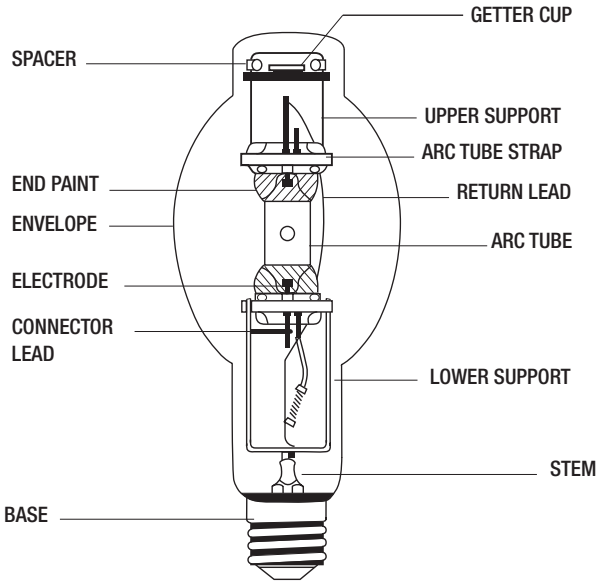
GUIDE TO METAL HALIDE LAMPS



METALARC® Metal Halide lamps are designed for general lighting applications such as retail, commercial, industrial lighting and outdoor floodlighting where good color, long product life and high efficiency are desired. OSRAM SYLVANIA currently offers nine families of Metal Halide lamps:

STANDARD METALARC (M) – Offered in a range of wattages (from 175-1500 watts), standard METALARC metal halide lamps allow for design flexibility with multiple light source solutions to choose from. METALARC lamps have significantly higher efficacy than mercury vapor or incandescent products and considerably better CRI than mercury vapor and high pressure sodium lamps.

COMPACT METALARC (M/BT##) – These lamps have reduced outer jacket sizes compared to standard metal halide lamps for use in smaller fixtures. The reduced bulb diameter allows fixture manufacturers to design more versatile, less expensive and highly efficient luminaries.

SUPER METALARC (MS) – Super METALARC lamps are position dedicated, which means that they are specifically designed to be run in particular operating positions. Because of this feature, these lamps exhibit improved performance over standard, universal operating metal halide lamps of similar wattage. Product features include long life, higher maintained lumens and increased efficacy.

METALARC® PRO-TECH® (MP) – These are specially designed lamps that incorporate a protective shroud to contain a non-passive arc tube failure. METALARC PRO-TECH lamps can be used in open or enclosed fixtures. Dedicated bases are standard on both low and high wattage lamp types.

METALARC POWERBALL® CERAMIC (MC or MCP) – POWERBALL lamps use a patented round ceramic arc tube, which allows for a more uniform arc tube temperature, higher color rendering (>85) and improved color consistency. These lamps are ideal for applications that demand the best in color performance.

METALARC POWERBALL® EL (MCP) – The self-ballasted POWERBALL EL lamps offer energy saving solutions for applications desired superior light quality and are ideal replacements for halogen or incandescent lamps.

METALARC PULSE START (M/PS) – METALARC Pulse Start lamps utilize metal halide performance with proven ignitor technology for longer life, improved lumen maintenance and reduced color shift over lamp life compared to standard metal halide products. Lamp configurations include low and high wattage types, both clear and coated. METALARC PRO-TECH designs are also available for open fixture applications. All METALARC products lower than 175W and all METALARC POWERBALL products utilize Pulse Start technology exclusively.

METALARC SUPERSAVER® (M/SS) – Constructed with an enhanced arc tube for peak performance, METALARC SUPERSAVER lamps are designed as energy-saving, replacement metal halide lamps. The 360W SUPERSAVER lamp is a direct retrofit for existing 400W products, the 950W SUPERSAVER replaces 1000W lamps and the 150W SUPERSAVER replaces 175W lamps – no ballast change is required.

METALARC BRITELINE® (M) – These double-ended lamps are designed for compact fixtures, which provide excellent optical control and high efficiency. These higher wattage lamps are particularly well suited for sports lighting and outdoor floodlighting applications.


E17


BT28


BT37


ED17


BT56

METALARC® PRO-TECH® Pulse Start Lamps

High Output, Reduced Color Shift Metal Halide Lamps for Open or Enclosed Fixtures

See product information bulletins (HID021 and HID059) for product details

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code/ Fixture Req.	Pkg Qty	Lamp Finish	Operating Position	Average Rated Life (hrs)	Initial Lumens (Mean)	CRI	CCT (K)	Lamp Efficacy (LPW)
50	E17	EX26Med	64587	MP50/U/MED	M110/0	20	Clear	Universal	20000V 10000H	3450 (1900)	70	3000	69
			64588	MP50/C/U/MED	M110/0	20	Coated	Universal	20000V 10000H	3200 (1820)	70	2900	64
70	E17	EX26Med	64547	MP70/U/MED	M98/0	20	Clear	Universal	15000V 10000H	5200 (3400)	75	3000	74
			64546	MP70/C/U/MED	M98/0	20	Coated	Universal	15000V 10000H	4700 (3100)	75	2900	67
100	E17	EX26Med	64417	MP100/U/MED	M90/0	20	Clear	Universal	15000V 10000H	8500 (5525)	75	3000	85
			64418	MP100/C/U/MED	M90/0	20	Coated	Universal	15000V 10000H	7900 (5800)	75	2900	79
150	E17	EX26Med	64402	MP150/U/MED	M102/0	20	Clear	Universal	15000V 10000H	12900 (8000)	75	3000	86
			64406	MP150/C/U/MED	M102/0	20	Coated	Universal	15000V 10000H	11600 (7500)	75	2900	77
250	BT28	EX39Excl Mogul	64789	MP250/PS/BU-ONLY	M153/0	6	Clear	BU ±15°	15000	22500 (17000)	65	4000	90
			64790	MP250/C/PS/BU-ONLY	M153/0	6	Coated	BU ±15°	15000	21000 (16000)	70	4000	84
320	BT28	EX39Excl Mogul	64391	MP320/350/PS/BU-ONLY/BT28	M154/0 M131/0	6	Clear	BU ±15°	20000	28600 (21000) 33500 (24000)	65	3800 3600	89 95
			64349	MP320/350/C/PS/BU-ONLY/BT28	M154/0 M131/0	6	Coated	BU ±15°	20000	27700 (19000) 32000 (22000)	70	3600 3600	87 91
350/400	BT37	EX39Excl Mogul	64769	MP350/400/PS/BU-ONLY	M131/0 M155/0	6	Clear	BU ±15°	20000	33000 (24500) 40000 (29500)	65	3700 3500	94 100
			64770	MP350/400/C/PS/BU-ONLY	M131/0 M155/0	6	Coated	BU ±15°	20000	32000 (23000) 39000 (28000)	70	3500 3300	91 98

METALARC PRO-TECH Lamps

Probe Start Metal Halide Lamps for Open or Enclosed Fixtures

See product information bulletin (HID058) for product details

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code/ Fixture Req.	Pkg Qty	Lamp Finish	Operating Position	Average Rated Life (hrs)	Initial Lumens (Mean)	CRI	CCT (K)	Lamp Efficacy (LPW)
175	ED17	EX26Med	64733	MP175/BU-ONLY/MED	M57/0	20	Clear	BU ±15°	10000	14400 (10800)	65	3600	82
175	BT28	EX39Excl Mogul	64773	MP175/BU-ONLY	M57/0	6	Clear	BU ±15°	10000	14400 (10200)	65	4000	82
			64774	MP175/C/BU-ONLY	M57/0	6	Coated	BU ±15°	10000	12800 (7800)	70	3800	73
250	BT28	EX39Excl Mogul	64404	MP250/BU-ONLY	M58/0	6	Clear	BU ±15°	10000	23000 (17000)	65	4000	92
			64405	MP250/C/BU-ONLY	M58/0	6	Coated	BU ±15°	10000	20000 (14350)	70	3800	80
400	BT37	EX39Excl Mogul	64705	MP400/BU-ONLY	M59/0	6	Clear	BU ±15°	20000	40000 (26000)	65	3600	100
			64706	MP400/C/BU-ONLY	M59/0	6	Coated	BU ±15°	20000	38500 (25000)	70	3400	96
1000	BT56	EX39Excl Mogul	64714	MP1000/BU-ONLY	M47/0	6	Clear	BU ±15°	15000	109000 (87500)	65	3500	109
			64716	MP1000/C/BU-ONLY	M47/0	6	Coated	BU ±15°	15000	102000 (82000)	70	3200	102

LUMALUX®, LUMALUX® / ECO®, LUMALUX PLUS® / ECO® AND LUMALUX® STANDBY LAMPS

⚠ WARNING

ANSI Luminaire Code O
OPEN FIXTURE Permissible

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

I. **OPERATE WITH COMPATIBLE BALLAST AND FIXTURE ONLY:**
This lamp must be operated in a fixture and ballast which has an ANSI designation identical to that found on the lamp outer glass bulb. (with the exception of the LU/PLUS on Cooper ignitor 220C173G11, which may have compatibility issues).

II. **ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.

III. **INSTALLATION AND OPERATING INSTRUCTIONS:**
See catalog for specific operating parameters.
1. A specially designed socket which is electrically rated to withstand a 4000 volt pulse is required for all High Pressure Sodium lamps except for the 750 and 1000 watt lamps which require a socket rated to withstand a 5000 volt pulse.
2. These lamps have a vacuum jacket and may implode if broken. For added safety, wear safety glasses and gloves when installing or removing lamps.
3. To avoid burn injury, allow lamp to cool before removing from fixture.
4. Screw lamp firmly but not forcibly into socket to avoid breakage.
5. Replace lamps at or before end of rated life. (See catalog for rated life.)
6. Never install it into an ordinary household socket.
7. This lamp may be operated in any position.

IV. **PROPER CARE AND MAINTENANCE:**
To reduce the possibility of a rupture and premature lamp failure:
1. Do not use with luminaires which would cause an excessive increase in arc-tube operating voltage.
2. Do not expose operating lamp to moisture (such as rain, sleet or snow).
3. Replace lamp if outer glass bulb has been scratched, cracked or damaged in any way.
4. Electrically insulate any metal support in contact with the outer glass bulb to avoid glass decomposition.

V. **BROKEN ARC TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.