

# METALARC® POWERBALL® Ceramic TF Lamp

## Smallest Ceramic Metal Halide Tubular Single-Ended Lamp



METALARC POWERBALL Ceramic TF lamps are the industry's smallest ceramic metal halide lamps, constructed with the distinctive POWERBALL arc tube technology. These lamps provide a solution that is ideal for small fixtures and applications that require a high lumen package in a compact design, long life, high CRI and superior color consistency. The standard twist and lock GU6.5 base lamp provides secure positioning that allows for accurate luminaire design. Pair with QUICKTRONIC MH electronic ballasts for maximum energy savings and the industry's first and most comprehensive QUICK 60+ system warranty. For additional details refer to our QUICK 60+ system warranty.

### Key Features & Benefits

- Industry's only 15W ceramic metal halide lamp
- Distinctive POWERBALL® Pulse Start ceramic spherical arc tube technology (compared to a cylindrical arc tube)
  - High CRI up to 90 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: 15,000 hours average rated life
  - Faster warm-up to full brightness
- Miniature size yields optimal fixture efficiency
- UV-filter technology significantly reduces UV output, minimizing discoloration and fading
- Twist and lock GU6.5 base provides stable positioning
- Universal operation position
- Lower thermal output than tungsten halogen lamps having similar light output
- Optimal performance when paired with QUICKTRONIC® MH Mini-Slim electronic ballasts
- QUICK 60+® System Warranty with QUICKTRONIC MH ballasts

### Product Offering

Wattage	Bulb Shape
15, 20, 39	T4

### Application Information

#### Applications

- Accent
- Display case
- Landscape luminaires
- Recessed downlights
- Track

#### Application Notes

METALARC POWERBALL Ceramic TF lamps must be operated in enclosed rated fixtures capable of containing particles as hot as 1200°C.

#### Ballast Information

Contact your OSRAM SYLVANIA representative for a list of compatible electronic control systems and learn more about the comprehensive lamp and ballast system QUICK 60+® warranty.

QUICKTRONIC System Solutions:

POWERBALL TF Lamp	ANSI code	QUICKTRONIC Mini Slim Ballast	e-HID Ballast Ordering Number
15W	C186/E	QTP1X20MH SM UNV J/F	51991/51986
20W	C156/E	QTP1X20MH SM UNV J/F	51987/51988
39W	C130/E	QTP1X39MH SM UNV J/F	51989/51990



## Specification Data

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

## Ordering Information

Item Number*	Ordering Abbreviation	Watts	Bulb	Base	ANSI <sup>3</sup> Code	Average Rated Life (hrs.)	Initial Lumens	Mean Lumens	CCT	CRI	Lamp Efficacy (LPW)
64976	MC15TF/U/GU6.5/830 <sup>1,2</sup>	15	T4	GU6.5	C186/E	15,000	1200	900 <sup>4</sup>	3000K	82	80
64977	MC20TF/U/GU6.5/830 <sup>1,2</sup>	20	T4	GU6.5	C156/E	15,000	1700	1275	3000K	85	85
64978	MC39TF/U/GU6.5/930 <sup>1,2</sup>	39	T4	GU6.5	C130/E	15,000	3400	2550 <sup>4</sup>	3000K	90	87

\*64976 formerly 69043, 64977 formerly 68842, 64978 formerly 69044

- 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.
- Preliminary data.

### General Notes:

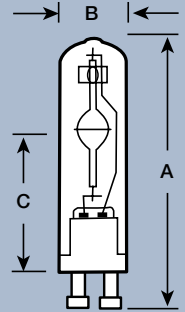
- Contact your local OSRAM SYLVANIA representative for compatible electronic ballasts.
- All ceramic lamps should be used with 4000V pulse rated socket only.
- No special handling requirements during installation (i.e., gloves not required). Always follow normal safety precautions during installation.

## Ordering Guide

MC	20	TF	/	U	/	GU6.5	/	830
M=METALARC® C=Ceramic	Wattage: 15, 20, 39	Bulb Shape TF = T4		Operation Position: Universal		Base: GU6.5		8 = 80+ CRI 9 = 90+ CRI 30 = 3000K CCT

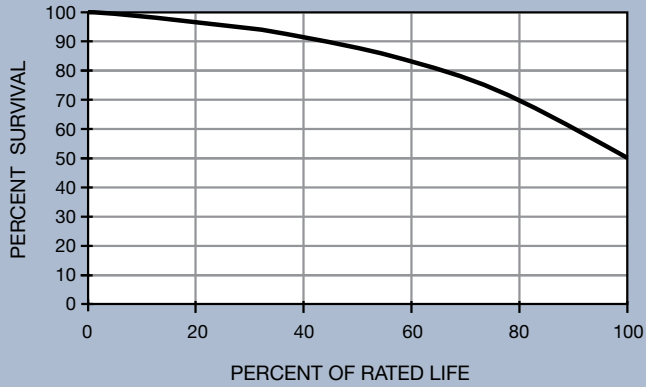
## Lamp Dimensions

Bulb Size	Bulb Finish	Base	(A) Max. Overall Length	(B) Max. Diameter	(C) Light Center Length
T4	Clear	GU6.5	2.36" (57mm)	0.51" (13mm)	1.18" (30mm)

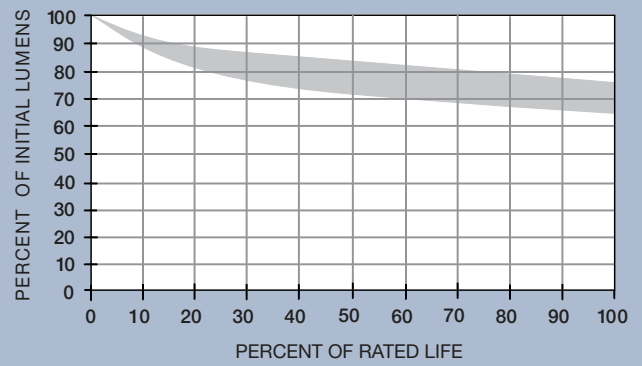


## Technical Information

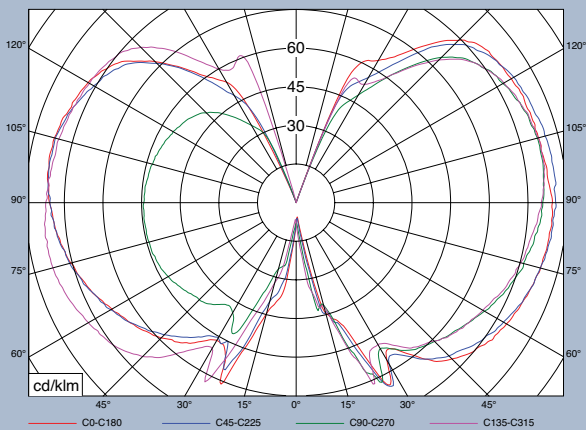
Typical Mortality Curve



Typical Lumen Maintenance Curve



Intensity Distribution/Polar Graph



## Related Literature

METALARC POWERBALL TF Systems (Literature code: HID063)

Ballast Technology Applications & Specification Guide (Literature code: ECS-Electronic2009)

QUICKTRONIC MH Electronic Metal Halide Systems (Literature code: ECS124)

QUICK 60+ System Warranty (Literature code: ECS140)

**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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Specifications subject to change without notice.

**HID060R7**

## Sample Specification

Lamp(s) shall be METALARC® POWERBALL® MCXXTF/U/GU6.5/800 lamp(s), with a wattage of 15, 20 or 39 and shall be constructed with a spherical ceramic POWERBALL arc tube with initial lumens of 1,200, 1,700 or 3,400. Lamp(s) shall have an average rated life of 15,000 hours, CRI of 82, 85 or 90, CCT of 3000K, and shall exhibit a maximum color shift of +/-150K over life. Lamps shall be rated for enclosed rated fixture use.

Lamps shall be operated on QUICKTRONIC® MH electronic metal halide ballasts and the system shall be covered by the SYLVANIA QUICK 60+® System Warranty.

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