



# POINT ROLLOVER LIGHTS PRL EX LED HELIDECK SEMIFLUSH LIGHT

Compliances: ETL Listed Class I, Division 2, Groups A B C D, T6  
 ETL Listed Class I, Zone 2, Groups IIA, IIB+H2, IIC  
 ETL Listed per UL 844, UL 1598 & UL 1598A Marine Vessels  
 ETL Listed per CSA C22.2 No. 137-M1981 & 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 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 dropped into a hole cut in the metal deck and secured with six screws on a 10-1/4 inch bolt circle. The PRL provides excellent visibility and circling guidance. The thick soda lime glass dome lens will withstand high rollover loads. The lens and optical assembly are sealed mechanically. Standard with 2 x 1-inch NPT at entries 0 & 180-degrees. 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-97702	1: 120v 2: 220v 3: 12v DC 4: 24v DC	P: note 1 H: note 2 F: note 3	G: Green Y: Yellow C: White R: Red B: Blue	EX: Class I Div 2	VB: Variable Brightness PLB: Base & Ground Lug PLS: Shallow Base & Lug M20: M20 Entries M25: M25 Entries

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

PRL-97702-2F-G-EX-PLB  
FOR OFFSHORE METAL HELIDECKS



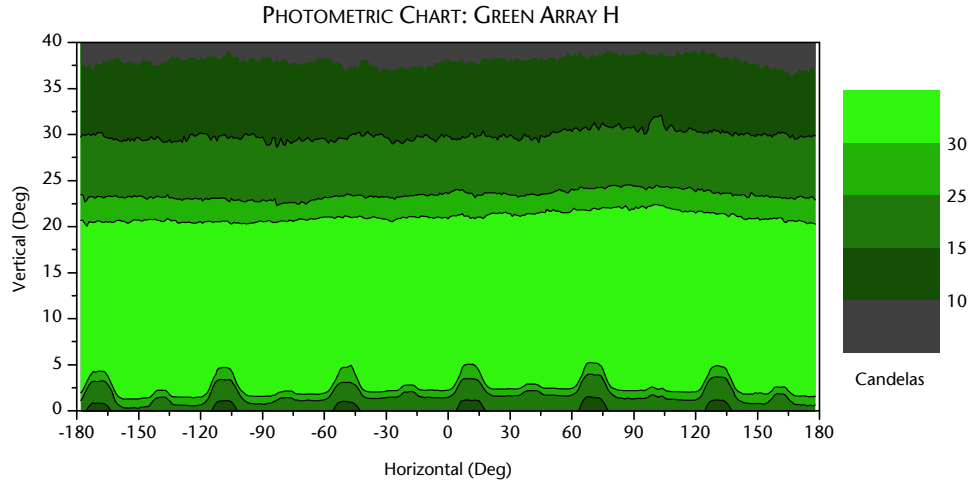
Intertek Control Number: 3030033

PRL-97702-2F-G-EX  
BOTTOM 3/4 INCH NPT ENTRY



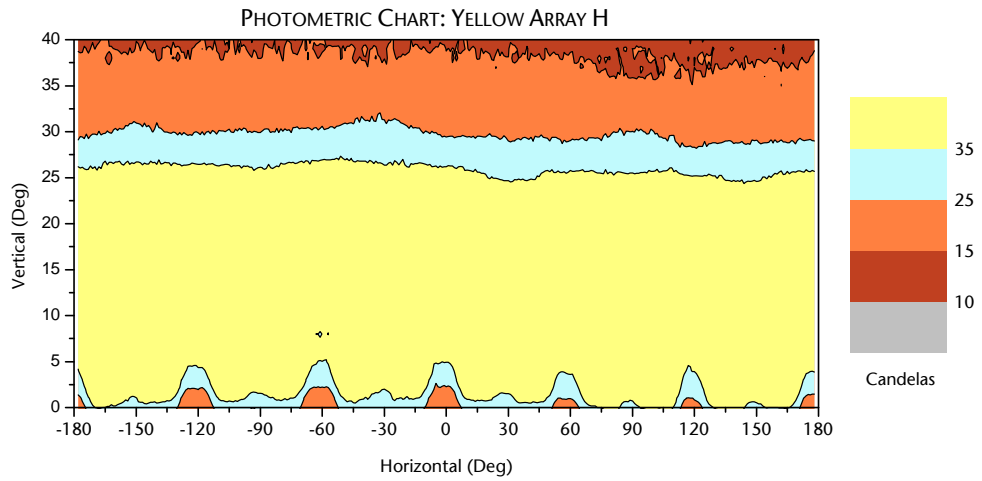


LED Array H in Green:  
Average Peak Beam  
50 cd at 12-deg V



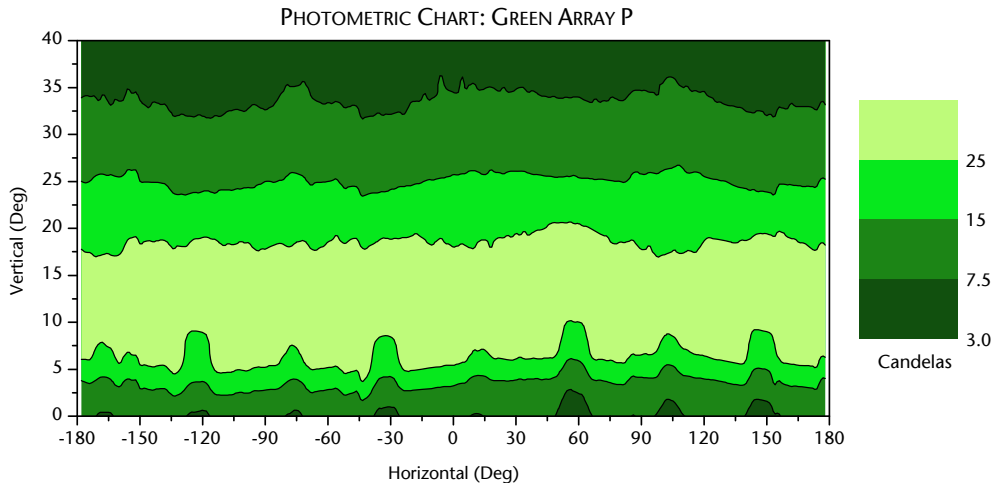
ICAO Annex 14  
Volume II, Chapter 5:  
Minimum 25 cd  
at 10 & 20 deg V

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



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## PRL EX 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 lights shall be listed and labeled for use in hazardous locations: Class I, Division 2, Groups A, B, C, D & T6 and Class 1, Zone 2, Groups IIA, IIB+H, IIC with a temperature rating of T6 per UL844 & CSA C22.2 No. 137-M1981.

The heliport inset lights shall be listed and labeled *Suitable for Use in Wet Locations* per UL1598 & UL1598A Marine Vessels 2nd Edition Luminaries; CSA C22.2 No. 250.0-04, 2nd Edition; UL50 11th Edition Standard for Enclosures for Electrical Equipment and CSA C22.2 No. 94-M91 Special Purpose Enclosures. Sealed 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:

5.7-watts & 7.0 VA at 120v AC (Array P)  
7.7-watts & 9.6 VA at 120v AC (Array H)  
9.7-watts & 10.8 VA at 120v AC (Array F)

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 manufacturer shall certify compliance 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 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.

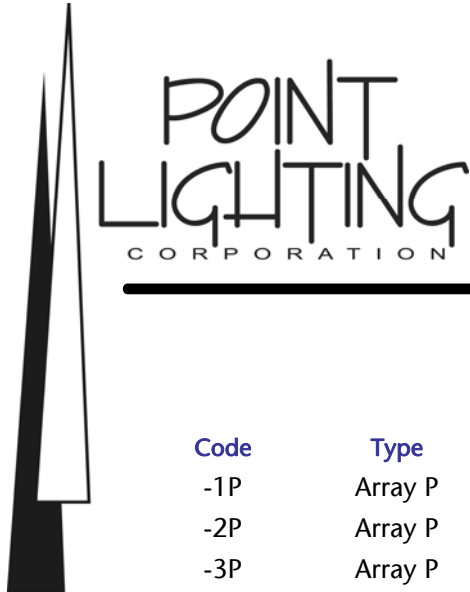
Note: The standard PRL-97702 without -PLB option requires a minimum opening in the helideck of 5.9-inches (150mm) diameter either square per side or round diameter. The PL10049-5 flat gasket may be ordered separately.

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.

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 EX 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 EX LED HELIDECK SEMIFLUSH LIGHT

PRL LED LIGHTS ARE INSTALLED ON HELIDECKS  
AROUND THE WORLD



Instruction Sheet: IS97702-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 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  
 wrench kit  
 PL10860 Tool, T-handle wrench



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