



## PowerArc™

Compact High Intensity Light Source

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
FORENSICS
PARTICLE CHARACTERIZATION
RAMAN
SPECTROSCOPIC ELLIPSONOMETRY
SPR IMAGING

A 75 watt xenon arc lamp illuminator from OBB provides the same power output as a 450 watt xenon arc lamp in a vertical lamp housing!



If you need a broadband light source in the UV/Vis/NIR portion of the spectrum, an arc lamp has no peer. The intensity of an arc lamp is extremely high and, depending on the lamp, reasonably continuous throughout the region from 240 to 1200 nanometers. Usable intensities are even available in the deep UV to 180 nm and in the near infrared to 2500 nm.

While arc lamps themselves are very similar from manufacturer to manufacturer, the arc lamp housings that contain these lamps are very different. As such, the arc lamp housing can have a dramatic effect on how an arc lamp illuminator performs. The arc lamp housing needs to hold the lamp, provide electrical contact, collect and deliver light emitted from the arc, and maintain a good operating temperature. We believe that our long experience in light source design is what allows us to give you a unique light source that truly is a better design.



### Features and Benefits

- Continuously tunable from 180 nm to 2.2 microns
- Delivers five to six times more light than competitors
- Ozone free lamp housing with no venting chimney
- More compact
- Environmentally friendly, producing no ozone and consuming less energy
- Less expensive

### Applications

Applications for compact arc lamp housings cover a broad range of scientific, OEM and research applications. Arc lamp illuminators are used for a broad range of applications almost as diverse as the wavelength range across which they emit.

- Solar simulators
- Photochemistry
- Photo-activation
- Photobiology
- Spectroscopy
- Optical teaching labs
- Pump probe
- Dermatology
- Catheter illumination

Arc lamp systems are the light sources of choice for a variety of spectroscopy systems, such as:

- Fluorometers
- UV-Vis spectrometers
- CD spectrometers
- Stopped-flow spectrometers
- Microscopes
- Tunable illuminators

# Specifications

## Optical Specifications

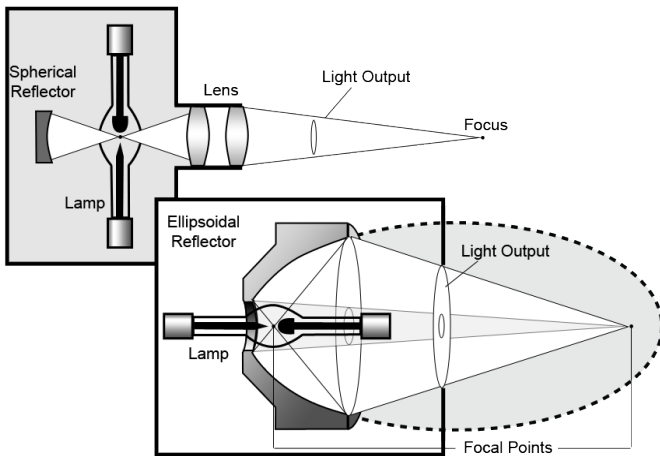
	75 W Xe			100 W TH Filament			100 W Hg			150 W Xe		
	f/1	f/2.5	f/4.5	f/1	f/2.5	f/4.5	f/1	f/2.5	f/4.5	f/1	f/2.5	f/4.5
Reflector												
Broadband optical power at Focal point (W)	7.5	7.5	7.5	3	3	3	10	10	10	15	15	15
Focal point (FWHM, mm)	1.5	3.2	5.4	7.5	18	30	0.9	1.2	3.4	2.6	5.8	10.5

## 75 Watt Switch Mode Power Supply Specifications

Input (user selectable)	90–274 V AC, 50–60 Hz
Power rating	50 to 100 watts
Operating voltage	10 to 25 volts
Operating current	3 to 7 amps
Pre-ignition voltage	65–75 V DC
Ripple at max current	< 3% peak to peak
Stability after warm-up	0.5%
Line voltage regulation	< 0.5% current variation for 5 volts line change

## 75 to 150 Watt Universal Power Supply Specifications

Input (user selectable)	105–120 V/60 Hz or 210–240 V/50 Hz
Power rating	0 to 150 watts
Operating voltage	10 to 24 volts
Operating current	0 to 8 amps
Pre-ignition voltage	> 85 volts
Ripple at max current	< 10 millivolts
Stability after warm-up	0.2%
Line voltage regulation	0.1% current variation for 5 volts line change
Load regulation	0.1% current variation for 50% change in load impedance
Dimensions	4.5 x 10.75 x 12.5 inches, 11.5 x 27.3 x 31.8 cm
Weight	12 pounds, 5.45 kg



For the same bulb, the OBB PowerArc™ delivers 5 to 6 times more light to the secondary focus! That means that an OBB PowerArc™ lamp housing with a 75 watt xenon lamp provides the equivalent optical power of a 450 watt xenon lamp in an old style vertical lamp housing. And it does so with greater power density due to a smaller focal spot, and at a small fraction of the cost of a big old 450 watt illuminator.



**OPTICAL BUILDING BLOCKS**



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