



POINT HELIDECK LIGHTS PRL LED v4 HELIDECK SEMIFLUSH LIGHT

Compliances: ETL Listed to UL 1598A Marine Vessels at -40 deg C to +55 deg C, IP66 & IP67
 ETL Listed to CSA C22.2 No. 137-M1981 & No. 250.0-08 Canada
 ETL Listed to UL 1598 at -40 deg C to +55 deg C
 IMO 2009 MODU Code (2010) paragraph 13.5.20
 FAA AC 150/5390-2B Heliport Design Guide
 Registered ISO 9001:2008
 ICAO Annex 14, Volume II
 UK CAA CAP 437 ed. 8 (2016), Chapter 4 & Appendix C
 Transport Canada TP14371, AGA 7.17
 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 thick glass dome lens passed the impact test per IEC 60079-0:2007. 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-97704	1: 120v 2: 220v 3: 12v DC 4: 24v DC	H: Helideck C: CAP 437 N: NVG *	G: Green Y: Yellow W: White R: Red B: Blue IR: Infrared NVG	VB: Variable Brightness PLS: PLS Base w/ 1-in Entries PLB: PLB Base w/ 1-in Entries MT: Marine Treatment M2x: Metric Thread (M20 or M25) NC: NVG compatibility** CL: Cable Loop & Gland

Note: Array H brightness exceeds ICAO Annex 14
 * For NVG tactical use only: PRL-97704-1N-IR-LSM-MT
 ** For use with visible (non-IR) array; adds IR LEDs.
 Note: For 11-¼ inch bolt circle FAA L-868 bases, order as 97804

The PRL v4 H array is 4.5 watts at 120-220V
 The PRL v4 C array is 7.4 watts at 120-220V

PRL-97704-2C-G-PLB-MT
FOR OFFSHORE METAL HELIDECKS

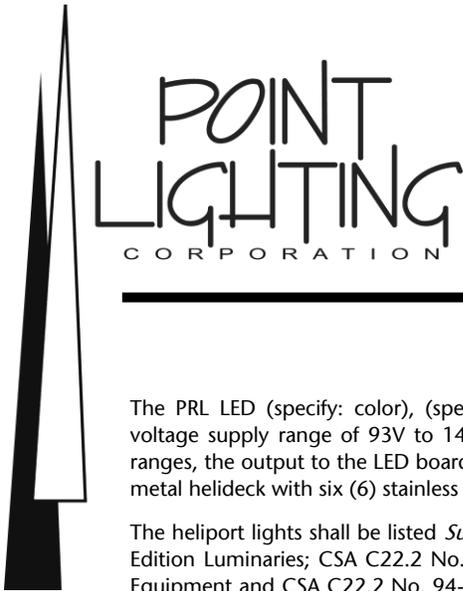


PRL-97704-2C-G-MT
WITH MARINE TREATMENT OPTION
& BOTTOM ¾ INCH NPT ENTRY



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 Department of Defense TT-C-490 method III, pretreated with chrome-free aluminum conversion coating per US MIL-C-5541 type II, epoxy powder base coat primer and glossy polyester powder coat finish in color RAL 6003 (FED-STD-595 color #14097) dark green. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.





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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 93V to 144V for 120V units and for 176V to 250V for 220V units. 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 lights shall be listed *Suitable for Use in Wet Locations* to UL1598A Marine Vessels (for AC), UL1598 2nd Edition Luminaries; CSA C22.2 No. 250.0-08, 2nd Edition; UL50 11th Edition Standard for Enclosures for Electrical Equipment and CSA C22.2 No. 94-M91 Special Purpose Enclosures for use at -40 deg C to +55 deg C and sealed to IP66 and IP67 ingress protection.

The light shall be compliant and tested to UK CAA CAP 437 ed. 8, Chapter 4 and Appendix C including IP66 & IP67.

The light shall be cast aluminum and assembled with all external hardware grade 316 (A4) stainless steel. The lens and lamp housing (optical assembly) shall be sealed mechanically without the use of chemical sealants. Entry to the light housing shall be by means of conduit or watertight cable compression fitting(s). The manufacturer shall include silicone-filled wire nut 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 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-810F, Method 509.4, Procedure I, paragraph 4.5.2. All hardware shall be stainless steel. The outer glass lens shall be smooth and rounded to reduce the adhesion of dirt, ice and snow. The glass shall be clear 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 Department of Defense TT-C-490 method III, pretreated with chrome-free aluminum conversion coating per US MIL-C-5541 type II, epoxy powder base coat primer and glossy polyester powder coat finish in color RAL 6003 (FED-STD-595 color #14097) dark green. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.

The color emitting LEDs shall meet the chromaticity requirements of US MIL-C-25050. The high output LED's shall be the latest technology providing uniform light output. 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.

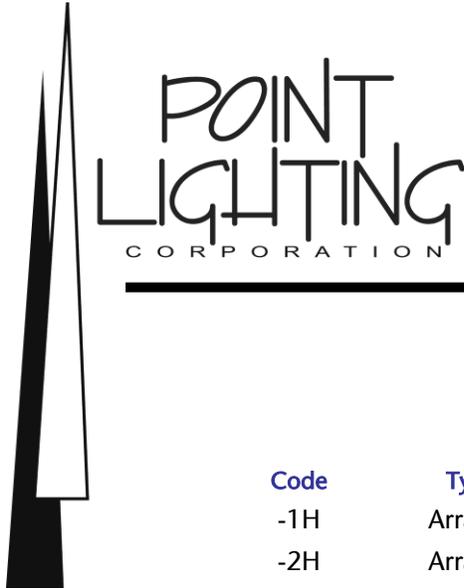
The power supply board shall include short circuit and open circuit protection and the unit shall be protected from line surges by metal oxide varistors (MOVs). There shall be a clear design element for the dissipation of LED heat to insure the LEDs do not fail prematurely. Note: It is strongly recommended that the circuit also be directly protected by a Point Lighting Corporation surge suppression device such as in a PHC, SPU or PRC unit.

Note: The standard PRL-97704 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-97704 manufactured by Point Lighting Corporation.



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POWER CONSUMPTION

Code	Type	Voltage	Frequency	Watts*	VA*
-1H	Array H	120 AC	50/60 Hz	4.5	5.24
-2H	Array H	220 AC	50/60 Hz	4.5	5.47
-3H	Array H	12 DC	---	4.0	---
-4H	Array H	24 DC	---	4.0	---
-1C	Array C	120 AC	50/60 Hz	7.4	8.4
-2C	Array C	220 AC	50/60 Hz	7.4	8.0
-3C	Array C	12 DC	---	6.2	---
-4C	Array C	24 DC	---	6.0	---

Option -NC Add 1.0 watt and 1.1 VA

*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.

Point Lighting Corporation recommends return for factory repair and refurbishment of LED PRL lights

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.



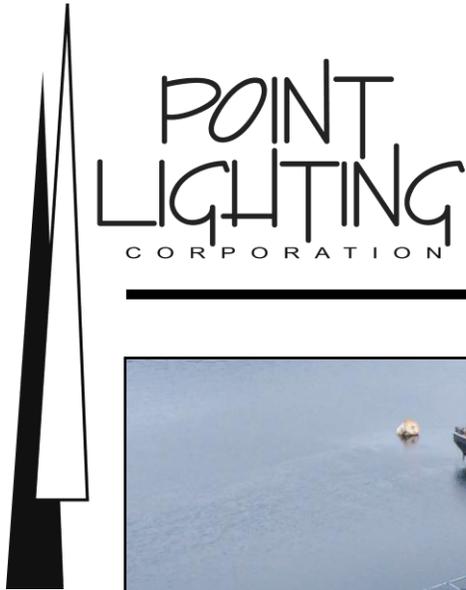
PL10860
Tool, T-handle Wrench

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.



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Night Vision Goggles (NVG)

Point Lighting Corporation offers options for combining infrared and color LEDs to render our lights visible with and without NVG. Select option -NC.

Instruction Sheet: IS97704
 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 ft³ .013 m³

Replacement Parts

PL10523-C Lens, Clear*
 PL10901-G-C LED Array C, Green
 PL10901-G-H LED Array H, Green
 PL10926-G-C LED Array C, Green with -NC
 PL10926-G-H LED Array H, Green with -NC
 PL10530 Gasket, Lens Upper
 PL10531 Gasket, Lens Lower
 PL10532 Gasket, Lamp Housing
 PL10049-4-6 Gasket, Base
 PL10524-125 Screw, Socket Head
 PL10839 Tool, preset torque wrench kit
 PL10860 Tool, T-handle wrench

* All PRL v4 lights use a clear outer lens.



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