



POINT ROLLOVER LIGHTS PRL LED HELIPORT INSET LIGHT

Compliances: ETL Listed to UL 1598 US & CSA C22.2 No.250.0-04 Canada
 ETL Listed to UL 1598A Marine Vessels
 FAA AC 150/5390-2B Heliport Design Guide
 ICAO Annex 14, Volume II
 US Army Aviation Lighting Manual TM 5-811-5, Figure 5-3
 UK CAA CAP 437, Chapter 4, paragraph 3.1
 Transport Canada TP14371, AGA 7.17

The PRL LED Point Rollover Light is used for heliport TLOF and FATO applications where an inset light is required. The PRL LED may be serviced without removing the fixture from its mounting base. The PRL is only 8-inches in diameter yet 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.

See file 0MOUNTINGS for more mounting options. See photometric data on page 2 and specifications on page 3.

Point Type	— Voltage	Array	— Color	— Mounting & Options
PRL-97002	1: 120v 2: 220v 3: 12v DC 4: 24v DC	P: note 1 H: note 2 F: note 3 N: NVG *	G: Green Y: Yellow C: White R: Red B: Blue IR: Infrared*	VB: Variable Brightness PLB: Base & Gasket PLS: Shallow Base & Gasket TRH: Tamper Resistant Hardware DH: Drain Hole in Base GR: Ground Lug in Base MT: Marine Treatment NC: NVG compatibility**



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 & is suggested to use with variable brightness PHC controller.
 Note 3: Array F is for UK CAA CAP 437 compliance.

* For NVG tactical use only: PRL-97002-1N-IR-MT-PLB

** For use with visible (non-IR) arrays P or H; adds IR LEDs; not dimmable.

PRL-97002-1H-G-PLS-VB-GR
WITH PLS BASE, GASKET & GROUND LUG

Important:

LEDs produce monochromatic light of one wavelength. The conspicuity (perceived intensity) of LEDs is considered to be higher than incandescent light of the same candela output. It is recommended that Array H be used with a variable brightness PHC heliport controller to accommodate varying site conditions and local preferences.

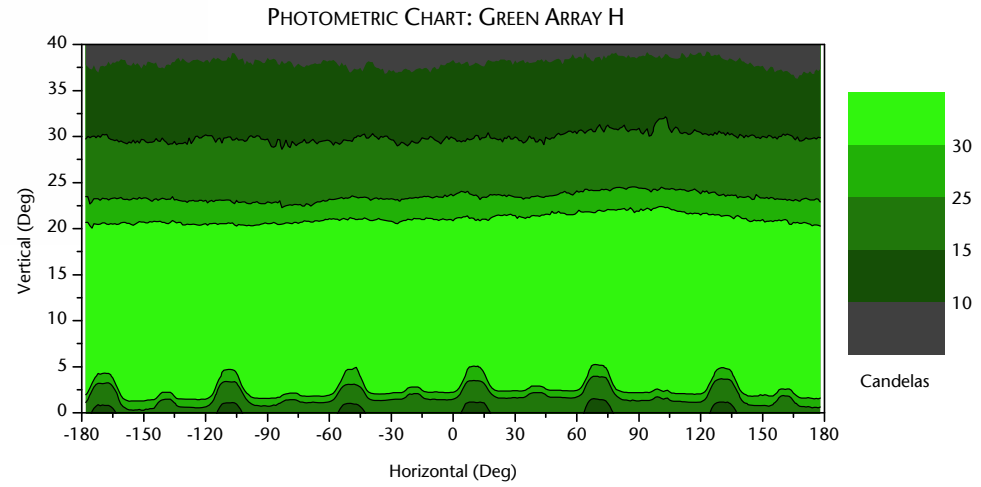
For mounting options & plan details, see file 0MOUNTINGS

Intertek ETL SEMKO Control Number:
3030033



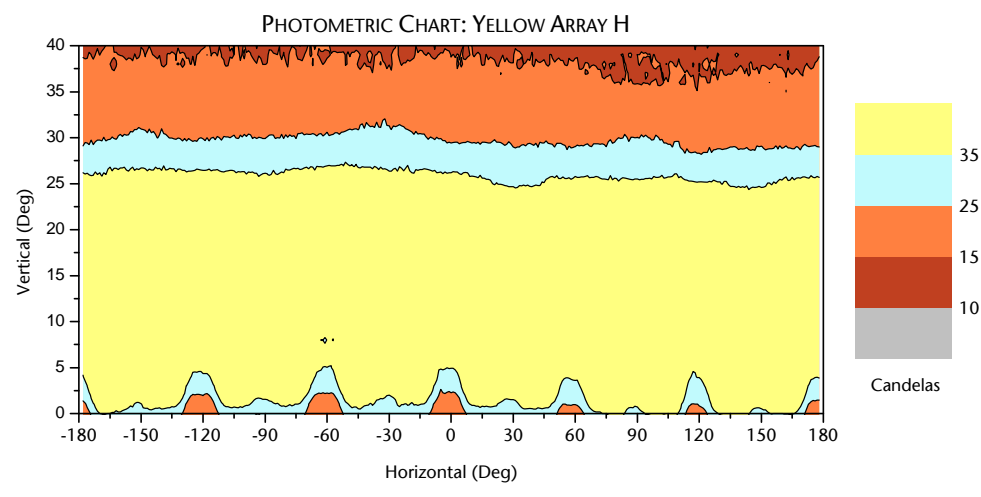


LED Array H in Green:
Average Peak Beam
50 cd at 12-deg V



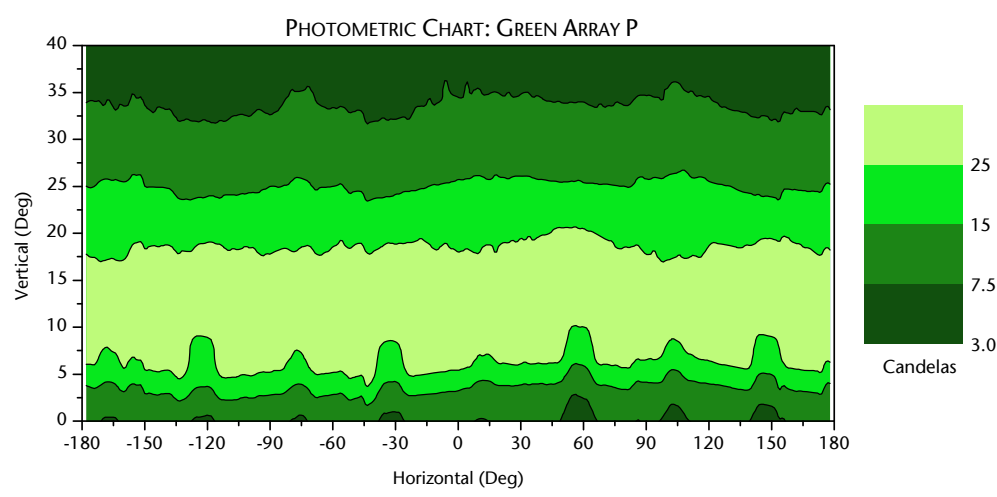
ICAO Annex 14
Volume II, Chapter 5:
Minimum 25 cd
at 10 & 20 deg V

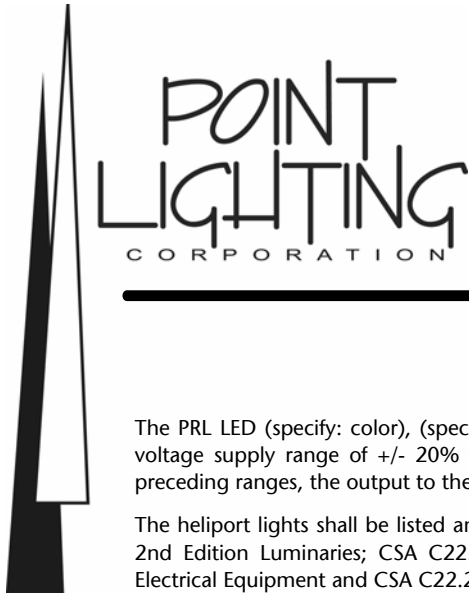
LED Array H in Yellow:
Average Peak Beam
60 cd at 15-deg V



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





POINT ROLLOVER LIGHTS PRL LED HELIPORT INSET LIGHT

PRL LED SPECIFICATIONS

The PRL LED (specify: color), (specify: voltage) 50/60 Hz aviation inset 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 heliport 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; 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 highest point of the lens shall not exceed 0.75-inch (19-mm) above finished grade. 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 base. Flexible epoxy sealant may be used to moisture seal the fixture and pavement interface and will not have to be disturbed for service. 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 installer use 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:

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

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.

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: It is strongly recommended that the circuit also be directly protected by a Point Lighting Corporation surge suppression device such as a PHC, SPU or PRC unit.

The cast aluminum mounting base shall be PLB-40300 (option -PLB) with two (2) 1-inch NPT hubs located at 0 & 180 degrees near the bottom of the 10-inch deep base. The PRL shall be secured by three (3) socket head stainless steel screws supplied by the manufacturer. There shall be a disposable plywood cover to set the base at the proper depth to recess the light. PL10701-X spacer rings may be required to adjust the height of the light to match grade.

The LED heliport inset light shall be POINTSPEC Series PRL-97002 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 HELIPORT INSET LIGHT



Instruction Sheet: IS97002

LED Life (hours): 100,000

Volts	Watts (P)	Watts (H)
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120	5.7	7.7
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220	5.6	7.6
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12	5.6	8.4
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24	5.5	8.2
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Projection: 0.7 (18)

Base Diameter: 8.0 (203)

PLB Depth: 10.0 (254)

PLS Depth: 4.0 (102)

Weight: 12 lbs 5.5 kg

Volume: 0.37 ft .013 m

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-4G	LED Array P, Green
PL10630-P-4Y	LED Array P, Yellow
PL10530	Gasket, Lens Upper
PL10531	Gasket, Lens Lower
PL10532	Gasket, Lamp Housing
PL10049-4	Gasket, Base
PL10524-118	Screw, Socket Head
PL10701-X	Spacer Ring x/8-inch
PL10655	Tool, option -TRH
PL10839	Tool, preset torque wrench for optical subassembly

MADE IN USA



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