
Railway applications

Fine light for
Railway applications

3F Filippi | **TARGETTI**
GROUP



/ Legend

-  ENEC certification
-  CE certification
-  class of protection against electric shock
-  flicker compliant with IEC TR 61547-1 and IEC TR 63158
-  compliant with photobiological safety standard EN 62471
-  IP degree of protection against water and dust
-  IK Mechanical strength to impacts
-  J Mechanical strength to impacts
-  recyclable product at end-of-life

The data listed in this Brochure may be approximate:
please visit our website at 3f-filippi.com and targetti.com or contact our Sales network to check for any updates.
As **3F Filippi | Targetti Group** 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.

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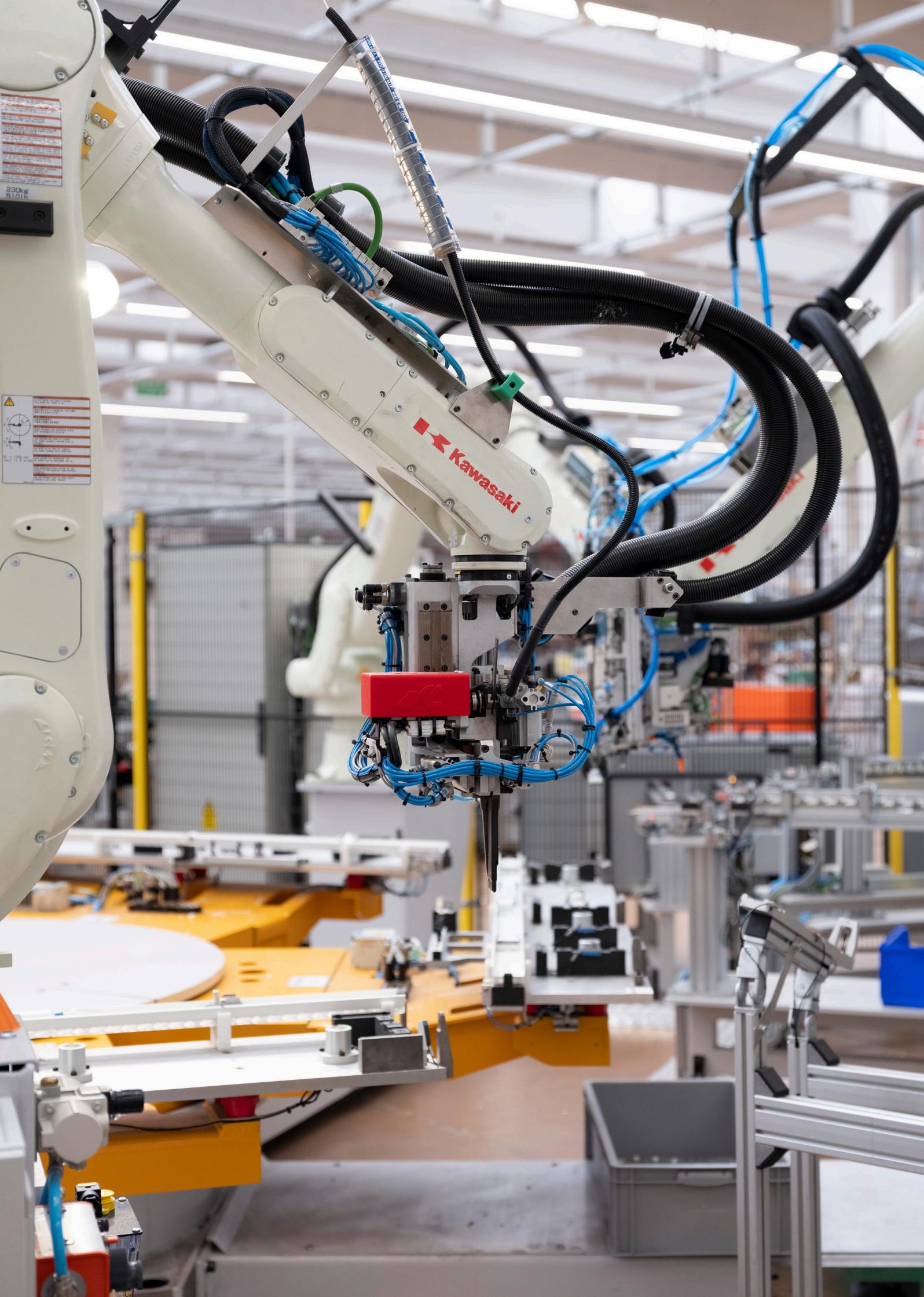
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/The Group

3F Filippi and Targetti, two companies that have made the history of Lighting in Italy, today represent a cohesive reality that presents itself as a single partner at the service of professionals and designers looking for quality solutions.

Our Group is based on the values that have made great the brands that are part of it: expertise in lighting, the wide range of products offered, the ability to customise and the quality of the service provided to customers.



230kg
5100h

WARNING
SAFETY INFORMATION
READ THE MANUAL
BEFORE OPERATING
THE ROBOT
DO NOT TOUCH
THE ROBOT
WHEN IT IS
POWERED ON
DO NOT TOUCH
THE ROBOT
WHEN IT IS
POWERED ON

 **Kawasaki**

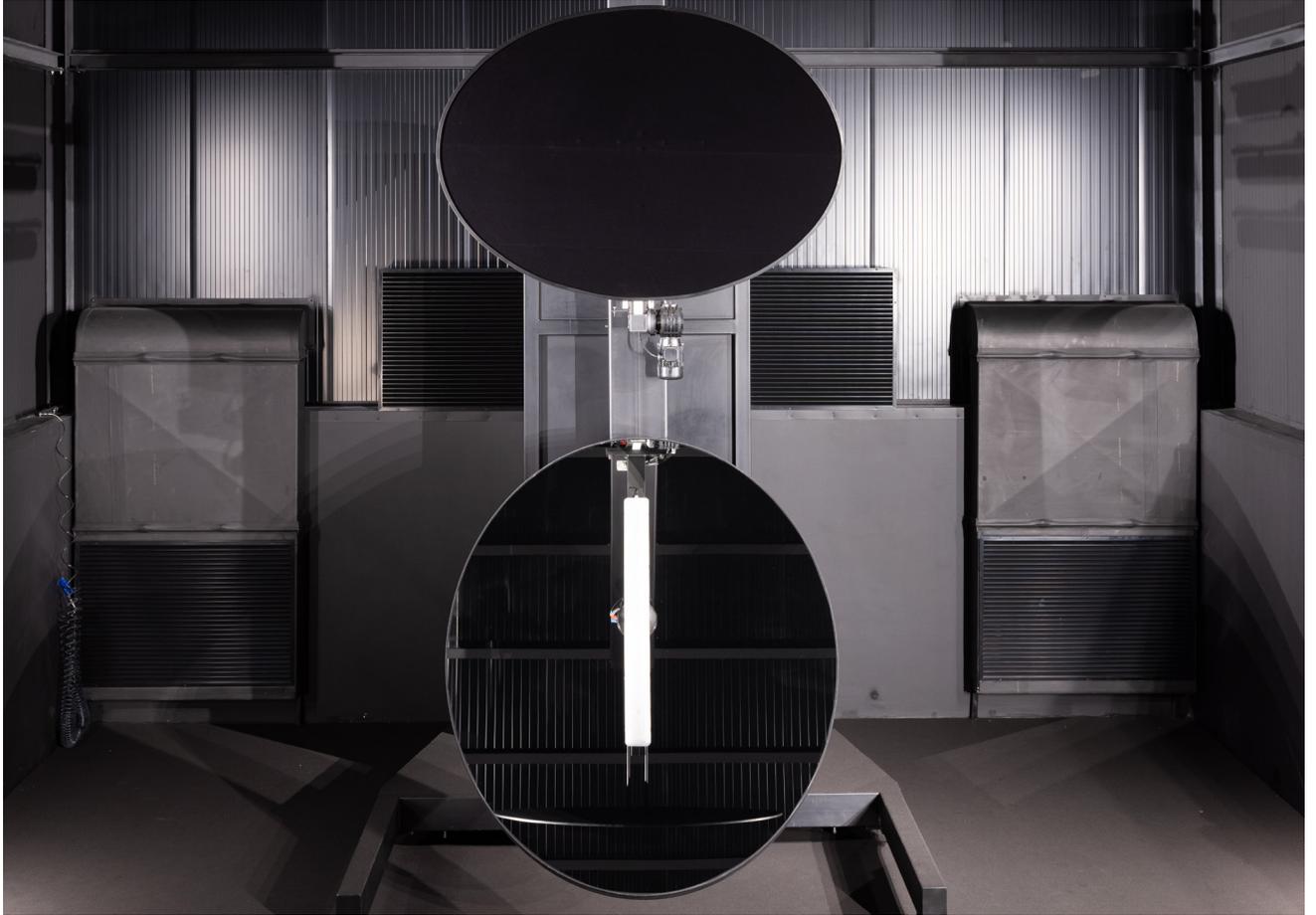




Companies' **experience.**

Building on decades of experience and combining expertise in technical and architectural lighting, the two brands together offer a comprehensive product portfolio that proudly carries the Made in Italy label to over 50 countries worldwide.

The Group's offer responds and satisfies every type of need and design approach. Our interlocutor can count on a vast choice: from products with high technical and functional content in the 3F Filippi catalogue to indoor and outdoor lighting fixtures by Targetti, up to the range of LED sources and fixtures offered by the Duralamp brand.



/ SAFETY
at the highest
level

All Group products 3F Filippi | Targetti Group are tested in-house in special CTFs2-certified laboratories for the purpose of product certification at the development stage, offering direct benefits to the customer by guaranteeing the **safety, quality and long life** of the equipment.



/ RELIABILITY
first of all

All devices are manufactured and tested in compliance with current national standards CEI 34-21, European EN 60598-1 and international IEC 60598-1. This makes them **extremely reliable both mechanically and electrically**.



/ READY
for any
emergency

Our Group is one of the few in Europe **with the tools to certify its products** according to the recent UNI EN 13032 and IES LM-79 standards, which establish the requirements for **emergency lighting** with or without a replaceable light source.



Certified design.

The 3F Filippi | Targetti Group guarantees the photometric documents according to the most up-to-date European and international regulations and recommendations, thanks to the support of the photometric laboratory in line with the official European laboratories.

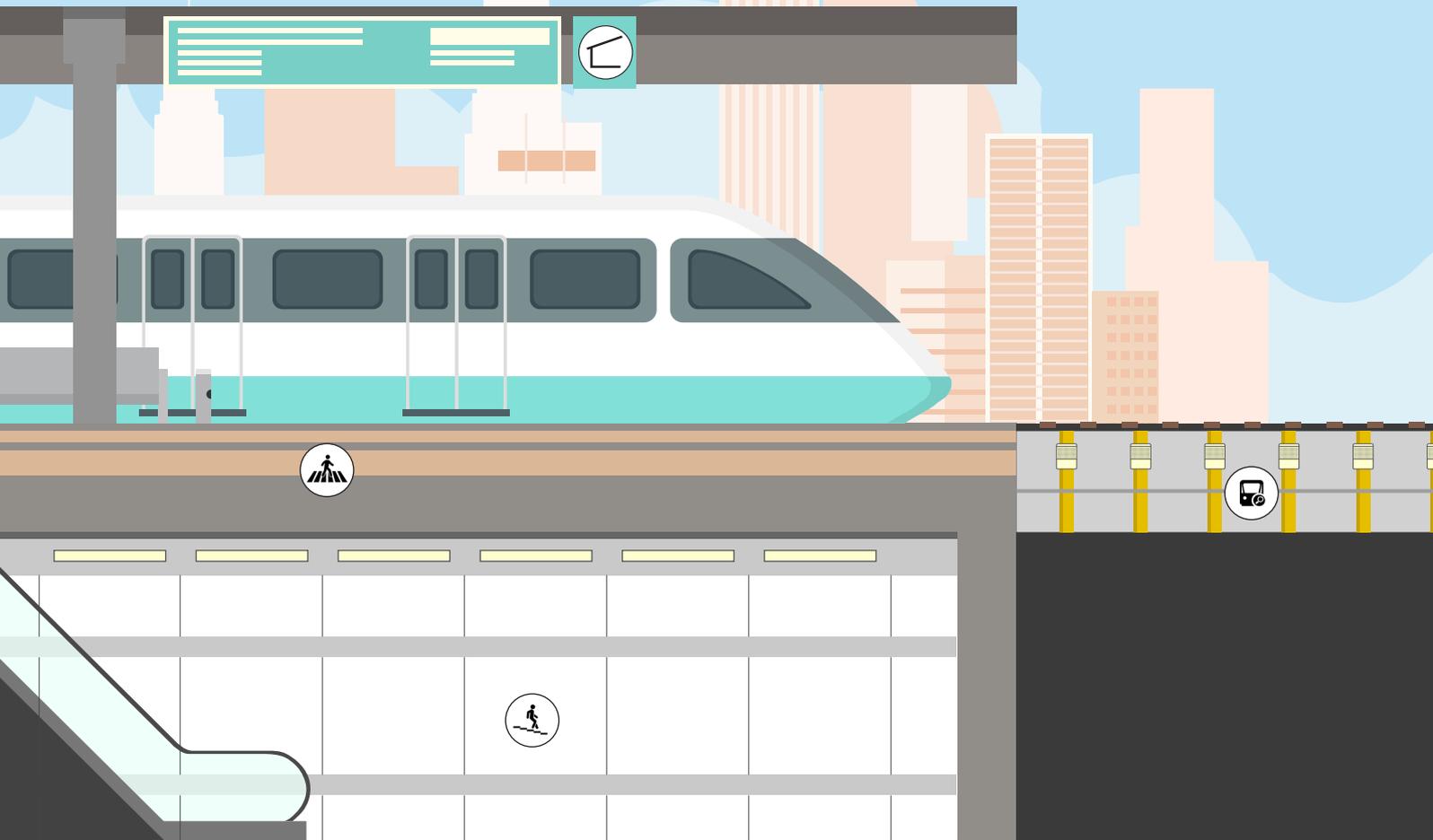
The photometric tests are carried out with procedures **in compliance with the standards UNI EN 13032 and CIE 121.**

The companies have the most advanced programs for the study and optimisation of optics and flux recuperators to obtain maximum efficiency and light distributions are suitable for the most varied applications.

This commitment has been recognized and certified by the CSQ (Italian Certification of Company Quality Systems) for the lighting design phase.



/The spaces



Versatility at 360°.

Our Group's products are extremely versatile and can be used in a variety of applications and contexts of use. In the case of railway applications, these are the main areas in which our products are used:



/ PAVEMENTS



/ UNDERPASSES



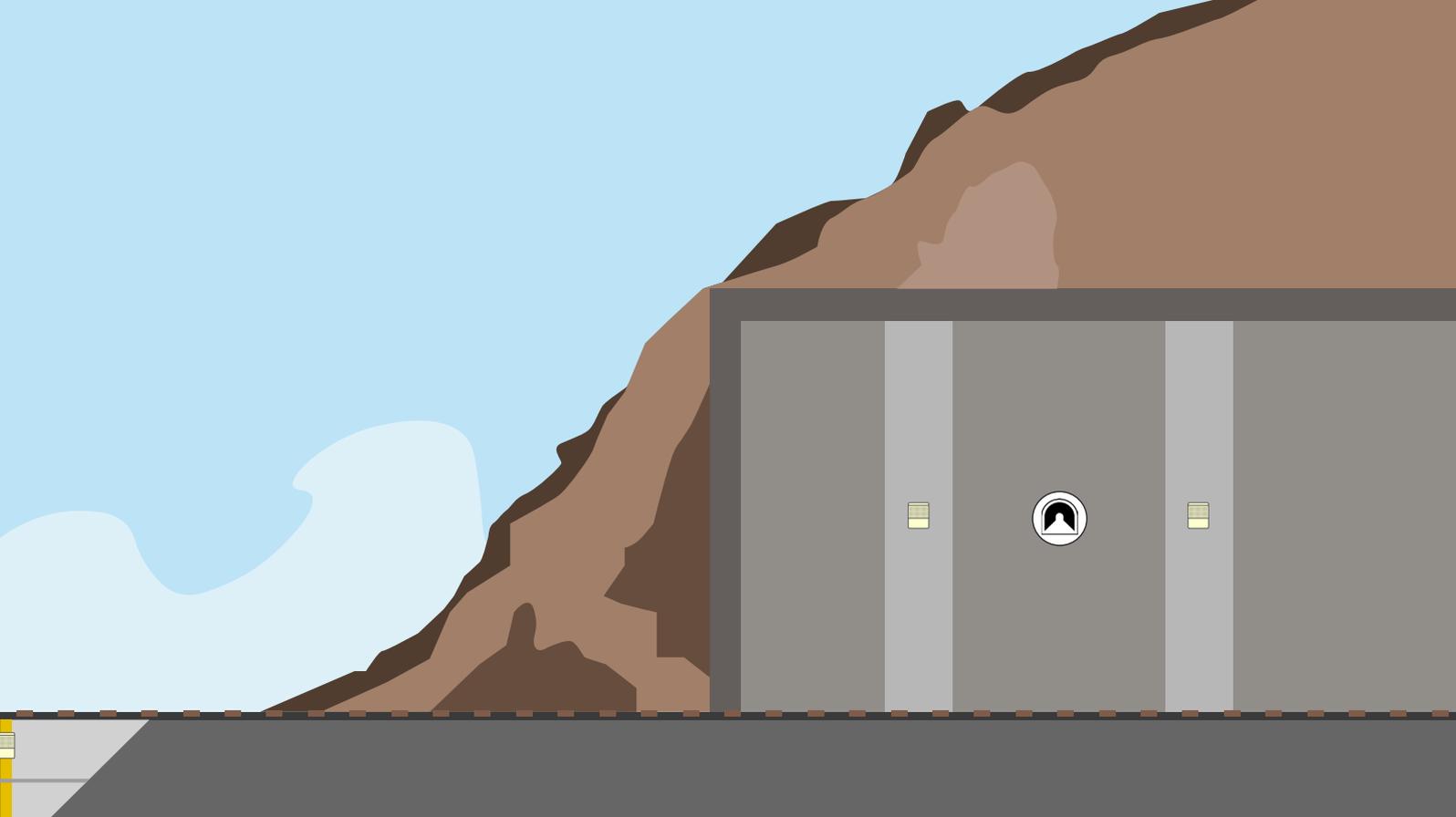
/ SHELTERS



/ INSPECTION DITS



/ GALLERIES



3F Filippi



TARGETTI

/ Sidewalks, shelters and underpasses



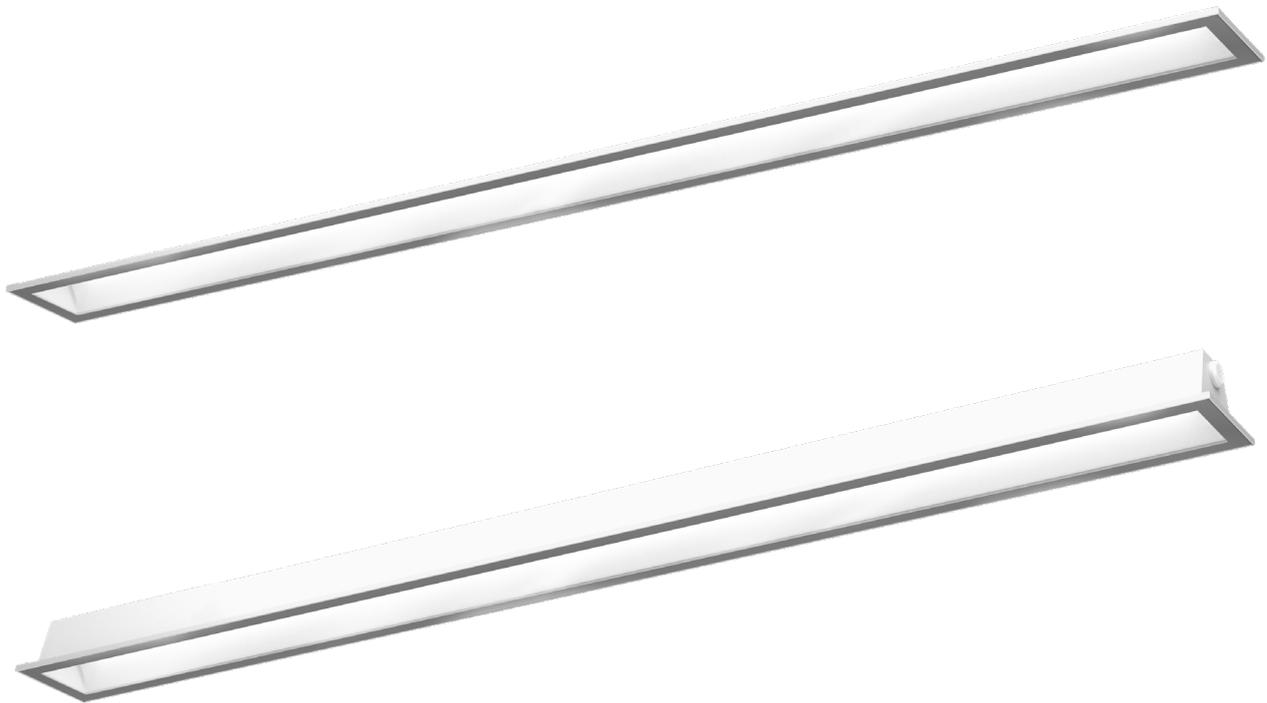


14 _ ^{3F} **X8 Rail**

16 _ **3F 1**

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20 _ **JEDI**



3F X8 Rail



The light runs on **rails**.

3F X8 Rail is the new linear recessed and surface-mounted product explicitly designed for railway applications.

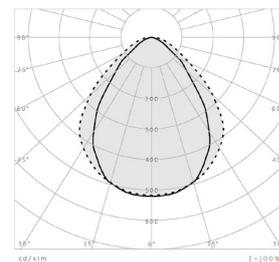
3F X8 Rail is equipped with high-efficiency LED sources to guarantee an initial luminous flux > 4,500 lm with a RA 80 - 4000K LED source.

Furthermore, the product is guaranteed to have a useful life of 70,000 h (L80/B10 at tq+25°C).

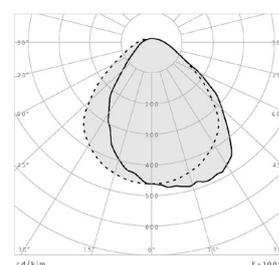
3F X8 Rail has been designed to interface with the 3F1 and 3F2 systems for versatile and safe use.

Main features:

- _ Aluminum body painted grey RAL 9006 or white RAL 9010.
- _ Screen in VS printed glass, 4 mm thick, tempered, anti-glare with treatment (HST).
- _ Stainless steel frame, sealing gasket, stainless steel locking screws.
- _ Ambient operating temperature $-15^{\circ}\text{C} \div +40^{\circ}\text{C}$.
- _ Dimensions 1240x130xH77 mm.
- _ DALI-2 electronic wiring (certified with parts 251, 252, 253).
- _ Appliance power 40W.
- _ Line through in-out on opposite ends.



— C0 / C180
- - - C90 / C270





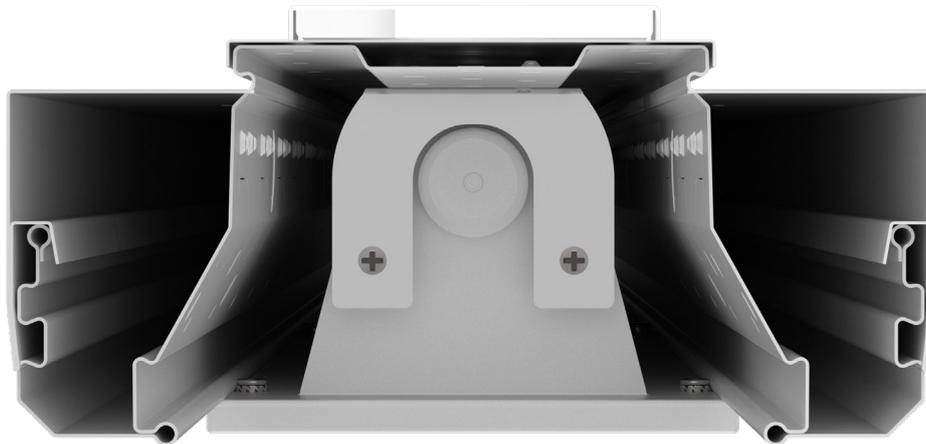
Notes:

Regulatory compliance

- _ CE - EN/IEC 60598-1.
- _ EN 60598-2-22
- _ Luminaire compliant with RFI DTC STS ENE SP IFS LF 163 A specifications RFI DST MA IFS 001 A.

Installations

- _ channel: integrated with the 3F1 or 3F2 structure.
- _ single: ceiling mounted or suspended using unique accessories.
- _ single: built-in using a particular outer casing.
- _ Version in insulation class II and 6 kV insulation voltage (50 Hz industrial frequency impulse withstand voltage: 2.8 kV) for uncovered sidewalks and shelters.
- _ Version in insulation class I or II for underpasses.



3F 1

One body, multiple solutions.

3F1 is an extremely robust modular system built in galvanised steel and designed to form channels and branches.

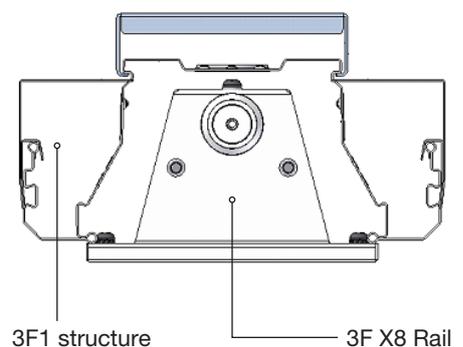
The 3F1 product has dimensions to house the 3F X8 Rail product inside.

3F1 is specific for applications such as shelters, sidewalks and underpasses in its ceiling, suspension and wall versions.

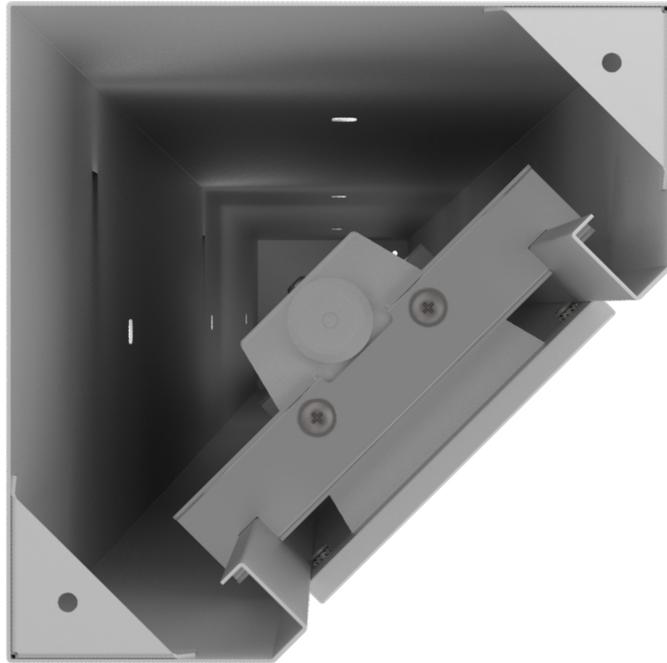
Main features:

- _ Structure and lids in grey RAL 9006 or white RAL 9010.
- _ Arranged for laying cables and UTP/FTP network cables cat. 6 (Electricity, telephone and computer networks, smoke and flame detectors, sound system, etc.).
- _ Dimensions 186xH77 mm.
- _ Lids that can be equipped for various uses (diffusion, surveillance, security, etc...).

3F1 section







3F 2

Every angle can shed light.

3F2 is a highly robust corner modular system built in galvanized steel and designed to form channels.

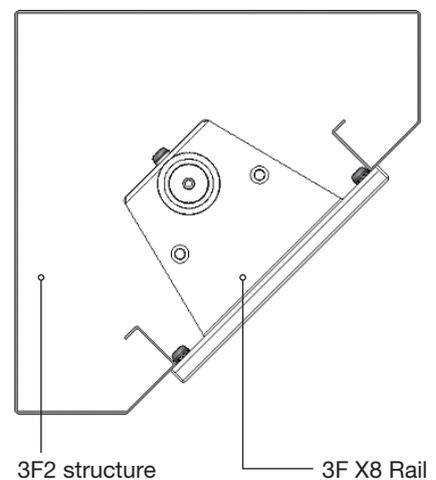
As for the 3F1 product, 3F2 too has dimensions such as to be able to house the 3F X8 Rail product inside.

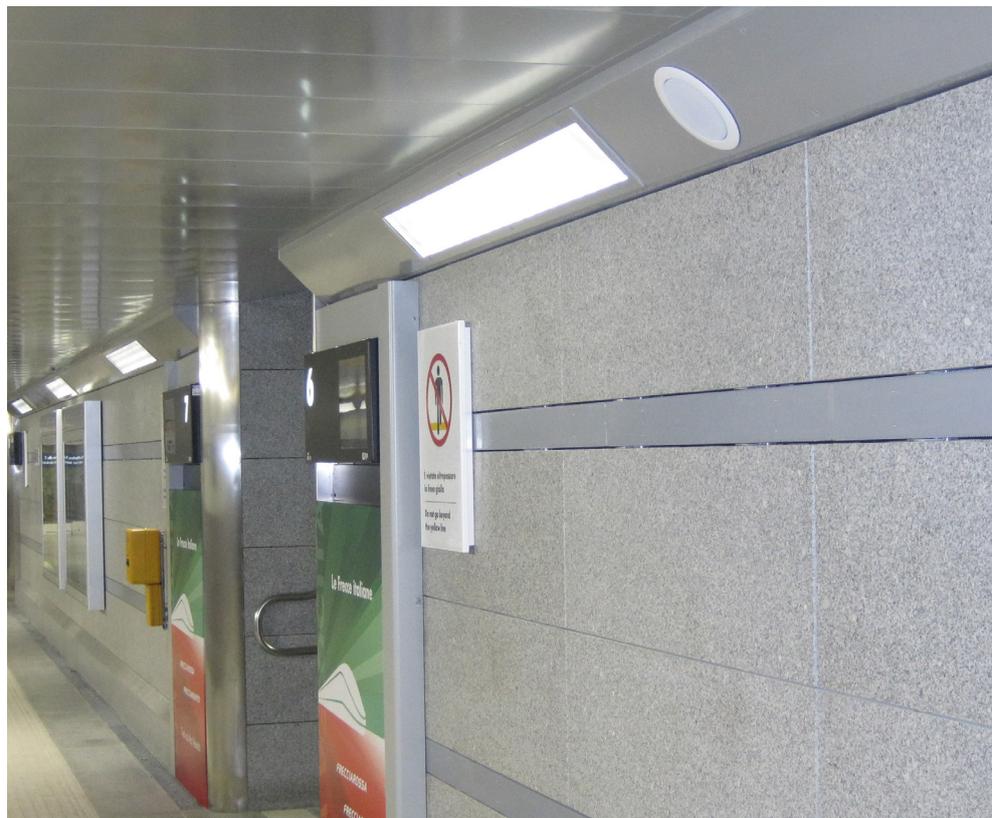
3F2 is specific to be installed at an angle in underpasses.

Main features:

- _ Structure and lids in grey RAL 9006 or white RAL 9010.
- _ Arranged for laying electrical cables and/or UTP/FTP network cables cat. 6 (Electricity, telephone and computer networks, smoke and flame detectors, sound system, etc.).
- _ Dimensions 180xH180 mm.
- _ Lids that can be equipped for various uses (diffusion, surveillance, security, etc...).

3F2 section







JEDI

May the **light** be with you.



Jedi is the coordinated range of linear fixtures for lighting large surfaces.

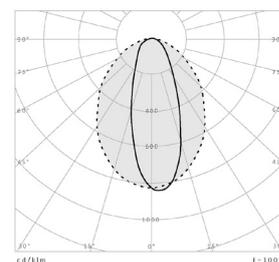
The multiplicity of effects, its installation flexibility and its different lengths are all characteristics that make it a tool capable of constantly offering a solution to the different project needs.

Jedi is equipped with high-efficiency LED sources to guarantee an initial luminous flux > 2,750 lm with a RA 80 - 4000K LED source. The light distribution can be flood or wall washer.

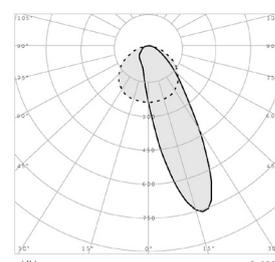
The product is guaranteed to have a useful life of 70,000 h (L80/B10 at tq+25°C).

Main features:

- _ Body in 15µ anodized extruded aluminium.
- _ Flat screen in 4 mm thick extra-clear tempered glass.
- _ Ambient operating temperature -15°C ÷ +40°C.
- _ Dimensions 1216x81xH82 mm.
- _ DALI-2 electronic wiring (certified with parts 251, 252, 253).
- _ Appliance power 23 W.
- _ EN 60598-2-22 compliant luminaire for centralised power supply.
- _ Line through in-out on opposite ends.



— C0 / C180
- - - C90 / C270

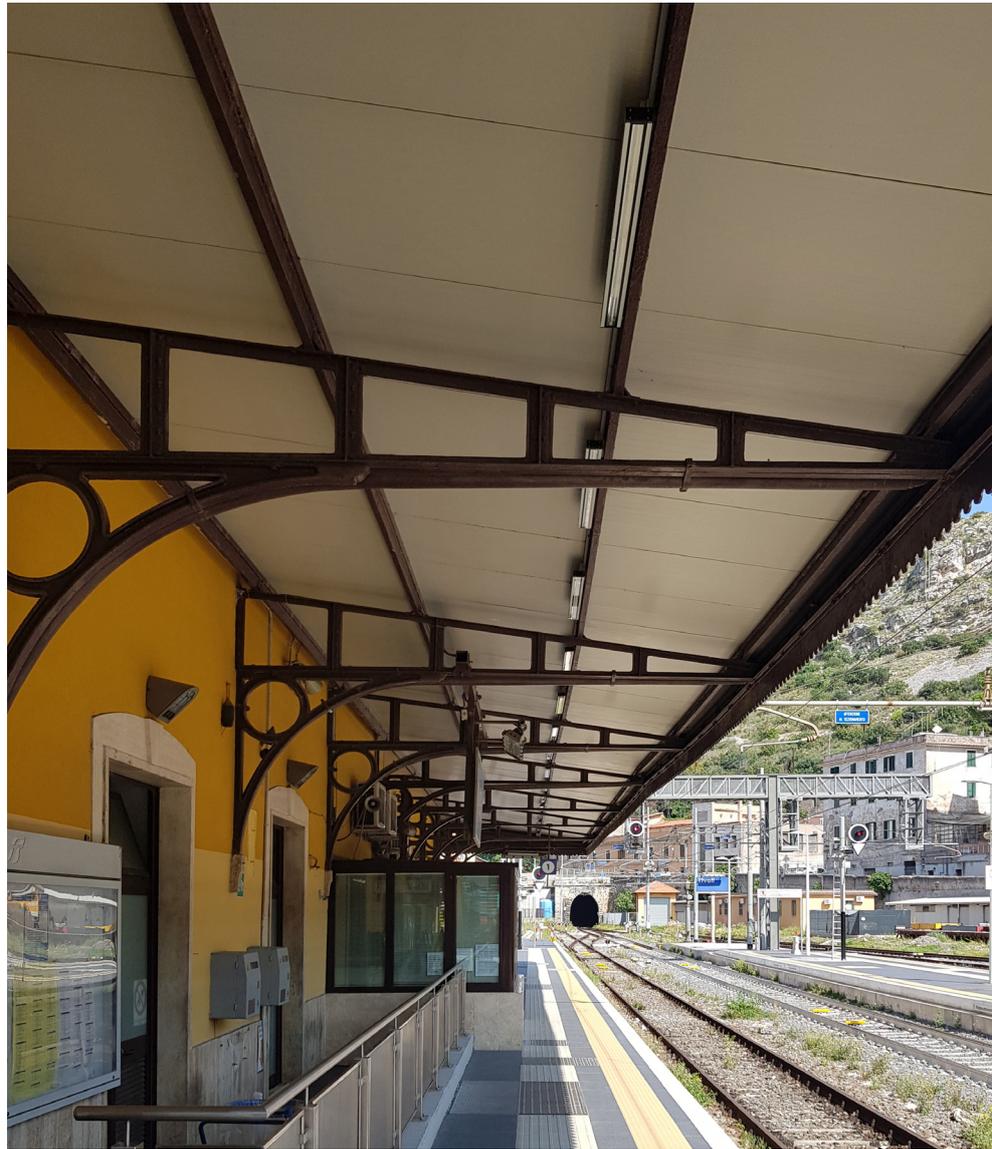


Notes:**Regulatory compliance**

- _ CE - EN/IEC 60598-1.
- _ Luminaire compliant with RFI DTC STS ENE SP IFS LF 163 A specifications RFI DST MA IFS 001 A.

Installations

- _ single: ceiling, wall or suspension using special accessories.
- _ single: built-in using a particular outer casing.
- _ Version in insulation class II and 6 kV insulation voltage (50 Hz industrial frequency impulse withstand voltage: 2.8 kV) for uncovered sidewalks and shelters.
- _ Version in insulation class I or II for underpasses.



/ Galleries and railway pits





24 _ ^{3F} **FS PC**

26 _ ^{3F} **Fosse**

28 _ **Beta** ^{A3F} **Fosse**



3F FS PC

Darkness **lights up**.



3F FS PC is a wall-mounted product suitable for lighting tunnels and galleries, even in an emergency.

3F FS PC is equipped with LED sources which guarantee an initial luminous flux of 503 lm with a RA 80 - 4000K LED source.

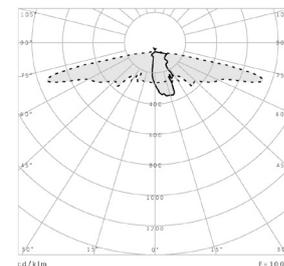
Furthermore, the product is guaranteed to have a useful life of 50,000 h (L80/B10 at $t_q+25^\circ\text{C}$) and has a downward bilateral light distribution.

3F FS PC has a power of 6W and is powered by a 0.3 m long FG16(O) M16 2x1.5 mm² cable connected to an IP67 mobile connector consisting of a UL94V0 self-extinguishing thermoplastic resin insert.

Main features:

Pressure/vacuum resistance 5kPa. Body in self-extinguishing V2 polycarbonate, injection moulded in grey RAL 7035. Base in stainless steel allows quick assembly and disassembly of the luminaire without tools (using 4 side clips in stainless steel).

Diffuser in polycarbonate, self-extinguishing V2, UV stabilised, high transparency >87%, injection moulded thickness 3÷4 mm, with a smooth external surface and internal with the differentiated anti-glare prismatic surface. Anti-vandal closure. Dimensions 255x174xH360 mm.



— C0 / C180
- - - C90 / C270





Notes:

Regulatory compliance

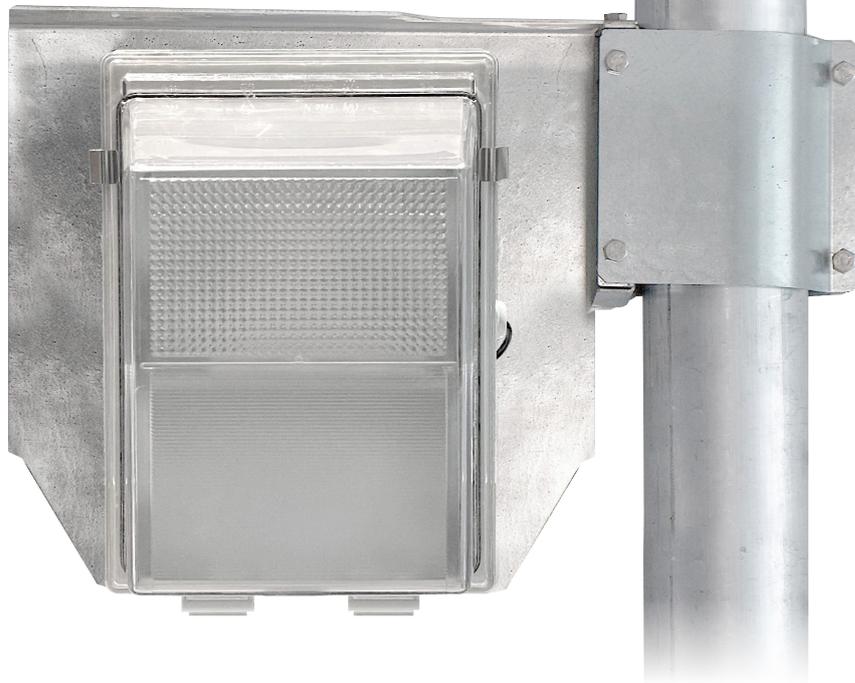
- _ ENEC - CE - EN/IEC 60598-1.
- _ Luminaire compliant with
- _ RFI DTC STS ENE SP IFS LF 162 A specifications.

Installations

- _ wall.

Conveyed waves version (on demand)

- _ Appliance compliant by derogating from the RFI DTC STS ENE SP IFS LF 162 A specification, with RFI-DTC STA0011P20200000798 approval.
- _ Electronic wiring with driver ad.
- _ Cascade installation in/out.
- _ Internal passing line made with n. two single-core cables in double insulation with a section of 1.5 mm², type UR7R7.
- _ Double circular connector with quick coupling for in/out power backbone; no. 2 sockets provided.



3F Fosse

For a **total** inspection.



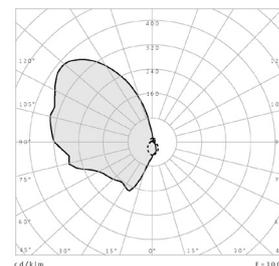
3F Fosse is a pole-mounted product specifically designed to inspect trains in railway pits and offers the possibility of mounting both on the right (DX) and the left (SX).

it is equipped with LED sources which guarantee an initial luminous flux > 1,150 lm with a RA 80 - 4000K LED source.

Furthermore, the product is guaranteed to have a useful life of 50,000 h (L80/B10 at tq+25°C) and has an upward asymmetric light distribution.

Main features:

- Body in self-extinguishing V2 polycarbonate, injection moulded in RAL 7035 grey colour.
- Diffuser in self-extinguishing V2 polycarbonate, UV, high transparency >87%, injection moulded 3÷4 mm thick, with smooth external surface and internal with differentiated anti-glare prismatic surface and closing using AISI 305 stainless steel devices and screws.
- Hot-dip galvanised steel fixing and protection bracket.
- Dimensions 255x174xH360 mm.
- Electronic wiring.
- Appliance power 14 W.



— C0 / C180
- - - C90 / C270





Notes:

Regulatory compliance

- _ CE - EN/IEC 60598-1.
- _ Appliance certified to Fire Reaction Class 1 according to the Ministerial Decree of 26 June 1984.

Installations

- _ In viewing pits on Ø 115mm column.





Beta A3F Fosse

Robust. Like never before.



Beta A3F Fosse is an adjustable pole product explicitly designed for inspecting trains in railway pits and can be rotated upwards.

It is equipped with LED sources that guarantee an initial luminous flux > 1,650 lm with a RA 80 - 4000K LED source.

Furthermore, the product is guaranteed to have a useful life of 50,000 h (L85/B10 at tq+25°C), and has an asymmetric light distribution that can be adjusted upwards.

Main features:

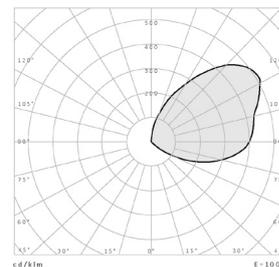
Body in AISI 304 stainless steel pressed in a single piece of exceptional strength.

Screen in tempered glass, internally micro prismatic (for better visual comfort and reduced glare), 4 mm thick, smooth side externally, blocked using an AISI 304 stainless steel frame.

Dimensions 655x235xH140 mm.

Electronic wiring.

Appliance power 15 W.



— C0 / C180
- - - C90 / C270



Notes:

Regulatory compliance

_ CE - EN/IEC 60598-1.

Installations

_ Wall adjustable.

_ On double vertical column.



/ Other applications



All products presented in this brochure can be customised to meet the specific requirements of each application. Please do not hesitate to contact our sales network or technical offices for further information and/or technical clarification.



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