

Spectral Irradiance Meter

PRECISION OPTICAL MEASUREMENT INSTRUMENT

Professional-grade spectral analysis for lighting quality assurance



The **NWSPEC Spectral Irradiance Meter** is a precision instrument designed for measuring illuminance on object surfaces. By quantifying the ratio of luminous flux received per unit area (in Lux), it evaluates lighting effectiveness with scientific accuracy. Built on advanced fiber optic spectrometer technology, the instrument delivers wide spectral coverage, high measurement precision, and millisecond-speed response for professional lighting quality control.

Core applications include **building lighting evaluation, teaching and research, industrial environment testing, scientific laboratory work, and public facility inspection.**

The device ensures lighting environments meet human comfort and industrial safety standards, preventing fatigue and accidents caused by insufficient illumination.

01

WIDE SPECTRAL RANGE

350-950 nm coverage with 1-10,000 lux illuminance range and 1,000-100,000 K color temperature range handles diverse lighting sources.

02

HIGH PRECISION

Wavelength accuracy of ± 0.3 nm, illuminance accuracy $< 4\%$, and color coordinate accuracy ± 0.003 ensure reliable, traceable results.

03

SPEED & PORTABILITY

0.4 ms minimum integration time for real-time measurements. Weighs only 700 g with USB plug-and-play operation.

04

FULL SPECTRUM DISPLAY

Complete spectral distribution curve with data export capability. Professional analysis software supports storage, reporting, and CIE compliance.

TECHNICAL SPECIFICATIONS

Spectral Range	350 - 950 nm
Wavelength Accuracy	± 0.3 nm
Illuminance Accuracy	$< 4\%$
Stray Light	$< 0.1\%$
Integration Time	0.4 ms - 1000 ms
Illuminance Range	1 lux - 10,000 lux
Color Temperature Range	1,000 K - 100,000 K
Color Coordinate Accuracy	± 0.003
Power Supply	USB powered
Communication Interface	USB 2.0
Weight	700 g

PERFORMANCE HIGHLIGHTS

350-950 nm

Broad spectral coverage

± 0.3 nm

Wavelength accuracy

0.4 ms

Minimum integration time

$< 0.1\%$

Ultra-low stray light

APPLICATION AREAS

BUILDING LIGHTING

Indoor/outdoor lighting quality assessment

EDUCATION

Teaching labs and research programs

INDUSTRIAL

Factory and production line testing

RESEARCH

Optical labs and spectral analysis

PUBLIC FACILITIES

Stadiums, hospitals, schools inspection

ROAD LIGHTING

Street and tunnel lighting evaluation