TECHNICAL INFORMATION BULLETIN

Metal Halide

Order Code: **60965** Description: **M400X/U/PS/BT28 EYE**

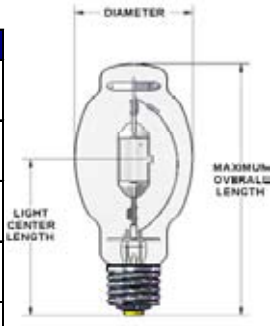
ANSI CODE M135/155/E

FEATURES:
- **High Output, Universal Metal Halide**
- **High initial and maintained lumens**
- **Superior lamp to lamp color consistency**
- **Pulse Start Performance**

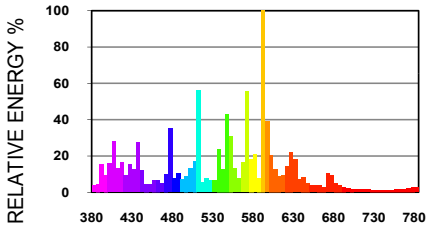
PERFORMANCE DATA		
Initial lumens	42000(V) 37000(H)	lm
Mean lumens at 11 hours/start	29400(V) 25900(H)	lm
Rated average life	18000(V) 14000(H)	hr
Correlated color temperature	3500(V) 4000(H)	°K
Color rendering index [Ra]	65	
Operating position	Universal	
Warm-up time (90%lumens)	<6	min
Time to re-start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

ELECTRICAL CHARACTERISTICS		
Nominal lamp wattage	400	W
Nominal lamp voltage	135	V
Nominal lamp current	3.25	A_{RMS}
Current crest factor	1.8	
Ballast requirements		
Open Circuit Voltage	254	V_{RMS}
-30°C(-22°F)	483	V_{PEAK}
Min starting current	3.2	A_{RMS}
Max starting current	5.0	A_{RMS}

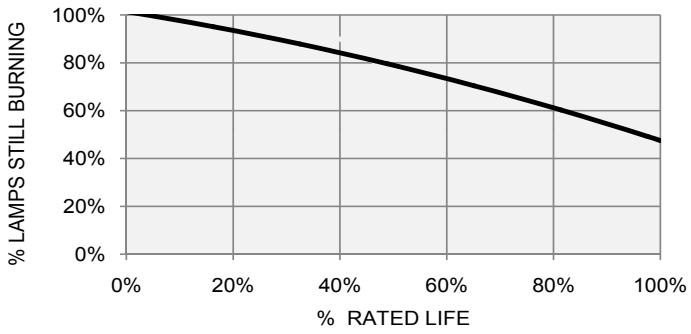
PHYSICAL DESCRIPTION		
Effective arc length	33(1.7)	mm (in)
Maximum overall length	211(8.312)	mm (in)
Light center length	127(5.0)	mm (in)
Bulb diameter	89 (3.5)	mm (in)
Base to bulb eccentricity	3°	max
Maximum base temperature	210 (410)	°C (°F)
Maximum bulb temperature	400 (752)	°C (°F)
Bulb designation	BT28	
Bulb material	Borosilicate (hard glass)	
Arc tube material	Quartz	
Bulb finish	Clear	
Base designation	E39	



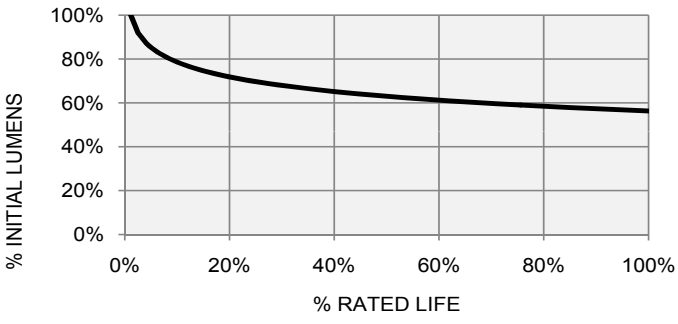
SPECTRAL DISTRIBUTION



LAMP MORTALITY



LUMEN MAINTENANCE



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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