



**Flight Light Inc.**  
 2708 47th Ave.  
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 95822-3806



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

**HL-590L**  
**Stainless Steel LED Helideck**  
**Surface Mount Perimeter Light**

- Compliances**
- FAA AC 150/5390-2C Heliport Design Guide
  - Exceeds FAA Engineering Brief 87 Specifications
  - Transport Canada TP14371, AGA 7.16
  - US Army Aviation Lighting Manual TM 5-811-5, Figure 5-3
  - 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**

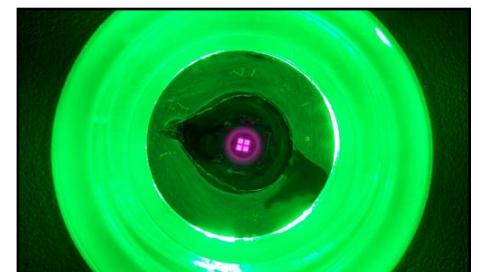
- Optical performance exceeds FAA Engineering Brief 87 specifications.
- 3-Step Dimming Controller to minimize nighttime glare available.
- Monochromatic output of LEDs is more conspicuous than halogen.



*Only 4.175" [10.6 cm] in height.*

**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 = 4.5W
- Fixture can be used with 100-240VAC or 10-30VDC.
- 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.
- Visible Output:
  - Usable beam width: 30° vertical, 360° horizontal.
  - Output wavelength: 530nm.

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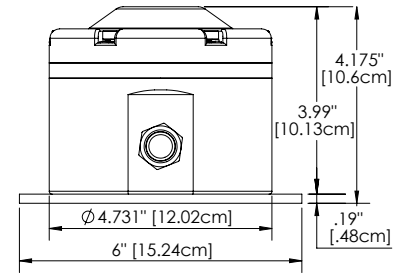
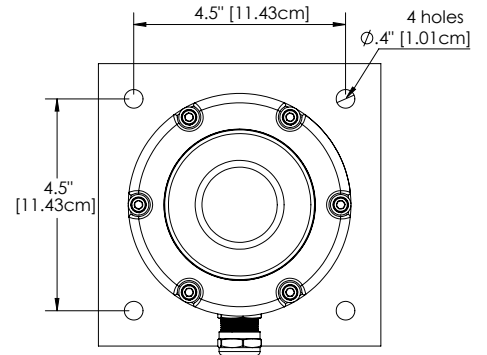
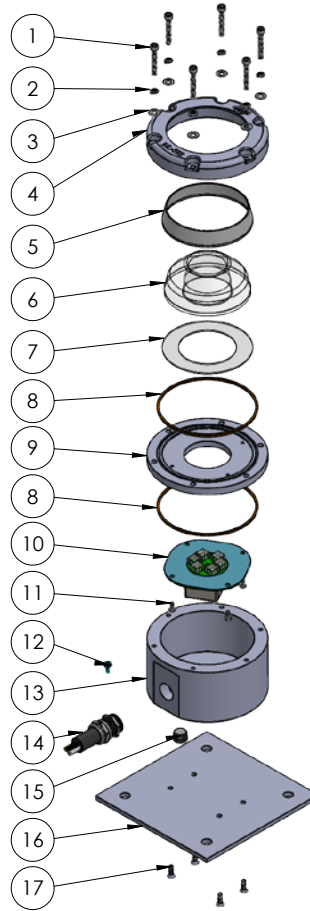
## HL-590L

### Stainless Steel LED Helideck Surface Mount Perimeter Light

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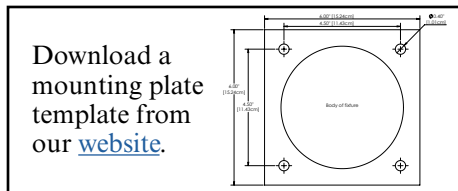
#### Common Replacement Parts

- 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 ..... 80-033090
  - 6.....Clear Prism Dome ..... 80-016080
  - 7.....Prism Clamp Teflon Gasket ..... 27-492CG
  - 8.....O-Ring..... 27-9396K175
  - 9.....HL-590L Prism Clamp ..... 16-590-PC
  - 10.....FAA LED Driver & Board ..... HL-XL9KIT-AC\*
  - ALT ..FAA LED Driver & Board DC..... HL-XL9KIT-DC\*
  - ALT ..FAA 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  | Voltage  |
|----------------|--|--|
| <b>HL-590L</b> | <b>G:</b> Green (std) <sup>1</sup><br><b>B:</b> Blue<br><b>R:</b> Red<br><b>W:</b> White<br><b>Y:</b> Yellow<br><b>IR:</b> Infrared <sup>2</sup> | <b>AC:</b> 100-240VAC<br><b>DC:</b> 10-30VDC<br><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.

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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 4.5W 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 150/5390-2C Heliport Design Guide
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#### **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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