

L-807 LED and Incandescent Wind Cone

Compliance with Standards

FAA: L-807 AC 150/5345-27 (Current Edition)
ETL Certified

Uses

Provides visual surface wind direction and velocity information to pilots in flight or on the ground at airports and heliports.

Features

- The L-807 wind cone is a non-frangible designed wind cone available in three styles, lighted (internal or external) or unlighted, and in two sizes, eight- or twelve-foot wind socks.
- Pole is available with either a center hinge or bottom hinge. Center hinge allows easier pole lowering. Bottom hinge includes a swing-out support leg that allows the mast to be lowered to a convenient servicing height for light source replacement.
- The LED lighted wind cone assemblies may be powered directly from a 2.8-6.6A series circuit using only an isolation transformer. No power adapter is needed, significantly reducing CCR load. It may also be powered from a direct 95-264V AC source. LED light output stays constant regardless of input current range (for series powered) or input voltage level (for voltage powered) wind cones.
- Any AC voltage-powered wind cone may be powered from a 6.6A or 20A series circuit using an ADB power adapter or from a direct 120V AC source
- Sealed bearings allow precision vaning for true wind direction in all types of weather and wind conditions
- Bearing covers are provided for additional bearing protection against dirt and moisture
- The nylon fabric sock is treated for water repellency and resistance to rot and mildew
- The standard color is orange and the colorfastness exceeds Method 5671 of Federal Standard 191. Other colors such as alternate orange/white banded are available as a special order.
- An optional L-810 red obstruction light is available. For wind cone configurations available with an LED L-810, see catalog sheet 2063 for more details.

Lighting Assembly - LED

- The internally lighted wind cone provides an average illumination on the top and lateral surface of a fully



Externally Lit LED
Wind Cone



Internally Lit 12-Foot
LED Wind Cone

Lighting Assembly - LED (continued)

extended windsock of 10- to 30-ft lamberts. The internally lighted 8-foot wind cone uses one LED optical assembly and the 12-ft uses three LED optical assemblies.

- The externally lighted wind cone provides a minimum illumination of 2 foot candles on the upper surface of the fully extended windsock. The externally lighted 8- and 12-foot wind cones use two LED optical assemblies.

Lighting Assembly - Incandescent

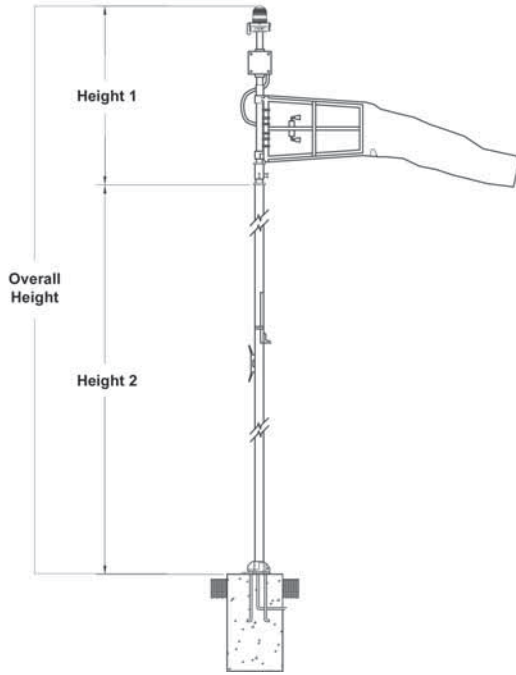
- The externally lighted wind cone consists of a group of four 120W PAR 38 floodlights for an 8-foot wind cone or five 120W PAR 38 floodlights for a 12-foot wind cone, which provide a minimum illumination of 2-foot candles on any point of the upper surface of a fully extended wind sock
- The internally lighted wind cone consists of two 100W/120V AC lamps for an 8-foot wind cone or three 100W/120V AC lamps for a 12-foot wind cone
- A 69W, 120V AC, L-810 red incandescent obstruction light can be supplied with the incandescent lighted wind cone
- An incandescent lighted wind cone cage may be provided with an optional L-810 LED red obstruction light.

Electrical Supply, LED Current Driven

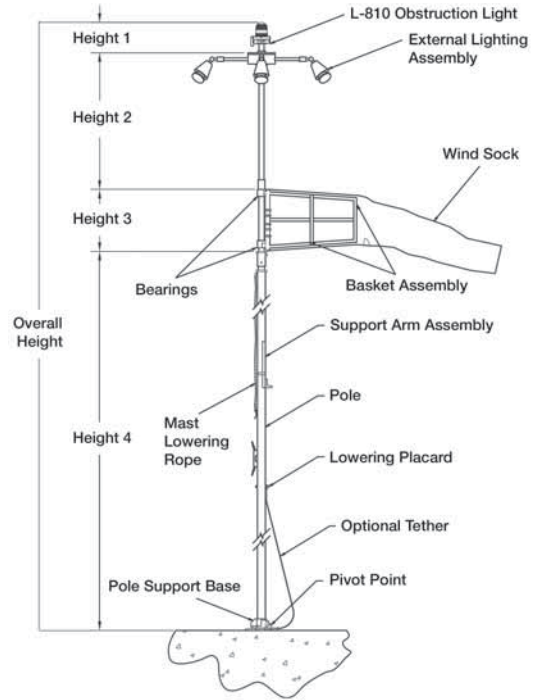
For 6.6A or 20A, 60Hz circuits, a 200W L-830 transformer with appropriate primary input (i.e. 6.6 or 20A) must be selected. Use 200W L-831 series for 50Hz circuits.

L-807 LED	Fixture Load	Isolation Transfmr.	Isol. XF Load	CCR Load
Internally Lit, 8-foot				
Without LED L-810	79VA	150W	18VA	97VA
With LED L-810	87VA	150W	20VA	107VA
Externally Lit, 8-foot				
Without LED L-810	87VA	200W	26VA	113VA
With LED L-810	102VA	200W	27VA	129VA
Internally Lit, 12-foot				
Without LED L-810	96VA	200W	25VA	121VA
With LED L-810	110VA	200W	23VA	133VA
Externally Lit, 12-foot				
Without LED L-810	87VA	200W	26VA	113VA
With LED L-810	102VA	200W	27VA	129VA

Incandescent Internally Lighted Assembly



Incandescent Externally Lighted Assembly



Dimensions - Internally Lighted

Wind Cone Type	Overall Height	Height 1	Height 2
Halogen 8 ft	232.25 in (589.9 cm)	40.25 in (102.2 cm)	192 in (487.7 cm)
Halogen 12 ft	250.25 in (635.6 cm)	48.25 in (122.5 cm)	192 in (487.7 cm)
LED 8 ft	245.2 in (622.8 cm)	53.2 in (135.1 cm)	192 in (487.7 cm)
LED 12 ft	263.4 in (669.0 cm)	71.4 in (181.4 cm)	192 in (487.7 cm)

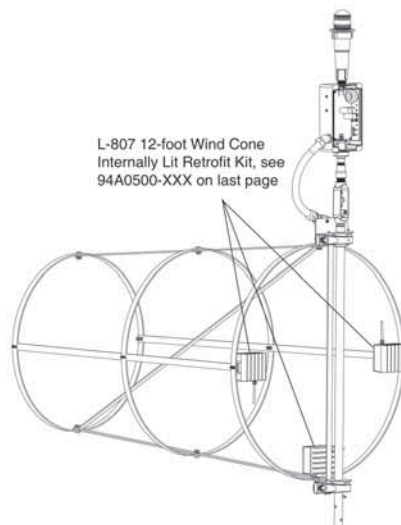
Dimensions - Externally Lighted

Wind Cone Type	Overall Height in (cm)	Height 1 in (cm)	Height 2 in (cm)	Height 3 in (cm)	Height 4 in (cm)
Halogen 8 ft	274 (695.9)	8 (20.3)	48 (121.9)	26 (66)	192 (487.7)
Halogen 12 ft	293 (744.2)	8 (20.3)	50 (127)	43 (109.2)	192 (487.7)
LED 8 ft	245.2 (622.8)	11.2 (28.5)	23.9 (60.7)	18 (45.7)	192 (487.7)
LED 12 ft	267.5 (679.5)	15.5 (61.2)	24.1 (127)	36 (91.4)	192 (487.7)

LED Internally Lighted Wind Cone Assembly

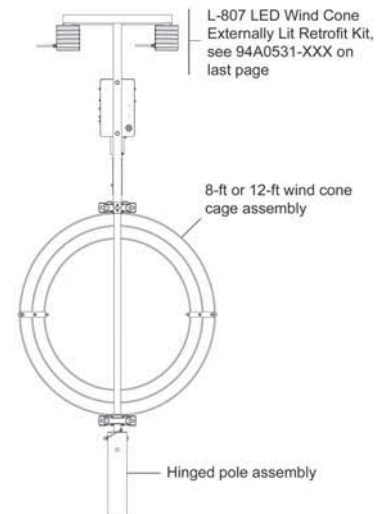


8-foot internally lit wind cone has one LED assembly



12-foot internally lit wind cone has three LED assemblies

LED Externally Lighted Wind Cone Assembly



8- and 12-foot externally lit wind cones have two LED assemblies

Center-hinged Pole



Electrical Supply, LED Voltage Driven

Input voltage: 95V AC (min.) - 264V AC (max.), 50/60Hz

Internally Lit, 8-foot

Maximum input power:

Without LED L-810	69VA
With LED L-810	75VA

Internally Lit, 12-foot

Maximum input power:

Without LED L-810	95VA
With LED L-810	109VA

Externally Lit, 8-foot

Maximum input power:

Without LED L-810	80VA
With LED L-810	87VA

Externally Lit, 12-foot

Maximum input power:

Without LED L-810	80VA
With LED L-810	87VA

Operation

The operation of the wind cone is entirely dependent on the direction and relative velocity of the surface wind. Movement of the wind through the open throat of the cage and into the sock causes the tail to inflate. The tail of the inflated sock indicates true wind direction for velocities as low as three knots through a 360° circle about the vertical shaft.

Packaging

Description	Quantity Per Box	Dimensions (H x W x D)	Weight
8-ft. Wind Cone	1 Pole	16.6 x 10 x 10 in	150 lb
Lighted	1 Basket	502.9 x 25.4 x 25.4 cm	68 kg
		20 x 20 x 15 in	47 lb
Unlighted	1 Basket	50.8 x 50.8 x 38.1 cm	21.3 kg
		50.8 x 50.8 x 38.1 cm	21.3 kg
8-ft. Wind Cone	1 Pole	16.6 x 10 x 10 in	135 lb
Unlighted	1 Basket	502.9 x 25.4 x 25.4 cm	61.2 kg
		20 x 20 x 15 in	42 lb
Lighted	1 Basket	50.8 x 50.8 x 38.1 cm	19.1 kg
		50.8 x 50.8 x 38.1 cm	19.1 kg
Lighted	1 Basket	114.3 x 106.7 x 15.2 cm	21.3 kg
		114.3 x 106.7 x 15.2 cm	21.3 kg
Unlighted	1 Basket	45 x 42 x 6 in	47 lb
		45 x 42 x 6 in	47 lb
Hardware	1 Basket	20 x 20 x 15 in	45 lb
		20 x 20 x 15 in	45 lb
Hardware	1 Basket	50.8 x 50.8 x 38.1 cm	20.4 kg
		50.8 x 50.8 x 38.1 cm	20.4 kg
12-ft. Wind Cone	1 Pole	16.6 x 10 x 10 in	150 lb
Lighted	1 Basket	502.9 x 25.4 x 25.4 cm	68 kg
		45 x 42 x 6 in	47 lb
Unlighted	1 Basket	114.3 x 106.7 x 15.2 cm	21.3 kg
		114.3 x 106.7 x 15.2 cm	21.3 kg
Hardware	1 Basket	20 x 20 x 15 in	45 lb
		20 x 20 x 15 in	45 lb
Hardware	1 Basket	50.8 x 50.8 x 38.1 cm	20.4 kg
		50.8 x 50.8 x 38.1 cm	20.4 kg

Spare Components (Incandescent)

Description	Part No.
Cage assembly, 8 ft	44A6454-8
Cage assembly, 12 ft	44A6454-12
Cage bearings	75A0027
Cage bearing (weather) shields	63A0332-1
External light assembly, 8 ft	44A5902
External light assembly, 12 ft	44A5853
Glassware, red, incandescent, L-810	63A0149
Glassware assembly, red, LED	44A6334-1S
Lamp, 120W, 120V AC Par 38 (External)	48A0078
Lamp, bi-pin 100W, 120V AC (Internal)	48A0375
L-810 incandescent obstruction light (69W, 120V AC) and mounting assembly	44B0936S
L-810 incandescent lamp, 69W, 120V AC	48A0009
L-810 LED assembly, red	44A6369-01
L-810 LED obstruction light	SBOL-1110
Pole assembly, 8 ft	44A6457-8
Pole assembly, 12 ft	44A6457-12
Rope cleat	62B0319S
Socket, orange, nylon, 8 ft	77C0061-1
Socket, orange, nylon, 12 ft	77C0062-1
Hinged pole assembly, L-807 internally/externally lit with or w/out SBOL	44A6878-1
Hinged pole assembly, L-807 unlit without SBOL	44A6878-2

Spare Components (LED)

Description	Part No.
LED and mount assembly, obstruction light	44A6662-021W
Surge protection assembly (voltage)	44A6815-VD
Surge protection assembly (current)	44A6815-CD
Light engine assembly	44A6786
Power supply PCB/mounting assembly, current-driven, 8-ft internally lit	44A6683-9
Power supply PCB/mounting assembly, current-driven, 12-ft internally lit	44A6683-4
Power supply PCB/mounting assembly, voltage-driven, 8-ft internally lit	44A6454-WCS
Power supply PCB/mounting assembly, voltage-driven, 12-ft internally lit	44A6683-5
Power supply PCB/mounting assembly, current-driven, 8-ft externally lit	44A6683-6
Power supply PCB/mounting assembly, current-driven, 12-ft externally lit	44A6683-6
Power supply PCB/mounting assembly, voltage-driven, 8-ft externally lit	44A6683-7
Power supply PCB/mounting assembly, voltage-driven, 12-ft externally lit	44A6683-7
Rotating power assy (current), 2.8-6.6A without L-810 LED	44A6790-103
Rotating power assy (voltage), 95-264V AC without L-810 LED	44A6790-203
Rotating power assy (current), 2.8-6.6A with FAA L-810 LED	44A6790-113
Rotating power assy (voltage), 95-264V AC with FAA L-810 LED	44A6790-213
Hinged pole assembly, L-807 internally/externally lit with or w/out SBOL	44A6878-1
Hinged pole assembly, L-807 unlit w/out SBOL	44A6878-2

FAA Wind Cone Classifications

Size 1:	8 foot
Size 2:	12 foot
Style I-A:	Externally Lighted
Style I-B:	Internally Lighted
Style II:	Unlighted

L-807 LED Wind Cone Internally Lit Retrofit Kit 94A0500-XXX

Power	
1 = Current-driven 2.8-6.6A, 50/60Hz	-----
2 = Voltage-driven 95-264V AC, 50/60Hz	
Obstruction Light	
0 = Without L-810 LED Obstruction Light	-----
1 = With FAA L-810 LED Obstruction Light	
2 = With ICAO L-810 LED Obstruction Light	
Cage Type	
1 = Retrofit to bolted cage, 12-foot ^{2,4}	-----
2 = Retrofit to bolted cage, 8-foot ^{1,3}	
3 = Retrofit to welded cage, 12-foot ^{2,3}	
4 = Retrofit to welded cage, 8-foot ^{1,3}	

Note: This kit may be used to retrofit existing ADB incandescent wind cones.
¹ Internally lit 8-foot wind cone uses one LED optical assembly. See drawings on page 2.
² Internally lit 12-foot wind cone uses three LED optical assemblies. See drawings on page 2.
³ Bolted cage, ADB PN 44A6454
⁴ Welded cage, ADB PN 44D0919S (12-ft)/44D0923S (8-ft)

L-807 LED Wind Cone Externally Lit Retrofit Kit 94A0531-XXX

Power	
1 = Current-driven 2.8-6.6A, 50/60Hz	-----
2 = Voltage-driven 95-264V AC, 50/60Hz	
Obstruction Light	
0 = Without L-810 LED Obstruction Light	-----
1 = With FAA L-810 LED Obstruction Light	
2 = With ICAO L-810 LED Obstruction Light	
Cage Type¹	
3 = Retrofit to bolted cage, 12-foot ²	-----
4 = Retrofit to bolted cage, 8-foot ²	
5 = Retrofit to welded cage, 12-foot ³	
6 = Retrofit to welded cage, 8-foot ³	

Note: This kit may be used to retrofit existing ADB incandescent wind cones.
¹ Externally lit 8- and 12-foot wind cones use two LED optical assemblies. See drawings on page 2.
² Bolted cage, ADB PN 44A6454
³ Welded cage, ADB PN 44D0919S (12-ft)/44D0923S (8-ft)

The information contained in this document is subject to change without notice. ADB reserves the right to make changes and improvements to its products and assumes no responsibility for making these modifications on any equipment previously sold.

L-807 Ordering Code WC807-XXXXX

Size	-----
1 = 8-foot cage ¹	
2 = 12-foot cage	
Hinge	-----
1 = Bottom-hinged pole	
2 = Center-hinged pole	
Style	-----
0 = Unlit cage ²	
1 = Internally lit LED, 2.8-6.6A, 50/60Hz ¹	
2 = Externally lit LED, 2.8-6.6A, 50/60Hz	
3 = Internally lit LED, 95-264V AC, 50/60Hz ¹	
4 = Externally lit LED, 95-264V AC, 50/60Hz	
7 = Internally lit incandescent, 120V AC ¹	
8 = Externally lit incandescent, 120V AC	
Obstruction Light	-----
0 = No obstruction light	
1 = FAA LED L-810 integral with LED cage lighting assembly ³	
3 = FAA LED L-810, 95-264V AC, 50/60Hz ⁴	
5 = FAA LED L-810, 2.8-6.6A, 50/60Hz ⁵	
9 = FAA incandescent L-810, 120V AC	
Special Applications	-----
0 = No components removed (standard)	
1 = No wind sock ⁶	

Notes
¹ Internally lighted 8-foot L-807 is a non-FAA configuration.
² Unlit cage can be used with no obstruction light or obstruction light options 3 through 9.
³ Used only on internally or externally lit LED wind cones (Style options 1 through 4)
⁴ Available only on unlit or internally/externally lit incandescent wind cones (Style options 0, 7, or 8)
⁵ Available only with unlit wind cone cages (Style option 0)
⁶ For applications where wind socks other than orange are used. Special wind sock colors supplied separately.
 Contact the ADB Airfield Solutions Sales Department for availability of 12V DC options

ADB Airfield Solutions, LLC
 977 Gahanna Parkway
 Columbus, OH 43230
 Telephone: 614-861-1304
 Fax: 614-864-2069
 www.adb-airfieldsolutions.com

ADB Airfield Solutions, Ltd.
 5500 North Service Road, Suite 1108
 Burlington, Ontario
 L7L 6W6 Canada
 Telephone: (905) 331-6887
 Fax: (905) 331-9389