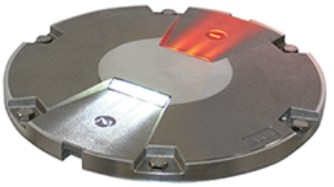
RUNWAY LIGHTING

DRC-LP / DTZ-LP

LED Runway Centerline and Touchdown Zone Inset Light

STYLE 3, HIGH-INTENSITY



12-inch Fixture

8-inch Fixture (L-850A) 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. Rapid Exit Taxiway Indicator Light (RETIL): Annex 14, Vol. 1, Ed. 6 par. 15

FAA: L– 850A(L) & L-850B(L) AC 150/5345-46 (Current Edition) and Engineering Brief No. 67.

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

- Runway Centerline Light in CAT I, II and III
- Touchdown Zone Light in CAT II and III
- RETIL Light on CAT I, II and III

FAA L-850A(L)

- Runway Centerline on CAT I, II, and III runways

FAA L-850B(L)

- Touchdown Zone on CAT I, II, and III runways

Features

- The evolution of the most successful LED lights in the world, fully adapted to the characteristics of an LED lighting source.
- Greatly reduced maintenance: calculated MTBF of 56,000 hours at 6.6A.
- Style 3 - Low protrusion above ground of ≤0.25 inch (6.3 mm) reduces vibrtions causedy by aircraft landing gear, increasing fixture life.
- Increased traffic efficiency and availability of the runways due to the reduction of 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.
- 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 using smaller CCR size and series transformers, resulting from a lower installed load.
- 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 1.2/50µS – 8/20 µS 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 LED light automatically disconnects from the secondary side of the isolation transformer, resulting in an open circuit condition.
- Environment-friendly, precision-cast aluminium 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/DTZ-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.

Low protrusion without negative slope

- Limited height above pavement of 6.33 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.

DRC-LP / DTZ-LP

Ordering Code

D XX X X X X X X 0 X X X 0

D = AD light

Application
RC = Runway Centerline
TZ = Touchdown zone

Cord Set Style and length
A = Standard (Style 6 plugs), 10" long[1]
G = German Style 1 (2-pin), 10" long[1]
F = French Style 1 (3-pin), 10" long[1]
J = Style 1 (2-pin) SO jacketed cable, 18" long (FAA)[2]
L = Style 6 (2-pin), 18" long (FAA)[2]

Cable and Connector
2 = 1 plug (2-pin)
3 = 2 plugs (2-pin)
4 = 1 plug (3-pin)[8]
5 = 2 plugs (3-pin)[8]

LED Color 1 – Left
W = White
R = Red[3]
N = Obscure / Blank (No light)[3]
Y = Yellow[7]

LED Color 2 – Right
W = White[3]
R = Red[3]
N = Obscure / Blank (No light)

Toe-in
0 = No toe-in
4 = Left toe-in[4]
5 = Right toe-in[4]

Dimensions
B = 8" diameter, 1/4" protrusion[6]
D = 12" diameter, 1/4" protrusion

Power Supply and Monitoring
S = Current driven, 50/60Hz, w/out monitoring
M = Current driven, 50/60Hz, with monitoring

Standards
0 = ICAO, TP 312 and FAA

Winter Options
0 = None
1 = Arctic kit[9]
2 = Heavy-duty abrasion-resistant lens coating[5]
3 = Arctic kit and heavy-duty abrasion-resistant lens coating[5,9]

Bolt Holes/Fixation Options
0 = Standard (6 bolts for 12" fixture; 2 bolts/2 fixing pins for 8" fixture)
1 = 4 bolts (8" fixtures)[6]

Ground Lug Options
0 = Without ground lug[8]
U = With UL 467 ground lug (FAA standard)

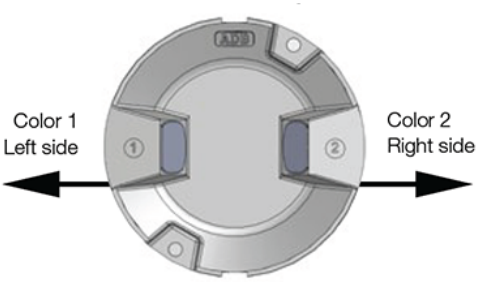
Maintenance friendliness

- 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.

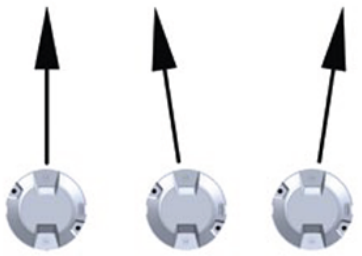
Optional scratch-resistant prisms

- A higher hardness protective layer can be applied to the prism (see Winter Options in ordering code), making it much more resistant to scratches and sand-blasting.

Toe-in Color Coding



DRC: Toe-in = 0



No toe-in = 0 Left toe-in = 4 Right toe-in = 5

Ordering Code Notes

1. 8" fixtures with 10" cord sets are for installation on shallow bases and are supplied with an external O-ring gasket.
2. Fixtures with 18" cord sets are for installation on deep base cans and are not supplied with an external O-ring gasket.
3. Used on runway centerline applications only.
4. Used on touchdown zone applications only.
5. Typically used for intensive winter service where sand is applied to runways and rotating brushes are used.
6. Fixture can be used with an optional 12" snow plow ring adapter: Part No. AW5008ADB11E (bidirectional) or AW5008ADB1E (unidirectional) .
7. To be used with RETIL applications. Not ETL Certified.
8. Not ETL Certified.
9. DRC white/white application meets 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 this configuration as the additional heat would be detrimental to the life of the LEDs.

DRC-LP / DTZ-LP

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	115 mm (4.53 in)

Packaging

12" Fixture	
In cardboard box	177.8 × 330 × 330 mm (7 × 13 × 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 × 330 × 330 mm (7 × 13 × 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 × 330 × 330 mm (7 × 13 × 13 in)
Weight with packing	18.35 kg (40.45 lb)
Weight without packing	17.8 kg (39.25 lb)
8" Shallow Base	
In cardboard box	230 × 230 × 150 mm (9.06 × 9.06 × 5.91 in)
Weight with packing	2.8 kg (6.17 lb)
Weight without packing	2.6 kg (5.72 lb)

Electrical Supply

2.8A-6.6 A, through a 20/25 W isolation transformer. DRC-LP / DTZ-LP lights have been designed to work with any FAA- or IEC compliant transformer up to 100 W without affecting the performances or the lifetime of the light or the transformer. However, using a non-matched transformer will reduce its efficiency.

See data sheet 3033 or A.06.112 for more details on recommended isolation transformers.

DRC-LP / L-850A(L)	Fixture Load	Isolation Transformer	Isol. XF Load	CCR Load
Without Heater				
Unidirectional	15 VA	20/25	6 VA	21 VA
Bidirectional [1]	33 VA	30/45	6 VA	39 VA
Bidirectional [2]	20 VA per side	20/25 per side	6 VA per xfmr	26 VA per side
With Heater				
Unidirectional	33 VA	30/45	6 VA	39 VA
Bidirectional [1]	33 VA	30/45	6 VA	39 VA
Bidirectional [2]	33 VA per side	30/45 per side	6 VA per xfmr	39 VA per side

Notes

[1] One cord set

[2] One cord set per side (2 total)

DTZ-LP / L-850B(L)	Fixture Load	Isolation Transformer	Isol. XF Load	CCR Load
Without Heater				
Unidirectional	20 VA	20/25	6 VA	26 VA
With Heater				
Unidirectional	32 VA	30/45	6 VA	38 VA