



# TECHNICAL BULLETIN

## METAL HALIDE LAMP

**Metal Halide Retrofit from HPS**  
**EYE Multi Metal Ace™**  
**MF1000BX/U/LU**

**ANSI Code:**

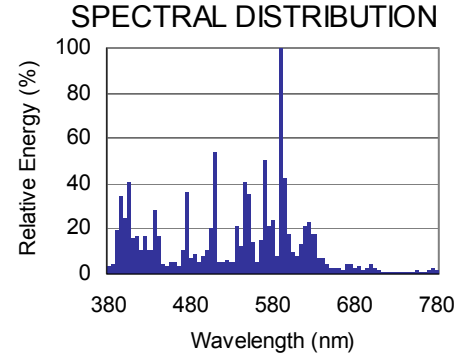
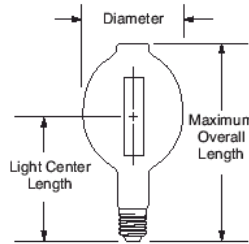
**Product Code: 51920**

**Features:**

- Works in all HPS lighting systems with an ignitor
- Improves color rendering index from 20 CRI to 60 CRI
- Excellent lamp to lamp color consistency
- Nickel-plated base
- Applications-Parking lots, manufacturing, warehouse

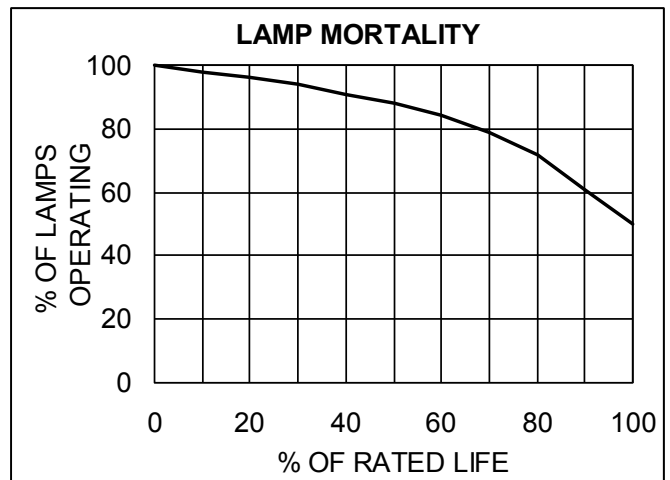
### PERFORMANCE DATA

Initial lumens at rated watts after 100 hours operation	104700V 100200H	lm
Mean lumens at 10 hours/start	81200V 77600H	lm
Average life	12000V 9000H	h
Warm up time, maximum	4	min
Correlated color temperature	3800	K
CIE chromaticity	0.376, 0.396	x, y
Color rendering index (Ra)	70	
Operating Position	Universal	
Time to hot re-start, maximum	15	min



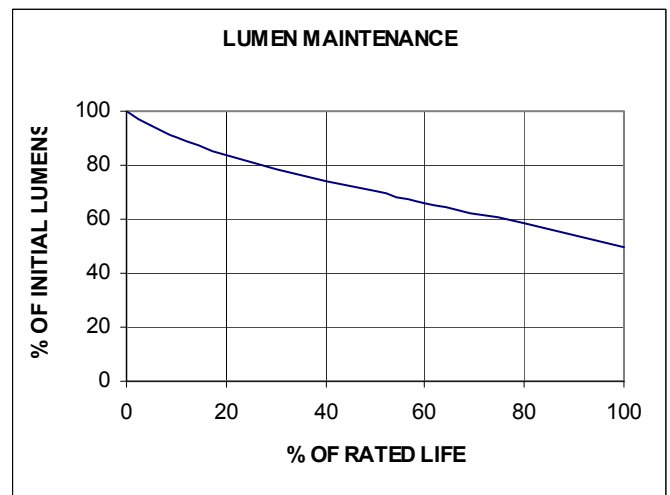
### ELECTRICAL CHARACTERISTICS

Nominal lamp wattage	1000	W
Nominal lamp voltage	250	V
Nominal lamp current	4.5	A <sub>rms</sub>
Maximum current crest factor	1.8	-
Maximum starting current	6.5	A <sub>rms</sub>
Minimum starting current	4.5	A <sub>rms</sub>
Ballast requirements	Use with ballast rated for ANSI S52 lamp	
Open circuit voltage (CWA) -30°C (-22°F)	456	V <sub>rms</sub>
	645	V <sub>peak</sub>
Lamp holder voltage rating	4	kV
<b>IGNITOR REQUIREMENTS</b>		
Min. Pulse Height	3000	V
Max. Pulse Height	5000	V
Min. Pulse Width	4.0@2700	µsec@V
Min. Pulse repetition	1	half cycle
Pulse Positions	60-90	degrees
	240-270	



### PHYSICAL DESCRIPTION

Maximum overall length	386 (15.38)	mm (in)
Light center length	241 (9.48)	mm (in)
Bulb diameter	178 (7.0)	mm (in)
Max. base - bulb eccentricity	3	deg
Maximum base temperature	210 (410)	°C (°F)
Maximum bulb temperature	400 (752)	°C (°F)
Bulb designation	BT56	
Bulb material	Borosilicate (Hard Glass)	
Arc tube material	Quartz	
Effective arc length	42 (1.65)	mm (in)
Bulb finish	Phosphor coated	
Base designation	E39 Mogul	



### FIXTURE REQUIREMENT

E Rated-Enclosed, universal burning position



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

Address: 9150 Hendricks Rd., Mentor, OH 44060  
 Phone: 888-66-LAMPS Fax: 800-811-7395 E-Mail: sales@eyelighting.com  
 Phone: (440) 350-7000 Fax: (440) 350-7001 [www.eyelighting.com](http://www.eyelighting.com)

TB MF1000BX\_U\_LU 6/3/2004

EQS-N-52-78-51920



# TECHNICAL BULLETIN

## METAL HALIDE

Metal Halide Retrofit from HPS  
EYE Multi Metal Ace™  
M400X/U/LU

### ⚠ 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

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



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