

The **UV Warning Signal Model 511** is designed to provide a real-time indication of the sun's UV intensity in an easy to read package. It's great for outdoor areas such as golf courses, country clubs, school yards, outdoor sporting events, amusement parks, ski slopes, beaches, and swimming pools. This unit takes the sun's radiation, and changes the UV photons of light in the "skin sensitive range" into an electric signal that corresponds to the World Health Organization and US EPA UV Index exposure categories. Those exposure categories are represented on the UV Warning Signal by five colored indicator lights. When in operation, the UV Warning Signal illuminates the indicator light that corresponds to the level of UV radiation being received by the sensor. The heart of the unit is the Solar Light Erythema Weighted Sensor. This sensor is remote mounted for indoor installations of the UV Warning Signal and can be mounted either remotely or directly on top of the 511 chassis for outdoor installations. Hardware is provided for mounting the sensor remotely, and also included for mounting the Model 511 to a wall or pole. Walls and poles are not supplied.



Applications

- UV Index Monitoring

Features and Benefits

- Weatherproof: NEMA 4X / IP66 rated
- Flexible Configuration: Outdoor/Indoor signal, Sensor directly or remotely mounted.
- High Visibility: Super-bright LEDs are visible up to 50 meters in direct sunlight.
- Simple Operation: UV Index value is categorized into one of five color coded exposure categories.
- International Standards: UV Index values displayed in accordance with World Health Organization and US EPA guidelines.
- Stable Calibration: Extended calibration interval required every two years.

| EXPOSURE CATEGORY | UV INDEX RANGE | COLOR | RECOMMENDED ACTION |
|-------------------|----------------|--------|--|
| Extreme | 11+ | Purple | Avoid being outside during mid-day hours. |
| Very High | 8-10 | Red | Seek shade. Shirt, sunscreen and hat must be worn. |
| High | 6-7 | Orange | Seek shade during mid-day hours. |
| Moderate | 3-5 | Yellow | Shirt, sunscreen, and hat should be worn. |
| Low | 0-2 | Green | No protection required. |

| SPECIFICATIONS | |
|---|--|
| Spectral Response | 280-400nm, close to Erythema Action Spectrum, Figure 1 |
| Cosine Response | Within 5% from Ideal Cosine for Incident Angles < 70°, Figure 2 |
| Measurement Range | 0 to 16 UV Index |
| Operating Temperature | -30 to +55°C Ambient |
| Operating Environment | Indoor/Outdoor |
| Weight | 10 lbs (4.5 kg) |
| Dimensions | 24" H x 10" W x 5" D (60 x 25 x 13 cm) |
| Power Cable | 30 Meters Standard Length. Three Conductor |
| Plug-in Transformer | 110VAC 60Hz Input, 24 VAC 40 VA Output |
| Sensor Cable | With Hermetic Connector at Sensor End; 10 Meters Standard Length, Extension Cables Available |
| Sensor Mounting | Bracket Provided for Remote Mounting, Direct Mountable |
| Signal Mounting | Mounting Feet Provided for Wall-Mounting, Pole Mounting Assembly Available for Mounting to a 4" to 6" Pole |
| Ingress Points | 7/8" (2.2 cm) 1/2" Trade Size (1.27 cm) |
| REFERENCES | |
| The biological effects of UV-A radiation - Edited by F. Urbach and R.W. Gange, Praeger Publishers, New York, 1986 | |
| Nichodemus F., "Self study manual on optical radiation measurements", NBS Technical Note 910-1 (1976) | |

Part Number: 210061

Revision Level: B

Specifications subject to change without notice.

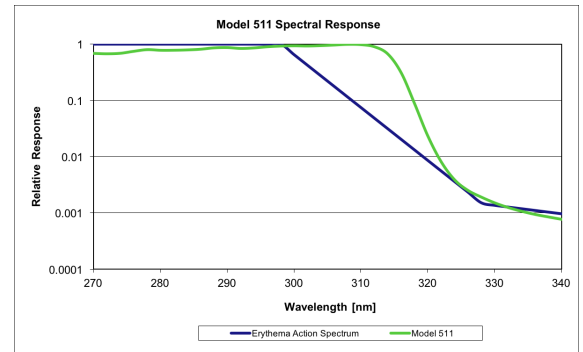


Fig. 1. Spectral Response

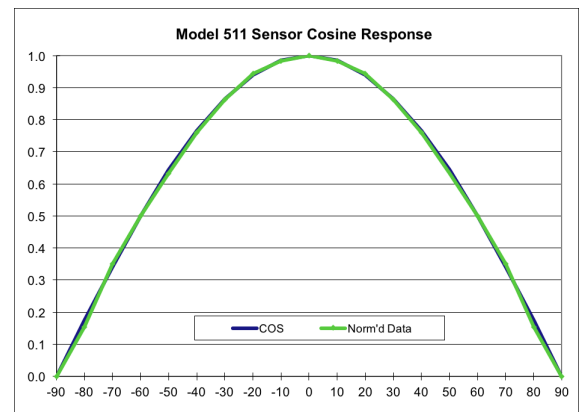


Fig. 2. Cosine Response

Since 1967, Solar Light Company, LLC has been recognized worldwide as America's premier manufacturer of Precision Solar Simulators and Light Sources, Light Measurement Instrumentation, UV Transmittance Analyzers, Meteorological Instrumentation, and Digital and Analog Sensors. Our advanced line of UV, visible, and IR radiometers and light meters measure laboratory, industrial, environmental, and health related light levels with NIST traceable accuracy. Column ozone, aerosol, and water vapor thickness measurements, in addition to long-term global ultraviolet radiation studies all over the world are performed using our atmospheric line of instrumentation. Solar Light also provides NIST traceable spectroradiometric analyses, calibrations for light meters and light sources, accelerated ultraviolet radiation degradation testing of materials, and OEM instrumentation and monitors. Please visit our website for more details, specifications, and pictures!



State Of The Art Solar Simulators available in 150-1000+ watt UV or AM variations for a variety of applications including PV Cell Testing, Materials Testing, Pre-Irradiation for In Vitro Broad Spectrum Sunscreen Testing, SPF Testing, and much more.



Multi-Functional Professional Grade Radiometers available with and without data logging, and compatible with over 130 Solar Light PMA-Series Sensors to measure UV, Visible and IR wavelengths. Specialty Meters also available to measure UV Radiation, SUV/UVA, Scotopic/Photopic Spectra, and much more.



Advanced NIST-Traceable Sensors for accurate measurement of UVA, UVB, UVA+B, UVC, Visible, IR, Photostability, Temperature, and Custom Wavelength – well over 130 models in both digital and analog configurations, all compatible with our Radiometers.



Ultraviolet Transmittance Analyzers available as complete integrated turnkey systems to meet the latest ISO24443 requirements.



Handheld Ozonometers and Sunphotometers for fast and dependable Column Ozone, Aerosol, and Water Vapor Thickness measurements, in addition to long-term global ultraviolet radiation studies.