



# TECHNICAL BULLETIN METAL HALIDE

## EYE Multi Metal™ M400SX/HOR/BT28

ANSI Code: M59/E

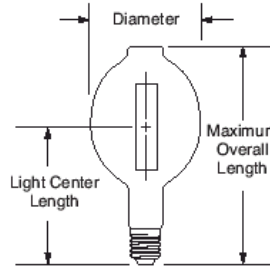
Product Code: 52680

**Features:**

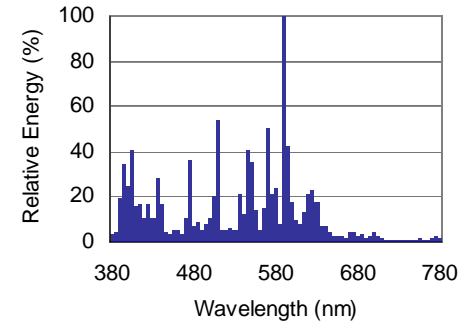
- High Output, Horizontal Operation Metal Halide
- High initial and maintained lumens
- Superior lamp to lamp color consistency
- Nickel-plated base
- Pinless design base enables the lamp to operate on both normal socket and pin-oriented socket

### PERFORMANCE DATA

Initial lumens at rated watts after 100 hours operation	39000	lm
Mean lumens at 10 hours/start	30800	lm
Rated average life	20000	h
Warm up time, maximum	4	min
Correlated color temperature	4200	K
CIE chromaticity	0.380, 0.400	X, Y
Color rendering index (Ra)	65	
Operating Position	Horizontal ± 15°	
Time to hot re-start, maximum	15	min



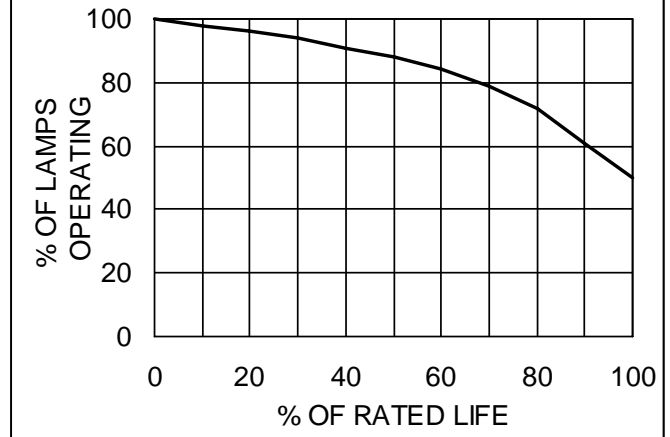
### SPECTRAL DISTRIBUTION



### ELECTRICAL CHARACTERISTICS

Nominal lamp wattage	400	W
Nominal lamp voltage	133	V
Nominal lamp current	3.25	A <sub>rms</sub>
Maximum current crest factor	1.8	-
Maximum starting current	5.0	A <sub>rms</sub>
Minimum starting current	3.2	A <sub>rms</sub>
Ballast requirements	Use with ballast rated for ANSI M59 lamp	
Open circuit voltage (CWA) -30°C (-22°F)	382	V <sub>rms</sub>
	540	V <sub>peak</sub>
Pulse requirements	None	
Lampholder voltage rating	600	V

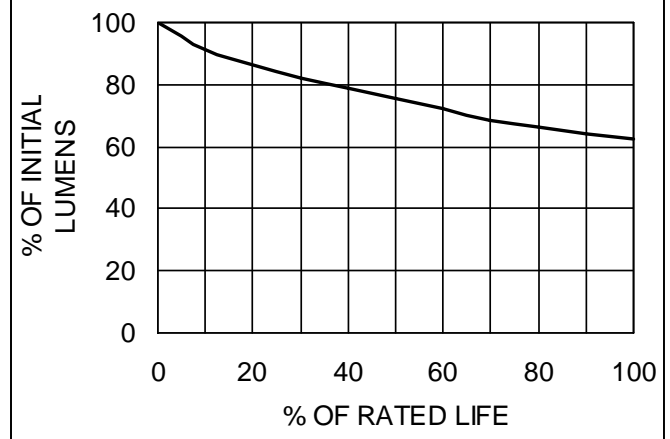
### LAMP MORTALITY



### PHYSICAL DESCRIPTION

Maximum overall length	211 (8.312)	mm (in)
Light center length	127 (5.0)	mm (in)
Bulb diameter	89 (3.5)	mm (in)
Max. base - bulb eccentricity	3	Degrees
Maximum base temperature	210 (410)	°C (°F)
Maximum bulb temperature	400 (752)	°C (°F)
Bulb designation	BT28	
Bulb material	Borosilicate (Hard Glass)	
Arc tube material	Quartz	
Effective arc length	43 (1.693)	mm (in)
Bulb finish	Clear	
Base designation	E39 Mogul	

### LUMEN MAINTENANCE



### FIXTURE REQUIREMENT

E Rated - Enclosed fixture required

ISO 9001:2008 Certified    ISO 14001:2004 Certified  
**EYE LIGHTING INTERNATIONAL**  
**OF NORTH AMERICA, INC.**  
 A SUBSIDIARY OF IWASAKI ELECTRIC CO., LTD.

OSHAS 18001:2007 Certified    ISO 17025:2005 Accredited

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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.

<b>R</b>	Conforms to: USA: 21CFR1040.30
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**Hg-LAMP CONTAINS MERCURY**

Manage in Accord with Disposal Laws

See: [www.lamprecycle.org](http://www.lamprecycle.org) or 1-888-665-2677

