



Philips Protected Pulse  
Start Metal Halide "O"  
Rated Lamps

*Ideal for manufacturing  
facilities, retail establishments,  
and warehouses*

Metal Halide

## Improve lumen maintenance in an "O" rated lamp

Philips Protected Pulse Start Metal Halide "O" Rated Lamps are a better alternative to the standard switch start metal halide.

**"O" rated for safe operation in open fixtures\***

**Better choice over standard switch start metal halide**

- Quicker restart/restrike time<sup>†</sup> over standard switch start metal halide
- Improved lumen maintenance over standard switch start metal halide

**Extended eyelet mogul base will operate in both standard and exclusionary sockets**

\* Relamp fixtures at or before end of rated average life.

† 2 minute start/4 minute restrike vs. 4 minute start/15 minute restrike for standard switch start metal halide lamps.

# PHILIPS

sense and simplicity

# Philips Protected Pulse Start Metal Halide "O" Rated Lamps

## Ordering, Electrical and Technical Data (Subject to change without notice)

Product Number	Ordering Code	Nom. Watts	ANSI Ballast Code	Bulb Size	Bulb Finish	MOL (In.)	LCL (In.)	Rated Avg. Life (Hrs.) <sup>1</sup>	Initial Lumens <sup>2</sup>	Mean Lumens <sup>3</sup>	CCT (K)	CRI
■ 20755-5	MP175/BU/PS	175	M152/M137/O	ED-28	Clear	8 5/8"	5"	14,000	16,000	11,200	3500	62
■ 20756-3	MP250/BU/PS	250	M153/M138/O	ED-28	Clear	8 5/8"	5"	14,000	23,000	16,100	3800	62
■ 13039-3	MP320/BU/PS	320	M154/M132/O	ED-37	Clear	11 1/2"	7"	20,000	29,500	20,650	3800	65
■ 13040-1	MP320/C/BU/PS	320	M154/M132/O	ED-37	Coated	11 1/2"	—	20,000	27,200	19,040	3700	65
■ 39101-1	MP350/BU/PS	350	M131/O	ED-37	Clear	11 1/2"	7"	20,000	34,000	23,800	4000	64
■ 39102-9	MP350/C/BU/PS	350	M131/O	ED-37	Coated	11 1/2"	—	20,000	31,000	21,700	3700	67
■ 13334-8	MP400/BU/PS	400	M155/M135/M128/O	ED-37	Clear	11 1/2"	7"	20,000	40,000	28,000	3800	65
■ 13335-5	MP400/C/BU/PS	400	M155/M135/M128/O	ED-37	Coated	11 1/2"	—	20,000	36,000	23,400	3600	68
■ 20757-1	MP750/BU/PS	750	M149/O	BT-37	Clear	11 1/2"	7"	12,000	70,000	49,000	3800	70

Bulb Temperature (Maximum)	400°C (752°F)
Base Temperature (Maximum)	210°C (410°F)
RMS Lamp Operating Current (Amps) Nominal	1.50 (175W)
	2.00 (250W)
	2.63 (320W)
	2.83 (350W)
	3.25 (400W)
	4.00 (750W)
Lamp Current Crest Factor (Maximum)	1.8

Warm-up to 90% Full Brightness	3 minutes
Re-start Time for Hot Lamps	2-4 minutes
Base	EX39 Excl. Mog.
Operating Position	Base-up ± 15°
Luminaire	Open or Enclosed
Standard Package Quantity	6 (320W, 350W, 400W, 750W)
	12 (175W, 250W)

1) Rated average life is the life obtained, on the average, from large representative groups of lamps in laboratory tests under controlled conditions at 10 or more operating hours per start. It is based on survival of at least 50% of the lamps and allows for individual lamps or groups of lamps to vary considerably from the average.

2) Approximate lumen values listed are for vertical operation of the lamp.  
3) Approximate lumen output at 40% of lamp rated average life.

ANSI Code: "O" = Open Fixture Rating.

■ Nickel plated brass base

## WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS for Protected Pulse Start Metal Halide "O" Rated Lamps, Open or Enclosed Fixtures; Base Up Operation ±15° Unless Noted

**R** "WARNING: These lamps can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available." This lamp complies with FDA radiation performance standard 21 CFR subchapter J, (USA:21CFR 1040.30 Canada:SOR/DORS/80-381)

**If the outer bulb is broken or punctured, turn off at once and replace the lamp to avoid possible injury from hazardous shortwave ultraviolet radiation. Do not scratch the outer bulb or subject it to pressure as this could cause the outer bulb to crack or shatter. A partial vacuum in the outer bulb may cause glass to fly if the envelope is struck.**

**WARNING:** The arc-tube of metal halide lamps are designed to operate under high pressure and at temperatures up to 1000°C and can unexpectedly rupture due to internal or external factors such as ballast failure or misapplication. If the arc-tube ruptures for any reason, the outer bulb may break and pieces of extremely hot glass might be discharged into the surrounding environment. If such a rupture were to happen, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

**These lamps are designed to retain all the glass particles should an arc tube rupture occur. The following operating instructions are recommended to minimize these occurrences.**

**RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE. Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.**

**CAUTION:** TO REDUCE THE RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE RESULTING FROM AN ARC-TUBE RUPTURE THE FOLLOWING **LAMP OPERATING INSTRUCTIONS** MUST BE FOLLOWED:

### LAMP OPERATING INSTRUCTIONS:

- RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE.** Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.
- Before lamp installation/replacement, shut power off and allow lamp and fixture to cool to avoid electrical shock and potential burn hazards.
- Use only auxiliary equipment meeting Philips and/or ANSI standards. Use within voltage limits recommended by ballast manufacturer.

A. Operate lamp only within specified limits of operation.

B. For total supply load refer to ballast manufacturers electrical data.

C. All Pulse Start mogul based lamps require a socket rated to withstand a 4000 volt pulse.

- Periodically inspect the outer envelope. Replace any lamps that show scratches, cracks or damage.
- If a lamp bulb support is used, be sure to insulate the support electrically to avoid possible decomposition of the bulb glass.
- Protect lamp base, socket and wiring against moisture, corrosive atmospheres and excessive heat.
- Time should be allowed for lamps to stabilize in color when turned on for the first time. This may require several hours of operation, with more than one start. Lamp color is also subject to change under conditions of excess vibration or shock, and color appearance may vary between individual lamps.
- Lamps may require 2 to 4 minutes to relight if there is a power interruption.
- Take care in handling and disposing of lamps. If an arc tube is broken, avoid skin contact with any of the contents or fragments.
- Use this lamp only in fixtures that contain a Pulse Start metal halide ballast and are specifically designed for use with Pulse Start metal halide lamps.

## ABOUT METAL HALIDE LAMP CLASSIFICATIONS

Every metal halide lamp is classified under one of the following three American National Standards Institute (ANSI) classifications:

**E-Type** are to be used in only suitably rated enclosed luminaires.

**S-Type** may be used in open luminaires, when operated in the near vertical position. This category of lamps is limited only to certain lamps in a 350 to 1000 watt range.

**O-Type** comply with ANSI Standard C78.387 for containment test and may be used in open luminaires.

For more information on "Best Practices for Metal Halide Lighting Systems," please visit [www.nema.org](http://www.nema.org) and search for document number LSD 25-2000.



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