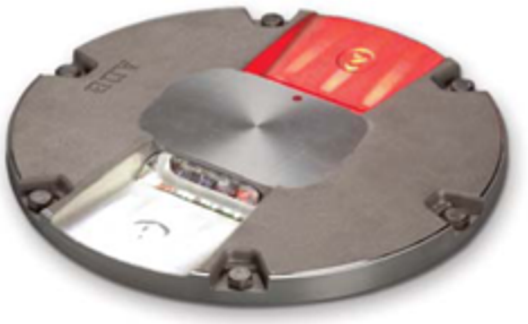
RUNWAY LIGHTING

IRCL-L

LED In-Pavement Runway Centerline Light

STYLE 3, HIGH-INTENSITY



Compliance with Standards

FAA: L-850A(L) AC 150/5345-46 (Current Edition) and the FAA Engineering Brief No. 67. ETL Certified.

ICAO: Annex 14, Vol. 1, par. 5.3.12 and Appendix 2, Figure A2-7

T/C: Transport Canada TP 312 par. 5.3.13

CE: Complies with the requirements of the EMC Directive 2004/108/EC

Uses

FAA L-850A(L) ICAO & T/C

- Runway centerline on category I, II, and III runway

Features

- Average LED life of 56,000 hours under high-intensity conditions and more than 150,000 hours under typical operating conditions, which significantly reduces ongoing maintenance costs and periodic re-lamping expenses, resulting in lower life cycle cost
- For white runway centerline applications, use of LED light source eliminates color shifts at lower CCR step settings. For red runway centerline applications, use of LED light source eliminates filter replacement and color shifts when viewed at various angles or CCR step settings.
- FAA Style 3—Low protrusion above ground of ≤0.25 inch reduces vibrations caused by aircraft landing gear increasing lamp life
- Can be installed on existing 6.6 A or 20 A series circuits with no modifications to existing CCR or isolation transformer
- Operates on either 3- or 5-step ferroresonant or thyristor CCRs that are designed in compliance with IEC or FAA requirements
- Very low power rating for LED lights contributes to a lower life cycle cost. Limits cost for supporting equipment, such as CCRs, to strict minimum.
- When quartz-incandescent fixtures are replaced with LED fixtures, airport staff can add more lights without increasing CCR size
- Smart electronics control current to LED, so light output matches existing incandescent fixtures.
- Smart electronics allow for a low cost and progressive evolution of the airfield lighting toward new LED-based technology.
- LED photometric peformance will be maintained longer due to a cleaner lens. Lower lens temperature prevents the “baking effect” that causes contaminants to stick to the lens surface.
- Rugged lightning protection complies with ANSI/IEEE C62.41-1991 Location Category C2 given in FAA Eng. Brief 67. Category C2 is defined as a 1.2/50µS – 8/20 µS combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A.
- Light channel in front of prism windows protects prisms from damage and prevents rubber buildup thereby maintaining optimal light output
- Includes a UL 467 rated ground lug, which accepts an AWG 6 earth ground wire
- Environment-friendly, precision-cast aluminum alloy cover, optical support, and inner cover assembly with stainless steel hardware

Electrical Supply

It is recommended that the L-850A(L) LED fixture be powered from a dedicated CCR and that separate remote controls are available. IRCL LED lights have been designed to work with any IEC- or FAA-compliant transformer up to 200 W without affecting the performance or lifetime of the light fixture or transformer. See data sheet 3033 for more details on recommended isolation transformers (XF) specified below.

L-850A(L)	Fixture Load	Isol. XF	Isol. XF Load	CCR Load
Without Heater				
Unidirectional	15 VA	20/25 W	6 VA	21 VA
Bidirectional [1]	29 VA	30/45 W	6 VA	35 VA
Bidirectional [2]	25 VA per side (50 VA total)	20/25 W per side	7.5 VA per XF	32.5 VA per side (65 VA total)
With Heater				
Unidirectional	30 VA	30/45 W	6 VA	36 VA
Bidirectional [1]	59 VA	65 W	13 VA	74 VA
Bidirectional [2]	41 VA per side (82 VA total)	30/45 W per side	9 VA per XF	50 VA per side (100 VA total)

Notes

[1] One cord set

[2] One cord set per side (2 total)

IRCL-L

Ordering Code

IRCL - X X X X X X

LED Colors
1 = White/White
2 = White/Red
3 = Red/Red
4 = White/Obscure
5 = Red/Obscure
7 = Yellow/Obscure

Monitoring
1 = No monitoring

Frequency
1 = 60 Hz
2 = 50 Hz[1]

Cord Set
1 = One[1]
2 = Two[2]

Arctic Option
1 = No[1]
2 = Yes

Specification
0 = FAA[1]
1 = ICAO[1]
3 = FAA with heavy-duty abrasion-resistant lens coating[3,4]
4 = ICAO with heavy-duty abrasion-resistant lens coating[3,4]

Notes

[1] L-850A(L) LED 50 Hz without heater using a single cord set carries the CE Mark
[2] See Dimensions section for 2 cord set specs
[3] Typically used for intensive winter service where sand is applied to runways and rotating brushes are used.
[4] Not ETL Certified.

Operating Conditions

Temperature:	-40 °C to +55 °C (-40 °F to +131 °F)
Altitude:	Sea level to 10,000 feet (3000 m)
Relative Humidity:	Up to 100%

Dimensions: Single Cord Set / FAA

Outside diameter:	11.94 in (30.33 cm)
Bolt-circle diameter (L-868B):	11.25 in (28.58 cm)
Bottom cover depth:	3.88 in (9.9 cm)

Dimensions: Two Cord Set / FAA, ICAO, & TP 312

Outside Diameter:	11.94 in (30.33 cm)
Bolt Circle Diameter (L-868B):	11.25 in (28.58 cm)
Max. Bottom Cover O.D.:	9.94 in (25.25 cm)
Bottom Cover Depth:	3.8 in (9.65 cm)*

Notes

* If used in conjunction with an L-868B Top Section, the overall height of the Top Section must be 4 in (10.16 cm) minimum.

Packaging

In cardboard box:	7 × 13 × 13 in (17.8 × 33 × 33 cm)
Weight with packing:	17 lb (7.71 kg)
Weight without packing:	13.75 lb (6.24 kg)

FAA Photometric Data