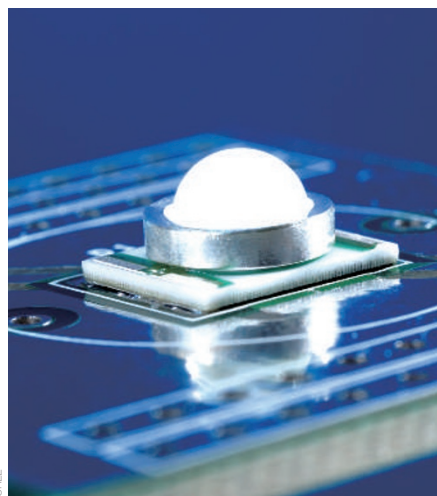


Cree claims new levels of light

www.cree.com

Cree says it has hit new benchmarks for LED power and efficacy with its Xlamp 7090 Power LED. The device produces luminous flux of up to 95 lm at 350 mA and up to 160 lm at 700 mA. Typical luminous flux is 80 lm at 350 mA, yielding an efficacy of 70 lmW⁻¹. Cree calls this the industry's highest efficiency at 350 mA. The lamps are aimed at general lighting applications including street lighting and lamps for retail displays and parking garages, as well as for use in consumer products such as flashlights. Mike Dunn, the company's vice president for lighting and backlighting LEDs, said, "Cree LEDs are achieving efficacy levels formerly delivered only by the most efficient traditional lighting sources, including fluorescent bulbs."



Brighter than ever: Cree's 160 lm Xlamp white LED.

Infrared emitter tackles wide range of CCD-based imaging devices

www.americanbrightled.com

The BIR-PP8-DSS-1 NovaLED infrared emitter from American Bright Optoelectronics is designed for CCD-based imaging applications such as machine vision, security, military, night vision, and advanced automotive applications. The emitter has an output of 45 mW sr⁻¹ at 500 mA, which the company calls one of the industry's largest outputs. It has a viewing angle of 120°, claimed to be the industry's widest. It has a peak wavelength of 850 nm and comes in a 6 × 6 × 1.5 mm package. The company has also introduced the BL-PPW series of high-brightness, surface-mount LEDs for backlighting and speciality luminaires. It claims the 18 lm output of cool white light, from a combination of three

individually addressable dies, leads the industry. The 120° viewing angle makes it suitable for LCD television backlighting, says American Bright.

LEDs power tiny projector

www.toshiba.com

Toshiba Digital Products Division has introduced what it calls one of the lightest and smallest projectors on the market, based on an LED light source. The TDP-FF1AU is a portable multimedia projector weighing 0.45 kg and operating on lithium-ion batteries that can last for up to two hours. The LED light source provides brightness of 400 lux and can last up to 10,000 hours, much longer than a conventional projector lamp. The light source remains cool, eliminating the need for a fan, which increases battery life and allows quiet operation. The projector provides SVGA (super video graphics array) resolution of 800 × 600 pixels and a contrast ratio of 1,500:1. It can project over a distance of 0.4 m to 2.5 m and provides an image of 11 inches to 68 inches (28 cm to 173 cm), diagonal.

LED down lights give architects and designers a new sense of freedom

www.prescolite.com

Prescolite, the Spartansburg, South Carolina, division of Hubbell Lighting, has adapted a luminaire for compact fluorescent lamps to create what it calls the first specification-grade LED recessed lighting fixture. Based on its Architektur line, the downlights use Luxeon LEDs from Philips Lumileds Lighting. The luminaires consist of a housing and a patent-pending light engine and reflector assembly, which is a grouping of LEDs, heat sinks, circuit boards and optical components to deliver the light as desired. Prescolite says that it expects the product to have a major impact on how architects and lighting designers view LEDs when selecting luminaires for hospitality, restaurants and retail venues, as well as casinos, boutiques and corporate boardrooms. They say the high efficiency, long life, and low-temperature operation of LEDs are beginning to make the technology an attractive alternative for lighting designers.

Driver can coordinate multiple LEDs

www.radiant-research.com

The iDrive from Radiant Research is an intelligent LED driver, designed to make

it easy to optimize the performance of a string of 1 W Lumileds LEDs, no matter how many LEDs are in the string. The 55-W system provides a universal voltage input. It combines precise d.c. current control with an advanced automatic heat-management system. The company says this allows the driver to provide excellent colour matching and smooth dimming while extending the life of both the fixtures and the LED board. The device offers hundreds of pre-programmed settings for different colour combinations and lighting effects. The compact, rugged device has standard 5-pin XLR DMX in/out connectors, efficiency greater than 80%, and a lifetime of 50,000 hours.

Efficient LEDs shine down to 250 nm

www.s-et.com

Seoul Opto Device Ltd, a subsidiary of Seoul Semiconductor of Korea, and its partner, Sensor Electronic Technology, of Columbia, South Carolina, have produced the UVTOP series of UV and deep UV LEDs with peak emission wavelengths ranging from 250 nm to 340 nm. The companies say these are the first LEDs at those wavelengths based on AlGaN. They say the devices double the output and the lifetime of previous UV LEDs. At 280 nm, for instance, they have a maximum output power of 1.5 mW on a drive current of 20 mA. An AlGaN/GaN chip/chip array grown by migration-enhanced metal-organic chemical vapour deposition is encapsulated in a metal-glass TO-39 package with an UV-transparent window. Seoul Opto Device says the thermal conductivity of surface-mount packages doubles the extraction efficiency. The device could be used for biochemical analysis, bioagent detection, and detection of counterfeit currency.



The UVTOP LEDs are allegedly the first AlGaN devices to offer wavelengths of 250 nm to 340 nm.