

# Analytical Instrumentation

*Surf the New Wave in Portable Fiber Optic Spectrometry*

## **EPP2000C Concave Grating Spectrometers for UV-VIS & NIR Applications**

The StellarNet concave grating spectrometers deliver high optical performance in a small ruggedized package with fiber optic input and a USB-2 & parallel PC interface. The instruments are exceptionally robust with no moving parts and are packaged in small metal enclosures (2.75 x4 x6 inch) for spectroscopy measurements in the Lab, Field, QC areas, or process lines.

**Two models for UV-VIS (190-850nm or 280-900nm), and two Super Range models (200-1080nm or 220-1100nm).**

The EPP2000C spectrometers utilize a 40mm diameter concave grating with aberration correction to provide superb spectral imaging. This significantly improves spectral shapes by reducing comma and astigmatism found in plane grating spectrograph designs.



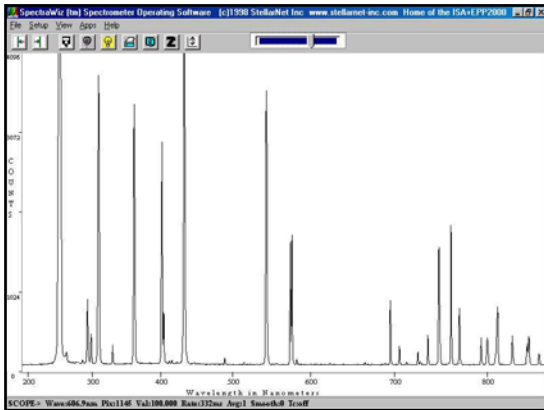
The flat field spectrograph architecture does not utilize mirrors and therefore provides the lowest possible stray light in the UV with a holographic grating. A multi-band filter is integrated into the spectrograph to provide order sorting and prevent optical aliasing. The instruments optical input is a standard SMA-905 connector, using single strand fiber optic cable with typical silica core diameters of 400um, 600um, and 1000um.

The SpectraWiz software is included free to accurately measure emissions, reflectance, transmission, absorption, fluorescence, concentrations, & absolute intensities for SpectroRadiometry. TEC cooling optional.

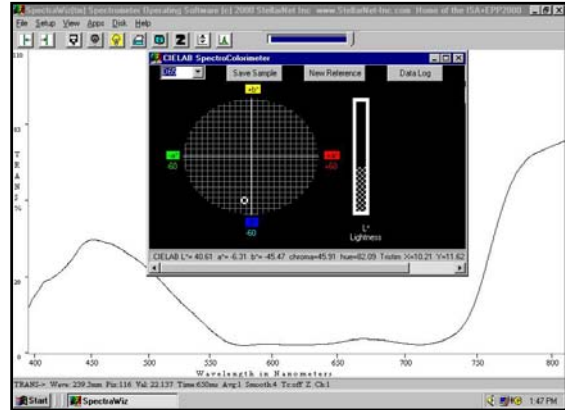
<b>Specifications</b>	<b>EPP2000C \$2750</b>	<b>EPP2000C-SR \$3495</b>
Dynamic range:	2000:1 with 6 decades	Dimensions: 69 x 100 x 150 mm
Optical resolution:	25um slit<1nm, SR<1.5nm	Power consumption: 100 mA @ 5 VDC
Detector type:	2048 pixel CCD	Interface: USB-2 cable and parallel
Pixel size:	14um wide x 200um tall	Digitizer: 16-bit
Standard UV-VIS models:	C=190-850nm, CXR=280-900nm	Detector Integration: 1ms to 65s
Super range -SR models:	C-SR=200-1080nm, 220-1100nm	Slit size options: 14, 25, 50, 100, 200um
Concave Grating:	Aberration corrected	Stray light: .02% at 435nm; .2% at 200nm
Grating type:	Holographic, 590g/mm	Fiber optic input: SMA905 0.22na single fiber
Spectrograph:	f/2, Flat field - No mirrors	Operating systems: Win98/Me/00/XP/Vista
Order sorting filter:	Integrated multi-band	Software included: SpectraWiz program & apps
Signal to noise:	1000:1	Also <b>free</b> programs for: LabView/VC/VBA/Delphi



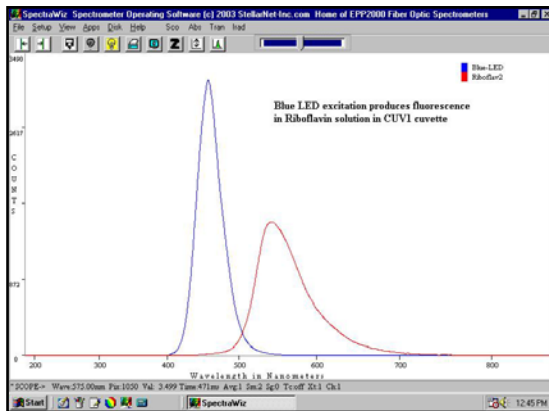
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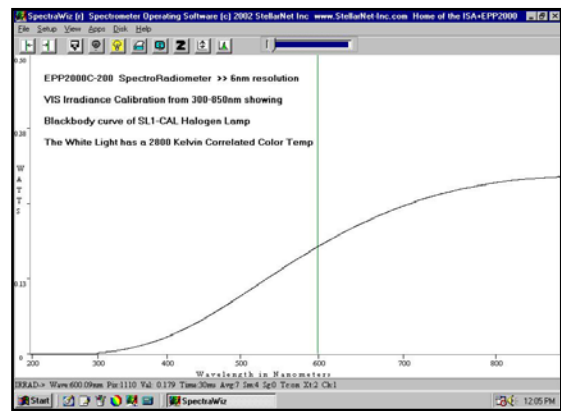
Emission Spectra of Hg+Argon gas



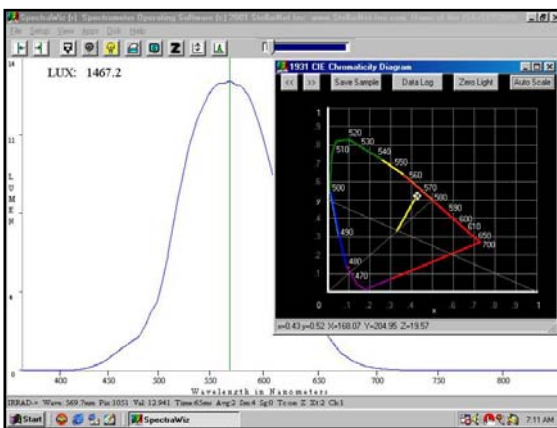
Reflectance spectrum of blue paper



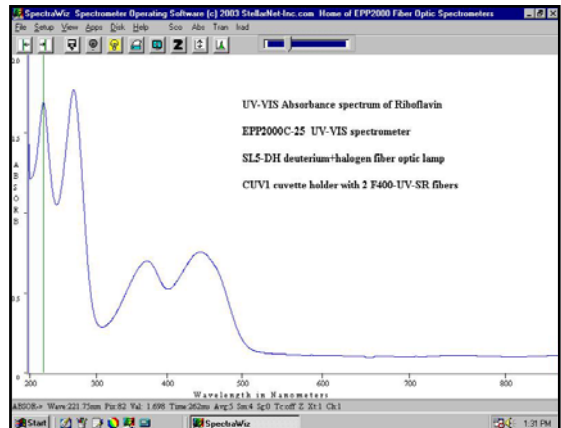
Blue-LED Induced Fluorescence



Halogen Lamp Irradiance Spectrum



LED color xy chromaticity diagram



UV Absorbance Spectrum of Riboflavin



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