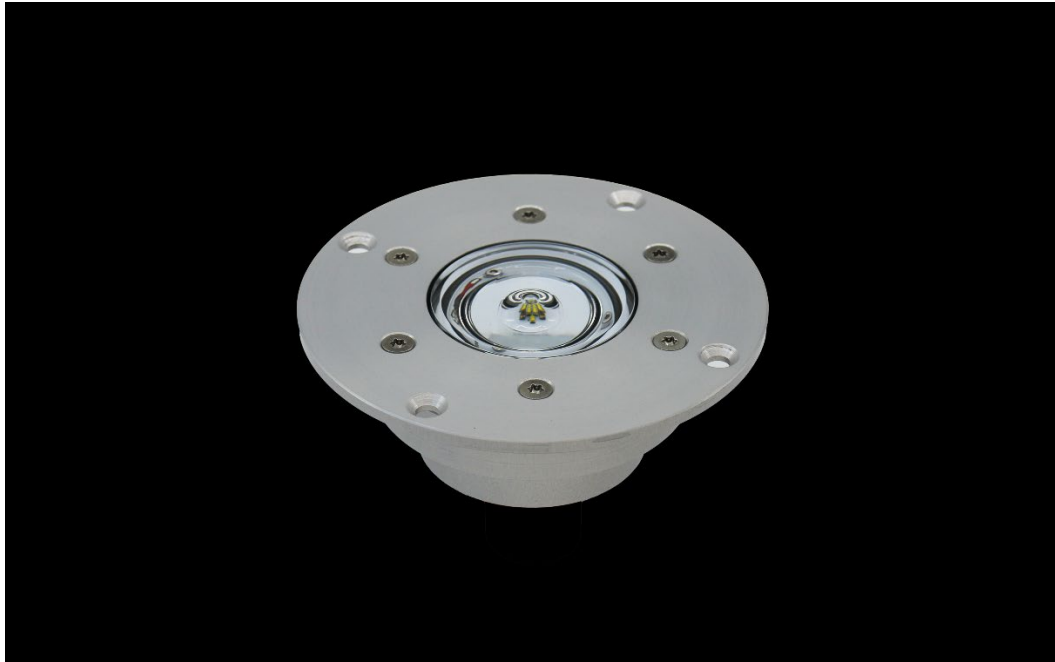


# Helix 140 Series

*Inset LED light for Helipad 140mm diameter*

TLOF FATO Aiming point Flight path alignment Perimeter Taxiway edges

ICAO FAA CAP CASA DGAC-STAC



## SUMMARY

### Product summary:

This light is a special version of the original HeliX model (150mm). This 140mm diameter is designed to be easily integrated into existing aluminium profile (aluminium deck – platform).

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 include a InfraRed 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 waterproofness 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.



<b>Design:</b>	140mm Inset LED Light for Helipad
<b>Material:</b>	Aluminum or Stainless Steel
<b>IP Rating:</b>	IP 68
<b>NVG Enhanced:</b>	Integrated InfraRed
<b>Projection:</b>	< 4mm
<b>DALI</b>	Yes

<b>Power supply</b>	48 VDC : digital DA dimming 24VDC : analog 0-10V dimming 6.6A or 230V with external driver
<b>Power:</b>	Max. 15W
<b>Standards:</b>	ICAO, FAA, CAP, CASA, EASA, STAC
<b>Brightness ctrl.:</b>	with LBR II DA, DALI, 0-10V
<b>LED Lifetime:</b>	> 80'000 hours
<b>iControl Ready:</b>	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	✓	(✓)							✓						✓

## TECHNICAL DESCRIPTION:

### Mechanical characteristics:

<i>Body material:</i>	Aluminum anodized or Stainless steel Borosilicate glass
<i>Diameter:</i>	140mm
<i>Height above ground:</i>	Lower than <4 mm
<i>Weight:</i>	0.85 kg
<i>Temperature range:</i>	-35° to +50°C
<i>Protection Class:</i>	IP68
<i>Water / Humidity: Insulation</i>	WatBar – Physical insulation between the “connection room” and the light
<i>Note:</i>	No glued parts, no PMMA, no acrylic glass parts

### Optical characteristics: (visible)

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

### Optical characteristics: (InfraRed)

(no infrared in 24VDC 0-10V dimming version)

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

### Electrical characteristics:

<i>Supply Voltage:</i>	48 Volts DC for DA version Automatic voltage drop (in line) compensation 24VDC for 0-10V version Automatic voltage drop (in line) compensation
<i>Power:</i>	Max 15 Watts (white: 15W / other color: 9W)
<i>Brightness regulation (visible):</i>	LBR II DA DALI (fully compatible with Digital Addressable Lighting Interface) 0-10 V analog dimming
<i>Connection:</i>	48V version: +Vdc / -Vdc / DA / DA 24V version: +Vdc / -Vdc / AnalogDim
<i>Type of cable:</i>	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

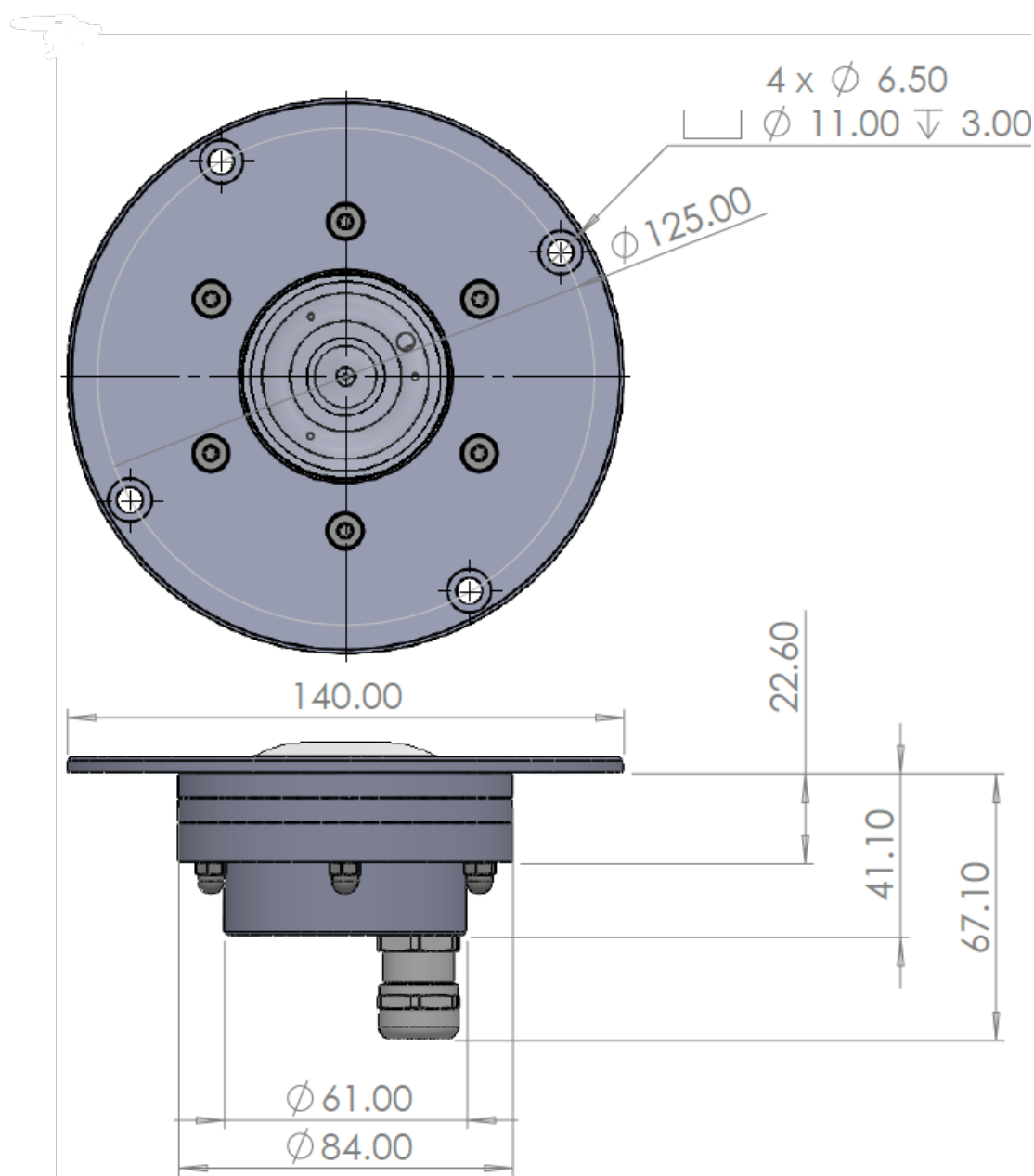
ICAO Annex 14 Vol II 5 <sup>th</sup> edition July 2020	TLOF perimeter lights Final approach and take off area lights (FATO) Aiming point lights Flight path and guidance lighting system
ICAO Annex 14 Vol I 9 <sup>th</sup> edition July 2022	Taxiway edge light
EASA CS-HPT-DSN Issue 1 2019	TLOF perimeter 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 140 – G – AL - 48

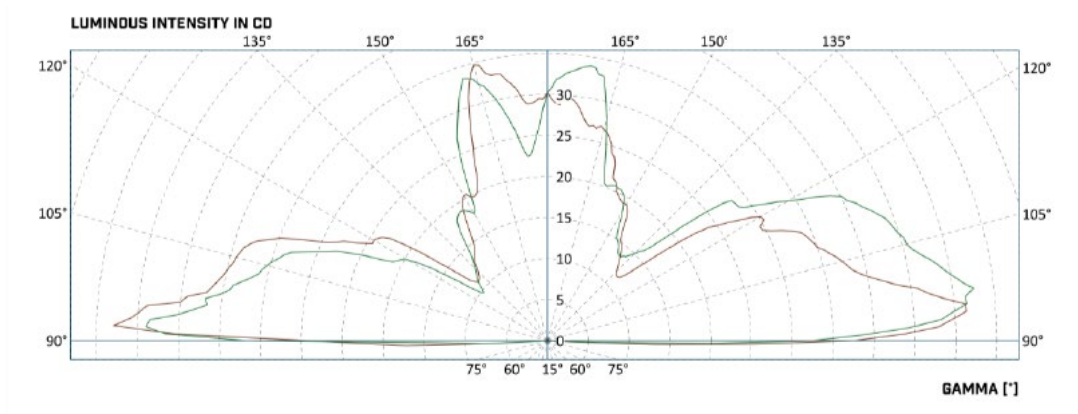
Type	Color	Material	Power supply
<b>HeliX 140</b>	-G: Green -W: White -Y: Yellow -B: Blue -R: Red	-AL: Aluminum -IN: Stainless Steel Stainless steel 1.4404. or 1.4435 (if not displayed = AL)	-48 : 48VDC + DA digital dimming -24 : 24VDC + 0-10V analog dimming

## DRAWING

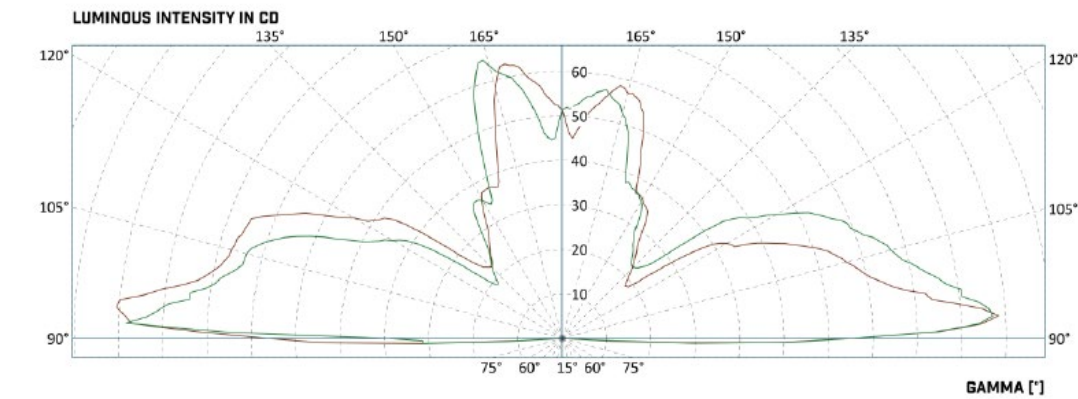


## PHOTOMETRIC DATA

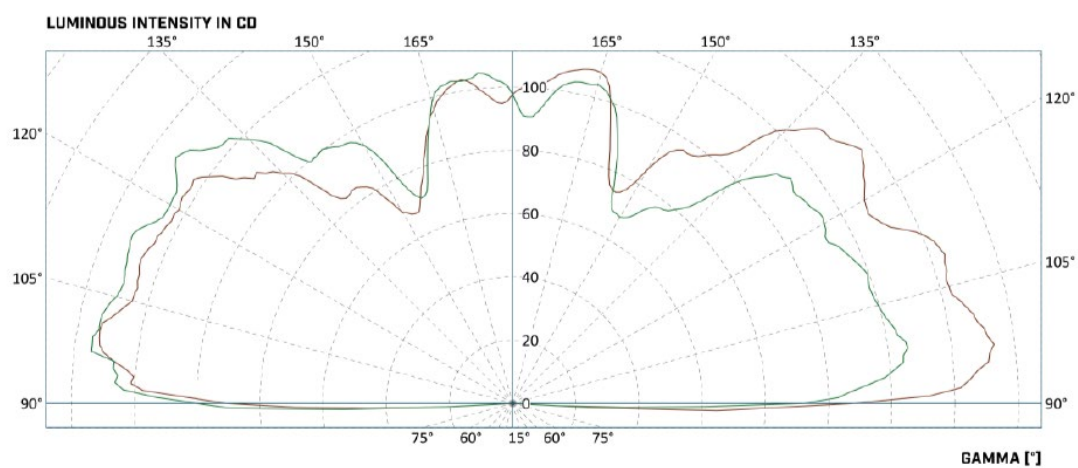
CAP437 (with intensity limitation programed in factory) - Green



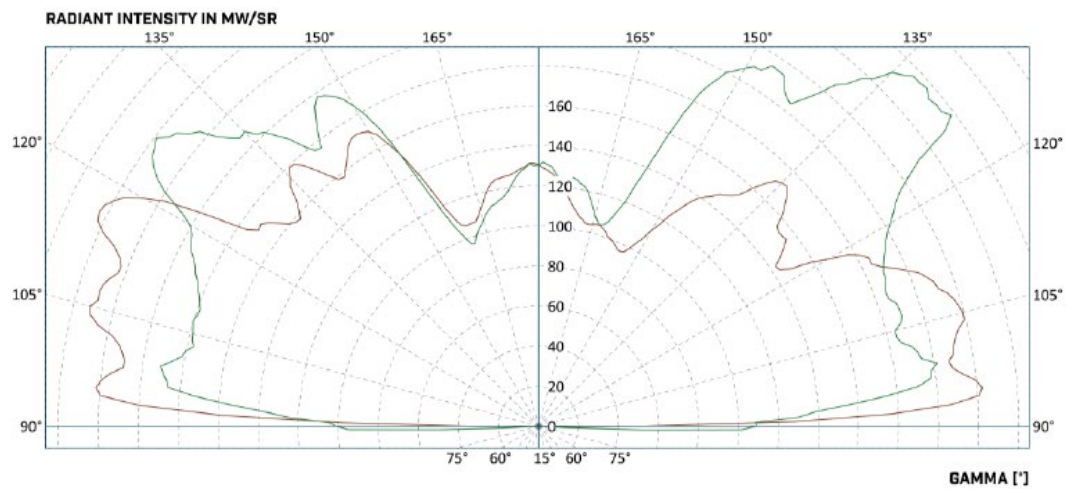
ICAO – Green



ICAO – White



INFRARED (integrated with all colors)



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