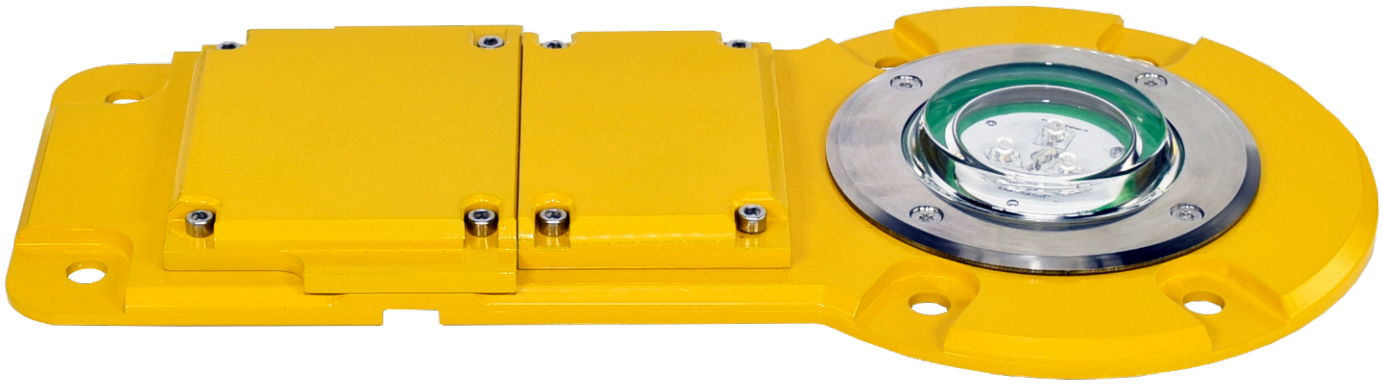
# Flat TLOF - FD




+40 254 515 465 office@signalight.com 36 Lunca Street, Petrosani, Romania www.signalight.com

## Compliance to Standards

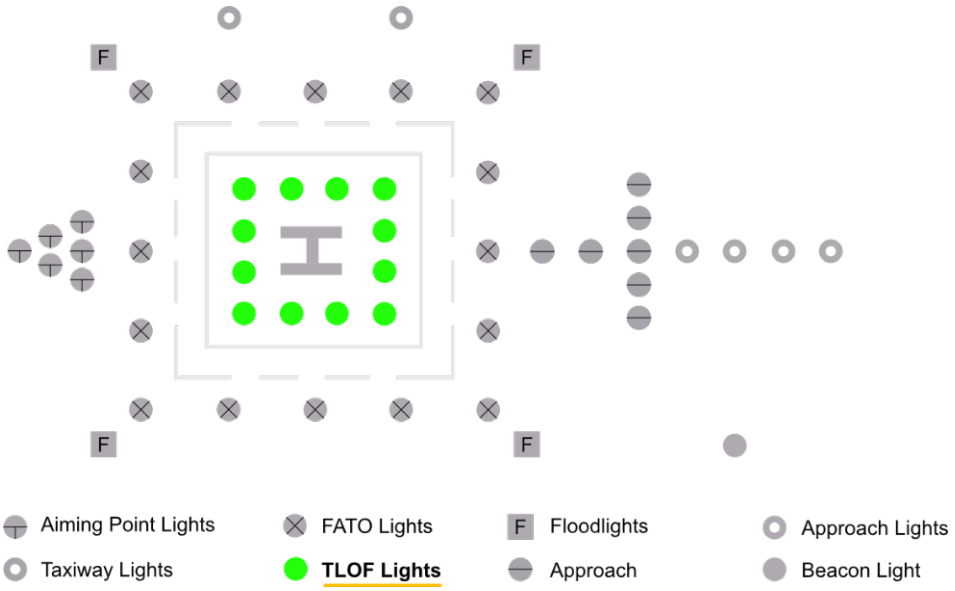
**ICAO:**
International Civil Aviation Organization, Aerodromes, Annex 14, Vol. 1

**ICAO:**
Annex 14, Volume II - Heliports

**IEC TS 61827:**
Electrical installations for lighting and beaconing of aerodromes. Characteristics of inset and elevated luminaires used on aerodromes and heliports

## Application

TLOF lights (Touchdown and Lift Off Area Perimeter)




## Features

Designed and built with simplicity and ease of maintenance in mind.

High-power LED technology with an estimated lifetime of 100,000 hours.

Lightweight, low-energy and environment friendly lighting fitting. Extensive use of aluminium alloys reduces fitting weight and eases handling in the field.

## Product Code

**AL - 073 - 03 - GR - FD**

| | |
|---|---|
| Series Indicator (Airfield Lighting) | **AL** |
| Product Indicator | **073** |
| LEDs Number | **03** |
| LEDs Light Color (Green) | **GR** |
| Indicative for surface mounting fixture | **FD** |

## Description

**Housing** - Powder coated aluminium RAL 1004 (aviation yellow)
**Disperser** - hardened glass
**Disperser flange** - nickel plated ring
**Cable gland** - nickel plated brass
**Fasteners** - stainless steel

Light fixtures are provided with anti condensation valve.
Light fixtures are UV protected.

## Environment

| | |
|---|---|
| **Temperature range:** | -55° to +55° |
| **Degree of protection:** | IP68 |
| **Humidity:** | 0-100% |
| **Ka tested:** | Salt mist - in accordance with:<br>IEC 60068-2-11 & IEC 60068-2-25 |

## Mounting

Light fixtures are designed to be mounted on any hard flat surface, such as:

- ☑ Concrete
- ☑ Asphalt
- ☑ Metallic structures

## Electrical Characteristics

**Power consumption:** 4.5 W
**Power supply:**
48 VDC from controller - dimmable: 100%, 30%, 10%
90-230 V, 50/60 Hz - non dimmable
1.4 A CC - dimmable: 100%, 30%, 10% (internal bypass + SPD)

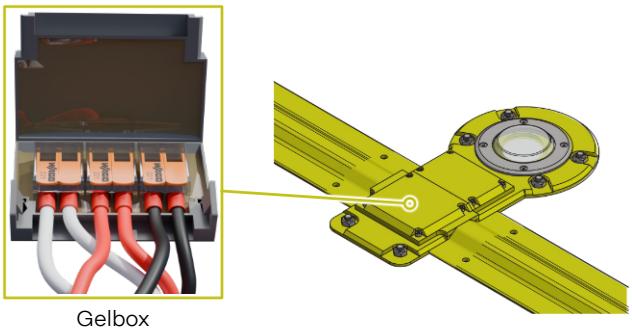
**Types of power supply:**

48 VDC power supply from controller with 3 core cable
**V+** (brown)
**V-** (blue)
**Dimming** (green/yellow)

230 VAC directly from mains power supply
**Live** (brown)
**Neutral** (blue)
**Ground** (green/yellow)

1.4 A CC power supply from controller with 2 core cable
**V+** (red mark)
**V-** (blue mark)

Electrical connections are made inside the housing using a gel-filled junction box (gelbox).



Gelbox
**Code: 201-2593**

The light fixture is supplied with a sufficiently long cable, which is routed through a channel outside the heliport area.

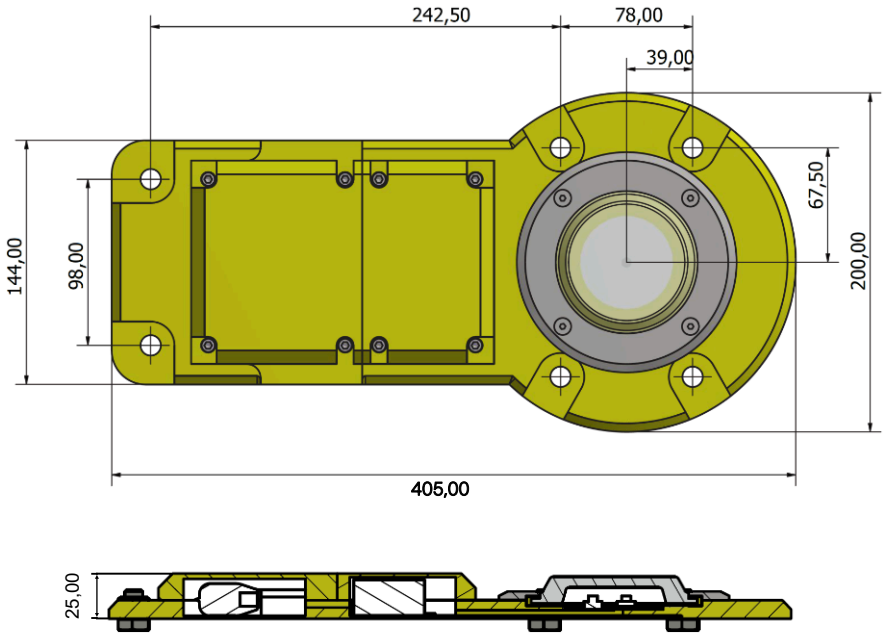
The power cable will be protected by an aluminum cable protection with a weight of 2.2 kg/m.



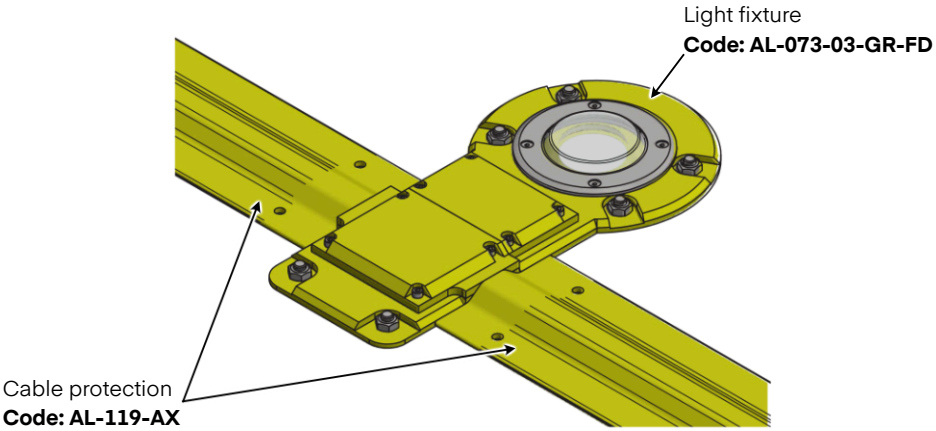
Cable protection
**Code: AL-119-AX**

## Mechanical Characteristics

**Lenght:** 405 mm
**Width:** 200 mm
**Height:** 25 mm
**Weight:** 2.5 kg




Installation of lighting fixture and cable protection:
- with M10 welded bolts on the metalic platform
- with M10 threaded holes in the metal platform



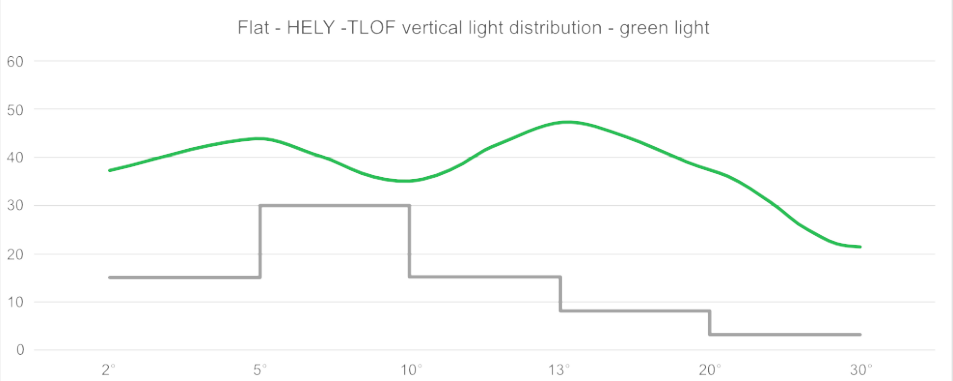
## Photometric Characteristics

**Intensity level:** 100%, 30%, 10% with version powered in 48 VDC or 1.4 A CC

**Horizontal output:** 360°

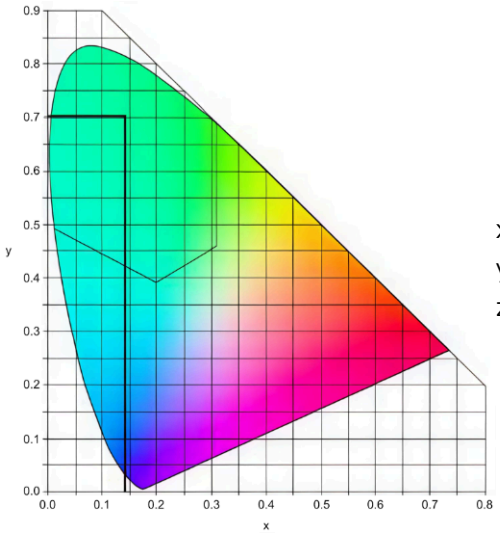
**Light color:** Green

| Vertical elevation angle | 2°-5° | 5°-10° | 10°-13° | 13°-20° | 20°-90° |
|---|---|---|---|---|---|
| Required minimum intensity [cd] | 15 | 30 | 15 | 8 | 3 |
| Measured minimum intensity [cd] | 37.2 | 43.6 | 35 | 47.2 | 37.5 |




The brightness intensity values complies with:
**ICAO requirements Annex Annex 14 Vol.1 fig. 5-12 illustration 5**

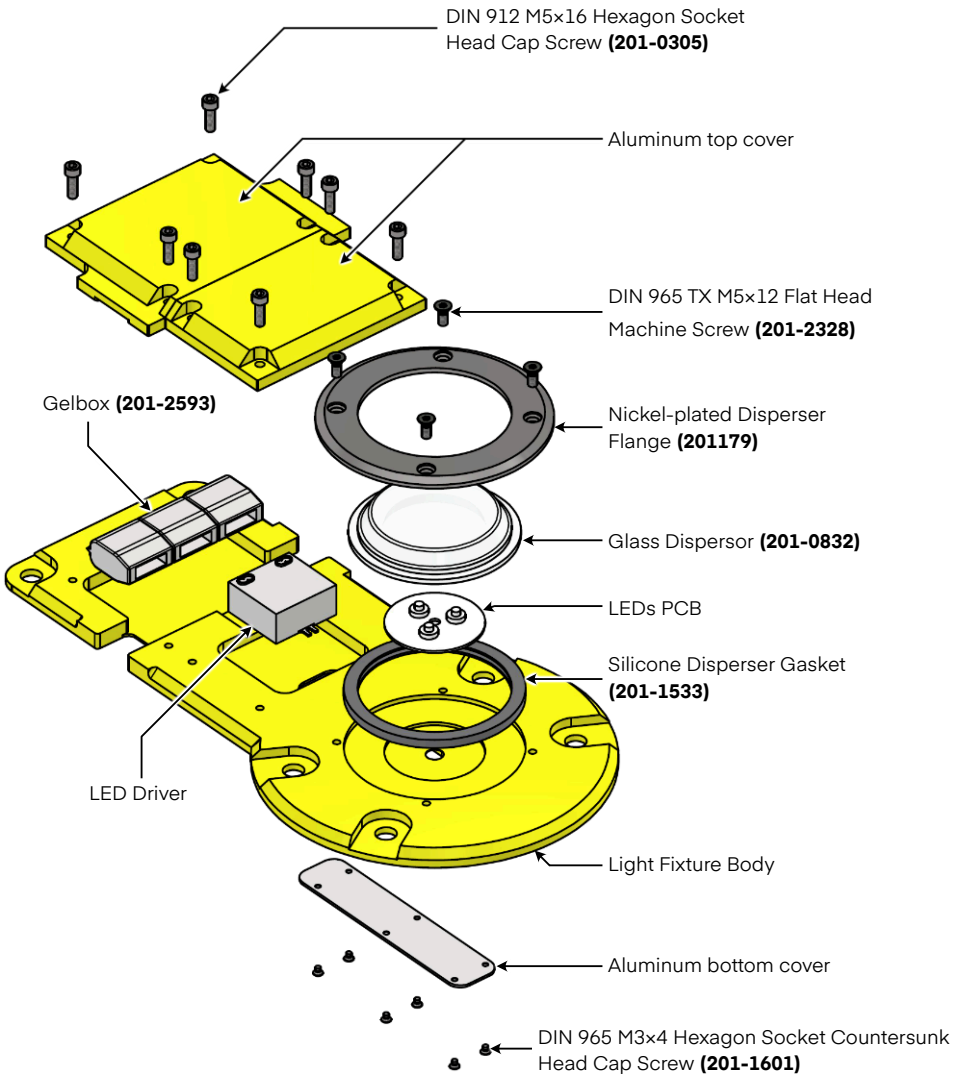
The light color emitted by the light fixture is white, with the following trichromatic coordinates:




x=0,145
y=0,701
z=0,154

The measured trichromatic coordinates correspond to color range requirements in:
**ICAO Annex 14 - Aerodromes Vol.1, fig, A1-1b. Colors for aeronautical ground lights (solid state lighting)**

## Spare Parts


DIN 912 M5×16 Hexagon Socket Head Cap Screw **(201-0305)**
Aluminum top cover
DIN 965 TX M5×12 Flat Head Machine Screw **(201-2328)**
Gelbox **(201-2593)**
Nickel-plated Disperser Flange **(201179)**
Glass Dispersor **(201-0832)**
LEDs PCB
Silicone Disperser Gasket **(201-1533)**
LED Driver
Light Fixture Body
Aluminum bottom cover
DIN 965 M3×4 Hexagon Socket Countersunk Head Cap Screw **(201-1601)**

## Accessory

To order accessories please call our customer support. For contact details please refer to our website - www.signalight.com

| # | Name - Series | Product Code | Image |
|---|---|---|---|
| 1 | Cable protection | AL-119-AX |  |



Signalight

**+40 254 515 465**
**office@signalight.com**

36 Lunca Street, Petrosani,
Hunedoara County, Romania

**www.signalight.com**