



**Flight Light Inc.**  
2708 47th Ave.  
Sacramento, California, U.S.A.  
95822-3806

**PH (916) 394-2800**    **FX (916) 394-2809**  
**TF (800) 806-3548**    **EM sales@flightlight.com**

## **HL-490L** **Stainless Steel** **6" Helideck/Helipad Semi-Flush** **Perimeter Inset Light**

- Compliances**
- FAA AC 150/5390-2D Heliport Design Guide
  - Exceeds FAA AC 150/5390-2D Appendix G Specifications
  - ICAO Annex 14, Volume II for TLOF
  - UL 1598 Standard (only "ACUL" lamp is UL listed)
  - Transport Canada TP14371, AGA 7.16
  - IP67 Compliant
  - Buy American Act Compliant

### **Applications**

Semi-flush stainless steel perimeter light helps mark helipad touchdown and lift-off area (TLOF) and/or final approach and takeoff area (FATO) for metal helidecks and pavement heliports.

### **Why Our HL-490L is Better**

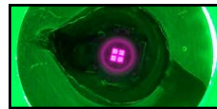
- Stainless steel construction better resists salt, chemicals, and weather exposure.
- Nitric acid passivated to maximize the essential corrosion resistance.
- Small 6" [15.24 cm] fixture easily drops into metal helideck, fastens with 4 bolts.
- Recessed, semi-flush mounted, allows for obstruction-free movement of equipment and personnel.
- Fixture sealed to bottom cover to prevent moisture intrusion.
- Prism removal and replacement achieved without need for adhesives or sealants.
- Pre-focused optics simplify maintenance.
- Cost-saving, energy-efficient LEDs.
- Power adapter included.
- Low maintenance - LED light source has 50,000 hour lifetime (50X longer than halogen).
- Monochromatic output of LEDs is more conspicuous than halogen.
- Available in 10-30VDC, 120-240VAC or 277VAC versions.
- With our Dimming Controller option, the lights can be dimmed at night to reduce glare - select from three brightness levels.
- Available for non-heliport applications such as architectural lighting.

### **Specifications**

- Construction: 304 stainless steel passivated with nitric acid.
- 316 stainless steel hardware.
- Low profile: .86" [2.18 cm] (base can mounted), 1.11" [2.82 cm] (helideck mounted).
- Diameter: 6" [15.24 cm]
- Bolt circle: 5.25" [13.34 cm]
- Power consumption: AC input = 7.2VA; DC input = 4W; IR AC input = 10.8VA; IR DC input = 7.2W
- Light channel within .2" (.51 cm) of grade.
- Fixture grounding: internal.
- Includes 48" [122 cm] of UL SO Cable 16AWG (UL Version).
- Weight: 7.5 lb. (3.4 kg). Carton size: .3 cu. ft. (.008 cu. meters); 8" (d) x 8" (w) x 8" (h) (20.3 cm (w) x 20.3 cm (d) x 20.3 cm (h))
- Temperature range: -4°F/+131°F (-20°C/+55°C).

### **Visible/Infrared LED Option**

- Night Vision Goggle (NVG) compatible.
- Infrared Output:
  - Exceeds SAE Aerospace recommendations for Landing/Taxi Lights.
  - Usable beam width: 55° to 125° vertical, 360° horizontal.
  - Output wavelength: 850nm.
  - Infrared does not dim with the "DCD" dimming option.
- Visible Output:
  - Exceeds ICAO TLOF requirements for green LEDs (see photometric chart).
  - Usable beam width: 30° vertical, 360° horizontal.
  - Output wavelength: 530nm.



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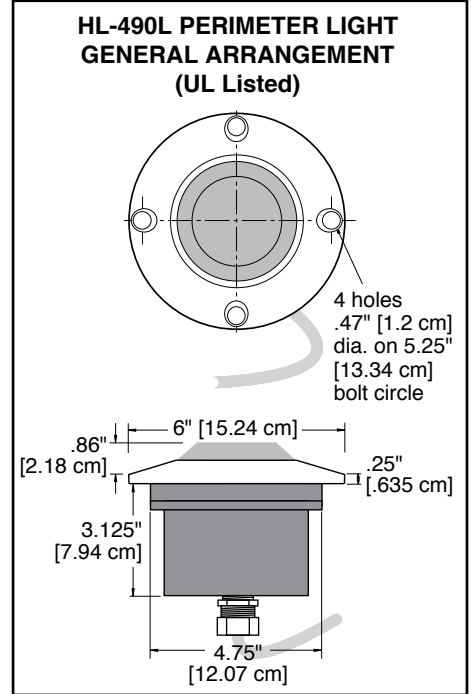
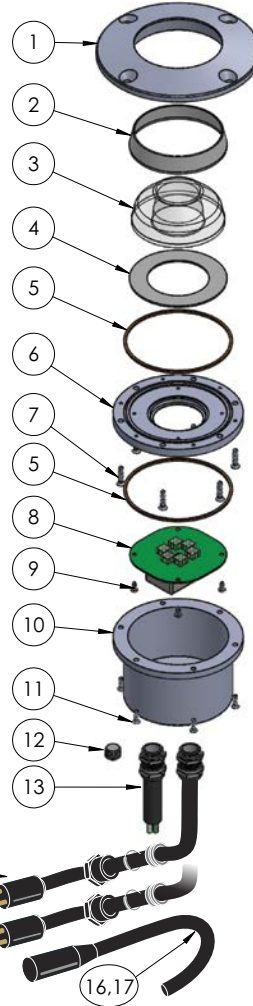
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**Common Replacement Parts**

- 1..... HL-490L Top Casting..... 16-490MN
- 2..... Prism Gasket..... 65-033090
- 3..... Clear Prism Dome..... 20-016080
- 4..... Prism Clamp Teflon Gasket..... 27-492CG
- 5..... O-ring..... 27-9396K175
- 6..... HL-490L Prism Clamp..... 16-490PLTMN
- 7..... 8-32 316SS 0.75" Long Screws..... NS-91500A197
- 8..... AC LED Driver Board..... HL-GL9KIT-AC
- ALT ... AC LED Replacement Kit ..... HL-XL490KITB-AC\*
- ALT ... DC LED Replacement Kit ..... HL-XL490KITB-DC\*
- ALT ... UL LED Replacement Kit ..... HL-XL490KITB-UL\*
- ALT ... Dimming LED Replacement Kit..... HL-XL490KITB-D\*
- 9..... No. 6 304SS Screws ..... NS-S0632X025PPMSP
- 10..... HL-490L Bottom Casting ..... 16-490-BOTTOM2 5/8M
- 11..... 6-32 316SS 0.5" Long Screw ..... NS-91500A148
- 12..... Pipe Fitting ..... HA-PP000001
- 13..... UL Cable Assembly..... 20-CABLE-ASSY-UL
- 14..... 2-Pin Male Connector ..... TRC-10518-117D002\*\*
- 15..... 3-Pin Male Connector (DC Dimming only) ... 80-013031\*\*
- 16..... 2-Conductor Female Connector..... TRC-10519-07-021\*\*
- 17..... 3-Conductor Female Connector (DC Dimming only) ... 80-012022\*\*

\* LED Replacement Kits include: LED Driver Board, Bottom Casting, Cable; X = Color  
 \*\* Not UL listed.



**Base Can**

A 6" [15.24 cm] deep base can is required for pavement installations. Part #: BA-525-6



**Photometric Comparison with  
 ICAO Requirements for TLOF**

Vertical Angle (Deg)	Avg. Intensity (Cd)	ICAO Spec (Cd)
2	70.8	15
5	66.5	30
10	48.3	15
13	36.6	8
20	23.9	3

**Ordering Codes**

Fixture	LED Color	Power/Compliance
<b>HL-490L</b>	<b>G:</b> Green (std) <sup>1</sup>	<b>AC:</b> 120-240VAC <sup>4</sup>
	<b>B:</b> Blue	<b>AC3:</b> 277VAC <sup>4</sup>
	<b>R:</b> Red	<b>ACUL:</b> 120-240VAC <sup>3</sup>
	<b>W:</b> White	<b>DC:</b> 10-30VDC <sup>4</sup>
	<b>Y:</b> Yellow	<b>DCD:</b> 10-30VDC Dimming <sup>4</sup>
	<b>IR:</b> Infrared <sup>2</sup>	
<b>HL-490L</b>		

<sup>1</sup> Green is currently the recommended color for heliport perimeter lights.  
<sup>2</sup> Infrared must be used in conjunction with visible LEDs. Infrared does not dim with the "DCD" dimming option.  
<sup>3</sup> Only "ACUL" lamp option can be UL listed. Connector not included. UL labeled fixtures only available for shipment to U.S. and Canada.  
<sup>4</sup> Lamp option is not UL listed.

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### How to Specify the HL-490L LED Helideck Semi-Flush Perimeter Light

The fixture shall be model HL-490L-(LED color)-(voltage) as marked by Flight Light Inc.

#### Construction:

- The fixture shall be 6" [15.24 cm] diameter, 5.25" [13.34 cm] bolt circle.
- The fixture shall be omnidirectional.
- The fixture shall be 304 stainless steel with nitric acid passivation.
- The fixture shall have a modular design comprised of 2 major parts: Bottom Casting and Top Casting. The Bottom and Top Casting are sealed by means of a Prism Clamp and O-ring.
- Hardware shall be 316 stainless steel.
- Fixture shall ground internally.
- The fixture shall include 48" [122 cm] of UL SO Cable 16AWG (UL Version).

#### LED/Light Cavity:

- LED lifetime expectancy: 50,000 hours.
- Power consumption shall not exceed 7.2VA for AC lights, 4W for DC lights, 10.8VA for IR AC lights and 7.2W for IR DC lights.
- Infrared output wavelength: 850nm
- Infrared output usable beam width: 55° to 125° vertical, 360° horizontal
- Visible output wavelength: 530nm
- Visible output beam width: 30° vertical, 360° horizontal

#### Compliances:

- IP67 Compliant
- Buy American Act Compliant
- FAA AC 150/5390-2D Heliport Design Guide
- ICAO Annex 14, Volume II for TLOF
- Optical performance exceeds FAA AC 150/5390-2D Appendix G Specifications
- Transport Canada TP14371, AGA 7.16

#### Options (to be specified per each project):

- Infrared (must be used in conjunction with visible LEDs)
- Dimming (only available with the Flight Light controller)
- UL Listed fixture
- 6" [15.24 cm] Deep Base Can for ground installation.

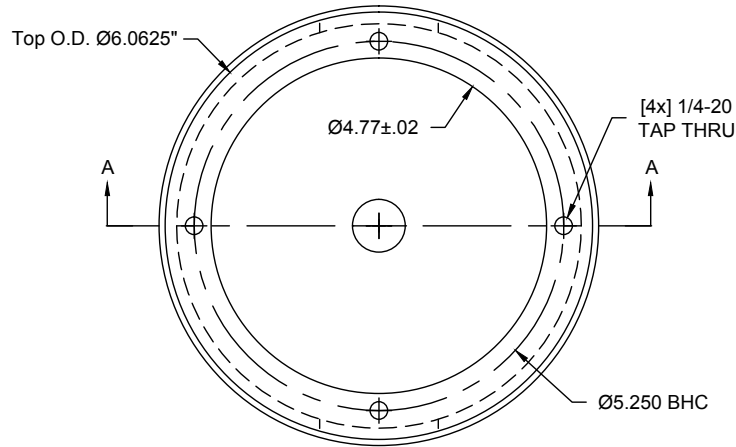
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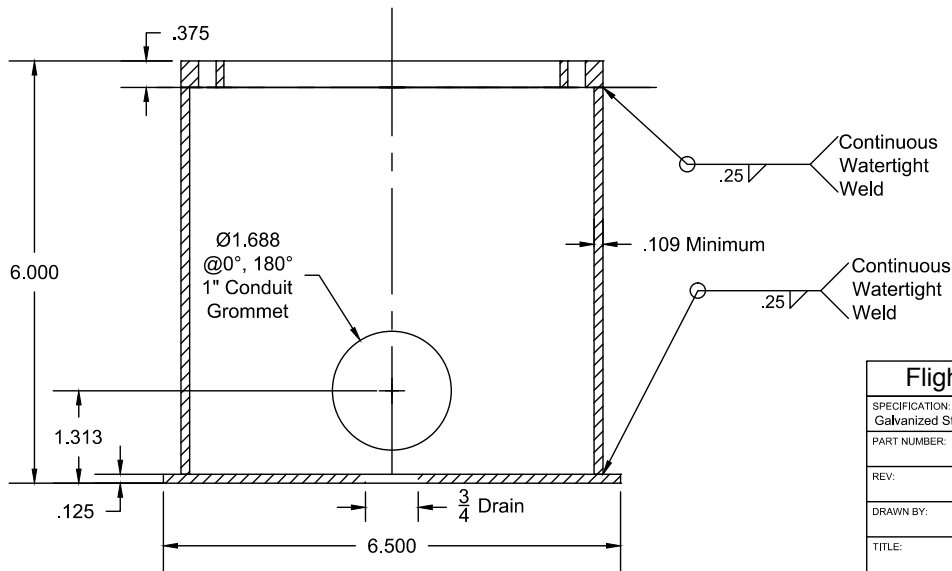
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Notes:  
 1.) Grommets are placed @ 0° & 180°  
 2.) Flange Flatness is ±0.010 [.254mm]  
 3.) 3/4" drain is standard

Additional Product Information:  
 1) Bolt holes are drilled and tapped after galvanizing.  
 2) Conduit holes are located on the bolt hole axis of the flange with an angular tolerance of +/- 1.  
 3) Four 18-8 stainless steel Phillips, Flat Head Countersunk Screws 1/4-20UNC X 1" fully threaded bolts shipped with each container. Wood lid has two holes drilled at 0-180. Two bolts are shipped loose.  
 5) This product is hot dipped galvanized in accordance with standard specifications for zinc coating on iron and steel hardware. ASTM A 153, ASTM A 385, ASTM A123.



x/x=.030  
 .xx=.010  
 .xxx=.005  
 .xxxx=.0005

All dimensions in inches unless otherwise specified

Flight Light Inc. • www.flightlight.com			
SPECIFICATION: Galvanized Steel			
PART NUMBER:		DATE:	
REV:	SIZE: A	SCALE: 1:2	SHEET OF 1 1
DRAWN BY:	ENGINEER:	CHECKED BY:	
TITLE: <b>6" Base (P/N BA-525-6)</b>			

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