

# AXON

## L-850D(L) LED Runway Threshold, End, Threshold/End Inset 12-inch



### Compliance with Standards (current version)

**FAA** AC 150/5345-46 and the FAA Engineering Brief No. 67, ETL certified

### Uses

#### FAA

- L-850D(L) Runway threshold
- L-850D(L) Runway end
- L-850D(L) Runway threshold/end (bidirectional green and red)

### Features and Benefits

#### Efficiency

- EQ has an integrated ILCMS remote for use with the LINC 360 system providing high data capacity and resisting degradation from various types or radio effects to provide a superior communication platform
- Precision aimed optics enhancing photometric performance and complementing extended LED life
- Reduced bottom pan profile allowing for very shallow base can installation
- LEDs pulse width modulated (PWM) at 400 Hz optimizing LED performance and eliminating perceptible flicker to a moving human observer throughout the range of brightness steps
- Operates at all steps of constant current regulator technologies designed in compliance with IEC or FAA requirements
- Fully dimmable lights, conforming to the dimming curve of traditional halogen lights
- Low protrusion, high-intensity, Style 3 ( $\leq 6.35$  mm) inset light fixtures
- No negative slope in front of the prisms

### Sustainability

- Fully encapsulated all-in-one universal power supplies for Runway, Taxiway, Approach and Omni inset families
- Latest generation LEDs providing a long-lasting light source with high efficiency and low power consumption
- Reinforced top cover substantially exceeding standards to improve durability and longevity
- One single family of fixtures covering all runway, taxiway and approach applications
- IP68 rated enclosure designed for harsh environments; all fastenings are stainless steel
- Reinforced prism available as an option
- Compatible with existing infrastructure allowing for direct replacement of existing LED inset fixtures

### Safety

- Improved mechanical design to strengthen and consolidate components, improving the customer maintenance experience
- Fail-open option for compatibility with legacy monitoring systems and optimization of advanced control/ monitoring systems
- Failed-LED Detection as required by Engineering Brief 67D
- Robust lightning protection complying with ANSI/IEEE C62.41-1991; Location Category C2 as required by FAA Eng. Brief 67. Category C2 is defined as a  $1.2/50\mu\text{S} - 8/20\mu\text{S}$  combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A

### Power Supply

- Non-Monitored — Power only
- Monitored — integrated Fail-open technology
- EQ with integrated ILCMS with OFDM technology for use with LINC 360 system

## Ordering Code

### Application

RT = L-850D(L) Runway  
Threshold, Threshold End  
RN = L-850D(L) Runway End

### Standards

2 = FAA

### Market Specific

0 = None  
1 = Buy American Preference (BAP)<sup>1,2</sup>

### Dimensions

2 = 12 inch (305 mm) diameter, 11.25 inch  
BC (285 mm)

### Prism

S = Standard prism  
R = Reinforced prism

### Beam Orientation

1 = Unidirectional  
2 = Bidirectional

### Toe-in

N = None (RN must be N)<sup>3</sup>  
L = Left (RT Green only, always toed)<sup>3</sup>  
R = Right (RT Green only, always toed)<sup>3</sup>

### Color – Side 1

F = F-Green (Arctic kit required)  
R = Red (Arctic kit not required)

### Color – Side 2

R = Red (Arctic kit not required)  
N = None

### Power and Monitoring

S = 2.8 A - 6.6 A, non-monitored — power only<sup>4</sup>  
M = 2.8 A - 6.6 A, Fail-open monitoring<sup>4</sup>  
R = 2.8 A - 6.6 A, EQ integrated LINC 360

### Cable and Connector

1 = 1 x Style 6 2-pole plug, 2 individual wires<sup>4,5,8</sup>  
2 = 1 x Style 1 2-pole plug, jacketed SO 2 core  
cable<sup>4,5</sup>  
3 = 2 x Style 6 2-pole plug, 2 individual  
wires<sup>4,5,6,8</sup>  
4 = 2 x Style 1 2-pole plug, jacketed SO 2 core  
cable<sup>4,5,6,8</sup>

### Options

0 = None<sup>7</sup>  
1 = Arctic Kit<sup>7</sup>

### Version

1 = Version 1

RS

## Ordering Code Notes

<sup>1</sup> Required when FAA AIP funded

<sup>2</sup> If a 2-cord set fixture is required meeting BAP, digit 13, "Power and Monitoring", must be M.

<sup>3</sup> L and R designations are always in relationship to Side 1 only.

<sup>4</sup> EQ light fixtures are only available as a one connector option.

<sup>5</sup> All Style 1 corded fixtures will include a ground lug. All Style 6 and 3-pole corded fixtures will be provided with grounding screw(s)..

<sup>6</sup> Only available in Digit 13 options S and M and bi-directional configuration

<sup>7</sup> RN red application meets the heat rise requirements in Engineering Brief 67D, section 2.13.1, "Arctic Kit Testing Requirements" WITHOUT an arctic kit. We do not offer an arctic kit with this configuration as the additional heat would be detrimental to the life of the LEDs.

<sup>8</sup> Not ETL submitted or not applicable to FAA market

## Maintenance and Installation

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

Refer to user manual UM-5055 for the 8-inch or 12-inch lights and to the interoperability information for installation on a specific base.

## Operating Conditions

**Operating temperature** -60 °C to +55 °C / -76 °F to +131 °F

**Storage temperature** -60 °C to +80 °C / -76 °F to +176 °F

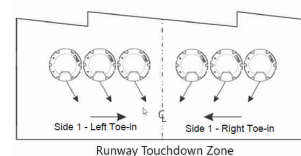
**Humidity** Up to 100%

## Dimensions and Weight

**Dimensions** 305 mm (12 in)

**Weight** 6.8 kg / 15 lb (12 in)

## Toe-in Coding RT



## ANNEX

### 12-inch light fixtures without Arctic Kit (heater)

Fixture type – 1 cord set <sup>1</sup>	Fixture load	Isolation transformer		CCR load			
		Wattage	Load				
Runway Threshold, L-850D(L), bidirectional, F-Green/red	36.6 VA	45 W	14.2 VA	50.8 VA			
Runway Threshold, L-850D(L), bidirectional, red/red	46.6 VA	45 W	13 VA	59.6 VA			
Runway Threshold, L-850D(L), unidirectional, F-Green	21.2 VA	25 W	6.8 VA	28 VA			
Runway Threshold, L-850D(L), unidirectional, red	31.6 VA	25 W	9.5 VA	41.1 VA			

#### Notes

<sup>1</sup> Values provided are for the "S" option non-monitored power only.

### 12-inch light fixtures with Arctic Kit (heater)

Fixture type – 1 cord set <sup>1</sup>	Fixture load	Isolation transformer		CCR load			
		Wattage	Load				
Runway Threshold, bidirectional, L-850D(L), F-Green/red	65.3 VA	65 W	16.2 VA	81.5 VA			
Runway Threshold, L-850D(L), unidirectional, F-Green	49.4 VA	45 W	10 VA	59.4 VA			

#### Notes

<sup>1</sup> Values provided are for the "S" option non-monitored power only.

#### Note:

- See user manual UM-5055 other power supplies.
- EQ fixtures:
  - The isolation transformer must have an additional 8 VA available above the fixture load for communication bandwidth. Please Transformers can be safely overloaded by 10 %.
  - Legacy BRITE II or AGLAS 2 systems — Order "M" power supply
- For fail-open fixtures:
  - The maximum rating for the isolation transformer is 200 W
- Additional voltage loss when longer secondary cables are used is not included in above table; these additional losses may result in a larger size isolation transformer requirement and must be factored into the circuit load calculation
- Additional voltage loss in primary cable is not included in above table; this additional loss will result in a higher CCR load and must be factored into the circuit load calculation
- Efficiency of the isolation transformer depends on the manufacturer of the transformer

For more information about the product, including manuals and certifications, please see the Product Center on the ADB SAFEGATE website: [www.adbsafegate.com](http://www.adbsafegate.com).

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Product specifications may be subject to change, and specifications listed here are not binding. Confirm current specifications at time of order.