



TECHNICAL BULLETIN METAL HALIDE

EYE Color Arc® M70P38F/SDW

ANSI Code: M139/O

Product Code: 55417

Features:

- High color rendering, CRI=96
- Open fixture rated
- PAR38 bulb with medium screw base
- Dichroic reflector transfers less heat to lighted objects

PERFORMANCE DATA

Initial lumens at rated watts after 100 hours operation	2610	Lumens
Beam lumens	1350	Lumens
Beam angle @ 50% peak intensity	45	Degrees
Peak intensity	4050	Candela
Rated average life	6000	Hours
Warm up time (90% lumens)	4	Minutes
Correlated color temperature	3500	K
CIE chromaticity	0.402, 0.387	X, Y
Color rendering index	96	
Operating Position	Universal	
Time to hot re-start	15 max	Minutes

ELECTRICAL CHARACTERISTICS

Nominal lamp wattage	70	Watts
Nominal lamp voltage	90	Volts
Nominal lamp current	1.0	Amps
Current crest factor	1.8 max	
Min. Starting voltage	198	Vrms
Min. Starting voltage	280	Vpk
Max. Starting current	1.5	Amps
Socket rating	4.0	kV
Dimming capability	No	

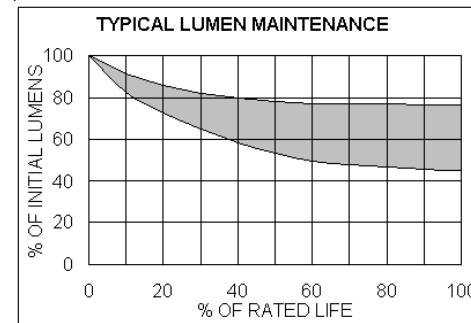
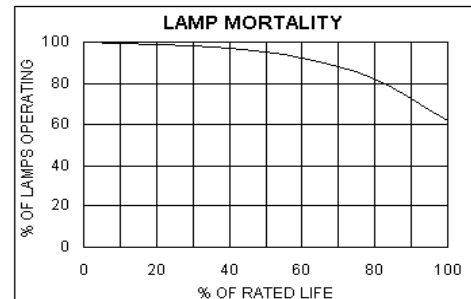
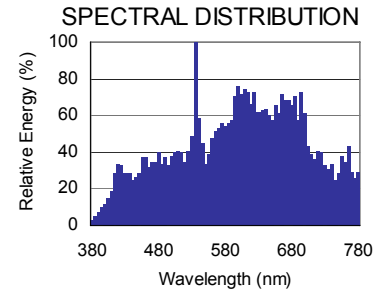
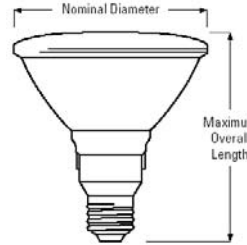
Ignitor Requirements	Option 1	Option 2	
Min. Pulse Height	3.0	3.0	kV
Max. Pulse Height	4.0	4.0	kV
Min. Pulse Width	1.0@2.7	1.9@2.7	µsec@kV
Min. Pulse Repetition	2	1	/half cycle
Pulse Positions	60-90, 240-270	64-110, 244-290	degrees

PHYSICAL DESCRIPTION

Maximum overall length	5.315(135)	in (mm)
Bulb diameter	4.764(121)	in (mm)
Base to bulb eccentricity	3	Deg Max.
Maximum base temperature	374(190)	°F (°C)
Maximum bulb temp.	752(400)	°F (°C)
Bulb designation	PAR38	
Bulb material	Hard glass	
Arc tube material	Quartz	
Bulb finish (reflector)	Dichroic coating	
Base designation	E26 Skirted Medium	

FIXTURE REQUIREMENT

O Rated – Open or enclosed fixtures. For outdoor use, enclosed fixtures only unless fixtures are properly designed.



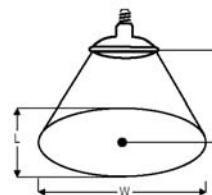
PHOTOMETRIC DATA

Initial Footcandles

Beam Angle at 50% Peak Intensity		45°	
H (ft)	Foot Candle Beam Center	Beam Diameter L (ft)	Beam Diameter W (ft)
6	112	4.97	4.97
8	63	6.63	6.63
10	40	8.28	8.28
12	28	9.94	9.94
14	21	11.60	11.60

Candlepower Distribution

Beam Angle	Candela
0°	4006
5°	4150
10°	4123
15°	3410
20°	2241
25°	1213
30°	654
35°	399
40°	289
45°	234
50°	182
55°	143
60°	109
65°	83
70°	58
75°	41
80°	24
85°	15
90°	8



ISO 9001:2008 Certified ISO 14001:2004 Certified

OSHAS 18001:2007 Certified ISO 17025:2005 Accredited



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

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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
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Hg-LAMP CONTAINS MERCURY

Manage in Accord with Disposal Laws
See: www.lamprecycle.org or 1-888-665-2677