

SunLite™ Solar Simulators

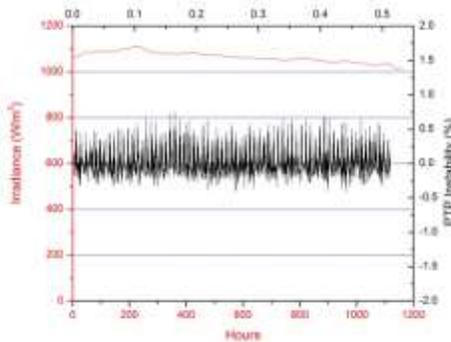
Cost effective and full featured: 0.2 to 40 Suns



Abet Technologies' Model 11002 SunLite™ Solar Simulator with the 15278 option for infinitely and reproducibly adjustable irradiance control as well as the 15279 electronic shutter option.

More Features, Lower Price

Abet Technologies' model 11002 SunLite™ Solar Simulators set a new standard for 50x50 mm field solar simulators using only a 100 W Xe arc lamp. A wide range of reproducible irradiance settings is made possible by the available attenuation option. Highly stable long term and short term output allows for reproducible metrology.



Long term (over 1000 hrs) and short term (0.5 sec) stability of the 11002 SunLite™ Solar Simulator.

- Gen III Optics for High Efficiency Illumination
- Infinitely Adjustable Irradiance, Reproducibly Settable
- Class A AM1.5G Spectral Match
- Class A stability
- 50x50 mm Class B uniformity
- Manual Shutter Included, Electronic Shutter Optional
- Uninterrupted testing with the prealigned lamps
- HEPA filtered air cooling

Innovative Optical Design

The 11002 SunLite™ Solar Simulator utilizes an optimized optical system to deliver more than one AM1.5G sun irradiance over a 50x50 mm area utilizing only a 100 W Xe arc lamp. For test needs at other than one sun conditions order the attenuation option offering a wide and reproducible range of irradiance control or the 40 Suns capable Model 11003.

Adaptable System Configuration

The 11002 SunLite™ Solar Simulator offers a flexible design that can be adapted to many particular needs. Standard configuration is a downward output system with an AM 1.5G filter included which is easily converted to a horizontal or up pointing output system using only a screwdriver. The long working distance design makes it highly compatible with glove box based test needs.

Complete test solutions

Combine the SunLite™ Solar Simulator with one of Abet Technologies' many test stations to match DSSC, Perovskite, Silicon, Thin Film, or numerous other solar cell materials. For standards compliant PV IV metrology add the Tracer™ hardware control and data analysis software and one of the full featured 15150 family or the low cost 15151 calibrated reference cells. Temperature control and vacuum pumps are available as needed.

SunLite™ Specifications

Illuminated field (1 sun).....	>= 50x50 mm
Irradiance Model 110022 to 1.2 suns
Model 11003.....	.2 to 40 suns
Spectral Match with the included AM 1.5 Filter	
ASTM.....	Class A
IEC.....	Class A
JIS.....	Class A
Temporal Stability	
ASTM.....	Class A
IEC.....	Class A
JIS.....	Class A
Irradiance uniformity	
ASTM.....	Class B
IEC.....	Class B
JIS.....	Class B
Prealigned Ozone-free Xe Arc Lamp (included)	100 W
Typical life	1000 hours
Manual shutter included	
Adjustable height stand included	
HEPA filtered cooling fan included	
Elapsed time meter (ETM) included	
Universal Input 90-250V, 50-60Hz, power supply included	
Output direction down/up/horizontal customer modifiable	
Standard N-BK7 condenser limits user UV exposure. All fused silica condenser available if needed.	
<i>Abet Technologies regularly continues to upgrade our products, therefore all specifications are subject to change without notice.</i>	

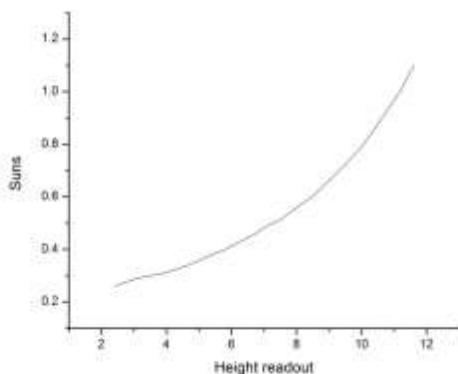


Typical non-uniformity map of an Abet Technologies model 11002 SunLite™ Solar Simulator, 50x50 mm; <5% standard; <3% JIS model.

Available Options

Add the Model 15278 electronic shutter option to allow computer control for light soaking and timed irradiance.

Add the 15279 continuously adjustable height stand with electronic readout for infinite resolution, reproducible irradiance control.



Typical attenuation behavior of the 11002 SunLite™ Solar Simulator using the model 15279 option.

Clean Cooling

Any dust or dirt particles introduced into an optical system can degrade system performance and shorten the life of critical optical components. SunLite™ sources utilize a HEPA filtered cooling air to extend the life of the delicate optical components.

User friendly

Prealigned lamps make lamp replacement hassle free. Standard maintenance, lamp or filter replacement, does not require any tools. Easily switch from down to up or horizontal output. Long working distance for ease of glove box use. Compact and quiet for easy fit in the lab.

Ordering Information

11002	SunLite™ Solar Simulator with settable height stand, manual shutter, HEPA filtered cooling
11003	SunLite™ Solar Simulator, 0.2 to 40 Suns, with settable height stand, manual shutter, HEPA filtered cooling
15278	Electronic shutter option
15279	Quick height adjustment stand with electronic readout
13013	Prealigned 100 W Xe Arc lamp with reflector
11002-F	Replacement HEPA filter
15151	Low cost reference cell
15151-KG5	Low cost reference cell with KG5 filter

Abet Technologies offers an expanding line of ASTM, IEC and JIS standards compliant products for solar cell PV-IV testing, steady state solar simulators, test stations, software, calibrated reference cells and a selection of electronic loads for low and high current cells. Visit www.abet-technologies.com or contact us at sales@abet-technologies.com.