



# TECHNICAL BULLETIN

## METAL HALIDE

# EYE Pulse Start

## M400X/U/PS/BT28

ANSI CODE M135/155/E

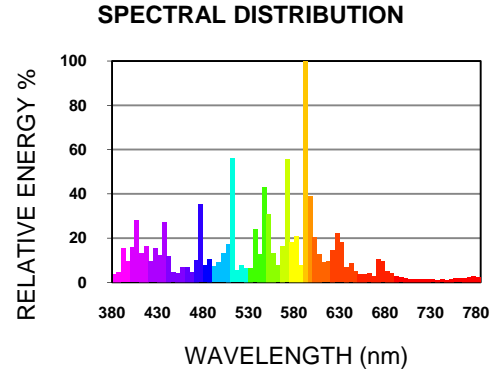
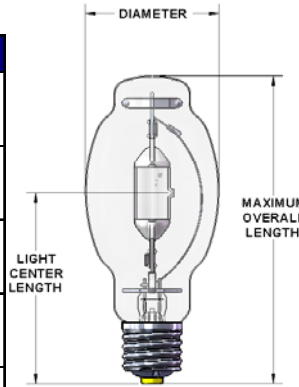
Product Code: 52545

**FEATURES:**

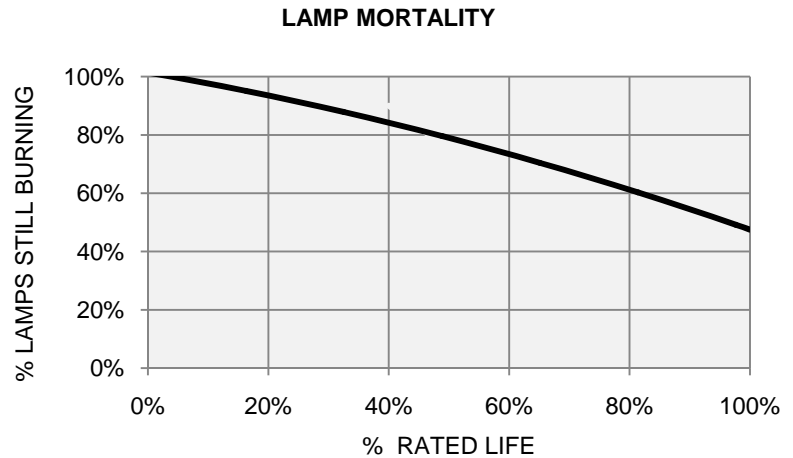
- High Output, Universal Metal Halide
- High initial and maintained lumens
- Superior lamp to lamp color consistency

- Pulse Start Performance

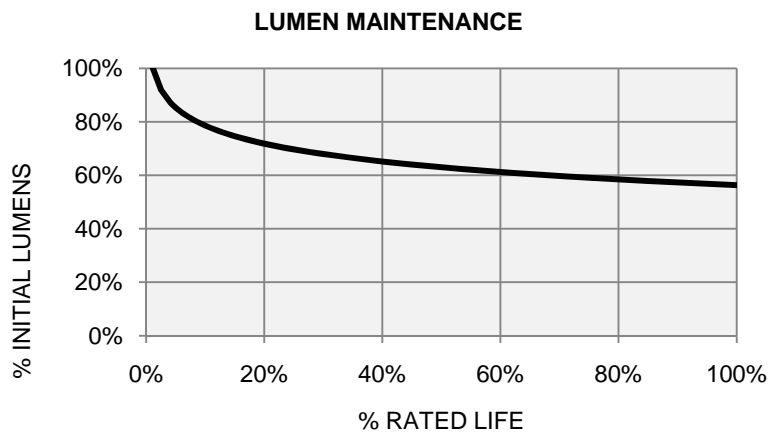
PERFORMANCE DATA		
Initial lumens	42000(V) 37000(H)	lm
Mean lumens at 11 hours/start	29400(V) 25900(H)	lm
Rated average life	18000(V) 14000(H)	hr
Correlated color temperature	3500(V) 4000(H)	°K
Color rendering index [Ra]	65	
Operating position	Universal	
Warm-up time (90%lumens)	<6	min
Time to re-start (max)	10	min



ELECTRICAL CHARACTERISTICS		
Nominal lamp wattage	400	W
Nominal lamp voltage	135	V
Nominal lamp current	3.25	A <sub>RMS</sub>
Current crest factor	1.8	
<b>Ballast requirements</b>		
Open Circuit Voltage -30°C(-22°F)	254	V <sub>RMS</sub>
	483	V <sub>PEAK</sub>
Min starting current	3.2	A <sub>RMS</sub>
Max starting current	5.0	A <sub>RMS</sub>



PHYSICAL DESCRIPTION		
Effective arc length	33(1.7)	mm (in)
Maximum overall length	211(8.312)	mm (in)
Light center length	127(5.0)	mm (in)
Bulb diameter	89 (3.5)	mm (in)
Base to bulb eccentricity	3°	max
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	
Bulb finish	Clear	
Base designation	E39	



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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**⚠ 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

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