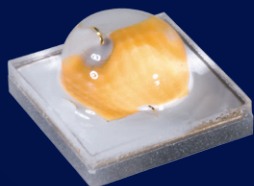


# OSLON® Square

**Maximum flexibility. Minimum size.**

With the OSLON® Square, OSRAM Opto Semiconductors provides the most compact, high-power LED in its class. With a maximum driving current of 1.5 A and a broad range of color temperatures and color rendering indexes, the OSLON® Square product family is perfect for a large variety of indoor and outdoor applications. Amazing flexibility. Guaranteed.



**OSRAM**  
Opto Semiconductors

## OSLON® Square for Indoor Lighting



### Advantages

#### Powerful

OSLON® Square, with OSRAM's latest power chip technology, can be driven up to 1.5 A and remains efficient even at the highest driving currents.

#### Narrow color binning

OSLON® Square LEDs are available in different color temperatures from warm white 2700 K to cool white 6500 K. OSRAM Opto Semiconductors' fine bin system covers the area of 2-step MacAdams ellipse, ensuring perfect color consistency for all lighting applications.

#### Perfect color quality

OSLON® Square LEDs use the latest phosphor conversion technology to ensure full color stability over its long lifetime.

#### Applications

- Spotlights
- Task lights
- Shelf lighting
- Downlights

## OSLON® Square for Compact Designs



### Advantages

#### Compact

With a footprint of only 3 mm x 3 mm, OSLON® Square is the smallest high-power LED on the market. OSLON® Square is suitable for applications where maximum flux over area is needed, for example in LED lamps.

#### Light recycling

The white reflective layer of the package guarantees high lumen efficacy. The light reflected back toward the package is reused and directed to the secondary optic, efficiently using every single lumen throughout the entire LED lifetime.

#### Temperature performance

An astonishingly low thermal resistance of only 3.8 K/W ensures cool operation even at high driving currents. Low operating temperatures are the main focus when designing highly efficient products.

#### Applications

- Retrofit lamps
- Downlights
- Remote phosphor solutions
- LED clusters

## OSLON® Square for Outdoor Lighting



### Advantages

#### Long lasting

Thanks to robust thermal management, lifetimes of more than 50,000 hours are easily obtained – even at high driving currents.

#### Robustness

The exceptionally sturdy design makes the OSLON® Square resistant even under harshest conditions. The package doesn't contain any silver and maintains its reflectivity even in the most humid environment.

#### Efficient

Thanks to its high efficacy, the OSLON® Square is the right solution when it comes to saving energy.

#### Applications

- Street lighting
- Tunnels
- Parking lots
- Pedestrian areas

## OSLON® Square White Versions

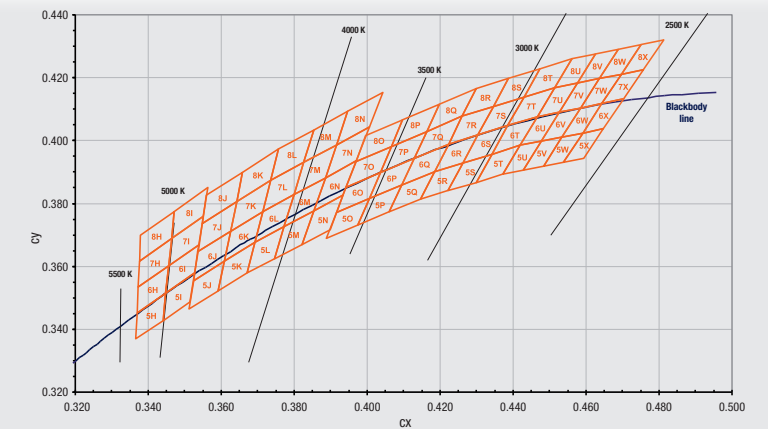
### LCW CQAR.EC – Eco Champ

**Product Benefit** Ideal balance of CRI and luminous flux

**CCT range** 2700 K - 5000 K warm/neutral white

**Min. CRI** 80

**Applications** Various indoor lighting, e.g., shop, retrofits



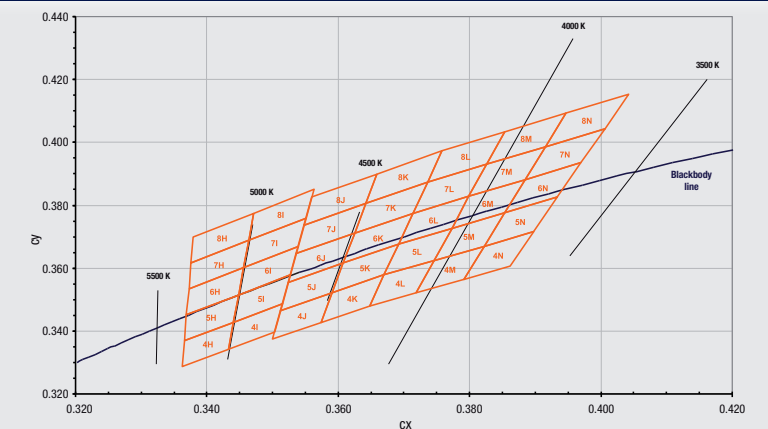
### LCW CQAR.PC – Power Champ

**Product Benefit** Maximized luminous flux

**CCT range** 4000 K - 5000 K neutral white

**Min. CRI** 70

**Applications** Outdoor lighting



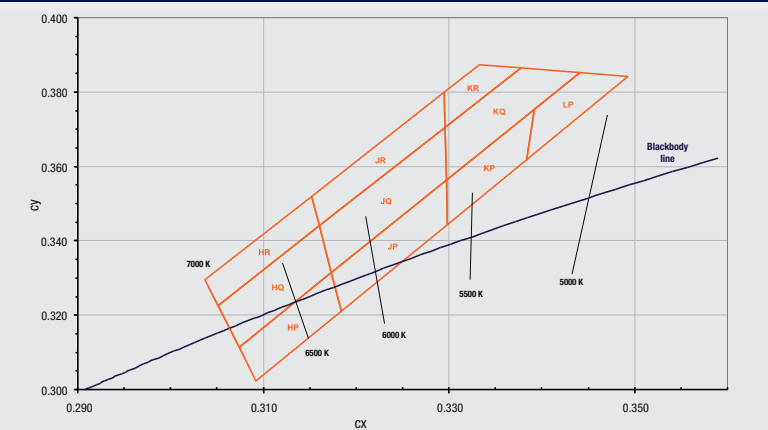
### LUW CQAR – Streetwhite

**Product Benefit** Maximized luminous flux

**CCT range** 5300 K - 6500 K cool white

**Min. CRI** 65

**Applications** Outdoor lighting, Industrial lighting



Color rendering can be traded in favor of luminous flux and vice versa. OSRAM Opto Semiconductors has employed this technique to bring you a choice of CRI and flux combinations for OSLON® Square, giving you the option to choose the LED best suited to your application.

OSLON® Square Type	Color	Min. CRI	CCT/Wavelength	Typ. Brightness at 700 mA	Typ. Brightness at 350 mA
LCW CQAR.EC	warm/neutral white	80	2700 K - 5000 K	200 lm @ 3000 K 210 lm @ 4000 K	112 lm @ 3600 K 118 lm @ 4000 K
LCW CQAR.PC	neutral white	70	4000 K - 5000 K	240 lm @ 4000 K 245 lm @ 5000 K	135 lm @ 4000 K 138 lm @ 5000 K
LUW CQAR	cool white	65	5300 K - 6500 K	260 lm @ 6000 K	145 lm @ 6000 K
LD CQAR	deep blue		449 nm - 461 nm	1100 mW	620 mW

### Features

- Ultra-compact footprint for high-density arrays to save space and simplify circuit designs (only 3 mm x 3 mm)
- Full color temperature range
- Suitable for driving currents up to 1.5 A
- Highly reflective package
- Thermal resistance of  $R_{thJS}$  (typ.) 3.8 K/W
- Lifetime of more than 50,000 hours, depending on application conditions
- Different product versions adjusted to fit the specific application requirements

### Asia

OSRAM Opto Semiconductors Asia Ltd.  
30/F China Resources Building  
26 Harbour Road, Wan Chai  
Hong Kong SAR  
Phone: +852 3652 5522  
Fax: +852 2802 0880  
E-mail: [prasia@osram-os.com](mailto:prasia@osram-os.com)

### Europe

OSRAM Opto Semiconductors GmbH  
Leibnizstrasse 4  
D-93055 Regensburg, Germany  
Phone: +49 941 850 1700  
Fax: +49 941 850 3302  
E-mail: [support@osram-os.com](mailto:support@osram-os.com)

### USA

OSRAM Opto Semiconductors Inc.  
1150 Kifer Road, Suite 100  
Sunnyvale, CA 94086, USA  
Main Phone number: (408) 962-3700  
Main Fax: (408) 738-9120  
Inbound Toll Free: (866) 993-5211  
E-mail: [info@osram-os.com](mailto:info@osram-os.com)

### OSLON® Square on the Internet:

[www.osram-os.com/oslon-square](http://www.osram-os.com/oslon-square)

For further information on the available products, please visit our product catalog at <http://catalog.osram-os.com>

More information about LED in General Lighting:

### LED Light Site

[ledlight.osram-os.com](http://ledlight.osram-os.com)

### LED Light for you Network

[www.ledlightforyou.com](http://www.ledlightforyou.com)



[www.osram.com/led](http://www.osram.com/led)