

AXON

LED L-850C(L) Runway Edge Bidirectional Inset 12-inch, 45 m Width Runway



Compliance with Standards (current version)

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

Uses

ICAO

- Runway edge \leq 45 m width runway

FAA

- L-850C(L) Runway edge
- L-850C(L) Displaced threshold

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 μ S – 8/20 μ 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

RS

Application

RE = L-850C(L) Runway Edge ≤ 45 m width runway

Standards

1 = FAA/ICAO¹

Market Specific

0 = None

1 = Buy American Preference (BAP)^{2,3}

4 = German MIL 7-step FO⁸

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

C = Curved (bidirectional application)

L = Left (unidirectional application)

R = Right (unidirectional application)

Color – Side 1 (Left)

W= White

Y = Yellow

R = Red

F = F-Green

Color – Side 2 (Right)

W= White

Y = Yellow

R = Red

F = F-Green

N = None

Power and Monitoring

S = 2.8 A - 6.6 A, non-monitored — power only⁴

M = 2.8 A - 6.6 A, Fail-open monitoring^{4,8}

R = 2.8 A - 6.6 A EQ integrated LINC 360

Cable and Connector

1 = 1 x Style 6 2-pole plug, 2 individual wires⁵

2 = 1 x Style 1 2-pole plug⁵

3 = 2 x Style 6 2-pole plug, 2 individual wires^{5,6,8}

4 = 2 x Style 1 2-pole plug^{5,6,8}

5 = 1 x Flat 3-pole plug, 3 individual wires⁸

6 = 2 x Flat 3-pole plug, 3 individual wires^{5,8}

Options

0 = None

1 = Arctic Kit⁷

Version

1 = Version 1

Ordering Code Notes

Fixture supports: Compatible with both shallow and deep 12-inch bases.

EQ light fixtures are only available as a one connector option.

¹Includes standards NATO, EASA, STAC, CAP 168, TP 312 and MOS 139.

² Required when FAA AIP funded.

³ If a 2-cord set fixture is required meeting BAP, digit 13, "Power and Monitoring", must be M.

⁴ 2 x Style 1 or 6 options are available under "Cable and Connector".

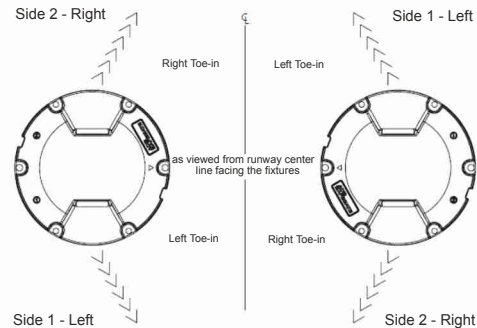
⁵ All Style 1 corded fixtures will include a ground lug. All Style 6 corded fixtures will be provided with a ground screw.

⁶ Only available in Power and Monitoring options S and M.

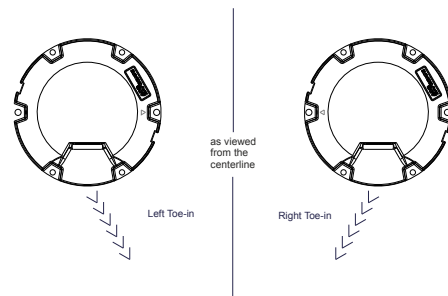
⁷ RE white/white and white/yellow applications meet the heat rise requirements in Engineering Brief 67D, section 2.13.1, "Arctic Kit Testing Requirements" WITHOUT an arctic kit. We do not offer an Arctic Kit with these configurations.

⁸ Not ETL-submitted or not applicable to FAA market. Power and Monitoring option "M", Fail-open, is not certified when the arctic kit is included.

Defining left and right side for color placement



Defining toe direction for unidirectional applications



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)

ANNEX

12-inch light fixtures without Arctic Kit (heater)

Fixture type – 1 cord set ¹	Fixture load	Isolation transformer		CCR load
		Wattage	Load	
Runway Edge, L-850C(L), bidirectional	60.7 VA	65 W	17.4 VA	78.1 VA

12-inch light fixtures with Arctic Kit (heater)

Fixture type – 1 cord set ¹	Fixture load	Isolation transformer		CCR load
		Wattage	Load	
Runway Edge, L-850C(L), bidirectional	71.6 VA	65 W	15.7 VA	87.3 VA

Notes

¹ Values provided are for the "S" option non-monitored power only.

Note:

- See 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. 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
- 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.