# **RELIANCE**

LED L-850D(L) Runway Threshold, Threshold/ End and End Uni or bidirectional inset, 12-inch



## Compliance with Standards (current version)

FAA AC 150/5345-46 and the FAA Engineering Brief No. 67

ICAO Annex 14, Volume 1

**IEC** 61827

NATO STANAG 3316 EASA CS-ADR-DSN

STAC PRO/STAC/SE/ENIS/6008

Canada TP 312 Australia MOS 139

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#### Uses

#### **ICAO**

- Runway threshold
- Runway threshold / end
- Runway end

#### FAA

- Runway threshold L-850D(L)
- Runway threshold/end L-850D(L)
- Runway end L-850D(L)

### **Features and Benefits**

## Efficiency

- Available in three versions:
  - RELIANCE<sup>™</sup> IQ with integrated intelligence
  - RELIANCE with integrated fail-open (Mon) technology. Fuse resistors are part of the Mon-functionality and spares needs to be ordered separately.
  - RELIANCE Non-MON, non-monitored lights
- Light Emitting Diode (LED) technology that offers a long-lasting light source with low power consumption
- Compatibility between RELIANCE IQ version and RELIANCE Intelligent Lighting 2A system for further power savings and ILCMS
- No visual flicker. PWM is used for some applications to optimize the LED performance and light fixtures show no visual flickering.

#### Sustainability

- Fully encapsulated all-in-one electronics
- IP68 protected, aluminum housing designed for harsh weather environments, all fastenings in stainless steel
- · Reinforced prism available as an option
- Operates on 3- or 5-step ferroresonant or thyristor CCRs designed in compliance with IEC or FAA requirements
- Easy handling and maintenance by modular design with few mechanical parts
- · Compatible with existing infrastructure

#### Safety

- Built-in voltage surge and lightning protection
- Fully dimmable lights, respecting the response curve of traditional halogen lights
- Low protrusion, high-intensity, Style 3 inset light fixtures
- · No negative slope in front of the prisms

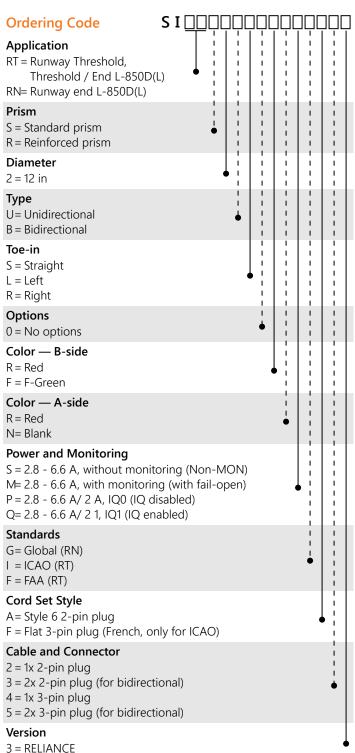
#### **Maintenance and Installation**

The light fixture can be installed in a 12-inch base. Gaskets are sold separately. Check what gasket and bolts to order depending on base and installation.

**Note:** Refer to the user manual for 12-inch RELIANCE lights and the interoperability information for installation in a specific base.



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#### Note:

- Fixture supports: Compatible with both shallow and deep 12-inch bases.
- · Toe-in options only affect the green threshold side.
- The IQ functionality allows control and monitoring of the RELIANCE IQ. IQ1 fixtures are pre-configured for the specific position at delivery. This function is disabled in IQ0 fixtures but could be enabled later. IQ light fixtures are only available as one connector option in an ILCMS.
- A 3-pin cable and connector are only available for the ICAO standard regardless of the color combination.

#### **Accessories**

Refer to the user manual for 12-inch RELIANCE inset lights.

## **Power Supply**

An integrated, encapsulated 6.6A electronic converter. Two-pole L-823 plug for connection to the transformer. Power factor typically >0.95 at 6.6A.

**Note:** Refer to the user manual for 12-inch RELIANCE inset lights and the complete power table and cable loss formula.

## **Operating Conditions**

Operating temperature  $-60 \,^{\circ}\text{C}$  to  $+55 \,^{\circ}\text{C}$  /  $-76 \,^{\circ}\text{F}$  to  $+131 \,^{\circ}\text{F}$ Storage temperature  $-60 \,^{\circ}\text{C}$  to  $+80 \,^{\circ}\text{C}$  /  $-76 \,^{\circ}\text{F}$  to  $+176 \,^{\circ}\text{F}$ 

**Humidity** Up to 100%

## **Dimensions and Weight**

| Dimensions   | 304 mm / 12-in   |
|--|------------------|
| Runway Threshold , Threshold /<br>End ICAO         | 5.3 kg / 11.8 lb |
| Runway end L-850D(L) ICAO and FAA                  | 6.3 kg / 13.9 lb |
| Runway Threshold, Threshold /<br>End L-850D(L) FAA | 6.3 kg / 13.9 lb |



#### **ANNEX**

| Unidirectional Fixtures – 1 cord set, 25° C | Fixture load | I      | CCR load   |            |          |
|---|--------------|--------|------------|------------|----------|
|   | rixture ioau | Rating | Efficiency | Energy Use | CCK IOau |
| Runway Threshold, L-850D(L), F-Green        | 30 VA        | 45 W   | 0.85       | 8 VA       | 38 VA    |
| Runway Threshold, ICAO, F-Green             | 62 VA        | 65 W   | 0.85       | 11 VA      | 73 VA    |
| Runway End, L-850D(L), Red                  | 26 VA        | 45 W   | 0.85       | 8 VA       | 34 VA    |

| Bidirectional Fixtures – 1 cord set, 25° C         | Fixture load |        | CCR load   |            |          |
|--|--------------|--------|------------|------------|----------|
|  |              | Rating | Efficiency | Energy Use | CCK IOad |
| Runway Threshold / End, L-850D(L), F-<br>Green/Red | 40 VA        | 45 W   | 0.85       | 8 VA       | 48 VA    |
| Runway Threshold / End, ICAO, F-Green/Red          | 72 VA        | 100 W  | 0.85       | 18 VA      | 90 VA    |
| Runway End, L-850D(L), Red/Red                     | 35 VA        | 55 W   | 0.85       | 8 VA       | 43 VA    |

| Bidirectional Fixtures – 2<br>cord sets, 25° C    | Fixture load  |        | Isolation transformer |            |        |            |        |            | CCR load |       |
|---|---------------|--------|-----------------------|------------|--------|------------|--------|------------|----------|-------|
|   | B-side A-Side | Rating |                       | Efficiency |        | Energy Use |        | - CCK IOdu |          |       |
|   |               | B-Side | A-Side                | B-side     | A-Side | B-Side     | A-Side | B-Side     | A-Side   |       |
| Runway Threshold / End,<br>L-850D(L), F-Green/Red | 26 VA         | 20 VA  | 45 W                  | 25 W       | 0.85   | 0.7        | 8 VA   | 11 VA      | 34 VA    | 31 VA |
| Runway Threshold / End,<br>ICAO, F-Green/Red      | 60 VA         | 20 VA  | 65 W                  | 20 W       | 0.85   | 0.7        | 11 VA  | 9 VA       | 71 VA    | 29 VA |
| Runway End, L-850D(L),<br>Red/Red                 | 20 VA         | 20 VA  | 25 W                  | 25 W       | 0.7    | 0.7        | 11 VA  | 11 VA      | 31 VA    | 31 VA |

#### NOTICE:

- No losses in the secondary cables are considered in the above table(s).
- No losses in the primary cables are considered in the above table(s).
- No spare CCR load has been considered in the above table(s).
- The Isolation transformer efficiency considered in the above table(s) is estimated. These efficiency values depend on the isolating transformer supplier.
- No loads due to extra equipment on the circuit (e.g. ILCMS equipment) are considered in the above table(s).

- For Reliance IO version:
  - The minimum Isolation Transformer rating is 65W.
  - To allow for communication bandwidth, an overhead of 12VA should be considered when determining the Isolation Transformer rating.
- For Reliance Fail-open version:
  - The maximum Isolation Transformer rating is 200W.
- If part of a Reliance 2A system:
  - The data provided in the above table(s) is not applicable if part of a 2A reliance system. In this case, please contact your local ADB Safegate representative.

For more information about the product, including manuals and certifications, please see the Product Center on our website: www.adbsafegate.com.

www.adbsafegate.com

