



POINT ROLLOVER LIGHTS

PRL-EX LED v4

CLASS I, DIVISION 2 & ZONE 2

Compliances: ETL Listed Class I, Division 2, Groups A B C D, T6 at -40 deg C to +55 deg C
 ETL Listed Class I, Zone 2, Groups IIA, IIB+H2, IIC at -40 deg C to +55 deg C
 ETL Listed to UL 844 & UL 1598
 ETL Listed to UL 1598A Marine Vessels at -40 deg C to +55 deg C
 ETL Listed to CSA C22.2 No. 137-M1981 & No. 250.0-04 Canada
 Tested & Certified to IP66, IP67 & IP69 Ingress Protection
 FAA AC 150/5390-2B Heliport Design Guide
 Registered ISO 9001:2015
 ICAO Annex 14, Volume II
 UK CAA CAP 437 ed. 8 (2016), Chapter 4 & Appendix C
 IMO 2009 MODU Code (2010) paragraph 13.5.20
 American Bureau of Shipping (ABS) Type Approved Product



The PRL LED EX Point Rollover Light is a 12-inch diameter semiflush light used for metal helidecks on the TLOF and/or the FATO perimeter used for Class I, Division 2 helideck TLOF and FATO applications. The PRL may be installed 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. 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	EX	Mounting & Options
PRL-97704	1: 120v 2: 220v 3: 12v DC 4: 24v DC	C: Helideck	G: Green Y: Yellow W: White B: Blue R: Red	EX: Class I Div 2 Zone 2	VB: Variable Brightness PLB: Base & Ground Lug PLS: Shallow Base & Lug M25: Metric M25 M20: Metric M20 NC: NVG compatibility** CL: Cable Loop 3m

Note: Array C brightness exceeds ICAO Annex 14 & meets CAP 437
 ** For use with visible (non-IR) array; adds IR LEDs.

PRL-97704-1C-G-EX-PLB
 FOR OFFSHORE METAL HELIDECKS



PRL-97704-2C-G-EX-CL
 BOTTOM CABLE LOOP NOT SHOWN



Intertek Control Number:
 3030033

All external hardware is grade 316 (A4) stainless steel.
 Metal castings are copper-free (< 0.25%) heat treated aluminum.



PRL EX LED SPECIFICATIONS

The PRL-EX (specify: color), (specify: voltage) 50/60 Hz surface mounted LED 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 lights shall be listed and labeled for use in hazardous locations: Class I, Division 2, Groups A, B, C, D & T6 and Class I, Zone 2, Groups IIA, IIB+H, IIC with a temperature rating of T6 per UL844 & CSA C22.2 No. 137-M1981.

The helideck 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 copper-free, heat treated 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 cable gland(s) (by others). 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 exceed (see chart next page).

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 manufacturer shall certify compliance with the US Military Standard Salt Fog Test conducted per MIL-STD-810F, Method 509.4, Procedure I, paragraph 4.5.2. .

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).

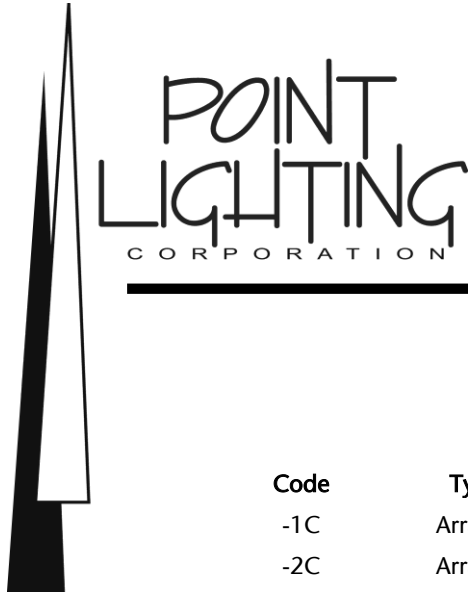
The color emitting LEDs shall meet the chromaticity requirements of US MIL-C-25050. The high output LED's be the latest technology providing uniform light output in 360 degrees horizontal. The LED average life shall exceed 100,000 hours. The LEDs shall be soldered in a factory set position to insure 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-97704-EX without the -PLB option requires a minimum opening in the helideck of 5.9-inches (150mm) diameter either square per side or round diameter. The PL10049-5 flat gasket may be ordered separately.

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





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POWER CONSUMPTION

Code	Type	Voltage	Frequency	Watts*	VA*
-1C	Array C	120 AC	50/60 Hz	2.2	3.5
-2C	Array C	220 AC	50/60 Hz	2.5	5.8
-3C	Array C	12 DC	---	2.1	---
-4C	Array C	24 DC	---	2.5	---

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.

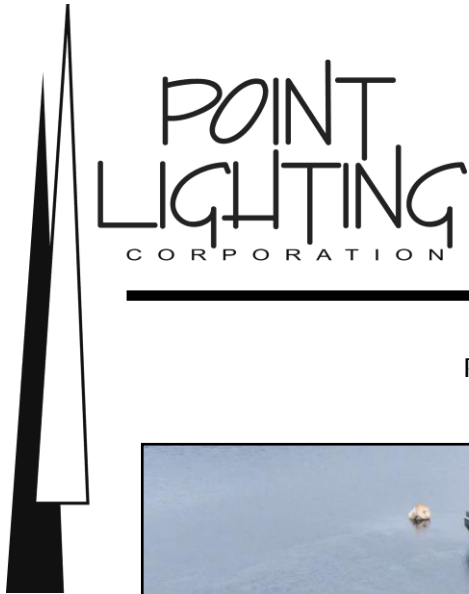
RECOMMENDED TOOLS

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.



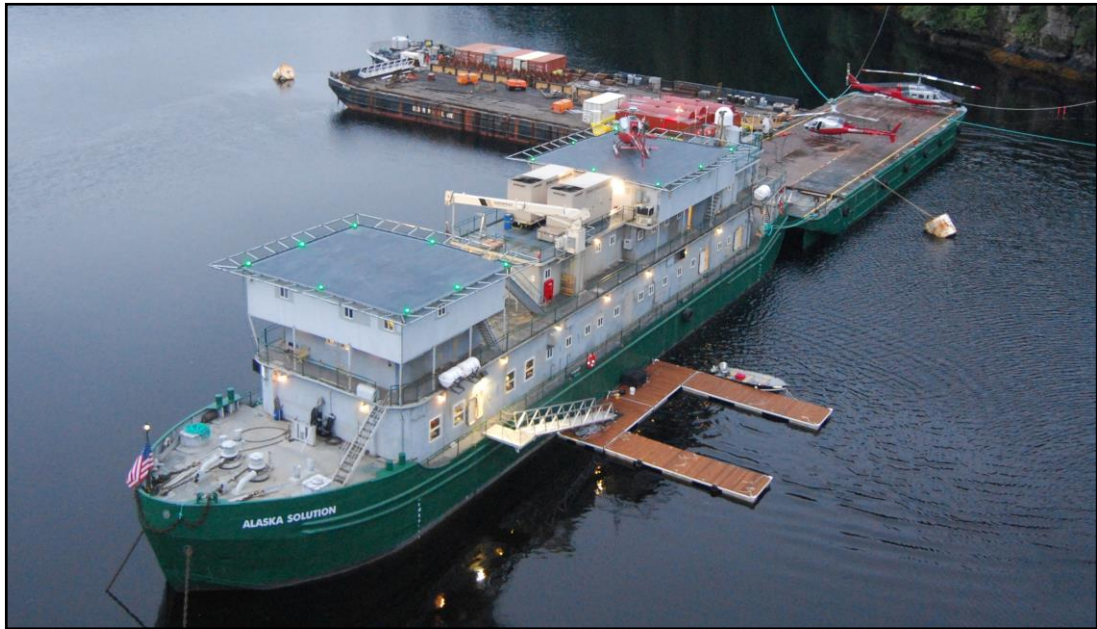
PL10860
Tool, T-handle Wrench
For the three socket head screws fixing the PRL optical subassembly to the LSM mounting base.

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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PRL LED LIGHTS ARE INSTALLED ON HELIDECKS
AROUND THE WORLD



Instruction Sheet: IS97704-EX

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

PL10523G-C	Lens, Clear*
PL10901-G-C	LED Array C, Green
PL10926-G-C	LED Array C, 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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