



News

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Cree launches higher-efficiency Photo Red LEDs, boosting output by 21% for horticulture applications

LED chip, lamp and lighting fixture maker Cree Inc of Durham, NC, USA has launched the XLamp XQ-E and XP-E High Efficiency (HE) Photo Red LEDs. With up to 21% higher output than previous generations of XQ-E and XP-E Photo Red LEDs, they enable horticulture lighting manufacturers to deliver higher-performance products, reduce luminaire size and lower system cost, says the firm.

"The XQ-E family provides a unique combination of ultra-compact package, high output and wide range of horticulture-optimized colors," comments Michael Naish, director at high-thermal-conductivity substrate firm Rusalox. "Using XQ-E LEDs with our unique AlumOxide technology, our customers can create luminaires that use half the power of conventional HPS luminaires, as well as being smaller and weighing less than incumbent technologies," he reckons. "The higher-performing XQ-E High Efficiency Photo Red LED will enable customers to quickly reduce the power consumption of their current design even further for faster payback periods."

The XQ-E High Efficiency Photo Red LED delivers photosynthetic photon flux (PPF) of up to 5.39 μ mol/sec at 85°C from a package footprint of just 1.6mm x 1.6mm. Its ratio of output to size is more than double that of the closest competitor, it is claimed. The XP-E High Efficiency Photo Red LED delivers up to 6.08 μ mol/sec PPF output at 85°C and is said to be the first LED to break the 1W radiant flux barrier at 85°C.

"The new XQ-E and XP-E High Efficiency Photo Red LEDs bring Cree's latest high-power performance breakthroughs to horticulture lighting, with twice the PPF density and higher output than all other available LEDs," claims Dave Emerson, VP & general manager for Cree LEDs. "Our technology enables customers to create high-performance, long-life luminaires that drive the adoption of LEDs in this emerging application," he adds. Cree's portfolio of LEDs optimized for horticulture also includes White, Royal Blue and Far Red color options.

Both XQ and XP LEDs for horticulture are based on Cree's ceramic high-power technology, which can deliver R90 lifetimes over 100,000 hours, even at the extreme temperature of 105°C. In addition, horticulture lighting manufacturers can immediately take advantage of the existing ecosystem of drivers and optics proven to work with the XQ and XP platforms to accelerate their time to market.

Product samples of the new XQ-E and XP-E High Efficiency Photo Red LEDs are available now and production quantities are available with standard lead times.

See related items:

[Cree expands portfolio of LEDs for horticulture lighting with XQ-E Photo Red LED](#)

[Cree launches high-intensity versions of XLamp XQ-E color LEDs, doubling candela performance](#)

[Cree announces commercial availability of XLamp XP-E2 color LEDs](#)

[Cree launches XLamp XQ-E as new generation of lighting-class LEDs](#)

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