER	1	0.004	0.900	405

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
47641	3F Emilio TK LED 4000/840 IPER	1	0.004	0.900	405
47644	3F Emilio TK LED 3000/830 IPER	1	0.004	0.900	405
47645	3F Emilio TK LED 4000/830 IPER	1	0.004	0.900	405
47648	3F Emilio TK LED 3000/827 IPER	1	0.004	0.900	405
47652	3F Emilio TK LED 3000/940 IPER	1	0.004	0.900	405
47654	3F Emilio TK LED 2000/930 IPER	1	0.004	0.900	405
47655	3F Emilio TK LED 3000/930 IPER	1	0.004	0.900	405
47657	3F Emilio TK LED 2000/MEAT IPER	1	0.004	0.900	406
47660	3F Emilio TK LED 2000/BREAD IPER	1	0.004	0.900	406
47664	3F Emilio TK LED 2500/CRISP IPER	1	0.004	0.900	406
47668	3F Emilio TK BK LED 3000/840 IPER	1	0.004	0.900	405
47669	3F Emilio TK BK LED 4000/840 IPER	1	0.004	0.900	405
47672	3F Emilio TK BK LED 3000/830 IPER	1	0.004	0.900	405
47673	3F Emilio TK BK LED 4000/830 IPER	1	0.004	0.900	405
47676	3F Emilio TK BK LED 3000/827 IPER	1	0.004	0.900	405
47680	3F Emilio TK BK LED 3000/940 IPER	1	0.004	0.900	405
47682	3F Emilio TK BK LED 2000/930 IPER	1	0.004	0.900	405
47683	3F Emilio TK BK LED 3000/930 IPER	1	0.004	0.900	405
47685	3F Emilio TK BK LED 2000/MEAT IPER	1	0.004	0.900	406
47688	3F Emilio TK BK LED 2000/BREAD IPER	1	0.004	0.900	406
47692	3F Emilio TK BK LED 2500/CRISP IPER	1	0.004	0.900	406
47698	3F Six WH 85/840 WIDE 307x378	1	0.017	3.585	393
47699	3F Six WH 70/840 WIDE 307x378	1	0.017	3.535	393
47700	3F Six WH 60/840 WIDE 307x378	1	0.017	3.400	393
47701	3F Six WH 85/840 DALI WIDE 307x378	1	0.017	3.400	393
47702	3F Six WH 70/840 DALI WIDE 307x378	1	0.017	3.400	393
47703	3F Six WH 60/840 DALI WIDE 307x378	1	0.017	3.400	393
47705	3F Six WH 85/840 MEDIUM 307x378	1	0.017	3.400	393
47706	3F Six WH 70/840 MEDIUM 307x378	1	0.017	3.400	393
47707	3F Six WH 60/840 MEDIUM 307x378	1	0.017	3.400	393
47708	3F Six WH 85/840 DALI MEDIUM 307x378	1	0.017	3.445	393
47709	3F Six WH 70/840 DALI MEDIUM 307x378	1	0.017	3.400	393
47710	3F Six WH 60/840 DALI MEDIUM 307x378	1	0.017	3.400	393
47712	3F Six WH 40/840 UGR 307x378	1	0.017	3.400	394
47713	3F Six WH 40/840 DALI UGR 307x378	1	0.017	3.470	394
47720	3F Six TK WH 60/840 WIDE 307x378	1	0.017	3.600	389
47721	3F Six TK WH 50/840 WIDE 307x378	1	0.017	3.600	389
47722	3F Six TK WH 40/840 WIDE 307x378	1	0.017	3.510	389
47723	3F Six TK WH 60/840 DALI WIDE 307x378	1	0.017	3.600	389
47724	3F Six TK WH 50/840 DALI WIDE 307x378	1	0.017	3.600	389
47725	3F Six TK WH 40/840 DALI WIDE 307x378	1	0.017	3.615	389
47727	3F Six TK WH 60/840 MEDIUM 307x378	1	0.017	3.310	389
47728	3F Six TK WH 50/840 MEDIUM 307x378	1	0.017	3.600	389
47729	3F Six TK WH 40/840 MEDIUM 307x378	1	0.017	3.600	389
47730	3F Six TK WH 60/840 DALI MEDIUM 307x378	1	0.017	3.600	389
47731	3F Six TK WH 50/840 DALI MEDIUM 307x378	1	0.017	3.600	389
47732	3F Six TK WH 40/840 DALI MEDIUM 307x378	1	0.017	3.600	389
47734	3F Six TK WH 40/840 UGR 307x378	1	0.017	3.520	391
47735	3F Six TK WH 40/840 DALI UGR 307x378	1	0.017	3.600	391
47740	3F Six TK WH 60/840 WIDE 190x602	1	0.017	3.600	389
47741	3F Six TK WH 50/840 WIDE 190x602	1	0.017	3.600	389
47742	3F Six TK WH 40/840 WIDE 190x602	1	0.017	3.600	389
47743	3F Six TK WH 60/840 DALI WIDE 190x602	1	0.017	3.600	389
47744	3F Six TK WH 50/840 DALI WIDE 190x602	1	0.017	3.600	389
47745	3F Six TK WH 40/840 DALI WIDE 190x602	1	0.017	3.600	389
47747	3F Six TK WH 60/840 BAT 190x602	1	0.017	3.600	390
47748	3F Six TK WH 50/840 BAT 190x602	1	0.017	3.600	390
47749	3F Six TK WH 40/840 BAT 190x602	1	0.017	3.600	390
47750	3F Six TK WH 60/840 DALI BAT 190x602	1	0.017	3.600	390
47751	3F Six TK WH 50/840 DALI BAT 190x602	1	0.017	3.600	390

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
47752	3F Six TK WH 40/840 DALI BAT 190x602	1	0.017	3.600	390
47754	3F Six TK WH 60/840 BAT WD 190x602	1	0.017	3.600	390
47755	3F Six TK WH 50/840 BAT WD 190x602	1	0.017	3.600	390
47756	3F Six TK WH 40/840 BAT WD 190x602	1	0.017	3.600	390
47757	3F Six TK WH 60/840 DALI BAT WD 190x602	1	0.017	3.600	390
47758	3F Six TK WH 50/840 DALI BAT WD 190x602	1	0.017	3.600	390
47759	3F Six TK WH 40/840 DALI BAT WD 190x602	1	0.017	3.600	390
47761	3F Six TK WH 40/840 UGR 190x602	1	0.017	3.600	391
47762	3F Six TK WH 40/840 DALI UGR 190x602	1	0.017	3.600	391
52002	Beta 500 200W/840 SP L870	1	0.054	9.600	439
52003	Beta 500 300W/840 SP L1230	1	0.085	13.335	439
52005	Beta 500 200W/840 DALI SP L870	1	0.054	9.600	439
52006	Beta 500 300W/840 DALI SP L1230	1	0.085	11.500	439
52026	Beta 500 200W/840 CONC SL L870	1	0.054	9.800	440
52027	Beta 500 300W/840 CONC SL L1230	1	0.085	11.700	440
52029	Beta 500 200W/840 DALI CONC SL L870	1	0.054	9.800	440
52030	Beta 500 300W/840 DALI CONC SL L1230	1	0.085	11.700	440
52038	Beta 500 200W/840 CONC VT L870	1	0.054	12.700	440
52039	Beta 500 300W/840 CONC VT L1230	1	0.085	16.500	440
52041	Beta 500 200W/840 DALI CONC VT L870	1	0.054	12.700	440
52042	Beta 500 300W/840 DALI CONC VT L1230	1	0.085	16.500	440
52050	Beta 500 200W/840 VA L870	1	0.054	12.500	439
52051	Beta 500 300W/840 VA L1230	1	0.085	16.300	439
52053	Beta 500 200W/840 DALI VA L870	1	0.054	12.500	439
52054	Beta 500 300W/840 DALI VA L1230	1	0.085	16.300	439
52056	Beta 500 150W/840 SP L870	1	0.054	9.400	439
52057	Beta 500 150W/840 DALI SP L870	1	0.054	9.400	439
52064	Beta 500 150W/840 CONC SL L870	1	0.054	9.600	440
52065	Beta 500 150W/840 DALI CONC SL L870	1	0.054	9.600	440
52068	Beta 500 150W/840 CONC VT L870	1	0.054	12.500	440
52069	Beta 500 150W/840 DALI CONC VT L870	1	0.054	12.500	440
52072	Beta 500 150W/840 VA L870	1	0.054	12.300	439
52073	Beta 500 150W/840 DALI VA L870	1	0.054	12.300	439
52094	3F Tank ICE XT 45W/840 WIDE L1265	1	0.012	4.205	431
52095	3F Tank ICE XT 55W/840 WIDE L1560	1	0.014	4.700	431
52096	3F Tank ICE XT 70W/840 WIDE L1850	1	0.016	5.570	431
52110	3F Tank ICE XT 45W/840 MEDIUM L1265	1	0.012	4.205	431
52111	3F Tank ICE XT 55W/840 MEDIUM L1560	1	0.014	4.700	431
52112	3F Tank ICE XT 70W/840 MEDIUM L1850	1	0.016	5.570	431
52126	3F Tank ICE XT 45W/840 CONC L1265	1	0.012	4.205	432
52127	3F Tank ICE XT 55W/840 CONC L1560	1	0.014	4.700	432
52128	3F Tank ICE XT 70W/840 CONC L1850	1	0.016	5.380	432
52142	3F Tank ICE XT 45W/840 UGR L1265	1	0.012	4.205	432
52143	3F Tank ICE XT 55W/840 UGR L1560	1	0.014	4.700	432
52144	3F Tank ICE XT 70W/840 UGR L1850	1	0.016	5.570	432
52510	Beta 235 LED 752x55 CONC L1565	1	0.041	9.750	512
52511	Beta 235 LED 751x60 CONC L1565	1	0.041	8.490	512
52512	Beta 235 LED 762x55 CONC VT L1565	1	0.041	12.640	516
52513	Beta 235 LED 761x60 CONC VT L1565	1	0.041	12.000	516
52514	Beta 235 LED 762x55 CONC VS L1565	1	0.041	12.425	514
52515	Beta 235 LED 761x60 CONC VS L1565	1	0.041	11.410	514
52517	Beta 235 LED 752x55 DALI CONC L1565	1	0.041	9.200	512
52518	Beta 235 LED 751x60 DALI CONC L1565	1	0.041	8.875	512
52519	Beta 235 LED 762x55 DALI CONC VT L1565	1	0.041	12.900	516
52520	Beta 235 LED 761x60 DALI CONC VT L1565	1	0.041	12.000	516
52521	Beta 235 LED 762x55 DALI CONC VS L1565	1	0.041	12.900	514
52522	Beta 235 LED 761x60 DALI CONC VS L1565	1	0.041	11.195	514
52524	Beta 235 LED 752x45 CONC L1265	1	0.041	7.975	512
52526	Beta 235 LED 762x45 CONC VT L1265	1	0.033	10.500	516
52528	Beta 235 LED 762x45 CONC VS L1265	1	0.033	10.500	514

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
52531	Beta 235 LED 752x45 DALI CONC L1265	1	0.041	7.900	512
52533	Beta 235 LED 762x45 DALI CONC VT L1265	1	0.033	10.275	516
52535	Beta 235 LED 762x45 DALI CONC VS L1265	1	0.033	10.500	514
52552	Beta 235 LED 752x55 MEDIO L1565	1	0.041	9.625	511
52553	Beta 235 LED 751x60 MEDIO L1565	1	0.041	8.300	511
52554	Beta 235 LED 762x55 MEDIO VT L1565	1	0.041	12.495	515
52555	Beta 235 LED 761x60 MEDIO VT L1565	1	0.041	12.000	515
52556	Beta 235 LED 762x55 MEDIO VS L1565	1	0.041	12.900	513
52557	Beta 235 LED 761x60 MEDIO VS L1565	1	0.041	11.505	513
52559	Beta 235 LED 752x55 DALI MEDIO L1565	1	0.041	9.570	511
52560	Beta 235 LED 751x60 DALI MEDIO L1565	1	0.041	8.300	511
52561	Beta 235 LED 762x55 DALI MEDIO VT L1565	1	0.041	12.900	515
52562	Beta 235 LED 761x60 DALI MEDIO VT L1565	1	0.041	12.000	515
52563	Beta 235 LED 762x55 DALI MEDIO VS L1565	1	0.041	12.900	513
52564	Beta 235 LED 761x60 DALI MEDIO VS L1565	1	0.041	12.000	513
52566	Beta 235 LED 752x45 MEDIO L1265	1	0.041	7.960	511
52567	Beta 235 LED 751x50 MEDIO L1265	1	0.041	7.200	511
52568	Beta 235 LED 762x45 MEDIO VT L1265	1	0.033	10.500	515
52569	Beta 235 LED 761x50 MEDIO VT L1265	1	0.033	9.500	515
52570	Beta 235 LED 762x45 MEDIO VS L1265	1	0.033	10.500	513
52571	Beta 235 LED 761x50 MEDIO VS L1265	1	0.033	9.800	513
52573	Beta 235 LED 752x45 DALI MEDIO L1265	1	0.041	7.900	511
52574	Beta 235 LED 751x50 DALI MEDIO L1265	1	0.041	7.200	511
52575	Beta 235 LED 762x45 DALI MEDIO VT L1265	1	0.033	10.500	515
52576	Beta 235 LED 761x50 DALI MEDIO VT L1265	1	0.033	9.800	515
52577	Beta 235 LED 762x45 DALI MEDIO VS L1265	1	0.033	10.500	513
52578	Beta 235 LED 761x50 DALI MEDIO VS L1265	1	0.033	9.800	513
52762	Beta 235 LED 752x55 AMPIO L1565	1	0.041	9.815	511
52764	Beta 235 LED 752x55 IPERCONC L1565	1	0.041	9.200	512
52765	Beta 235 LED 751x60 AMPIO L1565	1	0.041	8.870	511
52769	Beta 235 LED 762x55 AMPIO VT L1565	1	0.041	12.725	515
52771	Beta 235 LED 762x55 IPERCONC VT L1565	1	0.041	12.900	516
52772	Beta 235 LED 761x60 AMPIO VT L1565	1	0.041	11.805	515
52776	Beta 235 LED 762x55 AMPIO VS L1565	1	0.041	12.865	513
52778	Beta 235 LED 762x55 IPERCONC VS L1565	1	0.041	12.900	514
52779	Beta 235 LED 761x60 AMPIO VS L1565	1	0.041	11.225	513
52783	Beta 235 LED 922x50 AMPIO L1565	1	0.054	8.855	519
52785	Beta 235 LED 922x50 IPERCONC L1565	1	0.054	9.200	519
52786	Beta 235 LED 921x60 AMPIO L1565	1	0.054	8.000	519
52790	Beta 235 LED 932x50 AMPIO VT L1565	1	0.041	11.905	521
52792	Beta 235 LED 932x50 IPERCONC VT L1565	1	0.041	12.900	521
52793	Beta 235 LED 931x60 AMPIO VT L1565	1	0.041	11.085	521
52797	Beta 235 LED 932x50 AMPIO VS L1565	1	0.041	11.795	520
52799	Beta 235 LED 932x50 IPERCONC VS L1565	1	0.041	12.900	520
52800	Beta 235 LED 931x60 AMPIO VS L1565	1	0.041	10.540	520
52804	Beta 235 LED 752x55 DALI AMPIO L1565	1	0.041	9.730	511
52806	Beta 235 LED 752x55 DALI IPERCONC L1565	1	0.041	9.200	512
52807	Beta 235 LED 751x60 DALI AMPIO L1565	1	0.041	8.860	511
52811	Beta 235 LED 762x55 DALI AMPIO VT L1565	1	0.041	12.530	515
52813	Beta 235 LED 762x55 DALI IPERCONC VT L1565	1	0.041	12.900	516
52814	Beta 235 LED 761x60 DALI AMPIO VT L1565	1	0.041	12.000	515
52818	Beta 235 LED 762x55 DALI AMPIO VS L1565	1	0.041	12.770	513
52820	Beta 235 LED 762x55 DALI IPERCONC VS L1565	1	0.041	12.900	514
52821	Beta 235 LED 761x60 DALI AMPIO VS L1565	1	0.041	11.370	513
52825	Beta 235 LED 922x50 DALI AMPIO L1565	1	0.054	9.200	519
52827	Beta 235 LED 922x50 DALI IPERCONC L1565	1	0.054	9.200	519
52828	Beta 235 LED 921x60 DALI AMPIO L1565	1	0.054	8.300	519
52832	Beta 235 LED 932x50 DALI AMPIO VT L1565	1	0.041	12.900	521
52834	Beta 235 LED 932x50 DALI IPERCONC VT L1565	1	0.041	12.900	521
52835	Beta 235 LED 931x60 DALI AMPIO VT L1565	1	0.041	12.000	521

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
52839	Beta 235 LED 932x50 DALI AMPIO VS L1565	1	0.041	11.860	520
52841	Beta 235 LED 932x50 DALI IPERCONC VS L1565	1	0.041	12.900	520
52842	Beta 235 LED 931x60 DALI AMPIO VS L1565	1	0.041	12.000	520
52846	Beta 235 LED 752x45 AMPIO L1265	1	0.041	8.125	511
52848	Beta 235 LED 752x45 IPERCONC L1265	1	0.041	8.075	512
52849	Beta 235 LED 751x50 AMPIO L1265	1	0.041	7.405	511
52853	Beta 235 LED 762x45 AMPIO VT L1265	1	0.033	10.430	515
52855	Beta 235 LED 762x45 IPERCONC VT L1265	1	0.033	10.500	516
52856	Beta 235 LED 761x50 AMPIO VT L1265	1	0.033	9.590	515
52860	Beta 235 LED 762x45 AMPIO VS L1265	1	0.033	10.465	513
52862	Beta 235 LED 762x45 IPERCONC VS L1265	1	0.033	10.500	514
52863	Beta 235 LED 761x50 AMPIO VS L1265	1	0.033	9.710	513
52867	Beta 235 LED 922x40 AMPIO L1265	1	0.041	7.900	519
52869	Beta 235 LED 922x40 IPERCONC L1265	1	0.041	7.545	519
52870	Beta 235 LED 921x50 AMPIO L1265	1	0.041	6.840	519
52874	Beta 235 LED 932x40 AMPIO VT L1265	1	0.033	9.870	521
52876	Beta 235 LED 932x40 IPERCONC VT L1265	1	0.033	10.500	521
52877	Beta 235 LED 931x50 AMPIO VT L1265	1	0.033	9.120	521
52881	Beta 235 LED 932x40 AMPIO VS L1265	1	0.033	9.825	520
52883	Beta 235 LED 932x40 IPERCONC VS L1265	1	0.033	10.500	520
52884	Beta 235 LED 931x50 AMPIO VS L1265	1	0.033	9.080	520
52888	Beta 235 LED 752x45 DALI AMPIO L1265	1	0.041	8.125	511
52890	Beta 235 LED 752x45 DALI IPERCONC L1265	1	0.041	7.900	512
52895	Beta 235 LED 762x45 DALI AMPIO VT L1265	1	0.033	10.500	515
52897	Beta 235 LED 762x45 DALI IPERCONC VT L1265	1	0.033	10.500	516
52902	Beta 235 LED 762x45 DALI AMPIO VS L1265	1	0.033	10.390	513
52904	Beta 235 LED 762x45 DALI IPERCONC VS L1265	1	0.033	10.500	514
52909	Beta 235 LED 922x40 DALI AMPIO L1265	1	0.041	7.900	519
52911	Beta 235 LED 922x40 DALI IPERCONC L1265	1	0.041	7.900	519
52916	Beta 235 LED 932x40 DALI AMPIO VT L1265	1	0.033	10.500	521
52918	Beta 235 LED 932x40 DALI IPERCONC VT L1265	1	0.033	10.500	521
52923	Beta 235 LED 932x40 DALI AMPIO VS L1265	1	0.033	10.500	520
52925	Beta 235 LED 932x40 DALI IPERCONC VS L1265	1	0.033	10.500	520
52930	Beta 235 LED 752x20 AMPIO L655	1	0.021	4.610	511
52931	Beta 235 LED 751x25 AMPIO L655	1	0.021	4.210	511
52936	Beta 235 LED 762x20 AMPIO VS L655	1	0.019	5.915	513
52937	Beta 235 LED 761x25 AMPIO VS L655	1	0.019	5.410	513
52939	Beta 235 LED 922x15 AMPIO L655	1	0.021	4.325	519
52940	Beta 235 LED 921x25 AMPIO L655	1	0.021	3.955	519
52945	Beta 235 LED 932x15 AMPIO VS L655	1	0.019	5.615	520
52946	Beta 235 LED 931x25 AMPIO VS L655	1	0.019	5.240	520
55006	i3F LED 752x30W CONC L1565	1	0.054	7.585	525
55017	i3F LED 752x30W EP CONC L1565	1	0.054	8.500	525
55072	i3F LED 762x30W AMPIO VT L1565	1	0.041	10.370	526
55083	i3F LED 762x30W EP AMPIO VT L1565	1	0.041	11.115	526
55134	i3F LED 762x12W AMPIO VS L655	1	0.019	4.775	526
55136	i3F LED 762x24W AMPIO VS L1265	1	0.033	8.450	526
55138	i3F LED 762x30W AMPIO VS L1565	1	0.041	10.300	526
55145	i3F LED 762x12W EP AMPIO VS L655	1	0.019	5.140	526
55147	i3F LED 762x24W EP AMPIO VS L1265	1	0.033	9.450	526
55149	i3F LED 762x30W EP AMPIO VS L1565	1	0.041	10.865	526
55596	i3F LED 752x12W AMPIO L655	1	0.019	3.470	525
55598	i3F LED 752x24W AMPIO L1265	1	0.041	6.250	525
55600	i3F LED 752x30W AMPIO L1565	1	0.054	7.360	525
55607	i3F LED 752x12W EP AMPIO L655	1	0.019	4.700	525
55609	i3F LED 752x24W EP AMPIO L1265	1	0.041	6.810	525
55611	i3F LED 752x30W EP AMPIO L1565	1	0.054	7.890	525
55666	i3F LED 762x30W CONC VT L1565	1	0.041	10.435	527
55677	i3F LED 762x30W EP CONC VT L1565	1	0.041	11.500	527
56330	3F CUB LED 100W CR VT	1	0.098	12.010	539

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
56332	3F CUB LED 100W DALI CR VT	1	0.098	12.365	539
56333	3F CUB LED 150W CR VT	1	0.098	12.370	539
56335	3F CUB LED 150W DALI CR VT	1	0.098	12.555	539
56337	3F CUB LED 100W CR VS	1	0.098	12.010	540
56339	3F CUB LED 100W DALI CR VS	1	0.098	12.150	540
56340	3F CUB LED 150W CR VS	1	0.098	12.060	540
56342	3F CUB LED 150W DALI CR VS	1	0.098	12.165	540
56344	3F CUB LED 100W CR SP	1	0.098	10.060	539
56346	3F CUB LED 100W DALI CR SP	1	0.098	10.055	539
56347	3F CUB LED 150W CR SP	1	0.098	10.120	539
56349	3F CUB LED 150W DALI CR SP	1	0.098	10.000	539
56660	3F Tank Lite 2x9W/840 L675	1	0.007	2.545	425
56661	3F Tank Lite 2x18W/840 L1265	1	0.012	3.495	425
56662	3F Tank Lite 2x22W/840 L1560	1	0.014	3.995	425
56664	3F Tank Lite 2x9W/840 DALI L675	1	0.007	2.610	425
56665	3F Tank Lite 2x18W/840 DALI L1265	1	0.012	3.900	425
56666	3F Tank Lite 2x22W/840 DALI L1560	1	0.014	4.800	425
56668	3F Tank Lite 2x9W/865 L675	1	0.007	2.300	425
56669	3F Tank Lite 2x18W/865 L1265	1	0.012	3.800	425
56670	3F Tank Lite 2x22W/865 L1560	1	0.014	3.975	425
56672	3F Tank Lite 2x9W/865 DALI L675	1	0.007	2.400	425
56673	3F Tank Lite 2x18W/865 DALI L1265	1	0.012	3.900	425
56674	3F Tank Lite 2x22W/865 DALI L1560	1	0.014	4.800	425
56676	3F Tank 13W/840 WIDE L675	1	0.007	2.815	426
56677	3F Tank 45W/840 WIDE L1265	1	0.012	4.205	426
56678	3F Tank 55W/840 WIDE L1560	1	0.014	4.745	426
56679	3F Tank 70W/840 WIDE L1850	1	0.016	5.420	426
56680	3F Tank 13W/840 DALI WIDE L675	1	0.007	2.935	426
56681	3F Tank 45W/840 DALI WIDE L1265	1	0.012	4.380	426
56682	3F Tank 55W/840 DALI WIDE L1560	1	0.014	5.000	426
56683	3F Tank 70W/840 DALI WIDE L1850	1	0.016	5.900	426
56684	3F Tank 13W/865 WIDE L675	1	0.007	2.500	426
56685	3F Tank 45W/865 WIDE L1265	1	0.012	4.000	426
56686	3F Tank 55W/865 WIDE L1560	1	0.014	4.795	426
56687	3F Tank 70W/865 WIDE L1850	1	0.016	5.800	426
56688	3F Tank 13W/865 DALI WIDE L675	1	0.007	2.600	426
56689	3F Tank 45W/865 DALI WIDE L1265	1	0.012	4.100	426
56690	3F Tank 55W/865 DALI WIDE L1560	1	0.014	5.000	426
56691	3F Tank 70W/865 DALI WIDE L1850	1	0.016	5.900	426
56692	3F Tank 13W/840 MEDIUM L675	1	0.007	2.660	427
56693	3F Tank 45W/840 MEDIUM L1265	1	0.012	4.100	427
56694	3F Tank 55W/840 MEDIUM L1560	1	0.014	4.675	427
56695	3F Tank 70W/840 MEDIUM L1850	1	0.016	5.235	427
56696	3F Tank 13W/840 DALI MEDIUM L675	1	0.007	2.600	427
56697	3F Tank 45W/840 DALI MEDIUM L1265	1	0.012	4.100	427
56698	3F Tank 55W/840 DALI MEDIUM L1560	1	0.014	5.000	427
56699	3F Tank 70W/840 DALI MEDIUM L1850	1	0.016	5.900	427
56700	3F Tank 13W/865 MEDIUM L675	1	0.007	2.500	427
56701	3F Tank 45W/865 MEDIUM L1265	1	0.012	4.000	427
56702	3F Tank 55W/865 MEDIUM L1560	1	0.014	4.900	427
56703	3F Tank 70W/865 MEDIUM L1850	1	0.016	5.800	427
56704	3F Tank 13W/865 DALI MEDIUM L675	1	0.007	2.600	427
56705	3F Tank 45W/865 DALI MEDIUM L1265	1	0.012	4.100	427
56706	3F Tank 55W/865 DALI MEDIUM L1560	1	0.014	5.000	427
56707	3F Tank 70W/865 DALI MEDIUM L1850	1	0.016	5.420	427
56708	3F Tank 35W/840 UGR L1560	1	0.014	4.795	428
56709	3F Tank 40W/840 UGR L1850	1	0.016	5.800	428
56710	3F Tank 35W/840 DALI UGR L1560	1	0.014	5.055	428
56711	3F Tank 40W/840 DALI UGR L1850	1	0.016	5.900	428
56712	3F Tank 35W/865 UGR L1560	1	0.014	4.900	428

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
56713	3F Tank 40W/865 UGR L1850	1	0.016	5.430	428
56714	3F Tank 35W/865 DALI UGR L1560	1	0.014	5.000	428
56715	3F Tank 40W/865 DALI UGR L1850	1	0.016	5.900	428
56716	3F Tank 13W/840 CONC L675	1	0.007	2.500	429
56717	3F Tank 45W/840 CONC L1265	1	0.012	4.000	429
56718	3F Tank 55W/840 CONC L1560	1	0.014	4.900	429
56719	3F Tank 70W/840 CONC L1850	1	0.016	5.380	429
56720	3F Tank 13W/840 DALI CONC L675	1	0.007	2.600	429
56721	3F Tank 45W/840 DALI CONC L1265	1	0.012	4.100	429
56722	3F Tank 55W/840 DALI CONC L1560	1	0.014	5.000	429
56723	3F Tank 70W/840 DALI CONC L1850	1	0.016	5.900	429
56724	3F Tank 13W/865 CONC L675	1	0.007	2.500	429
56725	3F Tank 45W/865 CONC L1265	1	0.012	4.000	429
56726	3F Tank 55W/865 CONC L1560	1	0.014	4.900	429
56727	3F Tank 70W/865 CONC L1850	1	0.016	5.800	429
56728	3F Tank 13W/865 DALI CONC L675	1	0.007	2.600	429
56729	3F Tank 45W/865 DALI CONC L1265	1	0.012	4.100	429
56730	3F Tank 55W/865 DALI CONC L1560	1	0.014	5.000	429
56731	3F Tank 70W/865 DALI CONC L1850	1	0.016	5.900	429
58457	3F Linda LED Ice 1x24W UR95 L1270	1	0.016	2.560	463
58459	3F Linda LED Ice 2x24W UR95 L1270	1	0.024	3.225	463
58461	3F Linda LED Ice 1x30W UR95 L1570	1	0.019	2.975	463
58463	3F Linda LED Ice 2x30W UR95 L1570	1	0.028	3.830	463
58470	3F Linda LED 1x12W ATEX 3D L660	1	0.008	1.265	457
58471	3F Linda LED 2x12W ATEX 3D L660	1	0.013	1.845	457
58472	3F Linda LED 1x24W ATEX 3D L1270	1	0.016	2.330	457
58473	3F Linda LED 2x24W ATEX 3D L1270	1	0.024	3.050	457
58474	3F Linda LED 1x30W ATEX 3D L1570	1	0.019	2.765	457
58475	3F Linda LED 2x30W ATEX 3D L1570	1	0.028	3.760	457
58549	3F Linda LED 1x12W DALI L660	1	0.008	1.280	449
58550	3F Linda LED 2x12W DALI L660	1	0.013	1.820	449
58551	3F Linda LED 1x24W DALI L1270	1	0.016	2.355	449
58552	3F Linda LED 2x24W DALI L1270	1	0.024	3.110	449
58553	3F Linda LED 1x30W DALI L1570	1	0.019	2.890	449
58554	3F Linda LED 2x30W DALI L1570	1	0.028	3.660	449
58561	3F Linda LED 1x12W L660	1	0.008	1.265	449
58563	3F Linda LED 1x6W L660	1	0.008	1.285	449
58567	3F Linda LED 1x12W EP LA L660	1	0.013	2.160	450
58569	3F Linda LED 1x6W EP LA L660	1	0.013	2.225	450
58572	3F Linda LED 2x12W L660	1	0.013	1.845	449
58583	3F Linda LED 1x24W L1270	1	0.016	2.330	449
58584	3F Linda LED 1x24W/865 L1270	1	0.016	2.320	449
58585	3F Linda LED 1x24W/830 L1270	1	0.016	2.365	449
58586	3F Linda LED 1x18W L1270	1	0.016	2.320	449
58589	3F Linda LED 1x24W EP L1270	1	0.016	2.705	450
58590	3F Linda LED 1x24W/865 EP L1270	1	0.016	2.755	450
58591	3F Linda LED 1x24W/830 EP L1270	1	0.016	2.760	450
58592	3F Linda LED 1x18W EP L1270	1	0.016	3.100	450
58594	3F Linda LED 2x24W L1270	1	0.024	3.050	449
58595	3F Linda LED 2x24W/865 L1270	1	0.024	3.025	449
58596	3F Linda LED 2x24W/830 L1270	1	0.024	3.050	449
58597	3F Linda LED 2x18W L1270	1	0.024	3.020	449
58600	3F Linda LED 2x24W EP L1270	1	0.024	3.645	450
58601	3F Linda LED 2x24W/865 EP L1270	1	0.024	3.530	450
58602	3F Linda LED 2x24W/830 EP L1270	1	0.024	3.440	450
58603	3F Linda LED 2x18W EP L1270	1	0.024	3.465	450
58605	3F Linda LED 1x30W L1570	1	0.019	2.765	449
58606	3F Linda LED 1x30W/865 L1570	1	0.019	2.740	449
58607	3F Linda LED 1x30W/830 L1570	1	0.019	2.775	449
58608	3F Linda LED 1x22W L1570	1	0.019	2.940	449

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
58611	3F Linda LED 1x30W EP L1570	1	0.019	3.200	450
58612	3F Linda LED 1x30W/865 EP L1570	1	0.019	3.310	450
58613	3F Linda LED 1x30W/830 EP L1570	1	0.019	3.210	450
58614	3F Linda LED 1x22W EP L1570	1	0.019	3.000	450
58616	3F Linda LED 2x30W L1570	1	0.028	3.760	449
58617	3F Linda LED 2x30W/865 L1570	1	0.028	3.685	449
58618	3F Linda LED 2x30W/830 L1570	1	0.028	3.670	449
58619	3F Linda LED 2x22W L1570	1	0.028	3.620	449
58623	3F Linda LED 2x30W EP L1570	1	0.028	4.315	450
58624	3F Linda LED 2x30W/865 EP L1570	1	0.028	4.205	450
58625	3F Linda LED 2x30W/830 EP L1570	1	0.028	4.305	450
58626	3F Linda LED 2x22W EP L1570	1	0.028	4.265	450
58630	3F Linda LED 2x24W CONC L1270	1	0.024	3.335	452
58632	3F Linda LED 2x30W CONC L1570	1	0.028	4.065	452
58638	3F Linda LED 1x30W Sensor L1570	1	0.019	2.845	465
58642	3F Linda LED 2x30W Sensor L1570	1	0.028	3.810	465
58645	3F Linda LED 1x30W Sensor CF L1570	1	0.019	2.840	465
58649	3F Linda LED 2x30W Sensor CF L1570	1	0.028	3.725	465
58659	3F Linda LED 2x24W AMPIO L1270	1	0.024	3.335	451
58661	3F Linda LED 2x30W AMPIO L1570	1	0.028	4.025	451
58705	3F Linda LED 1x12W ENP LA L660	1	0.013	2.105	450
58713	3F Linda LED 1x24W ENP L1270	1	0.016	2.465	450
58722	3F Linda LED HS 1x24W L1270	1	0.016	2.350	459
58724	3F Linda LED HS 1x30W L1570	1	0.019	2.795	459
58728	3F Linda LED HS 2x24W L1270	1	0.024	3.100	459
58730	3F Linda LED HS 2x30W L1570	1	0.028	3.660	459
58731	3F Linda LED Soft 1x12W L660	1	0.008	1.260	453
58732	3F Linda LED Soft 2x12W L660	1	0.013	1.770	453
58733	3F Linda LED Soft 1x24W L1270	1	0.016	2.345	453
58734	3F Linda LED Soft 1x30W L1570	1	0.019	2.800	453
58735	3F Linda LED Soft 1x24W DALI L1270	1	0.016	2.320	453
58736	3F Linda LED Soft 1x30W DALI L1570	1	0.019	2.840	453
58737	3F Linda LED Soft 2x24W L1270	1	0.024	2.920	453
58738	3F Linda LED Soft 2x24W DALI L1270	1	0.024	3.100	453
58751	3F Linda LED Soft 2x22W L1570	1	0.028	3.670	453
58752	3F Linda LED Soft 2x30W L1570	1	0.028	3.770	453
58753	3F Linda LED Soft 2x22W DALI L1570	1	0.028	3.595	453
58754	3F Linda LED Soft 2x30W DALI L1570	1	0.028	3.765	453
58762	3F Linda LED Basic 1x19W L1270	1	0.016	2.350	452
58763	3F Linda LED Basic 2x19W L1270	1	0.024	3.010	452
58764	3F Linda LED Basic 1x23W L1570	1	0.019	2.650	452
58765	3F Linda LED Basic 2x23W L1570	1	0.028	3.655	452
58766	3F Linda LED Basic ST 2x16W L1270	1	0.016	2.255	452
58767	3F Linda LED Basic ST 2x20W L1570	1	0.019	2.790	452
58786	3F Linda LED 1x24W Sensor DALI-BLE L1270	1	0.016	2.320	466
58787	3F Linda LED 1x30W Sensor DALI-BLE L1570	1	0.019	3.000	466
58788	3F Linda LED 2x24W Sensor DALI-BLE L1270	1	0.024	3.320	466
58789	3F Linda LED 2x30W Sensor DALI-BLE L1570	1	0.028	4.000	466
58852	3F Linda LED Lite TR 1x12W L660	1	0.008	1.420	461
58853	3F Linda LED Lite TR 1x19W L1270	1	0.016	2.310	461
58854	3F Linda LED Lite TR 1x23W L1570	1	0.019	2.780	461
58855	3F Linda LED Lite TR 2x16W L1270	1	0.024	3.060	461
58856	3F Linda LED Lite TR 2x20W L1570	1	0.028	3.230	461
58867	3F Linda LED 1x12W/940 L660	1	0.008	1.265	451
58868	3F Linda LED 2x12W/940 L660	1	0.013	1.845	451
58869	3F Linda LED 1x24W/940 L1270	1	0.016	2.365	451
58870	3F Linda LED 2x24W/940 L1270	1	0.024	3.050	451
58871	3F Linda LED 1x30W/940 L1570	1	0.019	2.765	451
58872	3F Linda LED 2x30W/940 L1570	1	0.028	3.760	451
58873	3F Linda LED 1x12W/940 DALI L660	1	0.008	1.420	451

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
58874	3F Linda LED 2x12W/940 DALI L660	1	0.013	1.920	451
58875	3F Linda LED 1x24W/940 DALI L1270	1	0.016	2.355	451
58876	3F Linda LED 2x24W/940 DALI L1270	1	0.024	3.110	451
58877	3F Linda LED 1x30W/940 DALI L1570	1	0.019	2.890	451
58878	3F Linda LED 2x30W/940 DALI L1570	1	0.028	3.660	451
58881	3F LEM 1 LED 50 CR AMPIO	1	0.011	6.150	481
58882	3F LEM 2 LED 100 CR AMPIO	1	0.044	10.075	481
58883	3F LEM 3 LED 150 CR AMPIO	1	0.059	14.895	481
58884	3F LEM 4 LED 200 CR AMPIO	1	0.067	18.665	481
58885	3F LEM 1+1 LED 100 CR AMPIO	1	0.021	11.080	481
58886	3F LEM 5 LED 250 CR AMPIO	1	0.081	22.400	481
58887	3F LEM 1 LED 50 CR CONC	1	0.011	6.160	483
58888	3F LEM 2 LED 100 CR CONC	1	0.044	10.040	483
58889	3F LEM 3 LED 150 CR CONC	1	0.059	14.580	483
58890	3F LEM 4 LED 200 CR CONC	1	0.067	18.000	483
58893	3F LEM 2 LED 100 CR MEDIO	1	0.044	10.070	482
58894	3F LEM 3 LED 150 CR MEDIO	1	0.059	14.575	482
58895	3F LEM 4 LED 200 CR MEDIO	1	0.067	18.000	482
58896	3F LEM 1+1 LED 100 CR MEDIO	1	0.021	10.960	482
58897	3F LEM 5 LED 250 CR MEDIO	1	0.081	23.145	482
58899	3F LEM 1 LED 50 DALI CR AMPIO	1	0.011	7.000	481
58900	3F LEM 2 LED 100 DALI CR AMPIO	1	0.044	10.160	481
58901	3F LEM 3 LED 150 DALI CR AMPIO	1	0.059	14.885	481
58902	3F LEM 4 LED 200 DALI CR AMPIO	1	0.067	18.745	481
58903	3F LEM 1+1 LED 100 DALI CR AMPIO	1	0.021	10.800	481
58904	3F LEM 5 LED 250 DALI CR AMPIO	1	0.081	22.400	481
58905	3F LEM 1 LED 50 DALI CR CONC	1	0.011	7.000	483
58906	3F LEM 2 LED 100 DALI CR CONC	1	0.044	10.085	483
58907	3F LEM 3 LED 150 DALI CR CONC	1	0.059	15.600	483
58908	3F LEM 4 LED 200 DALI CR CONC	1	0.067	18.000	483
58911	3F LEM 2 LED 100 DALI CR MEDIO	1	0.044	10.110	482
58912	3F LEM 3 LED 150 DALI CR MEDIO	1	0.059	15.205	482
58913	3F LEM 4 LED 200 DALI CR MEDIO	1	0.067	18.290	482
58914	3F LEM 1+1 LED 100 DALI CR MEDIO	1	0.021	10.800	482
58915	3F LEM 5 LED 250 DALI CR MEDIO	1	0.081	22.400	482
58953	3F LEM 1 HO LED 70 CR AMPIO	1	0.011	7.000	485
58954	3F LEM 2 HO LED 140 CR AMPIO	1	0.044	10.115	485
58955	3F LEM 3 HO LED 210 CR AMPIO	1	0.059	14.870	485
58956	3F LEM 4 HO LED 280 CR AMPIO	1	0.067	18.685	485
58957	3F LEM 1+1 HO LED 140 CR AMPIO	1	0.021	11.100	485
58958	3F LEM 5 HO LED 350 CR AMPIO	1	0.081	23.445	485
58959	3F LEM 1 HO LED 70 CR CONC	1	0.011	6.135	486
58960	3F LEM 2 HO LED 140 CR CONC	1	0.044	10.010	486
58961	3F LEM 3 HO LED 210 CR CONC	1	0.059	14.690	486
58965	3F LEM 2 HO LED 140 CR MEDIO	1	0.044	10.040	486
58966	3F LEM 3 HO LED 210 CR MEDIO	1	0.059	14.720	486
58967	3F LEM 4 HO LED 280 CR MEDIO	1	0.067	18.600	486
58968	3F LEM 1+1 HO LED 140 CR MEDIO	1	0.021	11.005	486
58969	3F LEM 5 HO LED 350 CR MEDIO	1	0.081	23.155	486
58971	3F LEM 1 HO LED 70 DALI CR AMPIO	1	0.011	7.000	485
58972	3F LEM 2 HO LED 140 DALI CR AMPIO	1	0.044	10.190	485
58973	3F LEM 3 HO LED 210 DALI CR AMPIO	1	0.059	14.925	485
58974	3F LEM 4 HO LED 280 DALI CR AMPIO	1	0.067	18.590	485
58975	3F LEM 1+1 HO LED 140 DALI CR AMPIO	1	0.021	11.100	485
58976	3F LEM 5 HO LED 350 DALI CR AMPIO	1	0.081	23.205	485
58977	3F LEM 1 HO LED 70 DALI CR CONC	1	0.011	6.480	486
58978	3F LEM 2 HO LED 140 DALI CR CONC	1	0.044	10.410	486
58979	3F LEM 3 HO LED 210 DALI CR CONC	1	0.059	15.530	486
58983	3F LEM 2 HO LED 140 DALI CR MEDIO	1	0.044	10.800	486
58984	3F LEM 3 HO LED 210 DALI CR MEDIO	1	0.059	15.165	486

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
58985	3F LEM 4 HO LED 280 DALI CR MEDIO	1	0.067	19.100	486
58986	3F LEM 1+1 HO LED 140 DALI CR MEDIO	1	0.021	11.100	486
58987	3F LEM 5 HO LED 350 DALI CR MEDIO	1	0.081	23.310	486
59026	3F LEM 2 HT LED 60 CR AMPIO	1	0.044	9.945	493
59027	3F LEM 3 HT LED 90 CR AMPIO	1	0.059	14.365	493
59028	3F LEM 4 HT LED 120 CR AMPIO	1	0.067	18.585	493
59030	3F LEM 5 HT LED 150 CR AMPIO	1	0.081	22.855	493
59032	3F LEM 2 HT LED 60 CR CONC	1	0.044	12.000	494
59033	3F LEM 3 HT LED 90 CR CONC	1	0.059	14.800	494
59034	3F LEM 4 HT LED 120 CR CONC	1	0.067	17.500	494
59039	3F LEM 4 HT LED 120 CR MEDIO	1	0.067	17.500	493
59041	3F LEM 5 HT LED 150 CR MEDIO	1	0.081	22.815	493
59080	3F LEM 2 SPORT LED 100 CR AMPIO	1	0.044	10.270	497
59081	3F LEM 3 SPORT LED 150 CR AMPIO	1	0.059	14.900	497
59082	3F LEM 4 SPORT LED 200 CR AMPIO	1	0.067	18.665	497
59093	3F LEM 2 SPORT LED 100 DALI CR AMPIO	1	0.044	10.205	497
59094	3F LEM 3 SPORT LED 150 DALI CR AMPIO	1	0.059	15.700	497
59095	3F LEM 4 SPORT LED 200 DALI CR AMPIO	1	0.067	18.665	497
59119	3F LEM 2 HO SPORT LED 140 CR AMPIO	1	0.044	10.600	499
59120	3F LEM 3 HO SPORT LED 210 CR AMPIO	1	0.059	15.700	499
59132	3F LEM 2 HO SPORT LED 140 DALI CR AMPIO	1	0.044	10.600	499
59133	3F LEM 3 HO SPORT LED 210 DALI CR AMPIO	1	0.059	15.700	499
59157	3F LEM 1 LED 50/865 CR AMPIO	1	0.011	7.000	481
59158	3F LEM 2 LED 100/865 CR AMPIO	1	0.044	10.100	481
59159	3F LEM 3 LED 150/865 CR AMPIO	1	0.059	14.795	481
59160	3F LEM 4 LED 200/865 CR AMPIO	1	0.067	18.000	481
59161	3F LEM 1+1 LED 100/865 CR AMPIO	1	0.021	11.090	481
59164	3F LEM 2 LED 100/865 CR CONC	1	0.044	10.500	483
59165	3F LEM 3 LED 150/865 CR CONC	1	0.059	15.600	483
59166	3F LEM 4 LED 200/865 CR CONC	1	0.067	18.470	483
59253	3F LEM 2 LED 100 DALI Sensor CR AMPIO	1	0.059	13.000	489
59254	3F LEM 3 LED 150 DALI Sensor CR AMPIO	1	0.081	17.100	489
59255	3F LEM 4 LED 200 DALI Sensor CR AMPIO	1	0.081	19.500	489
59259	3F LEM 2 LED 100 DALI Sensor CR CONC	1	0.059	13.000	490
59260	3F LEM 3 LED 150 DALI Sensor CR CONC	1	0.081	17.000	490
59261	3F LEM 4 LED 200 DALI Sensor CR CONC	1	0.081	19.500	490
59265	3F LEM 2 LED 100 DALI Sensor CR MEDIO	1	0.059	13.000	489
59266	3F LEM 3 LED 150 DALI Sensor CR MEDIO	1	0.081	17.000	489
59267	3F LEM 4 LED 200 DALI Sensor CR MEDIO	1	0.081	19.500	489
59275	3F LEM 2 SPORT LED 100/940 CR AMPIO	1	0.044	10.270	497
59276	3F LEM 3 SPORT LED 150/940 CR AMPIO	1	0.059	15.700	497
59277	3F LEM 4 SPORT LED 200/940 CR AMPIO	1	0.067	18.665	497
59281	3F LEM 2 SPORT LED 100/940 DALI CR AMPIO	1	0.044	10.600	497
59282	3F LEM 3 SPORT LED 150/940 DALI CR AMPIO	1	0.059	15.700	497
59283	3F LEM 4 SPORT LED 200/940 DALI CR AMPIO	1	0.067	18.665	497
59287	3F LEM 2 HO SPORT LED 140/940 CR AMPIO	1	0.044	10.600	499
59288	3F LEM 3 HO SPORT LED 210/940 CR AMPIO	1	0.059	15.700	499
59293	3F LEM 2 HO SPORT LED 140/940 DALI CR AMPIO	1	0.044	10.600	499
59294	3F LEM 3 HO SPORT LED 210/940 DALI CR AMPIO	1	0.059	15.700	499
60010	3F Solo L WH 14/830 DALI L1475	1	0.007	2.665	117
60011	3F Solo L BK 14/830 DALI L1475	1	0.007	2.665	117
60013	3F Solo L WH 21/830 DALI L2205	1	0.010	3.250	117
60014	3F Solo L BK 21/830 DALI L2205	1	0.010	3.715	117
60016	3F Solo L WH 28/830 DALI L2935	1	0.013	4.650	117
60017	3F Solo L BK 28/830 DALI L2935	1	0.013	4.650	117
60019	3F Solo L WH HO 28/830 DALI L1475	1	0.007	2.695	117
60020	3F Solo L BK HO 28/830 DALI L1475	1	0.007	2.675	117
60022	3F Solo L WH HO 41/830 DALI L2205	1	0.010	3.250	117
60023	3F Solo L BK HO 41/830 DALI L2205	1	0.010	3.250	117
60025	3F Solo L WH HO 54/830 DALI L2935	1	0.013	4.650	117

Analytical guide

Code	Item	Pack			Page
		Pcs	m³	Gross weight in kg	
60026	3F Solo L BK HO 54/830 DALI L2935	1	0.013	4.650	117
60031	3F Solo L WH DI 14+38/830 DALI L1475	1	0.007	2.800	121
60032	3F Solo L BK DI 14+38/830 DALI L1475	1	0.007	3.170	121
60034	3F Solo L WH DI 21+58/830 DALI L2205	1	0.010	4.050	121
60035	3F Solo L BK DI 21+58/830 DALI L2205	1	0.010	4.450	121
60037	3F Solo L WH DI 28+67/830 DALI L2935	1	0.013	5.450	121
60038	3F Solo L BK DI 28+67/830 DALI L2935	1	0.013	5.525	121
60040	3F Solo L WH DI HO 28+38/830 DALI L1475	1	0.007	2.800	121
60041	3F Solo L BK DI HO 28+38/830 DALI L1475	1	0.007	2.800	121
60043	3F Solo L WH DI HO 41+58/830 DALI L2205	1	0.010	4.050	121
60044	3F Solo L BK DI HO 41+58/830 DALI L2205	1	0.010	4.050	121
60046	3F Solo L WH DI HO 54+67/830 DALI L2935	1	0.013	5.450	121
60047	3F Solo L BK DI HO 54+67/830 DALI L2935	1	0.013	5.450	121
60052	3F Solo WH HO 28/830 DALI SP L1475	1	0.007	2.665	118
60053	3F Solo BK HO 28/830 DALI SP L1475	1	0.007	1.900	118
60055	3F Solo WH HO 41/830 DALI SP L2205	1	0.010	2.750	118
60056	3F Solo BK HO 41/830 DALI SP L2205	1	0.010	2.750	118
60058	3F Solo WH HO 54/830 DALI SP L2935	1	0.013	4.100	118
60059	3F Solo BK HO 54/830 DALI SP L2935	1	0.013	4.100	118
60064	3F Solo WH DI HO 28+38/830 DALI SP L1475	1	0.007	2.400	122
60065	3F Solo BK DI HO 28+38/830 DALI SP L1475	1	0.007	2.400	122
60067	3F Solo WH DI HO 41+58/830 DALI SP L2205	1	0.010	3.550	122
60068	3F Solo BK DI HO 41+58/830 DALI SP L2205	1	0.010	3.550	122
60070	3F Solo WH DI HO 54+67/830 DALI SP L2935	1	0.013	4.850	122
60071	3F Solo BK DI HO 54+67/830 DALI SP L2935	1	0.013	4.850	122
260092	L 353x14W LED SP 54V 596x596	1	0.031	5.025	279
260094	L 353x14W LED DALI SP 54V 596x596	1	0.031	5.000	279
270931	L 561x12W LED 2S 221x647	1	0.017	2.725	289
270933	L 561x24W LED 2S 221x1256	1	0.032	5.000	289
270935	L 561x30W LED 2S 221x1556	1	0.042	6.270	289
270937	L 562x12W LED 2S 221x647	1	0.017	2.885	289
270939	L 562x24W LED 2S 221x1256	1	0.032	5.310	289
270941	L 562x30W LED 2S 221x1556	1	0.042	6.160	289
270957	L 561x12W LED SP 221x647	1	0.017	3.015	289
270959	L 561x24W LED SP 221x1256	1	0.032	5.490	289
270961	L 561x30W LED SP 221x1556	1	0.042	7.050	289
270963	L 562x12W LED SP 221x647	1	0.017	3.195	289
270965	L 562x24W LED SP 221x1256	1	0.032	5.670	289
270967	L 562x30W LED SP 221x1556	1	0.042	6.600	289

3F Filippi

Via del Savena, 28
Zona Industriale “Piastrella”
Pian Di Macina
40065 Pianoro - Bologna - Italia

Telefono: 051.6529611
Fax: 051.775884
E-mail: 3f-filippi@3f-filippi.it
Web: **www.3f-filippi.com**

Headquarters
Via del Savena, 28
Zona Industriale “Piastrella”
Pian Di Macina
40065 Pianoro - Bologna - Italy

Telephone: +39 051 652 9611
Fax: +39 051 775 884
E-mail: export@3f-filippi.it
Web: **www.3f-filippi.com**

To keep up to date on our initiatives and new products, subscribe to lightUpdate:
news, events and new products directly in your email inbox. Information at the speed of Light.

Follow us on social media!

Web www.3F-Filippi.com
E-mail export@3f-filippi.it
Telephone +39 051 652 9611
Fax +39 051 775 884

Head office and factory
Via del Savena 28, Z.I. Piastrella
40065 Pian di Macina, Pianoro (Bologna), Italy
Tax Code. 01033260371 - VAT no. IT00529461204
Share Capital € 3,000,000 fully paid up
Bologna Register of Companies no. 01033260371
REA (economic administrative index) No. 234613

3F Filippi S.p.A. is constantly striving to improve its products. Therefore, it reserves the right to modify the contents of this publication without prior notice.
Check for any updates by visiting our website at www.3F-Filippi.com, or contact our Sales Network.