



TECHNICAL BULLETIN METAL HALIDE

EYE Multi Metal™ M400SX/HOR/BT28

ANSI Code: M59/E

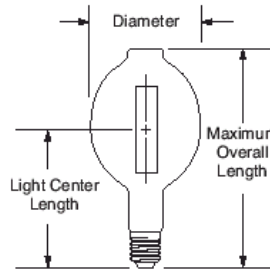
Product Code: 52680

Features:

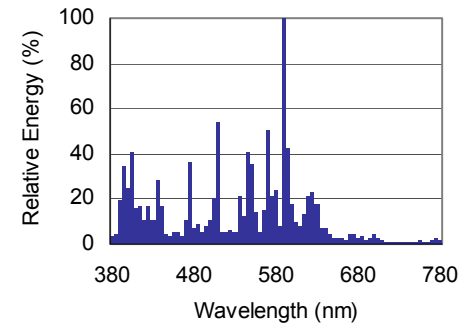
- High Output, Horizontal Operation Metal Halide
- High initial and maintained lumens
- Superior lamp to lamp color consistency
- Nickel-plated base
- Pinless design base enables the lamp to operate on both normal socket and pin-oriented socket

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



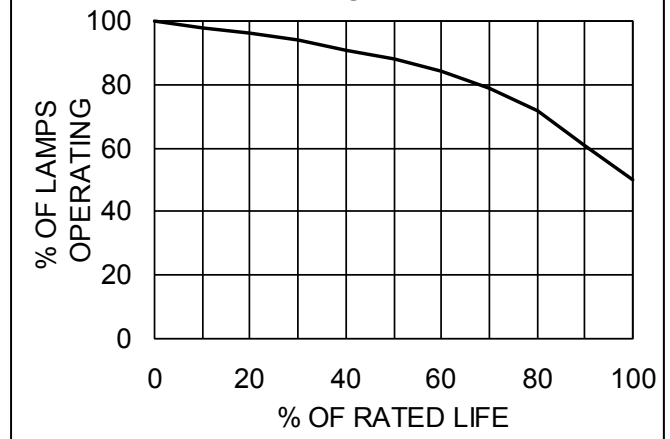
SPECTRAL DISTRIBUTION



ELECTRICAL CHARACTERISTICS

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

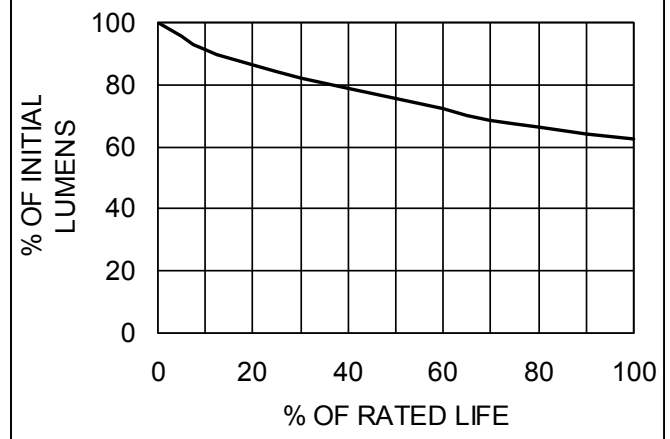
LAMP MORTALITY



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



**EYE LIGHTING INTERNATIONAL
OF NORTH AMERICA, INC.**
A SUBSIDIARY OF IWASAKI ELECTRIC CO., LTD.

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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.

R	Conforms to: USA: 21CFR1040.30
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Hg-LAMP CONTAINS MERCURY
Manage in Accord with Disposal Laws
See: www.lamprecycle.org or 1-888-665-2677