ILT950 / ILT950UV

Portable Spectroradiometers

The most cost-effective, fully integrated CMOS-based spectroradiometer family available with ISO17025 accredited calibration

The ILT950 is equally at home on the production floor as it is 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 Spectroradiometer has been improved even further with the addition of a new technologically advanced CMOS linear image sensor. The new sensor offers a more balanced overall spectral sensitivity (consistent in UV and lower in VIS and NIR), a faster response time, faster data transfer rates, and has a broader range of integration times, (30 µs to 59 s) which increases the overall dynamic range.

The ILT950 spectroradiometer light measurement systems, come in two models for broad band, covering 200-1100 nm and UV 200-450 nm. ILT systems come complete with fiber optics, input optics, calibration and ILT's powerful SpectrILight III software.

Typical applications include:

- Plant Growth/PAR/Plant Photobiology
- Characterization of Solar Simulation
- Characterization of UV Curing Systems
- Photostability Testing
- Accelerated Weathering
- Radiometery 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 wide variety of complete measurement systems that includes 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.)

SPECIFICATIONS

Two Versions:

- ILT950: 200-1100 nm / Resolution: 1.4 nm with 25 micron slit*
- ILT950UV: 200-450 nm / Resolution: >1 nm with 50 micron slit*

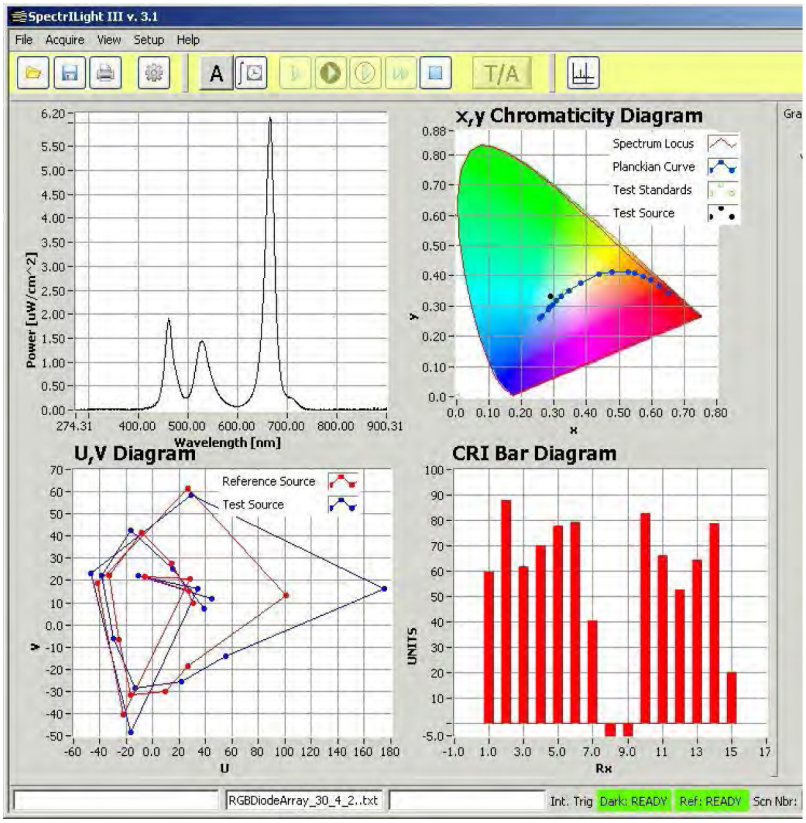
NIST-Traceable/ISO17025 Accredited Calibration
Detector: CMOS Linear Image Sensor
Focal Length: 75 mm
Dynamic Range: 3300
Symmetrical Czerny-Turner
Stray Light: <0.3%
Signal/Noise: 300:1
Integration Time: 30 µs - 59s
Data Transfer Speed: 2ms/scan
16 bits, 2 MHz
Trigger Compatible
Synchronization Capability
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: ±.5 nm
Radiometric Accuracy:
200nm - 350nm: ±20%*
>350nm - 400 nm: ±10%*
>400nm - 900nm: ±5%
>900nm - 1050nm: ±10%

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

ISO 9001 / ISO/IEC 17025

10 Technology Drive
Peabody, MA 01960
P: 978-818-6180
F: 978-818-6181
www.intl-lighttech.com

InternationalLight 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!

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 metamarism calculation
4. Improved colorimetry calculations based on 1nm (previously 5nm)

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 Professional, 7&10; 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-lighttech.com for more information.

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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