

LEDiL's SANDRA arrays Pure power in standard package

Precision engineered by LEDiL

LEDiL's SANDRA-family of lens arrays offers a cost-effective and powerful solution for lighting situations where every lumen counts. 12 LED sources provide enough light for challenging environments. These precision moulded lenses direct the light where it is needed. SANDRA lenses give market-leading efficiency of ~90% and are available in three different beam types - Spot, Medium and Wide - FWHM angles ranging from 10° to 36° respectively.

FEATURES and BENEFITS

- Optical array of 12 sources speed up manufacturing
- Cost-efficient solution for many lighting situation
- High efficiency optical design, typically 20% more efficient than non-optimized competitors
- Aesthetically pleasing and even beam pattern
- ø67 mm fitting for many luminaire designs in the PAR20 range
- Designed for the wide range of LEDs from Cree, Nichia, Osram and Philips Lumileds

MARKETS and TYPICAL APPLICATIONS

- Track lighting luminaires
- Downlights
- Retail lighting
- Generic indoor lighting



SPECIFICATIONS* and ORDERING INFORMATION

C13236_SANDRA-12-S

- Dimensions; $\varnothing 67 \times 11,1$ mm
- 12 sources
- Beam type: Spot
- Typ. FWHM 10°
- Typ. efficiency 93%
- Optimized for XT-E / next generation LEDs

**C11814_SANDRA-12-M**

- Dimensions; $\varnothing 67 \times 11,1$ mm
- 12 sources
- Beam type: Medium
- Typ. FWHM 24°
- Typ. efficiency 91%

C13405_SANDRA-12-M

- Dimensions; $\varnothing 67 \times 11,1$ mm
- 12 sources
- Beam type: Medium
- Typ. FWHM 32°
- Typ. efficiency 91%
- Optimized for XT-E / next generation LEDs

**C11700_SANDRA-12-W**

- Dimensions; $\varnothing 67 \times 11,1$ mm
- 12 sources
- Beam type: Wide
- Typ. FWHM 34°
- Typ. efficiency 91%



* FWHM and efficiency are typical values and subject to the chosen LED. For information of the specific LED-optics combination, go to www.ledil.com