Innovative Solutions for Light Source Characterization

ILT970BB Spectroradiometric Measurement Systems

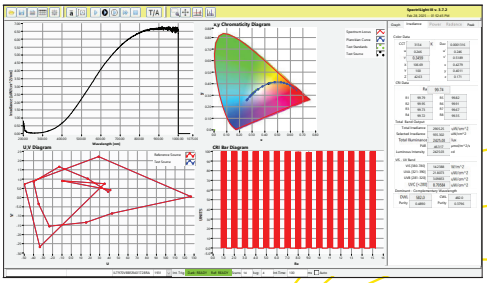
The UV-VIS NIR Spectroradiometric Measurement Systems are optimized for the ultraviolet (UV), visible (VIS) and near-infrared (NIR) spectral regions calibrated from 200 nm to 1000 nm (irradiance/radiance) and 250 to 1000 nm (spectral flux). Choose from five (5) options for measuring spectral irradiance (W/cm^2-nm) and spectral flux (W/nm). Each Spectroradiometer includes the spectrometer and optical fiber, an optical measurement head for spectral irradiance or spectral flux, a stand, SpectrILight III control software and DLLs, and a carry and storage case.

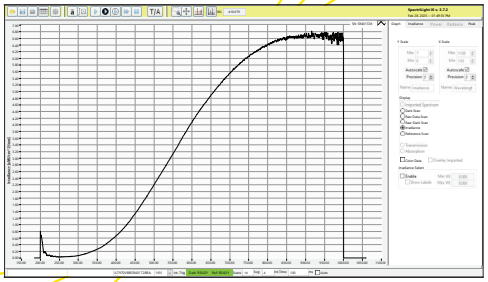
These Spectroradiometer Systems have been fully characterized and are calibrated for their spectroradiometric response following ISO 17025-certified processes, and supported by global recalibration centers in North America, Europe, and China.

UV VIS NIR Spectroradiometers for measuring:
- Spectral Irradiance, Irradiance, Illuminance and Color
- Spectral Flux, Optical Power, Lumens and Color

Ideal for:
- Display testing
- Phototherapy
- Industrial Quality Control and R&D

At A Glance:
- **Easy to Use**
- **User Friendly Software***
- **Spectral Range: 200 nm to 1000 nm**





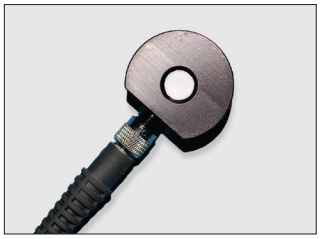
* Computer not included

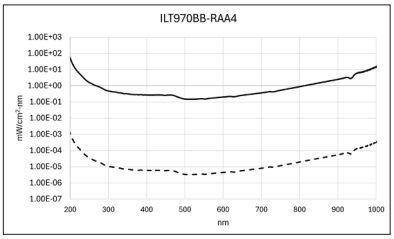
ILT970BB Specifications

SPECTRORADIOMETERS	ILT970BB-RAA4	ILT970BB-W/A2	ILT970BB-W5E	ILT970BB-INT50	ILT970BB-INT150
Type	UV VIS NIR Spectral Irradiance	UV VIS NIR Spectral Irradiance	UV VIS NIR Spectral Irradiance	UV VIS NIR Spectral Flux	UV VIS NIR Spectral Flux
Spectral Range of Spectrometer	190 nm to 1050 nm	190 nm to 1050 nm	190 nm to 1050 nm	190 nm to 1050 nm	190 nm to 1050 nm
Spectral Range of Calibration	200 nm to 1000 nm	200 nm to 1000 nm	200 nm to 1000 nm	250 nm to 1000 nm	250 nm to 1000 nm
Minimum Detectable Radiometric Values over Calibrated Region	1.91 E-02 mW/cm^2	6.22 E-02 mW/cm^2	2.56 E-02 mW/cm^2	2.3 E-05 W	2.1 E-04 W
Luminance Flux Range for 3200K QTH				0.0002 to 17 lumens	0.002 to 159 lumens
Illuminance Range	3 to 125K lux	12 to 500K lux	6 to 200K lux		
Integration Time Range	3.8 ms - 10 sec.	3.8 ms - 10 sec.	3.8 ms - 10 sec.	3.8 ms - 10 sec.	3.8 ms - 10 sec.
Spectral Resolution	2.0 nm	2.0 nm	2.0 nm	2.0 nm	2.0 nm
Wavelength Accuracy	1.2 nm	1.2 nm	1.2 nm	1.2 nm	1.2 nm
Stray Light Rejection	2.3 AU	2.3 AU	2.3 AU	2.3 AU	2.3 AU
Fiber Length	1 m	1 m	1 m	1 m	1 m
Fiber Connections	SMA-905	SMA-905	SMA-905	SMA-905	SMA-905
Optical Heads	RAA4	W/A2	W5E	INT50	INT150
Input Configuration	Right Angle	Parallel Port	Parallel Port	Sphere Entrance	Sphere Entrance
Reference Plane	Front Surface	Front Surface	Front Surface		
Active Sensor Area	0.27 in. (6.9 mm) dia.	0.598 in. (15.2 mm) dia.	0.157 in. (4 mm) dia.	0.28 in. (7 mm) input port	1.5 in. (38 mm) input port
Optical Head Dimensions	0.61 in. (1.54 cm) dia. by 0.44 in. (1.12 cm) tall	1.65 in. (4.19 cm) dia. by 1.29 in. (3.28 cm) tall	1.25 in. (0.64 cm) dia. by 0.79 in. (2.0 cm) long	2 in. (5 cm) dia. integrating sphere with 0.27 in. (0.7 cm) entrance port and 0.5 in. (1.27 cm) near cosine fiber port	6 in. (15.24 cm) dia. integrating sphere with 3 ports, 1.5 in. (3.8 cm) entrance port, 0.5 in. (1.24 cm) near cosine fiber port, and 1 in. (2.54 cm) north pole port with port plug
Spectrometer Dimensions HxWxL	3.50 in. (89 mm) x 2.51 in. (64 mm) x 1.22 in. (31 mm)	3.50 in. (89 mm) x 2.51 in. (64 mm) x 1.22 in. (31 mm)	3.50 in. (89 mm) x 2.51 in. (64 mm) x 1.22 in. (31 mm)	3.50 in. (89 mm) x 2.51 in. (64 mm) x 1.22 in. (31 mm)	3.50 in. (89 mm) x 2.51 in. (64 mm) x 1.22 in. (31 mm)
Spectrometer Weight	275 g	275 g	275 g	275 g	275 g
Sphere Coating				Spectraflect®	Spectraflect
Mounting	1/4-20 mounting thread with tripod	1/4-20 mounting thread with tripod	1/4-20 mounting thread with tripod	1/4-20 mounting thread with tripod	1/4-20 boss, 4 in. (10 cm) post, 4 in. (10 cm) post holder, and 6 in. x 6 in. (15 cm x 15 cm) base
Calibration	Spectral Irradiance Response	Spectral Irradiance Response	Spectral Irradiance Response	Spectral Flux Response	Spectral Flux Response
Storage and Carrying Case	Included	Included	Included	Included	Included
Software*	SpectrILight III	SpectrILight III	SpectrILight III	SpectrILight III	SpectrILight III

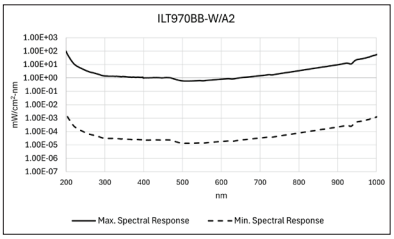
* Computer Specifications:
- A CPU or laptop with 1GHz processor, 1GB of RAM, 256GB hard drive, and a screen resolution of 1024 x 768
- Operating system: Windows 11 or later
- Microsoft .Net Framework 4.5 or later needs to be installed and enabled

Optical Heads and Spectroradiometer Measurement Ranges

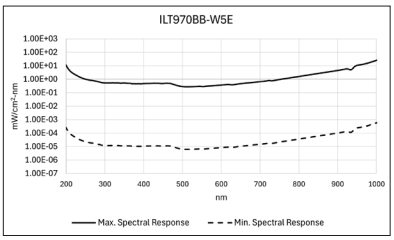




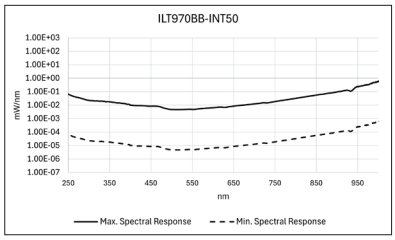
RAA4 Right-Angle Adapter/Diffuser Head with mini-integrating sphere for measuring spectral irradiance, total irradiance, and spectral characteristics of light sources.



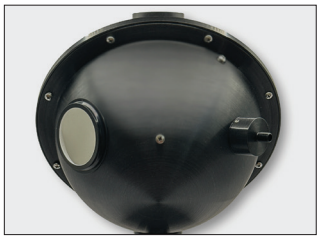
W/A2 Diffused Quartz Head with SMA adaptor for measuring spectral and total irradiance, illuminance, color parameters, and spectral characteristics of light sources.

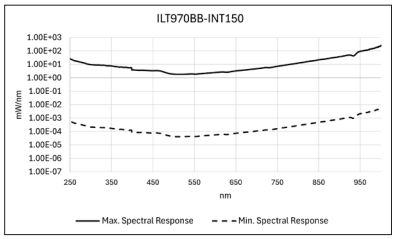


The W5E miniature cosine correcting diffuser with a SMA905 fiber adaptor for measuring spectral and total irradiance, illuminance, color parameters, and spectral characteristics of light sources.



INT50 5 cm (2”) Integrating Sphere for measuring forward and total spectral flux, power in watts, and spectral characteristics.





INT150 15 cm (6”) Integrating Sphere for measuring forward and total spectral flux, power in watts, and spectral characteristics.