

LED's COPY THE SUN



The LED solar simulator LS-72 is the ideal flasher for solar module production lines and R&D. Its nearly perfect simulation of the sun's spectrum enables highly accurate solar module efficiency measurement at minimum operating costs due to the long lifetime of LEDs. Long exposure time and light soaking capability makes it the perfect fit for various research and development applications. LED's present the new benchmark!

FEATURES

- Multi color LED-based light source for an accurate copy of the sun
- Exceeds class A+AA+ criteria
- Flash time up to 250ms
- Long exposure time for high-efficiency solar modules
- Low operating costs
- Small footprint
- Stand alone system allows flexibility for R&D
- Ideal for easy integration into production line testing
- Easy to operate

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CLASSIFICATION

	LS-72	Class AAA requirements
Spectral Match	Class A+ 0.875 - 1.125	0.75 - 1.25
Non-uniformity of irradiance	Class A < 2%	< 2%
Short-term instability (STI)	Class A < 0.5%	< 0.5%
Long term instability (LTI)	Class A+ < 1%	< 2%

Classification conditions: 150 ms irradiance time, 1 sun, AM1.5, 200x100cm² according to IEC60904-9 Ed.2

SPECTRAL QUALITY

Wavelength range (nm)	LS-72	AM1.5
400 - 500	18.4%	18.4%
500 - 600	19.9%	19.9%
600 - 700	18.4%	18.4%
700 - 800	14.9%	14.9%
800 - 900	12.5%	12.5%
900 -1,100	15.9%	15.9%
400 – 1,100	100%	100%

FUNCTIONALITY

IV curve measurement	Under illumination and dark IV
Solar cell parameter analytics	Voc, Isc, FF, Pmpp and efficiency
Temperature correction	Solar cell parameters are adjusted according to IEC 60891
Irradiance correction	Monitoring and correction to 1000W/m ² according to IEC 60891
User defined analytics	Open software interface allows export of all measured data for analysis and import of classification criteria

PRODUCT FEATURES

Spectrum	AM1.5, AM0 or any customer defined spectrum possible with light engine including illumination by single colors
Irradiance time	As required: from 70 ms up 250 ms, longer flash times at reduced stability
Flash-to-flash time interval	10-60 s or continuous light
Intensity	0.4 to 1.2 suns @ AM1.5
Voltage resolution	0.025%
Current resolution	0.025%
Accuracy	< 0.1%
Number of measurement points	As required: up to 4000 per recipe (depends on flash duration)
Test area	For modules with up to 200x100cm ² or customized sizes
Module orientation	Sunny side up, sunny side down or vertical
IV measurement up to	200V, 20A, 500W or customized

SCOPE OF DELIVERY

Light engine in table configuration
Power supply
IV electronics
Laptop or industrial PC
Cables
CE Certificate
Manuals

Specifications subject to technical changes

CONTACT

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