

Your Trusted Partner in UV Light Testing

ILT970 Ultraviolet Spectroradiometers

The ILT970UV Spectroradiometric Measurement Systems are ideal for testing and measurement of UV light sources. We offer three options for measuring spectral irradiance from 200 nm to 450 nm and two options for spectral flux from 250 nm to 450 nm. Each Spectroradiometer includes the UV spectrometer and optical fiber, an optical measurement head for spectral irradiance or spectral flux, a stand, SpectrLight III control software and DLLs, and a carry and storage case.

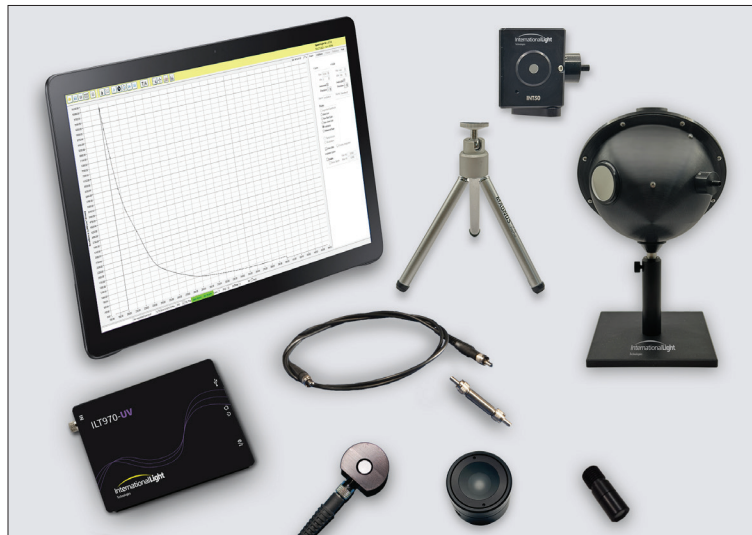
These Spectroradiometers have been fully characterized and are calibrated for their spectroradiometric response following ISO 17025-certified processes, and supported by global recalibration centers in North America, Europe, and China.

UV Spectroradiometers for measuring:

- Spectral Irradiance, Irradiance
- Spectral Flux, Optical Power

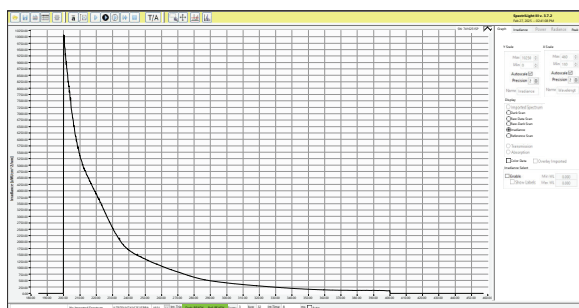
Ideal for:

- Testing UV Lamps and LEDs
- UV Surface Irradiance Levels
- UV Curing Sources
- Inspection, Validation, and R&D



At A Glance:

- Easy to Use
- User Friendly Software*
- Spectral Range: 200 nm to 450 nm



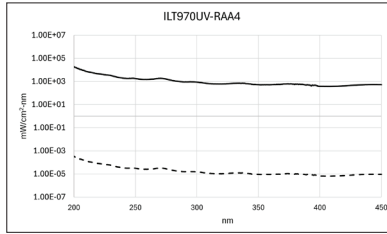
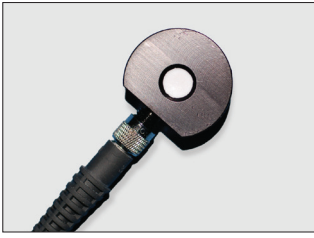
* Computer not included

SPECTRORADIOMETERS	ILT970UV-RAA4	ILT970UV-W/A2	ILT970UV-W5E	ILT970UV-INT50	ILT970UV-INT150
Type	UV Spectral Irradiance	UV Spectral Irradiance	UV Spectral Irradiance	UV Spectral Flux	UV Spectral Flux
Spectral Range of Spectrometer	186 nm to 450 nm	187 nm to 450 nm	188 nm to 450 nm	189 nm to 450 nm	190 nm to 450 nm
Spectral Range of Calibration	200 nm to 450 nm	200 nm to 450 nm	200 nm to 450 nm	250 nm to 450 nm	250 nm to 450 nm
Minimum Detectable Light over Full Calibrated Range	3.77 E-03 mW/cm ²	1.82 E-02 mW/cm ²	4.62 E-03 mW/cm ²	1.54 E-02 W	1.60 E-01 W
Integration Time Range	9 µs-30 sec.	9 µs-30 sec.	9 µs-30 sec.	9 µs-30 sec.	9 µs-30 sec.
Spectral Resolution	1 nm	1 nm	1 nm	1 nm	1 nm
Wavelength Accuracy	+/-0.14 nm	+/-0.14 nm	+/-0.14 nm	+/-0.14 nm	+/-0.14 nm
Stray Light Rejection	0.1-1% (typical value 300l/mm, blaze 300 nm < 0.3%)	0.1-1% (typical value 300l/mm, blaze 300 nm < 0.3%)	0.1-1% (typical value 300l/mm, blaze 300 nm < 0.3%)	0.1-1% (typical value 300l/mm, blaze 300 nm < 0.3%)	0.1-1% (typical value 300l/mm, blaze 300 nm < 0.3%)
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	WES	INT50	INT150
Input Configuration	Right Angle	Parallel	12 in. (30.5 cm) rigid light guide	Sphere Entrance Port	Sphere Entrance Port
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	4.13 in. (105 mm) x 3.14 in. (80 mm) x 0.78 in. (20 mm)	4.13 in. (105 mm) x 3.14 in. (80 mm) x 0.78 in. (20 mm)	4.13 in. (105 mm) x 3.14 in. (80 mm) x 0.78 in. (20 mm)	4.13 in. (105 mm) x 3.14 in. (80 mm) x 0.78 in. (20 mm)	4.13 in. (105 mm) x 3.14 in. (80 mm) x 0.78 in. (20 mm)
Spectrometer Weight	277 g	277 g	277 g	277 g	277 g
Sphere Coating				Spectrafect®	Spectrafect
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*	SpectrLight III	SpectrLight III	SpectrLight III	SpectrLight III	SpectrLight III

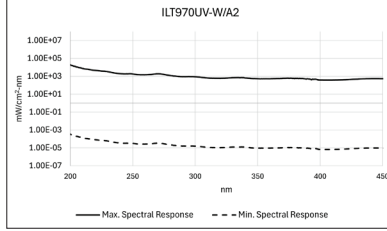
* Computer Specifications:

- 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

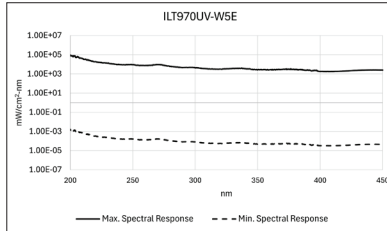
Optical Heads and Spectroradiometer Measurement Ranges



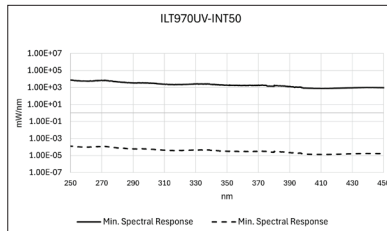
RAA4 Right-Angle Adapter/Diffuser Head with mini-integrating sphere for measuring spectral irradiance, total irradiance, and spectral characteristics of light sources.



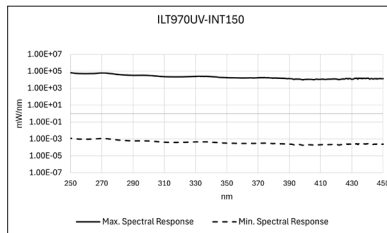
W/A2 Diffused Quartz Head with SMA adaptor for measuring spectral and total irradiance, illuminance, color parameters, and spectral characteristics of light sources.



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.