



# TECHNICAL BULLETIN

## METAL HALIDE

**EYE Multi-Metal™**  
M400/U

ANSI Code: M59/E

Product Code: 58110

**Features:**

- High initial and maintained lumens
- Operates in all positions
- Economical general lighting replacement lamp

### PERFORMANCE DATA

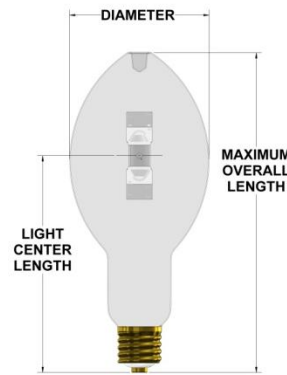
Operating position	Universal	--
Initial lumens at rated watts after 100 hours operation	36,000V 32,000H	Lumens
Mean lumens	23,500V 20,500H	Lumens
Rated average life	20,000V 15,000H	Hours
Warm up time (90% lumens)	4	Minutes
Hot re-strike time	15	Minutes
Correlated color temperature	4000	K
CIE chromaticity	0.395,0.399	x,y
Color rendering index	65	--

### ELECTRICAL CHARACTERISTICS

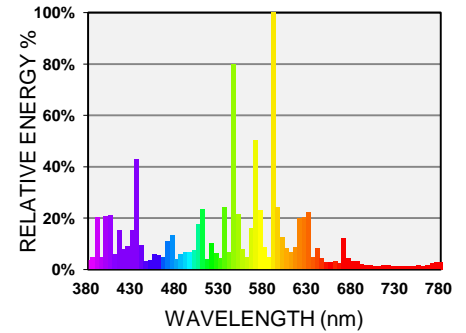
Nominal lamp wattage	400	Watts
Nominal lamp voltage	135	Volts
Nominal lamp current	3.25	Amps
Current crest factor	1.8	--
Ballast requirements	M59/E	--
Open circuit voltage	382	--
10°C (50°F)		Vms (Vpeak)
30°C (-22°F)	540	Vms (Vpeak)
Starting current		--
Minimum	3.2	Ams
Maximum	5.0	Ams

### PHYSICAL DESCRIPTION

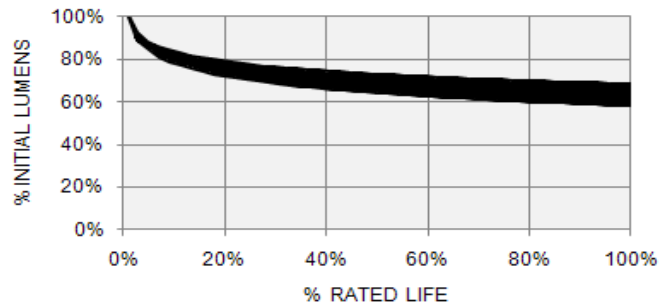
Base designation	E39 Mogul	--
Bulb designation/shape	ED37	--
Bulb finish	Clear	--
Bulb material (Borosilicate)	Borosilicate	--
Arc tube material	Quartz	--
Effective arc length	1.496" (38)	In(mm)
Maximum overall length	11.5" (292)	In(mm)
Nominal bulb diameter	4.6" (117)	In(mm)
Light center length	7.0" (178)	In(mm)
Maximum bulb temperature	400 (752)	°C(°F)
Maximum base temperature	210 (410)	°C(°F)
Base to bulb eccentricity	3	°max.



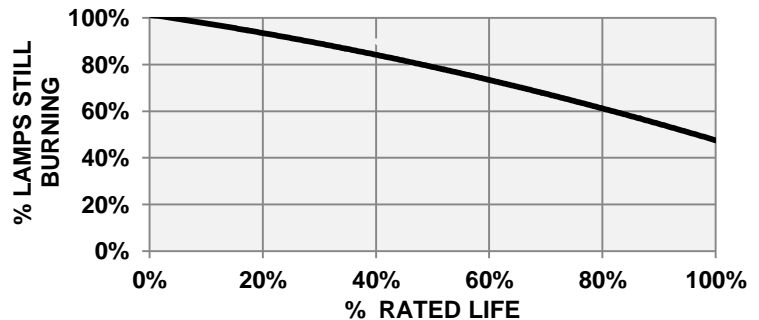
### SPECTRAL DISTRIBUTION



### LUMEN MAINTENANCE



### LAMP MORTALITY



OSHAS 18001:2007 Certified ISO 17025:2005 Accredited ISO 9001:2008 Certified ISO 14001:2004 Certified



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**⚠ WARNING**

This lamp can cause serious skin burn and eye inflammation from short-wave ultraviolet radiation if 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.

**RISK OF ELECTRIC SHOCK**

•Turn power off before inspection, installation or removal •Protect lamp from direct contact with liquids to avoid breakage from thermal shock

**RISK OF FIRE**

•Keep combustible materials away from lamp during operation

**UNEXPECTED LAMP RUPTURE MAY CAUSE INJURY, FIRE, OR PROPERTY DAMAGE**

•Do not exceed rated ballast voltage •Do not use lamp if outer glass is scratched or broken. •Do not use beyond rated life •Do not turn on lamp until fully installed •Use only with a fixture and ballast rated for this product •Turn lamp off at least once a week for 15 minutes •Electrically insulate any metal to glass support in fixture

**⚠ CAUTION**

**RISK OF BURN**

•Allow lamp to cool before handling.

**LAMP MAY SHATTER AND CAUSE INJURY**

•Do not use excessive force when installing lamp •Dispose of lamp in a closed container

**LAMP OPERATING INSTRUCTIONS**

This is a discharge lamp and requires some time to restart and come up to full brightness after a power interruption. If power supply dips or is interrupted, lamps may extinguish and not restart.

Turn off power supply for 10-15 minutes and allow lamp to fully cool. Lamp will restart when power is restored.

**R** **Conforms to:**  
USA: 21CFR1040.30 Canada: ANSI 136.1-2000

**Hg** **Lamp contains Mercury.**  
Manage in Accord with Disposal Laws

OSHAS 18001:2007 Certified ISO 17025:2005 Accredited ISO 9001:2008 Certified ISO 14001:2004 Certified



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INTERNATIONAL

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