

Job:
Type:
Notes:

Featuring the MasterColor Elite Electronic HID System

Form 10 Square

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HPV Series - High Performance Vertical

The Philips Gardco square arm mounted high performance vertical products are sharp cutoff luminaires for high intensity discharge lamps up to 1000 watts. HPV units are dieformed aluminum and finished with a TGIC Polyester powdercoat. The HPV can accept one of two (2) interchangeable and rotatable precision segmented optical systems. These optical systems utilize principles of Gardco's advanced Form 10X technology applied to vertical lamp optics. The result yields the highest performance possible from a full cutoff vertical lamp system.

Flat glass lens luminaires provide full cutoff performance. Sag Lens luminaires provide cutoff performance.

| PREFIX | MOUNTING | DISTRIBUTION | WATTAGE | VOLTAGE | FINISH | OPTIONS |
|--------|----------|--------------|---------|---------|--------|---------|
| | | | | | | |

Enter the order code into the appropriate box above. Note: Philips Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

HPV23 23" High Performance
Vertical Luminaire

MOUNTING

- | | |
|--------|--------------------------|
| 1 | Single Pole Mount |
| 2 | Twin Pole Mount at 180° |
| 2@90 | Twin Pole Mount at 90° |
| 3 | 3-way Pole Mount at 90° |
| 3@120° | 3-way Pole Mount at 120° |
| 4 | 4-way Pole Mount |

DISTRIBUTION

Flat Glass Lens (Full Cutoff)

- | | |
|-------|---------------------------------|
| 5XV | Type V |
| 3/4XV | Type III / Type IV ¹ |

WATTAGE

| HPV23" | | |
|---|--------------------------------------|--------------------------------------|
| Pulse Start MH Magnetic Ballast | 400PSMH [ⓔ] | 775PSMH |
| | 450PSMH [ⓔ] | 875PSMH |
| | 750PSMH | 1000PSMH |
| MasterColor Elite Electronic System | 210MCE-4KE ² [ⓔ] | 315MCE-4KE ² [ⓔ] |
| Pulse Start MH Electronic Ballast | | |
| Standard MH Magnetic Ballast* | 400MH* | 1000MH ³ |
| High Pressure Sodium Magnetic Ballast | 400HPS | 750HPS |
| * 400MH not available for sale in the United States. | | |
| <div><div><div>E</div></div><div>Wattages marked with Circle "E" meet federal energy efficiency standards applicable to 150 watt through 500 watt metal halide luminaires only.</div></div> | | |

VOLTAGE

120
208
240
277
347
480
200-277 MCE and PSE types only.

- Luminaire is Type III but with forward throw performance more typical of a Type IV.
- 120V, 200-277V, 347V or 480V only.
- 1000W luminaires Require E-37 or BT-37 reduced jacket lamp.

PHILIPS



FINISH

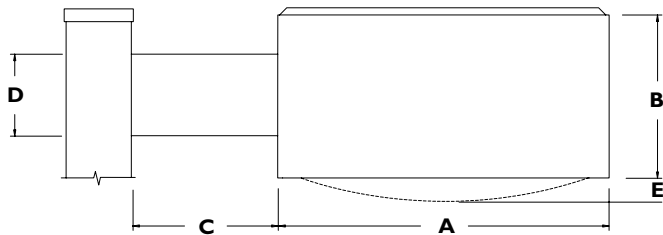
| | |
|-----------------------|--|
| BRP | Bronze Paint |
| BLP | Black Paint |
| WP⁴ | White Paint |
| NP⁴ | Natural Aluminum Paint |
| OC⁴ | Optional Color Paint Specify Optional Color or RAL ex: OC-LGP or OC-RAL7024. |
| SC⁴ | Special Paint Specify. Must supply color chip. |

OPTIONS

| | |
|-------------|--|
| LF | In-Line/In-Pole Fusing |
| EHHS | External Houseside Shield |
| PTF2 | Pole Top Fitter - 2 3/8" - 3" Dia. Tenon |
| PTF3 | Pole Top Fitter - 3" - 3 1/2" Dia. Tenon |
| PTF4 | Pole Top Fitter - 3 1/2" - 4" Dia. Tenon |
| SG | Sag Glass |

4. Contact factory for availability of White (WP), Natural Aluminum (NP), Optional (OC) and Special (SC) colors with HPV23.

DIMENSIONS AND EPA



| HPV23 | |
|----------|-------------------|
| A | 23" sq 58.42cm |
| B | 14.5" 36.83cm |
| C | 12" 30.48cm |
| D | 8" 20.32cm |
| E | 2" 5.08cm |

| HPV23 | Effective Projected Area (EPA) | | | Approximate Weight / Single |
|---------------------|--------------------------------|---------|----------|-----------------------------|
| | Single | Twin | 3/4 | |
| Sag Lens | 3.9 ft² | 7.8 ft² | 9.5 ft² | 104 lbs |
| | 0.36 m² | 0.72 m² | 0.88 m² | 47 kg |
| Flat Lens | 3.6 ft² | 7.3 ft² | 8.8 ft² | 90 lbs |
| | 0.33 m² | 0.68 m² | 0.82 m² | 41 kg |
| Flat Lens with EHHS | 4.9 ft² | 9.9 ft² | 12.5 ft² | 93 lbs |
| | 0.46 m² | 0.92 m² | 1.16 m² | 42 kg |

SPECIFICATIONS

GENERAL: Each Gardco HPV luminaire is a cutoff luminaire for high intensity discharge lamps. Internal components are totally enclosed, rain-tight, dust-tight, and corrosion resistant. No venting of the optical system or electrical components is required or permitted. Lamping requires no lifting or hinging of the luminaire housing, disturbing wiring or exposing uninsulated live parts.

HOUSING: The housing wrapper is one-piece dieformed aluminum with an integral reinforcing spline and no welded corners. Silicone seals provide a weathertight seal at all points of material transition.

ARM: Extruded aluminum arm is secured to luminaire by contractor.

LENS: A mitered, extruded anodized aluminum door frame retains the optically clear, heat and impact resistant tempered flat glass in a sealed manner using hollow section, high compliance, memory retentive extruded silicone rubber. A flat glass lens is provided on vertical lamp full cutoff luminaires. A sag glass lens is provided on vertical lamp cutoff luminaires. Stainless Steel spring hinge pins permits access to the luminaire without tools.

OPTICAL SYSTEMS: The segmented reflector system consists of highly specular aluminum facets precisely aligned to achieve specified photometric distributions. The entire optical system is field rotatable in 90° increments. Optical systems feature a field adjustable 2 position mogul base lamp socket, as indicated in the table below.

Luminaires ordered with the 5XVF and 3/4XVF optical systems ship from the factory with a standard flat glass lens and door frame. Luminaires ordered with the 5XVS and 3/4XVS optical systems ship from the factory with a standard sag glass lens and door frame.

ELECTRICAL: All electrical components are UL recognized and factory tested. Electronic and magnetic HID ballasts are high power factor and mounted on a unitized tray with quick electrical disconnects. Magnetic HID ballasts are the separate component type. Electronic and magnetic HID ballasts are capable of providing reliable lamp starting down to -20°F / -29°C.

Luminaires provided with the MasterColor Elite high performance ceramic metal halide electronic system include high power factor electronic ballasts, designed specifically for the system selected.

FINISH: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) powdercoat finish.

LABELS: All luminaires bear UL or CUL (where applicable) Wet Location labels.

WARRANTY: 5 year limited warranty. See philips.com/warranties for complete details and exclusions.

| HPV23 Socket ⁵ | Socket Position by Source | |
|--|-------------------------------------|-------------------------------------|
| | HPS | MH / PSMH |
| (a) Upper Position ⁵ | Flat Lens / Full Cutoff Performance | Flat Lens / Full Cutoff Performance |
| (b) Lower Position | Sag Lens / Cutoff Performance | Sag Lens / Cutoff Performance |
| 5. HPV23 luminaires ship from the factory with the socket mounted in the (a) Upper Position. | | |

FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle at or above 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

CUTOFF PERFORMANCE: Cutoff performance means a luminaire distribution where the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle at or above 90° above nadir, and 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

