LuxteL llc

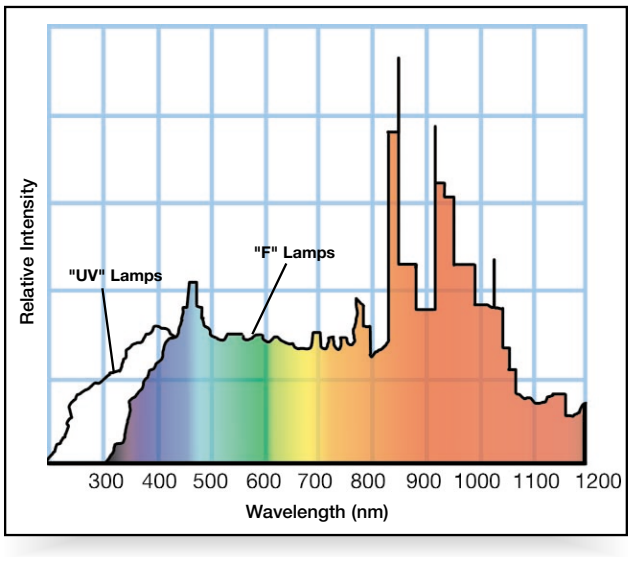
CeraLux™ Xenon Arc Lamps

CeraLux Xenon Collimated Arc Lamp

CeraLux Xenon Focused Arc Lamp

LuxteL's CeraLux series of lamps provide the end market with a value supplier of ceramic lamps, wholly made in the United States. Originally engineered to be an exact replacement for lamps designed to operate in existing systems employing this type of ceramic, xenon short arc lamp. Today the series of lamps has been extended to include purpose designs for major OEMs and includes collimated and focused, filtered and UV output in wattages from 150 to 500.

CeraLux lamps are designed to give the instrument builder a combination of rugged compactness and extremely high brightness, excellent color temperature over life and lamp to lamp repeatability.

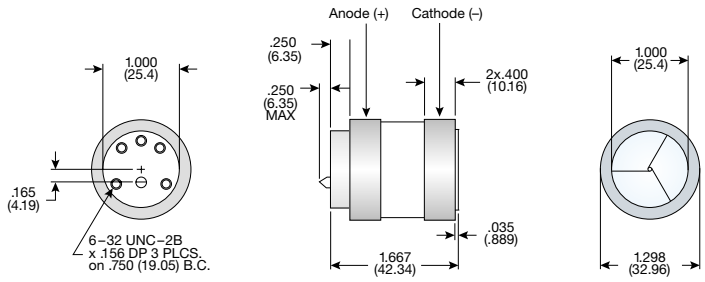


CeraLux xenon lamps produce broadband light with color temperatures of approximately 5900° K. This results in good white light that is useful for photopic, video and photographic applications.

CeraLux™ Xenon Collimated Arc Lamps

Physical Specifications

Description	Specification
Reflector Geometry	Parabolic Y^2 = .5X
Arc Gap	.049 inches (1.24mm)
Window Diameter	1 inch (25.4mm)
Weight	132 grams



Dimensions in parenthesis are in millimeters.

CL175BF and CL175BUV

Operational Specifications

Description	Nominal	Range
Power	175 watts	150 – 200 watts
Current	14 amps (DC)	12 – 16 amps (DC)
Operating Voltage	12.5 volts (DC)	11 – 14 volts (DC)
Ignition Voltage	23 kilovolts (minimum recommended)	
Temperature	150° C (maximum)	
Typical Life	1000 hours (to 50% of initial output)	

Output at Nominal Power

	F=UV Filtered	V=UV Optimized
Description	**CL175BF**	**CL175BUV**
Radiant Output	25 watts	25 watts
Visible Output	2200 lumens	2000 lumens
UV Output	< 2 watts	4 watts
IR Output	14 watts	13 watts
Color Temperature	5800° K	5100° K
Cone Half Angle	5°	5°

CL300BF and CL300BUV

Operational Specifications

Description	Nominal	Range
Power	300 watts	180 – 330 watts
Current	21 amps (DC)	10 – 22 amps (DC)
Operating Voltage	14 volts (DC)	13 – 16 volts (DC)
Ignition Voltage	23 kilovolts (minimum recommended)	
Temperature	150° C (maximum)	
Typical Life	1000 hours (to 50% of initial output)	

Output at Nominal Power

	F=UV Filtered	V=UV Optimized
Description	**CL300BF**	**CL300BUV**
Radiant Output	50 watts	50 watts
Visible Output	5000 lumens	4500 lumens
UV Output	3 watts	7 watts
IR Output	29 watts	27 watts
Color Temperature	5800° K	5100° K
Cone Half Angle	5°	5°

All values and specifications subject to change without notice.

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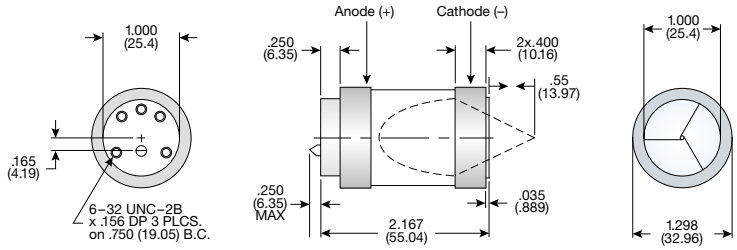
100 Ferncroft Road, Danvers, MA 01923 USA | Tel: 978.774.1559 | Fax: 978.774.1559 | Email: info@luxtel.net

CeraLux™ Xenon Focused Arc Lamps

Physical Specifications

Description	Specification
Reflector Geometry	Elliptical $1=X^2/1.059^2 + Y^2/.50^2$
Arc Gap	.038 inches (.96mm)
Window Diameter	1 inch (25.4mm)
Weight	150 grams



Dimensions in parenthesis are in millimeters.

CL175BF – 10F and CL175BUV – 10F

Operational Specifications

Description	Nominal	Range
Power	175 watts	150 – 200 watts
Current	14 amps (DC)	12 – 16 amps (DC)
Operating Voltage	12.5 volts (DC)	10.5 – 13.5 volts (DC)
Ignition Voltage	23 kilovolts (minimum recommended)	
Temperature	150° C (maximum)	
Typical Life	1000 hours (to 50% of initial output)	

Output at Nominal Power

	F=UV Filtered	V=UV Optimized
Description	**CL175BF -10F**	**CL175BUV -10F**
Radiant Output	35 watts	35 watts
Visible Output	2700 lumens	2500 lumens
UV Output	< 2 watts	5 watts
IR Output	19 watts	18 watts
Color Temperature	5800° K	5100° K

CL300BF – 10F and CL300BUV – 10F

Operational Specifications

Description	Nominal	Range
Power	300 watts	175 – 300 watts
Current	22 amps (DC)	13 – 23 amps (DC)
Operating Voltage	13.5 volts (DC)	11.5 – 15 volts (DC)
Ignition Voltage	23 kilovolts (minimum recommended)	
Temperature	150° C (maximum)	
Typical Life	1000 hours (to 50% of initial output)	

Output at Nominal Power

	F=UV Filtered	V=UV Optimized
Description	**CL300BF -10F**	**CL300BUV -10F**
Radiant Output	65 watts	65 watts
Visible Output	6500 lumens	5900 lumens
UV Output	3 watts	9 watts
IR Output	32 watts	30 watts
Color Temperature	5800° K	5100° K

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Read all safety, cooling, operational and disposal notes prior to use. Consult the factory at the numbers listed below for any assistance in the proper operation and use of all lamps.

SAFETY

- Always take precaution when handling lamps because they are under high pressure.
- The cold weld pinch-off tube is very sharp, care should be taken to not come into contact with it or disrupt it.
- During operation, the IR and UV radiation can cause skin and eye damage. Do not look directly into a lamp, get in the path of the output beam or touch the lamp while operating.
- Proper eye protection should be worn when handling lamps due to high pressure.
- Extra care should be exercised when using lamps that produce ultraviolet radiation.
- Protection of the eyes and skin should be undertaken when exposure to ultraviolet radiation is possible. When operating UV lamps, UV blocking eye protection should be worn during lamp operation.
- UV lamps will produce toxic ozone due to ultraviolet radiation below 242 nm acting upon oxygen in air. To avoid ozone, an inert atmosphere should be used. Select a non-UV lamp (filtered “F” series) if ultraviolet wavelengths are not needed.
- Due to high operating temperatures, care should be taken if handling lamps after operation.

COOLING

- Proper cooling will provide optimum performance and extend life. Forced air cooling should be used.
- Seal temperatures should not be allowed to exceed 200° C. Under nominal operating conditions attempts should be made to maintain maximum lamp temperatures of 150° C.
- Appropriate thermal and electrically conductive compounds should be used to promote improved thermal conduction between lamps and heat sinks. Do not apply thermal compounds to the lamp window or ceramic body. A thin layer should be applied to all surfaces that contact heat sinks.

OPERATION

- Lamp should not be operated with window facing upwards. Keep lamp oriented to within 45° of vertical.
- Lamps must be operated within stated current and voltage ranges. Overpowering can lead to electrode wear and shortened life. Underpowering may lead to instabilities and problems starting (depending on power source).
- Lamps should be mounted in suitable heat sinks.
- Assure proper polarity of power source when making electrical connections.
- Care should be taken when using filters or lenses that may reflect energy back into lamps.
- Consult the factory at the numbers below for proper use and operation of all lamps.

DISPOSAL

- Proper eye protection should be worn when handling lamps.
- Care must be taken due to the sharp pinch-off tube on the rear of the lamp.
- The internal pressure of the lamp may be relieved by opening the pinch-off tube with a pair of heavy pliers. The internal gas will be heard escaping through the tube opening. The lamp may now be disposed of.

WARRANTY

- LuxteL CeraLux lamps are covered by a 500 hour warranty.
- Typical lifetime is 1000 hours (50% of initial output).

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