

LED Inset Runway Edge Light (LRED)



Compliance

- FAA: L-850C(L) AC150/5345-46 and EB No 67
- ICAO: Annex 14 - Volume I Fig. A2-9, A2-10
- EASA: CS-ADR-DSN, Book 1, Fig. U-13, U-14
- IEC: TS 61827
- NATO: STANAG 3316
- CAA: CAP 168
- IAAE: TP312
- CASA: Manual of Standards Part 139

Applications

Runway edge for ICAO CAT I, II and III, FAA and military runways.

Benefits

- 60,000 hours LED rated life at full intensity, but over 100,000 hours in field operating conditions.
- In new installations, LED lights mean smaller loads, smaller CCRs and transformers, thus lower life cycle costs.
- Light output is variable like a traditional halogen lamp, as indicated by FAA "Engineering Briefing No.67".
- Colors are produced by LEDs: no colored filters ensures no energy losses and no color shifts.
- Fully compatible with existing AFL infrastructure (for monitored fixtures, isolation transformer max size: 200 VA).
- Designed with simplicity allowing longer maintenance intervals and fewer spare parts.
- No use of sealing compound to fix the prisms in the dome. Use of gaskets to set the prisms in the dome makes their replacement quick and easy.
- No optical adjustment after LED module or prism replacement.
- Pressure valve for watertightness test after overhaul.
- Compatible with CCRs designed in compliance with IEC or FAA requirements.

Technical Features

- Automatic adaptation to the 50 or 60 Hz frequency of the supply current.
- Surge protection device is provided to protect the electronics as required by FAA "Engineering Briefing No.67".
- Continuous internal fault detection.
- 0.25" (6.35 mm) limited protrusion above the pavement reduces vibration to aircraft and to the fixture itself, increasing its life expectancy.
- Smooth outer dome profile makes the light less susceptible to snowplow blades.

- Bidirectional or unidirectional, 12" dia.
- Aluminum forged dome and die cast lower cover make the fixture sturdy, but lightweight for easier handling in the field.
- O-ring is provided to avoid dirt deposits between the fixture and base.
- IP67 protection.
- Temperature range: -55°C (-67°F) to +55°C (131°F).

Installation

- Suitable for 12" dia. bases.
- Specific tools available for easy and precise installation.

PHOTOMETRIC PERFORMANCE

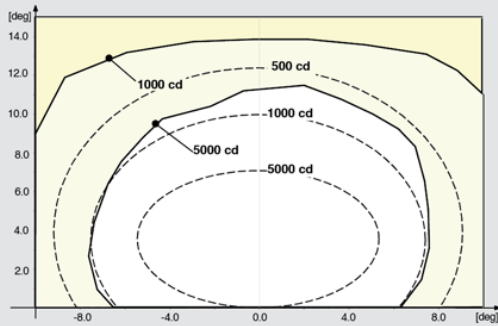


Figure 1 - ICAO A2-9 45 m - White

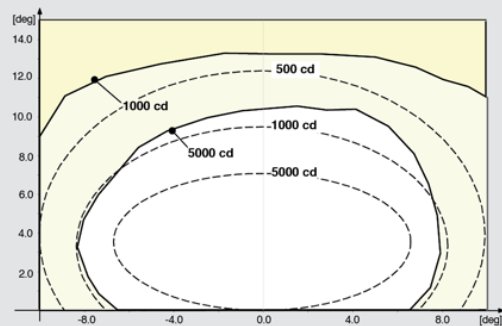


Figure 2 - ICAO A2-10 60 m - White

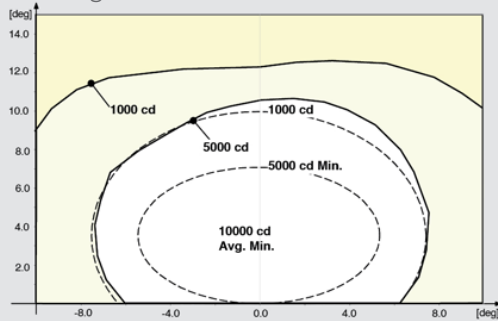


Figure 3 - FAA L-850C - White

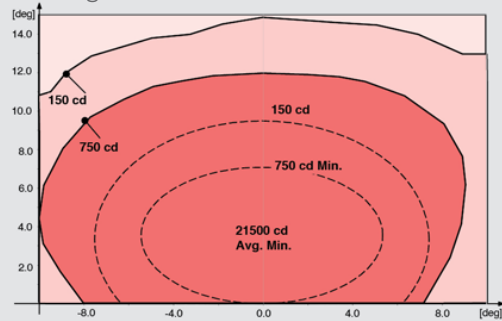


Figure 4 - 4 FAA L-850C - Red

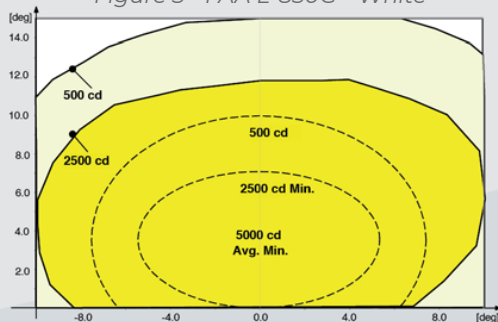


Figure 5 - FAA L-850C - Yellow

POWER CONSUMPTION (maximum value among all fixture configurations)

Power Factor >0.98		Primary conductor isolation transformer		Fixture	
1 IN / 1 OUT	w/o Arctic kit	34.0 W	34.3 VA	25.7 W	26.1 VA
	with Arctic kit	57.9 W	58.1 VA	51.1 W	51.3 VA
1 IN / 2 OUT	w/o Arctic kit	67.9 W	68.5 VA	51.3 W	52.2 VA
	with Arctic kit	115.7 W	116.1 VA	102.1 W	102.6 VA
2 IN / 2 OUT	w/o Arctic kit	67.9 W	68.5 VA	51.3 W	52.2 VA
	with Arctic kit	115.7 W	116.1 VA	102.1 W	102.6 VA

TECHNICAL DRAWING

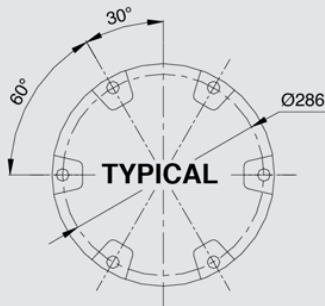


Figure 6 - Light fixture 12" dia.

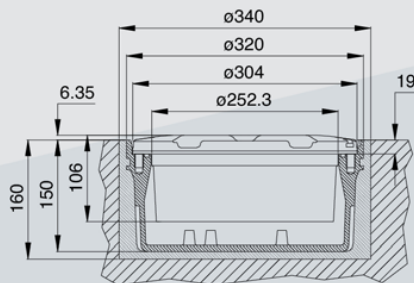


Figure 7 - Shallow base 12" dia.

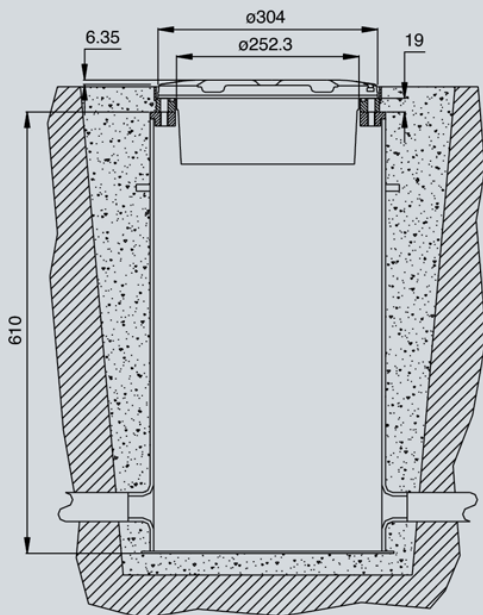


Figure 8 - L-868 Deep base 12" dia.

PART NUMBER IDENTIFICATION

LRED 04 - F - WY - 2P - M - A

Basic P/N: _____

Compliance*: _____

- I = ICAO 60 m
- S = ICAO 45 m
- F = FAA

Color(Side L)/(Side R): _____

- W= White
- Y = Yellow
- G = Green (FAA)
- R = Red
- M = Blank (unidirectional dome)*

Cables and connectors: _____

- 1P= One Plug
- 2P= Two Plugs

Monitoring: _____

- O = Without Monitoring
- M = With Monitoring

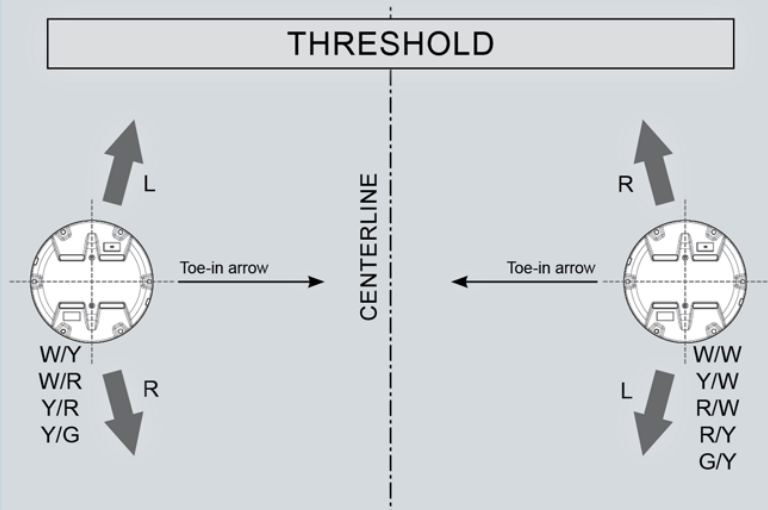
Arctic Kit: _____

- O = Without Arctic Kit
- A = With Arctic Kit**

(*) The aperture not finished "M" will be always on side "B"

(**) The beams aiming is not field adjustable

Special versions are available, such as LRED with IR component for NVG compatibility.



RENEWAL PARTS FOR LIGHT UNIT

No.	Description	Qty
1	Dome	1
2	O-Ring for dome (external)	1
3	O-Ring for dome (internal)	1
4	O-Ring for lower cover	1
5	Arctic kit heater	1-2
6	Reflector with hardware	2-4
7	LED module with accessories	2-4
8	Lower cover	1
9	Valve for watertightness test	1
10	FAA L-823 plug	1-2
11	Arctic kit thermostat	1-2
12	Prism gasket	2-4
13	Prism	2-4
14	Prism holder gasket	2-4
15	Mounting plate	2-4
16	LED module support with hardware	1-2

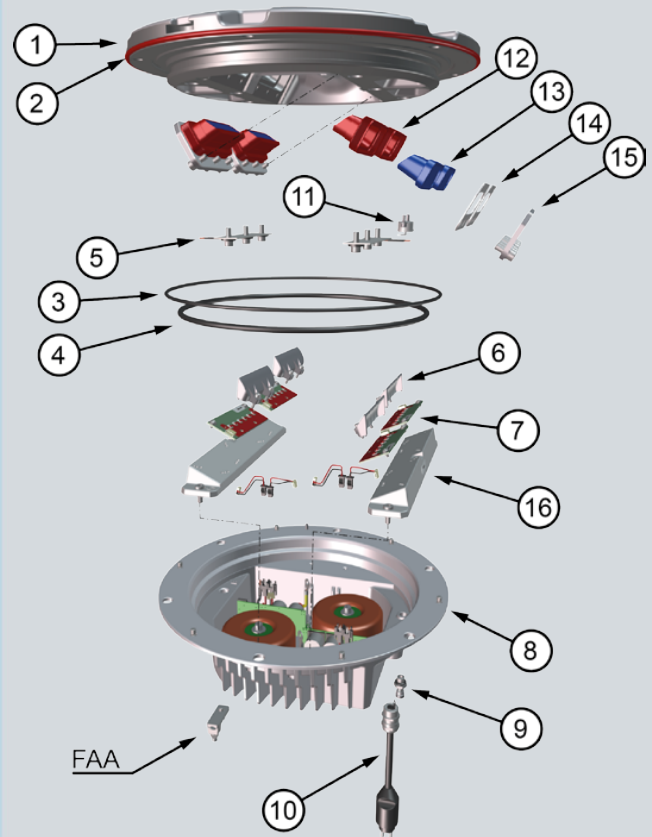
Refer to the relevant technical manual for the complete list of the available spare parts.

ACCESSORIES

315.1230	Base L-868 type, class IA, size B, 24" deep.
315.1420	Flange ring with pavement dam for L-868 base, size B, with O-Ring and bolts.
152.8110	Shallow base, 12" dia., one cable lead, with gasket and hardware.
153.1110	Shallow base, 12" dia., two cable leads, with gasket and hardware.
712.1034	Setting material for shallow base, 10 lt
712.1035	Quartz for shallow base, 25 kg.
332.4301	Positioning jig for 8"-12" dia. shallow base, without optical device.
332.4351	Optical device for positioning jig to allow a very precise light unit orientation.
332.4330	Watertight/shockproof plastic case complete with positioning jig for base and optical device.
332.4140	Lifting tool (2 pieces to work properly)
332.4230	Lifting tool with double hook.

(1) Sectional bases may be required depending upon the paving technique

EXPLODED VIEW DRAWING



For information about isolating transformers and connectors, please see the specific catalogue pages.

SHIPPING WEIGHTS AND VOLUMES

	Light unit	Shallow base
Weight [lbs (kg)]	20 (9.1)	16 (7.3)
Volume [ft³ (m³)]	0.78 (0.022)	0.78 (0.022)