

SS-L140 / SS-L300

SS-L140 / SS-L300 Steady-State LED Solar Simulators

A 21-wavelength LED array covers 350-1100 nm with independently controlled channels. SS-L140 and SS-L300 provide 140 mm and 300 mm square illuminated areas for steady-state photovoltaic and materials testing.

Best for: Perovskite cells, photovoltaic devices and experiments requiring adjustable illumination spectra.

**350–1100 nm**

Spectral range

21

LED wavelengths

100–1200 W/m²

Irradiance

140 / 300 mm square

Illuminated area

Overview

Independently driven LED channels allow the illumination spectrum and total irradiance to be adjusted in software. Saved settings, lamp-board temperature monitoring and power correction support repeated measurements.

Effective illuminated areas are specified at a 3 cm working distance. Available spectral shapes depend on the maximum output of each channel and the total permitted electrical power.

Features

- Programmable spectral profiles and saved illumination settings
- Constant-current drive with temperature monitoring
- Software operation and external control buttons

Applications

- Perovskite and tandem-cell research
- Steady-state photovoltaic I-V measurements
- Semiconductor and photoelectric materials testing

Specifications and configuration

Illumination	
LED array	21 wavelength channels
Spectral range	350–1100 nm
Irradiance adjustment	100–1200 W/m ² , continuous
Effective field at 3 cm	140 × 140 mm (SS-L140); 300 × 300 mm (SS-L300)
Spatial non-uniformity	≤ 2%
Intensity stability	≤ 0.5% over 4 hours; source stability measurements follow 20 minutes of warm-up
Source lifetime	≥ 10,000 hours

Dimensions	
SS-L140 main enclosure	270 × 270 × 575.5 mm
SS-L300 main enclosure	410 × 410 × 635.5 mm

Available configurations

Model	Configuration
SS-L140	140 × 140 mm effective illuminated area at 3 cm working distance.
SS-L300	300 × 300 mm effective illuminated area at 3 cm working distance.

Configuration and quotation

Share the sample size, wavelength range and required measurements to select the source, optics and acquisition modules.

info@precisometer.com

www.precisometer.com/spectroscopy/photoelectric-testing/led-solar-simulator