



NEWS RELEASE

Cree Launches Industry's First Extreme Density LED

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XLamp XD16 LED First to Surpass the 280 lm/mm² Lumen Density Mark

DURHAM, N.C. -- Cree, Inc. (Nasdaq: CREE) announces the commercial availability of the XLamp® XD16 LED, the industry's first Extreme Density LED, which delivers up to 5 ½ times higher lumen density than Cree's previous generation of high power LEDs. Built on Cree's groundbreaking NX Technology Platform, the XD16 LED combines breakthrough lumen density, low optical cross-talk, unsurpassed thermal contact and ease of system manufacturing to enable innovative new designs for a broad spectrum of lighting applications, such as color-tuning, street, portable and industrial.

"Cree's new XD16 LED delivers an incredible amount of light output for such a tiny package," said Joe Skrivan, senior technical director at Black Diamond Equipment. "The XD16 LED's breakthrough lumen output and peak intensity is a game-changer for our climbing headlamp products because we can design better beam control and decrease the overall size and weight compared to existing designs."

The XLamp XD16 LED delivers a lumen density of more than 284 lumens per square-millimeter, which is the highest level achieved by a commercially available lighting-class LED. The ceramic-based XD16 LED utilizes the proven XQ footprint and successfully addresses challenges with luminaire manufacturing, thermal design, optical design and reliability faced by competing LEDs. For example, the XD16 LED reduces system-level optical loss by up to three times versus competing technologies when LEDs are placed close together on a board. This improvement translates into fewer wasted lumens and higher efficacy for lighting products.

"Cree's new Extreme Density LED demonstrates that true LED innovation improves our customers' system performance without forcing compromise," said Dave Emerson, Cree LEDs executive vice president and general manager. "The XD16 LED delivers unmatched lumen density without the design and manufacturing challenges associated with inferior LED technology approaches. Now, lighting manufacturers can easily achieve previously

unattainable levels of light output and efficacy in their existing form factors.”

The new LEDs are characterized and binned at 85°C, available in ANSI White, EasyWhite® 3- and 5-step color temperatures (2700K – 6500K), and CRI options of 70, 80 and 90. Product samples are available now and production quantities are available with standard lead times. Please visit <https://www.cree.com/xlamp/xd16> to learn more.

About Cree

Cree is a market-leading innovator of lighting-class LEDs, lighting products and Wolfspeed™ power and radio frequency (RF) semiconductors. Cree’s product families include LED lighting systems and bulbs, blue and green LED chips, high-brightness LEDs, lighting-class power LEDs, power-switching devices and RF devices. Cree’s products are driving improvements in applications such as general illumination, electronic signs and signals, power supplies and inverters.

Please refer to www.cree.com for additional product and Company information.

This press release contains forward-looking statements involving risks and uncertainties, both known and unknown, that may cause actual results to differ materially from those indicated. Actual results may differ materially due to a number of factors, including the risk that actual savings and lifetimes will vary from expectations; the risk we may be unable to manufacture these new products with sufficiently low cost to offer them at competitive prices or with acceptable margins; the risk we may encounter delays or other difficulties in ramping up production of our new products; customer acceptance of our new products; the rapid development of new technology and competing products that may impair demand or render Cree’s products obsolete; and other factors discussed in Cree’s filings with the Securities and Exchange Commission, including its report on Form 10-K for the year ended June 25, 2017, and subsequent filings.

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