GS-1290-NVIS Spectroradiometer

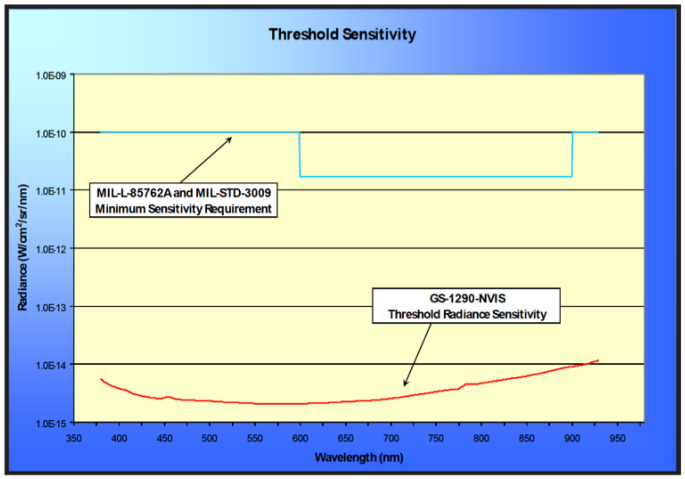
The GS-1290-NVIS is an advanced, high-speed spectroradiometer that combines the leading-edge sensitivity of two-stage, cooled, backside-thinned CCD detector technology with the industry-renown RadOMAcam radiometric telescope from Gamma Scientific.

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), and through our Light Touch software, users with a known calibration standard can perform in-house calibration if so desired.

Exceptional Sensitivity & Speed
For NVIS Test & Characterization

- Measurements to 1.5 x 10^{-4} cd/m^2 with a 100:1 SNR
- Resolution of 0.6 nm per pixel with dual-stage, cooled CCD
- Wavelength range options of 360-930nm or 360-1100nm
- 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 Light Touch 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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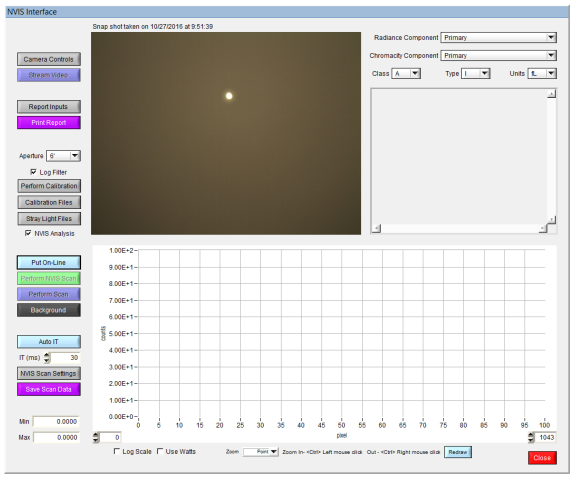
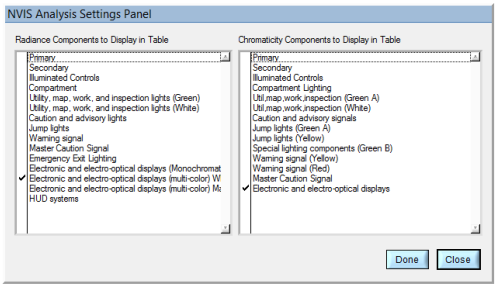
GS-1290-NVIS Spectroradiometer

Detector and Wavelength Specifications	
Wavelength Range	GS-1290-NVIS: 360-930 nm GS-1290-NVIS-2: 360-1100 nm
Wavelength Resolution	GS-1290-NVIS: 0.6 nm GS-1290-NVIS-2: 0.9 nm
Half-power Bandwidth	10 nm
Wavelength Repeatability	0.02 nm
Wavelength Accuracy	> 0.3 nm
Stray Light @ 633nm	< 1.0×10^{-4} (< 1.0×10^{-5} with spectral purity enhancement applied)
Polarization Error	< 1%
Electrical Resolution	16-bit
Aperture Sizes	5°, 2°, 1°, 0.5°, 0.33°, 0.1°
Viewing System	Integrated video with imaged measurement aperture





General Specifications	
Lens	180 mm Macro
Computer Interface	USB 2.0 with Light Touch for Windows®
Operating Temperature	0 to 35° C
Relative Humidity	< 95% (non-condensing)
Dimensions	30 cm H x 15 cm W x 31 cm L Weight 4.6 kg

Aperture	Sensitivity	Chromaticity Accuracy	Measurement Spot Size @ 279mm Working Distance
5.0°	1.5×10^{-5} to 3.6×10^{4} cd/m²	x,y: ± 2.0×10^{-3} 1.5×10^{-4} to 5.0×10^{-2} cd/m² x,y: ± 1.5×10^{-3} 5.0×10^{-2} to 8.0×10^{2} cd/m² x: ± 1.5×10^{-3} 8.0×10^{2} to 3.65×10^{4} cd/m² y: ± 1.0×10^{-3}	10.49 mm
2.0°	2.2×10^{-5} to 5.4×10^{4} cd/m²	x,y: ± 2.5×10^{-3} 2.0×10^{-4} to 7.0×10^{-2} cd/m² x,y: ± 1.5×10^{-3} 7.0×10^{-2} to 1.15×10^{3} cd/m² x: ± 1.5×10^{-3} 1.15×10^{3} to 5.36×10^{4} cd/m² y: ± 1.0×10^{-3}	4.20 mm
1.0°	9.0×10^{-5} to 2.2×10^{5} cd/m²	x,y: ± 2.5×10^{-3} 9.0×10^{-4} to 3.0×10^{-1} cd/m² x,y: ± 1.5×10^{-3} 3.0×10^{-1} to 4.7×10^{3} cd/m² x: ± 1.5×10^{-3} 4.7×10^{3} to 2.2×10^{5} cd/m² y: ± 1.0×10^{-3}	2.10 mm
0.5°	3.4×10^{-4} to 8.3×10^{5} cd/m²	x,y: ± 2.5×10^{-3} 3.0×10^{-3} to 1.1×10^{0} cd/m² x,y: ± 1.5×10^{-3} 1.1×10^{0} to 1.77×10^{4} cd/m² x: ± 1.5×10^{-3} 1.77×10^{4} to 8.3×10^{5} cd/m² y: ± 1.0×10^{-3}	1.05 mm
0.3°	1.6×10^{-4} to 3.9×10^{6} cd/m²	x,y: ± 2.5×10^{-3} 1.6×10^{-3} to 5.1×10^{0} cd/m² x,y: ± 1.5×10^{-3} 5.1×10^{0} to 8.35×10^{4} cd/m² x: ± 1.5×10^{-3} 8.35×10^{4} to 3.9×10^{6} cd/m² y: ± 1.0×10^{-3}	0.69 mm
0.1°	9.0×10^{-3} to 2.2×10^{7} cd/m²	x,y: ± 2.5×10^{-3} 9.0×10^{-3} to 2.9×10^{1} cd/m² x,y: ± 1.5×10^{-3} 2.9×10^{1} to 4.7×10^{5} cd/m² x: ± 1.5×10^{-3} 4.7×10^{5} to 2.19×10^{6} cd/m² y: ± 1.0×10^{-3}	0.21 mm

Specifications are subject to change without notice

Rev 3.18

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