

# OSRAM OSLON® Optimal – Product overview

LEDs for Horticulture Lighting

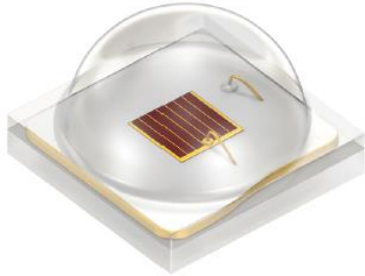
*Internal & Distributor use – Not for external distribution*

May 2022

# OSLON® Optimal

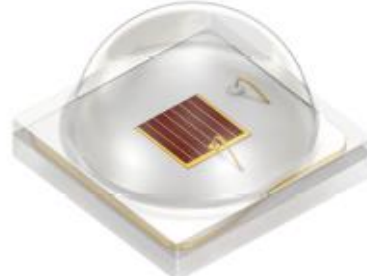
## LEDs for Horticulture Lighting

Hyper Red 660nm



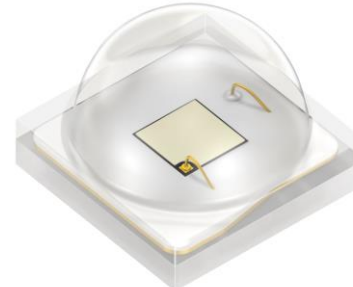
GH CSSRML.24

Far Red 730nm



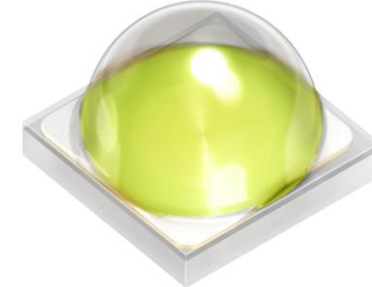
GF CSSRML.24

Deep Blue 450nm



GD CSSRML.24

Horti White



GW CSSRML.HW

### OSLON® Optimal

#### Key Features

- High power LED - Available in Hyper Red, Far Red, Deep Blue and Horti White
- Ceramic package for superior robustness with upgrade performance
- 100% ams OSRAM's latest chip technology
- 120° beam angle
- ESD: 8 kV acc. to ANSI/ESDA/JEDEC JS-001 (HBM, Class 3B)

#### Associated Benefits

- Enable both narrow spectrum and full spectrum solutions for both greenhouses and vertical farms
- Superior robustness and long lifetime

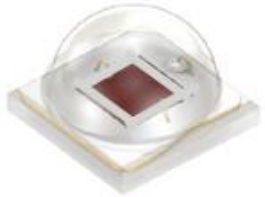
#### General Description

- Offered in four colors for ease of design and flexibility for all your horticulture spectrum needs
- Perfect balance of performance, cost, reliability and long lifetime

# OSLON® Optimal

Highest efficiency level at great value

OSLON® Optimal for ...



3.0 x 3.0 mm

- Best in class radiant efficiency
- High mW/\$ value
- Solderpad compatible to OSLON Square and SSL
- Superior robustness and reliability
- Available in all horti colors including Horti White



Type	Radiant flux [mW]	Dominant wavelength [nm]	Emission angle [°]	Voltage [V]	Binning current [mA]	Max. current [mA]	WPE <sup>1)</sup> [%]	PF <sup>2)</sup> [μmol/s]	PFE <sup>3)</sup> [μmol/J]
Hyper Red <b>GH CSSRML.24</b>	520	660	120	2.00	350	1000	74%	2.85	4.07
Deep Blue <b>GD CSSRML.14</b>	755	451	120	2.92	350	1000	74%	2.86	2.80
Far Red <b>GF CSSRML.24</b>	435	730	120	1.95	350	1000	64%	2.61	3.83
Horti White <b>GW CSSRML.HW</b>	565	-	120	2.92	350	1000	55%	2.53	2.47

- Now: Samples for all colors available!
- Deep Blue/Horti White: Launch in Q3/2022

# OSLON® Optimal

## LEDs for Horticulture Lighting

### Key Sales Message

The OSLON® Optimal is the next-generation of LEDs for Horticulture Lighting applications with a 1mm<sup>2</sup> chip inside. The small 3.0 mm x 3.00 mm footprint allows for very compact clustering. Flexible and efficient designs for professional top lighting and inter-lighting designs, and vertical farming solutions. Available in Hyper Red (660nm), Far Red (730nm), Deep Blue\* (450nm) and Horti White\*.

### Unique Selling Proposition

The OSLON® Optimal strikes a perfect balance of performance and cost along with proven robustness, high reliability and long lifetime. Offered in four colors for ease of design and flexibility for both narrow and full spectrum solutions to meet all crop needs.

### Applications

- Horticulture Lighting
- Architectural Lighting
- Phototherapy

# OSLON® Optimal

## LEDs for Horticulture Lighting

### Discovery Questions

**Q1:** What is the difference between the existing OSLON® SSL platform of horti LEDs and the new OSLON® Optimal series?

**A1:** It is an upgrade in performance compared to the existing OSLON SSL platform using the latest chip technology which we are using for our 2mm<sup>2</sup> (OSLON Square) platform, now also for 1mm<sup>2</sup> devices. It will be available with a 120° viewing angle only. And we will introduce a (larger) spherical lens, the same as in the latest OSLON® Square generation.

**Q2:** What is the performance improvement between the OSLON® SSL and the OSLON® Optimal Far Red 730nm (to pick an example)?

**A2:** We are looking at a performance improvement of +14%. That is why we decided to discontinue the OSLON® SSL Far Red. Please refer to the Optimal Far Red for new designs and convert existing projects in due time.

# OSLON® Optimal

## Product Portfolio & Roadmap

- Application/Segment
- In production
- High MM appeal – focus products
- In development
- Product



# OSLON® Optimal

Who to sell to...

	Lighting
Example End Equipment	• Horticulture Lighting Applications
	• Architectural Lighting
	• Phototherapy
Key Market Differentiators	• Best in class radiant efficiency
	• High mw/\$
	• Solder pad compatible to OSLON® Square and SSL
	• Superior robustness and reliability
	• Available in all horti colors including Horti White

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[ams OSRAM:](#)

[GF CSSRML.24-TNUL-1-1-350-R33](#) [GH CSSRML.24-UJUM-1-1-350-R33](#) [GF CSSRML.24-TNUL-1-1-350](#) [GH](#)  
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