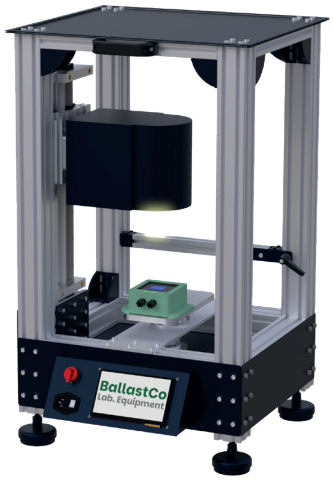
BL-SSP50
Solar Simulator

BallastCo
Lab. Equipment



Solar Simulator

A solar simulator is a device that reproduces the characteristics of natural sunlight with high accuracy in a laboratory environment. It is used to characterize photovoltaic (PV) cells, to calibrate and test sensors that measure solar irradiance (pyranometers, irradiance sensors, etc.), and to analyse the performance of the cells used in PV modules.

The BL-SSP50 Solar Simulator is designed in accordance with international standards such as IEC 60904-9 and ASTM E927. Its specially developed lamp technology closely reproduces natural sunlight in terms of spectral distribution, irradiance level and temporal stability. Its flexible, modular design and a beam angle that can be adjusted horizontally and downward allow easy integration into a wide range of test setups. The irradiance level can be adjusted easily by changing the lamp height mechanically via the built-in PLC control panel.

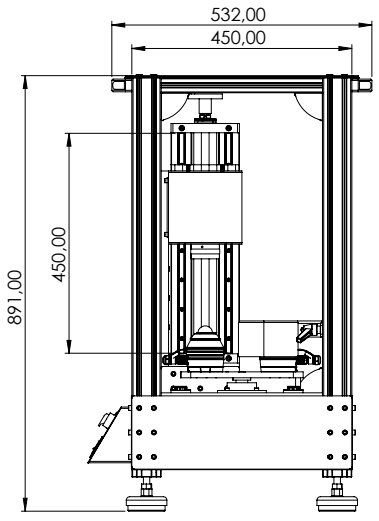
Benefits and Features

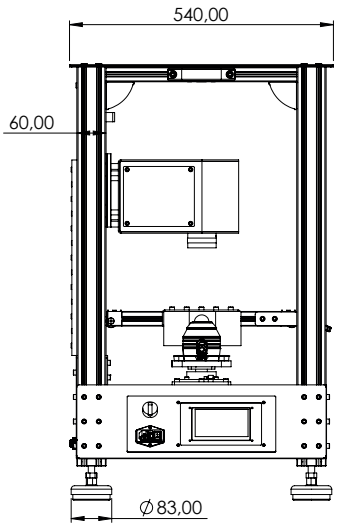
- High Spectral Stability
- Long Operating Life
- Full Spectral Coverage
- Class AAA Performance (IEC 60904-9)
- Easy Installation

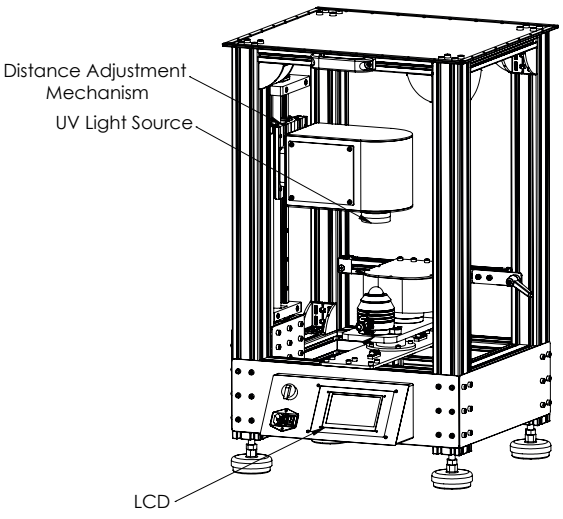
Technical Specifications

	BL-SSP50
Standard	IEC 60904-9:2020
Light Source	Plasma Lamp (Superior Spectral Stability)
Lamp Life	4000 hours (approximately 4 times the typical xenon lamp life of ~1000 hours)
Beam Size (Target Area)	Ø50 mm
Spectral Range	350 nm ... 1100 nm
Spectral Match	AM 1.5G (typical deviation < 25%)
Spatial Non-uniformity	< 2%
Temporal Instability (Long Term Instability - LTI)	< 2%
Irradiance	1000 W/m² (AM 1.5G equivalent)
Warranty	2 years

Solar Simulator Technical Drawing







Note: All dimensions are in cm.

Pinarcay OSB Mahallesi 11. Cadde, No: 35, Corum Organize Sanayi Bolgesi 19200 Merkez/Corum
· **Phone:** +90 364 230 1233 · **Website:** https://ballastco.net ▪ **Email:** sales@ballastco.net

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