Compact multi-chip LED designed for interior lighting

Osram Opto Semiconductors announced the Duris S 8, a new multi-chip, high-power member of the Duris S LED series. The close grouping of the LED die allows for good color consistency in combination with a high luminous flux. The new Duris S 8 is targeted for use in directional and omnidirectional retrofit lamps and spotlights and downlights used in interior lighting. It is ideal for directional lighting in office and business applications, as well as in the home.

The color consistency, also known as color binning, in directional retrofits is achieved through the close grouping of the LEDs, which corresponds to the coverage of a five-step MacAdam ellipse. Three-step MacAdam grouping is also available for applications that require high color homogeneity. The Duris S 8 is grouped by color coordinates at the junction temperature of 100 °C instead of at room temperature, as is customary.

The new Duris S 8 emits a great deal of light from a small surface area, creating efficient optical solutions. It measures just 5.8 x 5.2 mm and is available in six- or eight-chip versions. Thanks to the luminous flux of 500 lm at 200 mA, even the eight-chip version can be used in directional retrofits.

The Duris S 8 can also reduce the costs of lighting systems. The package consists of an innovative plastic housing material that is not only resistant to aging due to high

temperature and short wavelength (UV) light, but also costs less than the ceramic housings frequently used.

Technical data for the Duris S 8:

Types	**Version 1 (6 chips)** **(GW P9LMS1.EM)**	**Version 2 (8 chips)** **(GW P9LRS1.EM)**
Housing size	5.8 mm x 5.2 mm	5.8 mm x 5.2 mm
Grouping current	200 mA	200 mA
Forward voltage	18.6 – 22.2 V	24.8 – 29.6 V
Luminous flux (typical at 25 °C, 3,000 K)	390 lm	500 lm
Color temperature	2700 K, 3000 K and 4000 K	2700 K, 3000 K and 4000 K
Color Rendering Index (CRI)	> 80	> 80

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