

**LUMINAIRE, 100W HPS, 240 VOLT**  
**POST TOP CONTEMPORARY STYLE**

I. Quantity

The base bid shall include the indicated number of 100 watt High Pressure Sodium post top luminaires furnished and installed as hereinafter specified.

II. Material

a. Luminaire

The post mounted luminaire shall consist of a die-cast aluminum housing, pressed one piece prismatic refractor and spun aluminum removable hood/reflector assembly.

The die-cast housing shall slip fit onto a 3" O.D. tenon and be secured by four stainless steel, set screws. The housing shall contain the ballast and socket, suitable for vertically mounted 100 watt H.P.S. lamp.

Each luminaire shall be furnished with an internally mounted 240 volt ballast. The ballast shall be a high power factor, regulator type. The ballast must provide a maximum of 14% wattage variation measured along the left side of the lamp trapezoid to a normal lamp when nominal input voltage varies within a range of + 10%.

The starting circuit must provide a minimum starting pulse repetition rate of one pulse per cycle (symmetrical). The spike position must occur within a minimum of + 20 degrees of the center of the open-circuit voltage waveform. The pulse peak voltage should be a maximum of 3000 volts. Pulses must be provided in the same polarity as the open circuit voltage.

The starting circuit and ballast must be capable of starting and maintaining lamp burning in ambient temperatures as low as -20 degrees Fahrenheit. Ballast, starting circuit, and lamp socket shall be pre-wired and ready for installation; all of which shall be readily accessible for maintenance purposes. Each luminaire starting circuit and ballast shall be factory tested and matched to assure proper component tolerances and pulse parameters.

The optical section of the luminaire shall be completely sealed and gasketed at the top and bottom of the single piece glass refractor. When equipped with 100 watt lamp, the luminaire shall provide an IES/ANSI type III light distribution.

3/96  
MIS-70

The removable hood/reflector assembly shall be secured with a stainless steel hinge for matching mounting to base hinge.

The luminaire shall have an approximate weight of 45 lbs. and a projected area of 1.3 square feet and shall be furnished with an oven cured paint.

The luminaire shall be an approved equal in appearance, quality and design to American Electric #246-86613-OD-OE, painted black.

- b. Lamps - The High Pressure Sodium lamps to be furnished with the luminaire shall be 100 watt, with a rated life of 24,000 hours equal in quality, design and performance to North American Phillips or Sylvania LU100.

III. Installation

The post top luminaire shall be installed on the poles shown on the drawings and indicated in the field by the engineer. Orientation and leveling of the units shall be so as to provide for uniform appearance, maximum lighting efficiency and ease of maintenance, as directed by the engineer.

IV. Information Required

Bidders shall also furnish complete performance data on the luminaire equipped with the lamp they propose to furnish. The data submitted shall contain at least the following information:

THE FOLLOWING INFORMATION SHALL BE SUBMITTED TO THE DIVISION OF ELECTRICITY UPON REQUEST

- Isocandle Curves from Photometric Test
- Utilization Curves
- Isolux Lines of Horizontal Foot-candles from a single unit
- Total Wattage of Fixture
- Volt-Watt Traces
- Lamp Trapezoid Traces
- Drawings showing magnitude, shape, position and duration of starting pulse
- Value of Ballast Losses
- Ballast Open Circuit Voltage

V. Quotation

The complete Post Top Luminaire with lamp shall be quoted as a unit price in the appropriate section of this document.