MiniSol LED Solar Simulator

The compact and easy to use MiniSol model LSH-7320 incorporates the benefits of LED technology in a value-priced, flexible solar simulator. The completely independent head includes all controls, LEDs, and optics allowing researchers flexible mounting and orientation options. External remote on/off triggering and long lamp life make remote mounting practical and bring LED technology to applications requiring only ABA ratings.

Benefits of LEDs
Unlike typical lamp based solar simulators, LED based solar simulators have lamp lifetimes that can exceed 10,000 hours and do not require a long warm up time. Shuttering can be accomplished by simply turning the output on and off; no mechanical shutter is required. Careful attention to the design and the use of solid state LEDs allow the LSH-7320 to be oriented in any position providing the flexibility to fit a wide range of application needs.

Why Class ABA?
For applications which don’t require the highest level of uniformity of illumination, a Class ABA system is a great solution. Class ABA systems still provide the highest spectral match and temporal stability performance (Class A) as defined by the most recent standards from the IEC.

Put Our Expertise to Work
Leveraging Oriel’s deep application and market understanding, the LSH-7320 Class ABA LED solar simulator was designed to provide high performance in a rugged design. Oriel is a world leader in solar simulator technology and our products are renowned for their value and strong after-sales support.

- Output beam size: 2 in. x 2 in. (51 mm x 51 mm)
- Factory certified IEC ABA Rated
- Variable output adjustment from 0.1 to 1.1 sun
- Fast turn on time; <100 ms via USB or external trigger
- 10,000 hour LED lifetime - no bulb replacement required
- Flexible mounting orientation
- PV cell placement indicator
- USB 2.0
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**Model LSH-7320 Solar Simulator Specifications**

- **Illumination Area**: 2 inches x 2 inches (51 mm x 51 mm)
- **Total Power Output**: 110 mW/cm² (1.1 sun)
- **Variable Output Control**: 0.1 to 1.1 sun
- **Wavelength Range**: 400nm - 1100nm
- **Temporal Stability**: A - IEC 60904-9 2007
- **Uniformity Classification**: B - IEC 60904-9 2007
- **Spectral Match**: A - IEC 60904-9 2007
- **Working Distance**: 11.0 inches +/- 0.5 inch; 280 mm
- **Alignment**: Laser diode based optical alignment
- **Z Axis Head Adjustment from Base**: 7.5 inches - 17.75 inches (190 mm - 450 mm)
- **Head Rotation**: 0 - 360°
- **Remote Interface**: USB 2.0 (B-Type) or BNC TTL for ON/OFF
- **TTL Turn On/Off Transition Time**: 10ms

**Weight**

- **Head (on vertical assembly stand)**: 9.3 lbs (4.2 kg)
- **Stand**: 9.0 lbs (4.1 kg)
- **Power Supply**: 1.8 lbs (0.8 kg)

**Dimensions**

- **Height (on vertical assembly stand)**: 15.25 - 25.5 inches (387 - 648 mm)
- **Width**: 7.25 inches (184 mm)
- **Depth**: 14.0 inches (362 mm)

**Operating Temperature Range**: 10°C to 40°C

**Storage Temperature Range**: -40°C to 70°C

**Humidity**: <85%, relative, non-condensing

**Compliance**: CE, RoHS

**Power Requirements**: 100-240 VAC, 47-63 Hz, 2.8A max

**CE Certification**: EN 61626-1:2013, EN 61010-1, EN 62471

**NOTES:**

1) All values are specified after a five minute warm up period.
2) Indents on mounting plate at 0°, 90°, 180°, and 270° orientations.

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**Figures**

- LSH-7320 Spectrum
- LSH-7320 Spectral Match