




POINT HELIDECK LIGHTS PRL-AX-LSM LED ATEX ZONE 1 & 2

Compliances:  II 2 G Ex e mb IIC T5 Gb
 Notified Body: 0518 Sira Testing & Certification Ltd.
 UK CAA CAP 437
 American Bureau of Shipping (ABS) Type Approved Product
 IMO 2009 MODU Code (2010) paragraph 13.5.20
 Transport Canada TP14371, AGA 7.17
 FAA AC 150/5390-2B Heliport Design Guide
 ICAO Annex 14, Volume II

The PRL-AX-LSM is an 8-inch diameter surface mounted light *less than 6-inches high* used for metal helidecks or existing pavement heliports on the FATO perimeter. Standard with our marine treatment finish and internal & external ground lugs.

Suitable for use for all gas groups in Zone 1 and Zone 2 areas.

See file 0MOUNTINGS detail H14

Standard with 2 x 1-inch NPT at entries 0 & 180-degrees

Point Type	— Voltage	Array	— Color	— AX	— Mounting	— Options
PRL-97002	1: 120v 2: 220v 3: 12v DC 4: 24v DC	P: note 1 H: note 2 F: note 3 N: IR only	G: Green Y: Yellow C: White B: Blue R: Red IR: Infrared NVG	AX: Zone 1 Zone 2	LSM: Low Surface Mount	M20: Metric M20 M25: Metric M25 NC: Night Vision NVG Compatibility*

* For use with visible arrays P or H; adds IR LEDs

Note 1: Array P, 30 cds peak, is for general use at hospitals and similar commercial sites

Note 2: Array H, 50 cds peak, exceeds ICAO Annex 14, Vol II for use at sites needing enhanced brightness.

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

Certificate Number: SIRA 10ATEX5240X

T-ambient: -55 deg C to +40 deg C

Frequency: 50/60 Hz

Ingress Rating: IP 66

The Marine Treatment finish is used for all marine, high salt content air and other corrosive environments.

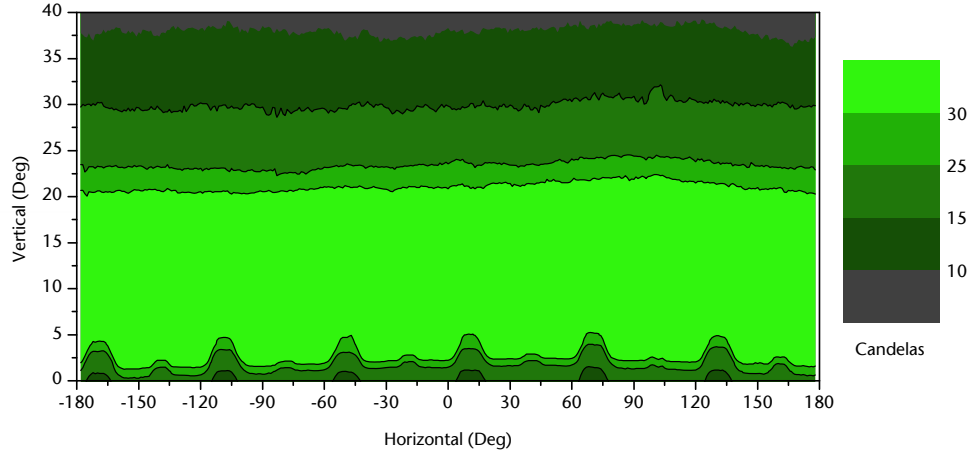
The fixture shall be treated for marine conditions by cleaning per US MIL method III of TT-C-490, chromate priming per US MIL-C-5541, epoxy powder base coat and glossy polyester powdercoat finish coat in color RAL 6003 (FED-STD-595 color #14097) green. Oven cured per US MIL-PRF-24712A.

PRL-97002-2F-G-AX-LSM





PHOTOMETRIC CHART: GREEN ARRAY H

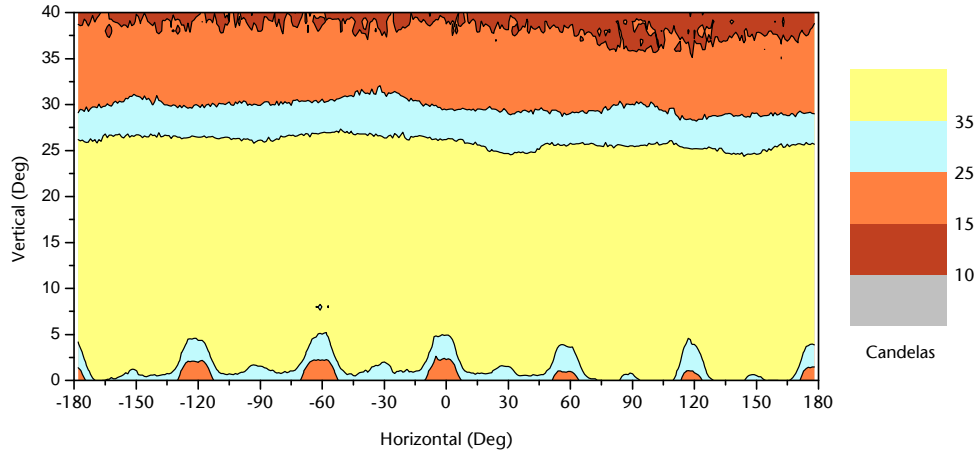


LED Array H in Green:
Average Peak Beam
50 cd at 12-deg V

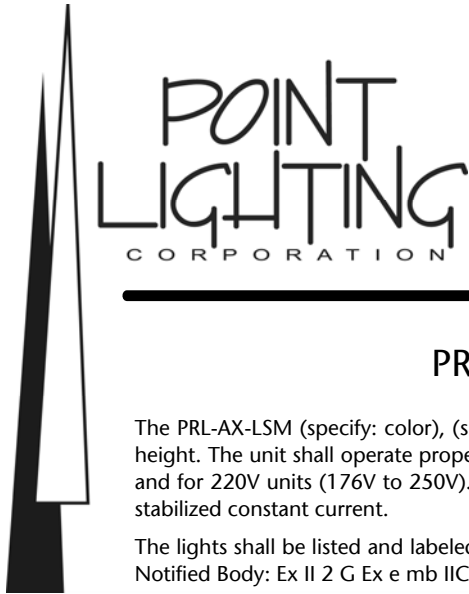
ICAO Annex 14
Volume II, Chapter 5:
Minimum 25 cd
at 10 & 20 deg V

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

PHOTOMETRIC CHART: YELLOW ARRAY H



PHOTOMETRIC CHART: GREEN ARRAY P



POINT HELIDECK LIGHTS PRL-AX-LSM LED ATEX ZONE 1

PRL-AX-LSM LED SPECIFICATIONS

The PRL-AX-LSM (specify: color), (specify: voltage) 50/60 Hz surface mounted LED light shall not exceed 150mm in height. The unit 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 lights shall be listed and labeled for use in Zone 1 hazardous locations under the ATEX Directive by a recognized Notified Body: Ex II 2 G Ex e mb IIC T5 and sealed to IP66 ingress protection.

The light shall be cast aluminum and assembled with all stainless steel hardware. The optical subassembly shall be sealed permanently to prevent tampering. Entry to the light housing shall be by means of conduit or cable gland(s) (by others).

The photometric performance shall exceed 25 candelas over a range defined by ICAO Annex 14, Volume II, Figure 5-9 and comply with CAP 437 (array F). 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 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 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 color emitting LEDs shall meet the chromaticity requirements of US MIL-C-25050. The high output LED's shall not exceed eight (8) in. 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 certified devices including resettable fuses. There shall be a clear design element for the dissipation of LED heat to insure the LEDs do not fail prematurely.

PRL shall be secured to the LSM mounting base by three (3) socket head stainless steel screws supplied by the manufacturer. A ground lug is included as standard.

The LED helideck light shall be POINTSPEC Series PRL-97002-AX-LSM manufactured by Point Lighting Corporation.

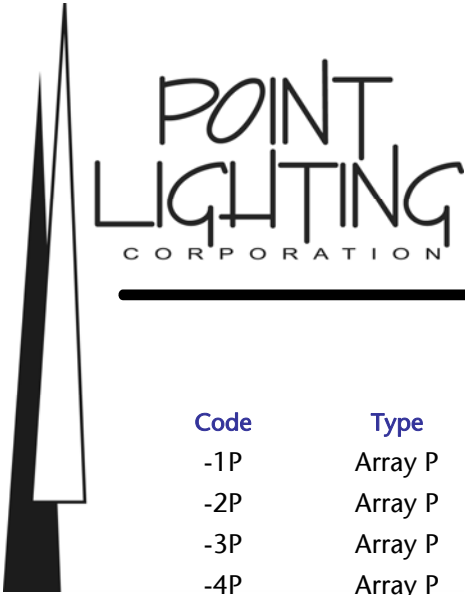
Myth: All LED's have a useful life of 100,000 hours

The amount of useable light—about 70% of original light output—from some LED's has been shown to be very short depending on the color and manufacturer of the LED. That is why the quality of the LED array and power supply is very important and they should be of the latest technology as used by Point Lighting Corporation.

Myth: LED's do not create heat

LED's do create heat, but the heat generated is retained within the LED array and needs to be dissipated. Without a proper design, the LED will fail very early in life. The PRL LED array design incorporates an aluminum heat sink to dissipate the heat. Some competitors' lights—by design—cannot handle the heat.

*"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 HELIDECK LIGHTS PRL-AX-LSM LED ATEX ZONE 1

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.

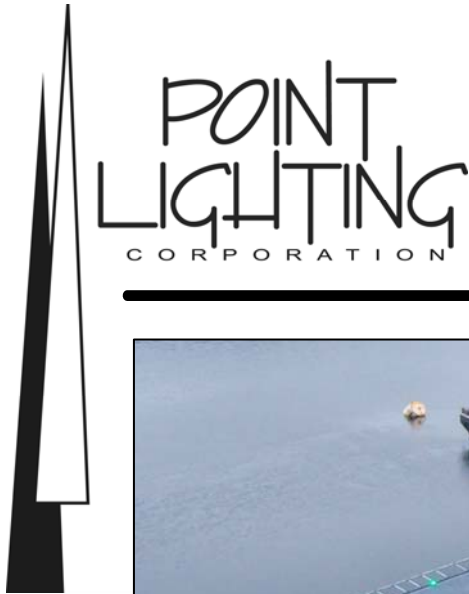
RECOMMENDED TOOLS

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



PL10860
Tool, T-handle Wrench

For the three socket head screws fixing the PRL optical subassembly to the LSM mounting base.



POINT HELIDECK LIGHTS PRL-AX-LSM LED ATEX ZONE 1



Night Vision Goggles (NVG)

Point Lighting Corporation offers several options for combining infrared and color LEDs to render our lights visible with and without NVG. Please contact us with your specific application requirements.

Instruction Sheet: IS97002-AX-LSM

LED Life (hours): 100,000

Housing Dia: 8.0 (203)

Height: 5.75 (146)

Bolt Circle (4): 9.75 (248)

Bolt Hole diam: 0.406-inch
10.3 mm

Weight: 12.0 lbs 5.5 kg

Replacement Parts

The optical subassembly is not serviceable in the field. Contact Point Lighting for more information.

PL10049-4-AX Gasket ATEX, Base

PL10524-118 Screw, Socket Head

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