GS-1290-NVIS Spectroradiometer

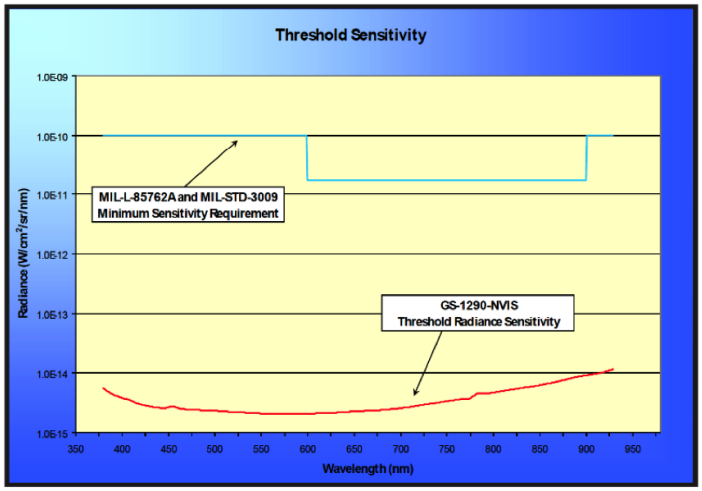
The GS-1290-NVIS is an advanced, high-speed spectroradiometer that combines the leading-edge sensitivity of backside-thinned CCD detector technology with the industry-renown RadOMAcam radiometric telescope from Gamma Scientific.

Configured for NVIS testing of displays and associated lighting, the instrument exceeds all requirements outlined in MIL-L-85762A and MIL-STD-3009, covering the range of 360-930nm with six different field-of-view apertures.

Original system calibration is performed in our ISO/IEC 17025 accredited laboratory by NVLAP (NVLAP lab code 200823-0). Users with a known calibration standard can perform in-house calibration, reducing system down time.

Exceptional Sensitivity and Speed
For NVIS Test and Characterization

- Measurements to 1.5 x 10^{-4} cd/m^2 with a 100:1 SNR
- Resolution of 0.6 nm per pixel with backside-thinned CCD detector technology
- Wavelength range options of 400-950nm or 400-1100nm
- Aperture settings from 0.1° to 5°
- Internal LED spot projector and digital viewfinder indication and recording of precise measurement location
- USB 2.0 Interface and Windows-based LightTouch NVIS Software
- Pass / Fail Report generator per MIL-STD
- Direct Excel export of data and reports
- Can be user-calibrated with known standard



Threshold sensitivity curve obtained using 5 degree field-of-view

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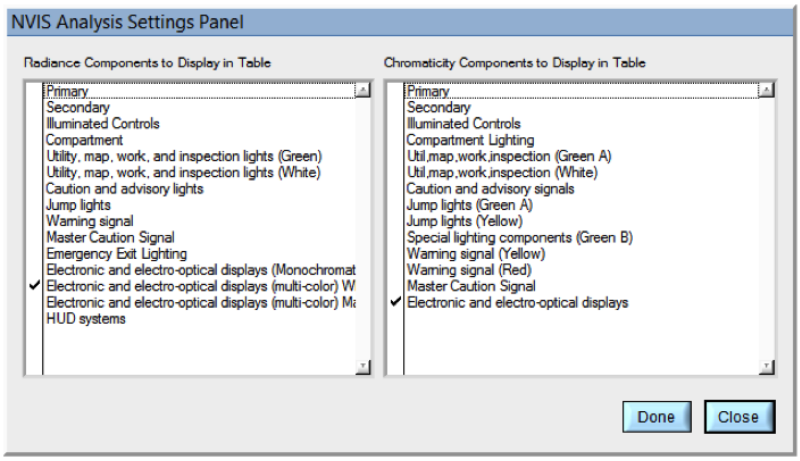

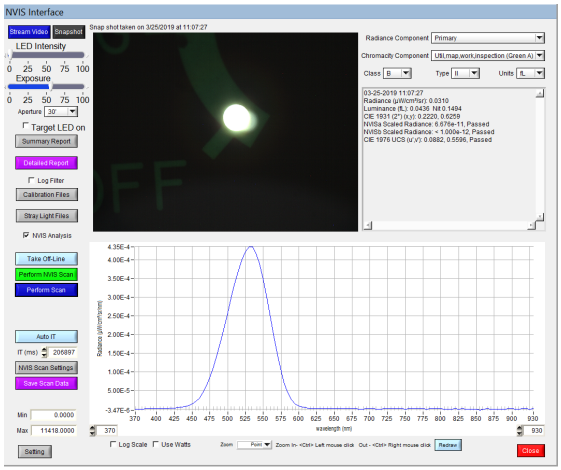

Detector and Wavelength Specifications	
Wavelength Range	GS-1290-NVISSYS-1: 400-950 nm GS-1290-NVISYS-2: 400-1100 nm
Wavelength Resolution	GS-1290-NVISSYS-1: 0.6 nm GS-1290-NVISSYS-2: 0.9 nm
Half-power Bandwidth	10 nm
Wavelength Repeatability	0.02 nm
Wavelength Accuracy	± 0.25 nm
Stray Light @ 633nm	< 1.0×10^{-5}
Polarization Error	< 1%
Electrical Resolution	16-bit
Aperture Sizes	5°, 2°, 1°, 0.5°, 0.3°, 0.1°
Viewing System	Integrated video with imaged measurement aperture
General Specifications	
Lens	180 mm macro or fixed focus
Fiber Optic Coupler	2 meter (included)
Computer Interface	USB 2.0 with LightTouch for Windows®
Calibration Report	Per ISO/IEC 17025
Operating Temperature	20 ± 4° C
Relative Humidity	< 70% (non-condensing)
Dimensions	30 cm H x 15 cm W x 31 cm L Weight 4.6 kg

Aperture	Luminance Range	Chromaticity Accuracy	Measurement Spot Size @ 279mm Working Distance
5.0°	1.5×10^{-5} to 3.6×10^{4} cd/m²	x,y: ± 0.002	10.49 mm
2.0°	2.2×10^{-5} to 5.4×10^{4} cd/m²	x,y: ± 0.002	4.20 mm
1.0°	9.0×10^{-5} to 2.2×10^{5} cd/m²	x,y: ± 0.0025	2.08 mm
0.5°	3.4×10^{-4} to 8.3×10^{5} cd/m²	x,y: ± 0.0025	1.02 mm
0.3°	1.6×10^{-4} to 3.9×10^{6} cd/m²	x,y: ± 0.0025	0.64 mm
0.1°	9.0×10^{-3} to 2.2×10^{7} cd/m²	x,y: ± 0.0025	0.17 mm

Specifications are subject to change without notice.

Rev. 03.16.23

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