

# Cree LED Introduces XLamp XE-B LEDs for Directional Lighting Applications, Delivering High Intensity and Design Flexibility in an Ultra-Compact Package

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New addition to the XLamp Element family enables superior color mixing, higher intensity and miniaturized optical designs for high-performance lighting applications

DURHAM, N.C.--(BUSINESS WIRE)-- **Cree LED®**, a **Penguin Solutions** brand (Nasdaq: **PENG**), today announced its new XLamp® XE-B LEDs, extending the industry-leading XLamp Element family into an even smaller form factor to enable new levels of design flexibility and performance. The XE-B LEDs feature an ultra-compact 0.9 × 1.4 mm package engineered to deliver high intensity in optical systems, whether used individually or in arrays.

Smaller LEDs, better blending. Cree LED's XLamp® XE-B LEDs combine a compact footprint with a broad range of colors to deliver smooth, uniform color mixing, enhanced design flexibility and higher optical intensity in space-constrained lighting applications.

XE-B LEDs unlock new levels of performance from an extremely small light source, delivering up to 60% higher intensity

compared to existing LEDs with a larger 1 x 1 mm light-emitting surface (LES). Optimized for directional lighting applications that benefit from multi-color LED designs, XE-B LEDs are ideal for indoor directional lighting, architectural lighting, entertainment lighting, and aftermarket automotive lighting, where compact size, high intensity, and precise color control are critical.

"XE-B LEDs open up exciting new possibilities for our designs," said Eduard Grigoras, Senior Electronics Manager at Lazer Lamps. "The smaller source size combined with higher intensity, allows us to use smaller optics, making our products lighter and more compact while integrating seamlessly into modern vehicle designs."

Built on Cree LED's advanced Element platform, XE-B LEDs provide the smallest possible distance between the LED

chip and the package edge, allowing tighter spacing, improved optical control and seamless integration with secondary optics. A large, electrically isolated thermal pad supports advanced PCB designs, delivering a direct thermal path to the heat sink for excellent heat dissipation and long operating lifetimes, even at maximum current.

“XLamp XE-B LEDs reflect our ongoing commitment to advancing LED technology and supporting our customers’ evolving needs,” said Joe Clark, President of Cree LED. “With each new product, we aim to expand design possibilities while delivering strong performance and reliability. The XLamp Element family offers a combination of intensity, flexibility, and optical performance that help set a high standard in the industry. We’re excited to see how our customers bring these new, smaller XE-B LEDs into their designs.”

With a consistent 1A maximum current across all colors and a uniform package design, XE-B LEDs simplify system design while enabling precise and consistent color mixing. The portfolio offers what we believe is the industry’s largest color selection in a single package: 17 colors plus a full range of white options, providing lighting manufacturers with wide-ranging spectral control for general and specialty lighting applications.

Eleven of the most popular colors are available in production quantities with standard lead times, with additional colors planned for release later this year. Samples are available. To see the full color portfolio and to learn more about XE-B LEDs, visit: <https://www.cree-led.com/news/xlamp-xe-b-leds/>.

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## About Cree LED

Cree LED, a Penguin Solutions brand, offers one of the industry’s broadest portfolios of application-optimized LED chips and components, leading the industry in performance and reliability. With more than 35 years of innovation, our strong IP portfolio and unique business model are designed to support supply chain continuity. We deliver best-in-class technology and breakthrough solutions for focused applications in high power and mid-power general lighting, portable lighting, horticulture, specialty lighting and video screens. For more information, visit [cree-led.com](https://www.cree-led.com).

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