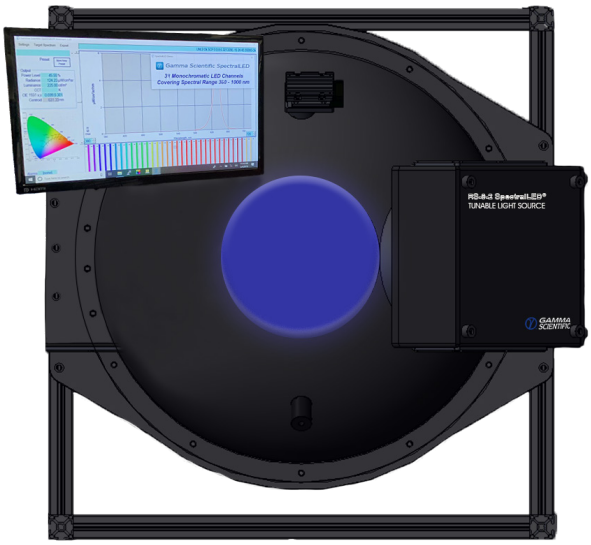
SpectralLED® RS-9-2 Tunable Light Source - Large Output Port



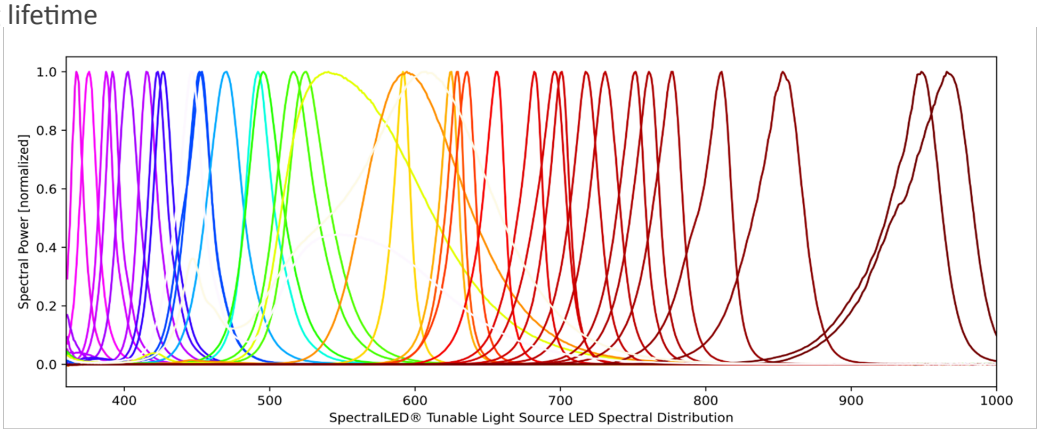
When you require a large area, highly uniform light source for camera and image sensor calibration, the SpectralLED® Large Output Port delivers brightness, radiometric stability and wavelength accuracy that is unmatched in the industry.

The SpectralLED® Tunable Light Source incorporates up to 34 discrete wavelengths and two 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.

Unprecedented Resolution and Accuracy
for Camera and Image Sensor Calibration

- Wavelength Options From the UVA to the Near Infrared
- Quickly Simulate any CIE Illuminant or Macbeth™/X-RITE™ Color Patch
- Built-in RMS spectral fitting for simulation of user imported spectra
- Constant current drivers and built-in optical feedback ensure accurate and flicker-free output in real time
- All solid-state design for rapid start-up, repeatable performance and long operating lifetime
- ISO/IEC 17025 Accredited by NVLAP (NVLAP lab code 200823-0) for Calibration Accuracy

Sphere Diameter	Max Exit Port Diameter	Number of SpectralLED®
0.5 m	150 mm	1 to 2
1.0 m	300 mm	1 to 4
2.0 m	600 mm	1 to 8



SpectralLED® RS-9-2 Large Output Port

Measurement Applications

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

Gamma Scientific is ISO/IEC 17025 accredited by NVLAP (NVLAP lab code 200823-0).

RS-9-2 Optical Specifications	
Spectral Range	360 nm to 1,000 nm VIS-NIR
Spectral output	34 discrete wavelengths and, 2 broadband white channels
Source Geometry	150mm, 300mm or 600mm diameter uniform output, Lambertian radiant source (Other output port sizes available on request)
Translational Uniformity (Illuminant E)	Luminous uniformity: ≥ 95% for 130 mm at center and tapers off towards edges Chromatic uniformity: Δu'v' Max ≤ 3 points in 130 mm spot in center and tapers off towards edges)
Maximum Output (Spectrum dependent)	With Integrating sphere of 500mm with two light engines: Illuminant A – 4000 uW/cm^2/sr , 6000 cd/m^2 Illuminant D65 –9000 uW/cm^2/sr , 18500 cd/m^2 Illuminant E – 8000 uW/cm^2/sr , 1400 cd/m^2 Dependent upon integrating sphere size and number of light engines attached. Please consult with the factory about configuration parameters and output specifications
CCT Range	1,800K to 40,000K
Accuracy Specifications	
Illumination Stability	≥ 95% stable after 50ms rise time for single channels, 50ms for broadband spectra
Illumination Accuracy	± 2% Absolute to NIST standard
Spectral Accuracy	± 1 nm centroid 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 and Power	100 to 240 VAC at 50-60Hz, 400W maximum
Dimensions (H x W x L)	Dependent on integrating sphere chosen – please contact factory for details
Upgrades	
RS-7 Wavemon™	Multi-channel photodiode system provides amplitude feedback & real-time wavelength measurements

Specifications are subject to change without notice.

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