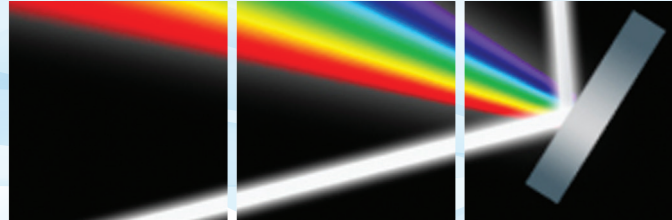


Tunable PowerArc™

Tunable High Intensity Light Source

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

The power of a mW laser with the continuous tunability of a monochromator!



Are you looking for:

- ✓ High intensity CW laser that is tunable from 250 to 1,000 nm?
- ✓ Delivers milliwatts of energy?
- ✓ Portable and simple to operate?

If this sounds like the light source you need, then OBB has the answer. The Tunable PowerArc™ Illuminator provides all of these benefits, it just isn't a laser...

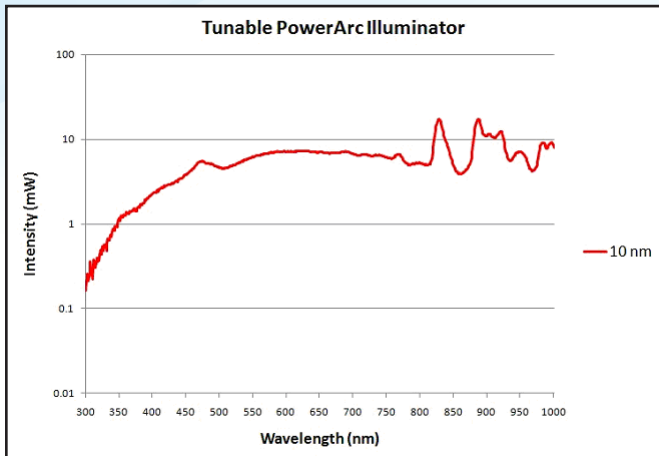
Features and Benefits

- Continuously tunable from 180 nm to 2.2 microns
- Continuously adjustable bandpass from 0 to 25 nm
- Milliwatts of optical power
- Push button start and manual or USB wavelength tunability
- No ozone venting required
- Easy to use
- Compact and portable

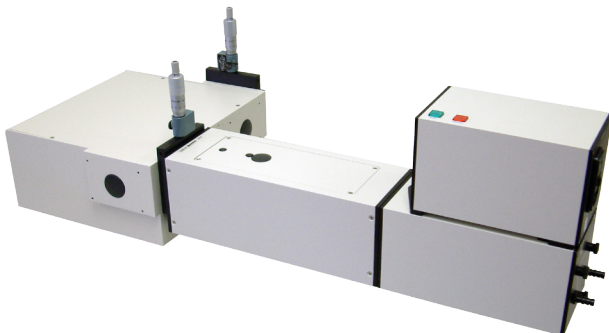
Applications

Applications for the Tunable PowerArc™ Illuminator cover a broad range of scientific, OEM and research applications. Tunable illuminators are used for a broad range of applications almost as diverse as the wavelength range across which they emit.

- Detector calibration
- Photochemistry
- Photo-activation
- Photobiology
- Photovoltaics
- Solar simulators
- Spectroscopy
- Optical teaching labs
- Dermatology



Output curve for Tunable PowerArc™ Illuminator equipped with 75 W Xe arc lamp and monochromator with 1200 l/mm 500 nm blaze grating.



These illuminators are the light sources of choice for a variety of spectroscopy systems, such as:

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

Specifications

Optical Specifications		
Optical power	Up to 20 mW (grating, bandpass & wavelength dependent)	
Spot size at slit exit	5 to 10 mm (lamp and slit dependent)	
Diverging beam angle (full)	14.5 degrees	
Numerical aperture (N.A.)	0.12	
Optical noise	0.07% RMS	
Optical stability	0.2%	
Power Supply Specifications	75 Watt Switch Mode Power Supply	75 to 150 Watt Universal Power Supply
Input (user selectable)	90–274 V AC, 50–60 Hz	105–120 V/60 Hz or 210–240 V/50 Hz
Power rating	50 to 100 watts	0 to 150 watts
Operating voltage	10 to 25 volts	10 to 24 volts
Operating current	3 to 7 amps	0 to 8 amps
Pre-ignition voltage	65–75 V DC	> 85 volts
Ripple at max current	< 3% peak to peak	< 10 millivolts
Stability after warm-up	0.5%	0.2%
Line voltage regulation	< 0.5% current variation for 5 volts line change	0.1% current variation for 5 volts line change
Monochromator Specifications (using standard 1200 line/mm ruled grating)		
Focal length	200 mm	
Aperture ratio	F/4 (calculated using grating width)	
Wavelength range	180 nm to 2.2 microns (grating dependent)	
Bandpass	Continuously adjustable from 0 to 25 nm	
Reciprocal linear dispersion	4 nm/mm	
Resolution	0.25 nm	
Scattered light	0.02% two bandwidths from 365 nm Hg line	
Accuracy	+/- 0.25 nm (using motorizing option under computer control)	
Reproducibility	+/-0.25 nm	
Grating size	50 x 50 mm	



OPTICAL BUILDING BLOCKS



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