

## GE Consumer & Industrial Lighting

# GE Watt-Miser® Multi-Vapor® Lamps Featuring XHO



**Upgrade standard 175-watt and 400-watt metal halide to reduce energy costs...save up to \$80 per socket.**

### **XHO Watt-Miser® Lamp Features High Lumen Package, Lower Energy Costs**

GE's 360-watt XHO Watt-Miser® Multi-Vapor® lamp provides the same light as 400-watt high output metal halide lamps.

Compared to standard 400-watt universal burn metal halide lamps, the GE XHO Watt-Miser® Multi-Vapor® offers more light (3,000 additional lumens) for 10% fewer watts.

GE's 150 watt XHO Watt-Miser® Multi Vapor® lamp provides nearly the same light as 175-watt high output metal halide lamps.

### **Watt-Miser® Multi-Vapor® Delivers up to 14% Energy Cost Savings.**

Save 14% or up to \$25 per socket when replacing standard 175-watt metal halide; save 10% or up to \$80<sup>1</sup> per socket when replacing standard 400-watt metal halide. Plus... Watt-Miser® Multi-Vapor® lamps provide virtually the same light<sup>2</sup> as the standard lamps replaced.

### **Fits Existing Metal Halide Sockets.**

Replacement is easy...simply take out your existing 175-and 400-watt metal halide lamps and replace them with GE Watt-Miser® Multi-Vapor® lamps. No new wiring or fixture needed.

GE Watt-Miser® Multi-Vapor® lamps are specially designed to work on existing M57 and M59 CWA ballasts.<sup>3</sup> Life and operating performance are maintained.

### **High Efficiency...while Delivering the Same Life As Standard Metal Halide.**

GE's special Watt-Miser® design lets you cut energy costs while getting the same life as the standard metal halide lamps replaced.



<sup>1</sup> 10¢ per KWH over lamp life

<sup>2</sup> 360-watt provides the same light and 150-watt delivers 97% of lumen output of new standard metal halide lamps.

<sup>3</sup> Wattage reductions occur only on CWA ballasts. Not recommended for use on reactor ballasts.



**imagination at work**

# GE Watt-Miser® Multi-Vapor® Lamp Specifications

Product Code	Description	Ballast Type	Watts Saved vs Standard MH	Initial Lumens	Energy Savings*
13481	MVR150/U/WM	M57	25	13,500	\$25.00
13490	MVR150/C/U/WM	M57	25	12,800	\$25.00
40053	MVR360/VBU/WM/XHO	M59	40	39,000	\$80.00
40055	MVR360/C/VBU/WM/XHO	M59	40	37,500	\$80.00
40056	MPR360/VBU/WM/O	M59	40	34,500	\$80.00

\*Actual energy savings may vary based on ballast efficiency in specific installation. Use on CWA ballasts only.

Product Information	Clear 150-Watt	Coated 150-Watt	Clear 360-Watt	Coated 360-watt	Clear 360-watt
GE Product Code	13481	13490	40053	40055	40056
Refer to ANSI Code	M57	M57	M59	M59	M59
Description	MVR150/U/WM	MVR150/C/U/WM	MVR360/VBU/WM/XHO	MVR360/C/VBU/WM/XHO	MPR360/VBU/WM/O
<b>Physical Characteristics</b>					
Burning Position	Universal	Universal	Vert Base Up ± 15°	Vert. Base Up" 15°	Vert. Base Up" 15°
Bulb Designation	ED28	ED28	ED37	ED37	ED37
Bulb Material	Heat-Resistant Glass	Heat-Resistant Glass	Hard Glass	Hard Glass	Hard Glass
Base Type	Mogul Screw	Mogul Screw	Mogul (E39)	Mogul (E39)	Mogul (E39)
Bulb Nominal Diameter, mm (in.)	88.9 (3.5")	88.9 (3.5")	117.5 (4.625")	117.5 (4.625")	117.5 (4.625")
Light Center Length, mm (in.)	127 (5")	127 (5")	178 (7")	178 (7")	178 (7")
Max. Overall Length, mm (in.)	209.5 (8.25")	209.5 (8.25")	287.5 (11.312")	287.5 (11.312")	287.5 (11.312")
Effective Arc Length,mm (in.)	14 (0.562")	14 (0.562")	33 (1.25")	33 (1.25")	41 (1.625")
Max. Bulb Temp. °C	400° C	400° C	400° C	400° C	400° C
Max. Base Temp. °C	190° C	190° C	210° C	210° C	210° C
Eccentricity: Bulb to Base	3°	3°	3°	3°	3°
Eccentricity: Bulb to Arc Axis	3°	3°	3°	3°	3°
<b>Luminaire Characteristics</b>					
Vertical ±15	Enclosed	Enclosed	Open or Enclosed	Open or Enclosed	Open
<b>Electrical Characteristics</b>					
Nominal Lamp Watts	150	150	360	360	360
Nominal Lamp Volts	110	110	120	120	120
Nominal Lamp Amps -Operating	1.5	1.5	3.2	3.2	3.2
Max. Current Crest Factor	1.8	1.8	1.8	1.8	1.8
<b>Photometric Characteristics</b>					
Reference *-Initial Lumens	13,500V/11,500H	12,800V/10,900H	39,000	37,500	34,500
Avg. Rated Life (Hrs.) 10 Hrs/Start	10,000	10,000	20,000	20,000	20,000
Color Rendering Index (Ra) CRI @ K²	65 @ 4000K	70 @ 3700K	65 @ 4200K	70 @ 4000K	65 @ 4000K
Warm Up time (Minutes) to 90%	1 to 2	1 to 2	3 to 5	3 to 5	3 to 5
Hot Restart time(Minutes) to 90%	5 to 10	5 to 10	10 to 15	10 to 15	10 to 15
Chromaticity Coordinates: X-	.385	.395	.385	.395	.385
Chromaticity Coordinates: Y-	.390	.390	.390	.397	.390

1) **Reference Lumens** -Rated lamp lumens obtained under controlled laboratory conditions in a prescribed burning position. Initial Reference Lumens refer to the lamp lumen output after 100 hours burning. Mean Reference Lumens refer to the lamp lumen output at the mean lumen point during lamp life. The mean lumen point occurs at 40% rate life for metal halide lamps. Lamp performance on typical systems under typical service conditions will vary from the reference lumen ratings.

2) Metal halide lamps are multi-component lamps and will have wider color variations than the single-component mercury lamps. These will be increased by the lighting fixtures' electrical, thermal and physical characteristics. Arc tube darkening occurring throughout life will also change lamp-to-lamp color.

Metal Halide lamps are constructed of an outer bulb with an internal arc tube made of quartz. The arc tube operates under high pressure at very high temperatures -as high as approximately 1000°C. The arc tube and outer bulb may unexpectedly rupture due to internal causes or external factors such as a system failure or misapplication.

**Relamp Fixtures at or Before the End of Rated Life** -Beyond rated life, light output diminishes while energy consumption and risk of rupture increases.

Lamp must only be operated in the types of fixtures prescribed in this specification bulletin. When used, fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C). If in doubt, contact your fixture manufacturer.

In continuous operating systems (24 hours/day, 7 days/week), turn lamps off once per week for at least 15 minutes. Failure to comply increases the risk of rupture.

**Important Notice:** In accordance with Federal Standard 21CFR 1040.3, the following notice applies to the Multi-Vapor lamps described above.

**Warning:** This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured, and the arc tubes continue to operate. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain types of lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available from General Electric Company.

For additional product and application information,  
please consult GE's Website: [www.gelighting.com](http://www.gelighting.com)