

Purchase Specifications for a Inset Helipad Light

Overview

This specification is for an LED inset helipad light for Touch down and Lift off Area (TLOF) perimeters, for Final Approach and Take off Area (FATO) perimeters and for Flight Path Alignment Guidance Lighting Systems (FPALS) according to ICAO Annex 14 Vol 2.

Furthermore, the lights shall fulfil the requirements of Federal Aviation Administration's (FAA) Engineering brief 87

Each light shall be powered by 24V DC and provide an interface (10-0V) for dimming control.

The lights shall be delivered ready to install. The required assembly is the connection to the 24V DC supply and the dimming bus (if applicable) and the installation in the shallow base or equivalent with 4 X M5 counter sunk head screws.

1.0 Light Characteristics

The light shall use 8 -high intensity LEDs.

The light output shall be available in green, white, yellow

The light shall have a peak intensity (steady-on) of

- Green light output > 30 cd
- White light output > 100 cd
- Yellow light output > 30 cd

The light shall have a horizontal output as per L861 and L861E.

The light shall have a minimal vertical divergence as per ICAO Annex 14 Vol 2. and EB 87

The light shall have steady on characteristics

The light shall have three (3) intensity adjustments (controlled via the dimming bus) being 100%, 30% and 10% of the nominal peak intensity

The light shall have the capability of Infrared Emission for Night Vision Goggle compliancy

2.0 Electrical Characteristics

The light shall have integrated circuit protection.

The light shall have an operating voltage of 24V DC $\pm$ 20%.

The light shall have an operating temperature range between -40 to 85°C.

3.0 Physical Characteristics

The body of the light shall be manufactured from a corrosion resistant thick film anodized aluminium.

The light lens shall be manufactured from UV-stabilised polyurethane in a high optical grade.

The light shall have a lens diameter of 80 mm

The light shall have a mounting pattern using 4 holes 73 mm bolt pattern.

The light shall have a height above ground of less than 6.5mm.

The light shall have a width (flange) of 120mm and a width of the body (in pavement) ≤ 90 mm

The light shall have a mass of less than 1kg

The light shall withstand a vertical static load of min 11t and shear load of 1.3t

All cavities in the light shall be fully encapsulated against any intrusion of liquids and dust.

A shallow base (can) shall of diameter 180mm and max depth of 125mm shall be available for installation purposes in pavement.

8.0 Environmental Factors

The light shall meet the following environmental factors:

Humidity: 0 to 100%, MIL-STD-810F

Wind Speed: up to 450 kph

Shock: MIL-STD-202G, Test Condition G, Method 213B

Vibration: MIL-STD202G, Test Condition B, Method 204

The light shall have a useful lamp lifetime of >80.000h

9.0 Certifications

The light shall be IP68 waterproof.

The light shall meet CE EN61000-6-3:1997. EN61000-6-1:1997

The manufacturer shall be ISO9001:2008 certified.

10.0 Compliance

The light shall be supplied with an optic to meet either:

- Photometrics for ICAO Annex 14 Volume 2, July 2013 'Heliports' Final Approach and take-off Lights – Figure 5-11 Illustration 5. and TLOF perimeter lights and flight path alignment guidance lighting system – Figure 5-11 Illustration 6.
- Photometrics for FAA EB 87.

11.0 Warranty

The light shall have a three (3) year warranty full product warranty