

Laboratory Spectroradiometers | PS-100, PS-200, and PS-300

Absolute spectral measurement across a wide wavelength range.

Complete Package

Includes spectroradiometer, two meter fiber optic cable, cosine-corrected detector, USB cable, USB drive with required drivers and software (compatible with all 32-bit and 64-bit Windows operating systems), and shoulder bag (functions as a carrying case and field measurement pack). A reflectance probe and reflectance standard are available as accessories.

Three Wavelength Options

Three wavelength options are available: 350 to 1000 nm, 300 to 850 nm, or 300 to 1000 nm. (Calibrated wavelength ranges for irradiance measurements.)

Field Measurements

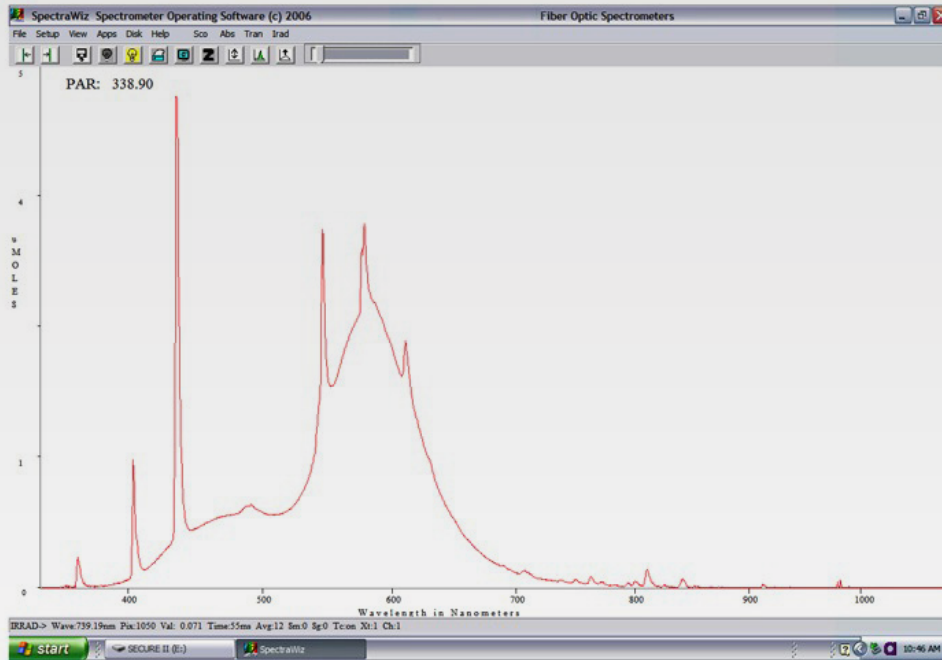
Small and lightweight with a rugged housing and no moving parts. Powered through the USB port on a computer allowing mobile field measurements.

Typical Applications

Measurement of spectral output (energy flux density, photon flux density, or illuminance) of radiation sources for plant or human lighting, reflectance and transmittance measurements of natural and synthetic surfaces and materials (often plant leaves and canopies), and absorptance measurements of chemical samples.



Screenshot of Measurement Made in SpectraWiz Software



The detector collects light for the spectroradiometer via fiber-optic cable. The spectroradiometer then transmits its measurements to a PC where custom software (included) displays the spectrum of the light source. Live data can be saved as a data file suitable for work in other programs, such as Excel or SigmaPlot.

PS-100

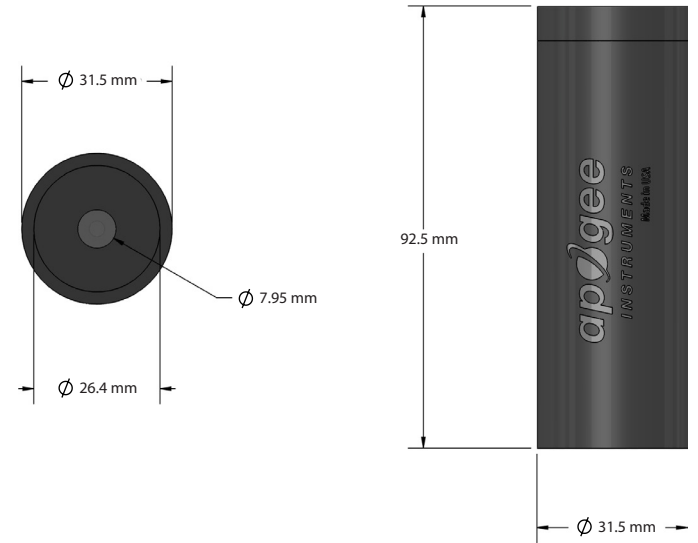


PS-200/PS-300



PS-100/PS-200/PS-300 come with a spectroradiometer, two meter fiber optic cable, cosine-corrected detector, USB cable, USB drive with required drivers and software (compatible with all 32-bit and 64-bit Windows operating systems), and shoulder bag (functions as a carrying case and field measurement pack). A reflectance probe and reflectance standard are available as accessories.

Diffusion Head Dimensions



	PS-100	PS-200	PS-300
Wavelength Sensitivity	350 to 1150 nm	190 to 850 nm	220 to 1100 nm
Irradiance Calibration Range	350 to 1000 nm	300 to 850 nm	300 to 1000 nm
Wavelength Resolution	1.0 nm	0.85 nm	1.5 nm
Detector Type	CCD, 2048 pixel		
Grating Type	Holographic & Ruled, 600 g/nm	Holographic & aberration-corrected, 500 g/nm	
Digitizer	16-bit		
Signal to Noise Ratio	1000: 3		
Stray Light	0.1 % at 435 nm; 0.5 % at 600 nm	0.02 % at 435 nm; 0.2 % at 200 nm	0.02 % at 435 nm; 0.2 % at 220 nm
Measurement Repeatability	Less than 1 %		
Irradiance Calibration Uncertainty	± 10 %		
Detector Integration (Exposure) Range	1 ms to 65 s		
Directional (Cosine) Response	± 5 % at 80° zenith angle		
Software	Windows compatible, included		
Computer Interface	USB 2.0		
Power Requirement	100 mA at 5 V DC, supplied via USB cable		
Operating Temperature	0 to 60 C		
Optical Cable	2 m armored fiber-optic		
Base Unit Size	25 x 75 x 125 x mm	69 x 100 x 150 mm	
Mass	500 g	900 g	
Warranty	1 year against defects in materials and workmanship		