

METALARC® PULSE START – E17 & PAR38 Low Wattage Metal Halide Lamps for Open and Enclosed Fixtures



SYLVANIA METALARC PRO-TECH® and METALARC PULSE START low wattage E17 and PAR38 lamp's premium performance provides opportunities for higher maintained illumination levels and substantial energy savings.

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. 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.

The METALARC enclosed rated E17 lamps provide a solution for enclosed rated fixtures and contain all the benefits of the pulse start technology including reduction in color shift over the life of the lamp, better lumen maintenance and potentially longer life.

Key Features & Benefits

- Full range of wattages from 50 through 175 watts in a medium base
 - 70W, 100W, 150W and 175W lamps available for enclosed rated fixtures
- Universal operating position
- Up to 20,000 hours average rated life
- Available in clear and coated
- PAR38 version available to provide high illuminance levels for featured displays and architectural highlighting
- METALARC PRO-TECH design – glass shroud for containment and UV-reduction – suitable for use in open or enclosed fixtures
 - NEC 2005 and later revisions require new construction and/or major renovations
 - To use open rated lamps with EX39 sockets in open fixtures, OR
 - Fixtures with a lens
 - Lower maintenance costs
 - Lower initial luminaire cost
 - Reduced luminaire dirt depreciation
 - Dedicated exclusionary medium socket for 50-150 watts with open rated lamps
 - Retrofits into standard sockets

OSRAM SYLVANIA offers the most comprehensive lamp and ballast system solutions. For compatible SYLVANIA ballasts please refer to our Lamp and Ballast Catalog or contact your local SYLVANIA representative.

Product Offering

Wattages	Outer Jacket	Fixture
50, 70, 100, 150	Clear and Coated	Open or Enclosed Rated
70, 100, 150, 175	Clear and Coated	Enclosed Rated Only

Application Information

Applications

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

Sockets

1. To prevent relamping an open fixture with standard metal halide lamps, a special socket is available with open fixtures for all lamp types.
2. Operating orientation: 50-150W operate in the universal orientation. 175W is for base up only applications.

Fixture

Consult your local fixture agent for available fixtures.



Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	Date

Ordering Information

METALARC PRO-TECH® PULSE START

Item Number	Ordering Abbreviation	Watts	Finish	Bulb	Base	ANSI Code	Average Rated Life (hr.) ¹		Initial Lumens	Mean Lumens	Color Temp.	CRI
							Vertical	HOR				
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	Med.	M98/O	7500	6000	5500	4000	4200K	80
64621	MPD70/C/U/MED/840	70	Coated	E17	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	Med.	M90/O	7500	6000	8400	5800	4200K	82
64433	MPD100/C/U/MED/840	100	Coated	E17	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	Med.	M102/O	7500	6000	12,500	11,000	4200K	88
64425	MPD150/C/U/MED/840	150	Coated	E17	Med.	M102/O	7500	6000	11,500	9500	4000K	88

METALARC® PULSE START (Rated for enclosed fixtures)

Item Number	Ordering Abbreviation	Watts	Finish	Bulb	Base	ANSI Code	Average Rated Life (hr.) ¹		Initial Lumens	Mean Lumens	Color Temp.	CRI
							Vertical					
64836	M70/U/MED	70	Clear	E17	Med.	M98/E	12,000		5600	3300	4000K	65
64891	M70/C/U/MED	70	Coated	E17	Med.	M98/E	12,000		5400	3000	3800K	65
64818	M100/U/MED	100	Clear	E17	Med.	M90/E	12,000		8500	4675	4000K	65
64894	M100/C/U/MED	100	Coated	E17	Med.	M90/E	12,000		8000	4400	3650K	68
64785	M150/U/MED	150	Clear	E17	Med.	M102/E	12,000		14,000	11,000	4300K	65
64892	M150/C/U/MED	150	Coated	E17	Med.	M102/E	12,000		12,750	9300	4000K	70
64171	MS175/PS/BU-ONLY/MED	175	Clear	E17	Med.	M137/E, M152/E	15,000		17,500	12,800	4000K	65
64170	MS175/C/PS/BU-ONLY/MED	175	Coated	E17	Med.	M137/E, M152/E	15,000		16,600	12,500	3700K	70

METALARC PRO-TECH PULSE START PAR38/ECO®

Item Number	Ordering Abbreviation	Watts	ANSI Code	Beam Angle/CBCP	Initial Lumens	Average Rated Life (hr.)	Color Temp.	CRI ⁴
64592	MP70PAR38/U/FL35/ECO ^{5,6}	70	M98/O	35°/10,000	3400	8500	3200K	75
64594	MP70PAR38/U/VWFL65/ECO ^{5,6}	70	M98/O	65°/3000	3400	8500	3200K	75
64580	MP100PAR38/U/SP20/ECO ^{5,6}	100	M90/O	20°/26,000	5800	8500	3000K	75
64582	MP100PAR38/U/FL35/ECO ^{5,6}	100	M90/O	35°/12,000	5800	8500	3000K	75
64584	MP100PAR38/U/VWFL65/ECO ^{5,6}	100	M90/O	65°/4500	5800	8500	3000K	75
64593	MP150PAR38/U/SP20/ECO ^{5,6}	150	M102/O	20°/34,000	8800	8500	3200K	75
64597	MP150PAR38/U/FL35/ECO ^{5,6}	150	M102/O	35°/17,000	8800	8500	3200K	75
64599	MP150PAR38/U/VWFL65/ECO ^{5,6}	150	M102/O	65°/7500	8800	8500	3200K	75

- Notes:
1. Average rated life based on 10 hours per start operating on an ANSI ballast.
 2. All 50, 70, 100, 150 and 175 watt lamps must be operated in a 4000V pulse rated socket.
 3. 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.
 4. For higher CRI, use SYLVANIA METALARC POWERBALL® CERAMIC lamps.
 5. All PAR38 lamps listed above have an E26 medium skirt base. Note this base is not compatible with exclusionary medium sockets.
 6. See Beam Spread Design Guide for footcandle diagrams.

O = Lamps classified as O-type comply with ANSI Standard C78.389 for containment testing and may be used in open luminaires. See lamp warning.
E = Lamps classified as E-type are to be used only in suitably rated enclosed luminaires.

Ordering Guide

E17

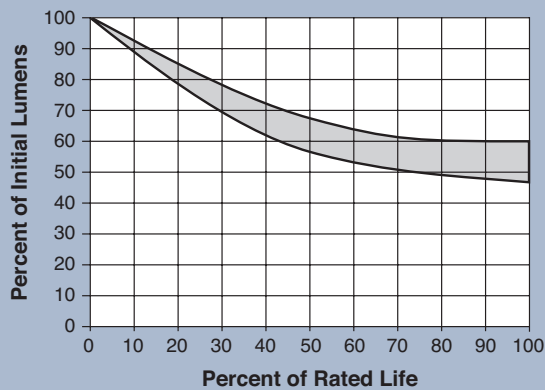
MP	50	/	—	/	U	/	MED
MP=METALARC PRO-TECH® For Open and Enclosed Fixture	Wattage: 50, 70, 100, 150, 175		Finish _ = Clear C = Coated		Operating Position: U = Universal BU-ONLY = Base Up Only		Base: MED = Medium
M=METALARC® MS=METALARC Super For Enclosed Fixture Only							

PAR38

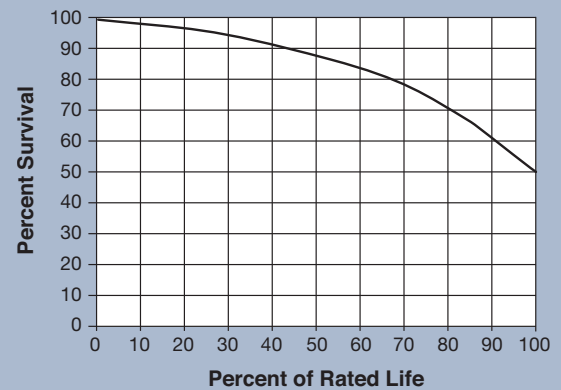
MP	70	PAR38	/	U	/	SP	20	/	ECO
MP=METALARC PRO-TECH Open and Enclosed Fixture	Wattage: 70, 100, 150	Bulb Shape PAR38		Operating Position: U = Universal		Beam Spread SP = Spot FL = Flood WWFL = Very Wide Flood	Beam Angle 20 = 20° 35 = 35° 65 = 65°		ECOLOGIC®

Technical Information

Typical Lumen Maintenance Curve

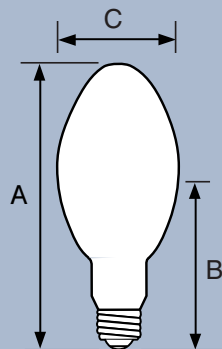


Typical Survival Curve

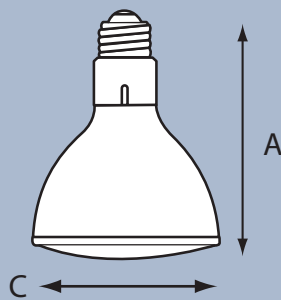


Lamp Dimensions

E17



PAR38



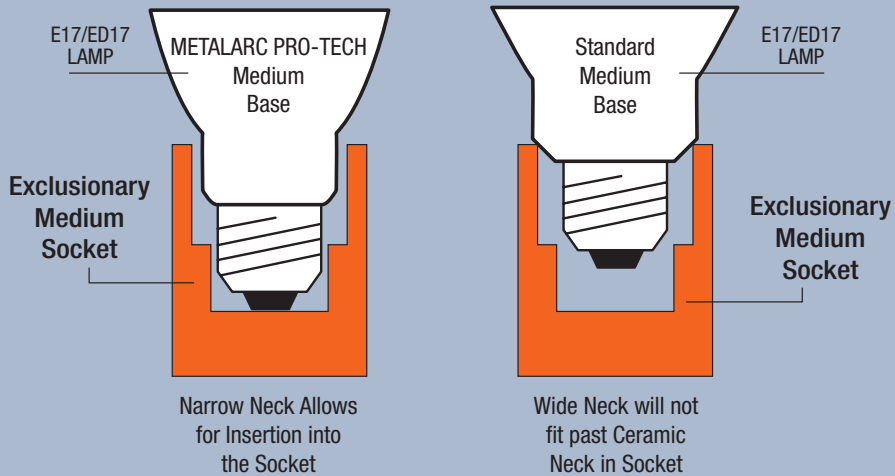
Bulb Shape	(A) MOL	(B) LCL	(C) Diameter
E17	5.4" (137.2mm)	3.4" (86.4mm)	2.1" (53.3mm)
PAR38	5.3" (134.6mm)	N/A	4.75" (120.7mm)

Expanded Line of SYLVANIA METALARC PRO-TECH and PULSE START lamps

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 and or enclosed rated fixtures. Please visit SYLVANIA.com for more information and download a copy of the latest Product Information Bulletin.

Exclusionary Socket for METALARC PRO-TECH® Lamps

Medium Based Dedicated Socket Comparison



National Electric Code 2005 and later revision require new construction and/or major renovations to use exclusionary sockets in open fixtures, or fixture with a lens.

WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave Ultraviolet radiation if the 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. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available.

Sample Specification

METALARC PRO-TECH PULSE START

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

METALARC® PULSE START

Lamp(s) shall be (a) 150W METALARC PULSE START lamp(s) exhibiting initial lumens of 14,000 with a 60% mean lumen maintenance and capable of operating on a M102/E ballast. Lamp construction shall include a lead-free welded base.

METALARC PRO-TECH PULSE START PAR38/ECO®

Lamp(s) shall be (a) METALARC PRO-TECH PULSE START 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 $\pm 200K$ over life, and a CRI of 75. Lamp(s) shall pass the existing Federal TCLP limits.

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