

# AXON

## LED L-850A(L), L-850B(L) Runway Centerline and Touchdown Zone Inset 8-inch and 12-inch



### Compliance with Standards (current version)

FAA	AC 150/5345-46 and FAA Engineering Brief No. 67, ETL certified
ICAO	Annex 14, Volume 1
NATO	STANAG 3316
IEC	61827
EASA	CS-ADR-DSN
STAC	PRO/STAC/SE/ENIS/600S
UK	CAP 168
UFC	3-535-01
Canada	TP 312
Australia	MOS 139
CE	

### Uses

#### ICAO

- Runway centerline
- Touchdown zone

#### FAA

- L-850A(L) Runway centerline
- L-850B(L) Touchdown zone

### 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 of 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

RC = Runway Centerline, L-850A(L)

RZ = Touchdown Zone, L-850B(L)

### Standards

1 = FAA/ICAO<sup>1</sup>

### Market Specific

0 = None

1 = Buy American Preference (BAP)<sup>2,3</sup>

4 = German MIL 7-step FO<sup>10</sup>

### Dimensions

1 = 8 inch (203 mm) diameter

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

3 = 8 inch (203 mm) diameter, 4-bolt

### Prism

S = Standard prism

R = Reinforced prism<sup>10</sup>

### Beam Orientation

1 = Unidirectional

2 = Bidirectional

### Toe-in

N = None<sup>4</sup>

L = Left (only for RZ)<sup>4</sup>

R = Right (only for RZ)<sup>4</sup>

### Color – Side 1

W = White

R = Red

### Color – Side 2

W = White

R = Red

N = None (Unidirectional app only)

### Power and Monitoring

S = 2.8 A - 6.6 A, non-monitored — power only

M = 2.8 A - 6.6 A, Fail-open monitoring<sup>10</sup>

R = 2.8 A - 6.6 A EQ integrated LINC 360<sup>5</sup>

### Cable and Connector<sup>6</sup>

1 = 1 x Style 6 2-pole plug, 2 individual wires<sup>10</sup>

2 = 1 x Style 1 2-pole plug, jacketed SO 2 core cable<sup>9</sup>

3 = 2 x Style 6 2-pole plug, 2 individual wires<sup>7,10</sup>

4 = 2 x Style 1 2-pole plug, jacketed SO 2 core cable<sup>7,9,10</sup>

5 = 1 x Flat 3-pole plug, 3 individual wires<sup>10</sup>

6 = 2 x Flat 3-pole plug, 3 individual wires<sup>10</sup>

### Options

0 = None<sup>8</sup>

1 = Arctic Kit<sup>8</sup>

### Version

1 = Version 1

RS

## Ordering Code Notes

<sup>1</sup> Includes standards NATO, EASA, STAC, CAP 168, TP 312 and MOS 139.

<sup>2</sup> Required for FAA when using AIP funds.

<sup>3</sup> If a 2-cord set fixture is required meeting BAP, Digit 13, "Power and Monitoring", must be M.

<sup>4</sup> L and R designations are always in relationship to Side 1 only.

<sup>5</sup> EQ light fixtures are only available as a one connector option.

<sup>6</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).

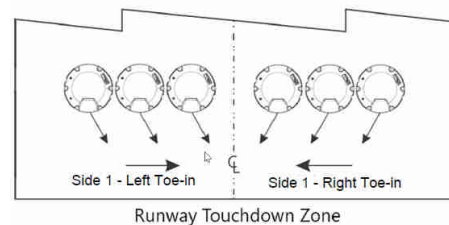
<sup>7</sup> Only available in Digit 13 options S and M and bi-directional configuration.

<sup>8</sup> RC white/white 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>9</sup> SO cord set option is not compatible with shallow bases. If required please contact ADB Safegate.

<sup>10</sup> Not ETL-submitted or not applicable to FAA market.

## Toe-in Coding RZ



## Maintenance and Installation

The light fixture can be installed on an 8-inch or 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

<b>Dimensions</b>	203 mm (8 in)	305 mm (12 in)
<b>Weight</b>	3.0 kg / 6.6 lb (8 in)	6.8 kg / 15 lb (12 in)

## ANNEX

### 8-inch and 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 Centerline, L-850A(L), bidirectional	34.9 VA	45 W	14.2 VA	49.1 VA
Touchdown Zone, L-850B(L), unidirectional	25.5 VA	25 W	7.2 VA	32.7 VA

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

Fixture Types – 1 cord set <sup>1</sup>	Fixture load	Isolation transformer		CCR load
		Wattage	Load	
Runway Centerline, L-850A(L), bidirectional	62.6 VA	65 W	16.6 VA	79.2 VA
Touchdown Zone, L-850B(L), unidirectional	48.8 VA	45 W	9.7 VA	58.5 VA

#### Notes

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

#### Note:

- See manual UM-5055 for other power supplies.
- EQ fixtures:
  - The isolation transformer must have an additional 8 VA available above the fixture load for communication bandwidth. Size transformer to next size up to assure additional 8 VA coverage. Transformers can be safely overloaded by 10 %.
  - Legacy BRITE II or AGLAS 2 systems — Order "M" power supply
- 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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