

Press Information

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Philips Lumileds leads response to lighting industry needs with new reliability analysis tools for power LEDs

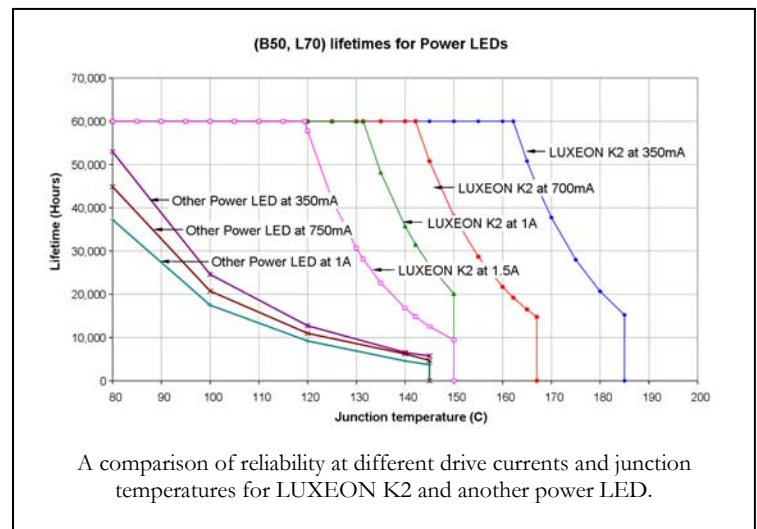
Simple lumen maintenance statements not enough to make intelligent lighting design decisions

San Jose, CA — Philips Lumileds has introduced a new reliability analysis tool that for the first time enables lighting designers to confidently determine lifetime performance of LEDs under different operating conditions. Philips Lumileds graphical representation of reliability allows designers to understand and evaluate the impact of temperature and drive current on lumen maintenance and failure rates of LEDs. Historically, only simple lumen maintenance data (x% lumen maintenance at y-hours) has been available and that single piece of information has been limited in scope. Details of the new analysis are available in a white paper published today, [Understanding power LED lifetime analysis](#). Providing comprehensive and statistically-relevant reliability performance data is a step towards bridging the communication gap between the LED semiconductor world and the lighting community.

Graphical representation clearly shows dramatic reliability performance differences between LEDs from different manufacturers and allows designers and engineers to make a more fully informed decision.

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When designing LED-based lighting systems, engineers need to understand LED reliability in similar terms to those



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used when designing with conventional light sources. In addition, designers need extra information to predict the lifetime of LEDs under a variety of operating conditions. Although a number of techniques to predict LED lifetimes have been proposed, none has generated sufficiently clear and unambiguous data for lighting engineers. Philips Lumileds graphical tool provides designers with information required to make decisions about product lifetimes, driver constraints, number of LEDs required, and thermal management.

LED reliability performance differentiation can be directly attributed to LED die, materials, and packaging technology. Philips Lumileds leadership in these areas enables its LUXEON K2 and LUXEON Rebel products to better withstand heat, current and environmental conditions to deliver the industry's best reliability.

With more than 40 years of LED technology development and testing, Philips Lumileds has the industry's largest accumulated database of LED lifetime test data. Components are tested in a matrix of different environmental and drive conditions for many thousands of hours, resulting in millions of device-hours of information. By continually adding to its database of actual lifetime data, Philips Lumileds will continue to present extremely reliable forecasts for power LED lifetime performance in the future.

About Philips Lumileds Lighting Company

Philips Lumileds Lighting Company pioneered power LED technology and is the world's leading provider of power LEDs for everyday lighting applications. The company's recent records for light output, efficacy and thermal management are direct results of the ongoing commitment to advancing solid-state lighting technology and enabling lighting solutions that are more environmentally friendly, help reduce CO₂ emissions and reduce the need for power plant expansion. Philips Lumileds' LUXEON LEDs are enabling never before possible applications in the automotive, camera flash, display, general lighting, and signage markets. More information about the company's products and technologies can be found at www.philipslumileds.com.

About Royal Philips Electronics

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is a global leader in healthcare, lifestyle and technology, delivering products, services and solutions through the brand promise of “sense and simplicity”. Headquartered in the Netherlands, Philips employs approximately 124,300 employees in more than 60 countries worldwide. With sales of EUR 27 billion in 2006, the company is a market leader in medical diagnostic imaging and patient monitoring systems, energy efficient lighting solutions, personal care and home appliances, as well as consumer electronics. News from Philips is located at www.philips.com/newscenter.

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