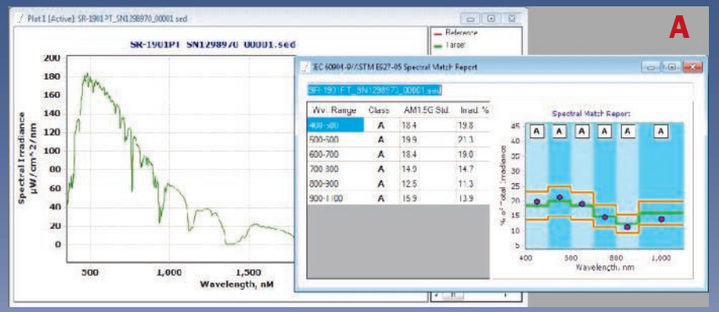
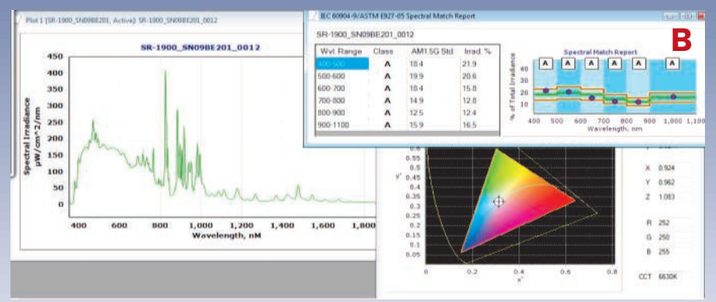
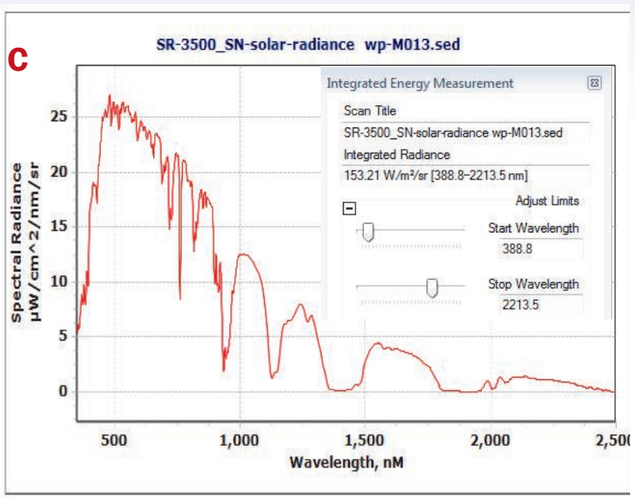
All SPECTRAL EVOLUTION Spectroradiometers come with our exclusive DARWin SP Data Acquisition Package– an easy-to-use menu driven software program designed to analyze spectral irradiance, radiance, reflectance, transmittance, absorbance and more....

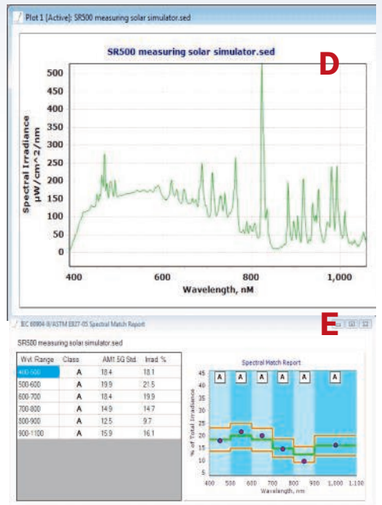




The exclusive DARWin SP Data Acquisition Module included with each unit allows for full featured instrument control and data handling. (A) The SR-1901PT Spectroradiometer equipped with 1.2m fiber optic and right angle cosine diffuser was used to analyze the performance of a commercial pulsed solar simulator as per AM1.5. In (B) the SR-1900 was used to classify a continuous solar simulator to IEC60904-9/ASTM E927-05. The DARWin SP Data Acquisition software contains subroutines to analyze class performance and create spectral match reports. Pulldown menus for CIE color space are also available.

(C) The full range SR-3500 was used to measure outdoor solar radiance using a 4° lens foreoptic and white reflectance plate. Pull down menus allow for easy calculation of integrated energy measurement. (D, E) Even our entry level SR-500 Spectroradiometer comes will all necessary subroutines to generate high quality solar spectra. The figures below demonstrate the radiometric analysis of a commercial solar simulator taken at a customer site. All SPECTRAL EVOLUTION Spectroradiometers are lightweight and easy to carry anywhere.





SPECTRAL EVOLUTION

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Full Range Spectroradiometers UV-VIS-NIR-SWIR

Fast, full featured and flexible!

All SR Series Spectroradiometers feature NIST-traceable calibration and automatic dark current shutter control for easy one-touch spectral radiance & irradiance measurements.

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Meet our entire lineup of fast, full featured, and flexible laboratory spectroradiometers

- Full range UV/VIS/NIR/SWIR measurements with just one scan—no hassling with multiple spectroradiometers
- No moving gratings or internal fiber optics to break or jam
- No fuss autoexposure control; - thanks to 7 decades of dynamic range response
- Fast, accurate one-touch scans—autoscaling & auto dark current shutter
- Easy to set up anywhere—compact, lightweight, single-box design
- DARWin SP Data Acquisition software captures spectra in ASCII format for use with third party software—no post-processing required

Model	SR-4500	SR-3500	SR-3501	SR-2500	SR-1900	SR-1901	SR-1901PT	SR-1600	SR-500
Spectral Range	350-2500nm	350-2500nm	280-2500nm	350-2500nm	350-1900nm	280-1900nm	280-1900nm	300-1700nm	320-1100nm
Spectral Resolution	3nm @700nm 8nm @ 1500nm 6nm @ 2100nm	3nm @700nm 8nm @ 1500nm 6nm @ 2100nm	4nm (280-1000nm) 9.5nm@1500nm 7.0nm @ 2100nm	3.5nm (350-1000nm) 22nm @ 1500nm 22nm @ 2100nm	3.5nm (350-1000nm) 10nm (1000-1900nm)	4nm (280-1000nm) 10nm (1000-1900nm)	4nm (280-1000nm) 10nm (1000-1900nm)	5nm (300-1000nm) 10nm (1000-1700nm	3 nm (320-1100nm)
Sampling Bandwidth	Data output in 1nm increments; 2151 channels reported	Data output in 1nm increments; 2151 channels reported	Data output in 1nm increments; 2221 channels reported	Data output in 1nm increments; 2151 channels reported	Data output in 1nm increments; 1551 channels reported	Data output in 1nm increments; 1621 channels reported	Data output in 1nm increments; 1621 channels reported	Data output in 1nm increments; 1401 channels reported	Data output in 1nm increments; 781 channels reported
Spectrometer Type	3 Diffraction Gratings			2 Diffraction Gratings					1 Diffraction Grating
Detectors	512-element UV-enhanced TE-cooled Si Array	512-element UV-enhanced Si Array							
	Two 256-element TE-cooled extended InGaAs arrays			256-element TE-cooled extended InGaAs array				256-element TE-cooled InGaAs Array	
Calibration	Factory calibrated for radiance and/or irradiance using NIST traceable source (depending upon optics selection)								
Noise Equivalence Radiance (1.2 meter fiber optic)	$0.2x10^{-9}$ W/cm²/nm/sr@400nm $0.2x10^{-9}$ W/cm²/nm/sr@700nm $0.9x10^{-9}$ W/cm²/nm/sr@900nm $1.2x10^{-9}$ W/cm²/nm/sr@1500nm $1.8x10^{-9}$ W/cm²/nm/sr@2100nm	$0.8x10^{-9}$ W/cm²/nm/sr@400nm $1.2x10^{-9}$ W/cm²/nm/sr@1500nm $1.8x10^{-9}$ W/cm²/nm/sr@2100nm	$0.8x10^{-9}$ W/cm²/nm/sr @400nm $1.2x10^{-9}$ W/cm²/nm/sr @1500nm $1.8 x10^{-9}$ W/cm²/nm/sr @2100nm	$0.8x10^{-9}$ W/cm²/nm/sr @400nm $1.5x10^{-9}$ W/cm²/nm/sr @1500nm $1.8x10^{-9}$ W/cm²/nm/sr @2100nm	$0.8x10^{-9}$ W/cm²/nm/sr @400nm $1.2x10^{-9}$ W/cm²/nm/sr @1500nm				$0.8x10^{-9}$ W/cm²/nm/sr @400nm
Software included	DARWin SP Data Acquisition								
Power	7.5V, 30W	7.5V, 23W		7.5V, 15W					6-12V, 0.5W
Dimensions	8.5"x 13"x 5"	8.5" x 11" x 3.5"							4" x 2" x 5"
Weight	12 lbs	7.5 lbs							less than 2 pounds
Interface	USB, Bluetooth								USB only
Integration Time	7.5 - 1000 ms						1 –50 ms	7.5 –1000 ms	7.5 –2000 ms
Shutter for dark scans	Yes								
Automatic exposure	Yes								
A/D Converter	16 bit								
λ Reproducibility	0.1nm								
λ Accuracy	0.5nm								
TTL & Phototriggering for pulsed measurement	No						Yes	No	