

LIRC



LED INSET RUNWAY CENTRELINE, R.E.T.I.L. AND RAPID EXIT TAXIWAY CENTRELINE LIGHT

COMPLIANCES

ICAO: Annex 14 - Volume I Fig. A2-6, A2-7, A2-16

EASA: CS-ADR-DSN, Book 1, Fig. U-10, U-11, U-16

FAA: L-850A-T(L) AC150/5345-46 and EB No.67

IEC: TS 61827

NATO: STANAG 3316

CAA: CAP 168

TCCA: TP312

CASA: Manual of Standards Part 139

APPLICATIONS

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

R.E.T.I.L. ICAO and FAA RWSL, THL and RIL (L-850T) applications

BENEFITS

- 60000 hours LED rated life at full intensity, but over 100000 hours in field operating conditions
- In new installation, LED lights mean lower loads, lower size of CCRs and transformers, thus low life cycle costs
- The light output is variable like a traditional halogen lamp, as indicated by the FAA "Engineering Briefing No.67"
- Colour emitted directly by LEDs: absence of coloured filters ensures no energy losses and no colour shifts
- Fully compatible with existing AFL infrastructure*
- Designed with simplicity allowing longer maintenance intervals and fewer spare parts
- No use of sealant to fix the prisms in the dome thanks to customized gaskets, making their replacement quick and easy
- No optical adjustment after LED module or prism replacement
- Valve for watertightness test after overhaul
- Operating with any topology of CCRs designed in compliance with IEC or FAA requirements

* For monitored fixtures, isolation transformer max size: 200VA

PERFORMANCES

- The electronic is strong-built and highly resistant to shock and vibration
- Automatic adaptation to the frequency of the supply current
- A surge protection device is provided in the electronics as required by the FAA "Engineering Briefing No.67"
- Immediate detection of an internal fault
- 6.35 mm protrusion strongly reduces vibrations to aircrafts and to light itself, increasing its lifetime
- Dome smooth outer profile makes the light less sensitive to snowplough blades
- Bidirectional or unidirectional, 8" dia.
- Drop-forged dome and cast aluminium lower cover make the fitting sturdy, but lightweight too for ease handling in the field
- Light output practically not affected by heavy rainfall thanks to the shallow channel in front of the prism windows
- O-Ring placed outside the dome to avoid dirt deposits between light and base
- Protection degree: IP68
- Temperature range: -55°C to +55°C

INSTALLATION

- Suitable for 8" dia. bases
- Adaptor ring for installation on 12" dia. bases
- Specific tools available for easy and precise installation

PHOTOMETRIC PERFORMANCES

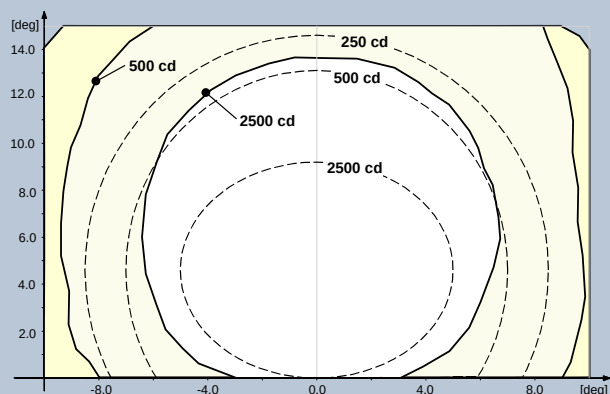


Fig. 1 ICAO A2-7 15 m – White

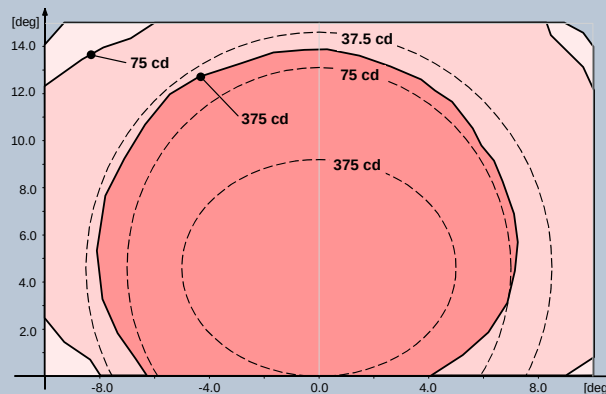


Fig. 2 ICAO A2-7 15 m – Red

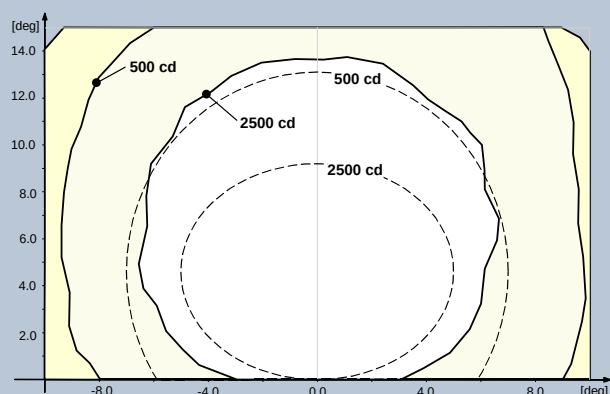


Fig. 3 FAA L-850A – White

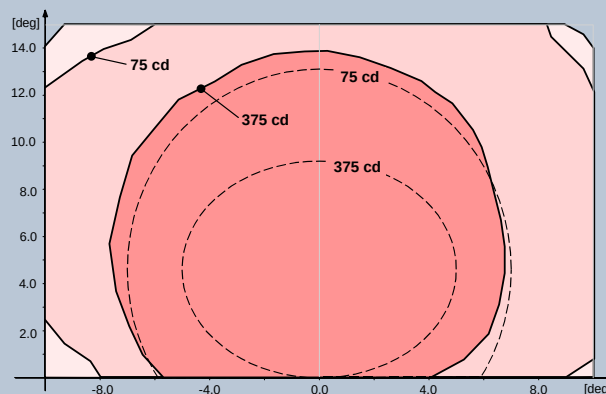


Fig. 4 FAA L-850A – Red

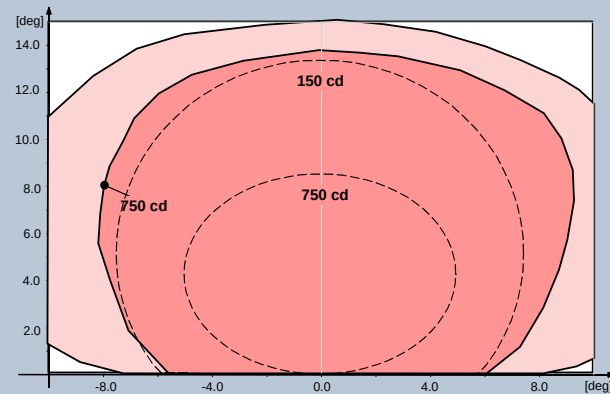


Fig. 5 FAA L-850T – Red

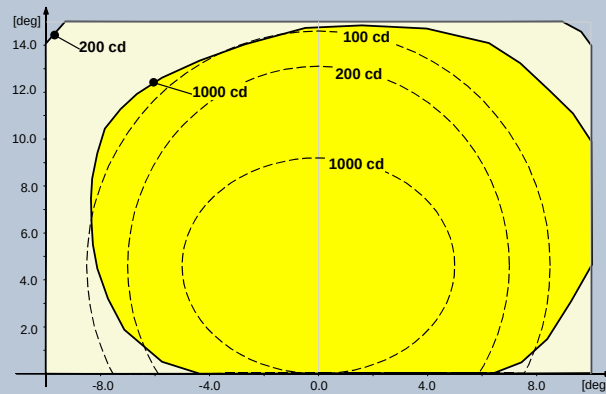


Fig. 6 ICAO A2-7 R.E.T.I.L. – Yellow

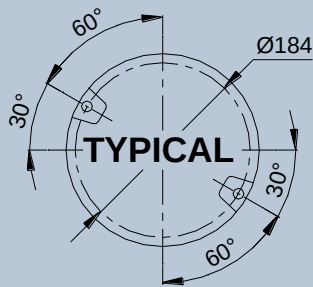
TABLES

POWER CONSUMPTION (WORST CASE)*

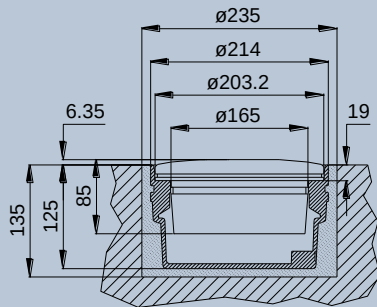
Power factor** >0,98		Primary Conductor Isolation Transformer		FIXTURE	
1IN/1OUT	Without Arctic Kit	29,1 W	29,1 VA	17,3 W	17,4 VA
	With Arctic Kit	55,8 W	55,9 VA	44,4 W	44,5 VA
1IN/2OUT	Without Arctic Kit	58,2 W	58,2 VA	34,6 W	34,8 VA
	With Arctic Kit	111,6 W	111,8 VA	88,8 W	89 VA
2IN/2OUT	Without Arctic Kit	58,2 W	58,2 VA	34,6 W	34,8 VA
	With Arctic Kit	111,6 W	111,8 VA	88,8 W	89 VA

*| Measured at 6,6 A with toroidal isolation transformer 65 W (1IN/1OUT). The values reported refer to the maximum power absorbed between configurations and available colours (worst case). For further detail please refer to the product manual.

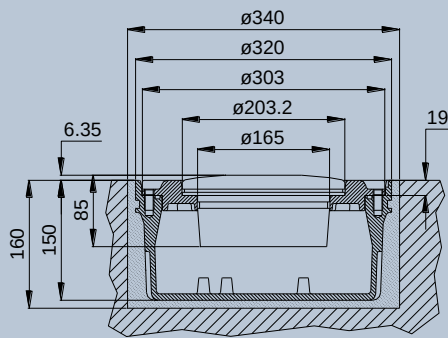
**| Measured at 6,6 A. The value reported refers to the minimum value between the configurations and the available options (worst case).



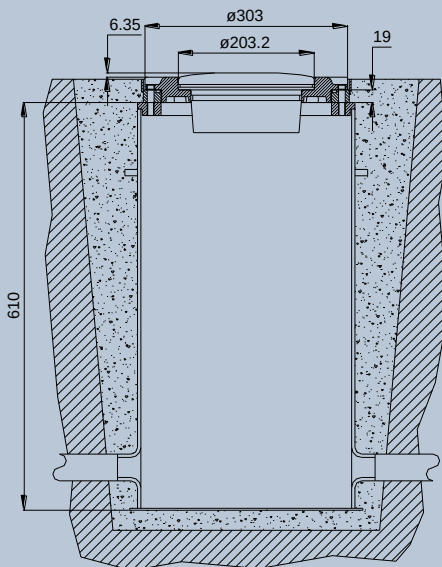
Light Fixture 8" dia.



Shallow Base 8" dia.



Shallow Base 12" dia.



L-868 Deep Base 12" dia.

LIRC - F - WR - 2P - 0 - M - A

Basic P/N: _____

Compliance: _____

I = ICAO 15 m

S = ICAO 30 m

F = FAA

T = Rapid Exit Taxiway Centreline

Colour(Side A)/(Side B): _____

W = White

R = Red

T = Red (L-850T FAA)

Y = Yellow (R.E.T.I.L. and Rapid Exit Centreline ICAO)

G = Green (Rapid Exit Taxiway Centreline ICAO)

M = Blank (unidirectional dome)*

Cable and plug: _____

1P = One Plug (for shallow base, L = 25cm)

2P = Two Plugs (for shallow base, L = 25cm)

1F = One Plug (for L-868 base, L = 46cm)

2F = Two Plugs (for L-868 base, L = 46cm)

Mounting Assembly: _____

0 = No mounting Assembly

R = Adaptor Ring 8"-12" dia.

Monitoring: _____

0 = Without Monitoring

M = With Monitoring

Arctic Kit: _____

0 = Without Arctic Kit

A = With Arctic Kit

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

MAIN COMPONENTS OF THE LIGHT UNIT

- 1 Dome with prisms and gaskets
- 2 O-Ring for dome
- 3 O-Ring for lower cover
- 4 Arctic Kit heater
- 5 Arctic Kit thermostat
- 6 Lower cover with electronic, plug and valve
- 7 Valve for watertightness test
- 8 Prism Gasket
- 9 Prism
- 10 Prism holder gasket
- 11 Mounting plate
- 12 Reflector with hardware
- 13 LED module with accessories
- 14 Lower cover gasket
- 15 FAA L-823 plug

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
- 152.5251 Shallow base, 8" dia., one cable lead, with hardware
- 152.5261 Shallow base, 8" dia., two cable leads, with hardware
- 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
- 152.6116 Adaptor Ring 8"-12" dia. complete with hardware
- GMMM0076 Adaptor Ring 8"-12" dia. complete with hardware for FAA versions
- 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)

* Sectional bases may be required depending upon the paving technique

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

Shipping Weights and Volumes			
	Light Unit	Shallow base	Light Unit & Adaptor Ring
Weight (kg)	3.7	3.2	6.85
Volume (m ³)	0.007	0.007	0.013

We reserve the right to change the design or specification data without notice

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