

LI-180 Spectrometer Specifications

The LI-180 portable, hand-held spectrometer provides instantaneous spectral plots and other data. Features a touch screen, WiFi/SD card, SD card, rechargeable lithium battery, carrying case, bag, power cables, and data cables. Includes desktop, instrument, and mobile application software.

Detector: CMOS Linear Image Sensor

Illuminance Meter Class:

1. Directional response conforms to JIS C 1609-1:2006 for General Class AA.
2. Directional response conforms to DIN 5032 Part 7 Class B.

Wavelength Range: 380-780 nm

Wavelength Data Increment: 1 nm

Spectral Bandwidth: Approximately 12 nm (half-bandwidth)

Wavelength Reproducibility: ± 1 nm

Illuminance Accuracy: Illuminant A @ 2,856 K at 20,000 lx $\pm 5\%$

Illuminance Repeatability (2 σ): 0.2%

Color Accuracy: x y: ± 0.0025

Color Repeatability (2 σ): x y: 0.0005

CCT Accuracy: $\pm 2\%$

CRI Accuracy @ Ra: $\pm 1.5\%$

Stray Light: -25 dB max.

Integration Time Range: 2-2000 ms

Digital Resolution: 16 bits

Capture Functions: One-time, Continuous

Operation Mode: Standalone Mode / WiFi Mode

Data Output Interface: SD Card (SD 2.0, SDHC / up to 32G) / Mini USB Port(USB 2.0) / WiFi SD Card compatible with iOS and Android

USB Mode: Mass Storage Mode and PC Connection Mode

Integration Modes: Auto, Manual

Display: 3.5", 320 x 240 Resistive Touch LCD

Battery Life: 5 hours typically with continuous operation

Power Requirement: Adapter; 2500 mAh (3.7V Rechargeable Lithium-ion Battery)

Measuring Modes: PPF, PFD, Spectrum (chart), Logging, and Grid.

Measuring Capabilities:

- Photosynthetic Photon Flux Density (PPFD) for the Photosynthetically Active Radiation (PAR) waveband,
- Photon Flux Density (PFD),
- Custom Wavebands (PFD),
- Default Waveband Ratios,
- Custom Waveband Ratios,
- Peak Wavelength (λ_p),
- Peak Wavelength Value (λ_pV),
- Irradiance (380nm ~ 780nm) W/m^2 ,
- Integration Time (I-Time),
- Illuminance (LUX)/Foot Candle (fc),
- Correlated Color Temperature (CCT),
- CIE 1931/1976 Chromaticity Coordinates,
- Δx , Δy , $\Delta u'$, $\Delta v'$,
- Delta uv (Duv),
- Dominant Wavelength (λ_d),
- Excitation Purity,
- Color Rendering Index (CRI, Ra)/R1 to R15,
- Spectral Power Distribution (SPD) mW/m^2 ,

Measurement Range:

- 70-150,000 lx (lux)
- 0.5-1,000 W/m^2 (irradiance)
- 1-3,000 $\mu mol m^{-2} s^{-1}$ (PPFD)

Storage Capacity: 8 GB SD Card; Approximately 68,000 files

Data Format: Compatible Excel / JPG

Size: 20 cm L x 7.7 cm W x 2.6 cm D (7.8" x 3" x 1")

Weight: 0.28 kg (0.62 lbs)

Operating Temperature Range: 0 to 35 °C

Operating Humidity Range: 0% to 95% RH (non-condensing)

Storage Temperature Range: -10 to 40 °C

Storage Humidity Range: 95% RH maximum (non-condensing)

Display languages: English, Traditional Chinese, Simplified Chinese, Japanese, Spanish, German, French, Italian, Russian.



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