

TAXIWAY LIGHTING

ISTB-L

LED In-pavement Stop Bar & Runway Entrance Light (REL)

STYLE 3



Compliance with Standards

FAA: L-852S(L) AC 150/5345-46 (Current Edition) and the FAA Engineering Brief No. 67. ETL Certified. Complies with FAA Runway Status Light System Runway Entrance Light (REL) requirements in FAA AC 150/5340-30 Appendix 7 and FAA Engineering Brief No. 64.

Uses

FAA L-852S(L)

- Stop Bar, controlled and uncontrolled

RWSL REL

- Runway Status Light (RWSL) REL applications

Features

- Average LED life of 56,000 hours under high-intensity conditions and more than 150,000 hours under typical operating conditions, resulting in significant reduction or even elimination of ongoing maintenance costs and periodic re-lamping expenses
- Use of LED light source eliminates filter replacement and color shifts when viewed at various angles or CCR step settings
- When compared to incandescent equivalent, use of LED provides for fast on-off switching times in all CCR steps
- FAA Style 3—Low protrusion above ground of ≤ 0.25 inch reduces vibrations caused by aircraft landing gear in both the light fixture and the landing gear, increasing lamp life
- Can be installed on existing 6.6 A or 20 A series circuits with no modifications to existing CCR or isolation transformer
- Operates on 5-step ferroresonant CCRs that are designed in compliance with FAA requirements
- Very low power rating for LED lights contributes to a lower life cycle cost. Limits cost for supporting equipment, such as CCRs, to strict minimum.
- Offers longer maintenance intervals and requires fewer spare parts, resulting in lower life cycle cost
- LED photometric performance will be maintained longer due to a cleaner lens. The lower temperature of the lens prevents the “baking effect” that causes contaminants to stick to the surface of the lens.
- Light channel in front of prism windows protects prisms from damage and prevents rubber buildup thereby maintaining optimal light output

- “Smart electronics” control current to LED, so light output matches existing incandescent fixtures at all brightness levels without sacrificing any light characteristics. Actual light output is determined based on a continuous light output curve. Therefore, light output truly represents input current, even if series circuit input current is not within FAA specification limits.
- Environment-friendly, precision-cast aluminum alloy cover, optical support, and inner cover assembly with stainless steel hardware
- Rugged lightning protection complies with ANSI/IEEE C62.41-1991 Location Category C2 given in 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.
- Low-temperature lights. Temperature rise at center of top cover remains well below the FAA-specified limit of 320 °F (160 °C).
- Includes provision for grounding fixture

Control and Monitoring

For stop bar control and monitoring applications per AC 120-57 (Current Edition) and AC 150/5340-30 (Current Edition), see the following ADB Safegate catalog sheets:

- BRITE - Individual lamp control and monitoring system, ADB Safegate data sheet 2092
- ALCMS - Airport lighting control and monitoring system, ADB Safegate data sheet 1041

Operating Conditions

Temperature: -40 °C to +55 °C (-40 °F to +131 °F)
Altitude: Sea level to 10,000 feet (3000 m)
Relative Humidity: Up to 100%

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Ordering Code

Frequency

- 1 = 60 Hz
- 2 = 50 Hz

Arctic Kit

- 1 = No
- 2 = Yes

Monitoring

- 0 = FAA RWSL applications
- 1 = Controlled applications¹
- 2 = Uncontrolled applications²

Notes

- ¹ Controlled applications must use ADB Safegate's BRITE III Remote. Fixture includes monitoring circuit that opens fixture input if fixture fails. When connected to ADB Safegate BRITE Remote, provides capability to determine failed fixture location. Fixture has two cord sets and requires the addition of a Y-Harness adapter. Adapter connects isolation transformer to both the input of the BRITE III Remote and the fixture. Fixture includes a UL 467 rated ground lug, which accepts an AWG 6 earth ground wire.
- ² For uncontrolled applications, a CCR is used to turn the fixture on or off and to set the intensity level. Fixture has only one cord set that plugs directly into the isolation transformer. Fixture includes a UL 467 rated ground lug, which accepts an AWG 6 earth ground wire.

Y-harness ¹

70A0761

Note

- ¹ For controlled applications, the adapter is required to use a fixture with ADB Safegate's BRITE III Remote.

Prism Kit

L-852S(L) LED / RWSL REL Prism Kit

94A0559

Prism kit contains an LED light engine, prism, gasket sleeve, screws, seal, prism keeper plate, prism clamp and o-ring.

REL - X X X



Electrical Supply

It is recommended that the L-852S(L) LED fixture be powered from a dedicated CCR and that separate remote controls are available. L-852S(L) LED lights have been designed to work with any FAA-compliant transformer up to 150 W without affecting the performance or lifetime of the light fixture or transformer. See data sheet 3033 for more details on recommended isolation transformers specified below.

L-852S(L)/RWSL LED	Fixture Load ¹	Isolation Transformer	Isol. XF Load	CCR Load
Controlled ¹				
Without Heater	65 VA	65 W	10 VA	7.5 VA
With Heater	107 VA	100 W	13 VA	120 VA
Uncontrolled				
Without Heater	45 VA	30/45 W	9 VA	5.4 VA
With Heater	87 VA	100 W	15 VA	102 VA

Notes

- ¹ Load includes ADB Safegate BRITE III Remote device.

Dimensions

Topcover outside diameter:	11.94 in (30.33 cm)
Top cover bolt-circle diameter (L-868B):	11.25 in (28.58 cm)
Bottom cover outside diameter (max.):	9.94 in (25.25 cm)
Depth: [*]	4 in (10.16 cm)

Notes

- ^{*} From the bottom of the top cover to the bottom of fixture

Packaging

In cardboard box:	7 × 13 × 13 in (17.8 × 33 × 33 cm)
Weight with packing:	22 lb (9.98 kg)
Weight without packing:	17.75 lb (8.05 kg)

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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.