

Press Information

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LUXEON® K2 1000mA capability redefines industry standards enabling twice the light output with no performance degradation

Lightfair 2006, LAS VEGAS — The increased drive current capability of LUXEON® K2 LEDs from Philips Lumileds is transforming the market for solid-state lighting technology by enabling development of brighter LED-based lighting applications than ever before. As the first and only LED tested and binned at 1000mA with specified minimum performance and no sacrifice in lumen maintenance, LUXEON® K2 allows more light to be extracted from each emitter than any other single-chip LED. This not only delivers a lower cost per lumen but also expands LED lighting design possibilities far beyond the previously standard 350mA LEDs.

“At 1000mA, LUXEON® K2 delivers more than twice the light output than can be produced at 350mA while maintaining the lifetime, quality and robustness of the device,” noted David Eastley, LUXEON® K2 product manager. “This paves the way for an explosion in the quantity and variety of LED luminaires.”

Until the release of LUXEON® K2, high power LEDs typically could be driven at no more than 350mA without significantly reducing the effective life of the emitter. Many LED applications require significantly more light output than is possible at that drive current, and even incremental gains in light output and efficacy at this level are not enough to meet the growing demands of lighting designers for brighter LED products.

Philips Lumileds recognized the need for a higher drive current through ongoing discussions with the lighting community. Lighting designers clearly communicated the need for more light, reduced cost per lumen, more thermal flexibility, and the ability to incorporate the same LED in a range of applications to minimize manufacturing costs. These needs could only be accomplished by increasing the drive current.

To do that, Philips Lumileds engineers focused on improving the LED die and packaging technologies required to manage the additional heat. These improvements, delivered in the LUXEON® K2 LED,



translate into increased design flexibility. Lighting designers can now get more light from fewer devices, minimize their heat-sink requirements, and optimize their system for the exact amount of light required for the application.

“The impact of increasing drive currents from 350mA to 1000mA and higher is as significant to the market as the shift six years ago from 20mA LEDs to the first LUXEON® I LEDs that operate at 350mA,” Eastley noted. “This will significantly expand the market and create new opportunities for high power LEDs in real lighting applications.”

About Philips Lumileds Lighting Company

Philips Lumileds Lighting Company is the world’s leading high-volume manufacturer of power LEDs and a pioneer in the use of solid-state lighting solutions for everyday purposes including automotive lighting, camera flash, LCD televisions, portable lighting and general lighting. The company’s patented LUXEON® Power Light Sources are the first to combine the brightness of conventional lighting with the small footprint, long life and other advantages of LEDs. Philips Lumileds also supplies core LED material and LED packaging, and manufactures billions of LEDs annually. The company is headquartered in San Jose, California, with operations in the Netherlands, Japan and Malaysia and sales offices throughout the world. For more information, contact Philips Lumileds Lighting Company at 408-964-2900 or visit www.philipslumileds.com.

About Royal Philips Electronics

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is one of the world's biggest electronics companies and Europe's largest, with sales of \$37.7 billion (EUR 30.4 billion) in 2005. With activities in the three interlocking domains of healthcare, lifestyle and technology and 161,498 employees in more than 60 countries, it has market leadership positions in medical diagnostic imaging and patient monitoring, color television sets, electric shavers, lighting and silicon system solutions. News from Philips is located at www.philips.com/newscenter.

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