



POINT ELEVATED LIGHTS PEL LED v5 HELIPORT PERIMETER & LEAD-IN LIGHT

Compliances: 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. 250.0-08 Canada
 ETL Listed to UL 1598 at -40 deg C to +55 deg C
 FAA AC 150/5390-2B Heliport Design Guide
 ICAO Annex 14, Volume II
 Registered ISO 9001:2015
 UK CAA CAP 437, Chapter 4, paragraph 3.1
 American Bureau of Shipping (ABS) Type Approved Product



The PEL AC or DC voltage powered elevated LED lights mark the FATO perimeter of a heliport and mark the preferred direction of helicopter approach. The FAA and ICAO recommended color is green. The fixture consists of an outer glass lens mounted on a yellow marine treated cast aluminum housing secured by a gasket and permanently sealed. The PEL's upper assembly mounts on a pipe extension into the die-cast aluminum FAA certified breakable coupling. The electronic power supply is sealed to be watertight in the fixture head assembly. Almost any mounting requirement can be accommodated by POINT LIGHTING CORPORATION. See file 0MOUNTINGS for mounting details

Point Type	Voltage	Array	Color	Height	Mounting & Options
PEL-57005 	1: 120v	C: Heliport	G: Green	14: 14 inches	VB: Variable Brightness
	2: 220v	N: NVG *	Y: Yellow	24: 24 inches	PLS: Base & Gasket
	3: 12v DC	H: ICAO	W: White	30: 30 inches	DH: Drain Hole in Base
	4: 24v DC	FATO	R: Red	~ : 10.8 inch	GR: Ground Lug in Base
	6: 277v		B: Blue		MT: Green Marine Treatment
			GR: Green-Red		NC: NVG compatibility**
		IR: Infrared		TW: Taxiway - Reduced Intensity (blue)	

The PEL v5 C array is 2.2 watts at 120V

Note: Array C brightness exceeds ICAO Annex 14 & meets CAP 437

* For NVG tactical use only: PEL-57005-1N-IR-14-PLS-MT

** For use with visible (non-IR) array; adds IR LEDs.

~ (blank): see Detail H35



PEL-57005 WITH GREEN MARINE TREATMENT OPTION -MT



Includes our standard yellow Marine Treatment finish at no additional charge which tolerates marine, high salt content air and other corrosive environments. The FAA specified finish used by competitors flakes and fails in a short time under such conditions.

Point Lighting Marine Treatment: *Our paint finish is bonded to the metal and far exceeds the corrosion resistance of the standard FAA approved finish. 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. Powder coating per US Department of Defense MIL-PRF-24712A type VI and oven cured.*

Visibility Range as Tested:

Visible Color > 8 nautical miles
 Option -NC^ > 3 nautical miles

^ For Night Vision Goggles (NVG)

PEL-57005-1C-G-14

Shown with PL40301 Baseplate
 INCLUDES STANDARD YELLOW MARINE TREATMENT



CLEAR LENS BUT GREEN LIGHT PRODUCED
 COLOR CODED LED BOARD

PEL LED SPECIFICATIONS

The PEL LED (specify: color), (specify: voltage) 50/60 Hz aviation elevated light shall operate properly within an input voltage supply range of 93V to 144V for nominal 120V units and 176V to 250V for nominal 220V units. Within the preceding ranges, the output to the LED array shall be a controlled, stabilized constant current.

The heliport lights shall be listed *Suitable for Use in Wet Locations* to UL1598A Marine Vessels, 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 ingress protection.

The LED lighting circuits shall be remotely dimmable by means of a heliport controller designed and produced by the lighting manufacturer. Option -VB variable brightness requires installing the PHC-66002 heliport controller. 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 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:

2.2-watts and 3.5 VA at 120v AC (Array C)
2.5-watts and 5.8 VA at 220v AC (Array C)

The unit shall have passed the US Military Standard tests: the constant high temperature test to +130 deg F (+55 deg C) and the constant low temperature test to -67 deg F (-55 deg C) conducted in accordance with US MILSTD-810F, Method 501.3, Procedure II; the wind-blown rain test that has been conducted in accordance with US MIL-STD-810F, Method 506.3, Procedure I; and the humidity test shall be in accordance with US MIL-STD-810F, Method 507.3, Procedure I. The complete test regime shall exceed the requirements of NEMA 4X and IP 66. The light head casting shall be Marine Treatment aviation yellow for corrosion resistance certified by the manufacturer to comply with the US Military Standard Salt Fog Test conducted 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 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. DC light fixtures shall be reverse polarity protected.

The aluminum mounting base shall be PLS-40304 (option -PLS) with two (2) 1-inch NPT hubs located at 0 & 180 degrees on the sides of the 4-inch deep base. The base shall have an option for 4-way hubs in place of the standard two hubs. The PL40301 baseplate shall be powdercoat painted to match the light fixture. The baseplate shall be affixed to the base by three (3) stainless steel screws.

The LED aviation elevated light shall be POINTSPEC Series PEL-57005 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 PEL LED array design incorporates an aluminum heat sink to dissipate the heat. Some competitors' lights—by design—cannot handle the heat.

POINT LIGHTING

POINT ELEVATED LIGHTS PEL LED v5 HELIPORT PERIMETER & LEAD-IN LIGHT



Instruction Sheet: IS57005

LED Life (hours): 100,000

Height: 14.0 (355)

Base Diameter: 8.0 (203)

PLS Depth: 4.0 (102)

Weight: 4.0 lbs 1.8 kg

Volume: 0.5 ft³ .014 m³

Replacement Parts & Tools

Note: The PEL optical subassembly is permanently sealed to prevent moisture penetration and it is not serviceable.

PL10038	Pipe Extension
PL10040	Breakable Coupling
PL40301	Baseplate
PL10049-4	Gasket, Baseplate
PL10192-75	Circular Bubble Level



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