

CRYSTAL-MINE

~4.9° spot beam especially designed for mining headlamps. Assembly with holder.

TECHNICAL SPECIFICATIONS:

Dimensions	Ø 50.3 mm
Height	28.7 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

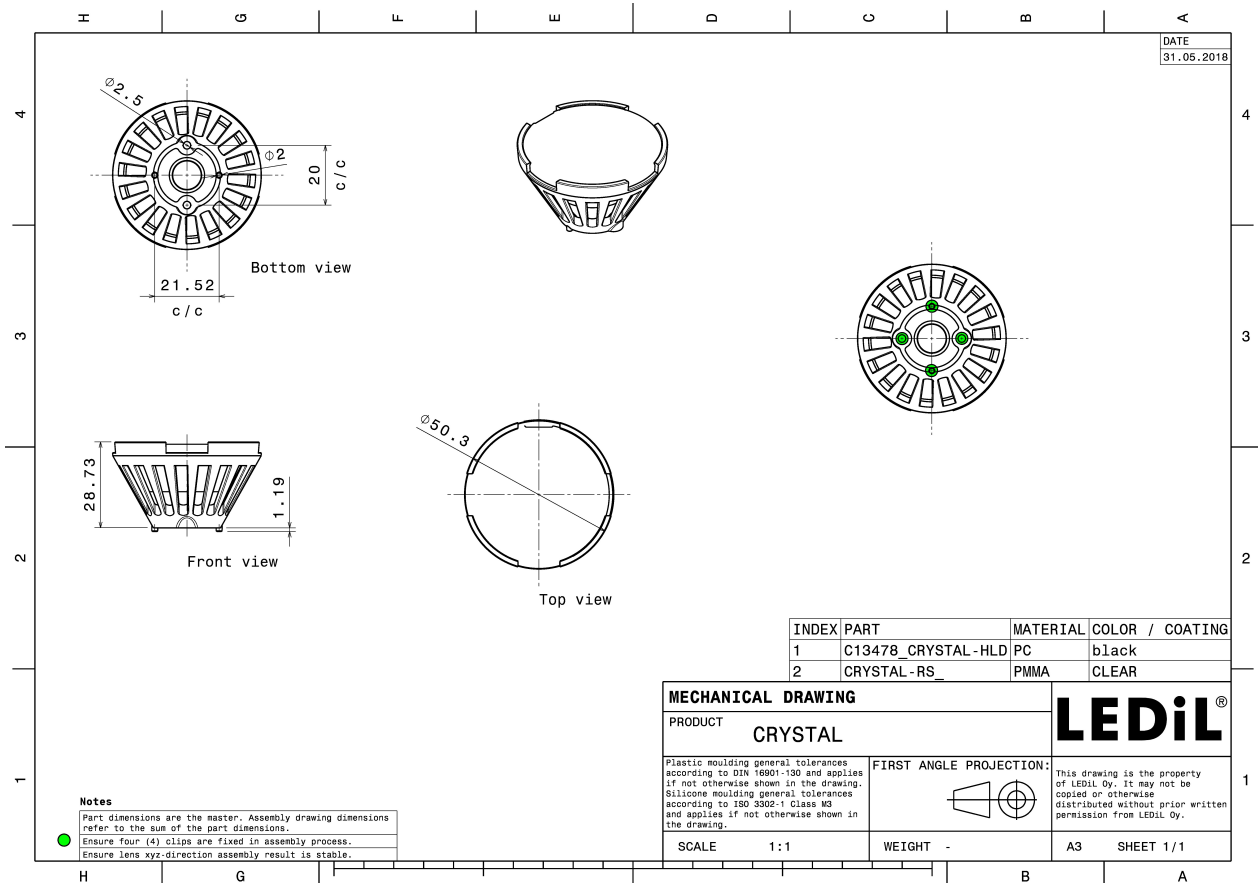
MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish
CRYSTAL-MINE	Single lens	PMMA	clear	
CRYSTAL-HLD	Holder	PC	white	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FCN13595_CRYSTAL-MINE	Single lens	288	64	32	0.0
» Box size:					

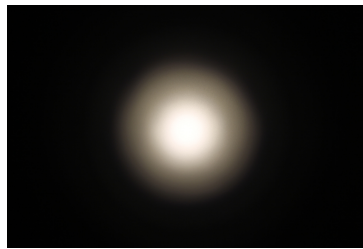




PHOTOMETRIC DATA (MEASURED):

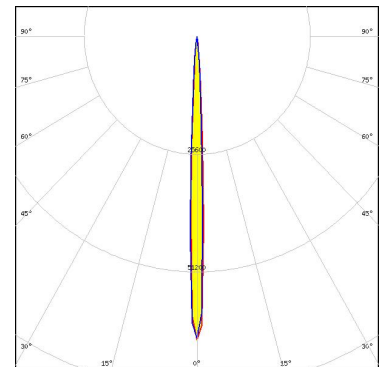
CREE

LED XM-L2
FWHM 6.9°
Efficiency 90 %
Peak intensity 35 cd/Im
LEDs/each optic 1
Light colour White
Required components:



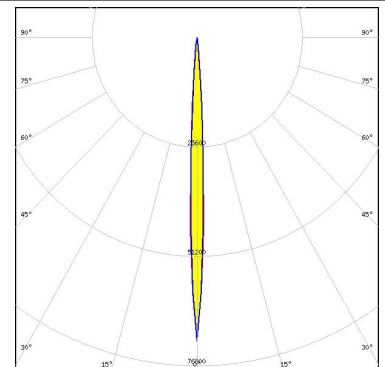
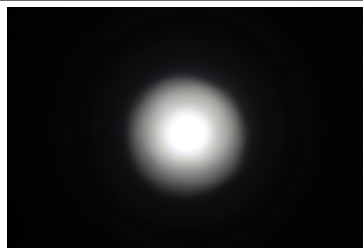
CREE

LED XP-G
FWHM 4.7°
Efficiency 90 %
Peak intensity 66.9 cd/Im
LEDs/each optic 1
Light colour White
Required components:



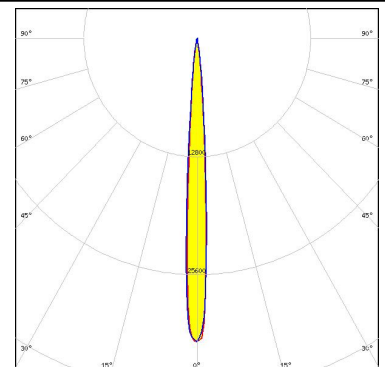
CREE

LED XP-G2
FWHM 4.6°
Efficiency 90 %
Peak intensity 65.2 cd/Im
LEDs/each optic 1
Light colour White
Required components:



CREE

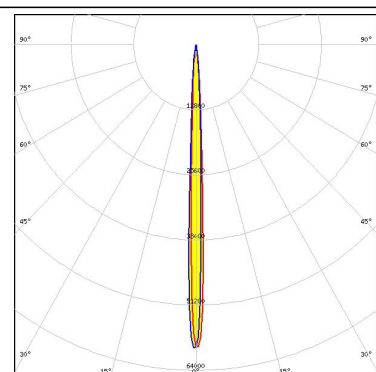
LED XP-L HD
FWHM 7.0°
Efficiency 86 %
Peak intensity 33 cd/Im
LEDs/each optic 1
Light colour White
Required components:



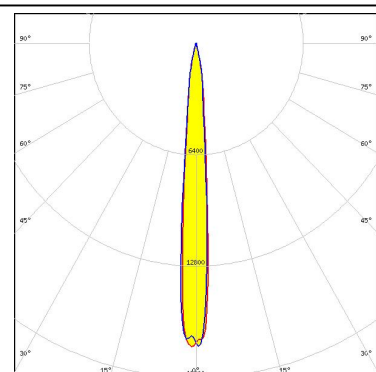
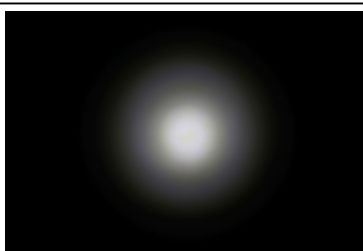
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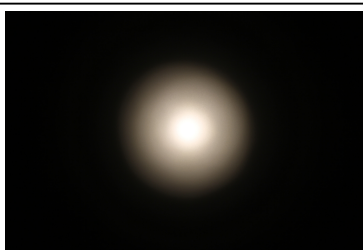
LED XP-L HI
FWHM 4.5°
Efficiency 92 %
Peak intensity 60 cd/Im
LEDs/each optic 1
Light colour White
Required components:



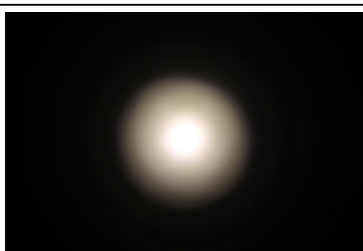
LED LUXEON 5050 Round LES
FWHM 9.0°
Efficiency 94 %
Peak intensity 17.5 cd/Im
LEDs/each optic 1
Light colour White
Required components:



LED LUXEON A
FWHM 4.9°
Efficiency 89 %
Peak intensity 58.2 cd/Im
LEDs/each optic 1
Light colour White
Required components:



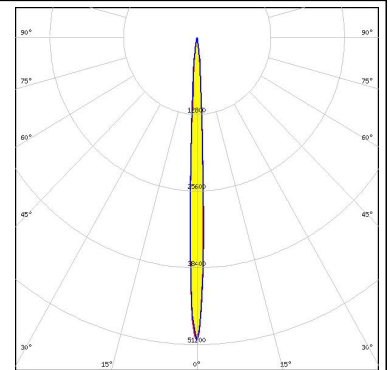
LED LUXEON T
FWHM 4.9°
Efficiency 89 %
Peak intensity 55.1 cd/Im
LEDs/each optic 1
Light colour White
Required components:



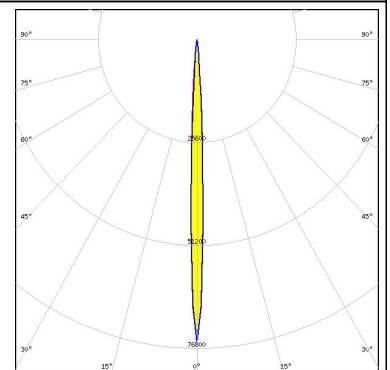
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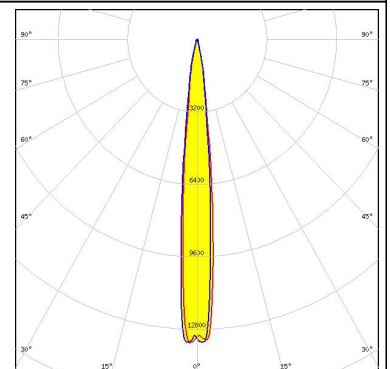
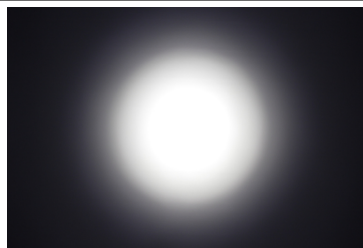
LED LUXEON TX
FWHM 5.0°
Efficiency 94 %
Peak intensity 50.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:



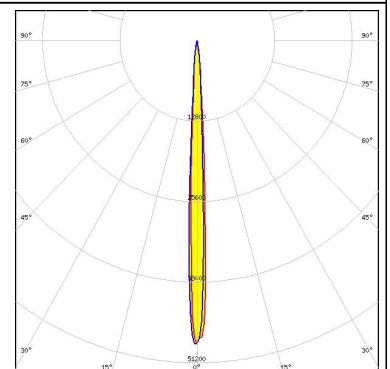
LED NCSxx19B
FWHM 3.6°
Efficiency 90 %
Peak intensity 73.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED NV4x144A
FWHM 11.0°
Efficiency 90 %
Peak intensity 13.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



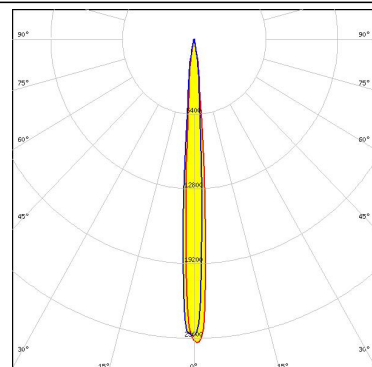
LED NVSxx19B/NVSxx19C
FWHM 6.0°
Efficiency 93 %
Peak intensity 48 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (MEASURED):

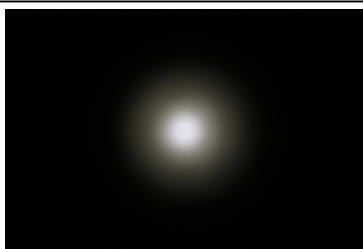


LED NWSx229A
FWHM 7.0°
Efficiency 91 %
Peak intensity 26 cd/Im
LEDs/each optic 1
Light colour White
Required components:



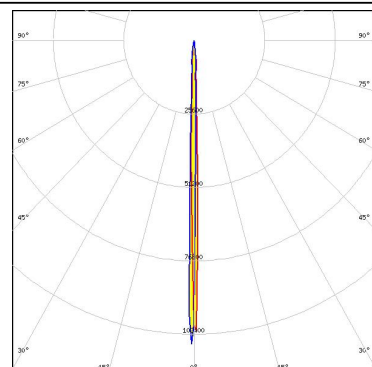
SAMSUNG

LED LH351B
FWHM 5.1°
Efficiency 90 %
Peak intensity 51.8 cd/Im
LEDs/each optic 1
Light colour White
Required components:



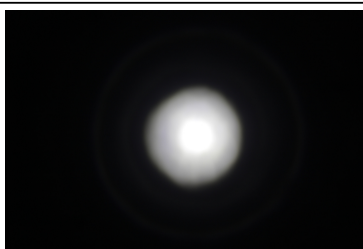
SAMSUNG

LED LH351Z
FWHM 4.2°
Efficiency 90 %
Peak intensity 71.4 cd/Im
LEDs/each optic 1
Light colour White
Required components:

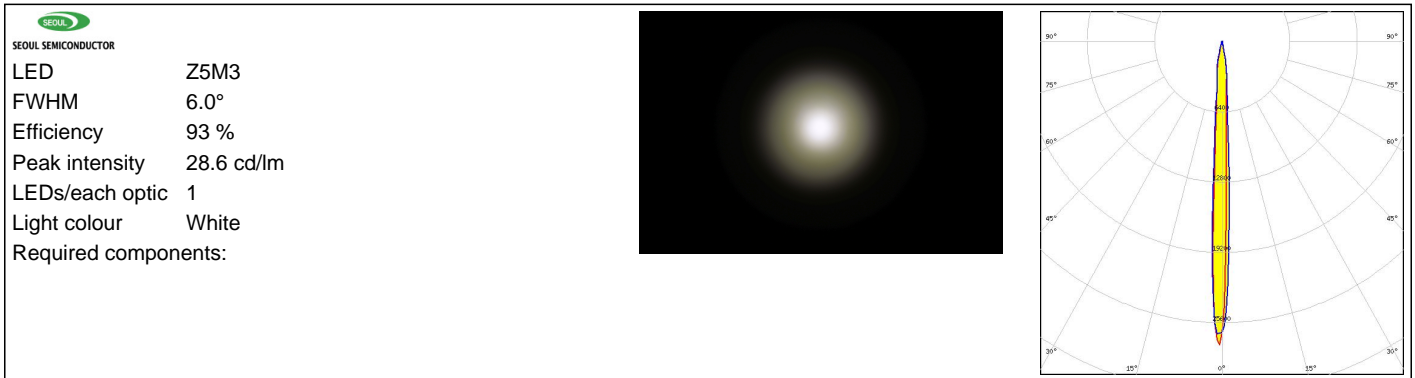


SEOUL SEMICONDUCTOR

LED nPola
FWHM 2.0°
Efficiency 94 %
Peak intensity 114 cd/Im
LEDs/each optic 1
Light colour White
Required components:



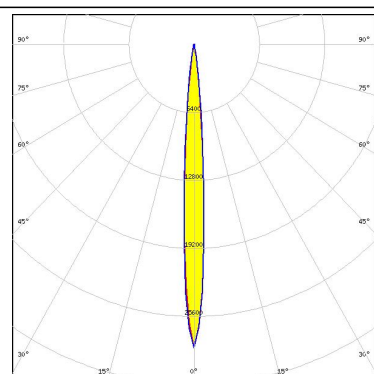
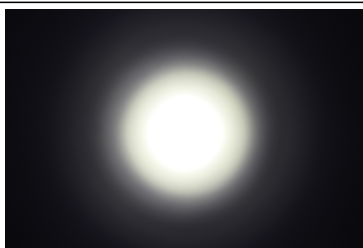
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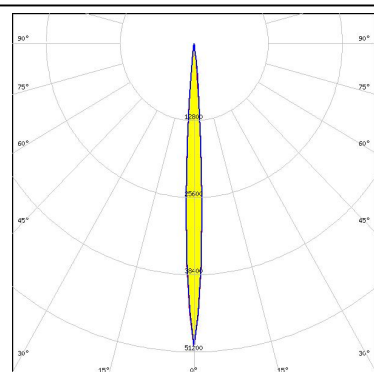
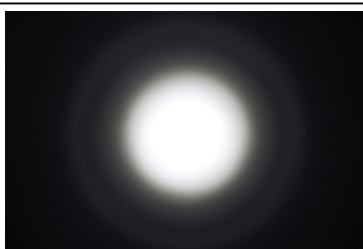
PHOTOMETRIC DATA (SIMULATED):



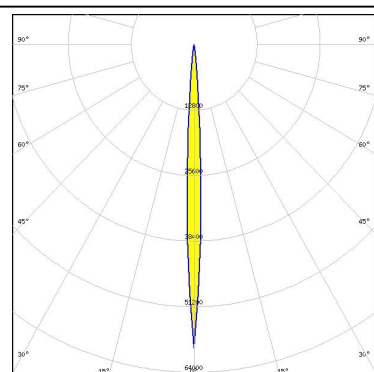
LED XHP35 HD
FWHM 7.8°
Efficiency 94 %
Peak intensity 28.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:



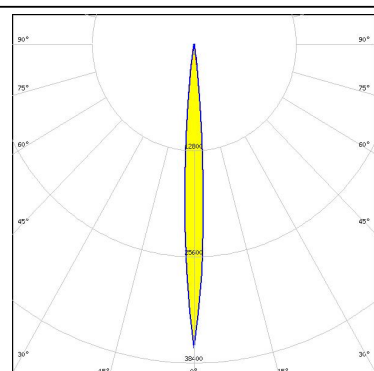
LED XHP35 HI
FWHM 6.2°
Efficiency 94 %
Peak intensity 50.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED OSCONIQ P 3737 (2W version)
FWHM 5.5°
Efficiency 94 %
Peak intensity 59.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED OSCONIQ P 3737 (3W version)
FWHM 5.5°
Efficiency 94 %
Peak intensity 59.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:

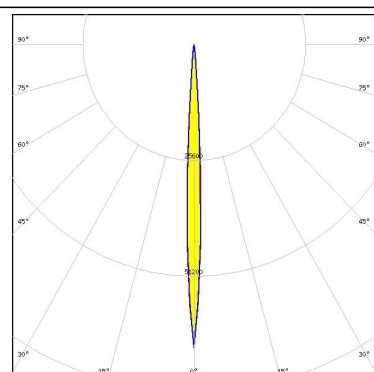
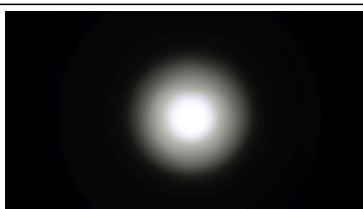


PHOTOMETRIC DATA (SIMULATED):

OSRAM

Opto Semiconductors

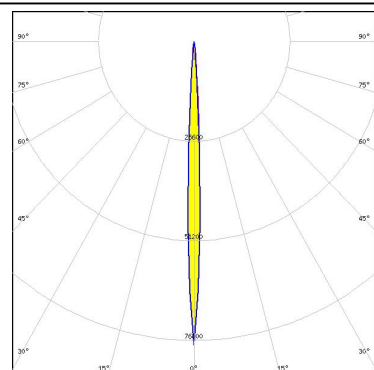
LED OSLON Square CSSRM2/CSSRM3
FWHM 5.4°
Efficiency 94 %
Peak intensity 67 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

Opto Semiconductors

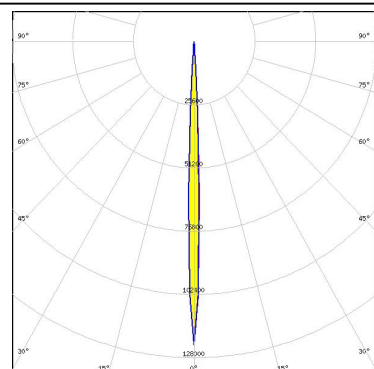
LED OSLON Square Flat
FWHM 4.8°
Efficiency 94 %
Peak intensity 78 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OSRAM

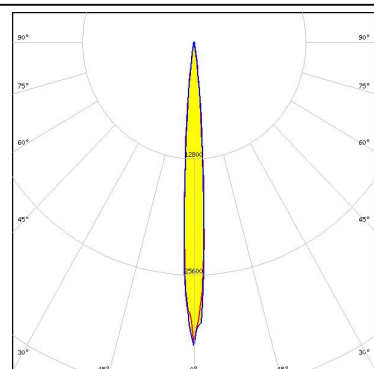
Opto Semiconductors

LED OSTAR Projection Compact (Kx.CSLNM1.xx)
FWHM 4.0°
Efficiency 94 %
Peak intensity 122.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



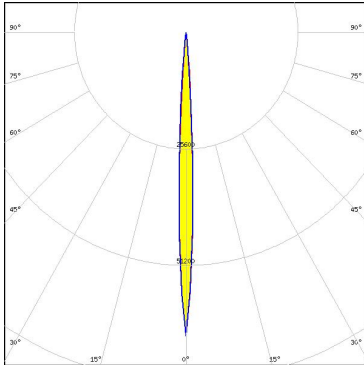

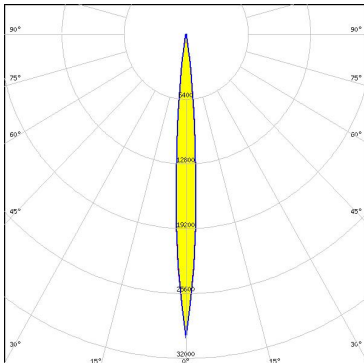


SAMSUNG

LED LH351D
FWHM 7.5°
Efficiency 97 %
Peak intensity 34.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:



PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR	LED Z5M1/Z5M2 FWHM 5.4° Efficiency 94 % Peak intensity 66.7 cd/lm LEDs/each optic 1 Light colour White Required components:		
 SEOUL SEMICONDUCTOR	LED Z8Y22P FWHM 7.8° Efficiency 94 % Peak intensity 29.9 cd/lm LEDs/each optic 1 Light colour White 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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