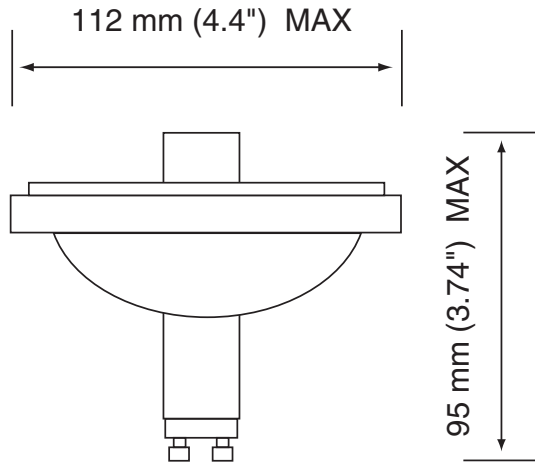


MasterColor® Ceramic Metal Halide 20 Watt R111 Reflector Spot Lamp

with FadeBlock™ UV Filtering



► Ordering Information

Ordering Code	CDM-R 111 20W/830 10DG
ANSI Designation	C175
Product Number	15297- 4
Description	MasterColor Ceramic Metal Halide
Package Quantity	6

► Physical Characteristics

Bulb Size	R111
Bulb Finish	Faceted Aluminum
Base	GX8.5
Max. Overall Length (MOL)	3.74" (95mm)
Light Center Length (LCL)	N/A
Arc Length	N/A
Arc Tube Material	Polycrystalline Alumina
Maximum Permissible Temperatures:	
Base/Neck Transition	180°C (356°F)
Neck/Reflector	200°C (392°F)
Top Anti-glare Cap	400°C (752°F)

► Operating Characteristics (Photometric)

Approx. Initial Lumens ¹	750
Approx. Mean Lumens ²	500
Rated Average Life, Hours ³	9000
Correlated Color Temperature (CCT)	3000 K
CIE Chromaticity Approximate	x-.429, y-.395
Color Rendering Index (CRI)	85
Efficacy (lpw)	34
MBCP (Maximum Beam Candlepower)	20,000
Beam Angle (at 50% of MBCP)	10°

► Operating Position

Universal

Note: Operate lamp only on approved thermally protected electronic ballast.

PHILIPS

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Electrical Data (Subject to change without notice)

Lamp Watts (Nominal)	22
Lamp Operating Voltage (rms) (Nominal)*	100
Initial Lamp Voltage Range (rms) ²	96-109
Lamp Operating Current (Amps) (rms) (Nominal)	0.22
Lamp Current Crest Factor (Maximum)	1.8
Warm-up Time to 80% of Output	3 Minutes
Re-strike Time for Hot Lamp	4-8 Minutes
Ballast Type	ANSI C175
Ballast Open Circuit Voltage (Minimum)	198
Pulse Peak Volts	3000 Min., 4000 Max.
Pulse Width @ 90% Peak	2 Micro Seconds Min.
Pulse Repetition Rate (Minimum) ⁶	1 Per Half Cycle
Minimum Operating Temperature	-30°C (-22°F)

- 1) Measured at 100 hrs. life. Approximate lumen values listed are for vertical operation of the lamp.
2) Approximate lumen output at 40% of lamp rated average life.
3) 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.
4) Measured at rated lamp watts on a linear reactor. LPW does not include ballast losses.
5) Measured with the lamp operating at rated watts.
6) Option-Pulse Width @ 90% Peak, 1 micro second minimum with 2 pulses per half cycle.

Warnings, Cautions and Operating Instructions

R "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: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 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. 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.

This lamp contains an arc tube with a filling gas containing less than 10 nCi of 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. 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.
2. Before lamp installation/replacement, shut power off and allow lamp and fixture to cool to avoid electrical shock and potential burn hazards.
3. 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. Operate 39W PAR-20 and PAR-30L lamps only on thermally protected ballast.**
D. Operate CDM-R111 lamp only on approved thermally protected electronic ballast.
4. Periodically inspect the outer envelope. Replace any lamps that show scratches, cracks or damage.
5. If a lamp bulb support is used, be sure to insulate the support electrically to avoid possible decomposition of the bulb glass.
6. Protect lamp base, socket and wiring against moisture, corrosive atmospheres and excessive heat.
7. 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.
8. Lamps may require up to 10 minutes (4-8 minutes for CDM-R111) to re-light if there is a power interruption.
9. Take care in handling and disposing of lamps. If an arc tube is broken, avoid skin contact with any of the contents or fragments.
10. For proper installation and removal, lamp should be handled by the sides of the reflector and not by the aluminum front anti-glare cap.

