

TAXIWAY LIGHTING

ISTB-LP/DRE-LP

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.

ICAO: Stop bar: Annex 14, Vol. 1, Ed. 7 par. 5.3.20

T/C: Stop bar: Transport Canada TP 312, par. 5.3.23

Uses

FAA L-852S(L)

- Stop bar, controlled and uncontrolled

RWSL REL

- Runway Status Light (RWSL) REL applications

ICAO & T/C

- Stop bar, controlled and uncontrolled

Features

- The evolution of the most successful LED lights in the world, fully adapted to the characteristics of an LED lighting source
- Very low energy consumption
- Greatly reduced maintenance: calculated MTBF of 56,000 hours at 6.6A
- Style 3—Low protrusion above ground of ≤ 0.25 inch (6.35 mm) reduces vibrations caused by aircraft landing gear in both the light fixture and the landing gear, increasing fixture life
- Increased traffic efficiency and availability of the taxiways due to the reduction of maintenance
- Optimum and homogenous light distribution along the lights installed on the same taxiway
- High discrimination between functions thanks to the saturated colors, their stability at the different brightness steps and under all viewing angles
- Full compatibility with existing airfield lighting series circuits. No need to replace the CCRs, series transformers, or cables
- Fully dimmable lights, respecting the response curve of traditional halogen lights. Operates on the full range of 2.8 A to 6.6 A.

- Installation on the same bases as 8- or 12-inch tungsten-halogen lights for a straightforward replacement. Optional snow plow rings are available.
- Substantial investment reduction for new installations, resulting from a lower installed load
- When turned on, light rise time is low. The light is perfectly adapted for any incursion protection system.
- Very low working temperature, ensuring longer component life
- 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.
- Environment-friendly, precision-cast aluminum alloy top, intermediate and bottom covers
- Optional monitoring function of the individual light source. In case of a defect, the LED light automatically disconnects from the secondary side of the isolation transformer, resulting in an open circuit condition.
- Corrosion-resistant stainless steel hardware. Use of Torx screws ensures ease of maintenance.
- Includes a UL 467 rated ground lug, which accepts an AWG 6 earth ground wire

ISTB-LP(L) / DRE-LP lights are part of a complete range of LED in-pavement lights, featuring innovative characteristics, as a leverage for:

Reliability

- Additional watertightness barriers, protecting both the electronics and the LEDs in case of accidental water ingress, along the prism or the gaskets as well as along the cables
- Prisms of small dimensions installed in a deep optical channel with no negative window slope: optimal protection against rubber deposit, scratches and shocks

Modularity

- High commonality of components between the various models. Stock management is easier
- Field customization according to the application is straightforward: a light can be transformed into another model by swapping components
- Same tools and same procedures to maintain the whole range, reducing the risk of mistakes and time loss

TAXIWAY LIGHTING

ISTB-LP/DRE-LP

Optional scratch-resistant prisms

- A higher hardness protective layer can be applied to the prism, making it much more resistant to scratches and sand-blasting

Low protrusion without negative slope

- Limited height above pavement of 6.3 mm (0.25 in) reduces the risk of damage during winter operations or by towbarless tugs
- Despite the low protrusion, no part of the prism is below ground level, avoiding loss of photometry during rainfall and sedimentation on the bottom of the prism

Maintenance Friendliness

- Maintenance-friendly: components subject to wear or damage like prisms and cables can easily be replaced. Neither sealing compounds nor resin are required
- Reduced number of components for maintenance simplicity
- Innovative design of the cable entry, permitting replacement without the need to open the light. This eliminates the risk of water leakage due to a pinched cable.
- Pressure-release plug for water-tightness testing of fixture after overhaul

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%

Power Supply

It is recommended that the ISTB-LP / DRE-LP LED fixture be powered from a dedicated CCR and that separate remote controls are available. The 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.

ISTB-LP / DRE-LP	Fixture Load ¹	Isolation Transformer	Isol. XF Load	CCR Load
Controlled				
Without Heater	37 VA	30/45 W	6 VA	43 VA
With Heater	52 VA	65 W	13 VA	65 VA
Uncontrolled				
Without Heater	17 VA	20/25 W	6 VA	23 VA
With Heater	32 VA	30/45 W	6 VA	38 VA

Notes

¹ Load includes ADB Safegate BRITE III Remote device.

Ordering Code

D X X X 2 R N 0 X X X X X 0

D = AD light

Application

2S = FAA L-852S, ICAO and TP 312 stop bar⁶
 RE = FAA RWSL REL¹

Cord Set Style and Length

J = Style 1 SO Jacketed cable, 2-pin, 18" long
 L = Style 6 (2-pin), 18" long

Cable and Connector

2 = 1 plug (2-pin)

LED Color 1 – Left

R = Red

LED Color 2 – Right

N = Obscure/Blank (no light)

0

Dimensions

B = 8" diameter, 1/4" protrusion⁴
 D = 12" diameter, 1/4" protrusion

Power Supply and Monitoring

S = 6.6 A, 50/60 Hz, w/out monitoring option
 M = 6.6 A, 50/60 Hz, with monitoring option¹

Specifications

F = FAA L-852S(L) or RWSL REL
 I = ICAO and TP 312^{2,6}

Winter Options

0 = None¹
 1 = Arctic kit
 2 = Heavy-duty abrasion-resistant lens coating³
 3 = Arctic kit & heavy-duty abrasion-resistant lens coating³

Bolt Holes/Fixation Options

0 = Standard (6 bolts for 12" fixture; 2 bolts/2 fixing pins for 8" fixture)
 1 = 4 bolts (8" fixture)¹

Ground Lug Options

0 = Without ground lug²
 U = With UL 467 ground lug (FAA standard)
 R = FAA RWSL Applications^{1,5}

Notes

- ¹ For RWSL applications, use options M, 0 and R for Power Supply, Winter Options, and Ground Lug Options respectively.
- ² Not ETL Certified.
- ³ Typically used for intensive winter service where sand is applied to runways and rotating brushes are used.
- ⁴ FAA fixture is ETL Certified when used with 12" snow plow ring adapter, Part No. AW5008ADB11E or AW5008ADB1E.
- ⁵ Includes 10-32 x 1/2 hex head earth ground lug.
- ⁶ ICAO and TP 312 stop bar uses 2S fixture with Specification I (ICAO).

TAXIWAY LIGHTING

ISTB-LP/DRE-LP

Dimensions

Top cover 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 ¹	4 in (10.16 cm)

Notes

¹ 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)