



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



HL-590L

PH (916) 394-2800 FX (916) 394-2809  
TF (800) 806-3548 EM [info@flightlight.com](mailto:info@flightlight.com)

## Stainless Steel LED Helideck/Helipad Surface Mount Perimeter Light

- Compliances**
- FAA AC 150/5390-2D Heliport Design Guide
  - Exceeds FAA AC 150/5390-2D Appendix G Specifications
  - Transport Canada TP14371, AGA 7.16
  - Buy American Act Compliant

### Applications

Our HL-590L surface mount stainless steel perimeter light helps mark the helipad Final Approach and Takeoff (FATO) area for metal helidecks and pavement heliports.

Ideal for offshore applications.

### Why Our HL-590L is Better

#### Superior Design and Construction

- Low profile, 4.175" [10.6 cm], reduces the chances of being damaged.
- Corrosive resistant stainless steel construction stands up to salt, chemicals, and weather.
- Exposed to nitric acid passivation to maximize the essential corrosion resistance.
- Sturdy stainless steel construction, 10 lb. [4.5 kg], stands up to heavy use.
- Factory sealed, moisture proof light cavity maximizes LED life.

#### Easy Installation and Maintenance

- Lens and/or LED can be replaced while fixture remains installed - does not require adhesives or sealants.
- Low maintenance LED light source has 50,000 hour lifetime (50X longer than halogen).
- Integrated mounting plate allows simple 4-bolt installation.

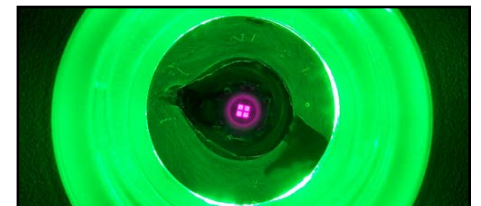
#### Optical Performance

- Optical performance exceeds FAA AC 150/5390-2D Appendix G specifications.
- 3-Step Dimming Controller to minimize nighttime glare available.
- Monochromatic output of LEDs is more conspicuous than halogen.



### Specifications

- Construction: 304 stainless steel with nitric acid passivation.
- 316 stainless steel hardware.
- Height: 4.175" [10.6 cm]
- Mounting plate: 6" x 6" x .19" [15.2 x 15.2 x .48 cm]
- Weight: 10 lb. [4.5 kg]
- Power consumption: AC input = 7.2VA; DC input = 4W; IR AC input = 10.8VA; IR DC input = 7.2W
- Available in 10-30VDC, 100-240VAC, or 277VAC versions.
- Fixture grounding: internal.
- Includes 48" [122 cm] of UL SO Cable 16AWG.
- Installation requires four 3/8" [9.5 mm] bolts (not provided).
- Temperature range: -4°F/+131°F (-20°C/+55°C).
- Carton size: 0.3 cu. ft. (0.01 cu. meters); 8" x 8" x 8" (20.32 x 20.32 x 20.32cm)



### 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:
  - Usable beam width: 30° vertical, 360° horizontal.
  - Output wavelength: 530nm.

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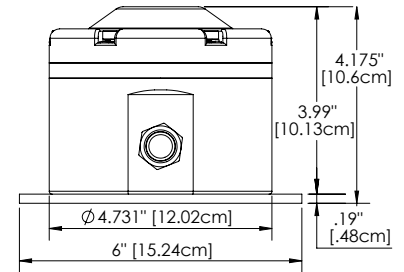
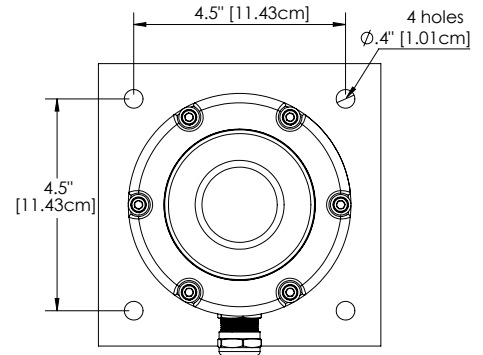
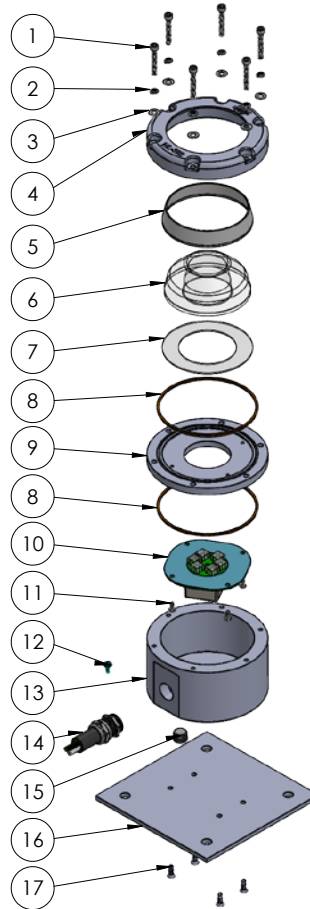
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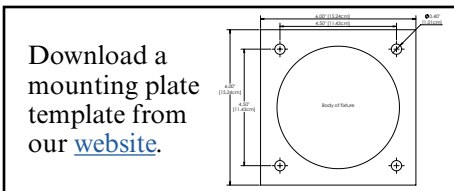
**Common Replacement Parts**

- 1.....10-32 316 SS 1-1/4" [32 mm] Long Screw ..NS-92185A227
  - 2.....10 316 SS Split Lock Washer..... NS-92147A430
  - 3.....10 316 SS Flat Washer ..... NS-90107A011
  - 4.....HL-590L Top Casting..... 16-590MN
  - 5.....Prism Gasket ..... 65-033090
  - 6.....Clear Prism Dome ..... 20-016080
  - 7.....Prism Clamp Teflon Gasket ..... 27-492CG
  - 8.....O-Ring..... 27-9396K175
  - 9.....HL-590L Prism Clamp ..... 16-590-PC
  - 10.....LED Driver & Board ..... HL-XL9KIT-AC\*
  - ALT ..LED Driver & Board DC ..... HL-XL9KIT-DC\*
  - ALT ..LED Driver & Board IR..... HL-XL9KIT-IR\*
  - ALT ..LED Diver & Board Dimming..... HL-XL9KIT-D\*
  - 11.....6 18-8 SS 5/16" [7.9 mm] Long Screw ..... NS-92525A313
  - 12.....6-32 Ground Screw Green..... NS-92597A100
  - 13.....HL-590L Bottom Casting..... 16-590-BOTTOM
  - 14.....Power Cord Assembly..... 16-590PCA
  - 15.....Plug Pipe 1/4" Hex Socket SS..... HA-PP000001
  - 16.....Mounting Plate ..... 16-590MP
  - 17.....8-32 316 SS 1/2" [13 mm] Long Screw ..... NS-91500A194
- \* For LED Driver & Board Kits, X = Color



**Photometric Comparison with  
 FAA Requirements**

Vertical Angle (Deg)	FAA Spec (Cd) Min.	HL-590L Avg. Intensity (Cd)
2	15	70.8
5	15	66.5
10	15	48.3
13	15	36.6
20	5	23.9



**Ordering Codes**

Fixture	LED Color	Power
<b>HL-590L</b>	<b>G:</b> Green (std) <sup>1</sup> <b>B:</b> Blue <b>R:</b> Red <b>W:</b> White <b>Y:</b> Yellow <b>IR:</b> Infrared <sup>2</sup>	<b>AC:</b> 100-240VAC <b>AC3:</b> 277VAC <b>DC:</b> 10-30VDC <b>DCD:</b> 10-30VDC Dimming
<b>HL-590L</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.

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### How to Specify the HL-590L LED Helideck Surface Mount Perimeter Light

The fixture shall be model HL-590L-(LED color)-(voltage) as marked by Flight Light Inc.

#### Construction:

- The fixture height shall not exceed 4.175" [10.6 cm].
- The fixture shall be omnidirectional.
- The fixture shall be 304 stainless steel with nitric acid passivation.
- Hardware shall be 316 stainless steel.
- The fixture shall have a modular design comprised of 3 major parts: Mounting Plate, Bottom Casting and Top Casting. The Bottom and Top Casting are sealed by means of a Prism Clamp and O-ring.
- The Mounting Plate shall be square 6" x 6" [15.2 x 15.2 cm] and .19" [.48 cm] thick.
- Fixture shall be ground mounted.
- The fixture shall include 48" [122 cm] of UL SO Cable 16AWG.

#### LED/Light Cavity:

- LED and lens shall be field replaceable.
- 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:

- Buy American Act Compliant
- FAA AC 150/5390-2D Heliport Design Guide
- 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)

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