METALARC® POWERBALL® Ceramic
High CRI, Ceramic Metal Halide Tubular Single & Double-Ended Lamps

Advantages of POWERBALL Ceramic Arc Tube Technology
- Excellent CRI, up to 95, yields more natural colors
- Long life and high efficacy
- Lower thermal output than tungsten halogen lamps having similar light output
- Superior color stability over the life of the lamp
- Improved lamp-to-lamp color consistency*

- UV-Stop technology significantly reduces UV output and minimizes discoloration and fading of materials
- Pulse start arc tube technology
- Strong G8.5 bases on TC lamps allow for more robust handling
- Compact light sources improve fixture optics
- QUICK 60+® System Warranty when paired with QUICKTRONIC® MH electronic metal halide ballasts

* Compared to quartz metal halide lamps of similar wattage

METALARC POWERBALL Ceramic T 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. Compared to conventional quartz metal halide products, SYLVANIA ceramic arc tube metal halide lamps exhibit less color variation and higher efficacy. Their high mean lumens, excellent color characteristics and compact size allow them to be used in a wide variety of applications.

METALARC POWERBALL Ceramic lamps operate on existing ANSI specified magnetic ballasts and on compatible electronic ballasts. The lamps can be used in appropriate existing fixtures designed for metal halide lamps of similar wattages and configurations.

To maximize energy savings, system performance and system warranty, consider operating these lamps on QUICKTRONIC MH electronic metal halide ballasts.

<table>
<thead>
<tr>
<th>Wattage</th>
<th>Bulb Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>T4.5</td>
</tr>
<tr>
<td>39</td>
<td>T4.5, T6</td>
</tr>
<tr>
<td>70</td>
<td>T4.5, T6</td>
</tr>
<tr>
<td>100</td>
<td>T6</td>
</tr>
<tr>
<td>150</td>
<td>T7.5</td>
</tr>
</tbody>
</table>

Application Information

Applications
- Accent/track lighting
- Displays
- Facade lighting
- Indirect luminaires
- Landscape luminaires
- Recessed downlights
- Studio lighting

Application Notes
1. METALARC POWERBALL Ceramic T4.5, T6, T7.5 and double-ended products must be operated in enclosed fixtures capable of containing particles as hot as 1200°C.

Ballast Information
Contact your OSRAM SYLVANIA representative or visit www.sylvania.com for a list of compatible electronic control systems and download the latest Ballast Technology & Specification Guide.
### Ordering Information

**For Enclosed Rated Fixtures**

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Ordering Abbreviation</th>
<th>Watts</th>
<th>Bulb</th>
<th>Base</th>
<th>ANSI Code</th>
<th>Average Rated Life (hr.)</th>
<th>Initial Lumens</th>
<th>Mean Lumens</th>
<th>CCT</th>
<th>CRI</th>
<th>Lamp Efficacy (LPW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>64975*</td>
<td>MC20TC/U/G8.5/830 PB</td>
<td>20</td>
<td>T4.5</td>
<td>G8.5</td>
<td>C156/E</td>
<td>15,000</td>
<td>1,700</td>
<td>1,275</td>
<td>3000K</td>
<td>83</td>
<td>85</td>
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<tr>
<td>64971*</td>
<td>MC39TC/U/G8.5/830 PB</td>
<td>39</td>
<td>T4.5</td>
<td>G8.5</td>
<td>C130/E</td>
<td>15,000</td>
<td>3,400</td>
<td>2,720</td>
<td>3000K</td>
<td>82</td>
<td>87</td>
</tr>
<tr>
<td>64963*</td>
<td>MC39T6/U/G12/930 PB</td>
<td>39</td>
<td>T6</td>
<td>G12</td>
<td>C130/E</td>
<td>15,000</td>
<td>3,100</td>
<td>2,470</td>
<td>3000K</td>
<td>93</td>
<td>72</td>
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<tr>
<td>64974*</td>
<td>MC70TC/U/G8.5/930 PB</td>
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<td>T4.5</td>
<td>G8.5</td>
<td>C139/E</td>
<td>15,000</td>
<td>6,300</td>
<td>5,040</td>
<td>3000K</td>
<td>95</td>
<td>90</td>
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<td>64969*</td>
<td>MC70T6/U/G12/830 PB</td>
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<td>T6</td>
<td>G12</td>
<td>C139/E</td>
<td>15,000</td>
<td>7,000</td>
<td>5,600</td>
<td>3000K</td>
<td>87</td>
<td>100</td>
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<td>64964*</td>
<td>MC70T6/U/G12/930 PB</td>
<td>70</td>
<td>T6</td>
<td>G12</td>
<td>C139/E</td>
<td>15,000</td>
<td>6,400</td>
<td>5,120</td>
<td>3000K</td>
<td>95</td>
<td>91</td>
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<tr>
<td>64967*</td>
<td>MC70T6/U/G12/940 PB</td>
<td>70</td>
<td>T6</td>
<td>G12</td>
<td>C139/E</td>
<td>15,000</td>
<td>6,700</td>
<td>5,360</td>
<td>4200K</td>
<td>93</td>
<td>96</td>
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<td>64160</td>
<td>MC100T6/U/G12/830 PB</td>
<td>100</td>
<td>T6</td>
<td>G12</td>
<td>C191/E</td>
<td>15,000</td>
<td>9,500</td>
<td>7,600</td>
<td>3000K</td>
<td>85</td>
<td>95</td>
</tr>
<tr>
<td>64968*</td>
<td>MC150T7.5/U/G12/830 PB</td>
<td>150</td>
<td>T7.5</td>
<td>G12</td>
<td>C142/E</td>
<td>15,000</td>
<td>15,500</td>
<td>12,400</td>
<td>3000K</td>
<td>89</td>
<td>103</td>
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<tr>
<td>64966*</td>
<td>MC150T7.5/U/G12/940 PB</td>
<td>150</td>
<td>T7.5</td>
<td>G12</td>
<td>C142/E</td>
<td>15,000</td>
<td>14,500</td>
<td>11,600</td>
<td>4200K</td>
<td>95</td>
<td>97</td>
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<tr>
<td>64972*</td>
<td>MC70T6/DE/830 PB</td>
<td>70</td>
<td>T6</td>
<td>R7S</td>
<td>RSC</td>
<td>C139/E</td>
<td>15,000</td>
<td>6,900</td>
<td>5,520</td>
<td>3000K</td>
<td>88</td>
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<tr>
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<td>150</td>
<td>T7.5</td>
<td>RX7S</td>
<td>RSC</td>
<td>C142/E</td>
<td>15,000</td>
<td>14,800</td>
<td>11,840</td>
<td>3000K</td>
<td>91</td>
</tr>
</tbody>
</table>

*64975 formerly 64882, 64971 formerly 64791, 64963 formerly 64162, 64970 formerly 64363, 64974 formerly 64825, 64969 formerly 64361, 64964 formerly 64200, 64967 formerly 64338, 64968 formerly 64359, 64966 formerly 64337, 64972 formerly 64793, 64973 formerly 64794.

1. The circuit must include overcurrent protection (i.e., thermally switched ballast).
2. Minimum open circuit voltage for starting is measured with the ignitor in the circuit, minimum open circuit voltage is 209 VRMS.
3. Designed for operation only on electronic ballasts.
4. The first letter of an ANSI high-intensity discharge lamp designation represents the lamp type. "M" represents quartz metal halide lamps and "C" represents ceramic metal halide lamps. Following the lamp type, there is a number representing the electrical characteristics of the ballast. "M" or "C" lamps with the same electrical numbers will operate on the same ballasts (per ANSI C78.380-2007). For example, a 150W ceramic metal halide lamp that is intended to operate on a ballast intended for M102 quartz metal halide lamps would have the designation C102.
5. Performance based on electronic ballast operation.
6. 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

<table>
<thead>
<tr>
<th>MC</th>
<th>T7</th>
<th>T6</th>
<th>DE</th>
<th>U</th>
<th>G12</th>
<th>830</th>
<th>PB</th>
</tr>
</thead>
<tbody>
<tr>
<td>M=METALARC®</td>
<td>70</td>
<td>T6</td>
<td>_</td>
<td>DE</td>
<td>U</td>
<td>G12</td>
<td>830</td>
</tr>
<tr>
<td>C=Ceramic</td>
<td>20, 39, 70</td>
<td>T4.5 (TC), T6</td>
<td>T7.5</td>
<td>= Single Ended</td>
<td>Operating position: Universal</td>
<td>Base: G8.5, G12</td>
<td>8=80+ CRI</td>
</tr>
</tbody>
</table>

Wattage: Bulb Shape: Wattage: Bulb Shape: Wattage: Bulb Shape:
## Technical Information

### Typical Mortality Curve

![Typical Mortality Curve](image)

### Typical Lumen Maintenance Curve

![Typical Lumen Maintenance Curve](image)

### Lamp Dimensions

<table>
<thead>
<tr>
<th>Lamp Shape</th>
<th>Lamp Wattage</th>
<th>(A) MOL</th>
<th>(B) LCL</th>
<th>(C) Bulb Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC</td>
<td>20, 39, 70</td>
<td>3.19”</td>
<td>2.05”</td>
<td>0.591” (15mm)</td>
</tr>
<tr>
<td>T6/G12</td>
<td>39, 70</td>
<td>3.94”</td>
<td>2.20”</td>
<td>0.748” (19mm)</td>
</tr>
<tr>
<td>T6/G12</td>
<td>100</td>
<td>4.13”</td>
<td>2.20”</td>
<td>0.748” (19mm)</td>
</tr>
<tr>
<td>T7.5/G12</td>
<td>150</td>
<td>4.13”</td>
<td>2.20”</td>
<td>0.984” (25mm)</td>
</tr>
<tr>
<td>T6/RSC</td>
<td>70</td>
<td>4.50”</td>
<td>2.25”</td>
<td>0.827” (20mm)</td>
</tr>
<tr>
<td>T7.5/RSC</td>
<td>150</td>
<td>5.20”</td>
<td>2.60”</td>
<td>0.945” (23mm)</td>
</tr>
</tbody>
</table>

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**A**

**B**

**C**
Lamp(s) shall be METALARC® POWERBALL® Ceramic MC70T6/U/G12/830 lamp(s), and shall be constructed with a spherical shaped ceramic arc-tube with initial lumens of 7000. Lamp(s) shall have an average rated life of 15,000 hours, CRI of 87, CCT of 3000K, and shall exhibit a maximum color shift of ±150K over life. Lamps shall be rated for open 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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SYLVANIA Lighting Services
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Fax: 866-239-1278

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Tultitlan/Edo de Mexico
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www.sylvania.com

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Specifications subject to change without notice.

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.