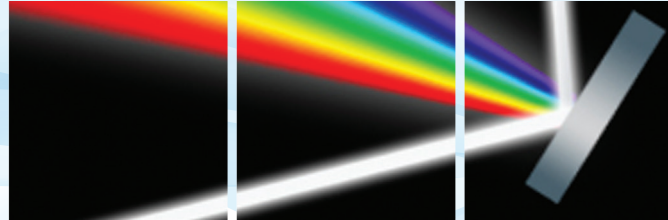


## Tunable KiloArc™

Tunable Broadband Light Source

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

The power of a 100 mW CW laser with the continuous tunability of a monochromator!



### Are you looking for:

- ✓ CW laser that is tunable from 250 to 1,100 nm?
- ✓ A laser that is so simple anyone can use?

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

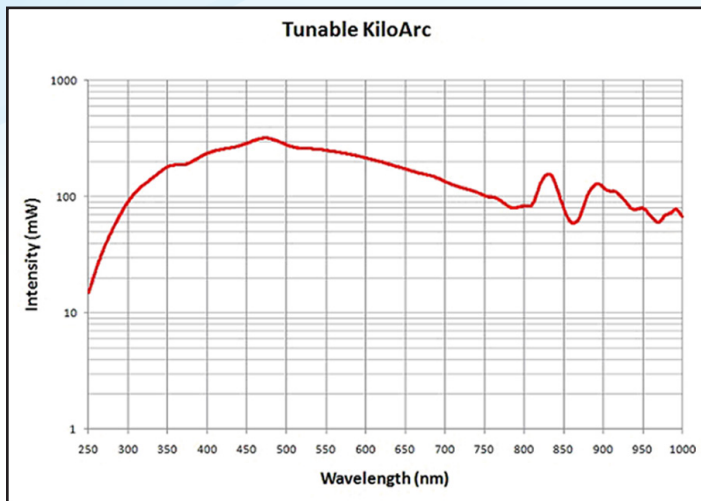
### Features and Benefits

- Continuously tunable from 180 nm to 2.4 microns
- Hundreds of milliwatts of energy
- Push button start and manual wavelength tunability
- No special cooling or ozone venting required
- Easy to use

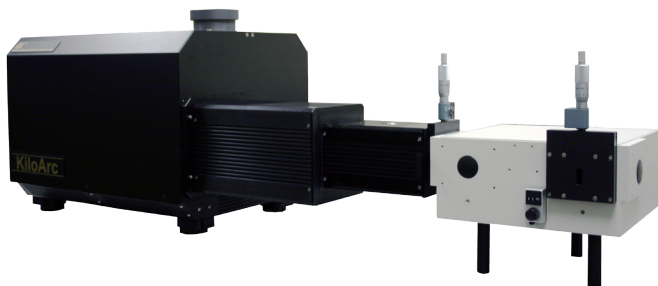
### Applications

Applications for the Tunable KiloArc™ 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
- Solar simulators
- Photovoltaics
- Photochemistry
- Photo-activation
- Photobiology
- Spectroscopy
- Optical teaching labs
- Dermatology



Tunable KiloArc™ Illuminator equipped with 1000 watt Xenon lamp and 1,200 l/mm x 500 nm blazed grating. Here the adjustable bandpass was set to 20 nm.



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 Performance Specifications	
<b>Optical power</b>	> 300 m W (grating, bandpass & wavelength dependent)
<b>Spot size at slit exit</b>	10 mm (slit dependent)
<b>Diverging beam angle (full)</b>	14.4 degrees
<b>Numerical aperture (N.A.)</b>	0.12
<b>Optical noise</b>	0.07% RMS
<b>Optical stability</b>	0.2%
Other Specifications	
<b>Input</b>	210–240 V AC 50/60 Hz
<b>Starting</b>	45 kV starting pulse
<b>Power rating</b>	800–1200 watts (adjustable) — recommended 800–1000 watts
<b>Lamp module type</b>	1000 W Xenon, 1000 W Mercury/Xenon (proprietary to OBB)
<b>Lamp life</b>	Typically 1,500 hrs
<b>Focusing optics</b>	High efficiency f/4 ellipsoid reflector
<b>Power precision</b>	0.04% (0.4 watts)
<b>Output volts compliance</b>	17–23 VDC
<b>Output current limit</b>	70 A rms
<b>Dimensions</b>	489 x 375 x 329 mm (19.3 x 14.8 x 12.9 inches)
<b>Weight</b>	31 kg (68 pounds)
<b>Window diameter (D)</b>	127 mm (5.0 inches)
<b>Center beam line height (without feet)</b>	128 mm (5.0 inches)
Optical Motor Controller Specifications	
<b>Power supply</b>	Universal Power Supply included
<b>TTL output</b>	Synchronization TTL output each time motor stops
<b>Stepper motor</b>	Two phase motor 1 A per phase, 200 steps per revolution, 1.8 degrees per step
<b>Maximum motor speed</b>	1200 RPM with zero torque
<b>Maximum speed with mono</b>	15,000 nm per minute
<b>Stepping motor voltage</b>	5–12 V
<b>Stepping modes</b>	Full, Half and Micro steps: 1/8, 1/16, 1/32, 1/64 computer selectable
<b>Slew rate</b>	1 to 62,500 micro steps per second
<b>Calibration</b>	Auto calibration of wavelength
<b>Ramping</b>	Linear ramping rate for heavy duty, fast, precision operation



**OPTICAL BUILDING BLOCKS**



**HORIBA**  
Scientific

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