

## DATASHEET

**OBELUX**  
AVIATION LIGHTS

# Low-Intensity Portable Red & IR Obstruction Light

ICAO Low-intensity Type A, Type B and Type E

FAA L-810(F)

Red 10 cd &amp; 32 cd, Infrared 850 nm

## Optical characteristics

- ▶ 10 cd red and IR
- ▶ 32 cd red and IR
- ▶ Colour aviation RED
- ▶ Fixed or flashing
- ▶ Horizontal beam 360°
- ▶ Vertical beam > 10°
- ▶ Infrared 850 nm
- ▶ All models fixed or flashing
- ▶ Photocell for Day / Night detection

## Specifications met

ICAO International Standards and Recommended Practices: Aerodromes Annex 14 Volume 1, 9th Edition, July 2022, Chapter 6:

Low-intensity Type A (10 cd)

Low-intensity Type B (32 cd)

Low-intensity Type E (32 cd)

FAA Advisory Circular (9/28/2016)  
AC 150/5345-43H: L-810, L-810F

Transportstyrelsen TSFS 2020:88  
(SWE)

## Features

- ▶ Corrosion-free materials
- ▶ Transparent polycarbonate cover
- ▶ Shock-resistant polycarbonate enclosure
- ▶ Photocell



The **Obelux Low-Intensity Portable (LI-P)** is a portable, battery-operated red obstruction light. It is available in the configurations red and red+IR (infrared).

The Obelux LI-P is designed for outdoor use and features a shock-resistant polycarbonate enclosure. It requires no maintenance other than occasional cleaning of the enclosure and battery replacement when needed.

Typical battery operating time is up to 5 months (operating mode: red 32 cd, flash rate 20 flashes per minute, and photocell-controlled day/night operation).

Optionally, the LI-P is also available with an integrated GPS receiver for flash synchronization.

## Key Features

- ▶ Based on LED technology
- ▶ Low-intensity RED fixed and flashing light
- ▶ NVG-compliant infrared (IR) light as option
- ▶ GPS synchronization as option
- ▶ Integrated photocell for control
- ▶ Very low power consumption
- ▶ Extremely reliable
- ▶ Very long battery lifetime
- ▶ Stabilized light output
- ▶ Lightweight and small
- ▶ External power supply and chaining connectors as options
- ▶ 160° / 280° / 360° operating modes
- ▶ Microprocessor-control
- ▶ Very long maintenance intervals
- ▶ Low battery costs
- ▶ Easy to handle
- ▶ Five (5) years warranty

## Electrical characteristics

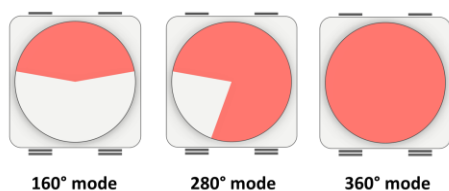
- ▶ Optimized for Air-Alkaline battery (non-rechargeable)
- ▶ Nominal operating voltage 12 VDC
- ▶ Operating voltage range 10-16 VDC

## Mechanical characteristics

- ▶ Operating temperature range: -40 °C ...+55 °C
- ▶ Dimensions (LxWxH): 210 mm x 175 mm x 135 mm
- ▶ Weight with 4 Air-Alkaline batteries: 4 kg
- ▶ Degree of protection: IP65 (Ventilation: IP43)

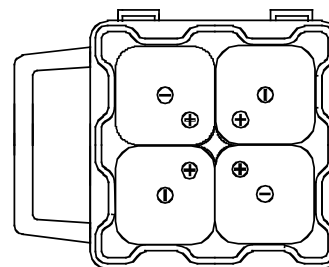
## Switchable options

- Photocell control on/off
- Photocell threshold 500 lux or 1600 lux
- Horizontal beam 160°, 280° or 360°
- Flash rate steady, 20 fpm, 40 fpm or 60 fpm
- Infrared power output 50 mW/sr or 100 mW/sr
- Infrared output can be set to steady 100 mW/sr



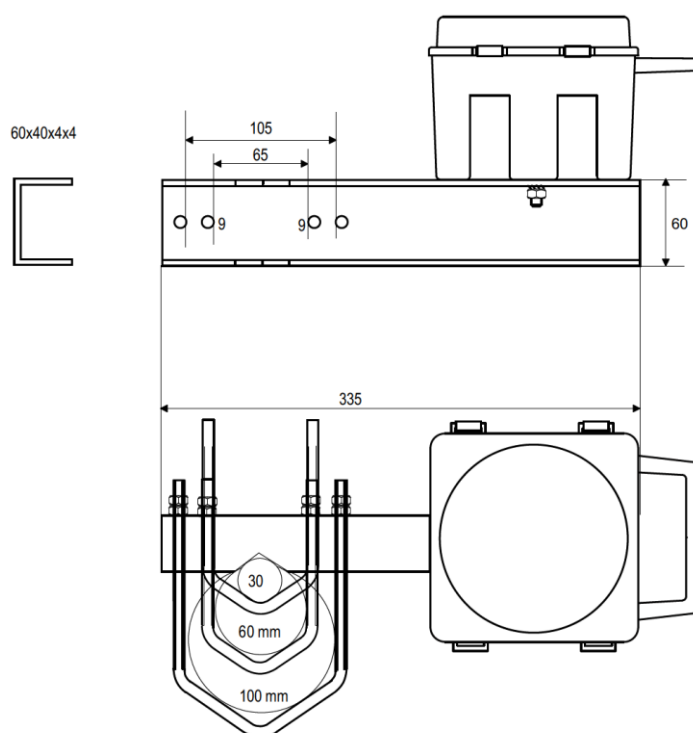
## Battery characteristics

- Air alkaline batteries (non-rechargeable)
- Nominal voltage 6 V, capacity 50 Ah
- Environmentally friendly, no toxic materials
- Dimensions 67 mm x 67mm x 98/108 mm (L x W x H)
- Full capacity configuration is 4 batteries (12 V, 100 Ah) as shown in the illustration below:



## Vertical mounting set

Vertical mounting kit available from factory.



### Estimated operating time Low-intensity 10cd / IR

#### Estimated operating time with recommended batteries Photocell on (12h ON / 12H OFF)

Using GPS shortens estimated operating time approx. 8 %.

| Beam | 10 cd red | 10 cd red + Infrared 50 mW/sr |  |
|------|-----------|-------------------------------|--|
| 360° | 210 days  | 150 days                      |  |
| 280° | 270 days  | 190 days                      |  |
| 160° | 485 days  | 337 days                      |  |

### Estimated operating time Low-intensity 32cd / IR

#### Estimated operating time with recommended batteries Photocell on (12h ON / 12H OFF)

Using GPS shortens estimated operating time approx. 8 %.

| Beam | 32 cd red | 32 cd red + Infrared 50 mW/sr |  |
|------|-----------|-------------------------------|--|
| 360° | 90 days   | 70 days                       |  |
| 280° | 115 days  | 90 days                       |  |
| 160° | 200 days  | 155 days                      |  |

### ORDER CODES

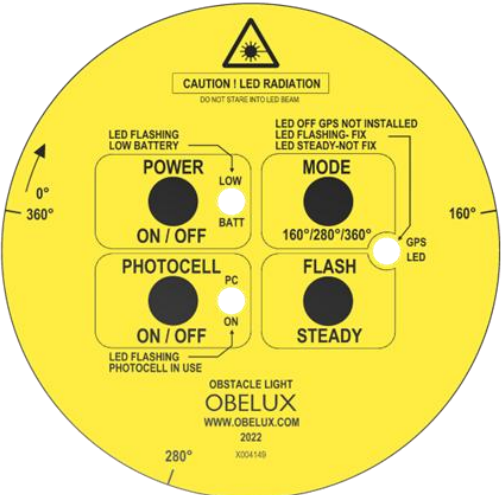
| Without mounting set | With vertical mounting set | Description                                                                                               |
|----------------------|----------------------------|-----------------------------------------------------------------------------------------------------------|
| LI-P                 | LI-P-V                     | Portable obstruction light, red                                                                           |
| LI-P-G               | LI-P-G-V                   | Portable obstruction light, red, GPS                                                                      |
| LI-P-IR              | LI-P-IR-V                  | Portable obstruction light, red, IR (infrared)                                                            |
| LI-P-IR-G            | LI-P-IR-G-V                | Portable obstruction light, red, IR (infrared), GPS                                                       |
| LI-P-B               |                            | Portable obstruction light, red and blue<br>(blue color for usage as Taxiway Edge Light, FAA Type L-461T) |
| Consumables          |                            |                                                                                                           |
| EL-IP-6V             | EL-IP-6V                   | Non-rechargeable air alkaline battery, 6 V, 50 Ah                                                         |

## INSTALLATION AND OPERATION

OBELUX LI-P portable aviation obstruction light has been optimized for use on 4 pcs non-rechargeable Air-Alkaline batteries with their nominal operating voltage of 6 V, 50 A. After the batteries have been inserted and the cover closed, the following default settings are active:

|                          |                      |
|--------------------------|----------------------|
| <b>POWER</b>             | ON                   |
| <b>OPERATING MODE</b>    | 360°                 |
| <b>PHOTOCELL CONTROL</b> | ON                   |
| <b>FLASH</b>             | OFF (STEADY BURNING) |

The settings can be easily changed from the control panel on the cover of the light. When the light is switched off, the latest settings are stored into the volatile memory of the light. When the cover is opened again, the factory-default settings are restored.

| OBELUX LI-P                                                                        | POWER ON / OFF PUSHBUTTON                                                                                                                                                     |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | When ON, light outputs are enabled.                                                                                                                                           |
|                                                                                    | PHOTOCELL ON / OFF PUSHBUTTON                                                                                                                                                 |
|                                                                                    | Sets photocell control on or off.<br>When enabled, <u>at the dusk</u> , the light turns on after 5 seconds delay and <u>at the dawn</u> , it turns off after 3 minutes delay. |
|                                                                                    | MODE 160° / 280° / 360° PUSHBUTTON                                                                                                                                            |
|                                                                                    | Sets horizontal radiation beam.                                                                                                                                               |
|                                                                                    | FLASH ON / OFF PUSHBUTTON                                                                                                                                                     |
|                                                                                    | Enables flashing (Type E) in 32 cd mode.                                                                                                                                      |
|                                                                                    | LOW BATT INDICATOR LED                                                                                                                                                        |
|                                                                                    | Red, indicates low battery voltage.                                                                                                                                           |
|                                                                                    | PC INDICATOR LED                                                                                                                                                              |
|                                                                                    | Flashing yellow, indicates photocell control is active.                                                                                                                       |
|                                                                                    | GPS INDICATOR LED                                                                                                                                                             |
|                                                                                    | Steady yellow, GPS module has acquired fix.<br>Flashing yellow, GPS module is waiting for fix.<br>Blank, no GPS module installed.                                             |

### DIP switch settings (accessible inside product)

|     |                     |            |   |  |    |     |     |                |
|-----|---------------------|------------|---|--|----|-----|-----|----------------|
| 5   |                     | PC SENSIT. | 1 |  | NO | 1 2 |     | LIGHT OUTPUT   |
| ON  | 250 cd/m2 / 800 lx  |            | 2 |  |    | ON  | ON  | RED 10 cd      |
| OFF | 500 cd/m2 / 1600 lx |            | 3 |  |    | ON  | OFF | RED 32 cd      |
| 6 7 |                     | FLASH RATE | 4 |  |    | OFF | ON  | BLUE 3 cd 1)   |
| ON  | ON                  | 20 FPM     | 5 |  |    | OFF | OFF | BLUE 5 cd 1)   |
| ON  | OFF                 | 30 FPM     | 6 |  |    | 3 4 |     | INFRARED POWER |
| OFF | ON                  | 40 FPM     | 7 |  |    | ON  | ON  | OFF 2)         |
| OFF | OFF                 | 60 FPM     | 8 |  |    | ON  | OFF | 50 mW/sr       |
| 8   |                     |            |   |  |    | OFF | ON  | 100 mW/sr      |
| ON  | RESET *)            |            |   |  |    | OFF | OFF | 100 mW/sr 3)   |
| OFF | NORMAL OPER.        |            |   |  |    |     |     |                |

- 1) Option  
2) RED ONLY  
3) IR always steady

\*) Toggle the switch between  
RESET OFF and RESET ON  
after changing the DIP-switch positions.  
For normal operation select RESET OFF.