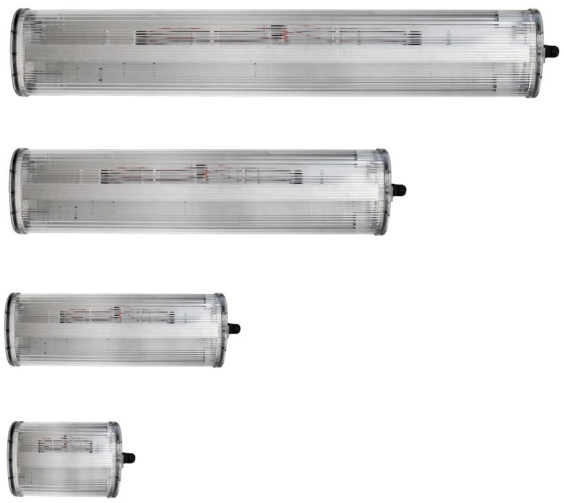
HFT- EM

Pedestrian Emergency in tunnels



KEY BENEFITS

- Access to the driver and PCB from the side for easy maintenance.
- Quick connectors for installation without opening.
- New wall mounting system.
- Permanent Emergency version 1h to 2h.
- Combined Emergency version from 1h to 2h.
- Non-permanent Emergency version 1h to 2h.
- Durability and sturdiness: IP66 + IK10.
- Coextruded polycarbonate.
- Up to 4 sizes (N, S, M y L).
- Energy Efficient: Up to 108 lm/W luminaire.
- Future Proof: Zhaga-compliant.
- Lifetime L90B10 100.000h (Tª) 25ºC.
- 5 years warranty

IP66 IK10 CI CII RAL 7040B Marine finish (RAL M7040B) EM 1H/2H

Eprotec Zhaga DALI 2

DESCRIPTION

The **HFT** Series is a **pedestrian emergency luminaire in tunnels** with state-of-the-art LED technology designed for tunnels and infrastructures, specifically for emergency lighting installed at low heights, where its design, which minimises glare, is particularly important. It has high-performance LEDs which, when integrated into the studied design of the armature, achieve high quality lighting with excellent uniformity and a surprising degree of efficiency, providing versatility to cover the different emergency lighting design casuistry that the regulations foresee.

4,000K
CRI>70

N: 1.188 lm a 1.818 lm.
S: 320 lm a 2.913 lm.
M: 840 lm a 2.913 lm.
L: 3.486 lm a 6.364 lm.

Ta –20ºC a +30ºC.
Version + 50ºC, to consult.

>108 lm/W
Luminary

9,3 %
ULOR/ULR

N: 1,5 Kg.
S: 1,9 Kg.
M: 2,3 Kg.
L: 3,3 Kg.

STANDARDS / CERTIFICATES

- UNE EN 60598-1:2009
- UNE EN 60598-2-3:2003
- UNE EN 62031:2009
- UNE EN 62384:2007
- UNE 61347-2-13:2007
- UNE-EN 62471:2009
- UNE EN 55015:2013
- UNE EN 61000-3-2:2006
- UNE EN 61000-3-3:2013
- UNE EN 61547:2009
- NF P 92-501/507 (M1)
- UNE EN 60598-2-22

EMERGENCY REGULATION

- OC 36/2015: Pedestrian Emergency
- RD 635/2066: Safety in road tunnels.
- CIE88-2004 and UNE CR 14.380

Distributor: EPK elektro s.r.o.
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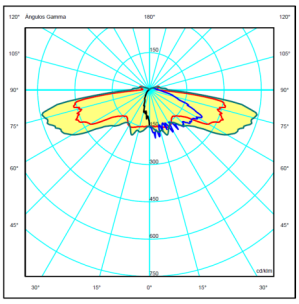
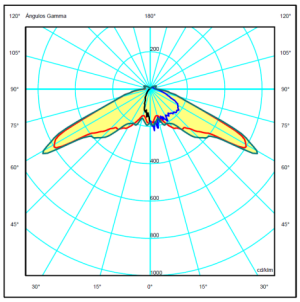
DISTRIBUTIONS OPTIQUES

It has the 2 photometric distributions used for the environments in which this type of luminaire is installed, allows it to adapt to all needs:

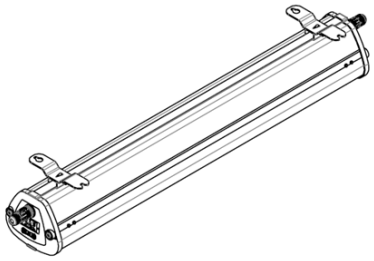


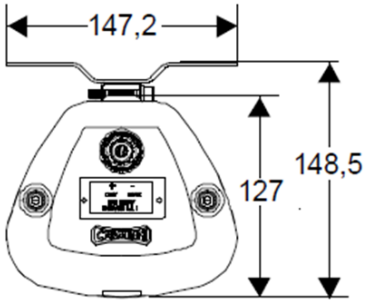
EVA1

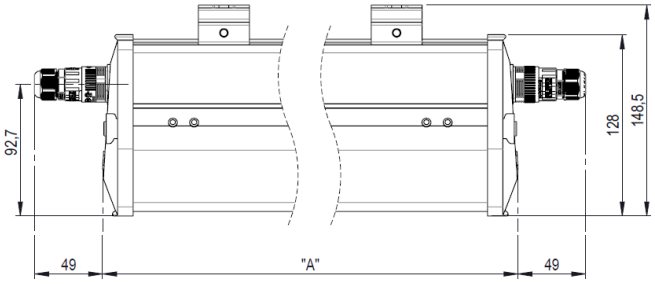


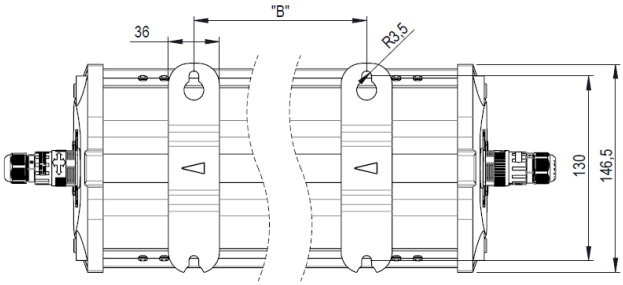
EVA2

DIMENSIONS









MODEL	"A"	"B" Max
N	322 mm	172 mm
S	450 mm	300 mm
M	669 mm	519 mm
L	890 mm	740 mm

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CHARACTERISTICS HFT-EM

GENERAL INFORMATION

Sustainability	Valorisation: 97,67% Maximum carbon footprint per use: 0,01657 Kg Kw/h CO^2.
CE mark	Yes
RoHS-compliant	Yes
Testing standards	LM 79-80 (all measurements at ISO17025 certified laboratory)

GENERAL CHARACTERISTICS

Diffuser	Single-piece coextruded polycarbonate with an additive which provides protection against UV rays, significantly increasing its durability. Type of polycarbonate: LAS.LEXAN ML-3021 C/A-703 and A-112 DE GE.
Reflector	Aluminium plate, anodized and sealed.
Finish	Body, grey with external protective additive (similar to RAL-7040).
Entry	Equipped with quick connectors for easy installation andsubsequent maintenance.
Nuts outer and bolts	Stainless steel (AISI304).
Connectors	It can be fitted with 1 or 2 connectors, depending on the regulation.
Watertightness	IP66 (EN 60598-1 and EN 60529).
Impact protection grade	IK10 (EN 62262)
Operating temperature	Ta –20ºC to +30ºC Version + 50ºC, to consult.
Life time	L90B10 100,000 h at Ta 25°C. Light maintenance values at 25°C. Calculated by TM-21 based on LM-80 data.

ELECTRICAL CHARACTERISTICS

Electrical class	Class I Class II
Voltage / Frequency	220V - 240V / 50Hz - 60Hz Optional 100 V - 277 V
Power factor	> 0.9
Harmonic distortion	< 10%.
Surge protection	Overvoltage protection (1.2/50) 10 kV. Maximum current (8/20) 10kA. Maximum voltage (L-N) 320 V. Maximum voltage (L/N-GND) 400 V. Optional overvoltage protection: 20 kA, 20 kV.

FINISHES

PREDEFINED LUMINAIRE COLOUR

RAL 7015	Polyester Powder 7015 Slate Grey Textured Matt

Corrosion protection

SEA SIDE SUITABLE	Marine Finish (1.000h) (Optional)

LIGHTING CHARACTERISTICS

Package real light	N: 1.188 lm a 1.818 lm. (12W - 21W) S: 320 lm a 2.913 lm. (13W - 33W) M: 840 lm a 2.913 lm. (24W - 33W) L: 3.486 lm a 6.364 lm. (32W - 64W)
LED colour temperature	4,000K (Neutral White, nw). Other colour temperatures, upon request.
Colour rendering index (CRI)	CRI>70
LEDs	Includes 16, 28 and 56 LEDs.
Optics	Acrylic PMMA lenses especially designed for LEDs.
Photometric distributions	EVA1: Throw angle 15º/60º spread angle 80º (Tyoe IV). EVA2: Throw angle 0º/60º spread angle 60º (Tyoe IV).
LED termal management	Heat dissipation via conduction, radiation and convection bases on a design for LED technology.

MAINTENANCE AND ASSEMBLY

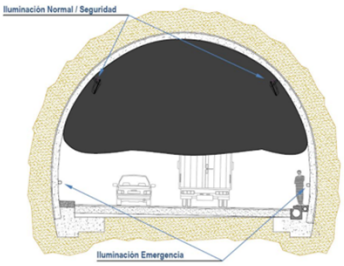
Installation and maintenance	Pressed polycarbonate side covers with gaskets, which provide a certain degree of protection. Access to the tray with stainless steel screws.
Fixation	Two zinc-plated steel anchors are supplied for surface fixing.
Equipped weight	N: 1,5 Kg. S: 1,9 Kg. M: 2,3 Kg. L: 3,3 Kg.

MANAGEMENT AND CONTROL

Equipment	**SD:** Board without driver. **1N:** 1 level (L1N). **RD:** DALI protocol adjustable (LRD).
Emergency	**S-EM:** Whitout emergency. **EMP1:** 1h permanent emergency. **ENP1:** Emergency not permanent. **EMA1:** Emergency actionable 1h. **EMP2:** 2h permanente emergency. **ENP2:** Emergency not permanente 2h. **EMA2:** Emergency actionable 2h. *The batteries are NiCd (Nickel-Cadmium).
Equipped weight	**N:** 1,5 Kg. **S:** 1,9 Kg. **M:** 2,3 Kg. **L:** 3,3 Kg.

New Regulations & Recommendations Emergency Lighting

Its function is to provide guidance and signposting, indicating the evacuation route to users. It is located at a low height to prevent normal lighting equipment from being obscured during a fire due to the stratified smoke in the upper area of the tunnel



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INNOVATIVE AND UPDATABLE OVER TIME (Zhaga)

"All luminaires incorporating Nema Bases or Zhaga Bases, where the control system is not the responsibility of Carandini, must always incorporate IP 66 covers in order to ensure the correct safety and operation of the product.

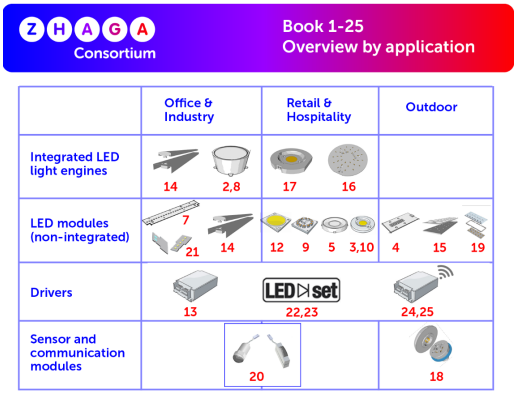
The sale of luminaires with Nema or Zhaga Bases without the IP 66 cover will only be permitted upon receipt of a written assurance from the customer that the control system using NEMA or ZHAGA Nodes will be installed by the customer at the same time as the luminaires".

Zhaga

Zhaga - Future Proof

Zhaga is an industry-wide consortium that aims to standardise specifications for interfaces between LED luminaires and light sources. The aim is to achieve interchangeability between products made by different manufacturers. Zhaga defines test procedures for luminaire and LED light sources so that the luminaire can receive the LED source.

"BOOKS" PER APPLICATION. A PROFITABLE SOLUTION.



The specifications indicating that a component is Zhaga can be found in a series of books that are only available to consortium members and enable designs to be produced according to the marked standard. The advantages for society are clear given that, besides reducing the consumption of resources, luminaire re-use is increased with a focus on achieving a circular economy.

CERTIFICATION PROGRAMME

Zhaga-D4i certification covers all the essential characteristics, including automatic adjustment, digital communication, data reporting and power requirements in any single luminaire, ensuring plug-and-play interoperability for luminaires (drivers) and peripherals, such as connectivity nodes.

CERTIFICATION PROGRAMME

The HFT luminaire has been designed to function with the latest available market-proven technology based on standards. This also enables it to meet the CARANDINI sustainability requirements and become a product ready for maintenance in the future under better guarantees while respecting the environment and society.