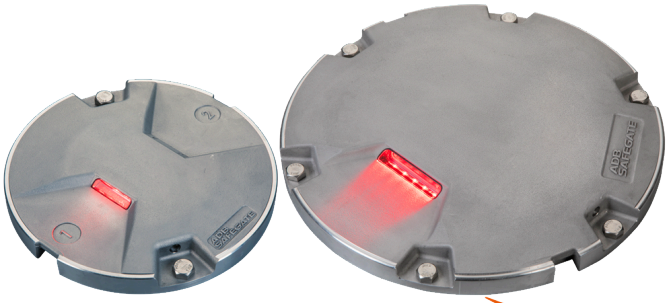
AXON

LED RWSL: L-850T(L) Runway Takeoff/ Hold and Intersection Light (THL/RIL) and L-852S(L) Runway Entrance Light (REL) — ICAO and FAA

Unidirectional Inset, 8-inch and 12-inch



ADB SAFEGATE
AXON

Compliance with Standards

FAA	AC 150/5345-46 and FAA Engineering Brief No. 67
ICAO	Annex 14, Volume 1
IEC	61827
NATO	STANAG 3316
EASA	CS-ADR-DSN
STAC	SPE/STAC/SE/E/VIS/6008
Canada	TP 312

CE

Uses

ICAO

- Runway entry light (REL)
- Runway takeoff/hold and intersection light (THL/RIL)

FAA

- L-852S(L) runway entry light (REL)
- L-850T(L) runway takeoff/hold and intersection light (THL/RIL)

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
- LED 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 (≤ 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 (directional beams only)
- 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
- 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 Engineering Brief 67 Category C2 is defined as a 1.2/50 µS – 8/20 µS combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A

Ordering Code

Application	Standard(s)	Market Specific	Dimensions	Prism	Beam Orientation	Toe-in	Color - Side 1 (Left)	Color - Side 2 (Right)	Power and Monitoring	Connector and Cable1	Options	Version
RS	□	□	□	□	□	□	□	□	□	□	□	□

Application
RS = Runway Status; Takeoff/Hold (THL); L-850T(L) (RIL); Runway Intersection
TS = Runway Status; Runway Entry (REL)[1]

Standard(s)
2 = FAA
3 = ICAO

Market Specific
0 = None
1 = Buy American Preference (BAP)
2 = Anodized Finish

Dimensions
1 = 8-inch (203 mm) diameter, 2 bolt[3]
2 = 12-inch (305 mm) diameter, 11.25-inch BC (285 mm)
3 = 8-inch (203 mm) diameter, 4 bolt [3]

Prism
S = Standard prism
R = Reinforced prism[3]

Beam Orientation
1 = Unidirectional

Toe-in
N = None

Color - Side 1 (Left)
R = Red

Color - Side 2 (Right)
N = Not Applicable

Power and Monitoring
R = 2.8 - 6.6 A, EQ Integrated LINC 360

Connector and Cable[1]
1 = 1 x Style 6 2-Pole Plug, 2 Individual Wires
2 = 1 x Style 1 2-Pole Plug, Jacketed SO 2 Core Cable[2]

Options
0 = None
1 = Arctic Kit

Version
1 = Version 1

Ordering Code Notes

1. All Style 1 corded fixtures will include a ground lug. All Style 6 or 3-pole corded fixtures will be provided with grounding screw(s).
2. SO cord set option is not compatible with shallow bases. If required please contact ADB Safegate.
3. Not ETL submitted or not applicable to FAA market.

Power Supply Options

- EQ with integrated ILCMS with OFDM technology for use with LINC 360 system

Installation and Maintenance

The light fixture can be installed in a 12-inch or an 8-inch base. Gaskets are sold separately. Refer to the user manual INTEROPERABILITY appendix to identify the correct gasket and bolts for your specific base and ensure a reliable fit.

Operating Conditions

Operating temperature	-55 °C to +55 °C / -67 °F to +131 °F
Storage temperature	-60 °C to +80 °C / -76 °F to +176 °F
Humidity	Up to 100%

Dimensions and Weight

Dimensions	203 mm (8 in)	305 mm (12 in)
Weight	3 kg / 6.6 lb (8 in)	6.8 kg / 15 lb (12 in)

ANNEX

8-inch and 12-inch light fixtures without arctic kit

Fixture type – 1 cord set[1]	**Fixture load**	**Isolation transformer**		**CCR load**
		Wattage	**Load**	
L-850T(L) runway takeoff/hold and intersection light (THL/RIL)	16.5 VA	25 W	10 VA	26.5 VA

8-inch and 12-inch light fixtures with arctic kit

Fixture type – 1 cord set[1]	**Fixture load**	**Isolation transformer**		**CCR load**
		Wattage	**Load**	
L-850T(L) runway takeoff/hold and intersection light (THL/RIL)	48.5 VA	65 W	14 VA	62.5 VA

Note:

- 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
  - Legacy BRITE II or AGLAS 2 systems — Order "M" power supply
- Fail-open fixtures:
  - The maximum rating for the isolation transformer is 150 W (a correctly calibrated CCR is important to achieve an accurate fail open response)
- Additional voltage loss not included in the above table which must be factored into the circuit load calculation:
  - Primary cables will result in a higher CCR load
  - Longer secondary cables may result in a larger size isolation transformer requirement
- Efficiency of the isolation transformer depends on the manufacturer of the transformer
- See user manual for cable loss formula and other power supplies

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

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