

SPECTRAL EVOLUTION

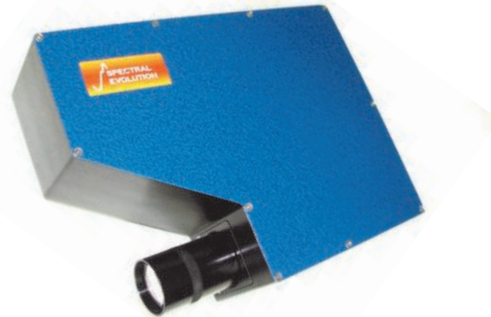
SR Series Si / InGaAs Multiple Array

UV-VIS-NIR Full Range Spectroradiometers

Superior wideband performance- in a small, easy to use package!

Typical Applications:

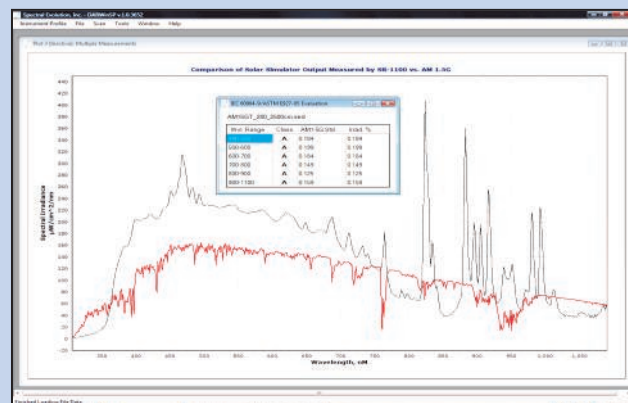
- ▶ **Solar Simulation**
- ▶ **Light Source Measurement**
- ▶ **Process Control**
- ▶ **Raw Material Identification**
- ▶ **Color Measurement**



Solar Simulation



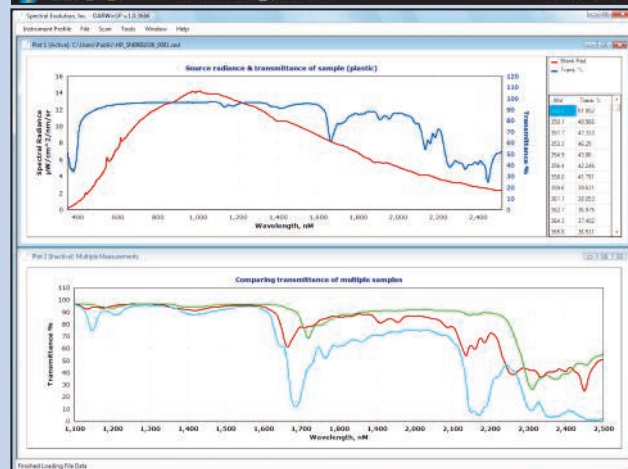
Validate the class of any commercially available solar simulator using SPECTRAL EVOLUTION Spectroradiometers as per IEC60904-9/ASTM E927-05. The graph was generated using the easy-to-use DARWin SP Data Acquisition and Analysis software included with each LR- and SR-Series Spectroradiometer. The red trace demonstrates the simulated solar graph of AM1.5 Global Tilt as per ASTM specification (E892). The black trace shows the actual measurement of irradiance as detected using the SPECTRAL EVOLUTION SR-3500 Spectroradiometer. Built-in software routines automatically provide class status as a function of wavelength (inset).



Process Control



SPECTRAL EVOLUTION Spectroradiometers are perfect for measuring in-process colored samples. The upper window (blue curve) shows the transmittance spectra of a tinted plastic sample plotted along with the radiance trace of the incident light source (red curve). The included DARWin SP Data Acquisition & Analysis Software also allows you to plot multiple sample curves together for easy comparison (lower window).



90 Sutton Street ♦ Unit 4
North Andover, MA 01845 USA
Tel: 978 687-1833 ♦ Fax: 978 945-0372
Email: sales@spectralevolution.com
www.spectralevolution.com

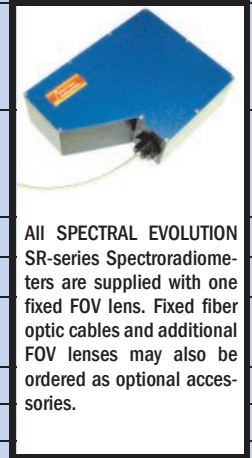
SPECTRAL EVOLUTION

SR Series Si / InGaAs Multiple Array

UV-VIS-NIR Full Range Spectroradiometers

Technical Specifications

	SR-3500	SR-2500	SR-1900
Spectral Range	350-2500nm	350-2500nm	350-1900nm
Spectral Resolution	3.5nm (350-1000nm) 10nm @ 1500nm 7nm @2100nm	3.5nm (350-1000nm) 22nm @ 1500nm 22nm @ 2100nm	3.5nm (350-1000nm) 10nm (1000-1900nm)
Sampling Bandwidth	1.5nm (350-1000nm) 3.8nm @ 1500nm 2.5nm @2100nm	1.5nm (350-1000nm) 6nm @ 1500nm 6nm @ 2100nm	1.5nm (350-1000nm) 3.8nm @ 1500nm
Spectrometer Type	3 Diffraction Gratings	2 Diffraction Gratings	2 Diffraction Gratings
Detector Type (Si)	512 element UV-enhanced Si Array	512 element UV-enhanced Si Array	512 element UV-enhanced Si Array
Detector Type (InGaAs)	2 x 256 element extended wavelength InGaAs Arrays	1 x 256 element extended wavelength InGaAs Array	1 x 256 element extended wavelength InGaAs Array
A/D Converter	16 bit	16 bit	16 bit
λ Reproducibility	0.1nm	0.1nm	0.1nm
λ Accuracy	0.5nm	0.5nm	0.5nm
Max Radiance @ 700nm (4° lens)	1×10^{-4} W/cm ² /nm/sr	1×10^{-4} W/cm ² /nm/sr	1×10^{-4} W/cm ² /nm/sr
Calibration	Factory calibrated for irradiance using NIST traceable source	Factory calibrated for irradiance using NIST traceable source	Factory calibrated for irradiance using NIST traceable source
Noise Equivalence Radiance (4° lens)	1.0x10 ⁻⁹ W/cm ² /nm/sr @400nm 1.5x10 ⁻⁹ W/cm ² /nm/sr @1500nm 2.0x10 ⁻⁹ W/cm ² /nm/sr @2100nm	1.0x10 ⁻⁹ W/cm ² /nm/sr @400nm 2.2x10 ⁻⁹ W/cm ² /nm/sr @1500nm 2.2x10 ⁻⁹ W/cm ² /nm/sr @2100nm	1.0x10 ⁻⁹ W/cm ² /nm/sr @400nm 1.5x10 ⁻⁹ W/cm ² /nm/sr @1500nm
Integration Time	7.5-1000ms	7.5-1000ms	7.5-1000ms
Shutter for dark scans	Yes	Yes	Yes
Automatic exposure	Yes	Yes	Yes
Entrance Optic Options	4°, 8°, or 14° lens, fiber optic, diffuser, integrating sphere	4°, 8°, or 14° lens, fiber optic, diffuser, integrating sphere	4°, 8°, or 14° lens, fiber optic, diffuser, integrating sphere
Software included	DARWin SP Data Acquisition	DARWin SP Data Acquisition	DARWin SP Data Acquisition
Power	7.5V, 23W	7.5V, 15W	7.5V, 15W
Dimensions	8.5" x 12" x 3.5"	8.5" x 12" x 3.5"	8.5" x 12" x 3.5"
Weight	less than 8 pounds	less than 8 pounds	less than 8 pounds
Interface	USB, Bluetooth	USB, Bluetooth	USB, Bluetooth



All SPECTRAL EVOLUTION SR-series Spectroradiometers are supplied with one fixed FOV lens. Fixed fiber optic cables and additional FOV lenses may also be ordered as optional accessories.

Protect your investment!
All SPECTRAL EVOLUTION Spectroradiometers may be custom ordered with an optional waterproof padded travel case (with or without wheels).



90 Sutton Street ♦ Unit 4
North Andover, MA 01845 USA
Tel: 978 687-1833 ♦ Fax: 978 945-0372
Email: sales@spectralevolution.com
www.spectralevolution.com