

METALARC PRO-TECH® POWERBALL®

Ceramic Metal Halide R-111



METALARC PRO-TECH POWERBALL Ceramic R-111 lamps meet today's color critical needs by combining conventional metal halide pulse start characteristics such as good efficacy and long life with improved lamp-to-lamp color consistency and high CRI. The R-111 lamp provides a modern energy saving alternative to conventional halogen applications that require a high lumen package in a compact design. The standard twist and lock GX8.5 base provides secure positioning that allows for accurate luminaire design.

OSRAM SYLVANIA offers the most comprehensive lamp and ballast system solutions. For compatible electronic SYLVANIA ballasts contact your local SYLVANIA representative.

Key Features & Benefits

- Exclusive POWERBALL Pulse Start Ceramic spherical arc tube technology (compared to a cylindrical arc tube)
 - High CRI and excellent red rendering (R9), yields more natural and vibrant colors and crisp whites
 - Superior color stability over the life of the lamp and through various operating positions
 - Improved lamp-to-lamp color consistency
 - Long life: 12,000 hours average rated life and 4X longer than halogen AR111 lamps
- METALARC PRO-TECH design for open fixture applications
- UV filter technology significantly reduces UV output, minimizing discoloration and fading
- Glare shield design and excellent beam control
- Twist and lock GX8.5 base
 - Stable positioning
 - Easy installation
 - Secure/robust interlock
- Universal operation position
- Lower thermal output than tungsten halogen lamps having similar light output

Product Offering

Lamp Shape	Wattage	Beam Angle
R-111	20, 39	10°, 24°, 40°



Application Information

Applications

- Accent lighting
- Display lighting
- Lobbies
- Malls
- Museums
- Office areas
- Retail stores
- Studio lighting

Application Notes

METALARC PRO-TECH POWERBALL Ceramic R-111 products can be operated in enclosed or open-rated fixtures.

Fixtures

Recessed cans
Tracklight
Contact local fixture agent for available fixtures

Ballast Information

Contact your OSRAM SYLVANIA representative for a list of compatible electronic control systems. Please refer to the SYLVANIA ballast guide (ECS-ELECTRONIC) for ballast and System Warranty information.



Specification Data

Fixture Description:	Type
Project/Job:	
SYLVANIA lamp:	
SYLVANIA ballast:	
Notes:	

Ordering Information

Item Number	Ordering Abbreviation	Wattage	Lamp Shape	Base	ANSI Code ³	Average Rated Life (hrs.)	Lumens	MBCP (cd)	Beam Angle	CCT	CRI	Lamp Efficacy (LPW)
60016	MCP20R111/U/GX85/830/SP10 ^{1,2}	20	R-111	GX8.5	C156/0	12,000	800	19,000	10°	3000K	81	40
60017	MCP20R111/U/GX85/830/NFL24 ^{1,2}	20	R-111	GX8.5	C156/0	12,000	800	4,400	24°	3000K	81	40
67487	MCP20R111/U/GX85/830/FL40 ^{1,2}	20	R-111	GX8.5	C156/0	12,000	800	2,200	40°	3000K	81	40
60019	MCP39R111/U/GX85/830/SP10 ^{1,2}	39	R-111	GX8.5	C130/0	12,000	1,800	39,000	10°	3000K	81	46
60020	MCP39R111/U/GX85/830/NFL24 ^{1,2}	39	R-111	GX8.5	C130/0	12,000	1,800	9,500	24°	3000K	81	46
67488	MCP39R111/U/GX85/830/FL40 ^{1,2}	39	R-111	GX8.5	C130/0	12,000	1,800	4,500	40°	3000K	81	46

- Notes:
- The circuit must include overcurrent protection (i.e. Thermally Switched Ballast).
 - Designed for operation only on electronic ballasts.
 - The first letter of the ANSI code represents the lamp type; "C" for ceramic metal halide and "M" for quartz metal halide. The numbers following the lamp type refer to the electrical characteristics required by the ballast to start and operate the lamp reliably. Ceramic, "C", or quartz, "M" lamps with the same electrical characteristic number will operate on the same ballast (per ANSI C78.380-2007). For example, a 150W ceramic lamp with a C102 designation will operate on a 150W metal halide ballast with an M102 designation and vice versa.

General Notes:

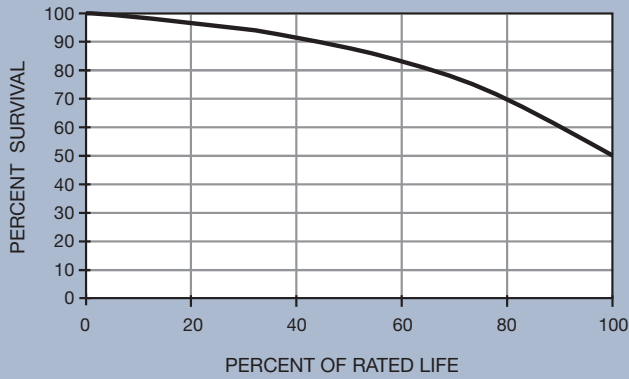
- Contact your local OSRAM SYLVANIA representative for compatible electronic ballasts.
- All ceramic lamps should be used with 4000V pulse rated socket only.
- No special handling requirements during installation (i.e., gloves not required). Always follow normal safety precautions during installation.

Ordering Guide

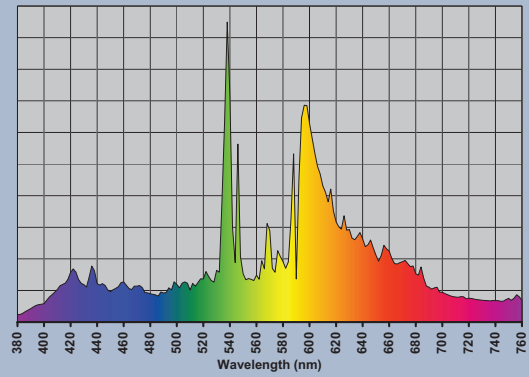
MCP	20	R111	/	U	/	GX85	/	830	/	SP10
M=METALARC®	Wattage:	Lamp Shape:		Operating		Base		8 = 81 CRI		Beam Angle
C=Ceramic	20, 39	R-111		position:		GX8.5		30 = 3000K CCT		SP10 = Spot 10°
P=Protected				Universal						NFL24 = Narrow Flood 24°
(METALARC PRO-TECH®)										FL = Flood 40°

Technical Information

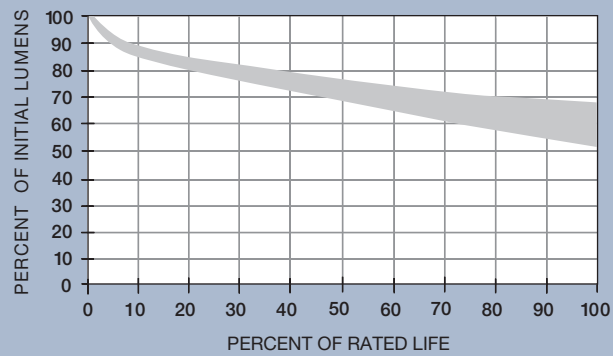
Typical Mortality Curve



Typical Spectral Power Distribution (CRI = 80+)

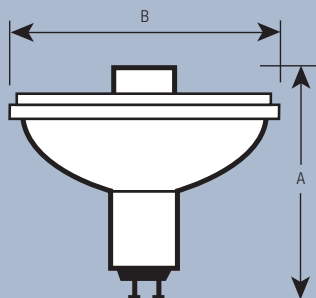


Typical Lumen Maintenance Curve
(with QUICKTRONIC® Electronic Ballasts)



Physical Characteristics

Lamp Shape	R-111
Lamp Finish	Clear
Base	GX8.5
MOL (A)	3.74" (95mm)
Max. Diameter (B)	4.37" (111mm)



Sample Specification

Lamp(s) shall be METALARC PRO-TECH® POWERBALL® Ceramic R-111, MCP20R111/U/GX85/830/SP10 lamp(s), and shall be constructed with a spherical ceramic POWERBALL arc tube with MBCP of 19,000cd. Lamp(s) shall have CRI of 81, CCT of 3000K, and shall exhibit a maximum color shift of +/-150K over life. Lamps shall be rated for open or enclosed-rated fixture use.

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OEM/Special Markets/Display/Optic
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Fax: 1-800-667-6772

www.sylvania.com

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.

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