

Cermax® Xenon Arc Lamps

PE500C-10F and PE500C-10UV

CERMAX® FOCUSED XENON ARC LAMPS



Description

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

The PE500C-10F and PE500C-10UV Cermax® lamps have an integrated elliptical reflector, enabling high intensity, focused output of ultraviolet, visible, and infrared radiation. With their internal reflector and rugged ceramic body construction, Cermax® lamps are the safest and most compact alternative to conventional quartz xenon lamps. This makes them ideal for applications that require a high degree of illumination control. Current-regulated or power-regulated power supplies with output ripples of less than 5%

are recommended. Single shot ignition pulses are advised because radio frequency starters may damage the lamps internal reflector.

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

Applications

- Medical and industrial fiber optic illuminators
- Machine vision
- Infrared and visible spotlights/beacons
- Spectroscopy
- Microscopy
- UV Curing
- Video projection

PE500C-10F and PE500C-10UV

Operational Specifications

Physical Specifications

Description	Specification
Arc Gap	.045 inch (1.14mm)
Reflector Geometry	Ellipsoidal $1 = X^2/M^2 + Y^2/N^2$
Weight	191 grams
Window Diameter	1 inch (25.4 mm)

Focused Output

Description	Visible Output*	Total Output
6mm aperture	7770 Lumens	75 watts
3mm aperture	4085 Lumens	39 watts

* Nominal values at 500 watts after 2 hour burn-in

Output at Nominal Power

F= UV Filtered Output/ UV = UV Enhanced Output

Description	PE500C-10F	PE500C-10UV
Radiant Output*	112 watts	112 watts
UV Output*	5 watts	10.3 watts
IR Output*	65 watts	63 watts
Visible Output*	10500 Lumens	9550 Lumens
Color Temperature	5900 Kelvin	5050 Kelvin
Peak Instabilities	4%	4%
Spot Size at Crossover	.07" at 50% pts	0.7" at 50% pts
Spot Size at Crossover	.21" at 10% pts	.21" at 10% pts

*These values indicate total output in all directions.

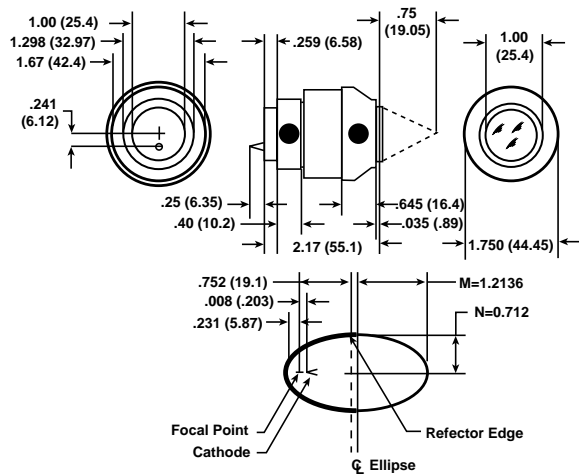
Wavelengths = UV<390nm, IR>770nm, Visible 390nm to 770nm.

** Beam Geometry defined as half angle at 10% PTS after 01/100/1000 hours.

Notes

- Lamp must not be operated with window facing upwards within 45° of vertical.
- Seal temperature must not exceed 150° C.
- Current/power regulated power supplies and PerkinElmer 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.
- CERMAX lamps are much safer lamps to use than their quartz xenon arc lamp equivalents. However, caution must be practiced 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.

Dimensions



Dimensions in parentheses are in millimeters

Spectral Output

