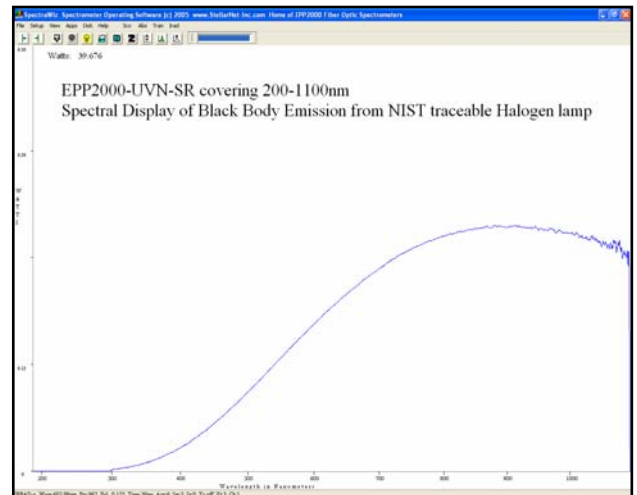


SpectroRadiometer Systems

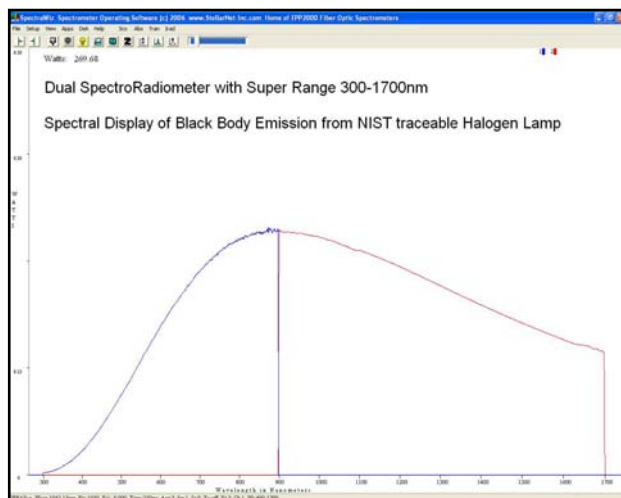
➤ UV-VIS & NIR Wavelengths 200-1700nm

- BLACK-Comet Concave Grating 200-850 / 280-900nm
- BLACK-Comet "Super Range" 200-1080 / 220-1100nm
- UVN-SR Super Range 200-1100nm CCD range
- Dual-Detector "Super Range" CCD + NIR-InGaAs

- Low cost - Ruggedized high performance
- Shock-proof - Permanently aligned
- Battery packs for field measurements
- USB-2 interface to all notebook PCs



Halogen-lamp spectra - UVN-SR Spectro 200-1100nm



Halogen-lamp spectra – Dual-Detector SR 300-1700nm

➤ NIST Calibration

- **Fast delivery:** most system can be calibrated and shipped within 1 week after receipt of order.
- **Absolute calibration** accuracy within 10% at detector integration setting used for calibration.
- **Certificate available** - documentation with NIST traceable serial numbers.

➤ SMA 905 Fiber Optic Accessories

- **F600 or F1000 Fiber cables and Direct attach**
- **Integrating Light Sphere** – 180° field of view
 - Standard 2" IC2 or LS4" and LS6" and larger spheres available
- **Cosine Receptors** – 180° field of view
 - CR2 for UV-VIS-NIR spectrometers
 - CR2-AP aperture for x10 brighter meas.
 - CR2-Lens reduces field of view to spot, enables spectral radiance calibration to measure watts/(sr m² nm) + candela

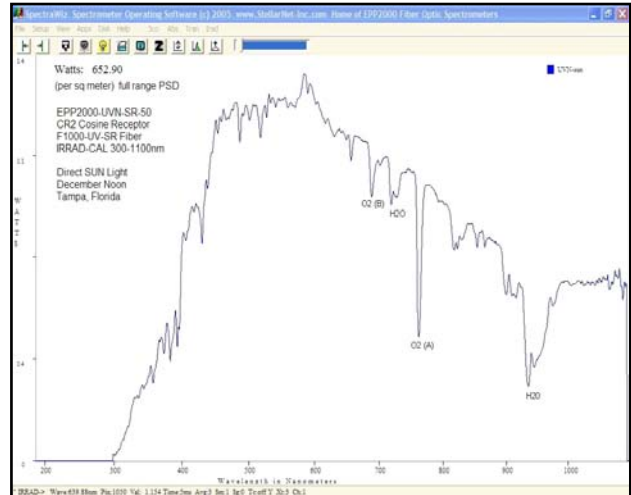


IC2 Integrating sphere with tripod

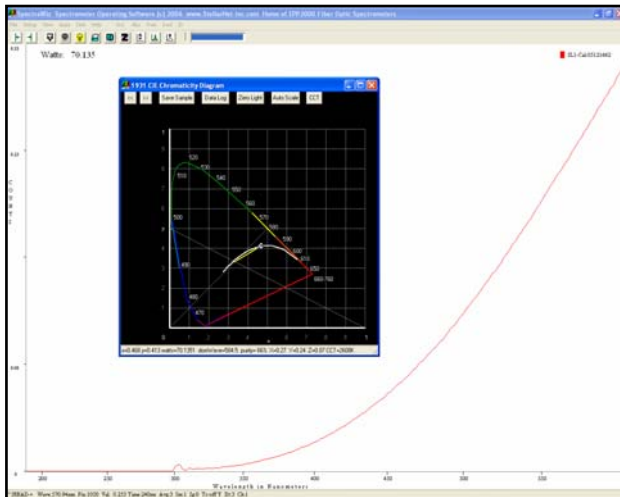
SpectroRadiometer Systems

➤ SpectraWiz Software included FREE

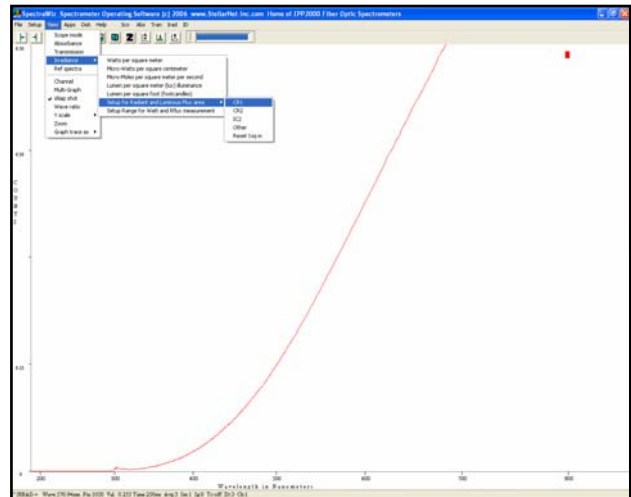
- **Absolute intensity measurements**
 - Radiant Flux – watts/nm
 - Luminous Flux –lumens/nm
 - Irradiance --watts/m², micro-watts/cm²
 - lumens/m² -- LUX
 - moles per second -- PAR
 - Footcandles /m²
 - xy Chromaticity, dominant wavelength, purity
 - correlated color temperature CCT and CRI
 - Set Power Spectral Density (PSD) range
- **Perform SpectroRadiometric calibrations**
- **LED / Laser / Solar / Plasma / ? Emissions**



Direct SUN Light – December Noon – Tampa, FL



1931 xy chromaticity diagram measures color of light and CCT



Simple menus enable SpectroRadiometric measurements

Item	Miniature Fiber Optic SpectroRadiometers	Price
BLACK-Comet	UV-VIS range for 190-850 nm or 280-900nm CXR model with 2048 pixel CCD	\$2750
BLACK-Comet-SR	Super Range C model 200-1080nm or CXR model 220-1100nm with 2048 pixel CCD	\$3495
EPP2000-UVN-SR	Super Range UV-VIS-NIR for 200-1100 nm with 2048 element CCD detector	\$3495
RED-Wave-512	NIR range for 900-1700 nm with 512 element InGaAs PDA detector	\$13,125
RED-Wave-1024	NIR range for 900-1700 nm with 1024 element InGaAs PDA detector	\$17,695
NIST Traceable Calibrations		
IRRAD-CAL	VIS-NIR for range 300-1700nm Note: actual spectrometer range can be smaller	\$250
IRRADUV-CAL	UV for range 200-600nm Note: actual spectrometer range can be larger	\$250
IRRADCAL-UVN	UV-VIS for range 200-850nm Concave grating only, dual UV+VIS calibration	\$500
IRRAD-CAL-DOC	Optional IRRAD-CAL certificate with NIST traceable bulb serial numbers	\$125
Fiber Optic Accessories for SMA-905 fiber optic attachment		
CR2	CR2 Cosine Receptor for UV-Vis-NIR with 1/4 inch diameter for SMA 905	\$125
CR2-AP	Screw on aperture for CR2 allows measurement of light that is 10 times brighter	\$125
IC2	Integrating Cube Receptor (Sphere), 2 x2 x2 inches with 5/8 inch input port	\$495
LS6	6" sphere with 1.5" input port, 1 SMA fiber attachment, and reflectance coating.	\$2495
F600	Armored 2 meter fiber optic cable attaches Receptor to SpectroRadiometer	\$140
TP1	Tripod for mounting and positioning CR1/CR2/IC2 light receptors	\$49