

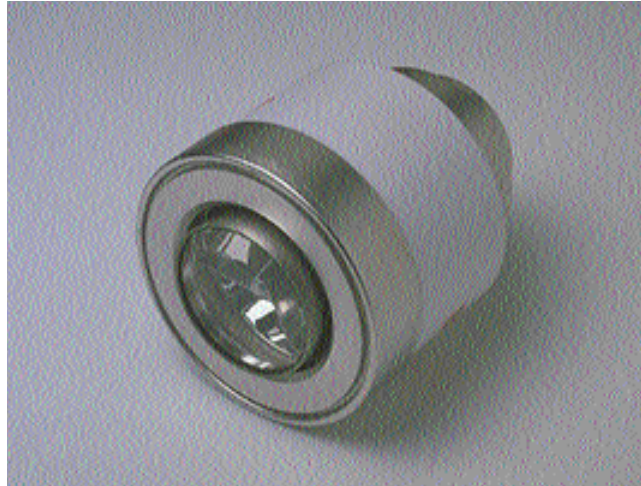
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Description

The Cermax® xenon arc lamp is the most innovative lamp design in the specialty lighting industry. These lamps were introduced in the early 1980s and are now used in endoscopes in most major hospitals worldwide, in high brightness projection display systems, and in a wide variety of other high performance applications.

Cermax® lamps have an integrated parabolic or ellipsoidal reflector, enabling high intensity, collimated or focused output of ultraviolet, visible, and infrared radiation. With their internal reflector and rugged ceramic body seal construction, Cermax® lamps are the safest and most compact alternative to conventional quartz xenon lamps, making them ideal for applications requiring a high degree of illumination control. Lamps are available in powers from 75 watts to 2400 watts and in continuous wave collimated or focused output versions.

In addition to lamps, we manufacture Cermax® arc lamp power supplies, lamp holders, OEM lighting systems, and fiber optic lightsources.



Applications

- Medical and industrial fiber optic illumination
- Machine vision
- Infrared and visible spotlights/beacons
- Spectroscopy
- Microscopy
- UV curing
- Video projection
- Film projection



Operational Specifications

Nominal	Range
1200 watts	900-1550 watts
65 amps (DC)	45-80 amps (DC)
18.5 volts (DC)	17-23.5 volts (DC)
28 kilovolts (recommended minimum)	
160°C (maximum) at 1500 watts	
1000 hours (500 hour warranty)	

*End of lamp life is defined as 50% of initial output

Output at Nominal Power

F = UV Filtered Output / UV = UV Enhanced Output

Description	EX1500-13F
Radiant Output*	365 watts
UV Output*	19.5 watts
IR Output*	200 watts
Visible Output*	40000 lumens
Color Temperature	5900 Kelvin
Peak Instabilities	4%
Spot Size at Crossover	.16" at 50% pts
Spot Size at Crossover	.53" at 10% pts

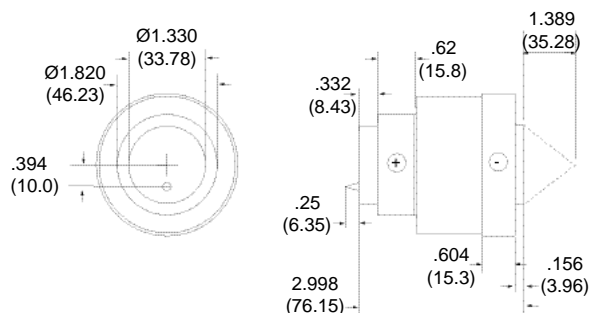
*These values indicate total output in all directions. Wavelengths = UV<390nm, IR>770nm, visible 390nm to 770nm

Focused Output at 1500 watts

Description	Visible Output*	Total Output*
12mm aperture	29000 lumens	260 watts
9mm aperture	25000 lumens	238 watts
6mm aperture	16000 lumens	145 watts
3mm aperture	5600 lumens	53 watts

*Nominal values at 1500 watts after 2 hour burn-in

Dimensions



Dimensions in parentheses are in millimeters.

Physical Specifications

Description	Specification
Arc Gap	.075 inch (1.9mm)
Reflector Geometry	Ellipsoidal $1=X^2/M^2 + Y^2/N^2$ (see below)
Weight	687 grams
Window Diameter	1.375 inch (34.9mm)

Description	Part Number
Lamp Module	EX1500-13FM
Lamp Holder	HX4
Power Supplies	PS1500-20, PS1500-31

Notes

- Lamp must not be operated with window facing upwards within 45° of vertical.
- Seal temperature must not exceed 160°C.
- Current/power regulated power supplies and EG&G ILC lamp housing units are recommended.
- Lamp must be operated within recommended current and power range. Over powering may lead to arc instability, hard starting and premature aging.
- Caution must be used when operating lamps because they are under high pressure, require high voltage, reach temperatures up to 200°C, and their IR and UV radiation can cause skin burns and eye damage. Read hazard sheet included with each lamp shipment.

