



# POINT ROLLOVER LIGHTS PRL LED HELIDECK SEMIFLUSH LIGHT

Compliances: ETL Listed to UL 1598 & UL 1598A Marine Vessels USA  
 CSA C22.2 No.250.0-04 Canada  
 FAA AC 150/5390-2B Heliport Design Guide  
 ICAO Annex 14, Volume II  
 UK CAA CAP 437, Chapter 4, paragraph 3.1  
 IMO 2009 MODU Code (2010) paragraph 13.5.20  
 American Bureau of Shipping (ABS) Type Approved Product



The PRL LED Point Rollover Light is a 12-inch diameter semiflush light used for metal helidecks on the TLOF and/or the FATO perimeter. The PRL may be dropped into a hole cut in the metal deck and secured with six screws on a 10-¼ inch bolt circle. The PRL provides better visibility and circling guidance than comparable lights with metal covers and incandescent lamps. The thick soda lime glass dome lens will withstand high rollover loads. The lens and optical assembly are sealed mechanically. Note: Minimum opening in the helideck is 150mm diameter for non-PLB light; for -PLB, use minimum 207mm per side square opening or minimum 222mm diameter round opening.

| Point Type* | Voltage   | Array     | Color     | Mounting & Options        |
|-------------|-----------|-----------|-----------|---------------------------|
| PRL-97702   | 1: 120v   | P: note 1 | G: Green  | VB: Variable Brightness   |
|             | 2: 220v   | H: note 2 | Y: Yellow | 34: ¾-in Threaded Entry   |
|             | 3: 12v DC | F: note 3 | C: White  | M25: M25x1.5 Metric Entry |
|             | 4: 24v DC |           | R: Red    | CL: Cable Loop & Gland    |
|             |           |           | B: Blue   | PLB: Base w/ 1-in Entries |

Operating range: +55 deg C (+130 deg F) to -55 deg C (-67 deg F)

\* For 11-¼ inch bolt circle FAA L-868 bases, order as 97802

\*\* For use with visible (non-IR) arrays P or H; adds IR LEDs. Option -NC2 is IR or visible mode switchable.

Note 1: Array P is good for general use fixed brightness (no dimming) at approximately PHC brightness step 2.

Note 2: Array H exceeds ICAO Annex 14, Vol II and is suggested for use with the dimmable PHC controller (add option -VB).

Note 3: Array F is for offshore CAP 437 compliance.

**PRL-97702-2F-G-PLB-MT**  
FOR OFFSHORE METAL HELIDECKS



**PRL-97702-2F-Y-VB-CL**  
WITH EXPOSED CABLE LOOP



**PRL-97702-2F-G-MT**  
WITH MARINE TREATMENT OPTION  
& BOTTOM ¾ INCH NPT ENTRY

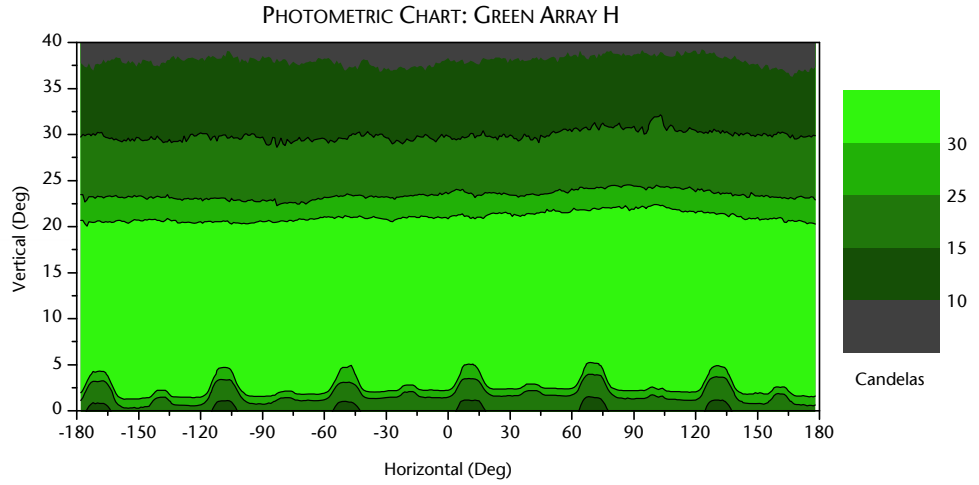


Option -MT is recommended for all marine, high salt content air and other corrosive environments.

*The fixture shall be treated for marine conditions by cleaning per US MIL method III of TT-C-490, chromate priming per US MIL-C-5541, epoxy powder base coat and glossy polyester powdercoat finish coat in color RAL 6003 (FED-STD-595 color #14097) green. Oven cured per US MIL-PRF-24712A.*

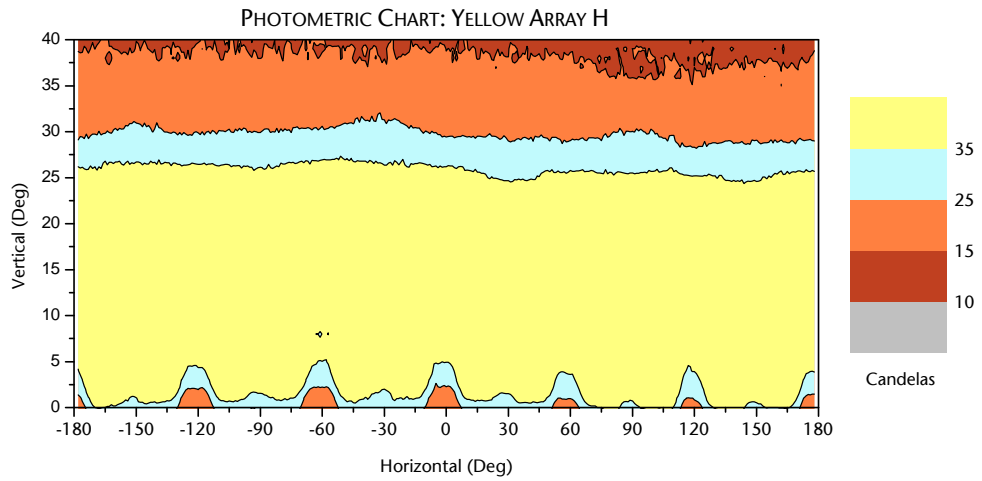


LED Array H in Green:  
Average Peak Beam  
50 cd at 12-deg V



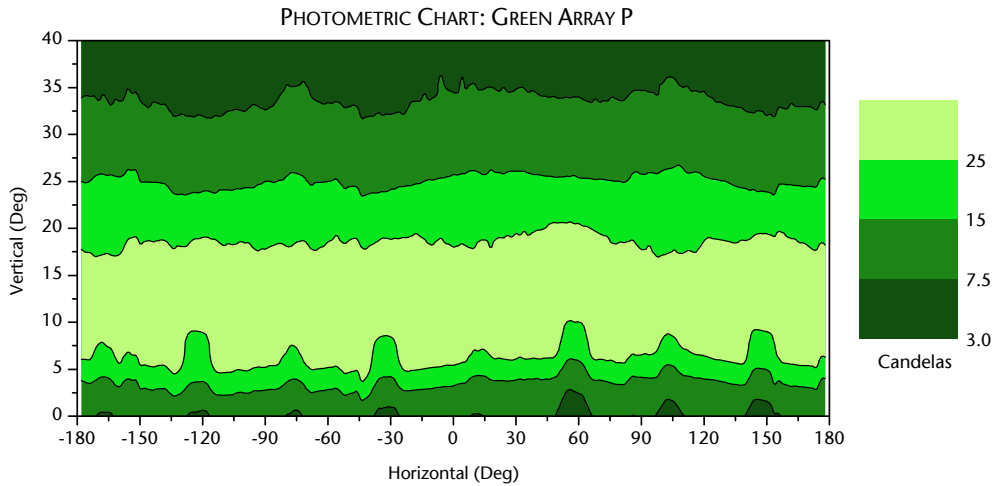
ICAO Annex 14  
Volume II, Chapter 5:  
Minimum 25 cd  
at 10 & 20 deg V

LED Array H in Yellow:  
Average Peak Beam  
60 cd at 15-deg V



The lights are dimmable  
by installing:  
POINT LIGHTING CORP  
PHC-61002  
Heliport Controller

LED Array P in Green:  
Average Peak Beam  
30 cd at 12-deg V



## PRL LED SPECIFICATIONS

The PRL LED (specify: color), (specify: voltage) 50/60 Hz semiflush light shall operate properly within an input voltage supply range of +/- 20% for 120V units (93V to 144V) and for 220V units (176V to 250V). Within the preceding ranges, the output to the LED board shall be a controlled, stabilized constant current. The light shall be affixed to the metal helideck with six (6) stainless steel screws (by others) evenly spaced centered on a 10-¼ inch bolt circle.

The heliport inset lights shall be listed and labeled *Suitable for Use in Wet Locations* to UL1598A Marine Vessels, UL1598 2nd Edition Luminaries; CSA C22.2 No. 250.0-04, 2nd Edition and CSA C22.2 No. 94-M91 Special Purpose Enclosures. Sealed to conform to IP66 ingress protection.

The inset light shall be cast aluminum and assembled with all stainless steel hardware. All exterior stainless steel hardware shall be recessed so as not to protrude above the fixture surface. The lens and lamp housing (optical assembly) shall be sealed mechanically without the use of chemical sealants. The fixture shall be capable of being serviced without removing the fixture ring from its mounting. The inset light shall be prewired with three conductors (line, neutral, ground). Entry to the light housing shall be by means of a watertight cable compression fitting. The manufacturer shall include silicone filled wire connectors for use by the installer for watertight connections.

The LED lighting circuits shall be remotely dimmable by means of a heliport controller designed and produced by the lighting manufacturer. Option -VB: For use with the PHC-61002 or PHC-61003 adjustable brightness heliport controller, this option is required. The PHC Heliport Lighting Controller shall incorporate an IEC approved surge suppressor and current limiting circuit breakers on each load output.

The photometric performance shall exceed 25 candelas over a range defined by ICAO Annex 14, Volume II, Figure 5-9. The LED light shall have a tested and verified power consumption not to exceed (see chart next page).

The light casting shall be powdercoat painted aviation yellow\* for corrosion resistance certified by the manufacturer to comply with the US Military Standard Salt Fog Test conducted per MIL-STD-810E, Method 509.3, Procedure I. All hardware shall be stainless steel. The colored outer glass lens shall be smooth and rounded to reduce the adhesion of dirt, ice and snow. The glass color shall be matched to the LED wavelength to maximize light transmissivity.

The unit shall be warranted to withstand an ambient temperature range of +130 deg F (+55 deg C) to -67 deg F (-55 deg C).

\* Option -MT: The fixture shall be treated for marine conditions by cleaning per US MIL method III of TT-C-490, chromate priming per US MIL-C-5541, epoxy powder base coat and glossy polyester powdercoat finish coat in color RAL 6003 (FED-STD-595 color #14097) dark green. Oven cured per US MIL-PRF-24712A.

The color emitting LEDs shall meet the chromaticity requirements of US MIL-C-25050. The high output LED's shall not exceed six (6) in number and shall be the latest technology providing uniform light output over the range three (3) to twenty (20) degrees vertical and in 360 degrees horizontal. The LED average life shall exceed 100,000 hours. The LEDs shall be soldered in a factory set position to insure consistent light output. Wire mounted raised LEDs that can be bent out of position shall be unacceptable and cause for rejection. The LED board shall be treated with a protective dielectric conformal coating for protection from moisture and corrosion.

The power supply board shall include short circuit and open circuit protection and the unit shall be protected from line surges by metal oxide varistors (MOVs). There shall be a clear design element for the dissipation of LED heat to insure the LEDs do not fail prematurely.

Note: The standard PRL-97702 without -PLB option requires a minimum opening in the helideck of 5.9-inches (150mm) diameter either square per side or round diameter.

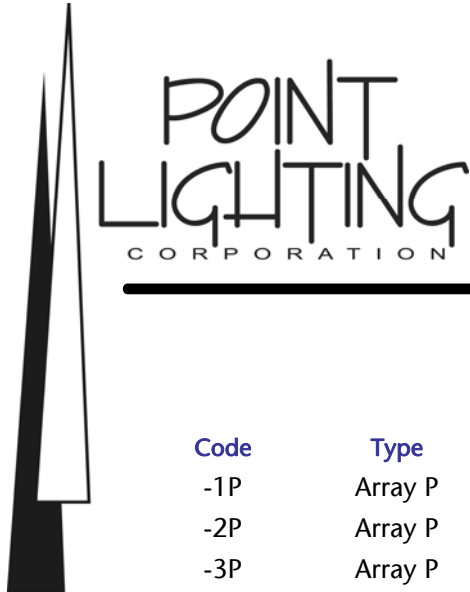
Option -CL: The fixture shall be supplied with a watertight cable gland and a 1.5 meter jacketed SO cable.

Option -PLB: The PLB aluminum mounting base shall have two (2) 1-inch NPT conduit hubs located at 0 & 180 degrees near the bottom of the 10-inch (254mm) deep base. Requires a minimum 8.125-inch (207mm) per side square opening or minimum 8.75-inch (222mm) diameter round opening.

The LED aviation inset light shall be POINTSPEC Series PRL-97702 manufactured by Point Lighting Corporation.

*"LED signals can be expected to provide an additional margin of conspicuity over incandescent light sources with the same luminous intensity."*

--- Transport Canada 2003 Study TP14043E



# POINT ROLLOVER LIGHTS PRL LED HELIDECK SEMIFLUSH LIGHT

## POWER CONSUMPTION

| Code | Type    | Voltage | Frequency | Watts* | mA  | VA*  |
|------|---------|---------|-----------|--------|-----|------|
| -1P  | Array P | 120 AC  | 50/60 Hz  | 5.7    | 58  | 7.0  |
| -2P  | Array P | 220 AC  | 50/60 Hz  | 5.6    | 33  | 7.2  |
| -3P  | Array P | 12 DC   | ---       | 5.6    | 470 | ---  |
| -4P  | Array P | 24 DC   | ---       | 5.5    | 230 | ---  |
| -1H  | Array H | 120 AC  | 50/60 Hz  | 7.7    | 80  | 9.6  |
| -2H  | Array H | 220 AC  | 50/60 Hz  | 7.6    | 43  | 9.5  |
| -3H  | Array H | 12 DC   | ---       | 8.4    | 700 | ---  |
| -4H  | Array H | 24 DC   | ---       | 8.3    | 340 | ---  |
| -1F  | Array F | 120 AC  | 50/60 Hz  | 9.7    | 91  | 10.8 |
| -2F  | Array F | 220 AC  | 50/60 Hz  | 9.7    | 49  | 10.8 |
| -3F  | Array F | 12 DC   | ---       | 13.0   | 960 | 13.0 |
| -4F  | Array F | 24 DC   | ---       | 13.0   | 540 | 13.0 |

\*Power consumption for AC units includes the effect of the unit's power factor which accounts for the difference between watts and volt-amperes. Measurements were made at the nominal AC voltages. The operating range for 120v units is 93 - 144v. The operating range for 220v units is 176 - 250v.

## RECOMMENDED TOOLS

Point Lighting Corporation recommends return for factory repair and refurbishment of LED PRL lights. In the event of field service, the PL10839 preset torque wrench kit use with the instruction manual is recommended to assure proper resealing of the fixture.



**PL10860**  
Tool, T-handle Wrench

For the three socket head screws fixing the PRL fixture to the PLB mounting base.

**PL10839**  
Tool, Preset Torque Wrench Kit

For the socket head screws fixing the PRL lens clamp ring and for fixing the power supply subassembly.

Consult the factory and the manual before attempting field repair.



# POINT ROLLOVER LIGHTS PRL LED HELIDECK SEMIFLUSH LIGHT

PRL LED LIGHTS ARE INSTALLED ON HELIDECKS  
AROUND THE WORLD



Instruction Sheet: IS97702  
 LED Life (hours): 100,000  
 Projection: 1.63 (41)  
 (above deck)  
 Base Diameter: 8.0 (203)  
 PLB Depth: 10.0 (254)  
 PLS Depth: 4.0 (102)  
 Weight: 17.0 lbs 7.7 kg  
 Volume: 0.37 ft<sup>3</sup> .013 m<sup>3</sup>

### Replacement Parts

|              |                                   |
|--------------|-----------------------------------|
| PL10523-G    | Lens, Green                       |
| PL10523-Y    | Lens, Yellow                      |
| PL10630-H-6G | LED Array H, Green                |
| PL10630-F-8G | LED Array F, Green                |
| PL10630-P-8Y | LED Array F, Yellow               |
| PL10530      | Gasket, Lens Upper                |
| PL10531      | Gasket, Lens Lower                |
| PL10532      | Gasket, Lamp Housing              |
| PL10049-4    | Gasket, Base                      |
| PL10524-118  | Screw, Socket Head                |
| PL10839      | Tool, preset torque<br>wrench kit |
| PL10860      | Tool, T-handle wrench             |



## POINT LIGHTING CORPORATION

Mail: P.O. Box 686, Simsbury, CT 06070  
 Tel 01 860.243.0600  
 email: Info@PointLighting.com

Plant: West Dudley Town Rd, Bloomfield, CT  
 USA  
 Fax 01 860.243.0665  
 website: www.PointLighting.com