

ILT950 / ILT950UV

Portable Spectroradiometers



SPECIFICATIONS

Two Versions:

- ILT950: 250-1050 nm / Resolution: 1.4 nm with 25 micron slit*
- ILT950UV: 200-450 nm / Resolution: >1 nm with 50 micron slit*

NIST-Traceable/ISO17025 Accredited Calibration

CCD Array: 2048 Pixel Sony

Focal Length: 75 mm

Dynamic Range: 3300

Symmetrical Czerny-Turner

Stray Light: <0.3%

Signal/Noise: 300:1

Integration Time: 1ms-20s

Data Transfer Speed: 2ms/scan

16 bits, 2 MHz

Trigger Compatible

Synchronization Capability

Temperature Range: 15 - 40°C

Size: 1-3/5" H x 5" W x 7" L

Dynamic Dark Correction: yes

Non-Linearity Calibration: yes

Wavelength Accuracy: ± 0.5 nm

Radiometric Accuracy:

200nm - 350nm: $\pm 20\%^*$

>350nm - 400 nm: $\pm 10\%^*$

>400nm - 900nm: $\pm 5\%$

>900nm - 1050nm: $\pm 10\%$

* Requires dual source calibration upgrade to assure radiometric accuracy in the UV



Most cost-effective, fully integrated CCD-based spectroradiometer family available with ISO17025 accredited calibration

The ILT950 is equally at home on the production floor as well as the laboratory combining high performance, accuracy, ease of use, and a wide array of features all in a rugged, compact, portable design.

The excellent performance of the ILT950 has been improved even further with the addition of a new machined optical bench for reduced stray light and improved thermal stability.

The new higher pixel SONY CCD array is upgraded for improved performance including nearly 50% more sensitivity over the entire spectral region, and higher S/N ratio increased from 200:1 to 300:1 with larger quantum well depth. This combined with the new software features included in our powerful SpectriLight III, makes the ILT950 a top performer in the CCD array spectrometers available on the market.

Typical applications include:

- Plant Growth/PAR/Plant Photobiology
- Characterization of Solar Simulation
- Characterization of UV Curing Systems
- Photostability Testing
- Accelerated Weathering
- Radiometry and Photometry Measurements
- LED Illumination and Color Analysis
- Absorbance/Transmittance
- Reflectance
- Fluorescence

To make ordering an ILT950 system as easy as possible, ILT offers a large number of complete measurement systems that include everything needed to make accurate, calibrated light measurements. Please visit the ILT950 Spectroradiometer Web page on the ILT Web site to review these pre-configured systems.

(If you prefer to configure your own ILT950 system, the ILT950 and ILT950UV base spectrometers are sold separately.)

ISO 9001 / ISO/IEC 17025

10 Technology Drive

Peabody, MA 01960

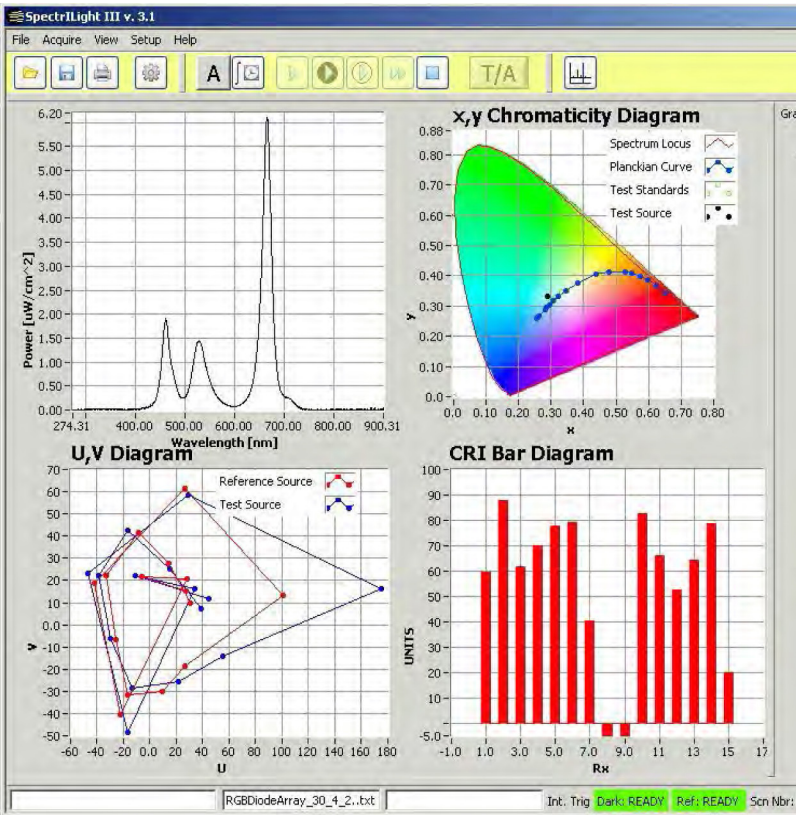
P: 978-818-6180

F: 978-818-6181

www.intl-lighttech.com



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TECHNOLOGIES



SpectriLight III

ILT950 Control & Analysis Software

SpectriLight™ III is a LabView™ based software package for Windows that allows acquisition of spectral and color data. Analysis of the data is calculated instantly within the same program - no exporting required.

SpectriLight™ III provides easy setting of all operating controls of the ILT950 spectrometer with an integrated data analysis package making your spectral analysis fast and simple. Wavelength range, integration time, scan average and other controls can be easily set through pop up windows, menus and toolbars. Absolute Irradiance and chromaticity are calculated instantly.

SPECIFICATIONS

- Automated time line measurements
- Access multiple calibration files
- Auto-integration simplifies user interactions
- Scan Average: 1 to 999 for reduced noise
- External Trigger
- Peak Find
- Enhanced scaling and zoom features including movable vertical cursors
- Export to ASCII text, report, or directly into Excel. Save screens/scans in multiple formats including .bmp, .jpg, and .png
- Powerful import data wizard can even import data from other spectrometers!

REAL-TIME ANALYSIS

- Irradiance: Total, Visible, UVA, UVB, UVC, PAR, photopic data.
- Selectable bandwidth for irradiance, power, and radiance (requires additional hardware & calibration options)
- Chromaticity analysis: x, y, u, v coordinates and display in CIEcolor spaces.
- Dominant and complementary wavelength and color purity.
- General Color Rendering Index (CRI) and 15 special color rendering indices.
- Correlated Color Temperature (CCT) and Duv.

Requires: Windows XP, 7; Pentium II 300 MHz or better

C, C++, and Visual Basic DLL's as well as custom DLL's are also available.

Please contact our software engineer at ilsupport@intl-light-tech.com for more information.

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SpectriLight III - Version 5 - New Features:

1. Overlay: allows comparison to baseline reading
2. PAR: plant growth calculations
3. New color calculation includes 2 & 10 degree observer, and Metamerism calculation