SpectralLED® RS-9-3 Benchtop Uniform Light Source

The SpectralLED Fiber Optics output configuration provides flexible illumination for applications where space is limited. Systems can be configured with multiple outputs enabling several devices to be simultaneously illuminated at different working locations. Collimating optics are included at the fiber distal end, and custom fiber diameters and lengths are available.

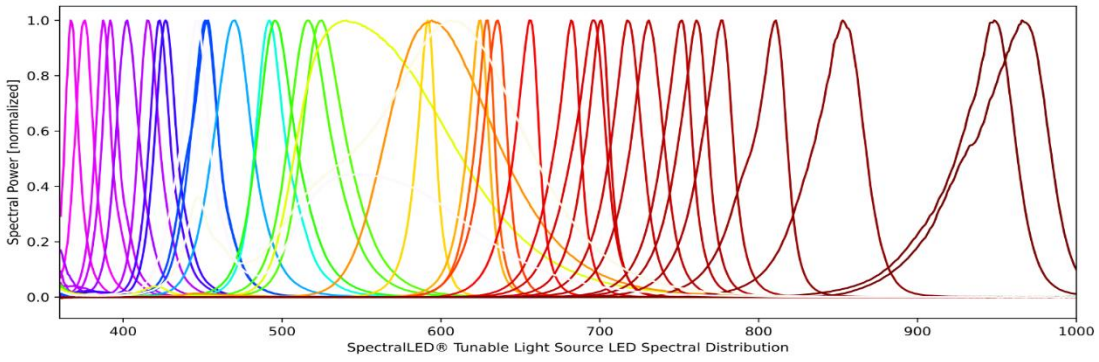
The SpectralLED® Tunable Light Source incorporates up to 34 discrete wavelengths and, 2 broad band white channels for synthesis of commercially available light sources or based on spectra that you import. The platform is easily adaptable for automated test systems and production line integration, with integrated optical feedback and temperature control to ensure rock-solid stability and consistent results.

Unparalleled resolution and accuracy
for camera & image sensor calibration

Key Features

- Wavelength options from UVA to Near IR
- Constant current drivers & built-in optical feedback
- Accurate & flicker-free output in real time
- All solid-state design for rapid start-up and repeatable performance
- ISO/IEC 17025 Accredited by NVLAP (NVLAP lab code 200823-0) for Calibration Accuracy

Fiber Outputs	Fiber length	Fiber diameter
4	1.5 m	6.35 mm



SpectralLED® RS-9 Benchtop Uniform Light Source

Measurement Applications

- Quantum Efficiency
- Spatial Non uniformity
- Pixel Defects
- Vignetting Correction
- Sensitivity
- Responsivity
- Signal to Noise
- Linearity
- Saturation Exposure
- Dynamic Range

RS-9 Optical Specifications		
Spectral Range	360 nm to 1,000 nm VIS-NIR	
Spectral output	34 discrete wavelengths in UVA – Visible range and, 2 broadband white channels	
Optical Geometry	Typically, 0.55 NA (fiber dependent)	
Uniformity (Fiber dependent)	Luminous uniformity: Typical 70%	
Maximum Output (Fiber dependent) (Radiance, Luminance)	Illuminant A – 100 *uW/cm^2/sr* , 150 *cd/m^2* Illuminant D65 – 270 *uW/cm^2/sr* , 540 *cd/m^2* Illuminant E – 198 *uW/cm^2/sr* , 356 *cd/m^2*	(For fiber diameter of 6.35 mm at 50mm)
Accuracy Specifications		
Illumination Stability	≥ 95% stable after 50ms rise time for single channels, 50ms for broadband spectra	
Illumination Accuracy	± 2% absolute accuracy to NIST standard	
Spectral Accuracy	± 1 nm peak wavelength for all discrete wavelengths	
Color Accuracy	CIE 1931 x,y ± 0.003 (illuminant E)	
Temperature Stability	Within ± 1°C via active TEC	
General Specifications		
Software	SpectralLED Pro GUI Control Program, or any serial port terminal tool	
Interface Connectors	USB 2.0 type B and DB15 RS485 serial	
Interface Protocol	Simple ASCII commands	
Supported Operating Systems	Windows using FTDI COM port drivers	
Input Voltage & Power	100 to 240 VAC at 50-60Hz, 400W maximum	
Dimensions (H x W x L)	225mm (8.9in) x 225mm x 308mm (12in). Weight 7.4kg (16.2lbs)	
Environmental Conditions	15 – 35°C, ≤ 65 %RH	
Optional Upgrades		
RS – 9- Wavmon™	Multi-channel photodiode system with amplitude feedback and real time wavelength measurement	

*Calibration performed using measurement standards traceable to the National Institute of Standards & Technology (NIST)

Rev. X1