

METALARC® POWERBALL® EL ECOLOGIC®

24W PAR30LN Ceramic Metal Halide with Integrated Electronic Ballast



Key Features & Benefits

- Exclusive POWERBALL Pulse Start arc tube technology
 - High CRI and excellent red rendering yields more natural and vibrant colors and crisp whites
 - Superior color stability over life of the lamp and through various operating positions
 - Long life: 12,000 hours average rated life (>3X longer than halogen PAR30LN)
- METALARC PRO-TECH® design for open fixture applications
- Integrated electronic ballast:
 - Direct replacement of tungsten halogen PAR lamps without a fixture change
 - Low input voltage shutdown and end-of-life protection
- UV-Stop technology significantly reduces UV output, minimizing discoloration and fading

METALARC POWERBALL EL Ceramic PAR lamps meet today's color critical needs of retail applications while providing desired characteristics such as high efficacy, long life, improved lamp to lamp color consistency and high CRI.

METALARC POWERBALL EL Ceramic lamps are ideal replacements for halogen or incandescent lamps where significant energy savings and superior light quality are desired. The integrated electronic HID ballast and medium base allow the compact POWERBALL EL lamps to be used in conventional line voltage fixtures in almost any application.

SYLVANIA METALARC POWERBALL EL ECOLOGIC lamps are designed to pass the Federal Toxic Characteristic Leaching Procedure (TCLP¹) criteria for classification as non-hazardous waste in most states.²

¹ TCLP test results are based on NEMA LL Series standards and are available on request.

² Regulations may vary. Check your local and state regulations.



Product Offering

Ordering Abbreviation	Beam Angle	MBCP (cd)
MCP24EL/PAR30LN/U/828/SP10/ECO	10°	21,500
MCP24EL/PAR30LN/U/828/NFL25/ECO	25°	5,000
MCP24EL/PAR30LN/U/828/FL30/ECO	30°	3,700
MCP24EL/PAR30LN/U/828/FL40/ECO	40°	2,500

Application Information

Applications

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

Fixtures

- Recessed downlights
- Track lights

Applications Notes

UL1993 listed suitable for dry and damp indoor and outdoor applications.



Specification Data

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

Ordering Information

Item Number	Ordering Abbreviation	Watts	Bulb	Base	Initial Lumens	MBCP (cd)	Beam Angle	Avg. Rated Life (hrs.)	CCT	CRI	Lamp Efficacy (LPW)
64902	MCP24EL/PAR30LN/U/828/SP10/ECO	24	PAR30LN	E26 Med	1220	21,500	10°	12,000	2800K	82	51
64901	MCP24EL/PAR30LN/U/828/NFL25/ECO	24	PAR30LN	E26 Med	1220	5,000	25°	12,000	2800K	82	51
64903	MCP24EL/PAR30LN/U/828/FL30/ECO	24	PAR30LN	E26 Med	1220	3,700	30°	12,000	2800K	82	51
64904	MCP24EL/PAR30LN/U/828/FL40/ECO	24	PAR30LN	E26 Med	1220	2,500	40°	12,000	2800K	82	51

Ordering Guide

MCP	24	EL	/	PAR30LN	/	U	/	828	/	SP10	/	ECO
M=METALARC® C=CERAMIC P=Protected (METALARC PRO-TECH®)	Wattage: 24 Watts	Electronic Integrated Ballast	/	Bulb Shape: PAR30LN	/	Operating Position Universal	/	8 = 82 CRI 28 = 2800K CCT	/	Beam Angle SP10 = Spot 10° NFL25 = Narrow Flood 25° FL30 = Flood 30° FL40 = Flood 40°	/	ECOLOGIC®

System Comparison

Type	Watts	Avg. Rated Life (hrs.)	Lumen	MBCP ¹	Beam Angle	Energy Savings Watts	Energy Savings Dollars*
METALARC POWERBALL® EL /SP10	24	12,000	1220	21,500	10°	-	-
Halogen PAR30LN Spot 10°	75	2,500	1130	12,000	10°	51	\$61
Halogen PAR30LN Spot 10°	50	2,500	660	7,000	10°	26	\$31

* Energy savings per lamp, over life, @ \$0.10/kWh 1. MBCP: Maximum Beam Candle Power measured in candela.

Illuminance Cone Diagrams

Integrated Ballast 24W

64902 – MCP24EL/PAR30LN/U/828/SP10/ECO

Mount Ht. (ft.)	Foot Candles*	Beam Dia. (ft.)
4	1,344	1.0
8	336	1.7
12	149	2.4
16	84	3.1
20	54	3.8

* Approximate values

64901 – MCP24EL/PAR30LN/U/828/NFL25/ECO

Mount Ht. (ft.)	Foot Candles*	Beam Dia. (ft.)
4	313	2.1
8	78	3.9
12	35	5.6
16	20	7.4
20	13	9.2

* Approximate values

64903 – MCP24EL/PAR30LN/U/828/FL30/ECO

Mount Ht. (ft.)	Foot Candles*	Beam Dia. (ft.)
4	225	2.5
8	56	4.6
12	25	6.7
16	14	8.9
20	9	11.0

* Approximate values

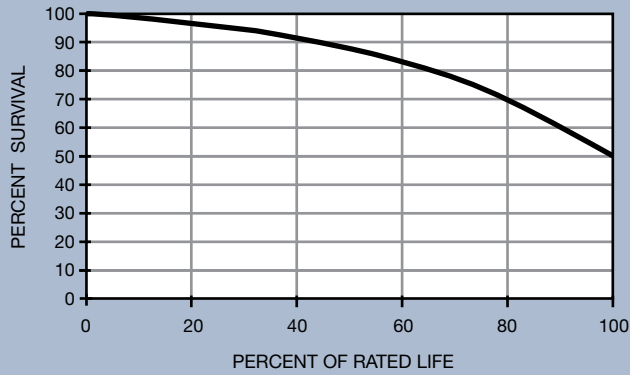
64904 – MCP24EL/PAR30LN/U/828/FL40/ECO

Mount Ht. (ft.)	Foot Candles*	Beam Dia. (ft.)
4	156	3.2
8	39	6.1
12	17	9.0
16	10	12.0
20	6	14.9

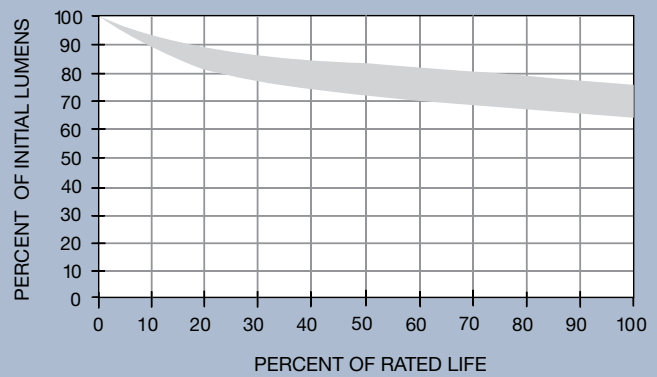
* Approximate values

Technical Information

Typical Mortality Curve



Typical Lumen Maintenance Curve

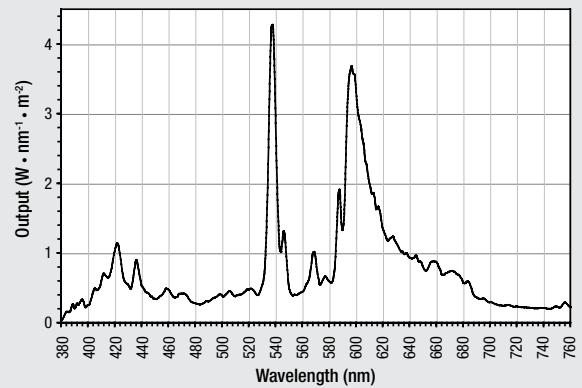


Operating Characteristics

Approx. Initial Lumens	1,220
Average Rated Life (hrs.) ¹	12,000
Correlated Color Temp. (CCT)	2800K
CIE Chromaticity Approx.	$x = 0.440$ $y = 0.395$
Color Rendering Index (CRI)	82
Beam Angle (at 50% of MBCP)	10°/25°/30°/40°

1. Average Rated Life: An average rating, in hours, indicating when 50% of a large group of lamps have failed when operated at nominal lamp voltage and current; minimum 10 hours per start.

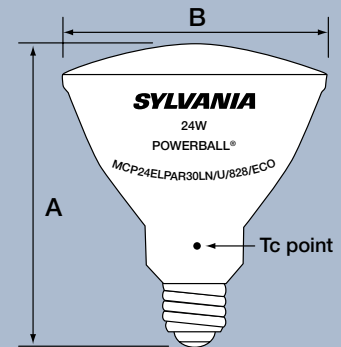
Typical Spectral Power Distribution



Physical Characteristics

Bulb Size	PAR30LN
Bulb Finish	Clear
Base	Medium
Max. Overall Length (A)	4.67" (118.1 mm)
Max. Diameter (B)	3.85" (97.8 mm)
Arc Tube Material	POWERBALL® Spherical Polycrystalline Alumina
Case Temp. (Tc point) ^{2,3}	100°C max

2. Average rated life will be reduced for applications in which case temperature, at the hottest housing point, exceeds 100°C.
 3. Applications in which the maximum case temperature is exceeded voids all performance warranties, either express or implied.



Electrical and Technical Data

Wattage	24W
Nominal Input Voltage	120V
Nominal Frequency	50/60Hz
Input Current ⁴	0.35A
Warm-up to 80% Full Brightness	< 5 minutes
Hot re-strike ⁵	< 10 minutes
Minimum Operating Temp.	-20°C (-4°F)
Power Factor	0.6 minimum

4. Caution: New construction specifications should account for the current draw of these lamps. The lamp uses 0.35A of current with a capacitive "lead" power.
 5. Open air measurement.

Operating Instructions

LAMP OPERATING INSTRUCTIONS – CAUTION: TO REDUCE THE RISKS OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS, AND FIRE RESULTING FROM AN ARC TUBE RUPTURE THE FOLLOWING LAMP OPERATING INSTRUCTIONS MUST BE FOLLOWED:

1. Re-lamp fixture 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. (See catalog for rated life.)
2. Only operate with compatible fixture at 120V input.
3. This lamp is not intended for use with emergency fixtures or emergency exit lights.
4. Do not operate with an external ballast as ballast is integrated into the lamp.
5. Do not use with dimmers. Do not use on electronic timers, photocells, lighted switches or any other switches that do not meet UL20 Sec. 7.6.15.
6. Before lamp installation or replacement, shut power off and allow lamp and fixture to cool to avoid electrical shock and potential burn hazards.
7. Do not use lamp if lens, reflector or housing is visibly damaged.
8. Do not use in totally enclosed, recessed fixture.
9. Protect lamp, lamp socket and wiring against moisture, corrosive atmosphere and excessive heat.
10. Suitable for dry and damp locations. Risk of electric shock - Do not use where directly exposed to water.
11. Time should be allowed for lamp color to stabilize when turned on for the first time. All lamp ratings are based on 100 hours of operation. Movement or vibration may cause variation in color and appearance.
12. Lamps may require 10-15 minutes to re-light if there is a loss of power to the socket. Actual time may vary depending on the fixture type.
13. 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.
14. This product complies with the requirements of FCC 47 CFR §18 non-consumer. This product may cause interference to radios, televisions, wireless telephones and remote controls. If interference occurs, move the product away from these devices or plug into a different outlet. Do not install this near maritime safety communications equipment or other critical navigation or communications equipment operating between 0.45-30 MHz. For additional product information, call 1-800-LIGHTBULB (1-800-544-4828).
15. This Class A RFLD complies with the Canadian standard ICES-005.

Safety Information

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

I. **ULTRAVIOLET RADIATION EXPOSURE - WARNING:** This lamp can cause serious skin burns 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. This product conforms to the following federal regulations: U.S.A.: 21 CFR 1040.30 and CANADA: SOR/80-381.

II. **RUPTURE RISKS:** This Metal Halide lamp is constructed of an outer glass bulb with an internal arc tube. Metal Halide arc tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

NOTES:

1. This lamp is intended for use in open fixtures since it was designed to contain a ruptured arc tube and thereby minimize the resultant risks of personal injury, property damage, burns and fire.
2. This lamp is distributed by OSRAM SYLVANIA Products Inc., 100 Endicott St., Danvers, MA 01923.

Sample Specification

Lamps shall be METALARC® POWERBALL® EL, MCP24EL/PAR30LN/U/828/SP10/ECO lamp(s), and shall be constructed with a spherical ceramic POWERBALL® arc tube and integrated electronic ballast with initial lumens of 1,220. Lamp(s) shall have CRI of 82, CCT of 2800K. Lamps shall be rated for open fixture use.

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OSRAM SYLVANIA
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Retail
Phone: 800-842-7010
Fax: 800-842-7011

SYLVANIA Lighting Services
Phone: 800-323-0572
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Display/Optic
Phone: 888-677-2627
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Retail
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SYLVANIA Lighting Services
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