



**COMPLIANCES**

L-850A(L), L-850B(L), L-850T(L)  
FAA AC 150/5345-46 (current edition)  
FAA Engineering Brief 67D



ETL Certified

Meets "Buy American" requirements.

ICAO for 850A

**PRODUCT APPLICATION**

The Navigate Series® L-850 A/B/T LED fixtures are Style-3 runway lights, defined as follows:

Type	Application	Direction / Color
L-850A	Runway Centerline; Land and Hold Short Operations (LAHSO) for Cat I, II, or III runways	Bidirectional: white- white, white-red Unidirectional: white, red
L-850B	Runway Touchdown Zone for Cat II or III runways	Unidirectional: white
L-850T	Runway Status Lights (RWSL) Takeoff Hold Light (THL), Runway Intersection Light (RIL) for Cat I, II, or III runways	Unidirectional: red

**ORDERING INFORMATION**

**L-850 A/B/T LED Order Number** 850X-L-X-X(X)-X-X

**Fixture Type:**

- A = L-850A
- B = L-850B
- T = L-850T

L = LED

- 0 = No Arctic Kit
- 1 = Arctic Kit

**Color Options:**

- WW = White/White (A only)
- WR = White/Red (A only)
- W = White (A & B only)
- R = Red (A & T only)

**Toeing:**

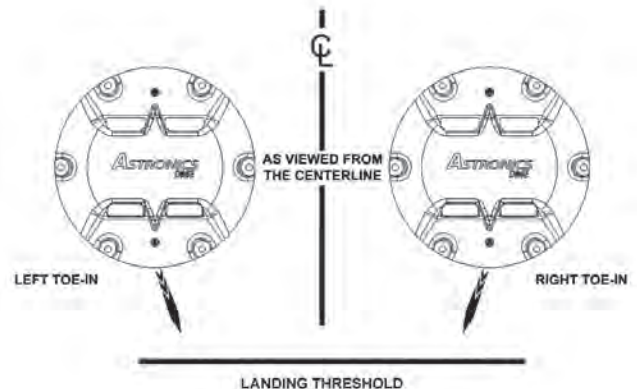
- 0 = Straight
- 1 = Toe Left
- 2 = Toe Right

**Cable Options:**

- 1 = One Plug
- 2 = Two Plugs  
(for bidirectional fixtures only)

**TOUCHDOWN ZONE TOE-IN CODING**

L-850B Fixture Only



## FEATURES

- FAA Style-3 fixture with less than 0.25 inches above ground height.
- Lower power consumption and less required maintenance compared to non-LED version, resulting in lower life-cycle costs.
- Easy to maintain. All components of the fixture are easily replaced.
- Operates on 3-step and 5-step ferroresonant or thyristor CCRs.
- Optional thermostatically controlled heater (Arctic Kit) that cycles on and off when temperature drops below freezing, reducing overall energy consumption.
- Fixture uses high-strength assembly, stainless steel hardware, and a hardened optical glass lens.
- Seals tested to resist Cryotech XT350, EX180, and E36 de-icing fluids.
- LED life greater than 50,000 hours.
- Operating temperature range -40 °C to +55 °C (-40 °F to +131 °F).

## WEIGHT AND DIMENSIONS

Weight:	~ 10.2 lbs
Dimensions:	
Height (Depth)	3.93 inches
Outer Diameter	11.94 inches
Bolt-Circle Diameter	11.25 inches

## WITHOUT ARCTIC KIT TRANSFORMER REQUIREMENTS

Type	Color	Plugs	Series Circuit	Fixture Load	Required Transformer	Power Factor
A/B Unidirectional	White	1	6.6A, 50/60 Hz	25 VA	20/25W	.9
A Unidirectional	Red	1	6.6A, 50/60 Hz	15 VA	20/25W	.84
A Bidirectional	White/Red	2	6.6A, 50/60 Hz	25 VA per side (50 VA total)	20/25W (2 plug) 65W (1 plug)	.9
A Bidirectional	White/Red	2	6.6A, 50/60 Hz	25 VA per side (50 VA total)	20/25W (2 plug) 65W (1 plug)	.88
T Unidirectional	Red	1	6.6A, 50/60 Hz	18 VA	20/25W	.86

## WITH ARCTIC KIT TRANSFORMER REQUIREMENTS

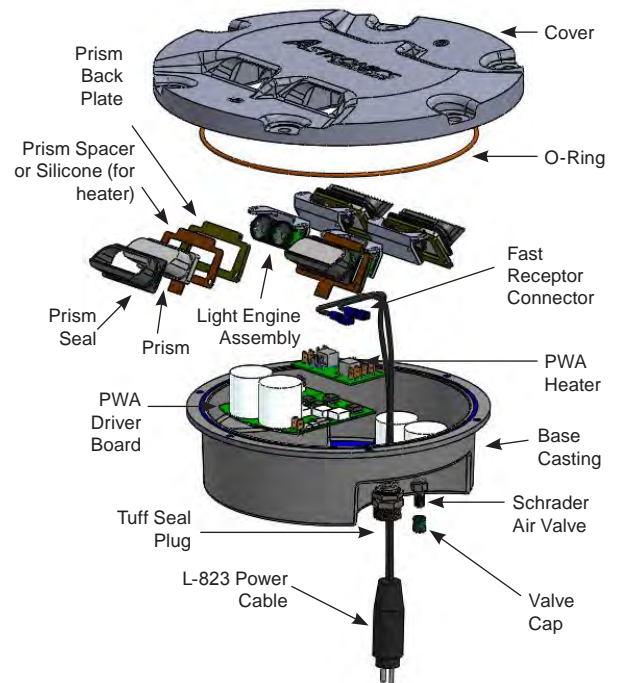
Type	Color	Plugs	Series Circuit	Fixture Load	Required Transformer	Power Factor
A/B Unidirectional	White	1	6.6A, 50/60 Hz	71.6 VA	65W	.97
A Unidirectional	Red	1	6.6A, 50/60 Hz	66.4 VA	65W	.98
A Bidirectional	White/Red	2	6.6A, 50/60 Hz	71.6 VA per side (143 VA total)	65W (2 plug) 150W (1 plug)	.99
A Bidirectional	White/Red	2	6.6A, 50/60 Hz	71.6 VA per side (143 VA total)	65W (2 plug) 150W (1 plug)	.88
T Unidirectional	Red	1	6.6A, 50/60 Hz	68.6 VA	65W	.98

Note: For a 20A series circuit, the L-850 A/B/T without an Arctic Kit requires a 30/45W transformer and with an Arctic Kit requires a 100W transformer.

## RENEWAL PARTS

Description	Part Number
Air Schrader Valve, 1/8 (12)	A1-05-0553-001
L-823 Cable Replacement Kit – Includes: L-823 Power Cable Tuff Seal Plug Connectors	K1-02-0003-001
Prism Replacement Kit – Includes: Prism Prism Seal Prism Spacer Prism Back Plate O-Ring	K1-02-0018-001
White Light Engine Replacement Kit – Includes: Light Engine Assembly O-Ring Toe-In Instructions	K1-02-0015-001
Red Light Engine Replacement Kit – Includes: Light Engine Assembly O-Ring Toe-In Instructions	K1-02-0015-002
Heater Replacement Kit For Unidirectional Fixture – Includes: Heater PWA Power Jumper Wire Assembly Heater Control Wire Assembly Heater, Silicone, F/F Heater, Silicone, M/F O-Ring	K1-02-0016-001
For Bidirectional Fixture – Includes: Heater PWA Power Jumper Wire Assembly Heater Control Wire Assembly Heater, Silicone, F/F (2 EA) Heater, Silicone, M/F (2 EA) O-Ring	K1-02-0016-002
Driver Board Replacement Kit – Includes: PWA, Driver Board O-Ring PWA Dip Switch Settings Instructions	K1-02-0017-001
Grounding Lug Kit – Includes: Lug Washer Screw	K2-02-0005-001

## EXPLODED VIEW



## ACCESSORIES

Description	Part Number
L-868B Base Can, 24" Deep	AC2424-2Q2-00303
L-823 Primary Connector Kit (8 awg, .320"/.430")	11174-01
L-823 Complete Kit (8 awg, .320"/.430")	11805-01
Heat Shrink Tubing Kit	A2-20-0089-001
L-868B Flange Ring, 1/4" with Epoxy Dam	AF540204Y
<b>Isolation Transformers</b>	
L-830-17, 20/25W, 6.6A/6.6A, 60 Hz	11729
L-831-17, 20/25W, 6.6A/6.6A, 50 Hz	11733
L-830-2, 30/45W, 20A/6.6A, 60 Hz	11681
L-831-2, 30/45W, 20A/6.6A, 50Hz	11723
L-830-3, 65W, 6.6A/6.6A, 60 Hz	11682
L-831-3, 65W, 6.6A/6.6A, 50 Hz	11712
L-830-5, 100W, 20A/6.6A, 60 Hz	11684
L-831-5, 100W, 20A/6.6A, 50 Hz	11714
L-830-18, 150W, 6.6A/6.6A, 60 Hz	11730
L-831-18, 150W, 6.6A/6.6A, 50 Hz	11734