



LumiSun™-50 Class AAA LED Solar Simulator

Woburn, MA, August 20, 2021 - Innovations in Optics, Inc. is proud to introduce the new LumiSun™-50, an innovative, compact LED, AAA solar simulator based on our OEM LumiSun™, which has sold in the thousands to leading PV manufacturers worldwide.

LumiSun™-50 provides AAA certified output over a 50mm x 50mm illumination area, and it is ideal for measuring the efficiency and spectral response of photovoltaic cells. Unlike bulky, lamp-based solar simulators, LumiSun™-50 employs a multi-wavelength array of long lifetime LEDs that are driven independently to emulate the spectral output of the sun. The unit offers three preset solar reference spectra plus the flexibility to create and save user-defined spectra by varying the output of the individual LEDs. The design incorporates Innovations in Optics, Inc.'s patented light collection optics to project light extremely uniformly across the whole field of illumination - a major improvement over other LED based designs on the market. The system can operate in either steady-state mode or under the control of an external pulse trigger.

LumiSun™-50 meets Class AAA for spectral match, uniformity of irradiance, and temporal stability requirements. Output power can be varied from 0.1 to 1.5 Suns, and user-friendly operation is supported by a front-panel touchscreen. Remote digital control is enabled by an RS-485 interface with Modbus RTU communication protocol.

About Innovations in Optics, Inc.

Founded in 1993 and located near Boston, Innovations in Optics, Inc. offers high power LED light sources for science and industry that provide maximum photon delivery, illumination uniformity, and stable optical power. Products offer system-level advantages over lasers and arc lamps in OEM equipment for many applications. Available LED wavelengths range from the UV through the near infrared, including broadband white and multiband options. System accessories include thermal management devices, wire harnesses and driver/controllers. UV LED products support photomask exposure, direct image writing, 3D printing and photocuring. LumiBlazeR™ and LumiBright™ and LumiSun™-50 are trademarks of Innovations in Optics, Inc.