

## SANDRA-12-S

~14° spot beam

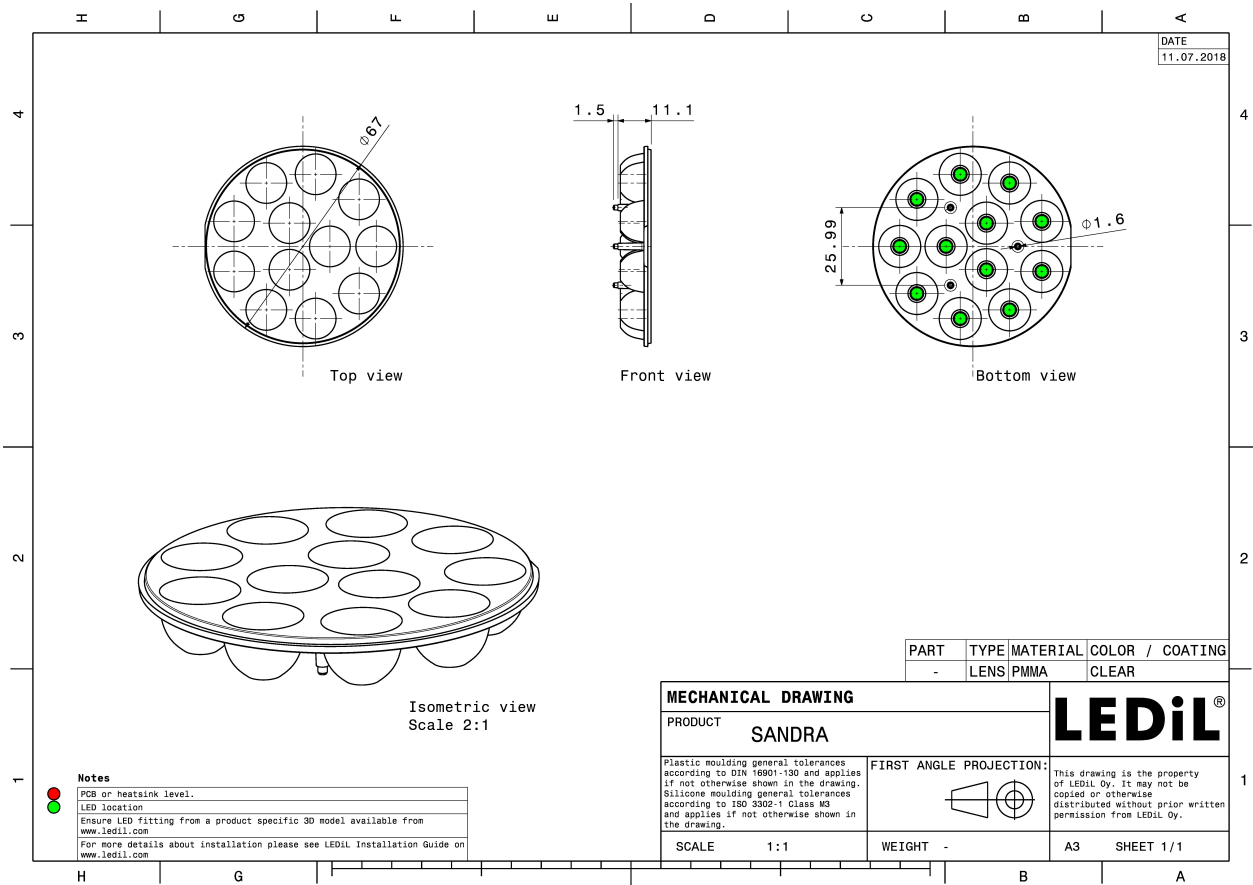
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 67.0 mm
Height	11.1 mm
Fastening	glue, pin
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	7.8 kg
Quantity in Box	306 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

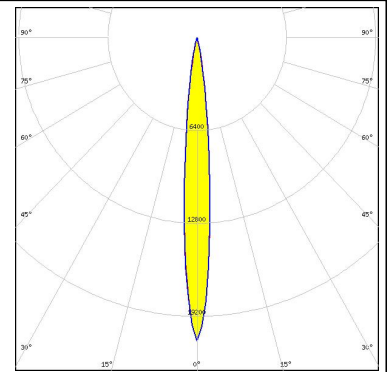
Component	Type	Material	Colour
SANDRA-12-S	Lens array	PMMA	clear



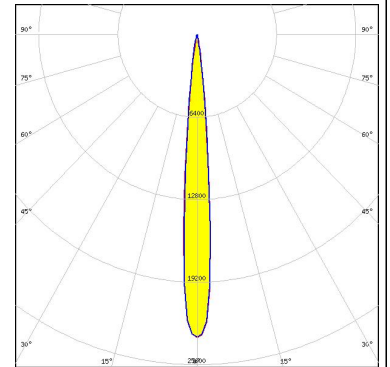
### PHOTOMETRIC DATA (MEASURED):



LED XP-E  
FWHM 10.0°  
Efficiency 91 %  
Peak intensity 18.700 cd/lm  
Required components:



LED XP-E2  
FWHM 10.0°  
Efficiency 94 %  
Peak intensity 23.500 cd/lm  
Required components:



LED XP-G  
FWHM 15.0°  
Efficiency 93 %  
Peak intensity 9.500 cd/lm  
Required components:

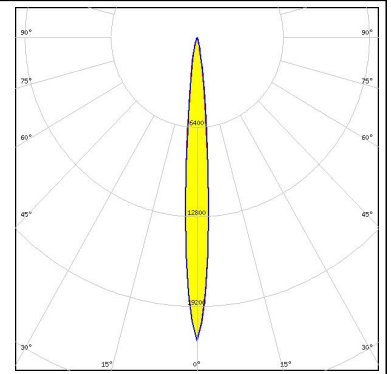


LED NVSxx19A  
FWHM 15.0°  
Efficiency 90 %  
Peak intensity 9.300 cd/lm  
Required components:

## PHOTOMETRIC DATA (MEASURED):

**OSRAM**  
Opto Semiconductors

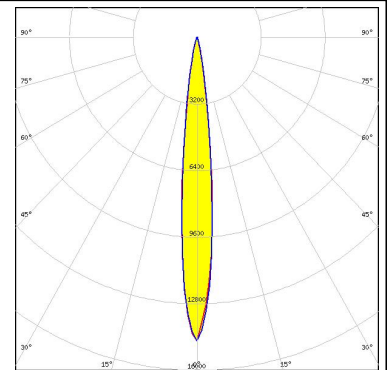
LED            Oslon SSL 80  
FWHM        10.0°  
Efficiency    91 %  
Peak intensity 18.500 cd/lm  
Required components:



### PHOTOMETRIC DATA (SIMULATED):



LED XD16  
FWHM 12.0°  
Efficiency 94 %  
Peak intensity 14.600 cd/lm  
Required components:



LED XP-G2  
FWHM 13.0°  
Efficiency 92 %  
Peak intensity cd/lm  
Required components:



LED LUXEON Rebel  
FWHM 11.5°  
Efficiency 91 %  
Peak intensity cd/lm  
Required components:



LED Oslon Square EC  
FWHM 13.0°  
Efficiency 90 %  
Peak intensity cd/lm  
Required components:

## PHOTOMETRIC DATA (SIMULATED):

**OSRAM**  
Opto Semiconductors

LED	Oslon SSL 150
FWHM	10.0°
Efficiency	91 %
Peak intensity	cd/lm
Required components:	

### GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

### MATERIALS:

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