

## 120V MEDIUM BASE LED LAMP



**GENERAL CONSTRUCTION:** Lamp shall consist of a 4-tiered array of 48 individual LEDs in an optically clear elastomer medium. In the event of failure of one or more individual LEDs, remaining LEDs shall continue to operate. Entire assembly shall be neatly potted into a molded Rynite FR350 stem fitted with a standard medium screw Edison base. Lamp head shall be filled with an optically clear silicon gel.

**POWER REQUIREMENT**: Lamp shall be designed for 120V operation and shall consume approximately 2.8W for red or 4.2W for green.

<u>LIGHT OUTPUT</u>: Overall luminosity of the LED array shall be 55 lumens for red and 91 lumens for green arrays. The light output exceeds U.S. Coast Guard specifications.

**COLOR**: Lamp color shall match the color of the fixture lens for maximum light output. Red LEDs shall have a wavelength of approximately 660nm. Green LEDs shall have a wavelength of approximately 525nm.

**LENS**: Lamp array shall be enclosed in a clear UV polycarbonate lens.

**SURGE PROTECTION:** The array shall incorporate a built-in surge protection device with a clamping voltage of 380VAC @ 2 amps to protect the array from normal voltage surges. Surge protection device shall be capable of absorbing multiple surges without loss of protection.

<u>LAMP LIFE AND MAINTENANCE</u>: Individual LEDs shall have a MTBF rating of 100,000 hours. Scheduled lamp replacement is recommended at 10 year intervals if operated using a photocell or 5 year intervals if operated 24 hours per day.

BASE: Lamp base shall be standard medium base, enabling the lamp to be installed in any medium base, 120V socket.

<u>UPGRADE APPLICATIONS:</u> Lamp may be used for upgrading fixtures that previously used incandescent A19 medium base lamps. Lamp color must match the light fixture's lens color when used to replace incandescent lamps.

<u>RECEPTACLE and MOUNTING (for Navigational Light Mounting)</u>: Medium base receptacles supplied for navigational light fixtures shall be rated for 250V, 660W and shall be porcelain with a nickel-plated brass shell to resist lamp freezing. Lamp mounting shall center the array on the focal plane of the lens. Receptacles shall be mounted on a bracket, which shall be isolated from the navigation light fixture with rubber grommets to minimize shock and vibration. Mounting bracket shall position the center of the lamp at the focal plane of the fixture lens for optimal light transmission.

<u>COAST GUARD COMPLIANCE</u> (for Navigational Light Use): When used in any standard B&B Roadway navigation light fixture and as recommended by the manufacturer, this lamp shall meet or exceed Coast Guard Title 33 CFR 118.60 for brightness in both the single and dual lamp configurations. B&B Roadway navigation light fixtures equipped with this lamp shall meet the USCG chromaticity standards for navigation lights found in Coast Guard Title 33 CFR Part 84—Annex I. Independent laboratory testing reports shall be provided on request to confirm compliance with all applicable Coast Guard standards and requirements.

PART NUMBERS: Part numbers shall be PLP-LEDBL120R/S and PLP-LEDBL120G/S.

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