SIEMENS

Signature Series™

L-849 LED REIL Runway End Identification Lights


L-849A/E LED


L-849C LED

Compliance with Standards

FAA: Designed to L-849 Style A, C or E AC 150/5345-51 (Current Edition) and the FAA Engineering Brief No. 67 "Light Sources other than Incandescent and Xenon for Airport Lighting and Obstruction Lighting Fixtures." ETL Certified.

ICAO: Annex 14, Vol. 1, para. 5.3.8

Uses

Provides a visual indication to pilots of the runway threshold during an approach.

L-849V – Powered by a voltage source
L-849I – Powered by a constant current regulator

Style A – High-Intensity/Single-Step
Style C – Low-Intensity/Single-Step
Style E – High-, Medium-, and Low-Intensity/Three-Step
The L-849 Style C is recommended when there are lower levels of background illumination in the surrounding area.

Features

- Long LED life
- Improved safety – Very low voltage internal to LED REIL vs. 2000V DC in traditional xenon flash lamp units
- Elimination of expensive xenon flash lamp replacement
- Energy savings of 50% for voltage driven, 90% for series circuit applications with power adapters
- Elimination of ozone, generated by xenon flash lamps, a powerful oxidant that degrades internal component life
- Includes external alarm indication in case of system fault. System fault indication for:
  - Loss of input power
  - > 25% LEDs failed
  - Number of misfires exceeded (switch selectable from 0-7)
- For current sensing applications, the L-849I REIL does not need a separate current sensing isolation transformer
- Due to robust primary to secondary flasher unit trigger signal design, a shielded trigger signal cable is not required
- NEMA 4 rated enclosure
- Field tested
- Patent pending

Ordering Code REIL-XXXXX0X0

Style
A = High-intensity, one brightness step[1]
C = Low-intensity, one brightness step[2]
E = Three brightness steps[1]

Power
1 = L-849I, current-driven[1]
2 = L-849V, voltage-driven[2]

Current Sensing Option[3]
0 = Without current sensing
1 = With current sensing

Flash Head Mounting
0 = Integrated with enclosure (Style A, C, or E)
1 = Separate mounting on a 2-inch EMT (Style C only)

Enclosure Mounting
1 = Single leg
2 = Two legs

Enclosure Type
1 = Steel (Painted Aviation Orange)
2 = Anodized Aluminum

Notes
[1] L-849A/E current-driven is ETL Certified
[2] L-849C voltage-driven is ETL Certified
[3] The current sensing option provides ON/OFF control (L-849 Style A/Style C) or 3-step intensity control (L-849 Style E) of the REIL system depending on the current level in the series lighting circuit. The L-849I (powered by a CCR) doesn't require a separate isolation transformer. (The input current from the isolation transformer that powers the Primary cabinet is also used for current sensing control.) The current sensing input of a L-849V (voltage powered) can be connected to 6.6A or 20A series circuits with appropriate 6.6/6.6A or 20/6.6A isolation transformers.

Operating Conditions

Temperature:	-40°F to +131°F (-40°C to +55°C)
Humidity:	0 to 100% (including conditions where condensation takes place in the form of water or frost)
Altitude:	0 to 10,000 ft (3,000 m)
Wind:	Velocities up to 150 knots
Exposure:	Withstands windblown rain, sand, dust particles, and a salt-laden atmosphere

2086 Rev. F
Manual No. 96A0361 (Style C)
96A0381 (Style A/E)

Optional Features

- The L-849 using a single leg enclosure is normally installed onto a threaded coupling onto the end of a conduit elbow. Alternatively, a 6.25-inch (15.88 cm) O.D. floor flange can be bolted over any conduit elbow flush with the top of the pad. Use SAS ordering code 62B0107-3.

Equipment Data

Control	Remote, local, or automatic (when current sensing used)
Flash Rate	120 flashes per minute. Both optical assemblies flash simultaneously with less than a 10-millisecond separation.
Light Beam	Adjustable vertically from 0° to 15° and horizontally 15° each side of the zero reference point. The horizontal scale is in 1° increments and the vertical scale is in 0.5° increments. Nominal setting is +10° vertical and +15° horizontal.
Light Source Locking	A positive locking device prevents accidental movement of LED light assembly after aiming
Mounting	Each REIL cabinet with frangible coupling (supplied) can be mounted on a concrete pad with a 2-inch NPT pipe or with an optional floor flange
Enclosure	The cabinets can be padlocked and include an interlock switch to disconnect input power when the cabinet door is open

Electrical

The REIL system operates from a 240V AC (2-wire) or 120/240V AC (3-wire), ±10%, 50/60Hz power supply. The REIL system can also operate from a series lighting circuit using a 6.6A/6.6A or 20A/6.6A L-830/L-831 isolation transformer at each unit.

Maximum Power Requirements (without heater)

L-849 Type	Style	Each Unit	Total
V	A/E	200VA	400VA
V	C	45VA	90VA
I	A/E	200VA[1]	440VA[3]
I	C	45VA[2]	108VA[3]

[1] Use 200W isolation transformer each unit
[2] Use 30/45W isolation transformer each unit
[3] This is total CCR load and includes isolation transformer losses

Packaging

L-849 Style A/E	
Weight	46 lb (20.9 kg) each assembly
REIL Enclosure Dimensions (H x W x D)	16 x 20 x 9 in (40.6 x 50.8 x 22.9 cm)
Packaging Dimensions	31 x 31 x 35 in (78.74 x 78.74 x 88.9 cm)

L-849 Style C	
Weight	40 lb (18.1 kg) each assembly
REIL Enclosure Dimensions (H x W x D)	16 x 16 x 9 in (40.6 x 40.6 x 22.9 cm)
Packaging Dimensions	31 x 31 x 35 in (78.74 x 78.74 x 88.9 cm)

Packaging is for information purposes only and is based on one palletized box containing one master and one slave.

Photometric Data

Style	High Intensity (cd)	Medium Intensity (cd)	Low Intensity (cd)
L-849 Style A	15,000	N/A	N/A
L-849 Style C	N/A	N/A	700
L-849 Style E	15,000	1,500	300

Note: Candelas above are within a beam pattern of 10° vertical by 30° horizontal for each flasher. Tolerance of 50% in effective intensity.

Spare Components

Description	Part No.
Frangible Coupling, Style C	62B0064
LED Driver PCB	44A6545
Switch, Door Interlock	45A0269
Timer PCB	44A6724

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