HeliX 120 Series

Inset LED light for Helipad

TLOF FATO Aiming point Flight path alignment Perimeter Taxiway edges

ICAO FAA CAP CASA DGAC-STAC

Aerolighting
Switzerland

SUMMARY

Product summary:

This light is a special version of the original HeliX model (150mm). This 120mm diameter is designed to be easyliy integrated into a aluminium profile (aluminium deck – plateform).

Helix is a robust and very low projection inset LED light for Helipad. This product is designed for very high solicitation.. With an increased static and dynamic load capacity, the HeliX reduces the possibility of damage. The HeliX also inlcude a InraRed light source for pilot flying with NVG. The HeliX inset LED light is the result of over 20 years of Aerolighting experience in the design and manufacture of aviation lighting. Its waterproofness, mechanical resistance, the care given to the photometry, the simplicity of the installation, the possibilities of digital control/monitoring make it the ideal product in most situations.

Special care has also been taken with the infrared part: the diffusion angles of the IR are identical to the visible light (ICAO). This guarantees the pilot using NVGs a safe vision in all circumstances.

This lamp is made of aluminum (optional stainless steel), the glass is made of high-quality Schott borosilicate, all screws and bolts are stainless steel. This product does not contain acrylic glass, PMMA, or glues. The LEDs, electronic components and all other components have been selected for their quality from leading manufacturers.

The mechanical resistance is twice as high as the current standards (more than 10'000 kgs on the glass). The waterprooness of the HeliX is based on the principles that have made the reputation of Aerolighting lights: no infiltration of moisture or water in all circumstance and for many years and without maintenance.

Design:	120mm Inset LED Light for Helipad
Material:	Aluminum or Stainless Steel
IP Rating:	IP 68
NVG Enhanced:	Integrated InfraRed
Projection:	< 4mm
DALI	Yes

Power supply	48 VDC 6.6A or 230V with external driver
Power:	Max. 15W
Standards:	ICAO, FAA, CAP, CASA, EASA, STAC
Brightness ctrl.:	with LBR II DA or DALI
LED Lifetime:	> 80'000 hours
iControl Ready:	Yes

Standards summary:

Type	*Color*	*InfraRed integrated*	*ICAO Annex 14 2020 TLOF*	*ICAO Annex 14 2020 FATO*	*ICAO Annex 14 2020 Alignment and guidance*	*ICAO Annex 14 2020 Aiming*	*ICAO Annex 14 2020 Taxiway edge*	*FAA AC 150/5390-2C 2012*	*FAA EB87*	*FAA EB98*	*CAA CAP437 2021*	*CASA CAAP 92-2 2014*	*EASA CS-HPT-DSN 2019*	*ICAO DOC 9261 & 9154*	*DGAC-STAC (France)*	*DIN EN IEC 62471:2009*
HeliX-G	*Green*	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓
HeliX-W	*White*	✓		✓	✓	✓				✓		✓	✓	✓	✓	✓
HeliX-B	*Blue*	✓					✓			✓			✓	✓		✓
HeliX-R	*Red*	✓								✓						✓
HeliX-Y	*Yellow*	✓	(✓)							✓						✓

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TECHNICAL DESCRIPTION:

Mechanical characteristics:

Body material:	Aluminum anodized or Stainless steel Borosilicate glass
Diameter:	120mm
Height above ground:	Lower than <4 mm
Weight:	0.8 kg
Temperature range:	-35° to +50°C
Protection Class:	IP68
Water / Humidity: Insulation	WatBar – Physical insulation between the "connection room" and the light
Note:	No glued parts, no PMMA, no acrylic glass parts

Optical characteristics: (visible)

Technology:	High Power LED
Light source:	Aerolighting HELI-8 LED engine
Available color:	Green/White/Yellow/Blue/Red/Infrared/Dual
Intensity (Green):	ICAO/ full intensity mode: 62cd @ 0° (ground level) *Max level setting: 100%* CAP437/ICAO limit mode: 32cd @ 0° (ground level) *Max level setting: 43%* *Max level limitation can be configured directly on site (from DA line) or in factory upon demand*
Intensity (White):	FATO mode: 100cd @ 0° (ground level) *Max level setting: 100%* Flight path mode: 40cd @ 0° (ground level) *Max level setting: 36%* *Max level limitation can be configured directly on site (from DA line) or in factory upon demand*
Horizontal output:	360°
Intensity level:	100% - 30% - 10% with LBR II DA from 5% to 100% with DALI
LEDs Lifespan:	>80'000 hours

Optical characteristics: (InfraRed)

Technology:	High Power LED
Light source:	Aerolighting HELI-8 LED engine
Wavelength:	850nm (central) +/- 30nm
Intensity (White):	Up to 180mw/sr @ 0° elevation
Horizontal output:	360°
Intensity level:	100% - 30% - 10% with LBR II DA from 5% to 100% with DALI
LEDs Lifespan:	>80'000 hours

Electrical characteristics:

Supply Voltage:	48 Volts DC Automatic voltage drop (in line) compensation
Power:	Max 15 Watts (white: 15W / other color: 9W)
Brightness regulation (visible):	LBR II DA DALI (fully compatible with Digital Addressable Lighting Interface)
Connection:	+Vdc / -Vdc / DA / DA
Type of cable:	4x 1.5mm2 (if DALI or LBR II DA is not used, only 2 wires are connected) Note: this light can be used only by connecting 48V without any regulation (only ON/OFF)

Aeronautical standards

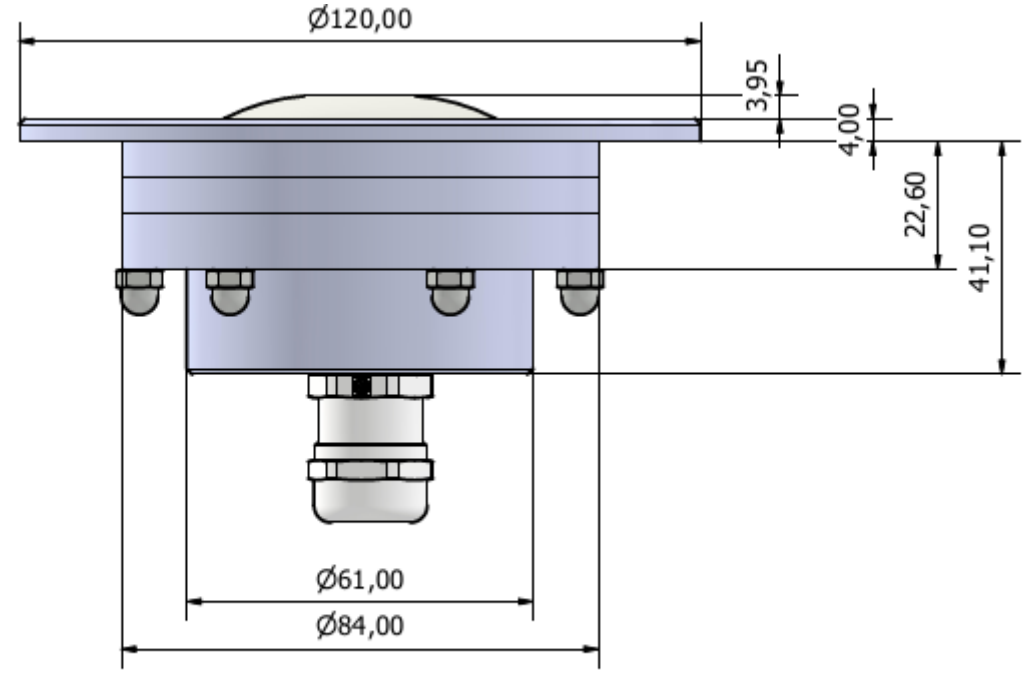
ICAO Annex 14 Vol II *5th edition July 2020*	TLOF perimeter lights Final approach and take off area lights (FATO) Aiming point lights Flight path and guidance lighting system
ICAO Annex 14 Vol I *9th edition July 2022*	Taxiway edge light
EASA CS-HPT-DSN *Issue 1 2019*	TLOF perimeter lights Final approach and take off area lights (FATO) Aiming point lights Flight path and guidance lighting system
CASA CAAP 92-2 (2) *February 2014*	Final approach and take off area lights (FATO) Flight path and guidance lighting system
FAA Engineering Brief 87 *Jan 2012*	Perimeter light L-860HS (L) – Semi-flush heliport fixture LED
FAA Engineering Brief 98 *Dec 2018*	850nm Infrared for NVG Exceed L-810(L) up to 120mW/sr from 0°(ground) to 90° // max 250mW/sr
FAA AC 150/5390-2C *Apr 2012*	TLOF perimeter lights Landing direction lights Flight path alignment lights
DGAC-STAC *SPE/STAC/SE/E/VIS/6008*	*Homologation pending*
DGAC-STAC *Version 4*	Mechanical resistance on glass (up to 10 tons)
UK CAA CAP 437 *July 2021*	Perimeter light (power limitation programed in factories)
DIN EN IEC 642471 *:2019*	Safety of lamp system (for Infrared part)
IEC 60598-1 *:2020*	Ingress protection class dust/liquids

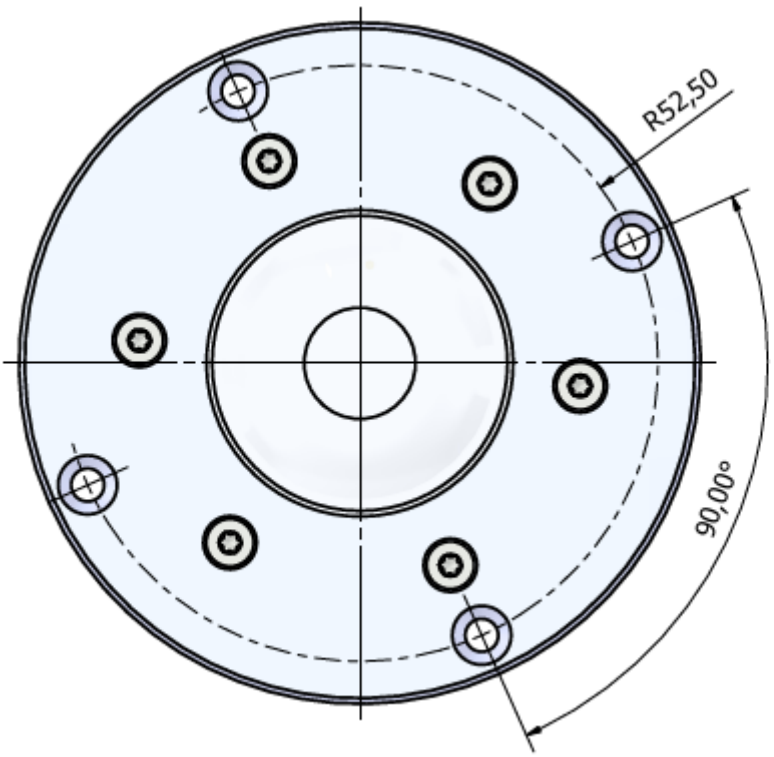
ORDERING CODE

HeliX – G – AL - 120

Type	*Color*	*Material*
HeliX	-G: Green -W: White -Y: Yellow -B: Blue -R: Red	-AL: Aluminum -IN: Stainless Steel Stainless steel 1.4404. or 1.4435 (if not diplayed = AL)

DRAWING





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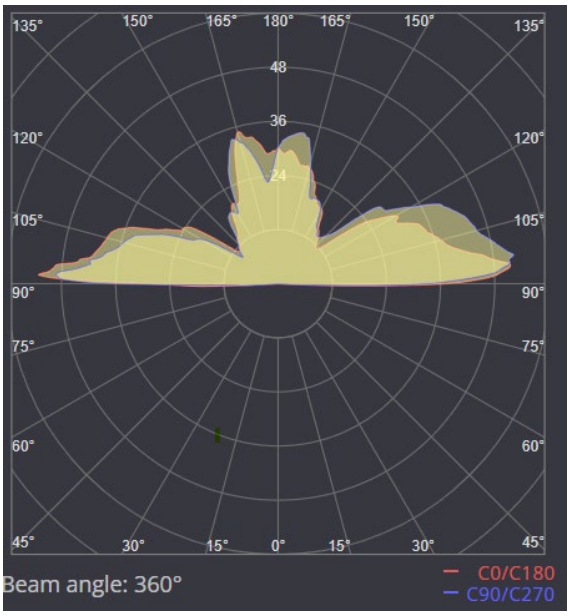
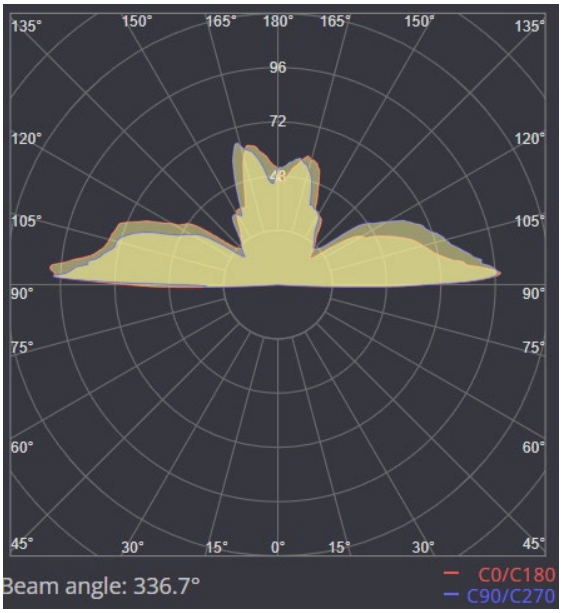
PHOTOMETRIC DATA

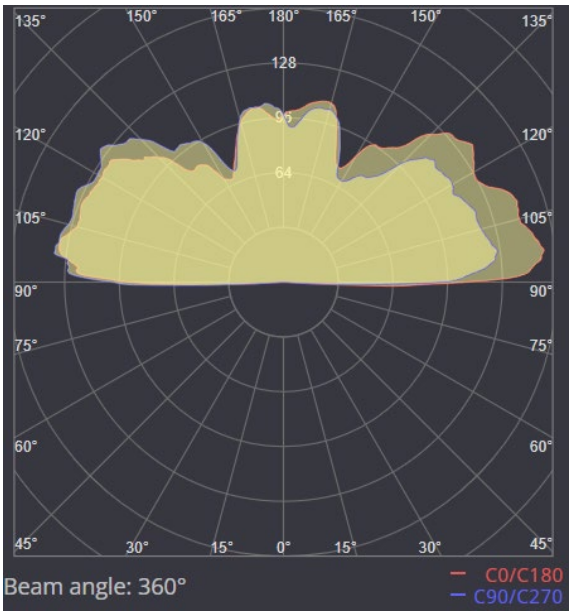
ICAO/CAP437 (with intensity limitation programed in factory) – Green
(30cd / Max 60cd)



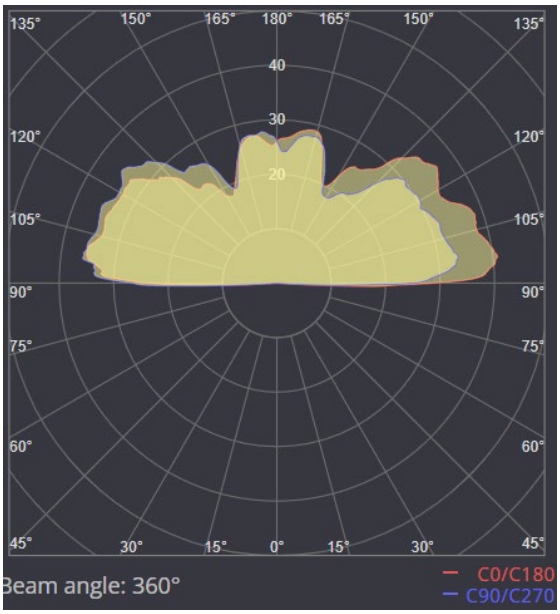
ICAO full intensity – Green



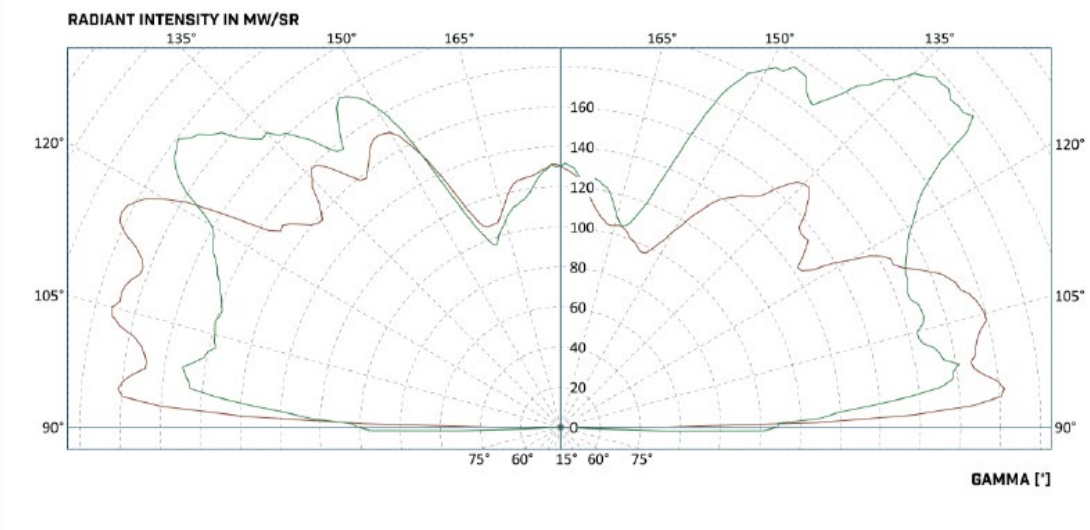
ICAO FATO full intensity – White



ICAO Flight path alignment and guidance (with intensity limitation programed in factory) – White (30cd)



INFRARED (integrated with all colors)



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