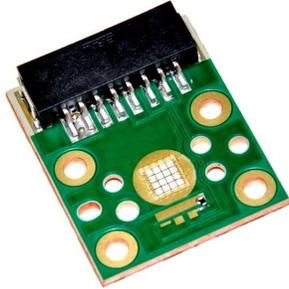


FOR IMMEDIATE RELEASE:

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## UV LEDs Feature Flat, High Density Arrays Emitting Near 40 Watts of Optical Power from a Large Chip-on-Board Form Factor

Woburn, MA, April 14, 2014 – Innovations in Optics, Inc. introduces *LumiBright*<sup>®</sup> *UV Boards* for high power UV LED applications such as UV curing, 3D printing, maskless lithography, photodynamic therapy, and fluorescence excitation in life science or machine vision. *LumiBright UV Boards* offer maximized heat and current spreading to deliver high UV optical power with superior thermal management and open platform flexibility that provides for totally unique and compact UV LED design solutions.

*LumiBright UV Boards* utilize chip-on-board LED technology with metallic core PCB substrates that feature a large emitting area using a closely packed array of UV LED chips. Standard center wavelengths include 365 nm, 385 nm, 395 nm and 405 nm. The 1.1 mm square LED die can be PCB mounted as a single chip or in arrays up to 4 by 4 chips to provide 19.4 mm<sup>2</sup> of source area. Each die can be driven to emit near 2W/mm<sup>2</sup>, therefore a 16-die array can supply close to 40 Watts of UV optical power.

*LumiBright UV Boards* emit directly into the air with no epoxy or lens encapsulation. Light extraction is maximized providing a Lambertian far-field distribution pattern to support optical design flexibility. The product line offers multiple and customizable configurations and small footprint to facilitate integration into OEM systems. With a large surface area, liquid light guides can be easily butt-coupled to the *LumiBright UV Board* for spot-curing applications.

Thermal management is critical in high power UV LED applications. *LumiBright UV Boards* have an extremely low thermal resistance allowing high current density while maintaining a low junction temperature. The result is the ability to drive the UV LEDs to the demanding power levels necessary for industrial processes while maintaining long

lifetime. An on-board thermistor permits real-time temperature measurement for either closed-loop control or active monitoring of cooling system operation to optimize UV LED lifetime that can exceed 10,000 hours. *LumiBright UV Board* accessories include thermal management devices, wire harnesses, and driver/controllers.

Innovations in Optics, Inc. (IOI), founded in 1993 and located near Boston, is widely recognized as a leading innovator in the areas of high brightness LED chip-on-board (COB) products and illumination engineering and technology. Leveraging a unique, multidisciplinary approach to systems design, the company pushes the technology envelope to develop industry-leading ultra-high brightness LED products. IOI light engines and illumination systems feature patented and patent-pending optics which collect, direct and maximize output efficiency and uniformity, enabling some of today's most revolutionary solutions in cutting-edge technical applications for LED light sources.