



# TECHNICAL BULLETIN METAL HALIDE

## EYE Multi Metal M320/BU-HOR/PS/BT28

ANSI Code: M154/E

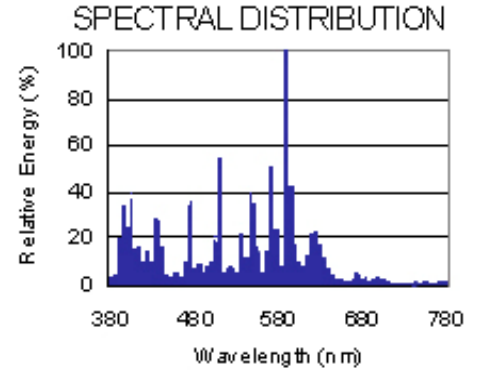
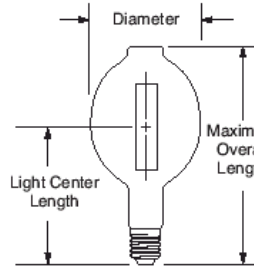
Product Code: 54334

**Features:**

- High Output, Position Oriented Metal Halide
- High initial and maintained lumens
- Superior lamp to lamp color consistency
- Pulse Start Performance

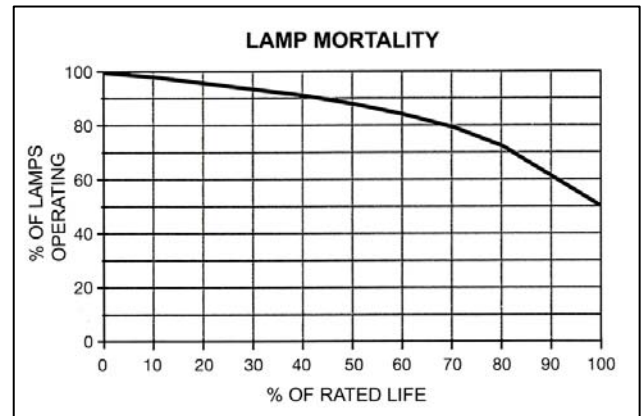
### PERFORMANCE DATA

Initial lumens at rated watts after 100 hours operation	32000V 30000H	lm
Mean lumens at 10 hours/start	21000V 19700H	lm
Rated average life at 120hrs/start	NA	h
Rated average life at 10hrs/start	20000V 15000H	h
Warm up time, typical	2 - 4	min
Correlated color temperature	4300	K
CIE chromaticity	0.372, 0.388	x, y
Color rendering index (Ra)	65	
Operating Position	Base Up to Horizontal	
Time to hot re-start, typical	5-7	min



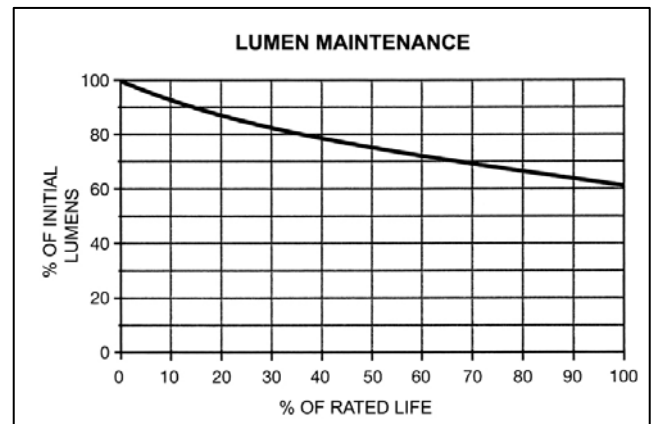
### ELECTRICAL CHARACTERISTICS

Nominal lamp wattage	320	W
Nominal lamp voltage	135	V
Nominal lamp current	2.63	A <sub>rms</sub>
Maximum current crest factor	1.8	-
Maximum starting current	4.0	A <sub>rms</sub>
Minimum starting current	2.63	A <sub>rms</sub>
Ballast requirements	Use with ballast rated for ANSI M154/E lamp	
Open circuit voltage -30°C (-22°F)	254	V <sub>rms</sub>
	359	V <sub>peak</sub>
Pulse requirements	Ignitor	
Minimum pulse height	3.0	kV
Maximum pulse height	4.0	kV
Minimum pulse width	1.3 @ 2.7	us@kV
Minimum pulse repetition rate	1	Per half cycle
Pulse position(s)	64-110, 244-290	°(cycle)



### PHYSICAL DESCRIPTION

Maximum overall length	211 (8.31)	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	250 (482)	°C (°F)
Maximum bulb temperature	400 (752)	°C (°F)
Bulb designation	BT28	
Bulb material	Borosilicate (Hard Glass)	
Arc tube material	Quartz	
Effective arc length	35 (1.38)	mm (in)
Bulb finish	Clear	
Base designation	E39 Mogul	
Base finish	Brass	



### FIXTURE REQUIREMENT

E Rated - Enclosed fixture. Operating position base up through horizontal.

ISO 9001:2008 Certified

ISO 14001:2004 Certified

OSHAS 18001:2007 Certified

ISO 17025:2005 Accredited



**EYE LIGHTING INTERNATIONAL  
OF NORTH AMERICA, INC.**

A SUBSIDIARY OF IWASAKI ELECTRIC CO., LTD.

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EQS-N-52-78-54334

April 9, 2009



**⚠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.**

<b>R</b>	Conforms to: USA: 21CFR1040.30
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**Hg-LAMP CONTAINS MERCURY**  
Manage in Accord with Disposal Laws

ISO 9001:2008 Certified

ISO 14001:2004 Certified

OSHAS 18001:2007 Certified

ISO 17025:2005 Accredited



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**METAL HALIDE**

**EYE Multi Metal™**  
**M320/BU-HOR/PS/BT28**

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

ISO 9001:2000 Certified      ISO 14001:2004 Certified



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