

RUNWAY LIGHTING

DRC-LP/DTZ-LP

LED Runway Centerline and Touchdown Zone In-pavement Light

STYLE 3, HIGH-INTENSITY



8" Fixture



8" Fixture with Snow Plow Ring

Compliance with Standards

- ICAO: Runway Centerline: Annex 14, Vol. 1, Ed. 6, par. 5.3.12 and Appendix 2, Figure A2-7.
Touchdown Zone: Annex 14, Vol. 1, Ed. 6, par. 5.3.13 and Appendix 2, Figure A2-5.
- FAA: L-850A(L) & L-850B(L) AC 150/5345-46 (Current Edition) and Engineering Brief No. 67. ETL Certification Pending.
- T/C: Runway Centerline: Transport Canada TP 312 par. 5.3.13. Touchdown Zone: Transport Canada TP 312 par. 5.3.14.
- NATO: STANAG 3316

Uses

ICAO & T/C	<ul style="list-style-type: none"> Runway Centerline Light in CAT I, II and III Touchdown Zone Light in CAT II and III
FAA L-850A(L)	<ul style="list-style-type: none"> Runway centerline on CAT I, II, and III runways
FAA L-850B(L)	<ul style="list-style-type: none"> Touchdown zone lighting on CAT II and III runways

Features

- The evolution of the most successful LED lights in the world, fully adapted to the characteristics of LED lighting sources
- Very low energy consumption (typically 18.9 VA per side compared to 48 W for tungsten halogen lights)
- Greatly reduced maintenance: calculated MTBF of 56,000 hours at 6.6 A
- Style 3—Low protrusion above ground of ≤ 0.25 inch (6.3 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 runways due to the reduction in maintenance
- Optimum and homogenous light distribution along the lights installed on the same runway
- High discrimination between functions due to the saturated colors, crisp white light, their stability at the different brightness steps and under all viewing angles
- Very low working temperature, ensuring longer component life
- Full compatibility with conventional airfield lighting series circuits. No need to replace the CCRs, series transformers or cables on existing circuits.
- Substantial investment reduction for new installations using smaller CCR size and series transformers, resulting from a lower installed load
- Installation on the same bases as 8- or 12-inch tungsten-halogen lights for a straightforward replacement. Optional snow plow rings are available.
- Fully dimmable lights, respecting the response curve of traditional halogen lights. Operates on the full range of 2.8 A to 6.6 A.

Features (Continued)

- 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 μ S - 8/20 μ S combination wave, with a peak voltage of 10,000 V and a peak current of 5,000 A.
- When turned on, light rise time is low. The light is perfectly adapted for any incursion protection system.
- Optional monitoring function of the individual light source. In case of a defect, the fixture automatically disconnects from the secondary side of the isolation transformer, resulting in an open circuit condition.
- Environment-friendly, precision-cast aluminum alloy top, intermediate and bottom covers
- Corrosion-resistant stainless steel hardware. Use of Torx screws ensures ease of maintenance.
- For FAA applications, includes a UL 467 rated ground lug, which accepts an AWG 6 earth ground wire

DRC-LP/DTC-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

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
- 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.
- Reduced number of components for maintenance simplicity
- Pressure-release plug for water-tightness testing of fixture after overhaul

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

Installation

1) On a shallow base (Fig. 5).
The 8” dia. base is secured in the pavement by means of resin. Correct positioning and leveling are obtained with a jig with sighting telescope. Wires between the light and the series transformer are installed either in saw cuts in the pavement filled with resin or in pipes in the lower concrete layers. Mounting on existing or new, larger diameter bases, is made possible by means of dedicated adapter rings.

2) On a FAA L-868B size B steel base (Fig. 6).
The 8” dia. light is mounted in an 8” to 12” dia. snow plow or adapter ring bolted onto the base. The 12” fixture is directly mounted without a separate ring. The bases are interconnected by means of conduits protecting the cables. See FAA AC 150/5340-30 for additional design guidance on deep base cans. The series transformer is installed under the light or in a separate pit. See data sheet A.05.120 or 2012 for more information on base cans.

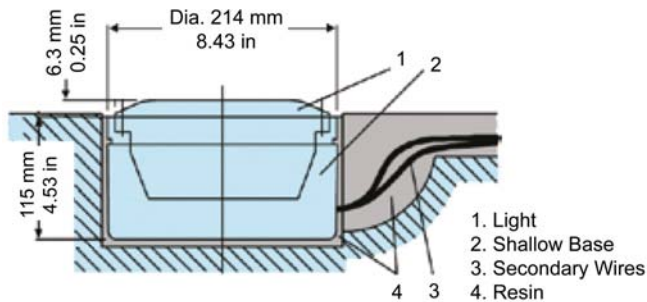
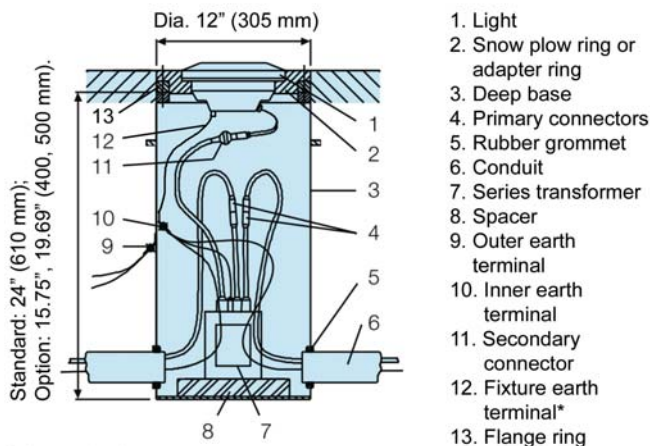


Fig. 5: Installation on 8” shallow base



* As required

Fig. 6: Installation on FAA L-868 base

Electrical Supply

6.6 A through one or two series transformer(s) (data sheet A.06.110 or 3033). DRC-LP/DTC-LP lights have been designed to work with any IEC- or FAA-compliant isolation transformer up to 200 W without affecting the performance or the lifetime of the light or the transformer. However, use of a non-matched transformer will reduce its efficiency.

Dimensions

12” Fixture	
Outside diameter:	303.3 mm (11.94 in)
Bolt-circle diameter:	285.8 mm (11.25 in)
Overall height:	78.4 mm (3.1 in)
8” Fixture	
Outside diameter:	202 mm (7.97 in)
Bolt-circle diameter:	184 mm (7.24 in)
Overall height:	78.4 mm (3.1 in)
8” Shallow Base	
Outside diameter:	230 mm (9.06 in)
Depth:	150 mm (5.91 in)

Packaging

12” Fixture	
In cardboard box:	177.8 x 330 x 330 mm (7 x 13 x 13 in)
Weight with packing:	5.65 kg (12.45 lb)
Weight without packing:	5.1 kg (11.25 lb)
8” Fixture	
In cardboard box:	177.8 x 330 x 330 mm (7 x 13 x 13 in)
Weight with packing:	3.8 kg (8.45 lb)
Weight without packing:	3.3 kg (7.25 lb)
8” Fixture with Snow Plow Ring	
In cardboard box:	177.8 x 330 x 330 mm (7 x 13 x 13 in)
Weight with packing:	18.35 kg (40.45 lb)
Weight without packing:	17.8 kg (39.25 lb)
8” Shallow Base	
Weight with packing:	2.8 kg (6.17 lb)
Weight without packing:	2.6 kg (5.73 lb)