

MasterColor® Ceramic Metal Halide ED-17 Featuring ALTO® Lamp Technology



**Ideal for general lighting, downlighting,
and flood lighting**

- ▶ **Excellent Color Rendering**
85 for 3K; 92 for 4K
- ▶ **Superior Color Stability Over Life**
Within $\pm 200K$
- ▶ **Lamp to Lamp Color Consistency Over Life**
- ▶ **Higher Lumen Maintenance**
Improved lumen maintenance over standard metal halide
- ▶ **Total Cost of Ownership Benefits**
 - High lamp efficacy (up to 95 LPW)
 - Energy-efficient alternative to incandescent/halogen
 - Operates on existing ballasts
- ▶ **FadeBlock™**
 - Lamps feature integrated UV blocking medium for reduced fading of fabrics and paintings
 - Available only on protected ED-17P lamps
- ▶ **Environmentally Responsible TCLP¹ Compliant ALTO® Lamp Technology**
Passes EPA's TCLP test for non-hazardous waste

1) The TCLP is the US EPA's Toxicity Characteristic Leaching Procedure.



† This lamp is better for the environment because of its reduced mercury content. See Philips' ALTO® Brochure for more information, which is available online at: www.nam.lighting.philips.com/us/ecatalog/



PHILIPS

MasterColor® Ceramic Metal Halide ED-17 Lamps

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

Bulb Temperature (Maximum)	400°C (752°F)	Lamp Current Crest Factor (Maximum)	1.8
Base Temperature (Maximum)	190°C (374°F)	Warm-up to 80% Full Brightness	2 minutes
RMS Lamp Operating Current (Amps) Nominal	0.58 (for 50W)	Re-start Time for Hot Lamps	4-8 minutes
.....	0.8-0.92 (for 70W)	Base	Medium Screw
.....	1.1 (for 100W)	Operating Position	Universal
.....	1.8 (for 150W)	Standard Package Quantity	12

Product Number	Ordering Code	ANSI Code	Watts	Bulb	Base	Std. Pkg. Qty.	LCL (In.)	MOL (In.)	Rated Avg. Life (Hrs) ¹	Approx. Initial Lumens ²	Approx. Mean Lumens ³	CRI	CCT
36891-0	MHC50/U/MP/3K/ALTO	M148/M110/O	50	ED-17P	Med.	12	3 3/8	5 3/8	10,000	4000	2680	85	3000
36893-6	MHC50/U/MP/4K/ALTO	M148/M110/O	50	ED-17P	Med.	12	3 3/8	5 3/8	20,000	3600	2450	92	4000
23366-8	MHC70/U/MP/3K/ALTO	M143/M98/O	70	ED-17P	Med.	12	3 3/8	5 3/8	16,000	5900	4365	85	3000
23367-6	MHC70/C/U/MP/3K/ALTO	M143/M98/O	70	ED-17P	Med.	12	—	5 3/8	16,000	5400	3995	85	3000
36057-8	MHC70/U/MP/4K/ALTO	M143/M98/O	70	ED-17P	Med.	12	3 3/8	5 3/8	20,000	5800	4060	92	4000
36059-4	MHC70/C/U/MP/4K/ALTO	M143/M98/O	70	ED-17P	Med.	12	—	5 3/8	20,000	5200	3640	92	4000
23368-4	MHC100/U/MP/3K/ALTO	M140/M90/O	100	ED-17P	Med.	12	3 3/8	5 3/8	16,000	8600	6450	85	3000
23444-3	MHC100/C/U/MP/3K/ALTO	M140/M90/O	100	ED-17P	Med.	12	—	5 3/8	16,000	7900	5925	85	3000
36060-2	MHC100/U/MP/4K/ALTO	M140/M90/O	100	ED-17P	Med.	12	3 3/8	5 3/8	20,000	8200	6150	92	4000
36061-0	MHC100/C/U/MP/4K/ALTO	M140/M90/O	100	ED-17P	Med.	12	—	5 3/8	20,000	7500	5625	92	4000
13463-5	MHC150/U/MP/3K/ALTO	M142/M102/O	150	ED-17P	Med.	12	3 3/8	5 3/8	16,000	12,900	9545	85	3000
13464-3	MHC150/C/U/MP/3K/ALTO	M142/M102/O	150	ED-17P	Med.	12	—	5 3/8	16,000	11,900	8805	85	3000
37724-2	MHC150/U/MP/4K/ALTO	M142/M102/O	150	ED-17P	Med.	12	3 3/8	5 3/8	20,000	12,000	9000	92	4000
37726-7	MHC150/C/U/MP/4K/ALTO	M142/M102/O	150	ED-17P	Med.	12	—	5 3/8	20,000	11,000	8250	92	4000
36020-6	MHC50/U/M/3K/ALTO	M148/M110/E	50	ED-17	Med.	12	3 3/8	5 3/8	10,000	4100	2750	85	3000
36022-2	MHC50/C/U/M/3K/ALTO	M148/M110/E	50	ED-17	Med.	12	—	5 3/8	10,000	3800	2545	85	3000
36023-0	MHC50/U/M/4K/ALTO	M148/M110/E	50	ED-17	Med.	12	3 3/8	5 3/8	20,000	3750	2550	92	4000
36024-8	MHC50/C/U/M/4K/ALTO	M148/M110/E	50	ED-17	Med.	12	—	5 3/8	20,000	3600	2450	92	4000
20884-3	MHC70/U/M/3K/ALTO	M143/M98/E	70	ED-17	Med.	12	3 3/8	5 3/8	16,000	6200	4585	85	3000
20887-6	MHC70/C/U/M/3K/ALTO	M143/M98/E	70	ED-17	Med.	12	—	5 3/8	16,000	5800	4290	85	3000
28129-5	MHC70/U/M/4K/ALTO	M143/M98/E	70	ED-17	Med.	12	3 3/8	5 3/8	20,000	5900	4130	92	4000
28133-7	MHC70/C/U/M/4K/ALTO	M143/M98/E	70	ED-17	Med.	12	—	5 3/8	20,000	5500	3850	92	4000
20888-4	MHC100/U/M/3K/ALTO	M140/M90/E	100	ED-17	Med.	12	3 3/8	5 3/8	16,000	9500	7125	85	3000
20889-2	MHC100/C/U/M/3K/ALTO	M140/M90/E	100	ED-17	Med.	12	—	5 3/8	16,000	8800	6600	85	3000
28135-2	MHC100/U/M/4K/ALTO	M140/M90/E	100	ED-17	Med.	12	3 3/8	5 3/8	20,000	9000	6750	92	4000
28136-0	MHC100/C/U/M/4K/ALTO	M140/M90/E	100	ED-17	Med.	12	—	5 3/8	20,000	8400	6300	92	4000
13022-9	MHC150/U/M/3K/ALTO	M142/M102/E	150	ED-17	Med.	12	3 3/8	5 3/8	16,000	14,000	10,500	85	3000
13023-7	MHC150/C/U/M/3K/ALTO	M142/M102/E	150	ED-17	Med.	12	—	5 3/8	16,000	12,500	9375	85	3000
37720-0	MHC150/U/M/4K/ALTO	M142/M102/E	150	ED-17	Med.	12	3 3/8	5 3/8	20,000	13,000	9750	92	4000
37721-8	MHC150/C/U/M/4K/ALTO	M142/M102/E	150	ED-17	Med.	12	—	5 3/8	20,000	12,000	9000	92	4000

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.
● This product utilizes ALTO® Lamp Technology; ALTO products pass the US EPA's Toxicity Characteristic Leaching Procedure (TCLP) for non-hazardous waste status.

WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS for MasterColor® Ceramic Metal Halide Lamps ED-17 (Enclosed Fixtures); Protected MasterColor® Ceramic Metal Halide Lamps ED-17P (Open or Enclosed Fixtures)

WARNING: These lamps can cause serious skin burn and eye inflammation from short wave 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 21 CFR 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 short wave 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 a 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.**

Use ED-17 lamps in enclosed luminaires ONLY that are capable of withstanding particles of glass having temperatures up to 1000° C. ED-17P types are designed to retain all the glass particles should an arc tube rupture occur.

REPLACE 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. This lamp contains an arc tube with a filling gas containing Kr-85 and is distributed by Philips Lighting Company, a division of Philips Electronics North America Corporation, Somerset, New Jersey, 08875.

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:
1. REPLACE 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.
- 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 4 to 8 minutes to re-light 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.

