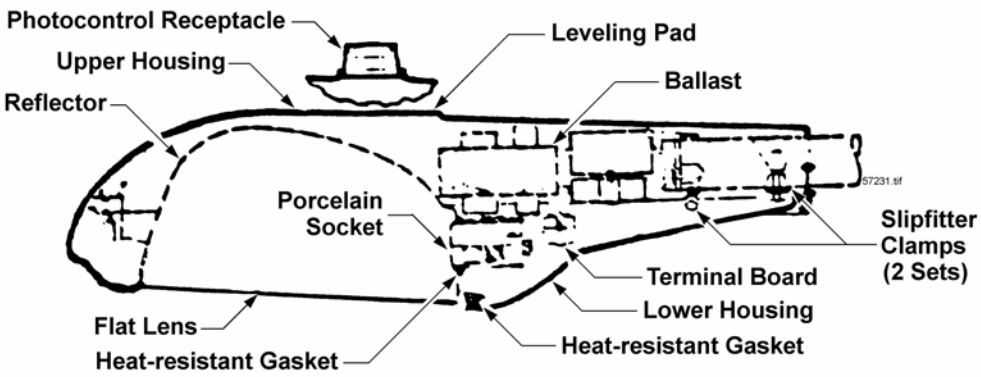
CUTOFF LUMINAIRES, HIGH-PRESSURE SODIUM VAPOR WITH INTERNAL BALLAST



1. Scope

High-pressure Sodium Vapor Luminaires shall be of the end-mounted type, utilizing lamps in the horizontal position and intended for operation on distribution voltages as specified in the purchase order.

2. Industry Standards

ANSI C136.2; Roadway Lighting Equipment - Luminaire Voltage Classification

EEI TDJ-148; Future Design of Luminaire Head to Receive External, Locking Type Unit Control (Except that the three-wire hookup referred to in TDJ-148 is not used; only the two-wire hookup is used.)

IESNA LM-31; Photometric Testing of Roadway Luminaires Using Incandescent Filament and High Intensity Discharge Lamps

IESNA Lighting Handbook, latest edition

City of Seattle Standard Specifications 9-31.1(2); Luminaires

3. Luminaires

Luminaires shall be "cobrahead" style and shall consist of a luminaire housing, lamp socket, ballast, and photoelectric cell receptacle. Luminaires shall have an ANSI-approved decal (three inches square) attached to the housing so as to be readily visible from the ground, indicating lamp type by color code (e.g., gold for "high-pressure sodium"), and lamp wattage by numerical code. Luminaire light distribution patterns shall conform to the IESNA classification system for Type III medium cutoff for less than 200 watts and Type II short cutoff for 200 watts and more. Reflectors shall be rigidly located so as not to vary light distribution after normal maintenance. Glare control shall be accomplished by use of a flat lens. Minimum streetside utilization shall be 39 percent at 1.5 transverse mounting height. Distribution shall be free from striations and hot spots. Photometric performance will be subject to testing by the Washington State Material Testing Laboratory to ensure conformance with these specifications and the photometric data submitted. A sample luminaire shall be submitted for testing when requested by the City Light Department.

STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
John Shipek	John Barnett	John Nierenberg

4. Construction

The die cast housing shall have means for leveling, leveling clamps that are factory set for two-inch diameter pipe brackets (two sets of clamps are required equipped with lock washers on all four bolts), porcelain-enclosed lamp socket, heat-resistant sealing gaskets, grounding terminals on the terminal board, and prewired twist-lock photoelectric control receptacle. The reflector shall be aluminum with specular Alzak finish. Flat glass refractor shall be made of heat-resistant borosilicate glass. The lamp socket shall be adjustable in the horizontal and vertical axis and factory set to provide IESNA-approved distribution. Protective wire sleeves shall be provided in the high-temperature areas within the luminaire. A filter shall be positioned in such a manner that it shall allow circulation of air through the optical assembly and effectively filter out external contaminants. The luminaire shall have a nameplate identifying wattage, voltage, manufacturer, and date of manufacture.

5. Ballast

The integral ballast shall be multitap (120 / 208 / 240 / 277 volt) high-power factor, regulator-type, and completely wired at 277V to the terminal board and lamp socket. Windings shall be of copper wire.

6. Packaging

The luminaire shall be packaged in accordance with the manufacturer's commercial practice to ensure safe delivery without damage. The package shall be marked with the luminaire's date of manufacture.

7. Stock Unit: EA

8. Approved Manufacturers

Stock Number	Watts	American Electric	General Electric
572408	100	115 10S CA MT7 R3 FG 4B	MSCA10S0A22FMC3C(001)
572407	150	115 15S CA MT7 R3 FG 4B	MSCA15S0A22FMC3C(001)
572800	250	125 25S CA MT7 R2 FG	MSCA25S0A22FMC2C(001)
572801	400	125 40S CA MT7 R2 FG with copper ballast winding	MSCA40S0A22FMC2C(001)