TAXIWAY LIGHTING

SCDL

Incandescent & LED Runway Centerline and Simulated Carrier Deck Light

NAVY TYPE VII AND VIII

Compliance with Standards

FAA: Manufactured to applicable requirements in AC 150/5345-46 (Current Edition), and the FAA Engineering Brief No. 67.

US Navy: NAVAIR 5150AAA-2, WP 006-04, WP 004-06

Uses

FAA L-852N

- Provides visual guidance for simulated carrier deck landings and manufactured to resist damage from aircraft tail hooks.
- For runway centerline applications that have a large percentage of the landings by aircraft equipped with arresting hooks — available in uni- and bidirectional configurations — are resistant to arresting hook damage.

Features

- Incandescent or LED version available.
- Low LED wattage: Single 3 W LED with only 14 VA maximum fixture load for unidirectional applications, making L-852N LED fixtures more than twice as efficient as traditional 45 W unidirectional fixtures.
- Narrow light channel and hardened stainless steel top cover to resist tail hook damage. Stainless steel for the top cover conforms to ASTM A747 with a Rockwell Hardness of C40 ± 5.
- Low protrusion above ground (≤ 0.375 inch) reduces vibrations caused by aircraft landing gear in both the light fixture and the landing gear. Protrusion is 25% lower than traditional L-852N (0.5 inch) fixtures.
- Smooth outer surface of light cover and low protrusion height prevent tire damage and minimize risk of snowplow damage
- Average LED life of uni- and bidirectional fixtures is 100,000 hours under high-intensity conditions and more than 200,000 hours under actual operating conditions, which significantly reduces ongoing maintenance costs and periodic re-lamping expenses, resulting in lower life cycle costs
- Very low power rating for LED lights contributes to a lower life cycle cost. Limits cost for supporting equipment, such as isolation transformers and CCRs, to strict minimum.
- Can be installed on existing 6.6 A or 20 A series circuits with no modifications to existing CCR or isolation transformer
- Operates on either 3- or 5-step ferroresonant or thyristor CCRs that are designed in compliance with FAA requirements
- LED photometric peformance will be maintained longer due to a cleaner lens. Lower lens temperature prevents the “baking effect” that causes contaminants to stick to the lens surface.
- Smart electronics control current to LED, so light output matches existing incandescent fixtures.
- Many components are common to all F-Range lights, which reduces spare parts stock
- Field replaceable L-823 cord sets are mechanically clamped to the bottom cover and provide a watertight seal without the use of sealing compounds or resins
- Outer prisms are mechanically clamped to light cover. Prism replacement is fast, easy, and does not require sealing compound, resin, or setting jigs.
- No optical adjustment required after replacement of any optical components
- Plug for pressure-testing of fixture after maintenance
- Resists corrosion without the use of environmentally damaging coatings
- Narrow light channel in front of prism window protects prism from damage and prevents rubber buildup thereby maintaining optimal light output
- Designed to exceed lightning protection requirements of ANSI/IEEE C62.41-1991 Category C1
- 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.
- Includes a UL 467 rated ground lug, which accepts an AWG 6 earth ground wire

Note: Front cover image: 10-inch model shown

Operating Conditions

Temperature:	-40 °F to +131 °F / -40 °C to +55°C
Altitude:	Sea level to 10,000 feet / 3,050 m
Humidity:	0 to 100%

SCDL

Ordering Code

44A6777 - X X X X

Lamp

1 = 30 W incandescent without monitoring
2 = 6.6 A 60 Hz, LED without monitoring
4 = 6.6 A 50 Hz, LED without monitoring

Color

1 = Unidirectional White
2 = Bidirectional White/Red
3 = Unidirectional Red
4 = Bidirectional White/White

Size and Cord Set

1 = Unidirectional 10-inch, 1 cord set
2 = Bidirectional 10-inch, 1 cord set
3 = Bidirectional 10-inch, 2 cord sets
4 = Unidirectional 12-inch, 1 cord set
5 = Bidirectional 12-inch, 1 cord set
6 = Bidirectional 12-inch, 2 cord sets

Film Disc

1 = With film disc cutout[1]
2 = Without film disc cutout

Note

1. Film disc cutout is only used on incandescent option

Power Supply

L-852N LED fixture is designed to work with any FAA-compliant transformer up to 100 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-852N LED Isolation Fixture Transformer	Fixture Load
Unidirectional 10/15 W	14 VA
Bidirectional [1] 20/25 W	17 VA
Bidirectional [2] 10/15 W per side	14 VA per side (28 VA total)

Notes

1 One cord set
2 One cord set per side (2 total)

12-inch model shown

Installation

The light assembly is designed for connection to a 6.6 A series lighting circuit via an L-830 (60 Hz) or L-831 (50 Hz) isolation transformer. When required, multiple fixtures can be connected in series using an appropriately-sized isolation transformer.

L-852N fixtures can be installed on 10- or 12-inch diameter deep base cans.

12-inch model with optional snow plow ring shown

Dimensions

10-inch fixture	
Outside diameter:	9.98 in / 25.35 cm
Bolt-circle diameter (L-868A [1]):	9.25 in / 23.5 cm
12-inch fixture	
Outside diameter:	11.94 in / 30.33 cm
Bolt-circle diameter (L-868B):	11.25 in / 28.58 cm
Packaging	
In cardboard box:	13 × 13 × 7 in / 33 × 33 × 17.8 cm
Weight	
10-inch fixture	18.5 lb / 8.4 kg
12-inch fixture	28.5 lb / 12.9 kg

Notes

1 Refers to older style 10-inch L-868A base can compliant to AC 150/5345-42C. 10-inch base cans are no longer specified in the current FAA Advisory Circular.