

CRYSTAL-RS

~5.1° spot beam. Assembly with holder.

SPECIFICATION:

Dimensions	Ø 49.7
Height	28.7 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
F12916_CRYSTAL-RS	Single lens	PMMA	clear		
C13478_CRYSTAL-HLD	Holder	PC	white		

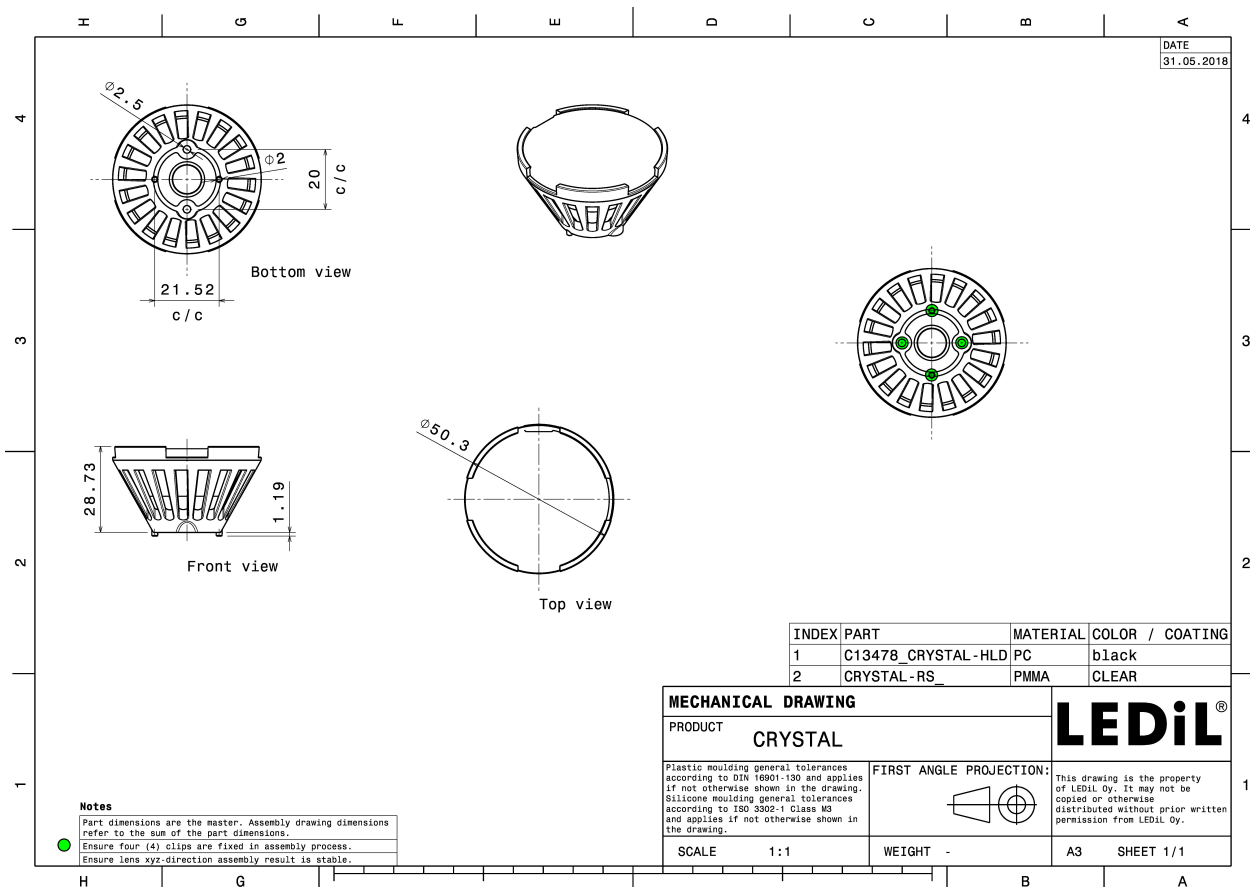


ORDERING INFORMATION:

Quantities for one set:

Single lens	1
Holder	1

Component		Qty in box	MOQ	MPQ	Box weight (kg)
F12916_CRYSTAL-RS » Box size: 480 x 280 x 300 mm	Single lens	288	64	32	8.6
C13478_CRYSTAL-HLD » Box size: 480 x 280 x 300 mm	Holder	1152	64	32	6.1

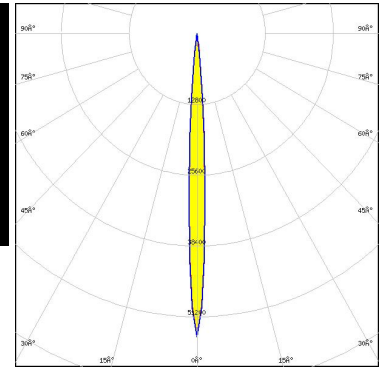
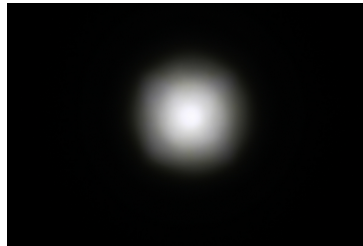


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):



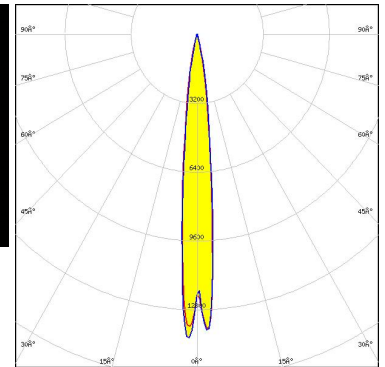
LED XHP35 HI
FWHM / FWTM 5.7° / 15.0°
Efficiency 89 %
Peak intensity 48.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



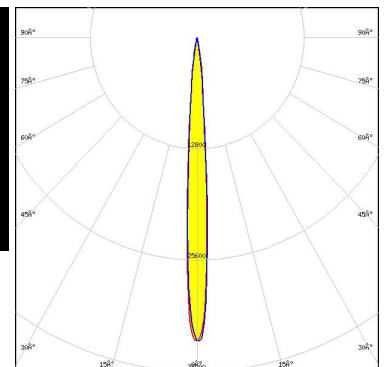
LED XHP50
FWHM / FWTM 11.0° / 24.0°
Efficiency 93 %
Peak intensity 14.1 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XM-L
FWHM / FWTM 7.0° / 17.0°
Efficiency 94 %
Peak intensity 34.9 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OPTICAL RESULTS (MEASURED):

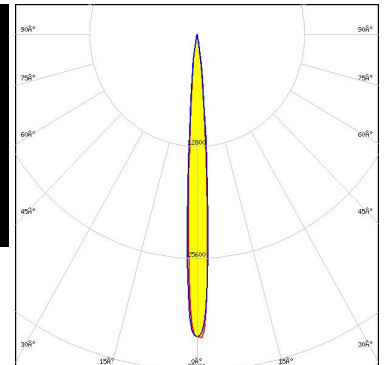


LED	XP-G
FWHM / FWTM	4.9° / 11.4°
Efficiency	89 %
Peak intensity	68.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files



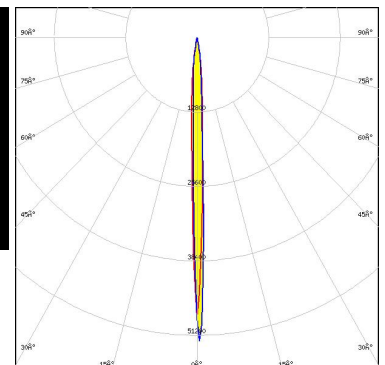
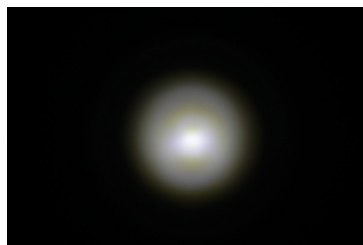
LED	XP-L HD
FWHM / FWTM	7.0° / 15.0°
Efficiency	88 %
Peak intensity	34.7 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files



LED	LUXEON 3030 2D (Round LES)
FWHM / FWTM	4.0° / 15.0°
Efficiency	94 %
Peak intensity	52.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

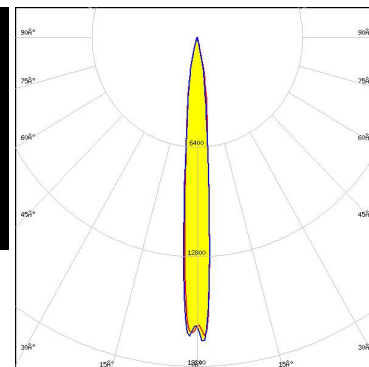
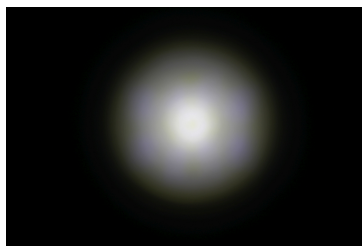


Light distribution files

OPTICAL RESULTS (MEASURED):



LED LUXEON 5050 Round LES
FWHM / FWTM 9.0° / 24.0°
Efficiency 94 %
Peak intensity 17.8 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



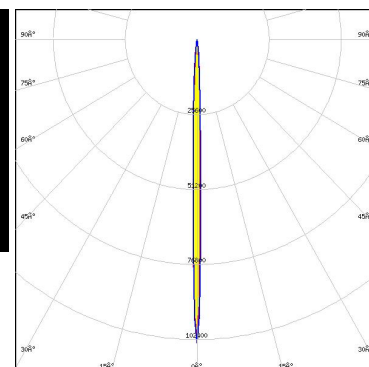
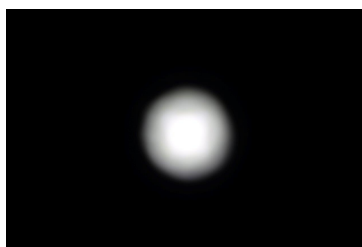
LED LUXEON A
FWHM / FWTM 5.1° / 14.0°
Efficiency 89 %
Peak intensity 58.9 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON Z ES
FWHM / FWTM 3.0° / 9.0°
Efficiency 93 %
Peak intensity 103.8 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

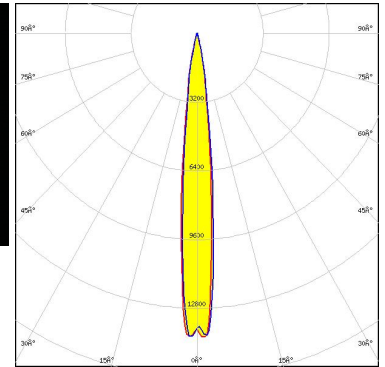


Light distribution files

OPTICAL RESULTS (MEASURED):



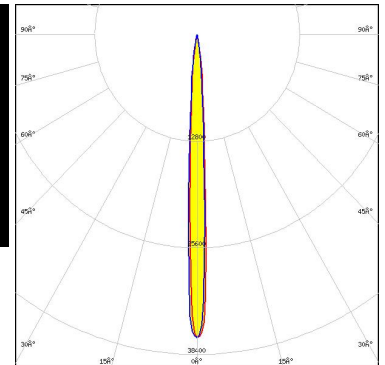
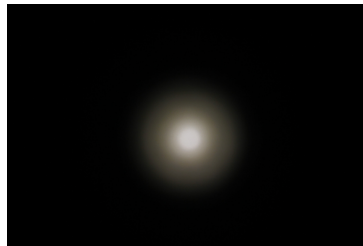
LED NV4x144A
FWHM / FWTM 12.0° / 25.0°
Efficiency 92 %
Peak intensity 14.2 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



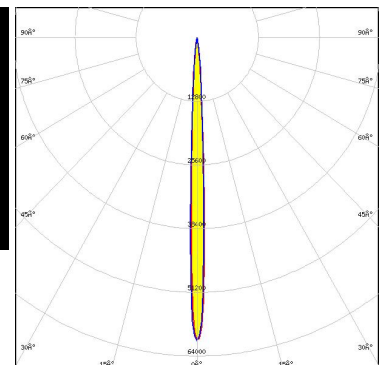
LED NVSW3x9A
FWHM / FWTM 6.0° / 16.0°
Efficiency 89 %
Peak intensity 36.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED NVSW719AC
FWHM / FWTM 5.0° / 12.0°
Efficiency 93 %
Peak intensity 61 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

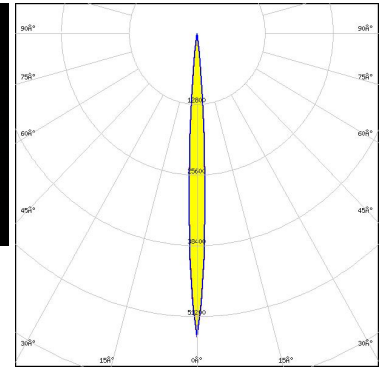
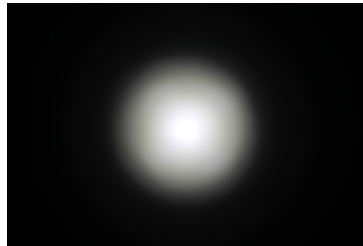


Light distribution files

OPTICAL RESULTS (MEASURED):



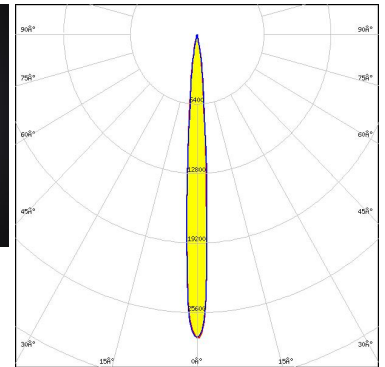
LED NVSxx19B/NVSxx19C
FWHM / FWTM 5.3° / 17.0°
Efficiency 89 %
Peak intensity 42.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



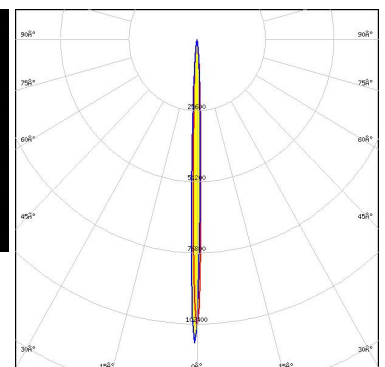
LED NWSx229A
FWHM / FWTM 8.0° / 18.0°
Efficiency 92 %
Peak intensity 27.9 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED OSLO SSL 150
FWHM / FWTM 3.0° / 9.0°
Efficiency 94 %
Peak intensity 108.9 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

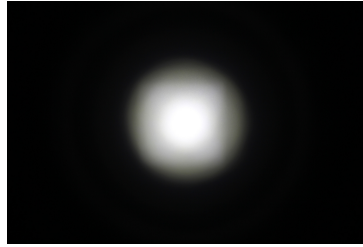


Light distribution files

OPTICAL RESULTS (MEASURED):

SAMSUNG

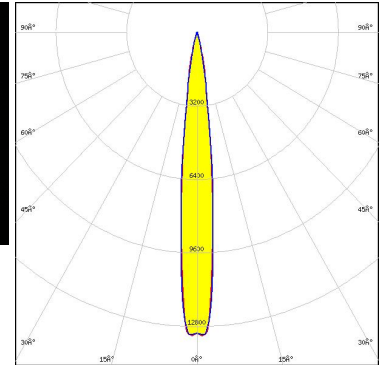
LED LH351Z
FWHM / FWTM 4.4° / 12.0°
Efficiency 90 %
Peak intensity 77 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



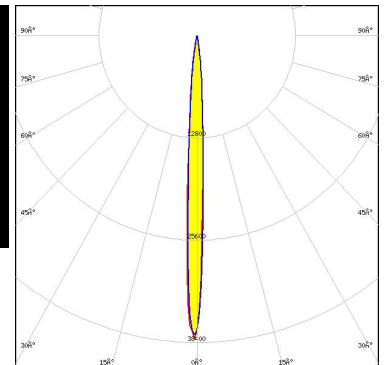
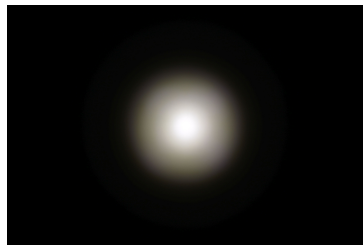
LED WICOP 5050
FWHM / FWTM 12.0° / 25.0°
Efficiency 92 %
Peak intensity 13.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED Z5M3
FWHM / FWTM 6.0° / 16.0°
Efficiency 94 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

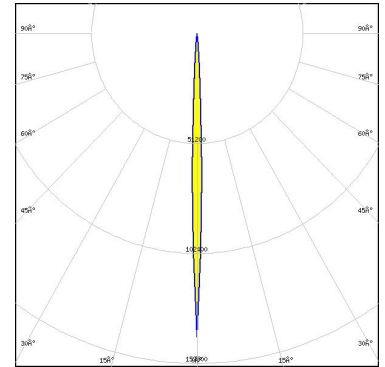


Light distribution files

OPTICAL RESULTS (SIMULATED):



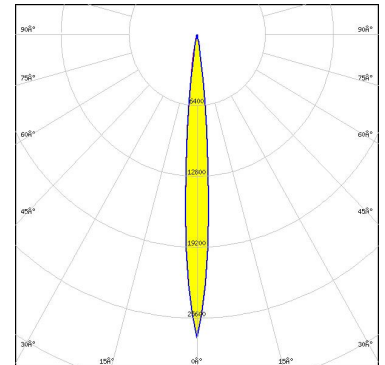
LED XE-G
FWHM / FWTM 4.0° / 8.0°
Efficiency 94 %
Peak intensity 141.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



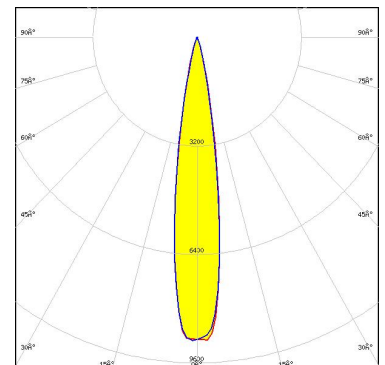
LED XHP50.3 HI
FWHM / FWTM 10.0 + 8.0° / 18.0°
Efficiency 97 %
Peak intensity 27.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XHP70.2
FWHM / FWTM 16.0° / 30.0°
Efficiency 95 %
Peak intensity 9 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

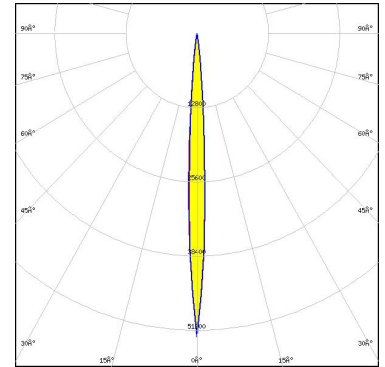


Light distribution files

OPTICAL RESULTS (SIMULATED):



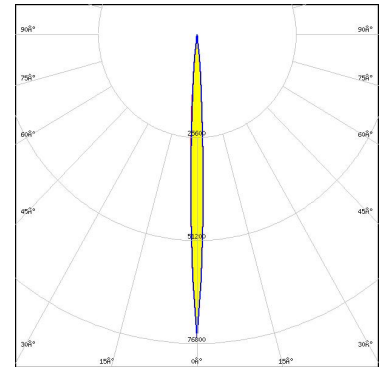
LED XP-G3
FWHM / FWTM 6.0° / 14.0°
Efficiency 95 %
Peak intensity 52.3 cd/Im
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



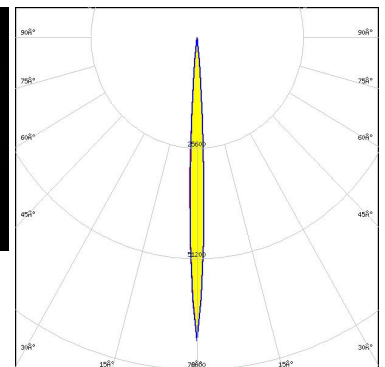
LED XP-G4 HI
FWHM / FWTM 6.0° / 12.0°
Efficiency 96 %
Peak intensity 75.4 cd/Im
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED XP-L HI
FWHM / FWTM 5.6° / 12.0°
Efficiency 94 %
Peak intensity 70.2 cd/Im
LEDs/each optic 1
Light colour/type White
Required components:

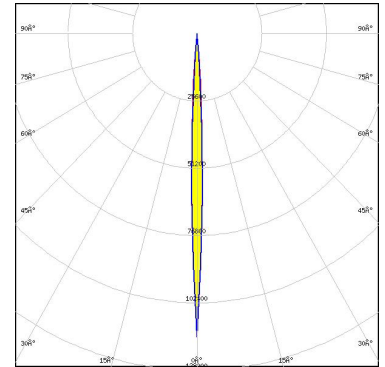


Light distribution files

OPTICAL RESULTS (SIMULATED):



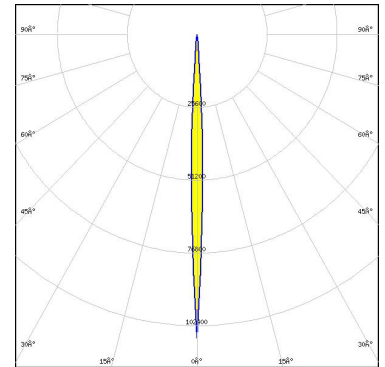
LED XP-P
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 115.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



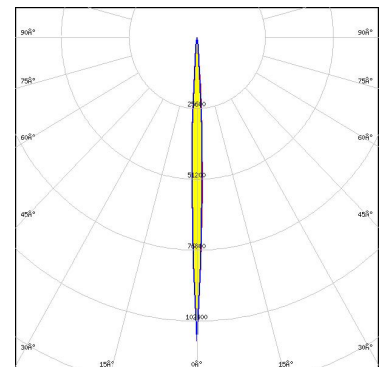
LED XQ-E HI
FWHM / FWTM 4.5° / 10.0°
Efficiency 95 %
Peak intensity 106.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON C
FWHM / FWTM 4.0° / 10.0°
Efficiency 91 %
Peak intensity 109.6 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

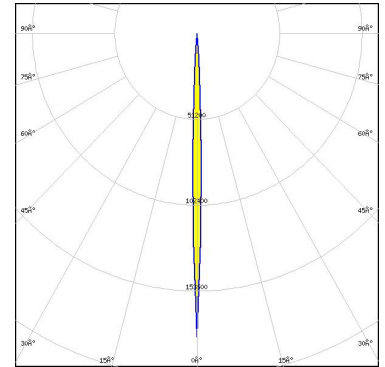


Light distribution files

OPTICAL RESULTS (SIMULATED):



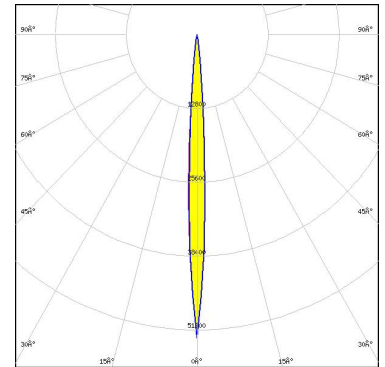
LED LUXEON CZ
FWHM / FWTM 4.0° / 8.0°
Efficiency 93 %
Peak intensity 181 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



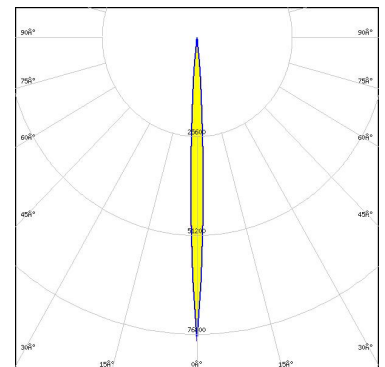
LED LUXEON HL2X
FWHM / FWTM 6.0° / 14.0°
Efficiency 95 %
Peak intensity 52.6 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON HL2Z
FWHM / FWTM 4.0° / 12.0°
Efficiency 96 %
Peak intensity 78.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

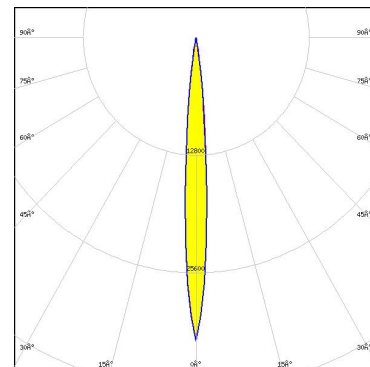


Light distribution files

OPTICAL RESULTS (SIMULATED):



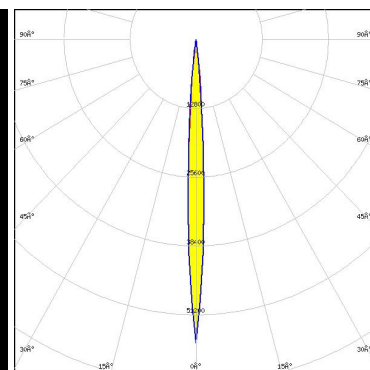
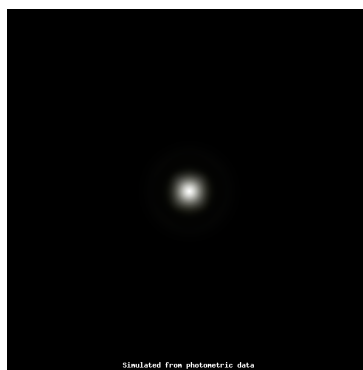
LED LUXEON HL4X
FWHM / FWTM 8.0° / 16.0°
Efficiency 97 %
Peak intensity 33 cd/Im
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



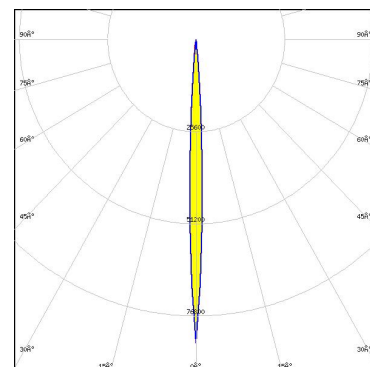
LED LUXEON HL4Z
FWHM / FWTM 6.0° / 14.0° + 13.0°
Efficiency 96 %
Peak intensity 56.4 cd/Im
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON Rebel Plus
FWHM / FWTM 6.0° / 10.0°
Efficiency 95 %
Peak intensity 84.3 cd/Im
LEDs/each optic 1
Light colour/type White
Required components:

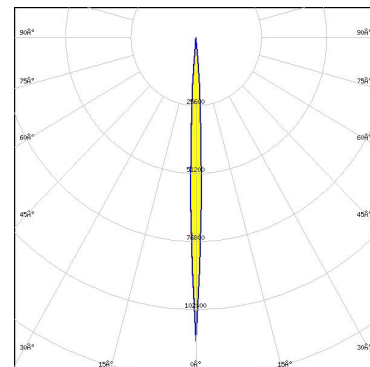


Light distribution files

OPTICAL RESULTS (SIMULATED):



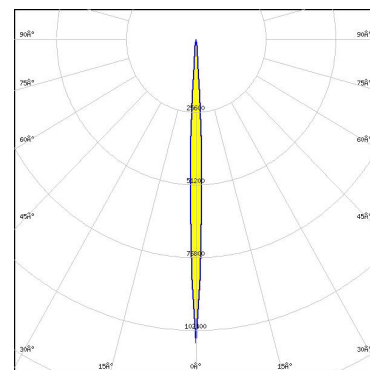
LED LUXEON Rubix
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 114.3 cd/lm
LEDs/each optic 1
Light colour/type Green
Required components:



Light distribution files



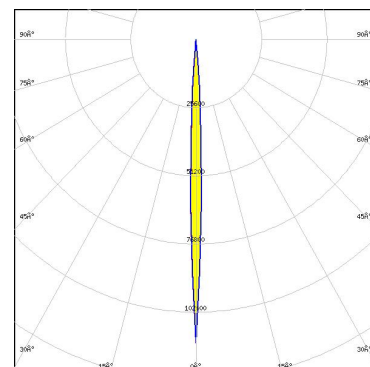
LED LUXEON Rubix
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 106.8 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED LUXEON Rubix
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 114 cd/lm
LEDs/each optic 1
Light colour/type Blue
Required components:

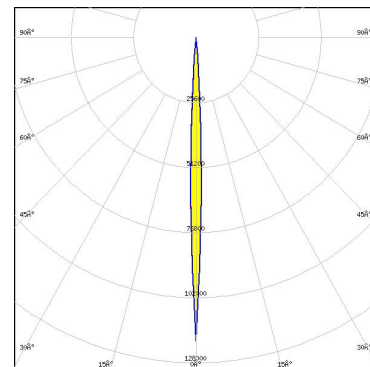


Light distribution files

OPTICAL RESULTS (SIMULATED):



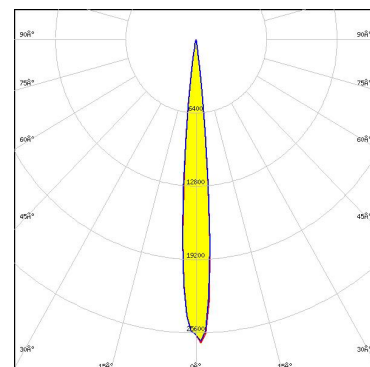
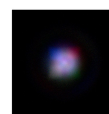
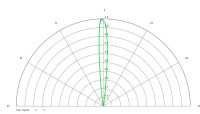
LED LUXEON Rubix
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 119.4 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files



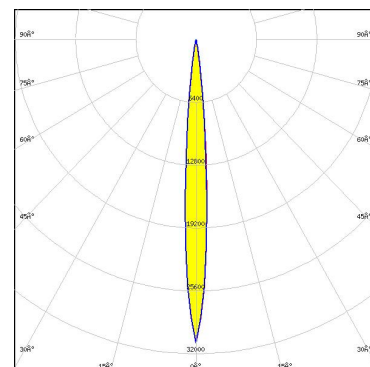
LED LUXEON Rubix
FWHM / FWTM 10.0° / 17.0°
Efficiency 97 %
Peak intensity 26.8 cd/lm
LEDs/each optic 4
Light colour/type RGBW
Required components:



Light distribution files



LED LUXEON V
FWHM / FWTM 8.0° / 17.0°
Efficiency 95 %
Peak intensity 30.9 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

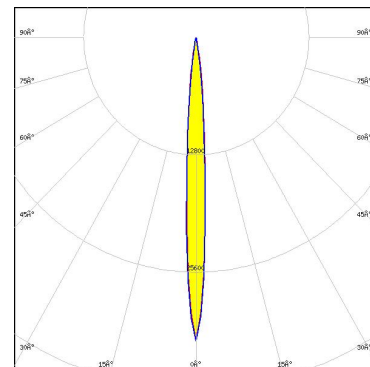


Light distribution files

OPTICAL RESULTS (SIMULATED):



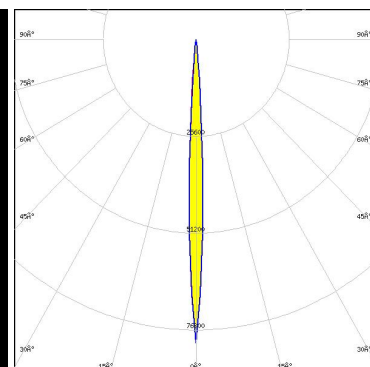
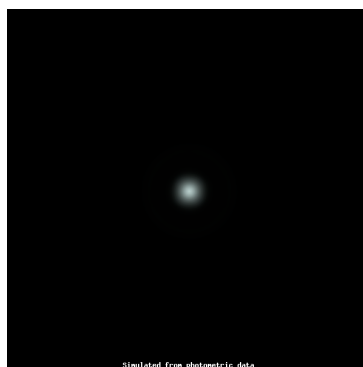
LED SBT-90
FWHM / FWTM 8.0° / 18.0°
Efficiency 97 %
Peak intensity 33.1 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



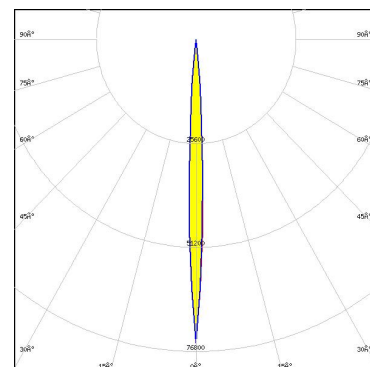
LED SFT-40 Gen2
FWHM / FWTM 6.0° / 12.0° + 10.0°
Efficiency 96 %
Peak intensity 80.2 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED SFT-40-WCS
FWHM / FWTM 6.0° / 12.0°
Efficiency 96 %
Peak intensity 74.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

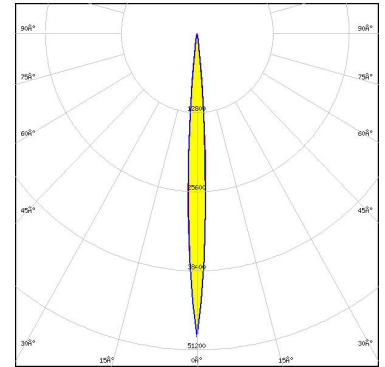


Light distribution files

OPTICAL RESULTS (SIMULATED):



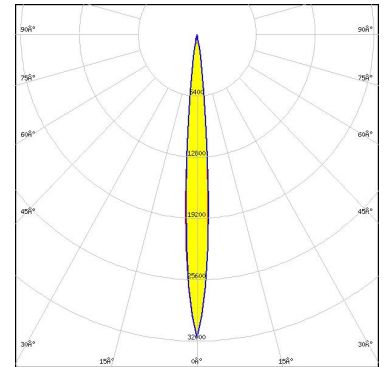
LED SFT-70X-WCS
FWHM / FWTM 6.0° / 14.0°
Efficiency 97 %
Peak intensity 49.1 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



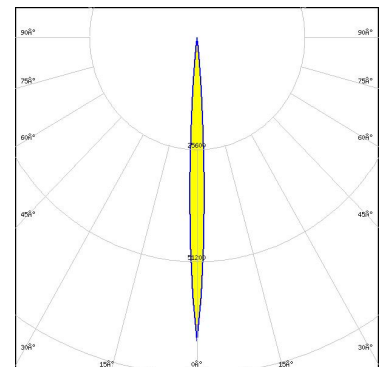
LED SST-40
FWHM / FWTM 8.0° / 16.0°
Efficiency 97 %
Peak intensity 31.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED NVSW719AC
FWHM / FWTM 6.0° / 12.0°
Efficiency 96 %
Peak intensity 69.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

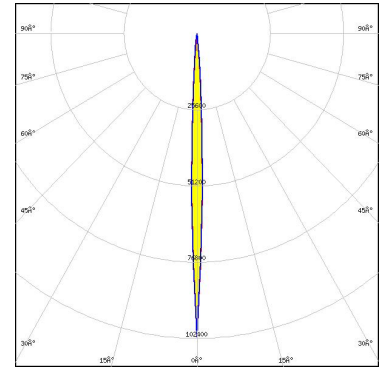


Light distribution files

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

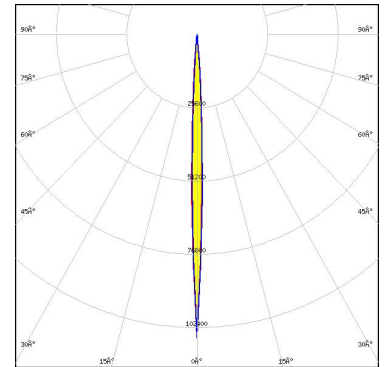
LED Duris S5 (Single chip)
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 101.9 cd/lm
LEDs/each optic 1
Light colour/type Green
Required components:



Light distribution files

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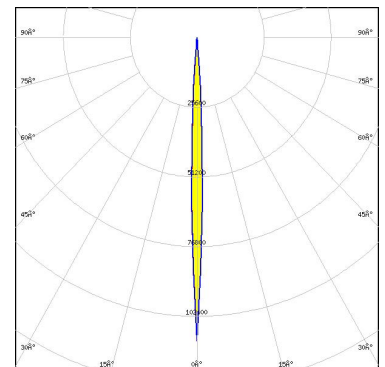
LED Duris S5 (Single chip)
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 106 cd/lm
LEDs/each optic 1
Light colour/type Red
Required components:



Light distribution files

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LED OSLO Pure 1414
FWHM / FWTM 4.0° / 10.0°
Efficiency 95 %
Peak intensity 111.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

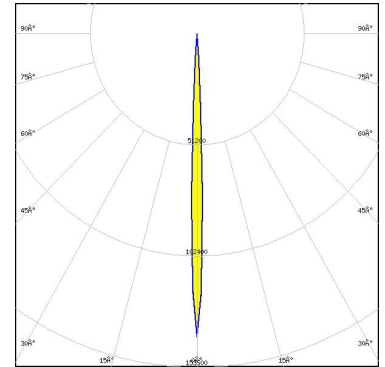


Light distribution files

OPTICAL RESULTS (SIMULATED):

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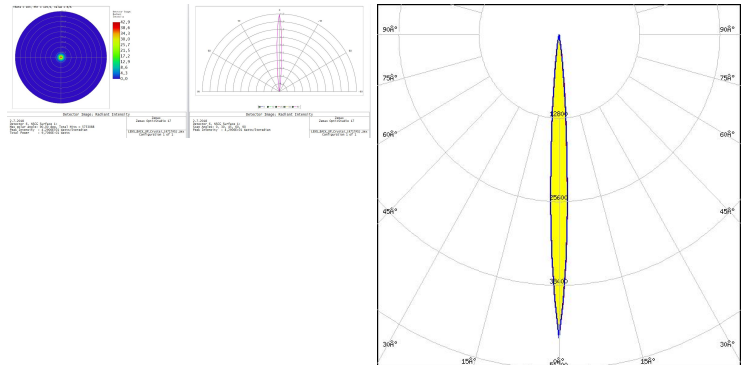
LED OSTAR Projection Compact (KW.CSLNM1.TG)
FWHM / FWTM 4.0° / 8.0°
Efficiency 94 %
Peak intensity 139.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

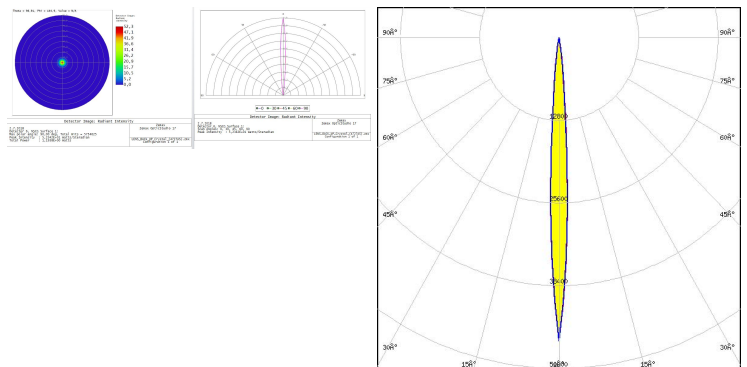
LED SFH 4717AS
FWHM / FWTM 6.7° / 14.5°
Efficiency 94 %
Peak intensity 46.5 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

LED SFH 4727AS
FWHM / FWTM 6.7° / 14.5°
Efficiency 94 %
Peak intensity 47 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

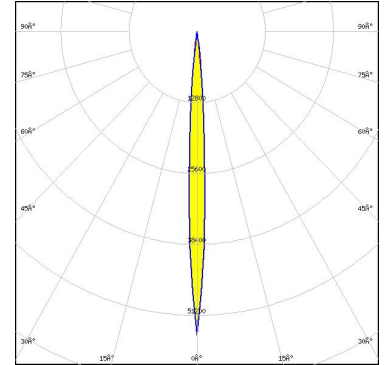


Light distribution files

OPTICAL RESULTS (SIMULATED):

SAMSUNG

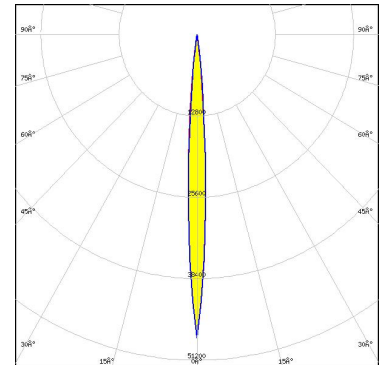
LED LH351B
FWHM / FWTM 6.0° / 14.0°
Efficiency 96 %
Peak intensity 54.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

SAMSUNG

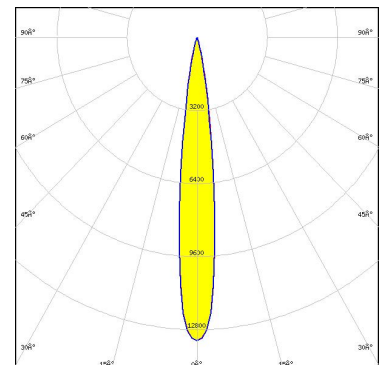
LED LH351C
FWHM / FWTM 6.0° / 14.0°
Efficiency 96 %
Peak intensity 47.7 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED Z8Y50P
FWHM / FWTM 14.0° / 26.0°
Efficiency 97 %
Peak intensity 13.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

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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LEDiL Oy

Joensuunkatu 7
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Ledil Optics Technology (Shenzhen) Co., Ltd.

405 , Block B
Casic Motor Building
Shenzhen 518057
P.R.CHINA

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