

RadOMA-Lite Spectrometer

PRODUCT SUMMARY

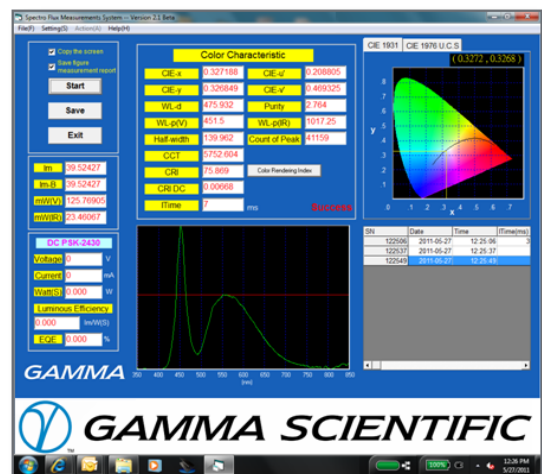
The Gamma Scientific RadOMA-Lite is a high performance, linear CCD array spectrometer, with an 800 kHz readout speed. The spectrometer utilizes a 2048 element detector with 16-bit resolution. Computer interface is USB 2.0. The RadOMA-Lite is ideal for quick and easy LED measurements for people on a budget. With our slit options, resolutions between 0.5nm and 3.0nm can be achieved. Flexible custom configurations and application support are available for OEM applications.

The spectrometer accepts an SMA905 fiber-optic input that can be connected to a wide variety of optics including integrating spheres for total flux measurements or CIE127 Conditions A and B for intensity measurements.

The system comes with the RadOMA-Lite Windows software package for LEDs with automated report generation.

FEATURES

- Recommended measurements configurations for LED intensity and total flux
- Near-real-time measurement
- High resolution: 0.2 nm/pixel
- Spectral range: 380-780 nm
- USB 2.0 interface
- Windows-based control/analysis software
- NIST-traceable accuracy.



GAMMA SCIENTIFIC

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RadOMA-Lite Spectrometer

SPECIFICATIONS

Detector and Wavelength Specifications

Detector	CCD Linear Array <ul style="list-style-type: none">■ Number of Pixels: 2048■ Sensing Pixel size: 14μm x 200μm■ Sensitivity: 1800 V/(l*s) @660nm
Dimensions (mm)	6.3" L x 4.1" W x 2.1" H (160mm L x 103mm W x 54mm H)
Weight	0.7 lbs (0.3 kg)
Spectral Range	380-780 nm
Spectral Resolution:	0.25 – 0.35nm dependent on slit width, and fiber diameter
Gratings	600G/mm
Input	Fiber: SMA 905 ,1000 μ m core \varnothing fiber Numerical Aperture = 0.2 Slit: 50 ,100 ,150,350,600 μ m
Dynamic Range	16 bit or 65536:1
Computer Interface	USB 2.0 ,16 bit ,800KHz
Power Input	5VDC, 140 mA (Power Consumption Rate: 0.6 - 0.7W)
Temperature Range	15°C to 40°C
Software	RadOMA-Lite software package

Measurement Specifications

Peak Wavelength Accuracy	+/- 0.5 nm
Dominant Wavelength Accuracy	+/- 0.5 nm
Luminous Flux	Range Depends on Sphere size Accuracy: +/- 4%
CIE1931 x,y Accuracy	+/- 0.003
Correlated Color Temperature (CCT)	Range: 1000K to 100,000K Accuracy: +/- 5%
Half-Power Bandwidth (FWHM) Accuracy	+/- 0.5nm
Spectral Purity	+/- 5%
Color Rendering Index (CRI)	+/- 5%



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