

Presse Press

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Osram sets new standards in horticulture lighting with Oslon Square Hyper Red

High-power LED with larger chip and improved radiant flux offers best-in-class efficiency for plant lighting in commercial greenhouses

At this year's Lightfair in Philadelphia (USA), Osram Opto Semiconductors is showcasing an LED prototype to promote healthy plant growth: the Oslon Square Hyper Red. This third-generation 2 watt LED features improved emission characteristics, higher optical output and impressive corrosion resistance, so plant lighting systems based on the Oslon Square Hyper Red can be made particularly economical.

Plants essentially need water and light in order to grow. By using light emitting diodes (LEDs) with different wavelengths, commercial growers are now able to control each individual stage of plant growth. With a wavelength of 660 nanometers (nm) the prototype of the Oslon Square Hyper Red, for example, can control the growth of blossom. Together with the deep blue (450 nm) and far red (730 nm) versions, the Oslon family from Osram Opto Semiconductors perfectly covers the entire spectrum of plant growth.

The prototype of the high-power LED has an integrated 2 mm x 2 mm chip which provides improved performance. By using the latest technologies, developers have been able to achieve a typical radiant power of 905 milliwatts (mW) with radiant efficacy of 60 percent, at a current of 700 mA and an operating temperature of 25 °C. This represents a significant improvement of 13 percent in terms of radiant power and 25 percent better radiant efficacy compared with the current Oslon SSL. The beam angle of the Oslon Square Hyper Red is 120°.

“Thanks to its high corrosion resistance and long life, the new Oslon Square Hyper Red is extremely reliable. Our new flagship product therefore also meets the usual high quality standards of the entire Oslon family”, said Kok Peng Lim, Product Manager SSL at Osram Opto Semiconductors.

The Oslon Square Hyper Red has the same footprint as the existing Oslon SSL versions so it can be easily used as a replacement. Switching to the new product makes economic sense for customers in two respects. First, the new high-power LED is more powerful than its predecessor, and second, one Oslon Square Hyper Red will replace two Oslon SSL LEDs. Volume production of the LEDs is scheduled for the end of 2017.

Press contact:

Marion Reichl

Phone +49 941 850 1693

Email: marion.reichl@osram-os.com

Technical information:

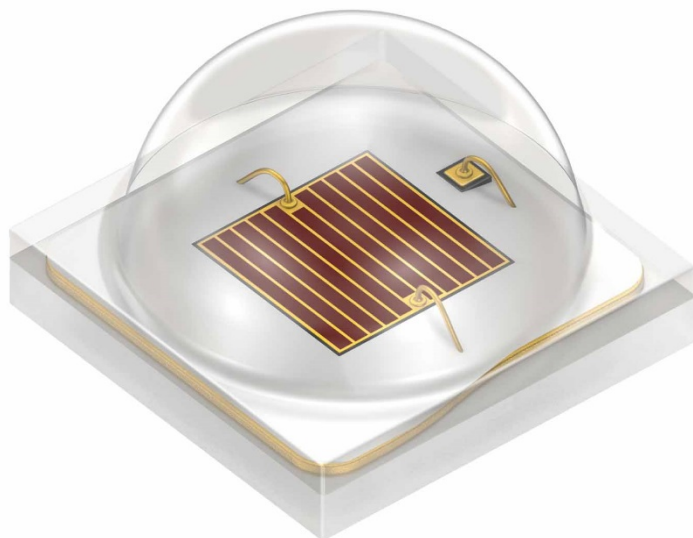
Phone +49 941 850 1700

Fax +49 941 850 3305

Email: support@osram-os.com

Sales contacts:

www.osram-os.com/sales-contacts



The prototype of the compact Oslon Square Hyper Red offers reliability, long life and low thermal resistance.

Picture: Osram



The larger chip in the Oslon Square Hyper Red provides even greater output for plant lighting and replaces two Oslon SSL LEDs with the same footprint.

Picture: Osram

ABOUT OSRAM

OSRAM, based in Munich, is a globally leading lighting manufacturer with a history dating back about 100 years. The product portfolio includes high-tech applications based on semiconductor technology such as infrared or laser lighting. The products are used in highly diverse applications ranging from virtual reality, autonomous driving or mobile phones to smart and connected lighting solutions in buildings and cities. In automotive lighting, the company is the global market and technology leader. Based on continuing operations (excluding Ledvance), OSRAM had around 24,600 employees worldwide at the end of fiscal 2016 (September 30) and generated revenue of almost €3.8 billion in that fiscal year. The company is listed on the stock exchanges in Frankfurt and Munich (ISIN: DE000LED4000; WKN: LED 400; trading symbol: OSR). Additional information can be found at www.osram.com.