LED Light Engines Replace Lasers and Arc Lamps

Innovations in Optics, Inc. introduces its new product line; LumiBright FC™ fiber-coupled LED light engines. The versatile and powerful solid-state light sources are ideal for fiber optic applications in industrial, medical, and laboratory equipment.
Featuring substantial cost and operational advantages, LEDs are becoming the preferred fiber-illumination sources for many technical applications which were historically dominated by lasers and arc lamps. LEDs eliminate many of the adverse concerns with lasers and arc lamps such as: high acquisition costs, frequent replacement, and user safety precautions. Lasers are intense and monochromatic, but are available in limited wavelengths and can be very expensive. Arc lamps feature broadband emission, but need numerous optics and pricey spectral filters while imposing additional costs for system precautions like heat management and preventing ultraviolet exposure or ozone generation.

Specific applications for LumiBright FC fiber-coupled LED light engines include illumination for industrial borescopes, microscopes, machine vision, phototherapy, medical endoscopy, and UV curing. LumiBright™ Light Engines are ideal for OEM life science instrumentation such as: gel & blot imagers, real-time PCR systems, cytometers, colony counters, microplate readers, gene array readers, ELSD detectors for HPLC and label-free systems using Surface Plasmon Resonance (SPR).

LumiBright FC light engines feature patented non-imaging optics as well as high brightness LED arrays with single or multicolor options available in spectral distribution ranging from 365 nm thru the near-infrared as well as broadband white. The industry’s smallest footprint allows easy integration into OEM or end-user systems configured for table-top, rack mounted or portable handheld devices.

LumiBright FC light engines offer intense and stable optical power, short warm-up

time, energy efficiency, low maintenance and long rated life. Models are available that accept fiber active core diameters from 1 mm up to 8 mm. Fiber cable connectors supplied can be industry standard types or custom ferrules designed upon request. Light engine system accessories include thermal management devices, wire harnesses, and driver/controllers.

Innovations in Optics Inc.
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