



HEMS

HELICOPTER EMERGENCY MEDICAL SERVICE

NIGHT LIGHTING

ICAO

EASA

ENAC



www.vdglab.com





Night Lighting System HEMS
applicable to helipads and
helidecks, both on ground
level and elevated

INDEX

TYPICAL INSTALLATIONS

GROUND HEMS SQUARE FATO- SQUARE TLOF	04
GROUND HEMS SQUARE FATO- CIRCULAR TLOF	05
GROUND HEMS CIRCULAR FATO- CIRCULAR TLOF	06
ELEVATED HEMS SQUARE SAFETY – CIRCULAR TLOF	07
ELEVATED HEMS SQUARE SAFETY – SQUARE TLOF	08
ELEVATED HEMS CIRCULAR SAFETY – CIRCULAR TLOF	09

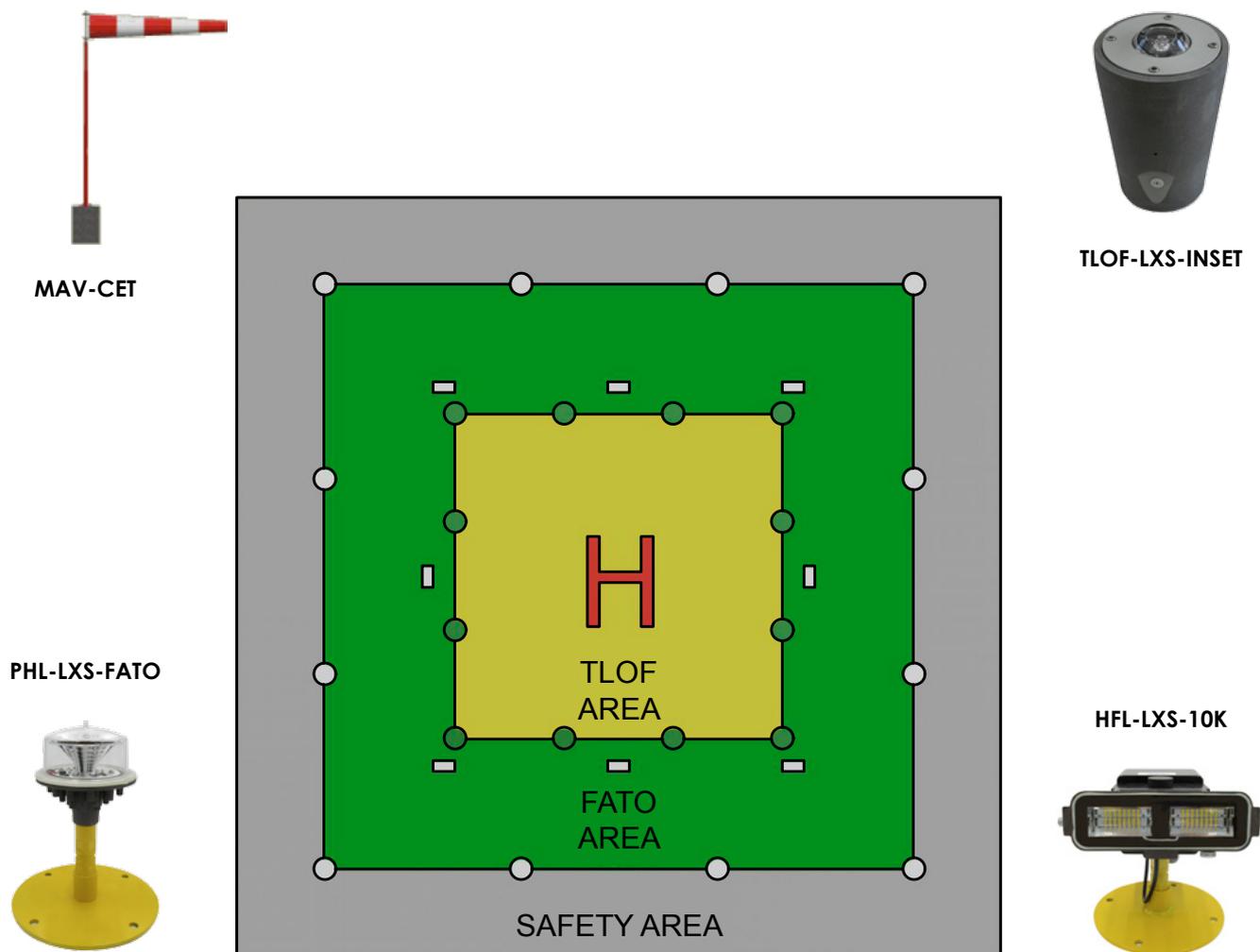
PRODUCTS

PERIMETER LIGHTS FATO PHL-LXS-FATO	10
PERIMETER LIGHTS FATO FATO-LXS-INSET	12
FLOODLIGHT HFL-LXS-10K	14
PERIMETER LIGHT TLOF TLOF-LXS-INSET	18
ILLUMINATED WINDSOCK MAV-CET	20
RADIO SYSTEM L854-LXS	24
HELIPORT BEACON HB-LXS	26
LOW INTENSITY OBSTACLE LIGHT LIOL	28
SOLAR STORAGE SYSTEM SOL-LXS	31
SOLAR STORAGE SYSTEM SOL-LXS-PLP	32
SOLAR STORAGE SYSTEM SOL-LXS-IBR	33
MEDIUM INTENSITY OBSTACLE LIGHT MIOL	34
UPS UPS-LXS	37
CLOUD MONITORING SYSTEM CMS-LXS-HIW	38

NIGHT LIGHTING HEMS

TYPICAL INSTALLATION GROUND HEMS

SQUARE FATO AREA – SQUARE TLOF AREA



LEGEND

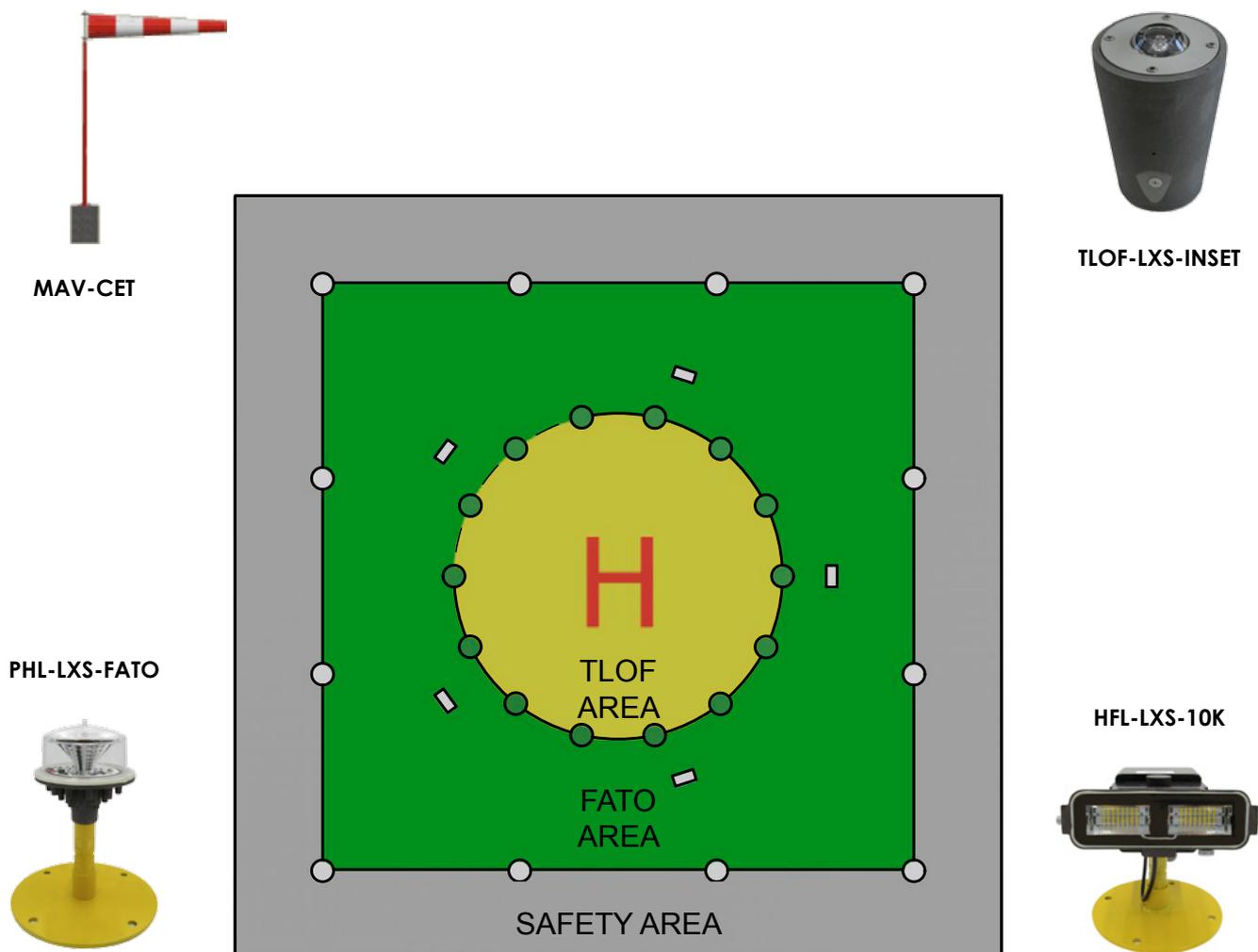
- PHL-LXS-FATO or FATO-LXS-INSET typical quantity required: 12 pieces*
- TLOF-LXS-INSET typical quantity required: 12 pieces*
- HFL-LXS-10K typical quantity required: 8 pieces*
- MAV-CET typical quantity required: 1 piece
- HB-LXS typical quantity required: 1 piece **(optional)**
- L854-LXS typical quantity required: 1 piece **(optional)**
- CLOUD typical quantity required: 1 piece **(optional)**

(*) Quantity to be verified with LUXSOLAR technicians according to each specific project.

NIGHT LIGHTING HEMS

TYPICAL INSTALLATION GROUND HEMS

SQUARE FATO AREA – CIRCULAR TLOF AREA



LEGEND

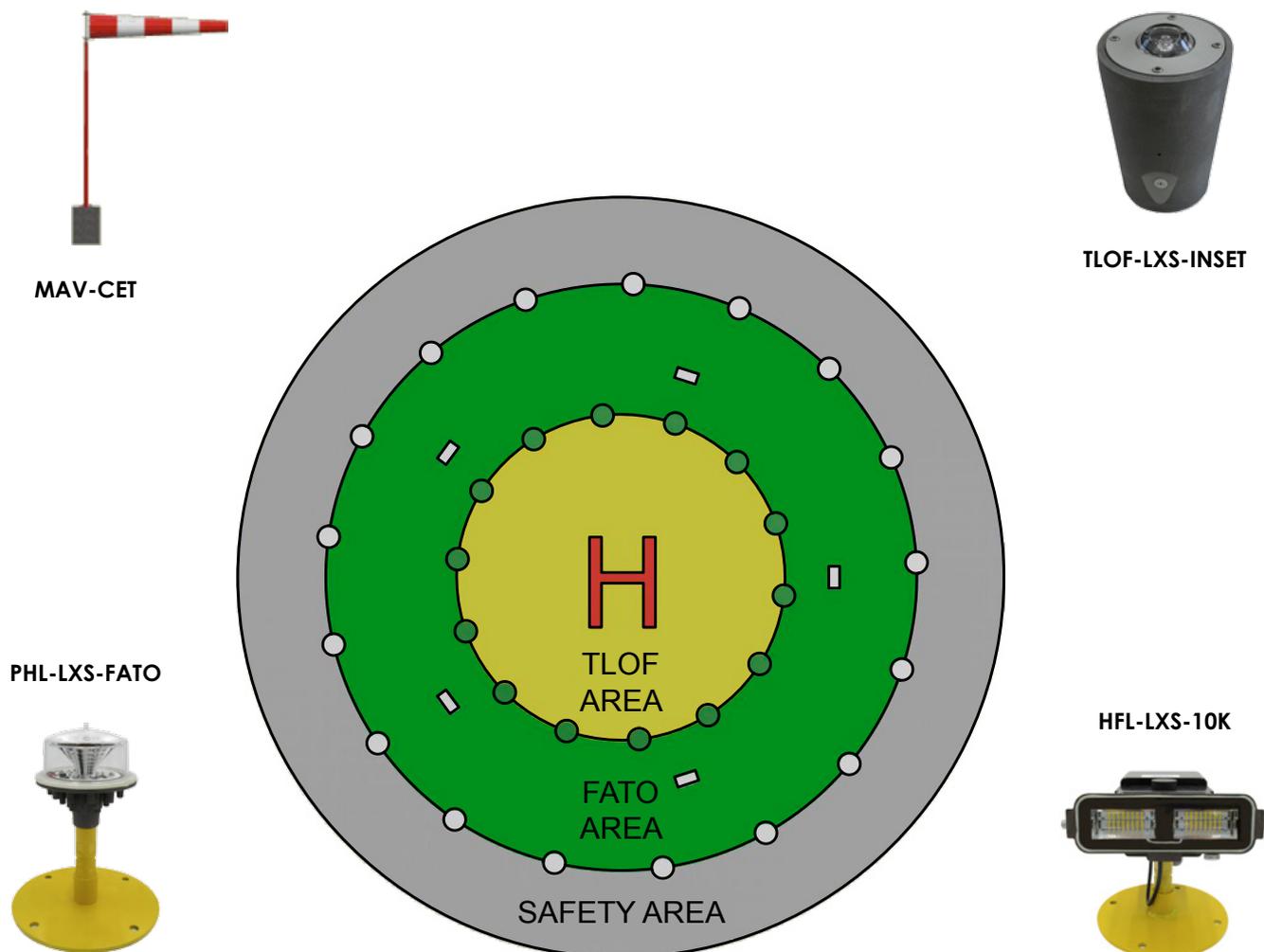
- PHL-LXS-FATO or FATO-LXS-INSET typical quantity required: 12 pieces*
- TLOF-LXS-INSET typical quantity required: 14 pieces*
- HFL-LXS-10K typical quantity required: 5 pieces*
- MAV-CET typical quantity required: 1 piece
- HB-LXS typical quantity required: 1 piece (optional)
- L854-LXS typical quantity required: 1 piece (optional)
- CLOUD typical quantity required: 1 piece (optional)

(*) Quantity to be verified with LUXSOLAR technicians according to each specific project.

NIGHT LIGHTING HEMS

TYPICAL INSTALLATION GROUND HEMS

CIRCULAR FATO AREA – CIRCULAR TLOF AREA



LEGEND

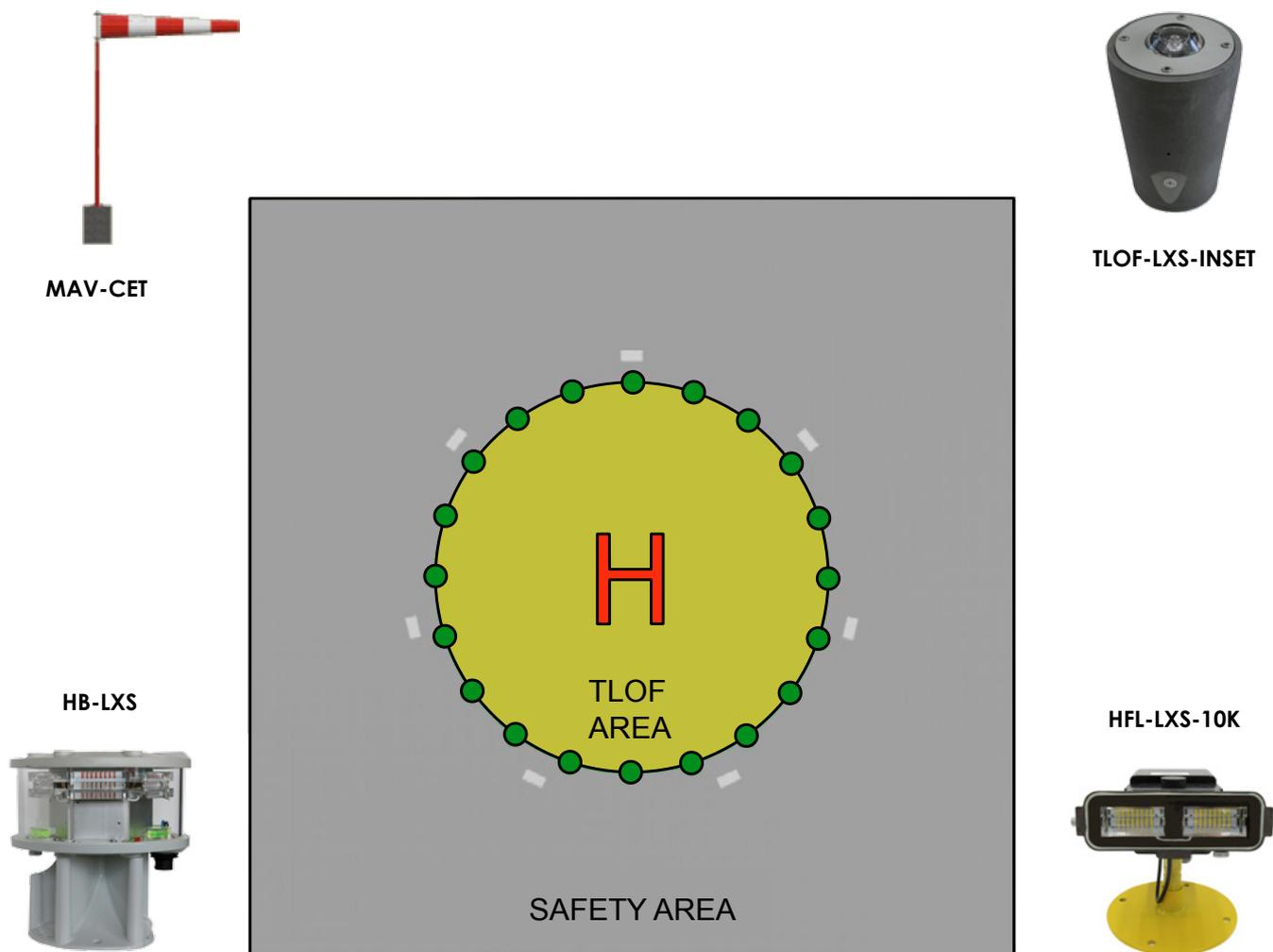
- **PHL-LXS-FATO** or **FATO-LXS-INSET** typical quantity required: 17 pieces*
- **TLOF-LXS-INSET** typical quantity required: 14 pieces*
- ▣ **HFL-LXS-10K** typical quantity required: 5 pieces*
- **MAV-CET** typical quantity required: 1 piece
- **HB-LXS** typical quantity required: 1 piece **(optional)**
- **L854-LXS** typical quantity required: 1 piece **(optional)**
- **CLOUD** typical quantity required: 1 piece **(optional)**

(*) Quantity to be verified with LUXSOLAR technicians according to each specific project.

NIGHT LIGHTING HEMS

TYPICAL INSTALLATION ELEVATED HEMS

SAFETY SQUARE AREA - CIRCULAR TLOF AREA



LEGEND

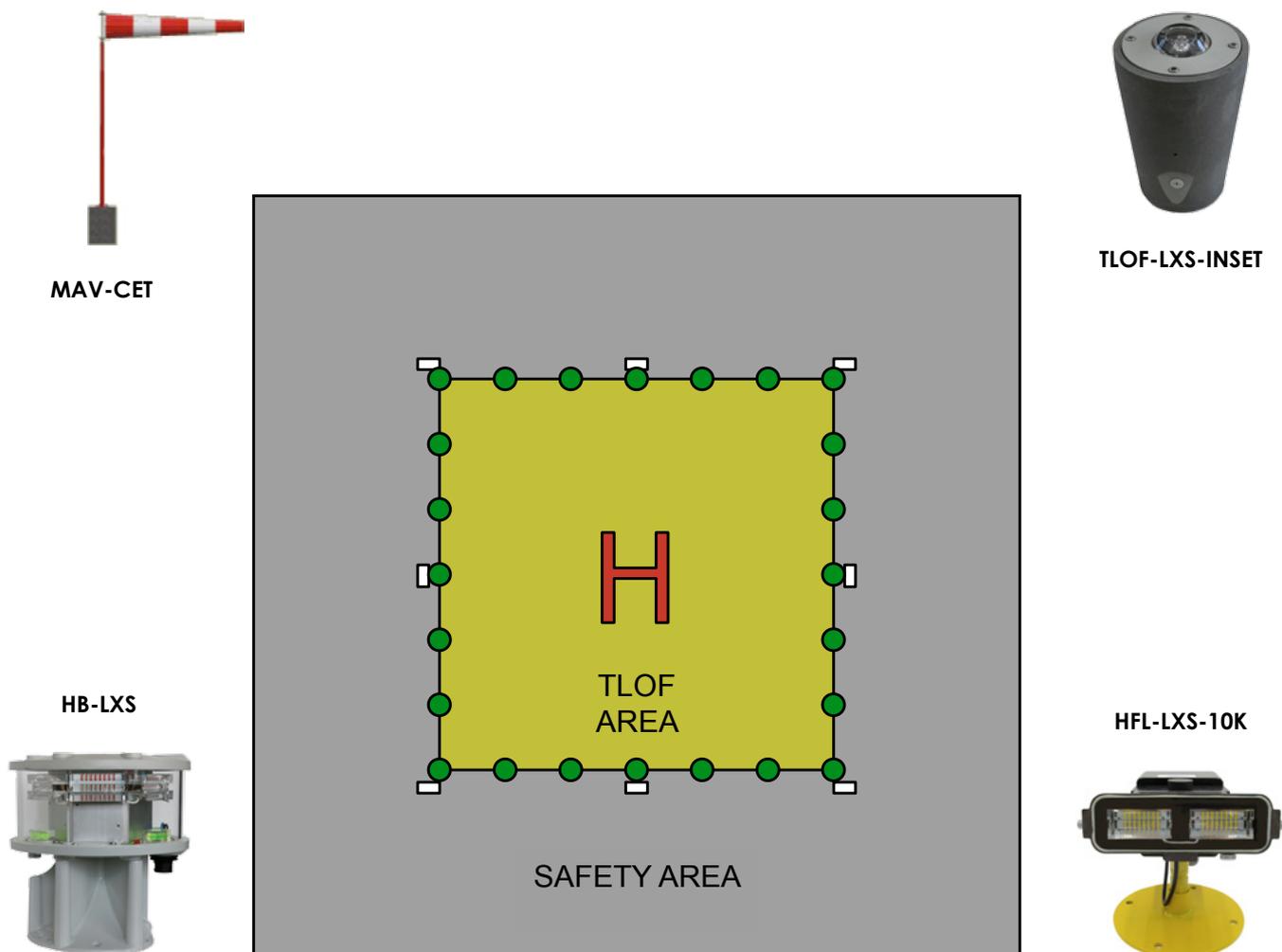
- TLOF-LXS-INSET typical quantity required 20 pieces*
- HFL-LXS-10K typical quantity required 7 pieces*
- MAV-CET typical quantity required: 1 piece
- HB-LXS typical quantity required: 1 piece **(optional)**
- L854-LXS typical quantity required: 1 piece **(optional)**
- cloud typical quantity required: 1 piece **(optional)**

(*) Quantity to be verified with LUXSOLAR technicians according to each specific project.

NIGHT LIGHTING HEMS

TYPICAL INSTALLATION ELEVATED HEMS

SQUARE SAFETY AREA – SQUARE TLOF AREA



LEGEND

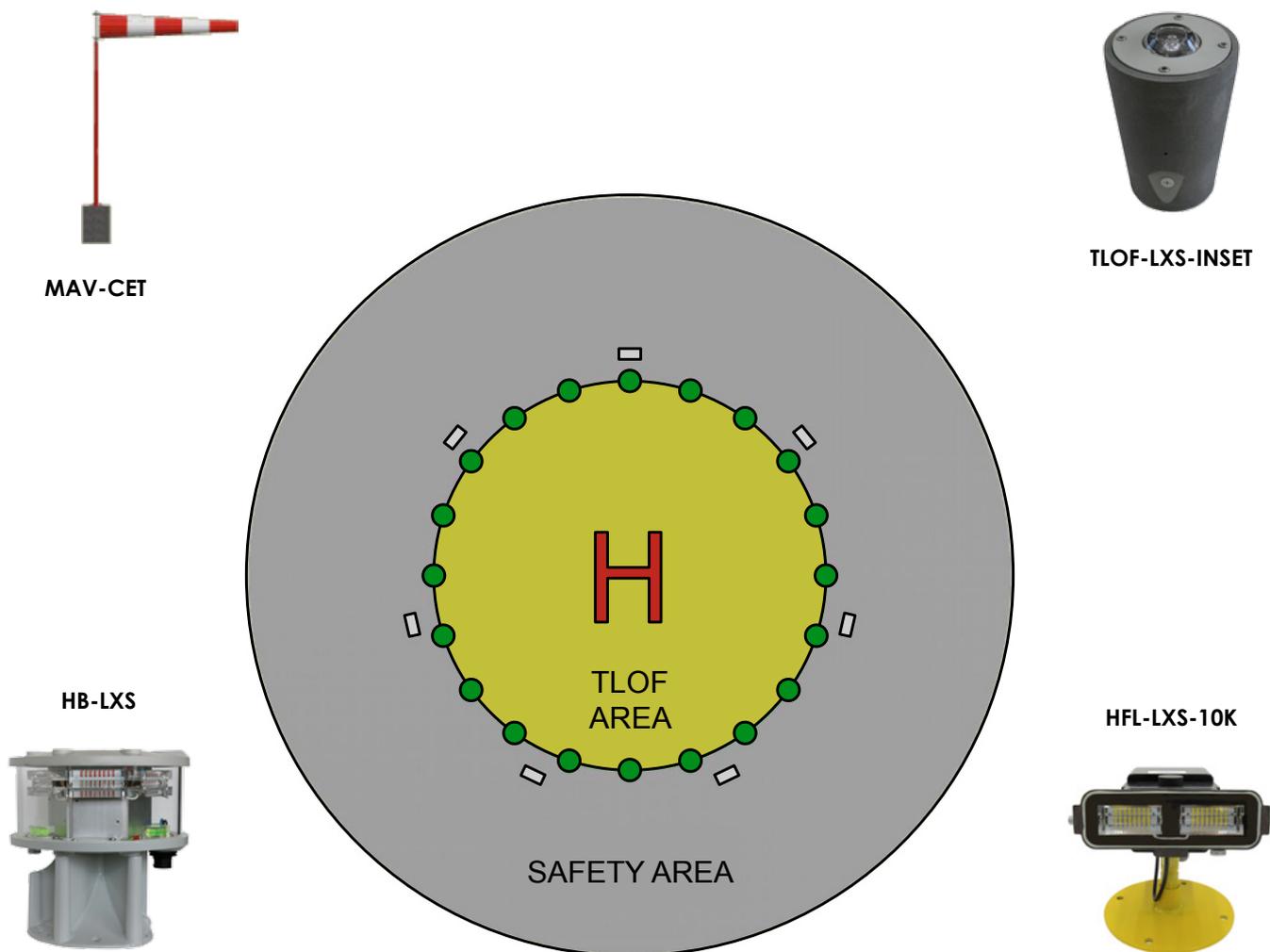
- TLOF-LXS-INSET typical quantity required: 24 pieces*
- HFL-LXS-10K typical quantity required: 8 pieces*
- MAV-CET typical quantity required 1 piece
- HB-LXS typical quantity required: 1 piece **(optional)**
- L854-LXS typical quantity required: 1 piece **(optional)**
- CLOUD typical quantity required: 1 piece **(optional)**

(*) Quantity to be verified with LUXSOLAR technician according to the specific project.

NIGHT LIGHTING HEMS

TYPICAL INSTALLATION ELEVATED HEMS

CIRCULAR SAFETY AREA – CIRCULAR TLOF AREA



LEGEND

- TLOF-LXS-INSET typical quantity required: 20 pieces*
- HFL-LXS-10K typical quantity required: 7 pieces*
- MAV-CET typical quantity required 1 piece
- HB-LXS typical quantity required: 1 piece **(optional)**
- L854-LXS typical quantity required: 1 piece **(optional)**
- cloud typical quantity required: 1 piece **(optional)**

(*) Quantity to be verified with LUXSOLAR technician according to the specific project.

NIGHT LIGHTING HEMS

FATO PERIMETER LIGHT PHL-LXS-FATO

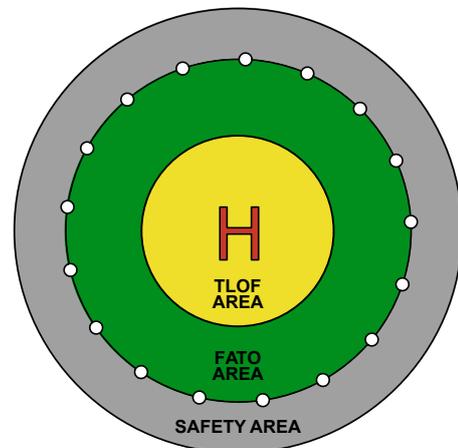
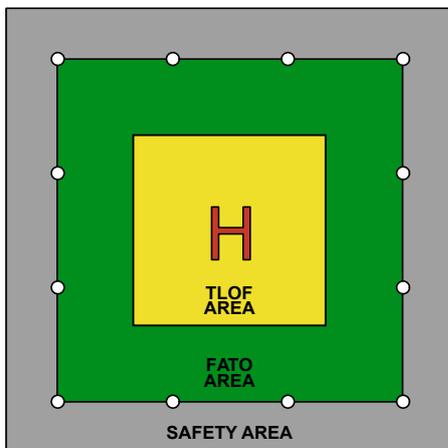


It is installed at the edges of FATO area, defining its perimeter. Alternatively, you can install the product code FATO-LXS-INSET.

- Steady white light
- Lifetime higher than 10 years
- Low consumption
- Stabilized light
- Compact and light structure
- Simple installation
- No RF radiations

PATENTED

INSTALLATION MAPS



LEGEND

○ PHL-LXS-FATO

NOTE: for HEMS elevated surfaces, the FATO area coincides with TLOF area therefore, in the major part of installations, FATO perimeter lights are not provided.

CERTIFICATION



COMPLIANCE



FEATURES



NIGHT LIGHTING HEMS

FATO PERIMETER LIGHT TECHNICAL SPECIFICATIONS

OPTICAL FEATURES

- 360°Horizontal emission
- Optical reflector

Angle	Light Intensity
30°	10 cd
25°	50 cd
20°	100 cd
10°	
3°	
0°	10 cd

-180° Azimuth +180°

MECHANICAL FEATURES

- Anodized aluminium body with integrated
- heath-sink
- UV resistant Polycarbonate dome
- Polyurethane foam
- Degree of protection IP66
- Operating temperature: 20°C to 50°C
- Weight: 2,5 Kg
- Frangible support
- Gore-Tex anticondensation valve

ELECTRICAL FEATURES

- Power: 24VDC o 115/230Vac from control panel
- Consumption: 4W
- Constant current driven LED

OPTIONS

- • Adjustable intensity 100%, 30%, 10% from control panel
- IR wavelength: 850nm, compatible with NVG pilot

CERTIFICAZIONE

- CE

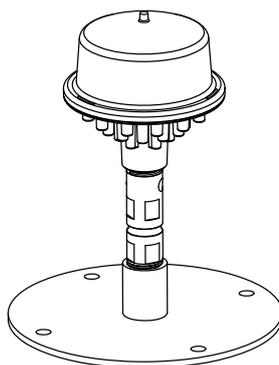
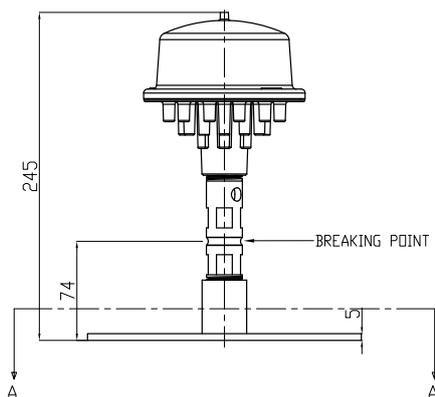
COMPLIANCE

- ICAO Aerodromes -Annex 14 Volume 2, Heliports
- EASA CS-HPT-DSN

PRODUCT CODE

PHL-LXS-FATO

TECHNICAL DRAWING



NIGHT LIGHTING HEMS

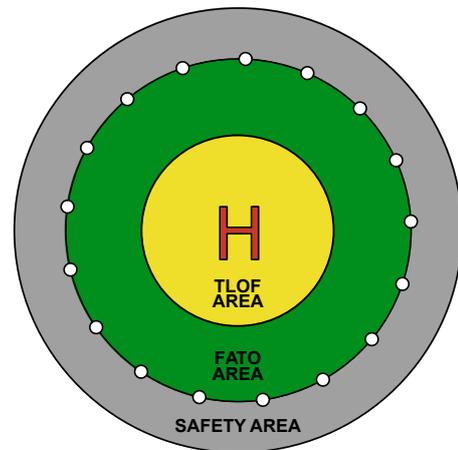
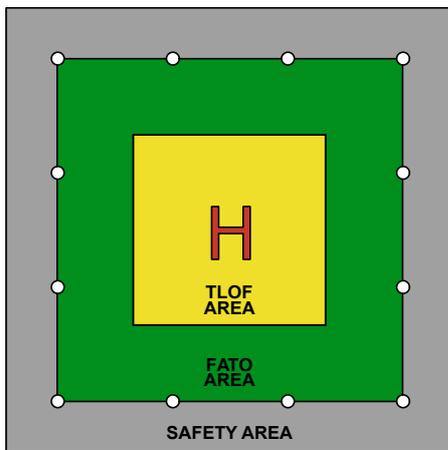
PERIMETER LIGHTS - FATO INSET FATO-LXS-INSET



Installed at the edges of the FATO AREA, defining its perimeter. It has a recessed and driveway structure that requires the construction of a well inside the flooring of the surface. **Alternatively, it is possible to install the product code PHL-LXS-FATO.**

- Steady white light
- Lifetime higher than 10 years
- Low consumption
- Stabilized light
- Compact and light structure
- Simple installation
- No RF radiations

INSTALLATION MAPS



LEGEND

○ PHL-LXS-FATO

NOTE: for HEMS elevated surfaces, the FATO area coincides with TLOF area therefore, in the major part of installations, FATO perimeter lights are not provided.

CERTIFICATION



COMPLIANCE



FEATURES



HEMS ILLUMINAZIONE NOTTURNA

PERIMETER LIGHTS - FATO INSET TECHNICAL SPECIFICATION

OPTICAL FEATURES

- Horizontal Omission: 360°
- PMMA and glass lenses

Angle	Light Intensity
30°	10 cd
25°	50 cd
20°	100 cd
10°	
3°	
0°	10 cd

-180° Azimuth +180°

MECHANICAL FEATURES

- Anodized aluminium body
- EPDM o-ring
- Degree of protection IP66
- Shallow base 5"
- Operating temperature: -20°C to +60°C
- Supplied with 30cm LUXSOPLAR standard cable
- Weight: 4,8 Kg

ELECTRICAL FEATURES

- Power: 12/24/48 VDC or 115/230Vac
- from control panel
- Consumption: 3,7W @12/24Vdc 4W
- Constat current driven LED

OPTIONS

- Adatptor for shallow base 8" / 12"
- Wireless version
- IR wavelength: 850nM, compatible with NVG pilot

CERTIFICATION

- CE

COMPLIANCE

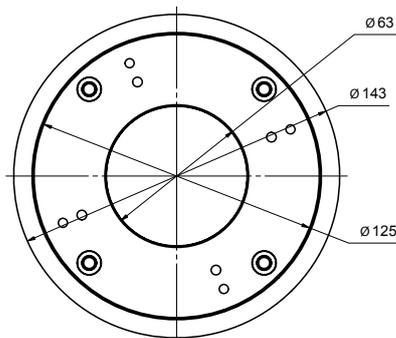
- ICAO Aerodromes - Annex 14 Volume 2, Heliports
- EASA CS-HPT-DSN

PRODUCT CODE

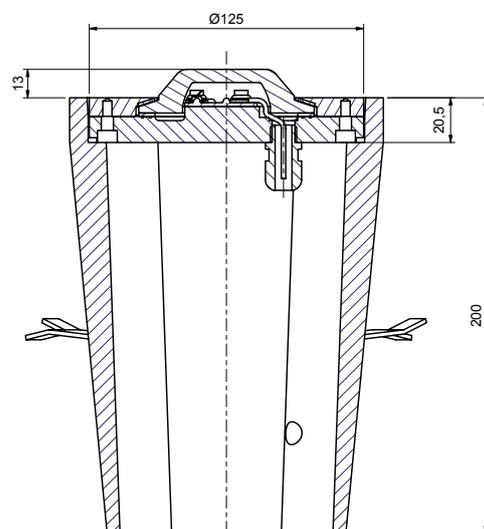
FATO-LXS-INSET
FATO-LXS-INSET-8
FATO-LXS-INSET-WRL

TECHNICAL DRAWINGS

TOP VIEW



SIDE VIEW



NIGHT LIGHTING HEMS

HELIPORT FLOODLIGHT HFL-LXS-10K



Dimming illumination of the TLOF area surface.

- Lifetime higher than 10 years
- Steady white light 10.000 cd
- Adjustable Emission Angle
- Simple installation
- Possibility to vary the mounting angle

TECHNICAL SPECIFICATIONS

OPTICAL FEATURES

- Horizontal emission: 60°
- Vertical emission compliant to ICAO

MECHANICAL FEATURES

- Aluminium body with frangible support
- Protection degree: IP66
- Operating temperature: -20°C to +60°C
- Borosilicate protection

ELECTRICAL FEATURES

- Consumption: 24W
- Power:
12/24 Vdc or 110/230VAC 50/60Hz

CERTIFICATION

- CE
- ICAO

COMPLIANCE

- ICAO, Annex 14, Vol. II, "Heliports"
- ICAO Heliport Manual
- ENAC, regulation "Costruzione ed esercizio degli eliporti"
- CAP437 "Standards for offshore helicopter landing areas", Appendix G

PRODUCT CODE

HFL-LXS-10K

CERTIFICATION



COMPLIANCE



FEATURES

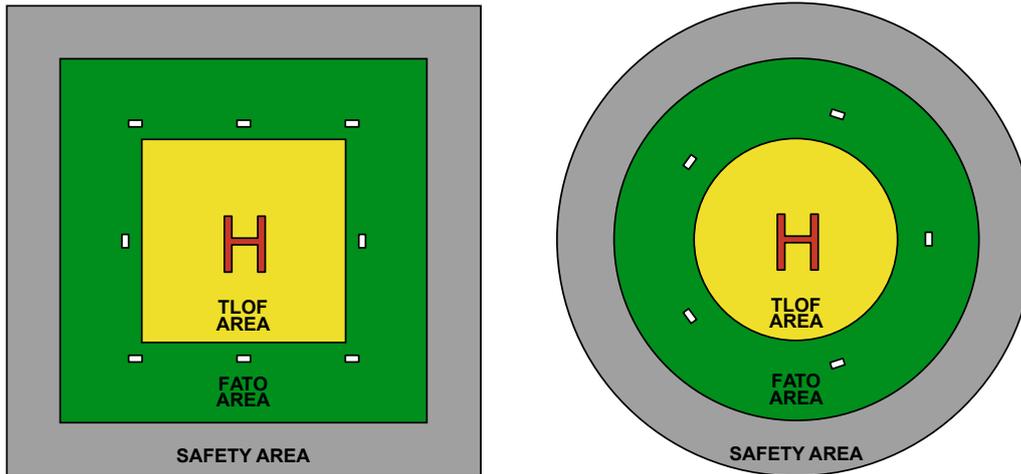


NIGHT LIGHTING HEMS

HELIPORT FLOODLIGHT INSTALLATION MAPS

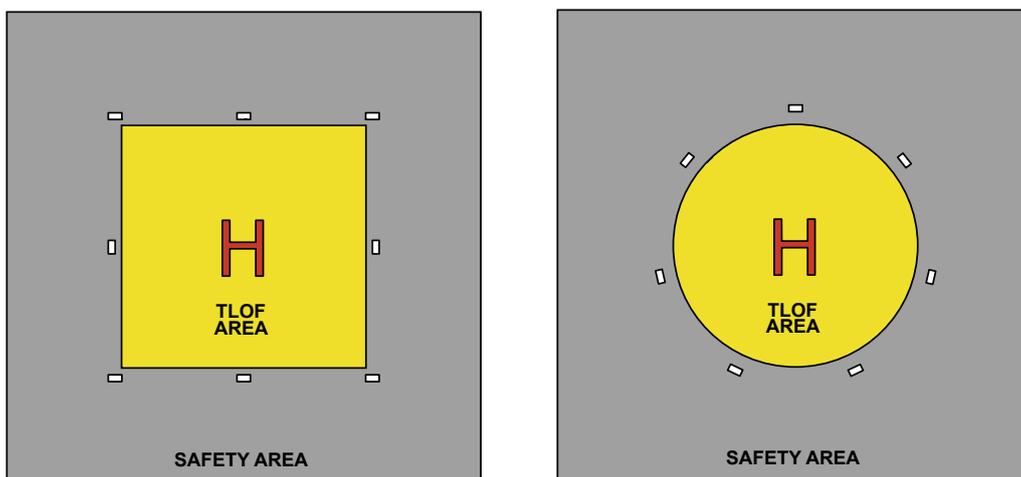
FOR GROUND INSTALLATION

Floodlights must be installed inside the FATO area, where a maximum mounting height of 250mm and frangible structure is required. If installation within the FATO area is not possible, due to design requirements, FLOODLIGHT lights can be installed in the SAFETY AREA, with less stringent limitations regarding the mounting height.



FOR ELEVATED INSTALLATIONS

In case of overhead installation, the TLOF area mostly coincides with the FATO area. Therefore, the installation of the FLOODLIGHT lights must be in the SAFETY AREA with a maximum height limit of 250mm and frangible structure.



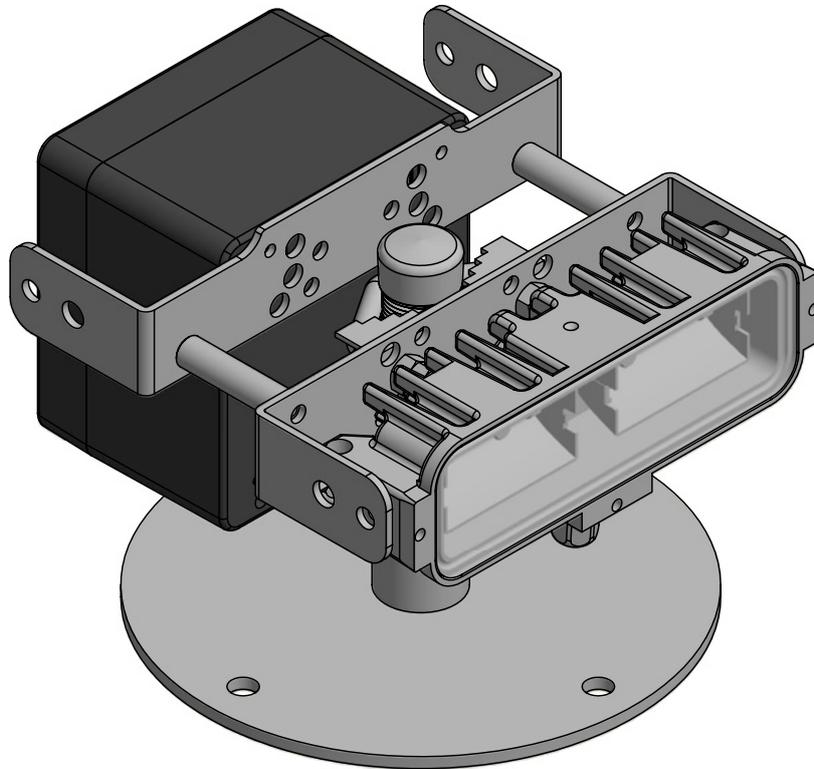
LEGEND

□ HFL-LXS-10K

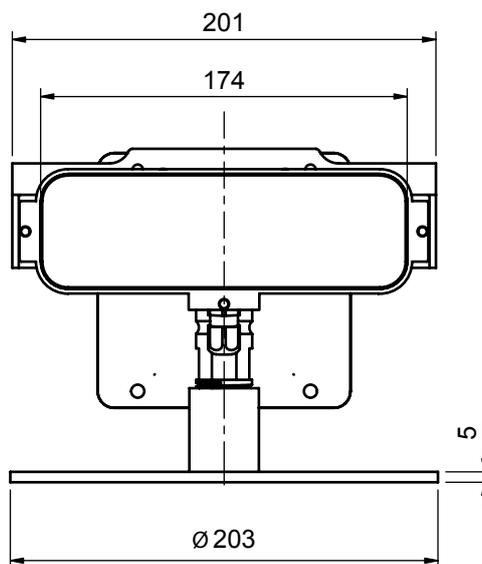
The current international regulations (ICAO Annex 14, EASA CS HPT DSN, ENAC heliport regulations) provide for a minimum **illumination of the TLOF area of 10 LUX** and a maximum illumination uniformity ratio of 8:1.

LUXSOLAR technicians are available to support the lighting calculation of any surface:
led@luxsolar.com

HELIPORT FLOODLIGHT TECHNICAL DRAWINGS



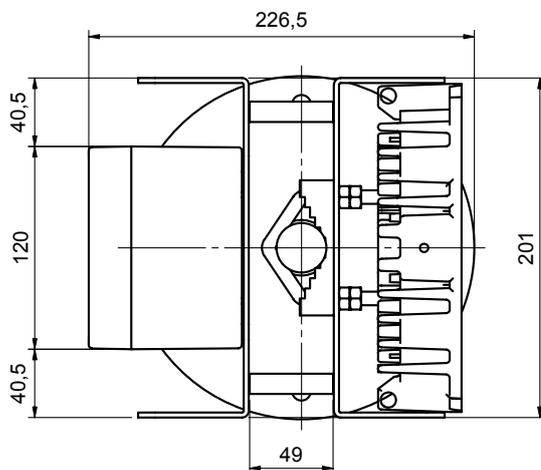
FRONT



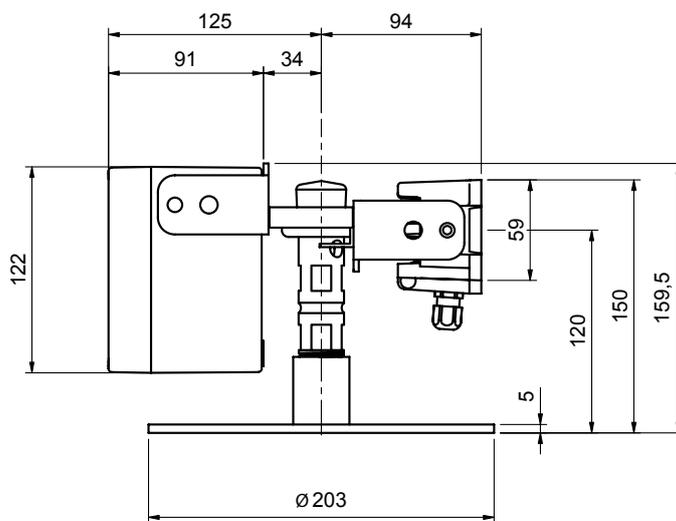
NIGHT LIGHTING HEMS

HELIPORT FLOODLIGHT TECHNICAL DRAWINGS

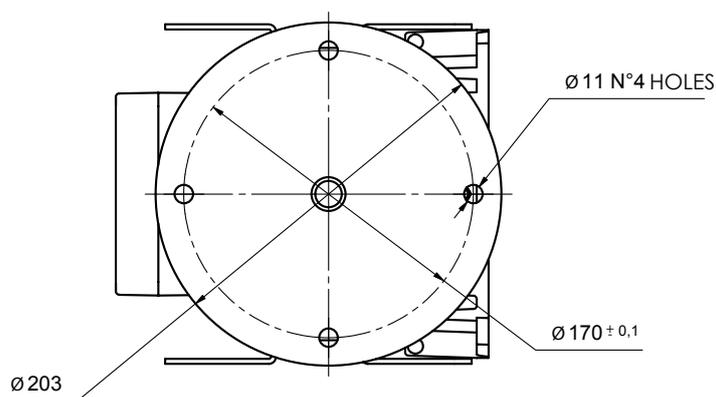
TOP VIEW



SIDE VIEW



INFERIOR VIEW



NIGHT LIGHTING HEMS

PERIMETER LIGHT - TLOF INSET TLOF-LXS-INSET

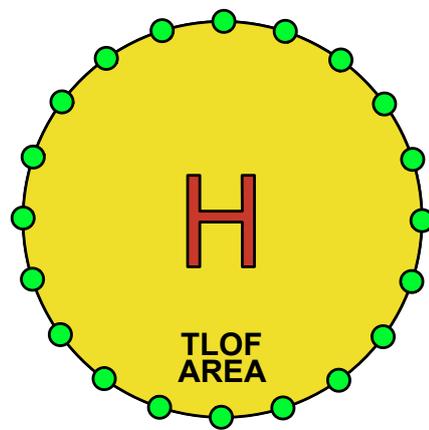
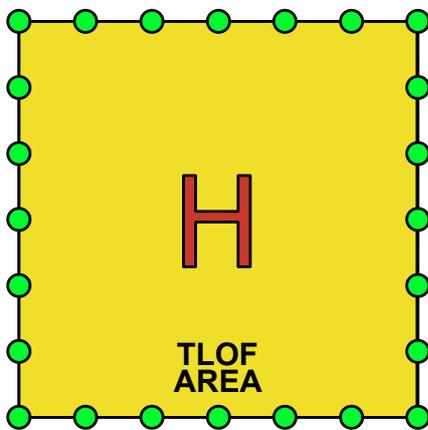


Defines the perimeter of TLOF. As it is built-in, it requires the construction of a well in the flooring of the surface. **SUITABLE FOR BOTH GROUND AND ELEVATED HEMS PLATFORMS.**

- Steady green light
- Lifetime higher than 10 years
- Low consumption
- Stabilized light
- Compact and light structure
- Simple installation
- No RF radiations



INSTALLATION MAPS



LEGEND

● TLOF-LXS-INSET

NOTE: the number of TLOF perimeter lights required by legislation is strictly dependent on the size of the TLOF area in question.

On elevated platforms, in most cases the TLOF area coincides with the FATO area, so the installation of TLOF perimeter lights only is required.

CERTIFICATION



FEATURES



NIGHT LIGHTING HEMS

PERIMETER LIGHT - TLOF INSET TECHNICAL SPECIFICATIONS

OPTICAL FEATURES

- Horizontal emission: 360°
- PMMA and glass lenses

Angolo (E)	Light Intensity
$20^\circ < E \leq 90^\circ$	3 cd
$13^\circ < E \leq 20^\circ$	8 cd
$10^\circ < E \leq 13^\circ$	15 cd
$5^\circ < E \leq 10^\circ$	30 cd
$2^\circ \leq E \leq 5^\circ$	15 cd

-180° Azimuth +180°

MECHANICAL FEATURES

- Anodized aluminium body
- EPDM o-ring
- Degree of protection: IP66
- Shallow base 5"
- Operating temperature: -20°C to +60°C
- Supplied with 30cm Luxsolar standard cable
- Weight: 4,8kg

ELECTRICAL FEATURES

- Alimentazione: 12/24/48 VDC o 115/230Vac da pannello di controllo
- Consumo: 3,7W @12/24Vdc
- LED alimentati in corrente costante

OPTIONS

- Adaptor for shallow base 8" / 12"
- Wireless version
- Wave length IR: 850nm, compatible with NVG pilot

CERTIFICATION

- ICAO/EASA test report (EN17025 laboratorio) nr. 326-QL20-R07
- CE

COMPLIANCE

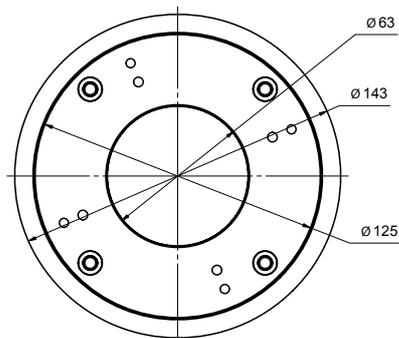
- ICAO Aerodromes - Annex 14 Volume 2, Heliports
- EASA CS-HPT-DSN

PRODUCT CODE

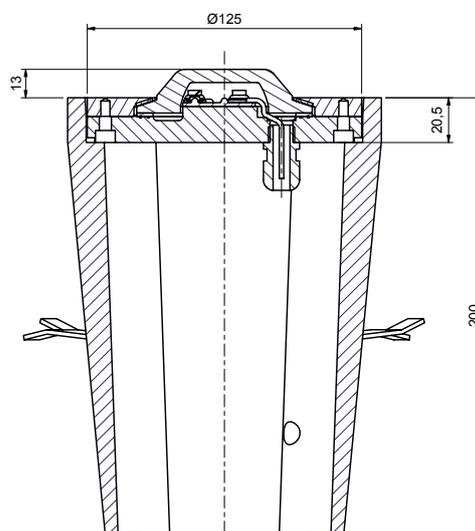
TLOF-LXS-INSET
TLOF-LXS-INSET-8
TLOF-LXS-INSET-WRL

TECHNICAL DRAWINGS

TOP VIEW

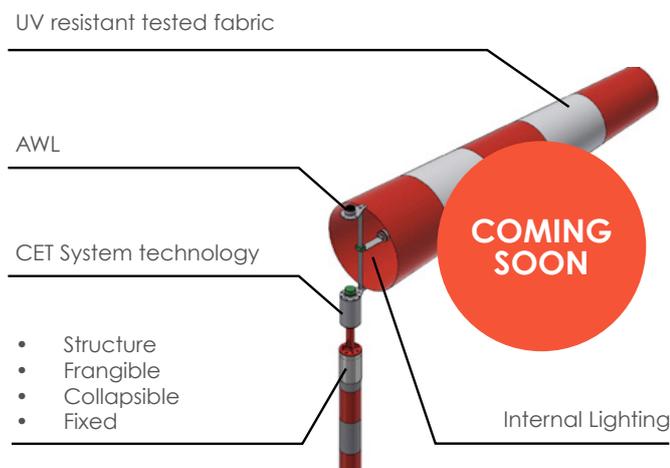


SIDE VIEW



NIGHT LIGHTING HEMS

MAV CET ILLUMINATED WINDSOCK



The internal lights of the MAV and the AWL are powered by the innovative CET (Contactless Energy Transmission) system, for the wireless transfer of energy from the fixed to the mobile rotating part of the MAV. Non-contact power.

- contactless power supply
- Internal and external lighting compliant to regulations

Windssock illuminated internally with high efficiency LEDs.



TECHNICAL SPECIFICATIONS

KEY POINTS

- Sock Colour: Red / Orange / White /Red
- Sock material: Polyester or Nylon
- Sock dimensions: from 250mm to 900mm
- Designed to be visible up to 200m distance
- 360°Complete rotation
- Available also in IP and Ex version

MECHANICAL FEATURES

- Pole material: Aluminium/ GRP / Inox
- Pole height: from 2m on
- Pole painting available
- Fixed pole, frangible pole, collapsible pole, frangible and collapsible pole combination available
- 360°Complete rotation thanks to rolling bearings

ELECTRICAL FEATURES

- Power: 24VDC o 220VAC
- Consumption: 20W
- LED powered by constant current
- CET (Contactless Energy Transmission)

AWL OPTICAL FEATURES

- Horizontal emission: 360°
- Vertical emission: as per ICAO rule

WINDSOCK OPTIONS

- Internal Lighting
- Visibility from 200m distance
- Lateral and upper visibility

TEMPERATURE

- Operating temperature: -20°C to +50°C
- Storage temperature: -20°C to +45°C

COMPLIANCE

- ICAO Annex 14 Vol. II Heliports - par. 5.1.1
- ICAO Annex 14 Vol. I Visual Aids - par. 5.1.1
- FAA AC 150 / 5345 - 27E
- EASA Chapter F - Heliport Windssock Visual Aids

MAV CET – ILLUMINATED WINDSOCK PRODUCT CONFIGURATIONS



SOCK

- **0** = Not foreseen
- **2** = Ø 250mm (l =1200mm)
- **3** = Ø 300mm (l =1200mm)
- **4** = Ø 450mm (l =2500mm)
- **6** = Ø 600mm (l =2400mm)
- **9** = Ø 900mm (l =3750mm)

SOCK COLOUR AND MATERIAL

- **0** = Not foreseen
- **L** = Red Nylon
- **M** = Red/white Nylon
- **N** = White Nylon
- **P** = Orange Nylon
- **S** = Red Polyester
- **T** = Red/White Polyester
- **U** = White Polyester
- **W** = Orange Polyester

LIGHT

- **0** = Not foreseen
- **1** = Obstacle IP
- **2** = Internal IP CET
- **3** = Internal CET + IP Obstacle
- **4** = Ex Obstacle
- **5** = Internal Ex CET
- **6** = Internal CET + Obstacle Ex

TYPE

- **0** = Not foreseen
- **1** = Fixed
- **2** = Frangible
- **3** = Collapsible
- **4** = Frangible & Collapsible

POLE MATERIAL

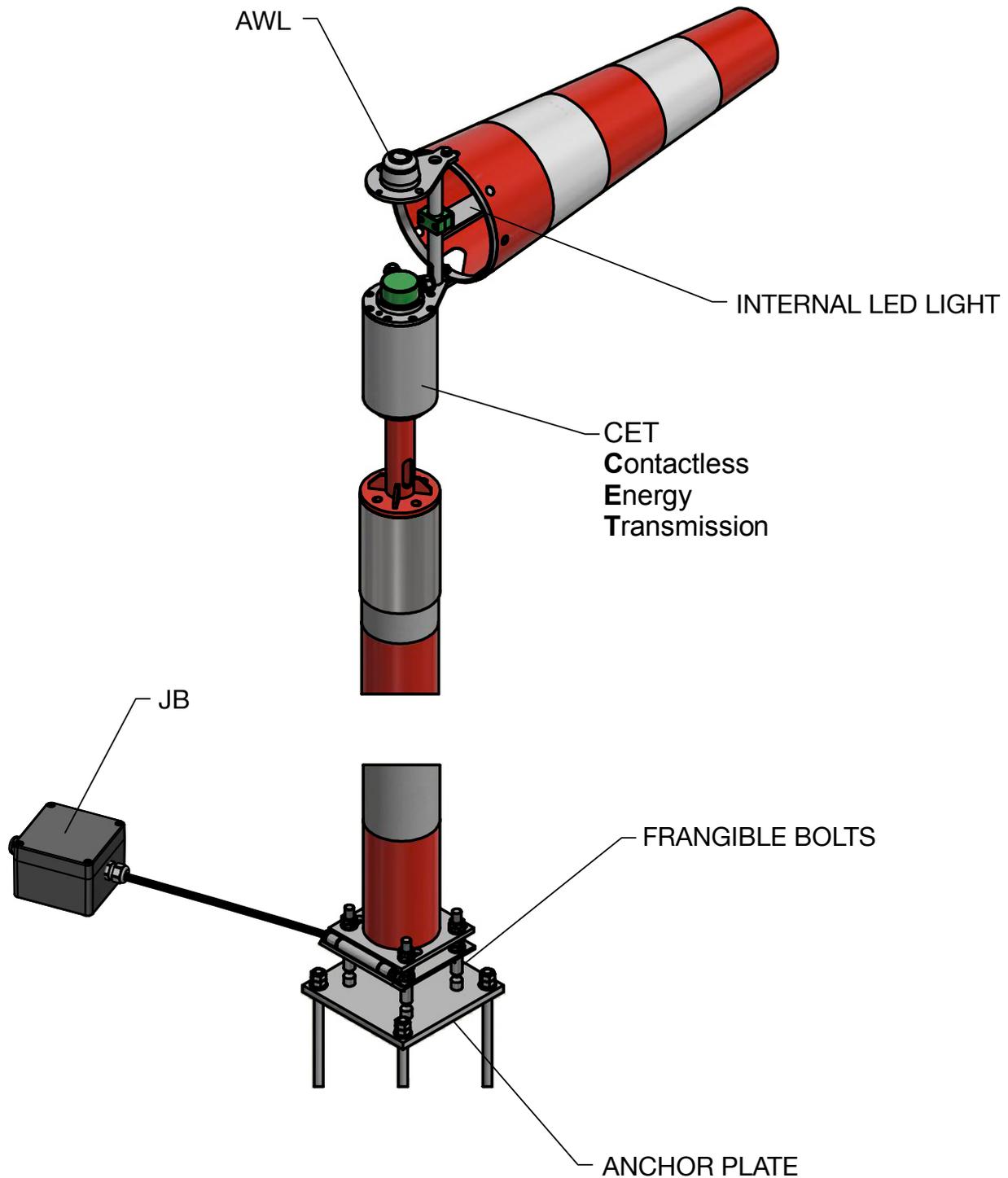
- **0** = Not foreseen
- **A** = Aluminium
- **G** = GRP
- **S** = Inox
- **B** = Painted Aluminium
- **H** = Painted GRP
- **T** = Inox painted

POLE HEIGHT

- **0** = Not foreseen
- **25** = 2,5m
- **30** = 3m
- **35** = 3,5m
- **XY** = Special

NIGHT LIGHTING HEMS

MAV CET – ILLUMINATED WINDSOCK TECHNICAL DRAWINGS



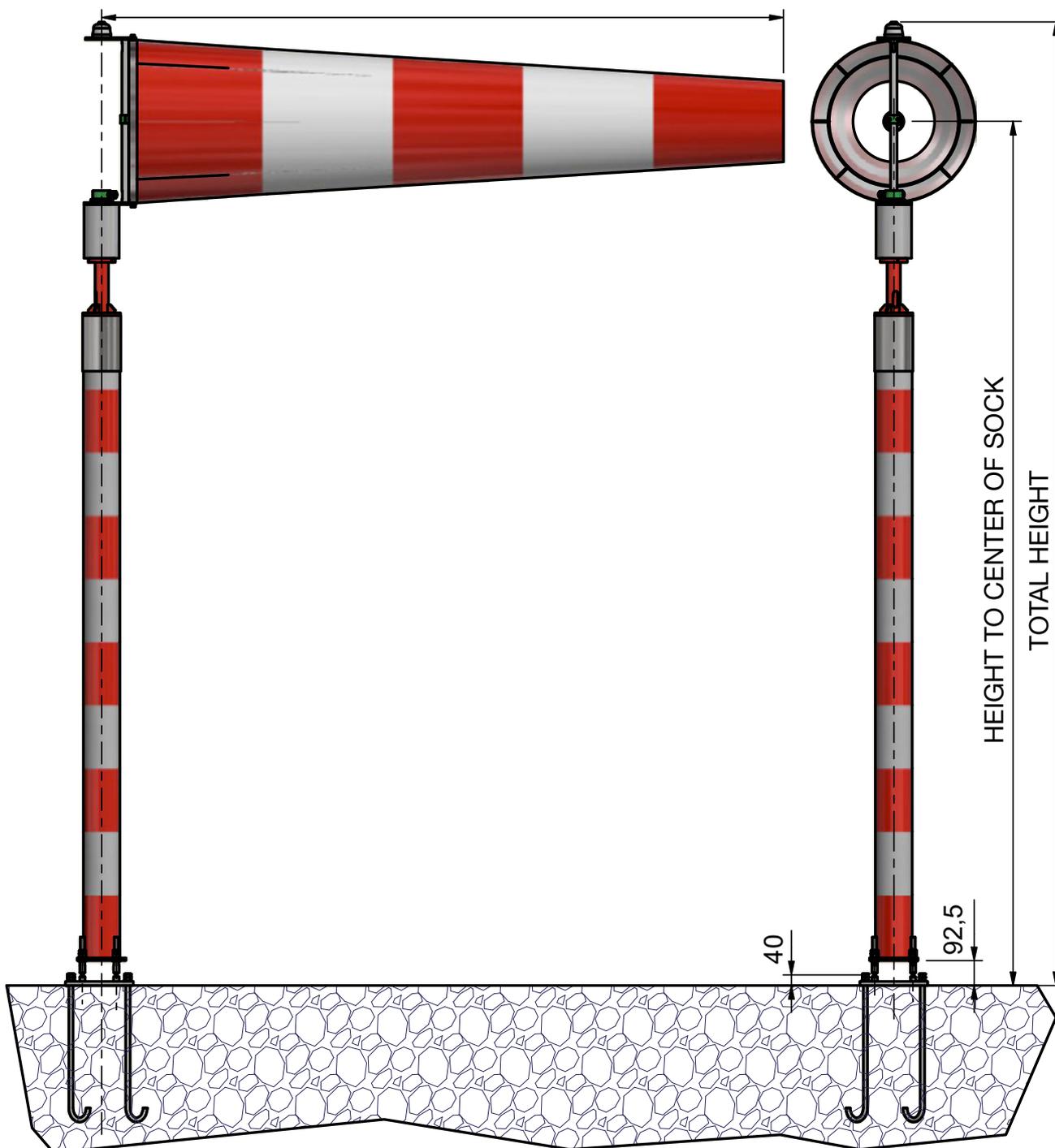
NIGHT LIGHTING HEMS

MAV CET – ILLUMINATED WINDSOCK TECHNICAL DRAWING

SIDE VIEW

FRONT VIEW

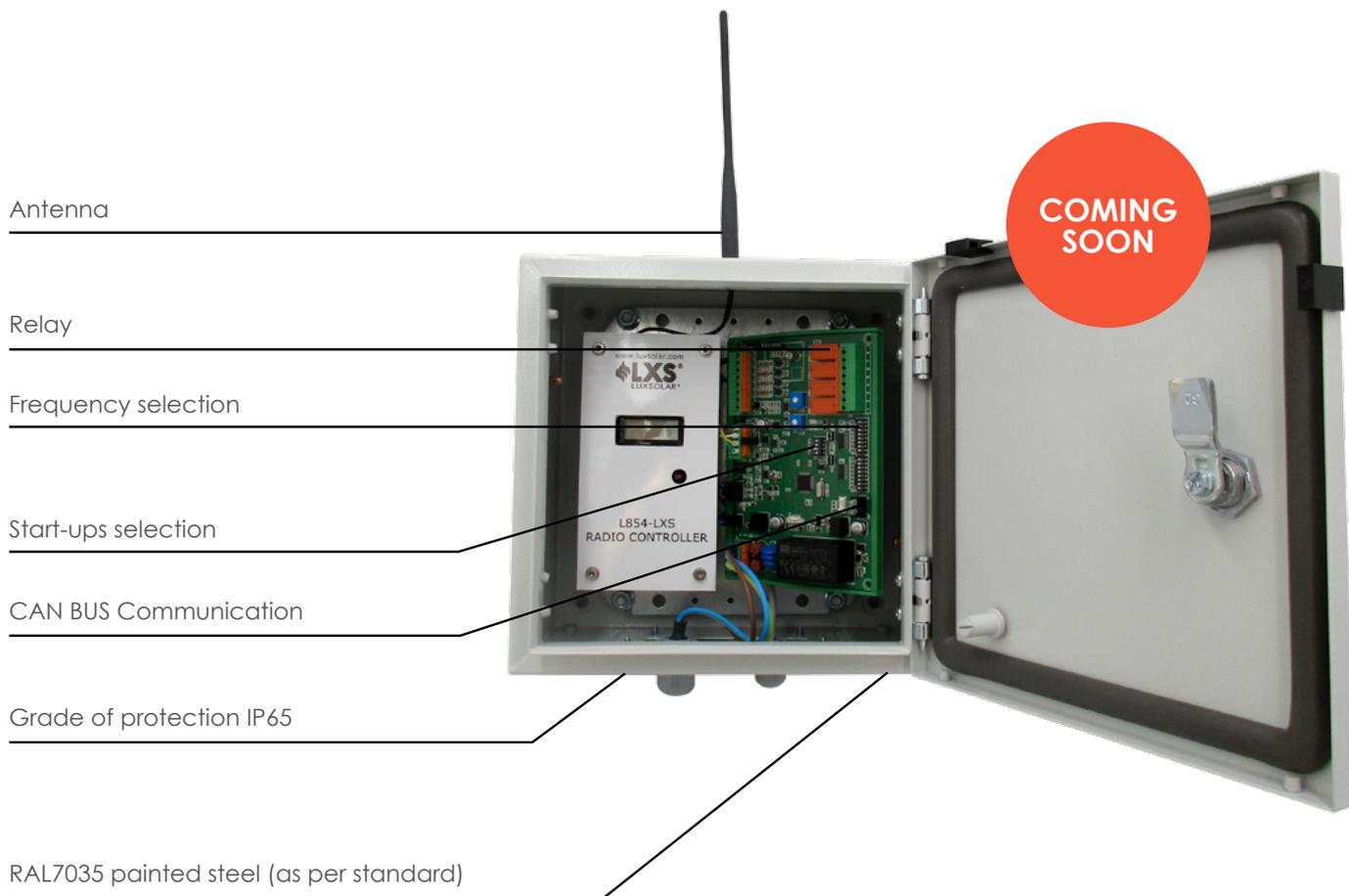
SEE Ø OF SOCK



NIGHT LIGHTING HEMS

RADIO RECEIVER/DECODER L854-LXS

Device used by pilots for ground air communications



L854-LXS is a tool that allows pilots to turn on and control the heliport lighting system. This system is essential for landing in areas not manned by ground personnel, making it easy and fast to control lights such as **TLOF**, **WINDSOCKS**, **FLOODLIGHTS** etc.

LUXSOLAR has developed the radio receiver/decoder L854 which, through a series of clicks, allows pilots to turn on and set the intensity of the lights of the HEMS area.

The system is designed for automatic shutdown after 15 minutes. This prevents energy waste and reduces light pollution. You can set the shutdown time.

CERTIFICATION



COMPLIANCE



FEATURES



NIGHT LIGHTING HEMS

RADIO RECEIVER/DECODER TECHNICAL SPECIFICATIONS

OPERATION

The pilot activates the radio system through the onboard communication button. Depending on the number of clicks, the lighting system lights up at different intensities:

- **3 clicks:** low intensity
- **5 clicks:** medium intensity
- **7 clicks:** high intensity

MECHANICAL FEATURES

- FAA L854 Type I: Air-ground
- Pilot Control Lights (PCL) Type J: clicks activated by the PTT button
- System enablement in 5 seconds
- Automatic shutdown after 15 minutes of inactivity
- Operating frequency: 118-136MHz
- Operating temperature: -40°C /+55°C
- Power: 100/240Vac 50-60Hz
- Power: continuous current version available
- CAN BUS Communication

INCLUDED IN THE SYSTEM

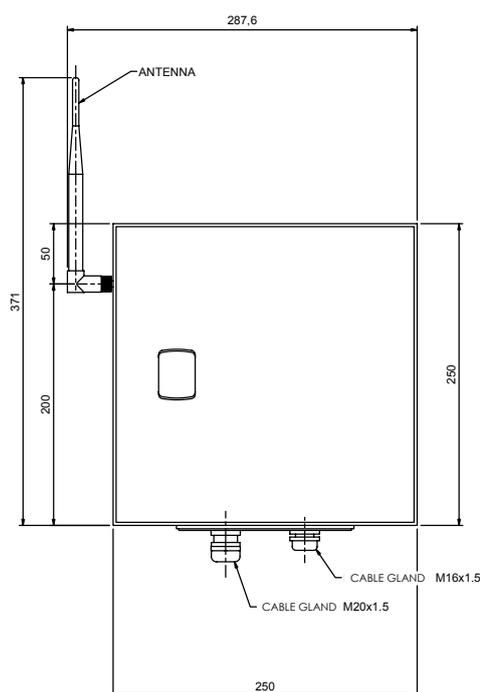
- AM receiver
 - Decoder type A
 - Bandwidth 8.33KHz o 25KHz

PRODUCT CODE

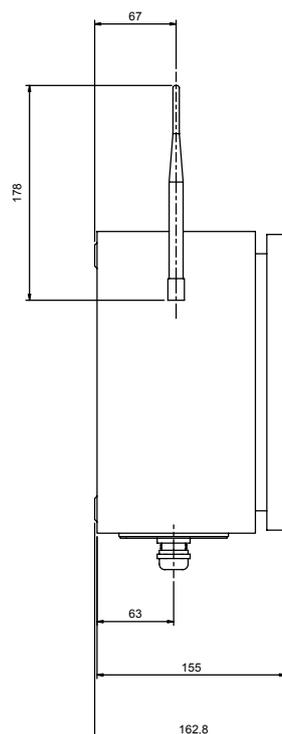
L854-LXS

TECHNICAL DRAWINGS

FRONT VIEW



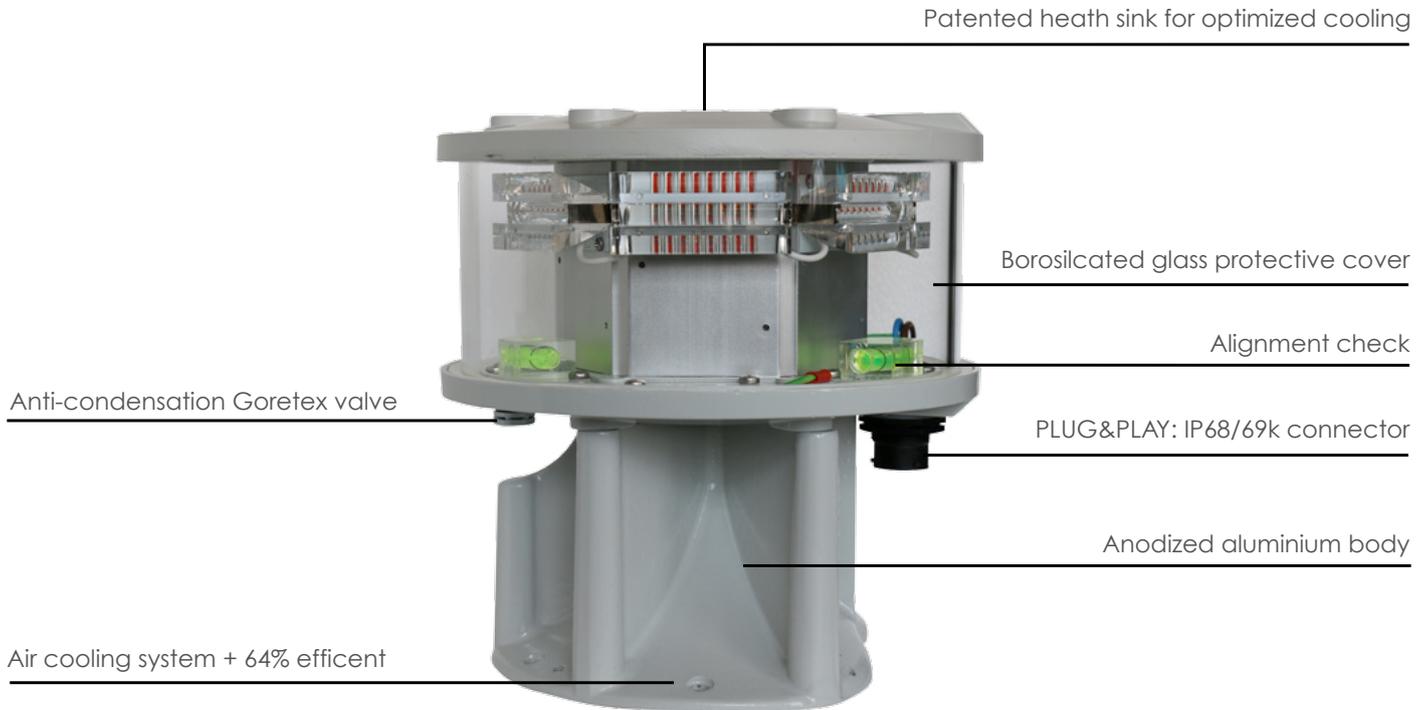
SIDE VIEW



NIGHT LIGHTING HEMS

HELIPORT BEACON - HB HB-LXS

The heliport beacon (HB) is required when identification of the heliport is difficult due to high light pollution or when long distance visual guidance is required.



- Life expectancy over 10years
- Flashing white light MORSE code "H"
- Low consumption
- Stabilized light
- Intensity 10%, 30%, 100% adjustable directly from the aircraft control
- Electronics supplied separately

PATENTED

CERTIFICATION



COMPLIANCE



FEATURES



NIGHT LIGHTING HEMS

HELIPORT BEACON - HB TECHNICAL SPECIFICATIONS

CARATTERISTICHE OTTICHE

- Based on LED technology
- Horizontal emission 360°
- PMMA Lens
- Vertical emission

Angle (E)	Luminous intensity
10°	250cd
7°	750cd
4°	1700cd
2° ½	2500cd
1° ½	2500cd
0°	1700cd

-180° Azimuth +180°

MECHANICAL FEATURES

- RAL7035 painted anodized aluminium Case
- Borosilicate glass protective cover
- Silicone seal, VMQ
- IP66 protection grade
- Operating temperature from -30°C to +50°C
- Case material: RAL7035 painted steel
- IP65 case protection grade
- Case dimensions 500x300x210mm
- Case weight 20kg
- Case operating temperature from -20°C to +50°

ELECTRICAL FEATURES

- Power supply from control panel:
 - 12/24 VDC;
 - 115/230 VAC
- Average consumption 13W
- LEDs powered by constant current
- No RF radiation

CERTIFICATIONS

- ICAO test report (EN17025 laboratorio) nr. 523-QL17-R02
- CE

COMPLIANCE

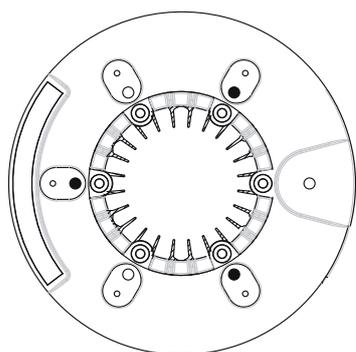
- ICAO Heliports - Annex 14 Vol. II
- ICAO Heliport Manual

PRODUCT CODE

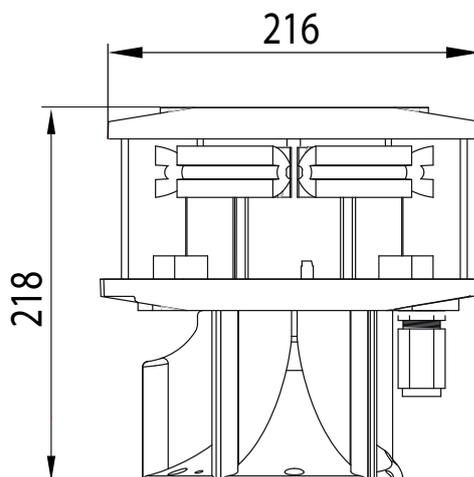
HB-LXS-IP24
HB-LXS-IP230

TECHNICAL DRAWINGS

TOP VIEW



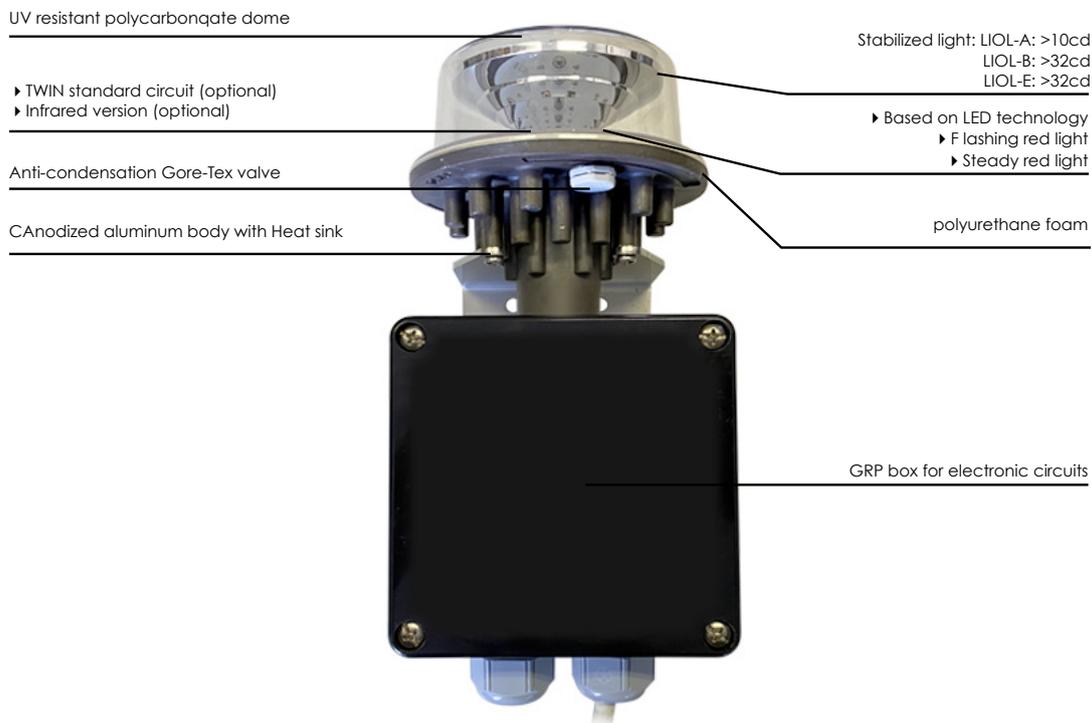
SIDE VIEW



NIGHT LIGHTING HEMS

LIOL-A, LIOL-B, LIOL-E LOW INTENSITY AIRCRAFT WARNING LIGHT

In the case of buildings located near the HEMS surface, ICAO Annex 14 provides for the installation of LIOL (Low Intensity Obstruction Lights) where there are obstacles up to 45m in height.



LIOL beacons in the catalogue have the following features:

- LIOL A: red steady light - intensity >10cd
- LIOL B: red steady light - intensity >32cd
- LIOL E: red flashing light - intensity >32cd

L810-LXS is compliant to ICAO and FAA standards and certified ENAC and EASA.

Thanks to its compact and light structure, to the high-quality LEDs and to the optimized optics, LIOL A/B is the best choice as obstacle warning light.



CERTIFICATION



COMPLIANCE



FEATURES



NIGHT LIGHTING HEMS

LIOL-A, LIOL-B, LIOL-E TECHNICAL SPECIFICATIONS

OPTICAL FEATURES

- Based on LED technology
- Steady redlight
- Flashing red light
- LIOL-A: >10 cd
- LIOL-B: >32 cd
- LIOL-E: >32 cd (flashing)
- Cd emission: +6° e +10°
- Horizontal emission: 360°
- Vertical emission: >10°
- Optical reflector

MECHANICAL FEATURES

- Anodized aluminium body with integrated heath sink
- UV-resistant Polycarbonate dome
- Polyurethane foam
- Black JB for GRP connections
- Protection degree: IP66
- Operating temperature: from 20°C to 50°C
- Weight: 1kg approx
- Anti-condensation Goretex valve
- SS304 backing plate

ELECTRICAL FEATURES

- Power: AC or DC
- LIOL A consumption: 2W @12/24Vdc
- LIOL B consumption: 2.8W @12/24Vdc
- LIOL E consumption: 2W @12/24Vdc
- LEDs powered by constant current

OPTIONS

- TWIN version: double LED circuit
- Malfunction alarm
- Infrared at 850nm, compatible with pilot NVG
- LUXSOLAR Cloud Monitoring System

CERTIFICATIONS

- DGAC/STAC approval nr. 2013A048
- ENAC approval nr. 0135182/ENAC/CIA
- EASA test report (EN17025 laboratorio) nr. 326-QL20-R03/R04
- CE

COMPLIANCES

- ICAO Aerodromes -Annex 14 Volume 1, Chapter 6: Low intensity, Type A-B steady burning obstacle light, Type E flashing obstacle light
- FAA AC150/5345-43; E.B. #67 type L-810
- EASA CS-ADR-DSN, Chapter Q

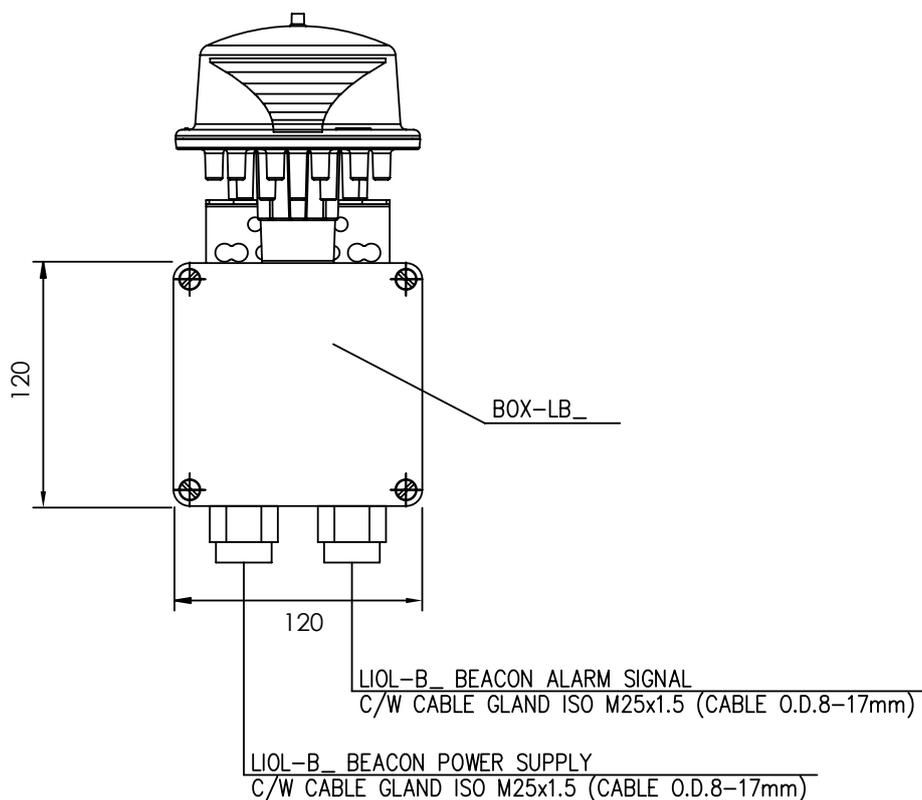
ORDER CODE

LXS ORDERING CODE	[A] = Type A >10cd Steady Burning	[B] = Type B >32cd Steady Burning	[E] = Type E >32cd Flashing	JB GRP	115Vac	230Vac	12Vdc	24Vdc	48Vdc	TWIN	"INFRA RED"	SS304 SUPPORT	"FAULT CONTACT"	"AUTO SWITCH"	"TWILIGHT SENSOR"	*READY for CLOUD
L810-LXS-AR-[...]GS6R0S	•	•		•	•	•						•				
L810-LXS-AR-[...]GS2R1T	•	•	•	•			•	•		•		•	•	•	•	•
L810-LXS-AR-[...]GS2R2T	•	•	•	•			•	•		•		•	•	•		•
L810-LXS-AR-[...]GS2R1I	•	•	•	•			•	•			•	•	•		•	•
L810-LXS-AR-[...]GS6R1T	•	•	•	•	•	•				•		•	•	•	•	•
L810-LXS-AR-[...]GS6R2T	•	•	•	•	•	•				•		•	•			•
L810-LXS-AR-[...]GS6R1I	•	•	•	•	•	•					•	•	•		•	•
L810-LXS-AR-[...]GS7R1T	•	•	•	•					•	•		•	•	•	•	•
L810-LXS-AR-[...]GS7R2T	•	•	•	•					•	•		•	•	•	•	•

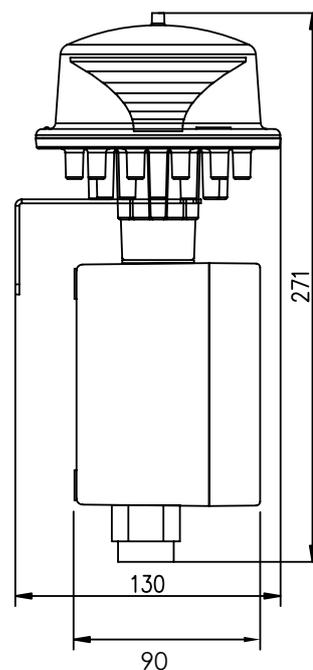
NIGHT LIGHTING HEMS

LIOL-A, LIOL-B, LIOL-E TECHNICAL DRAWINGS

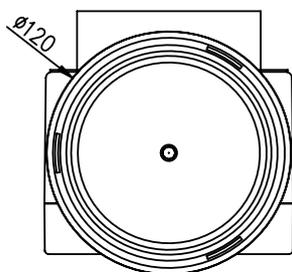
FRONTAL VIEW



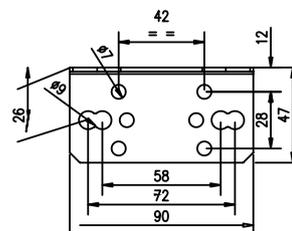
SIDE VIEW



TOP VIEW



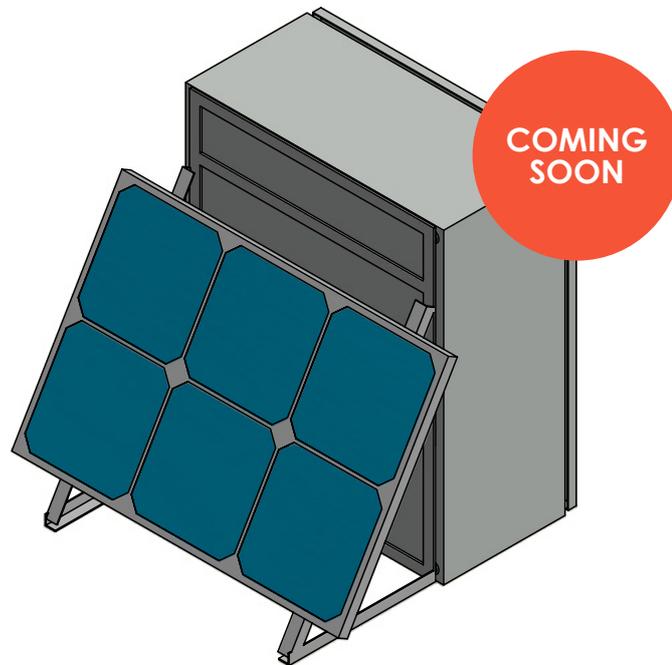
FIXING DETAILS



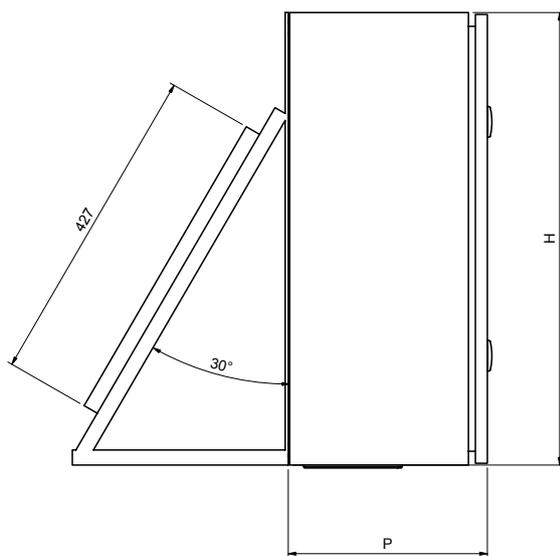
NIGHT LIGHTING HEMS

SOLAR STORAGE UNIT SOL-LXS

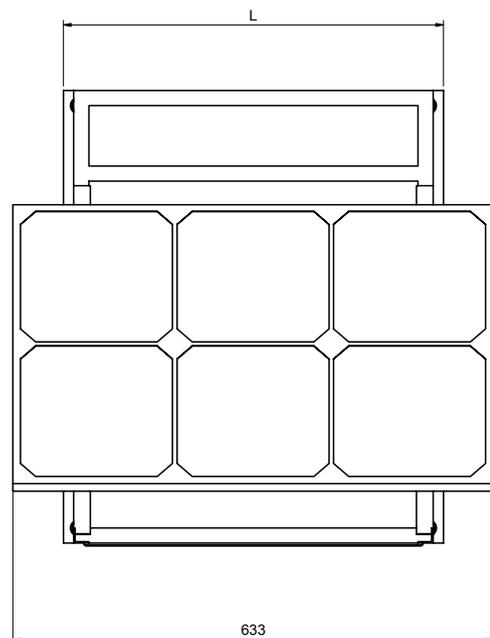
Solar energy storage system for night time power supply for HEMS surface lights: It can be integrated with the standard mains power supply.



FRONT VIEW



SIDE VIEW



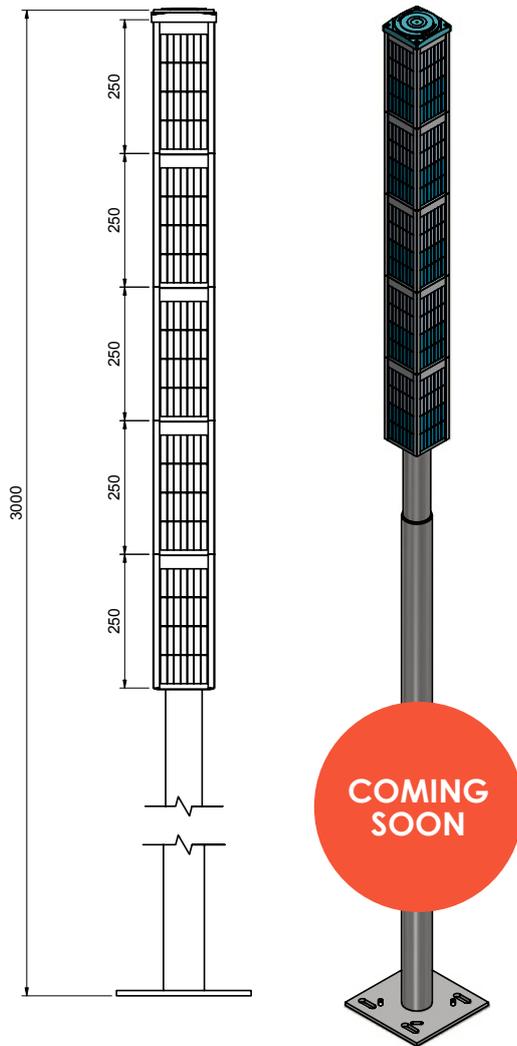
NOTE: the dimensions of the UPS system depend on the needs and power required.

NIGHT LIGHTING HEMS

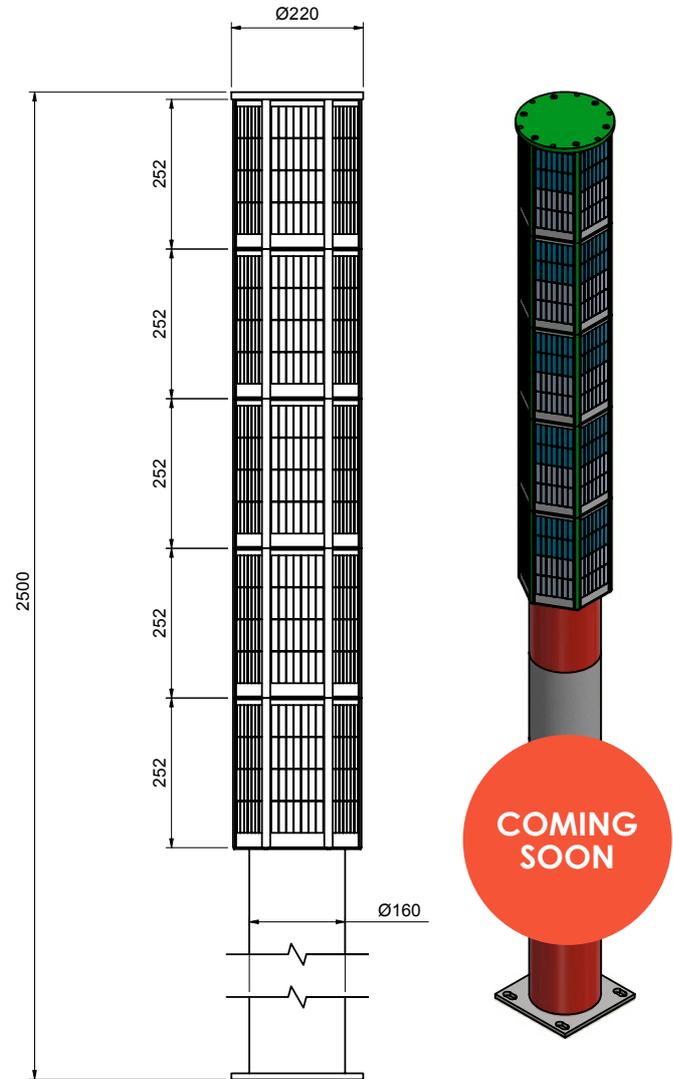
SOLAR STORAGE UNIT SOL-LXS-PLP

Solar and wind energy storage pole and wind power for night power supply of the lights of HEMS surfaces. It can be integrated with the standard mains supply.

ROAD POLE



GRP POLE

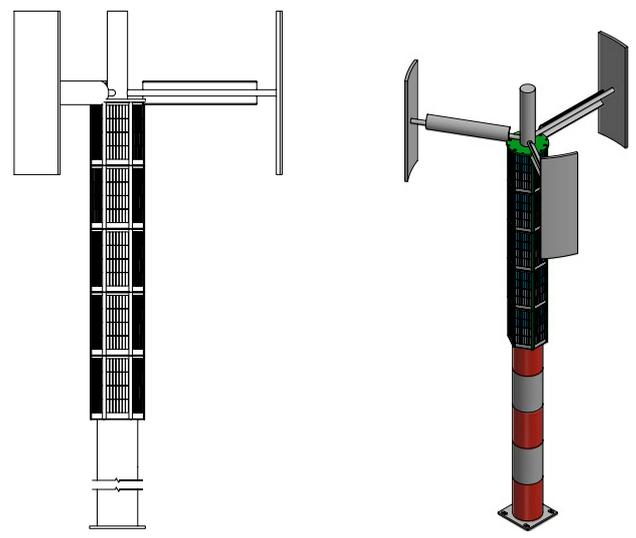
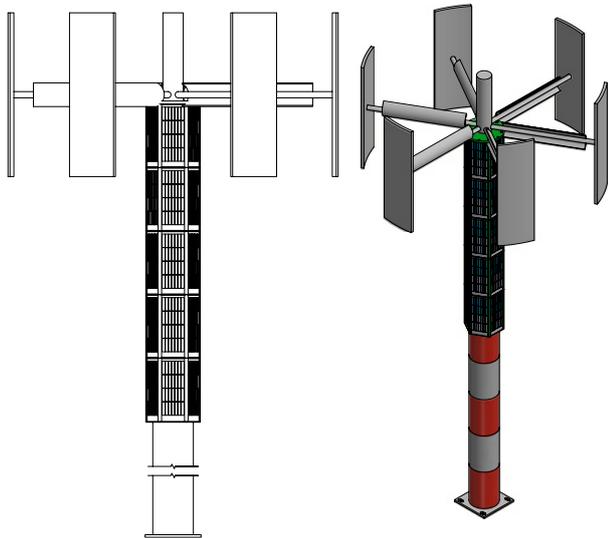


NOTE: the dimensions of the UPS system depend on the needs and power required.

NIGHT LIGHTING HEMS

SOLAR STORAGE UNIT SOL-LXS-IBR

Solar and wind energy storage pole for night power supply of the lights of HEMS surfaces. It can be integrated with the standard mains supply.

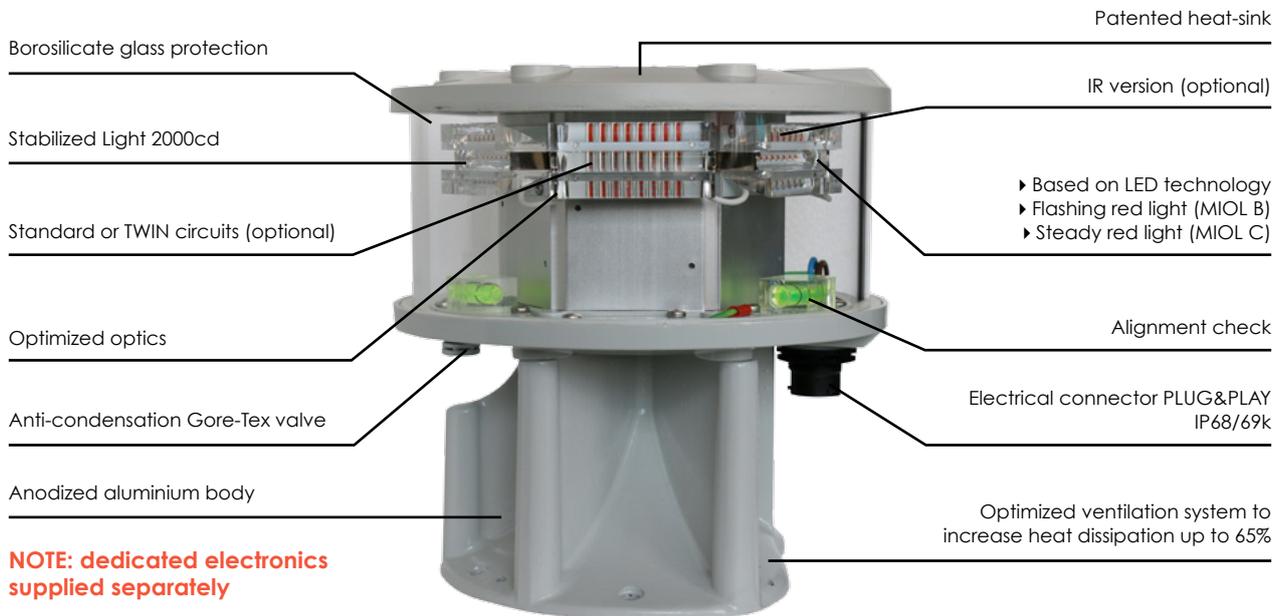


NOTE: the dimensions of the UPS system depend on the needs and power required.

NIGHT LIGHTING HEMS

MIOL-B, MIOL-C MEDIUM INTENSITY AIRCRAFT WARNING LIGHT

In the case of buildings located near the HEMS surface, ICAO Annex 14 provides for the installation of AWL. MIOL (Medium Intensity Aircraft Warning Lights) AWLs are necessary to warn the presence of obstacles with a minimum height from 45m to 150 m.



LIOL range includes 5 different types of Aircraft Warning Light:

- MIOL A: 20000cd flashing white light in day mode, 2000cd flashing white light in night mode.
- MIOL B: 2000cd flashing red light in night mode.
- MIOL C: 2000cd steady red light in night mode.
- MIOL AB: 20000cd flashing white light in day mode, 2000cd flashing red light in night mode.
- MIOL AC: 20000cd flashing white light in day mode, 2000cd steady red light in night mode.

Thanks to the compact design, the high quality of the LEDs, the patented optical and cooling system, MIOL B/C LXS 200 is the most advanced AWL on the market. The control electronics are supplied separately to facilitate maintenance and periodic checks.

PATENTED

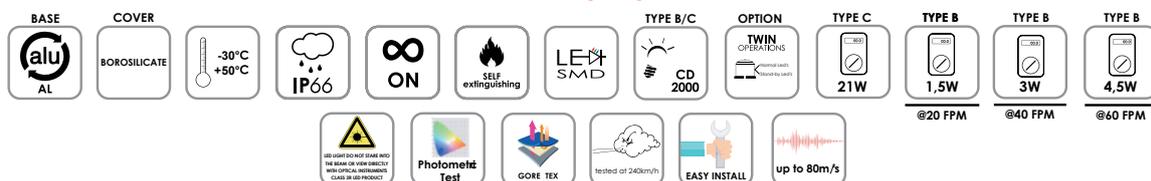
CERTIFICATION



COMPLIANCE



FEATURES



MIOL-B, MIOL-C SPECIFICHE TECNICHE

OPTICAL FEATURES

- Based on LED technology
- Red light 2000cd
- Emission @ -0,5° and +4°
- Horizontal Emission: 360°
- Vertical emission: 4°
- PMMA lens
- Visual alignment system

MECHANICAL FEATURES

- RAL7035 – painted anodized aluminium body
- Protective cover in borosilicate glass
- Silicone gasket, VMQ
- Heatsink with wind cone
- Protection degree: IP66
- Gore Tex anti-condensation valve
- Operating temperature: from 30°C to 50°C
- Weight: 6kg
- SS304 Support bracket
- Control box supplied separately

ELECTRICAL FEATURES

- Power supply from the dedicated control panel:
 - 12/24 VDC;
 - 48 VDC;
 - 115/230VAC;
 - Other available;
- Average consumption for MIOL B:
 - @20fpm: 1,5W
 - @40fpm: 3W
 - @60fpm: 4,5W
- Average consumption for MIOL C: 21W
- LEDs powered with constant current
- No RF radiation
- Conductor section: 0.5mm² to 2.5mm²
- External cable diameter: 7mm to 14mm

OPTIONS

- LUXSOLAR Cloud Monitoring System
- Versione TWIN con due circuiti LED separati

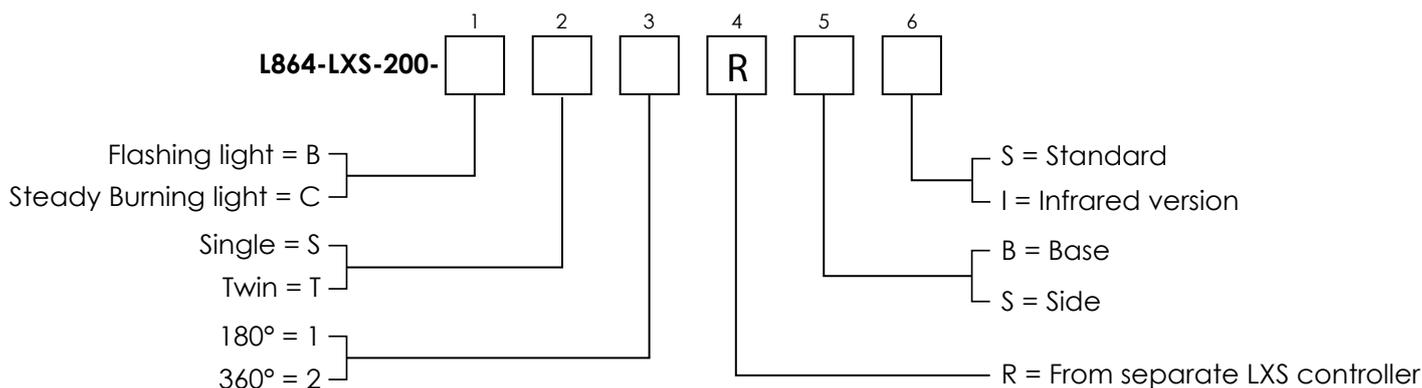
CERTIFICATIONS

- DGAC/STAC approval nr. 2013A037
- ENAC approval nr. 0135182/ENAC/CIA
- EASA test report (EN17025 laboratory) nr. 326-QL20-R09/R10
- FAA test report (EN17025 laboratory) nr. 880-QL18-R03
- CE

COMPLIANCES

- ICAO Aerodromes - Annex 14 Vol. 1, Ch.6: Medium intensity, Type B flashing obstacle light MIOL-B type or Type C steady burning obstacle light MIOL-C type;
- FAA AC150/5345-43; E.B. #67 type L-864;
- EASA Aerodromes Design - CS-ADR-DSN, Ch.Q: Medium intensity, Type B flashing obstacle light MIOL-B type or Type C steady burning obstacle light MIOL-C type

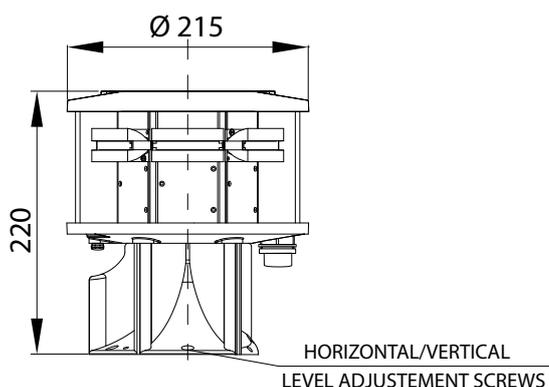
ORDER CODE



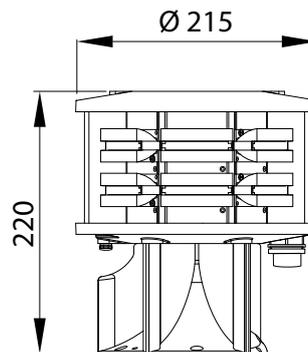
NIGHT LIGHTING HEMS

MIOL-B, MIOL-C DISEGNI TECNICI

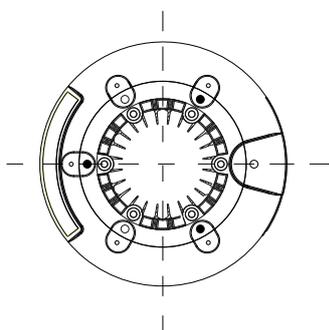
**SINGLE VERSION
SIDE VIEW**



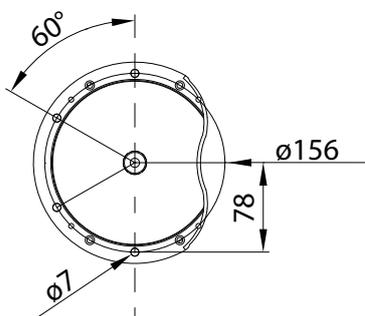
**TWIN VERSION
SIDE VIEW**



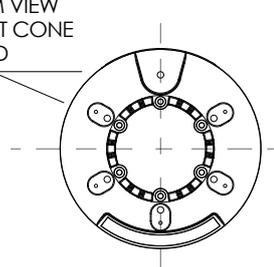
TOP VIEW



BOTTOM VIEW

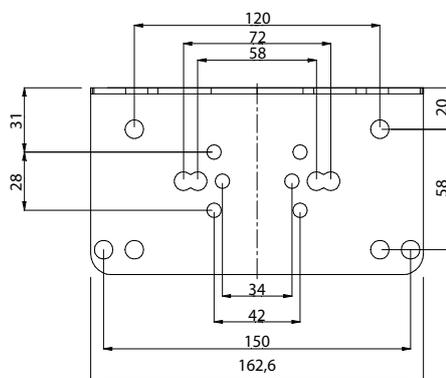


**BOTTOM VIEW
WITHOUT CONE
OF WIND**



FIXING DETAILS

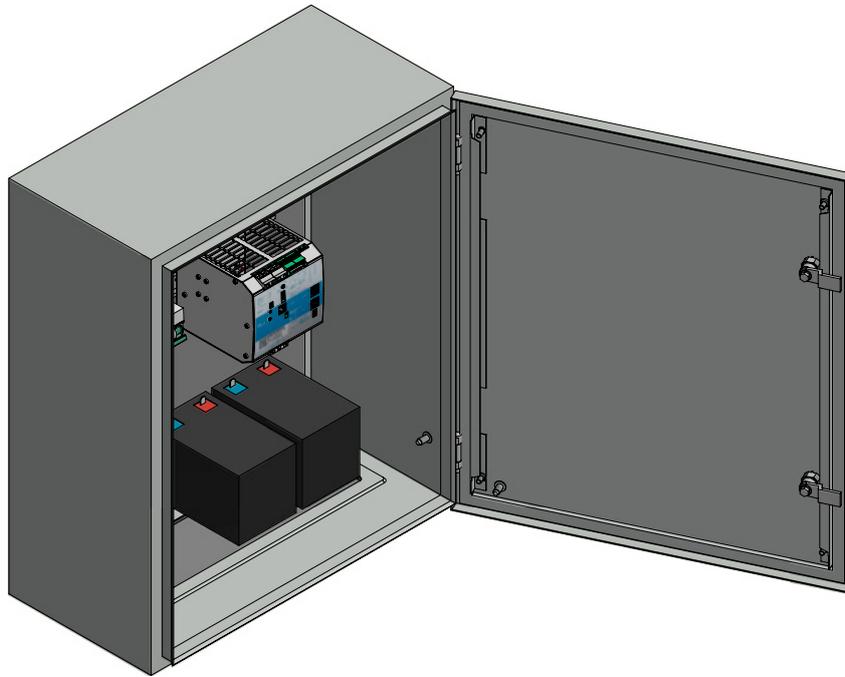
(not scale)



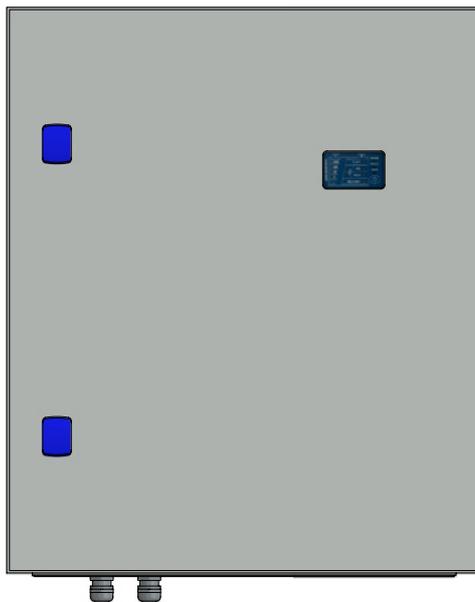
NIGHT LIGHTING HEMS

UPS UPS-LXS

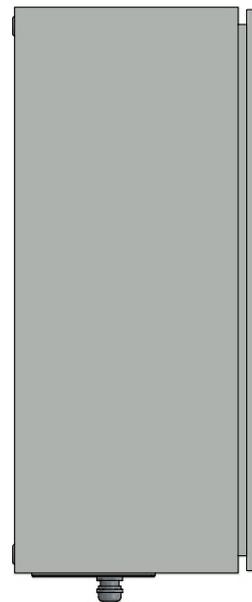
Backup unit to compensate for the temporary lack of electricity from the grid, essential to ensure the operational continuity of the helicopter rescue surface.



FRONT VIEW



SIDE VIEW



The UPS LXS units can guarantee the operation of the lighting systems for a time from 15 to 60min, according to specific needs.

NOTE: the size of the UPS system depends on the needs and and power required.

CLOUD MONITORING SYSTEM CMS-LXS-HIW

Monitoring unit for the operating status of the Aircraft Warning Light System.



The CLOUD MONITORING SYSTEM allows the monitoring of the signals via Global Network radio, the reporting of any faults, the storage of all anomalies and the display in a dynamic graph. All this can be easily accessed through any browser and fixed and/or mobile device.

The information collected by the system, in addition to being available in real time in the dedicated portal, is sent by instant messaging and e-mail.

The portal is accessed with specific credentials and data transmission is protected by HTTPS encryption.

CONTACT US

VDGLab technical department is at your disposal for support in the choice of signaling systems for HEMS helipads.

Beatrice Greppi: rd1@vdglab.com | Andrea Usai: **+39 389 6463223**

VDGLAB S.R.L.

- **Registered office:** Via Lorenzo Balicco, 67 - 23900 Lecco (LC) - Italy
- **Workshop:** Via per Dolzago, 21 - 23848 Oggiono (LC) - Italy

- **Phone:** +39 0341-1716627
- **E-mail:** info@vdglab.com - lx@luxsolar.com
- **Web sites:** www.vdglab.com - www.luxsolar.com

- **LinkedIn:** Luxsolar Italia



- **YouTube:** Luxsolar





VDGLab s.r.l.

Via Balicco, 67
23900 LECCO (LC) Italy
Tel. +39 0341 1716627
info@vdglab.com

www.vdglab.com