Spectral Illuminance Meter / Lux Meter

MSMT441SWISS Spectral Illuminance Meter / Lux Meter

Introduction:
The MSMT441SWISS Spectral Illuminance Meter is a versatile and high-precision instrument designed to measure various lighting parameters including illuminance, UV index, flicker frequency, color temperature, CRI (Color Rendering Index), and more. It is ideal for applications in lighting design, environmental assessments, and testing of lamps and fixtures in various industries, such as outdoor, stage, greenhouse, and more.

Key Features:

- **Multi-Parameter Measurement:** Simultaneously measures illuminance, correlated color temperature (CCT), flicker frequency, UV index, CRI, SDCM (Standard Deviation of Color Matching), temperature, and humidity. Displays the spectral curve for detailed analysis.

- **Human Eye Spectrum Compatibility:** The spectral sensor is specifically designed

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to match the V(?) function for more accurate and reliable measurements.

- **Wide Measurement Range:** Capable of measuring illuminance from 0 to 1,000,000 lux, making it suitable for both high and low light environments.
- **Flicker Measurement:** Evaluates flicker frequency and percentage, helping determine whether the lighting complies with industry standards and regulations.
- **Precise Color Temperature and CRI Measurement:** Measures Correlated Color Temperature (CCT) from 1000K to 100,000K with an accuracy of ±5%, and also measures CRI and SDCM to assess the color quality of light sources.
- **Blue Light Hazard Evaluation:** Displays the blue light hazard ratio, allowing users to assess the potential risk associated with exposure to blue light.
- **Environmental Parameters:** Measures temperature (-20? to 80?) and humidity (0%RH to 90%RH), essential for evaluating lighting conditions in plant growth or specific environmental conditions.
- **Spectral Curve Display:** Helps identify the light source's spectral gaps and blue light protection capabilities, providing more detailed insights into the lighting characteristics.
- **High Precision and Authoritative Metrology Approval:** Ensures high precision in measurements, with all illuminance and color temperature measurements passing authoritative inspections.
- **Instant Response:** Fast refresh time of less than 0.7 seconds for real-time analysis.
- **Convenient and Energy-Efficient:** Powered by 2 AA alkaline batteries, with auto-off functionality to save battery life.

Specifications:

- **Illuminance Wavelength Range:** 400nm to 700nm
- **Illuminance Measurement Range:** 0 to 1,000,000 Lx
- **Illuminance Resolution:** 0.1 Lx
- **Illuminance Accuracy:** ?±(3%H + 2Lx) (H is the standard value, calibrated under

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CIE standard A light source)

- **Correlated Color Temperature Range:** 1000K to 100,000K (±5% accuracy)
- **UV Index Measurement Range:** 0.0 to 15.0 (±0.5 accuracy)
- **Flicker Frequency Measurement Range:** 10Hz to 500Hz (±5% accuracy)
- **Temperature Measurement Range:** -20? to 80? (±0.5? accuracy)
- **Humidity Measurement Range:** 0%RH to 90%RH (±4%RH accuracy)
- **Response Time:** <0.7s
- **Test Aperture Diameter:** ?21mm
- **Display:** 240*160 Dot Matrix LCD
- **Power Supply:** 2 AA Alkaline Batteries
- **Operating Environment:** Temperature: 0? to 40?, Humidity: <85%RH
- **Size:** 188.5mm (L) x 75.2mm (W) x 30.3mm (H)
- **Weight:** 232g (including batteries)

Included in the Box:

1. Spectral Illuminance Meter – 1 pcs
1. AA Batteries – 2 pcs
1. User Manual – 1 pcs

Applications:

- **Lighting Industry:** For evaluating lamps, lanterns, stage lighting, and environmental lighting.
- **Environmental Monitoring:** Ideal for testing UV exposure, temperature, and humidity in different settings.

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- **Plant Lighting:** Suitable for evaluating greenhouse and plant growth lighting systems.
- **Research & Development:** Assists in the development and testing of lighting fixtures and their efficiency.

This high-precision and versatile instrument is designed for professionals and researchers who require comprehensive and reliable measurements of light parameters in various environmental conditions.

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