



## PE300C-10F and PE300C-10UV CERMAX® XENON SHORT-ARC LAMPS



*Cermax® Xenon short-arc lamps from Excelitas Technologies are ideal for applications that require a high degree of illumination control.*

The Cermax® Xenon short-arc lamp from Excelitas Technologies is an innovative lamp design in the specialty lighting industry. Cermax® Xenon lamps were first introduced in the early 1980s and are now used in diagnostic and surgical endoscopes in most major hospitals worldwide, in high-brightness projection display systems, and for a wide variety of other high- performance applications.

The Cermax® Xenon lamps, Models PE300C-10F and PE300C-10UV, have an integrated elliptical reflector, enabling high-intensity, focused light output. Due to the Xenon lamp's broad color spectrum, the lamp is filtered to emit ultraviolet, visible, or infrared light, depending upon the application or usage. With their internal reflector and rugged ceramic body construction, Cermax® Xenon lamps are the safest and most compact alternative to conventional quartz xenon lamps. Cermax® lamps are 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, Excelitas Technologies manufactures power supplies for Cermax® Xenon short-arc lamps, lamp holders, OEM lighting systems, and fiber optic light sources.

**CERMAX**

### Key Features

- High-intensity, focused illumination - 7475 Lumens
- Up to 9.7 Watts of UV output (<390 nm)
- Power range of 200-300 Watts
- 1000 hours lamp lifetime
- Broad spectral range with 5900° Kelvin color temperature

### Applications

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

**PE300C-10F and PE300C-10UV**

**CERMAX® XENON SHORT-ARC LAMPS**

**PE300C-10F and PE300C-10UV**

<b>Operational Specifications</b>		
<b>Description</b>	<b>Nominal</b>	<b>Range</b>
Power	300 Watts	200-300 Watts
Current	21 amps (DC)	13-23 amps (DC)
Operating Voltage	12 Volts (DC)	11.5-15 Volts (DC)
Ignition Voltage	23 kilovolts (recommended minimum)	
Temperature	150° C (Maximum)	
Lifetime*	1000 hours typical	

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

<b>Initial Output at Nominal Power</b>		
<b>F= UV Filtered Output</b>	<b>UV= UV Enhanced Output</b>	
<b>Description</b>	<b>PE300C-10F</b>	<b>PE300C-10UV</b>
Radiant Output*	75 Watts	75 Watts
UV Output*	3.8 Watts	9.7 Watts
IR Output*	37 Watts	34.5 Watts
Visible Output*	7475 Lumens	6725 Lumens
Color Temperature	5900° Kelvin	5050° Kelvin
Peak Instabilities	4%	
Spot Size at Focus – FWHM (inches)	0.060"	

\* These values indicate total output in all directions. Wavelengths = UV <390nm, IR >770nm, Visible: 390 nm-770 nm

<b>Physical Specifications</b>	
<b>Description</b>	<b>Specification</b>
Arc Gap	0.045 inch (1.14 mm)
Reflector Geometry	Ellipsoidal $1= X^2/M^2 + Y^2/N^2$
Weight	190 grams
Window Diameter	1.0 inch (25.4 mm)

**PE300BF and PE300BUV**

**PE300C-10F and PE300C-10UV**

**CERMAX® XENON SHORT-ARC LAMPS**

**Focused Output**

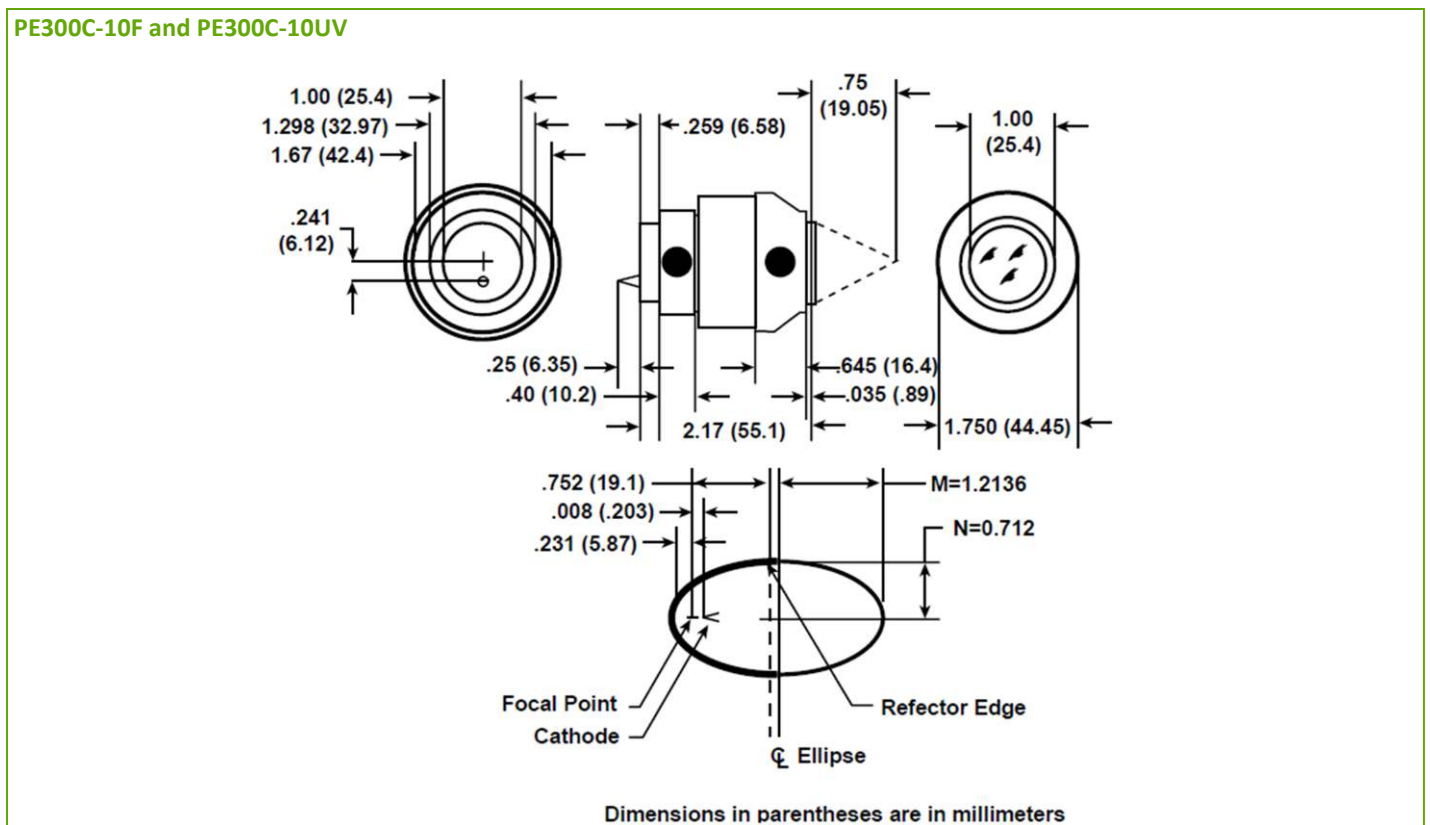
Description	Visible Output	Total Output*
3 mm aperture	2300 Lumens	23 Watts
6 mm aperture	4500 Lumens	37 Watts

\* Nominal values at 300 Watts after 2 hour burn-in.

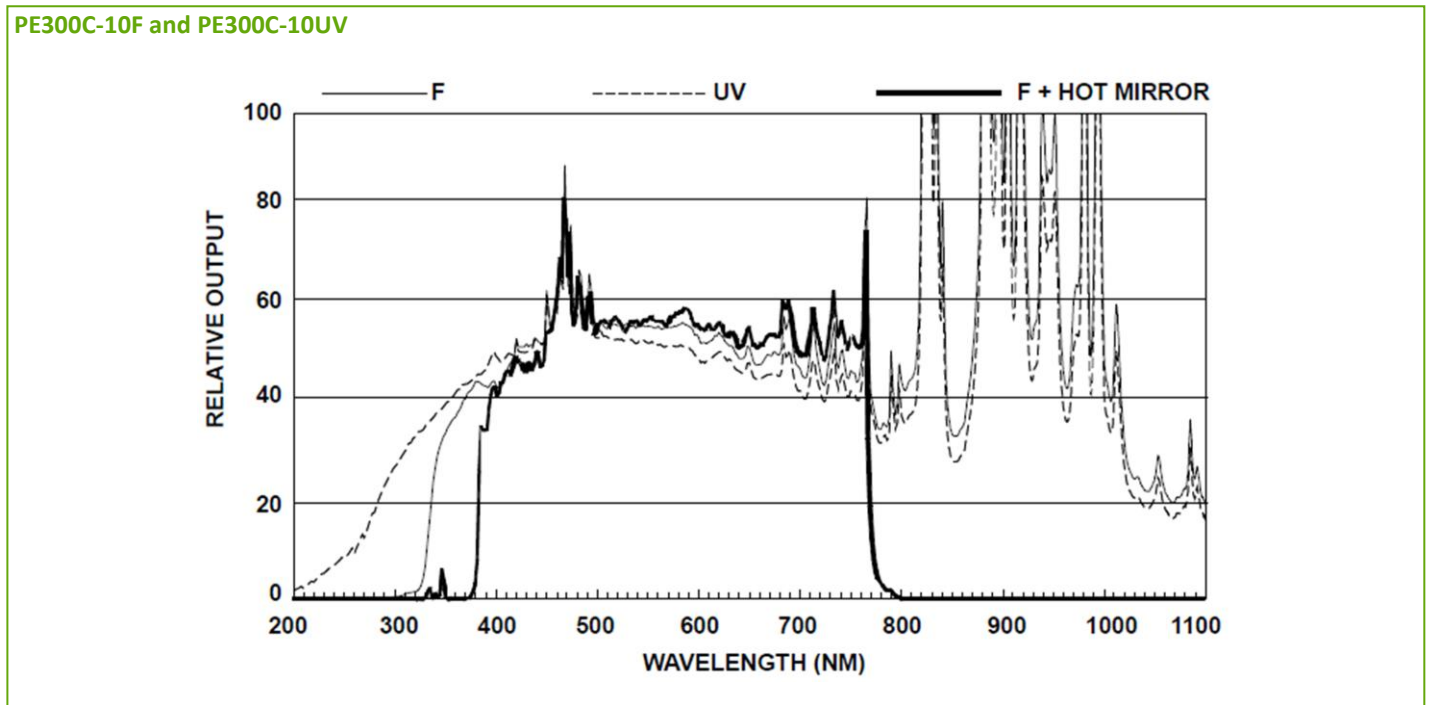
**NOTES:**

1. Lamp must not be operated with window facing upwards within 45° of vertical.
2. Seal temperature must not exceed 150° C.
3. Current/power regulated power supplies and Excelitas lamp housing units are recommended.
4. Lamp must be operated within recommended current and power range. Over powering may lead to arc instability, hard starting and premature aging.
5. Hot mirror assembly is available for IR filtering.
6. Cermax® Xenon 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.

**Mechanical Dimensions**



**Spectral Output**



**About Excelitas Technologies**

Excelitas Technologies is a global technology leader focused on delivering innovative, customized solutions to meet the lighting, detection and other high-performance technology needs of OEM customers.

From medical lighting to analytical instrumentation, clinical diagnostics, industrial, safety and security, and aerospace and defense applications, Excelitas Technologies is committed to enabling our customers' success in their specialty end-markets. Excelitas Technologies has approximately 3,000 employees in North America, Europe and Asia, serving customers across the world.

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