Product Information Bulletin

# METALARC PRO-TECH®

## Open Fixture Metal Halide Lamps

- Full range of wattages from 50 through 175 watts in a medium base and from 175 through 1000 watts in a mogul base
- METALARC PRO-TECH design – glass shroud for containment and UV-reduction
- Open or enclosed fixture operation
- Universal operating position on low-wattage lamps
- Up to 20,000 hours average rated life
- Lower maintenance costs
- Lower initial luminaire cost
- Reduced luminaire dirt depreciation
- Dedicated sockets for 50 through 1000 watt lamps
- Available in clear and coated
- PAR38 version available to provide high illumination levels to accent featured displays and provide architectural highlighting

**SYLVANIA METALARC PRO-TECH lamps allow added flexibility by incorporating open fixture technology to a full complement of lamp wattages.**

The METALARC PRO-TECH metal halide lamps were created to fill the need for a safe light source for applications where a protective lens on the metal halide fixture was either impractical or detrimental to fixture design. The METALARC PRO-TECH lamp design enhances safety in open or enclosed fixtures and includes a shroud around the arc tube and, in some cases, a thicker walled outer jacket. In addition, METALARC PRO-TECH lamps have a reduction in UV output compared to standard metal halide lamps.

With the benefit of open fixtures, these high output METALARC PRO-TECH lamps are ideal for higher ceiling applications where enclosed fixtures might previously have been necessary. The use of open fixtures means more light output over life and lower maintenance costs because there are no lenses to gather dirt and dust, thus extending lamp replacement procedures.

## Product Availability

| Available Wattages | Outer Jacket | Fixture |
|---|---|---|
| 50, 70, 100, 150, 175, 250, 400, and 1000 watts | Clear and Coated | Open or Enclosed |

## Lamp Comparison

| Lamp Type | Fixture | Initial Lumens | Mean Lumens | Avg. Rated Life (hrs.) | Color Temp. |
|---|---|---|---|---|---|
| SYLVANIA/MP250/BU-ONLY | Open or Enclosed | 23,000 | 17,000 | 10,000 | 4000K |
| Standard/250 Watt MH | Enclosed Only | 22,000 | 17,000 | 10,000 | 4200K |

## Application Information

**Applications**

Ambient lighting for industrial, commercial and retail
Malls
Lobbies, atriums
Flood lighting
Security lighting
Parking lots

**Sockets**

1. To prevent relamping with standard metal halide lamps, a special socket is available with open fixtures for all lamp types.
2. Operating orientation: Consult product description and lamp catalog.

**Fixtures**

Consult your local fixture agent for available fixtures.

## Ordering and Specification Information

**METALARC PRO-TECH®**

| Item Number | Ordering Abbreviation | Watts | Finish | Bulb | Base[8] | ANSI Code | Average Rated Life (hours)[2] Vertical | HOR | Initial Lumens | Mean Lumens | Color Temp. | CRI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64587 | MP50/U/MED | 50 | Clear | E17 | Med. | M110/O | 20,000 | 10,000 | 3450 | 1900 | 3000K | 70 |
| 64588 | MP50/C/U/MED | 50 | Coated | E17 | Med. | M110/O | 20,000 | 10,000 | 3200 | 1820 | 2900K | 70 |
| 64547 | MP70/U/MED | 70 | Clear | E17 | Med. | M98/O | 15,000 | 10,000 | 5200 | 3400 | 3000K | 75 |
| 64546 | MP70/C/U/MED | 70 | Coated | E17 | Med. | M98/O | 15,000 | 10,000 | 4700 | 3100 | 2900K | 75 |
| 64625 | MPD70/U/MED/840 | 70 | Clear | E17 | E26 Med. | M98/O | 7500 | 6000 | 5500 | 4000 | 4200K | 80 |
| 64621 | MPD70/C/U/MED/840 | 70 | Coated | E17 | E26 Med. | M98/O | 7500 | 6000 | 5100 | 3800 | 4000K | 82 |
| 64417 | MP100/U/MED | 100 | Clear | E17 | Med. | M90/O | 15,000 | 10,000 | 8500 | 5525 | 3000K | 75 |
| 64418 | MP100/C/U/MED | 100 | Coated | E17 | Med. | M90/O | 15,000 | 10,000 | 7900 | 5800 | 2900K | 75 |
| 64426 | MPD100/U/MED/840 | 100 | Clear | E17 | E26 Med. | M90/O | 7500 | 6000 | 8400 | 5800 | 4200K | 82 |
| 64433 | MPD100/C/U/MED/840 | 100 | Coated | E17 | E26 Med. | M90/O | 7500 | 6000 | 7700 | 5500 | 4000K | 82 |
| 64402 | MP150/U/MED | 150 | Clear | E17 | Med. | M102/O | 15,000 | 10,000 | 12,900 | 8000 | 3000K | 75 |
| 64406 | MP150/C/U/MED | 150 | Coated | E17 | Med. | M102/O | 15,000 | 10,000 | 11,600 | 7500 | 2900K | 75 |
| 64403 | MPD150/U/MED/840 | 150 | Clear | E17 | E26 Med. | M102/O | 7500 | 6000 | 12,500 | 11,000 | 4200K | 88 |
| 64425 | MPD150/C/U/MED/840 | 150 | Coated | E17 | E26 Med. | M102/O | 7500 | 6000 | 11,500 | 9500 | 4000K | 88 |
| 64733 | MP175/MED/BU-ONLY | 175 | Clear | E17 | Med. | M57/O | 10,000 | – | 14,400 | 10,800 | 3600K | 65 |
| 64773 | MP175/BU-ONLY | 175 | Clear | BT28 | EX39[1] | M57/O | 10,000 | – | 14,400 | 10,200 | 4000K | 65 |
| 64774 | MP175/C/BU-ONLY | 175 | Coated | BT28 | EX39[1] | M57/O | 10,000 | – | 12,800 | 7800 | 3800K | 70 |
| 64404 | MP250/BU-ONLY | 250 | Clear | BT28 | EX39[1] | M58/O | 10,000 | – | 23,000 | 17,000 | 4000K | 65 |
| 64405 | MP250/C/BU-ONLY | 250 | Coated | BT28 | EX39[1] | M58/O | 10,000 | – | 20,000 | 14,350 | 3800K | 70 |
| 64705 | MP400/BU-ONLY | 400 | Clear | BT37 | EX39[1] | M59/O | 20,000 | – | 40,000 | 26,000 | 3600K | 65 |
| 64706 | MP400/C/BU-ONLY | 400 | Coated | BT37 | EX39[1] | M59/O | 20,000 | – | 38,500 | 25,000 | 3400K | 70 |
| 64717 | MP400/BD-ONLY | 400 | Clear | BT37 | EX39[1] | M59/O | 20,000 | – | 40,000 | 26,000 | 3600K | 65 |
| 64714 | MP1000/BU-ONLY | 1000 | Clear | BT56 | EX39[1] | M47/O | 15,000 | – | 109,000 | 87,500 | 3500K | 65 |
| 64716 | MP1000/C/BU-ONLY | 1000 | Coated | BT56 | EX39[1] | M47/O | 15,000 | – | 102,000 | 82,000 | 3200K | 70 |

**METALARC PRO-TECH PAR38/ECO®**

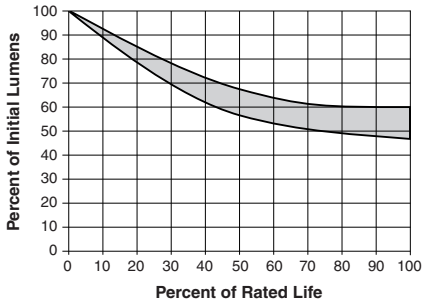
| Item Number | Ordering Abbreviation | Watts | ANSI Code | Beam Angle/ CBCP | Initial Lumens | Av. Rated Life (hrs.) | Color Temp. | CRI[5] |
|---|---|---|---|---|---|---|---|---|
| 64590 | MP70PAR38/U/SP20/ECO[6,7] | 70 | M98/0 | 20°/18,000 | 3400 | 8500 | 3200K | 75 |
| 64592 | MP70PAR38/U/FL35/ECO[6,7] | 70 | M98/0 | 35°/10,000 | 3400 | 8500 | 3200K | 75 |
| 64594 | MP70PAR38/U/VWFL65/ECO[6,7] | 70 | M98/0 | 65°/3,000 | 3400 | 8500 | 3200K | 75 |
| 64580 | MP100PAR38/U/SP20/ECO[6,7] | 100 | M90/0 | 20°/26,000 | 5800 | 8500 | 3000K | 75 |
| 64582 | MP100PAR38/U/FL35/ECO[6,7] | 100 | M90/0 | 35°/12,000 | 5800 | 8500 | 3000K | 75 |
| 64584 | MP100PAR38/U/VWFL65/ECO[6,7] | 100 | M90/0 | 65°/4,500 | 5800 | 8500 | 3000K | 75 |
| 64593 | MP150PAR38/U/SP20/ECO[6,7] | 150 | M102/0 | 20°/34,000 | 8800 | 8500 | 3200K | 75 |
| 64597 | MP150PAR38/U/FL35/ECO[6,7] | 150 | M102/0 | 35°/17,000 | 8800 | 8500 | 3200K | 75 |
| 64599 | MP150PAR38/U/VWFL65/ECO[6,7] | 150 | M102/0 | 65°/7,500 | 8800 | 8500 | 3200K | 75 |

Notes:
1. Exclusionary mogul base.
2. Average rated life based on 10 hours per start operating on an ANSI ballast.
3. All 50, 70, 100, and 150 watt lamps must be operated in a 4000V pulse rated socket.
4. TCLP claims based on OSRAM SYLVANIA's TCLP test protocol. Some states and localities have lower limits than the Federal TCLP standard and have different disposal regulations for mercury containing lamps.
5. For higher CRI, use SYLVANIA METALARC® POWERBALL® CERAMIC lamps.
6. All PAR38 lamps listed above have an E26 medium skirt base. Note this base is not compatible with exclusionary medium sockets.
7. See Beam Spread Design Guide for footcandle diagrams.
8. For lamp wattages of 360W and greater, it is recommended that lampholders with nickel-plated copper alloy center contacts (with spring) should be used rather than electrical contacts made of stainless steel.

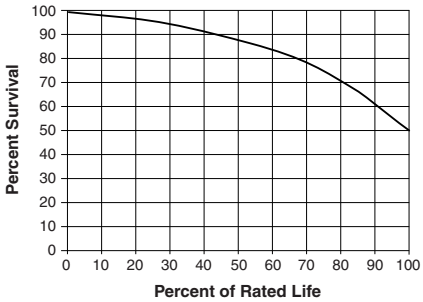
O = Lamps classified as O-type, comply with ANSI Standard C78.389 for containment testing and may be used in open luminaries. See lamp warning.

## Technical Information

**Typical Lumen Maintenance**



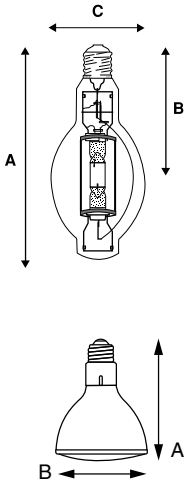

**Typical Survival Curve**




## Ordering Guide

| **MP** | **400** | **/** | **____** | **/** | **BU-ONLY** | **/** | **____** |
|---|---|---|---|---|---|---|---|
| METALARC | Wattage: | | Finish: | | Operating Position: | | Base: |
| PRO-TECH® | 50, 70, 100, | | __ = Clear | | Base Up Only | | __ = Mogul |
| Open Fixture | 150, 175, 250, | | C = Coated | | Base Down Only | | MED = Medium |
| Metal Halide | 400, 1000 | | | | Universal | | |

## Dimensions




| Bulb Shape | (A) MOL | (B) LCL | (C) Diameter |
|---|---|---|---|
| E17 | 5.4" | 3.4" | 2.1" |
| BT28 | 8.3" | 5.0" | 3.5" |
| BT37 | 11.5" | 7.0" | 4.6" |
| BT56 | 15.4" | 9.5" | 7.0" |
| PAR38 | 5.3" | N/A | 4.75" |

**Expanded Line of SYLVANIA METALARC PRO-TECH Products**

In addition to the line of METALARC PRO-TECH lamps listed, OSRAM SYLVANIA offers a line of METALARC® POWERBALL® CERAMIC, METALARC® Pulse Start and METALARC® SUPERSAVER® lamps for use in open fixtures. Consult Product Information Bulletins HID035, HID021 and HID022 for additional information.

**Sample Specifications**

**METALARC PRO-TECH®**
Lamp(s) shall be (a) METALARC PRO-TECH Lamp(s) constructed with an arc tube shroud and shall be designed for open fixture operation and reduced UV output.

**METALARC PRO-TECH PAR38/ECO®**
Lamp(s) shall be (a) METALARC PRO-TECH PAR38/ECO lamp(s) for use in open or enclosed luminaires with an 8,500-hour average rated life. Lamp(s) shall exhibit a correlated color temperature of 3200K, a maximum color shift of ±200K over life, and a CRI of 75. Lamp(s) shall pass the existing Federal TCLP limits.


OSRAM SYLVANIA
National Customer
Service and Sales Center
18725 N. Union Street
Westfield, IN 46074

**Industrial Commercial**

Phone: 1-800-255-5042
Fax: 1-800-255-5043

**National Accounts**

Phone: 1-800-562-4671
Fax: 1-800-562-4674

**OEM/Specialty Markets**

Phone: 1-800-762-7191
Fax: 1-800-762-7192

**Display/Optic**

Phone: 1-888-677-2627
Fax: 1-800-762-7192

In Canada
OSRAM SYLVANIA LTD.
Headquarters
2001 Drew Road
Mississauga, ON L5S 1S4

**Industrial Commercial**

Phone: 1-800-263-2852
Fax: 1-800-667-6772

**Special Markets**

Phone: 1-800-265-2852
Fax: 1-800-667-6772



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