

HB-IP-2X6-RS

~20° spot beam

SPECIFICATION:

Dimensions	173.0 x 71.4 mm
Height	11.4 mm
Fastening	pin, screw
Ingress protection classes	IP67
ROHS compliant	yes ⓘ

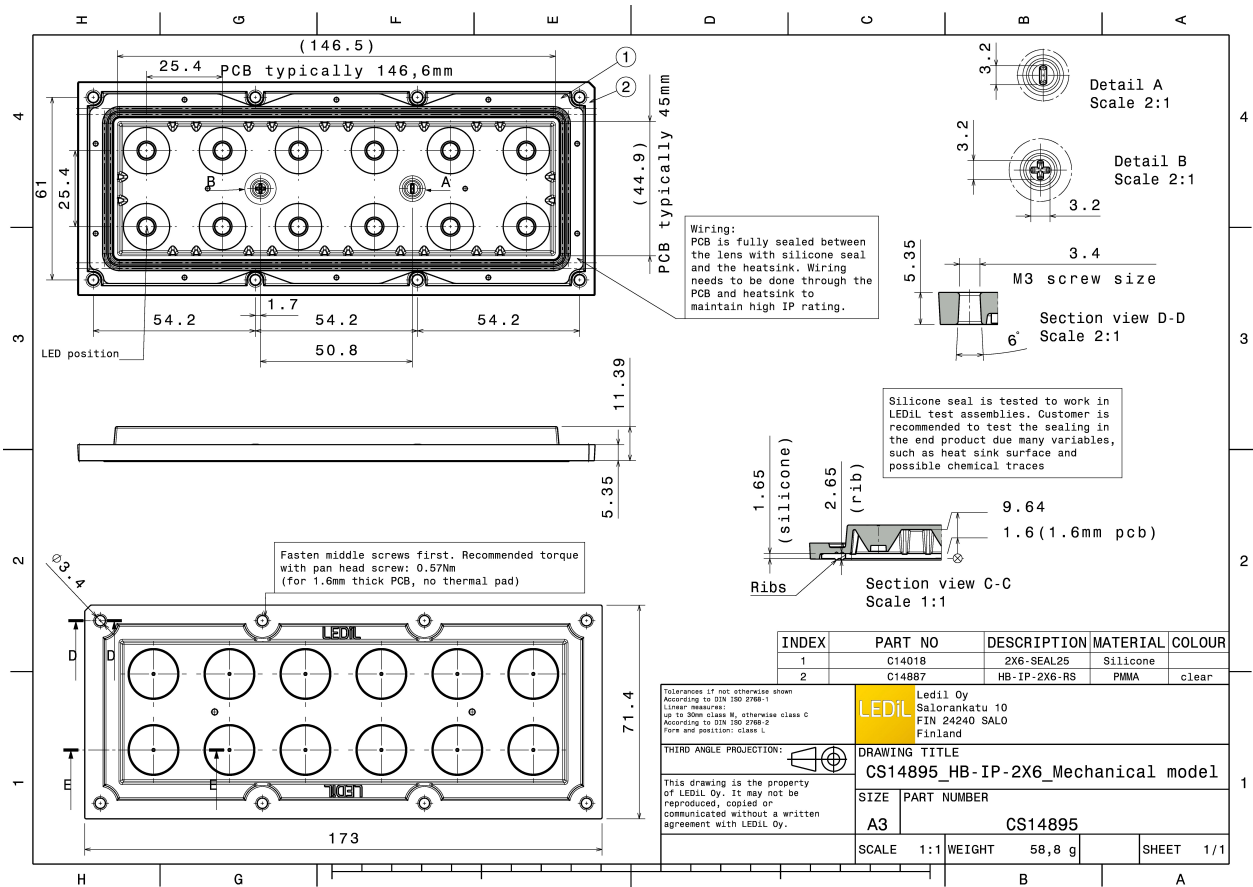
MATERIALS:

Component	Type	Material	Colour	Finish
HB-IP-2X6-RS	Multi-lens	PMMA	clear	
2X6-SEAL25	Seal	Silicone	white	




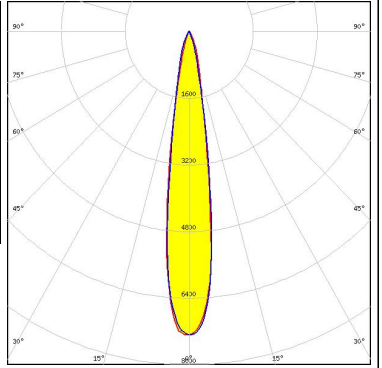

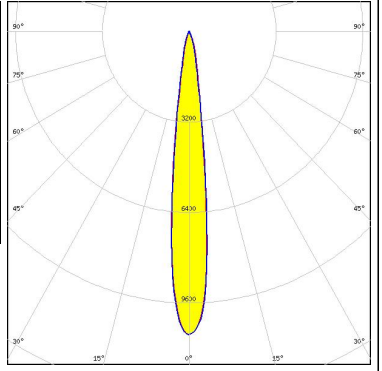

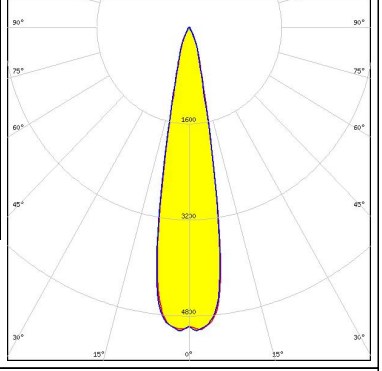

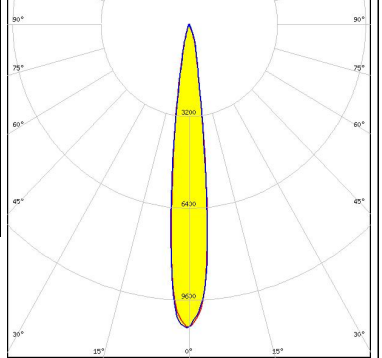
ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CS14895_HB-IP-2X6-RS » Box size: 476 x 273 x 247 mm	Multi-lens	120	40	40	8.0


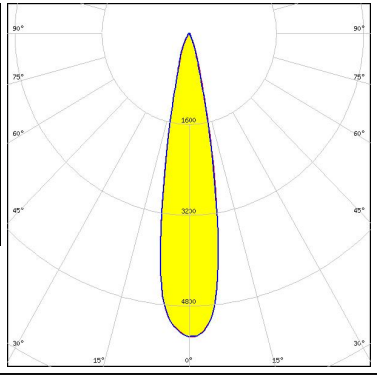

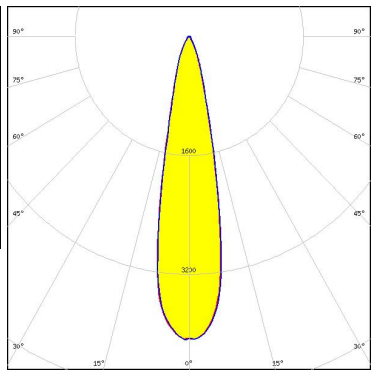

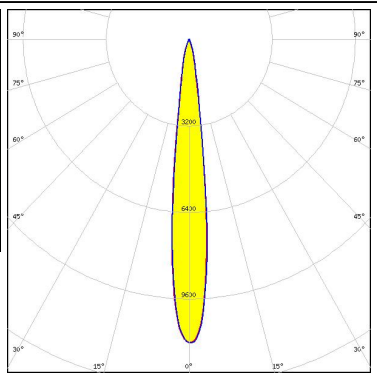

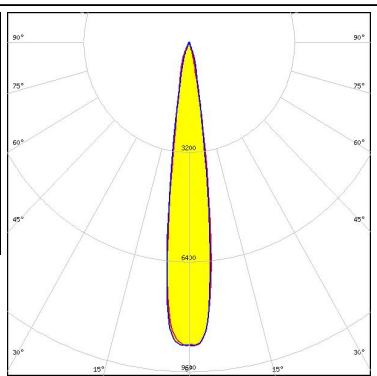


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

<p>COMET ELECTRONICS</p> <p>LED QUICK FLUX 2x6 LED XG xxx G7+</p> <p>FWHM / FWTM 16.0° / 33.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 7.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>COMET ELECTRONICS</p> <p>LED QUICK FLUX 2x6 LED XT xxx G5</p> <p>FWHM / FWTM 13.0° / 26.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 10.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>CREE LEDs</p> <p>LED XM-L</p> <p>FWHM / FWTM 21.0° / 38.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-G2</p> <p>FWHM / FWTM 13.0° / 27.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 10.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

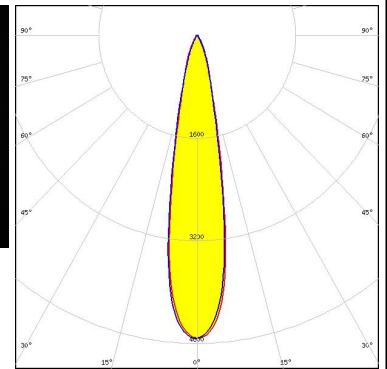
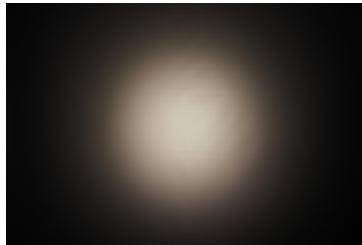
OPTICAL RESULTS (MEASURED):

<p>CREE LEDs</p> <p>LED XP-L HD FWHM / FWTM 20.0° / 37.0° Efficiency 93 % Peak intensity 5.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-L2 FWHM / FWTM 22.0° / 43.0° Efficiency 93 % Peak intensity 4.1 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XT-E HE FWHM / FWTM 13.0° / 26.0° Efficiency 94 % Peak intensity 11.2 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON T FWHM / FWTM 15.0° / 29.0° Efficiency 94 % Peak intensity 8.8 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

OPTICAL RESULTS (MEASURED):

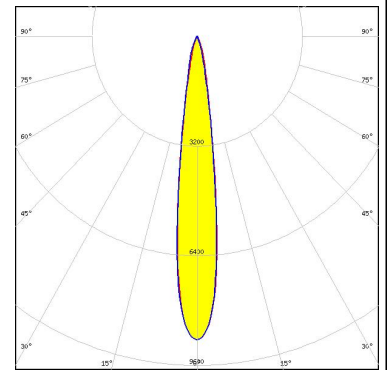
LUMILEDS

LED LUXEON V
 FWHM / FWTM 20.0° / 41.0°
 Efficiency 92 %
 Peak intensity 4.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



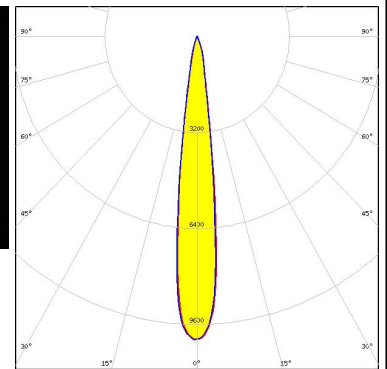
LUMILEDS

LED LUXEON V2
 FWHM / FWTM 15.0° / 30.0°
 Efficiency 94 %
 Peak intensity 8.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



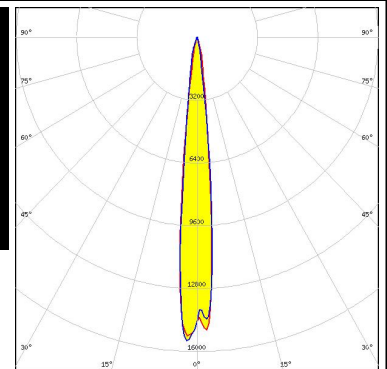
LUMILEDS

LED LUXEON XR-TX (L2T0-xxxx012M0000)
 FWHM / FWTM 14.0° / 27.0°
 Efficiency 92 %
 Peak intensity 10.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LUMINUS

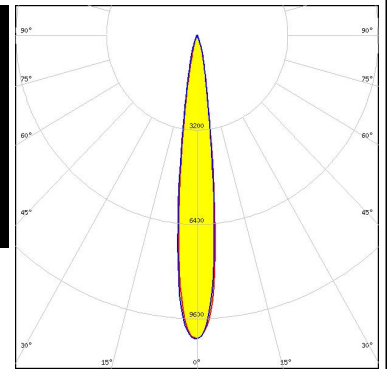
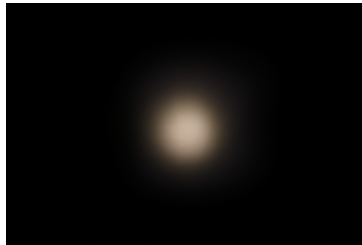
LED SST-10-B130
 FWHM / FWTM 12.0° / 22.0°
 Efficiency 94 %
 Peak intensity 15.6 cd/lm
 LEDs/each optic 1
 Light colour Deep Red
 Required components:



OPTICAL RESULTS (MEASURED):

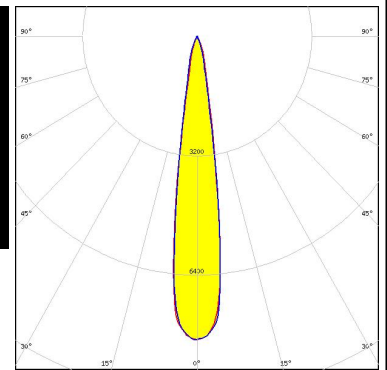
MST *Your solutions*

LED RecLED 146x45mm 2900lm 730 2x6 IP G1
 FWHM / FWTM 14.0° / 27.0°
 Efficiency 95 %
 Peak intensity 10.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



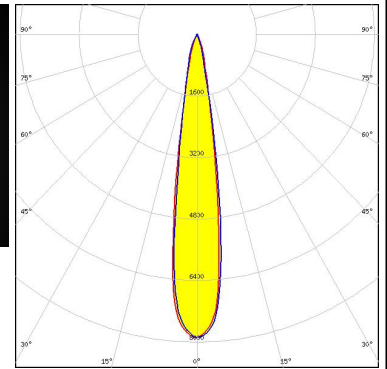
NICHIA

LED NVSW219D
 FWHM / FWTM 16.0° / 30.0°
 Efficiency 94 %
 Peak intensity 8.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



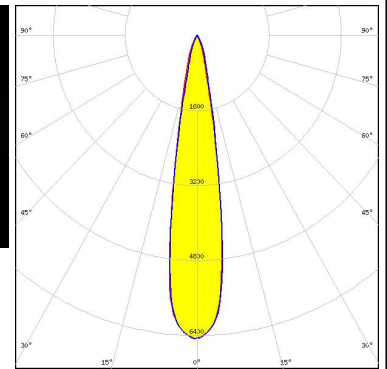
NICHIA

LED NVSW219F
 FWHM / FWTM 16.0° / 31.0°
 Efficiency 8 %
 Peak intensity 94 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


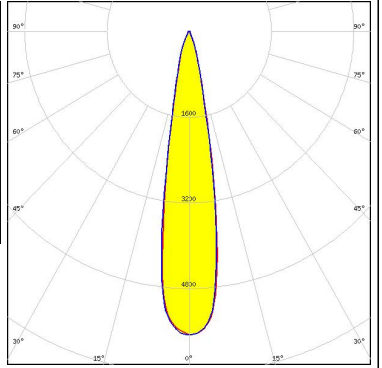

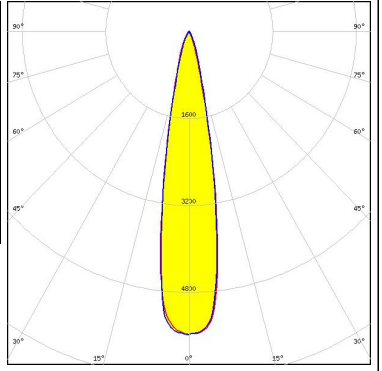

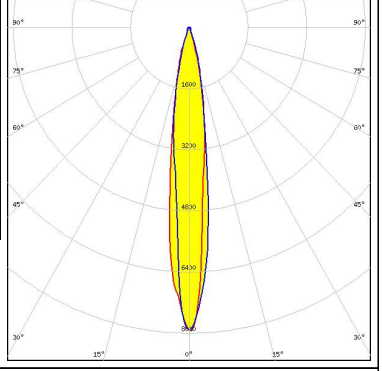

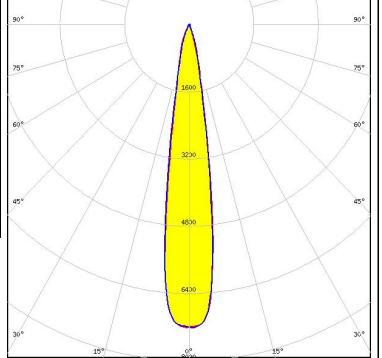


NICHIA

LED NVSW319B
 FWHM / FWTM 18.0° / 34.0°
 Efficiency 94 %
 Peak intensity 6.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

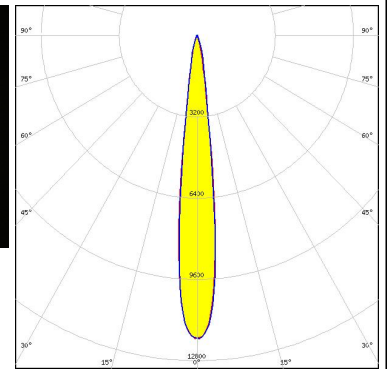
<p>NICHIA</p> <p>LED NVSW3x9A FWHM / FWTM 19.0° / 36.0° Efficiency 92 % Peak intensity 5.7 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NVSW519A FWHM / FWTM 20.0° / 37.0° Efficiency 95 % Peak intensity 5.6 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NVSxE21A FWHM / FWTM 13.0° / 33.0° Efficiency 94 % Peak intensity 8 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NVSxx19B/NVSxx19C FWHM / FWTM 16.0° / 32.0° Efficiency 92 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

OPTICAL RESULTS (MEASURED):

OSRAM

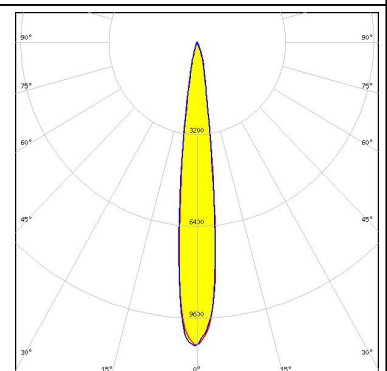
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3
 FWHM / FWTM 13.0° / 24.0°
 Efficiency 94 %
 Peak intensity 12 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



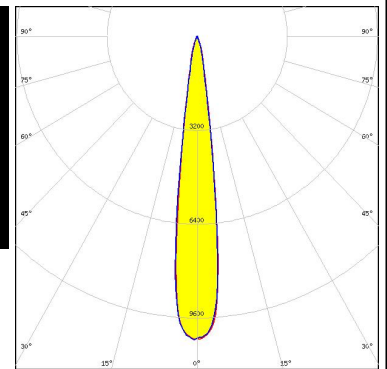
PHILIPS

LED Fortimo FastFlex LED 2x6 DP G4
 FWHM / FWTM 13.0° / 27.0°
 Efficiency 94 %
 Peak intensity 10.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



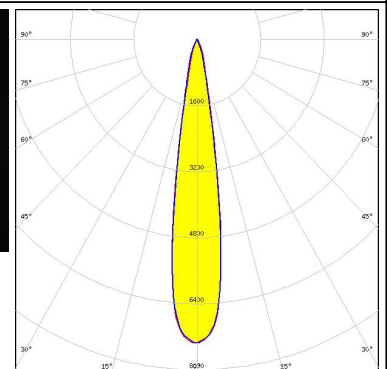
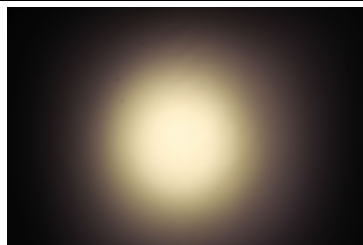
PHILIPS

LED Fortimo FastFlex LED 2x6 DP G5
 FWHM / FWTM 14.0° / 26.0°
 Efficiency 96 %
 Peak intensity 10.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


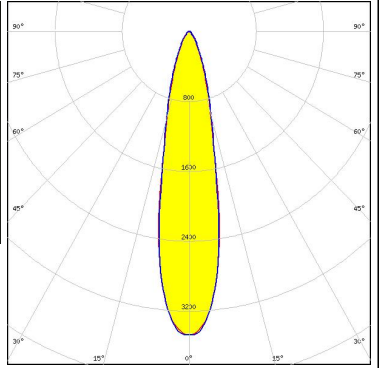

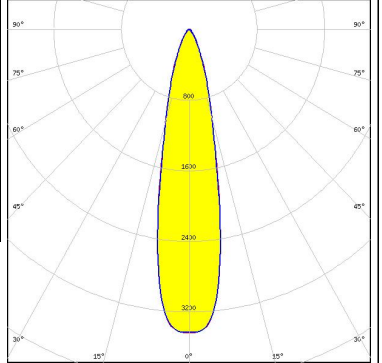

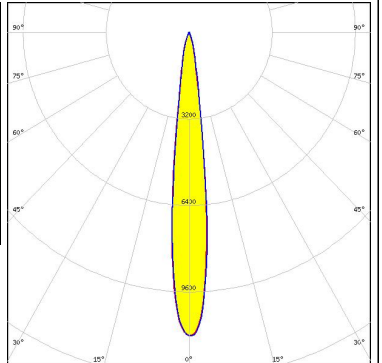
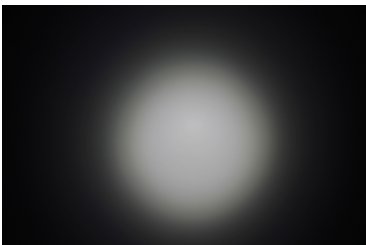
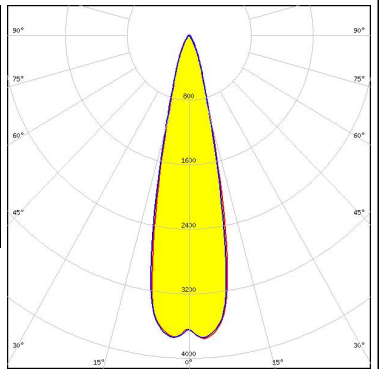


SAMSUNG


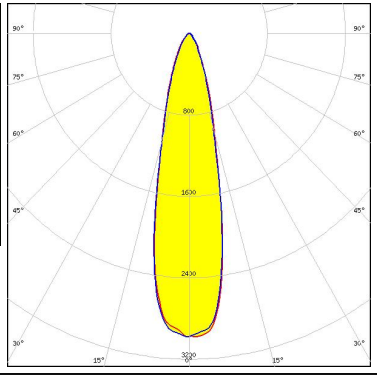

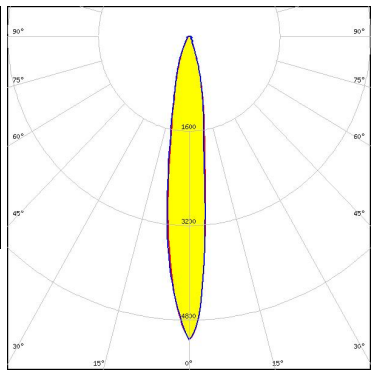

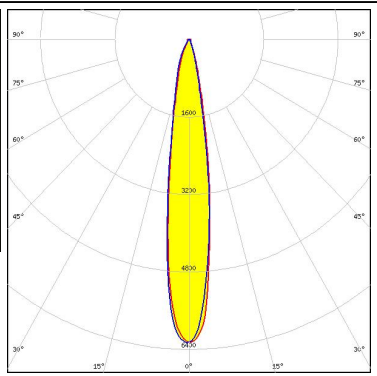

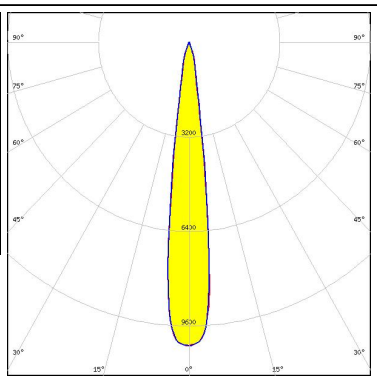
LED HiLOM RH12 (LH351C)
 FWHM / FWTM 17.0° / 31.0°
 Efficiency 94 %
 Peak intensity 7.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:




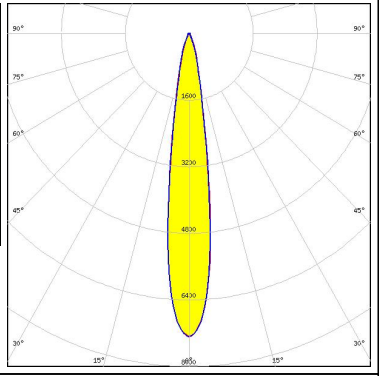

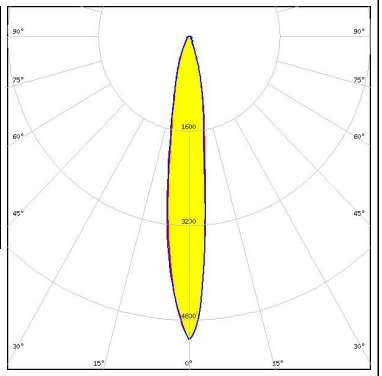

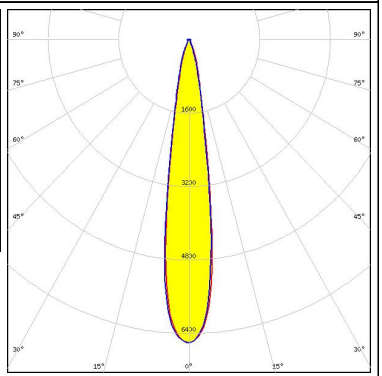

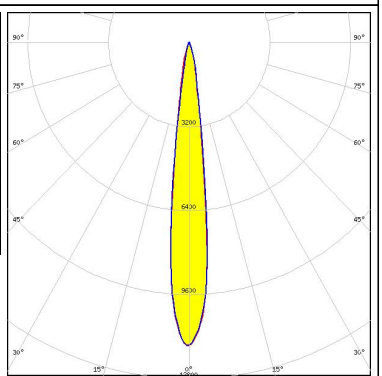
OPTICAL RESULTS (MEASURED):

<p>SCIOLUX</p> <p>LED BALAM-VP-5250-750-36</p> <p>FWHM / FWTM 22.0° / 50.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 3.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SCIOLUX</p> <p>LED BALAMEC-VE-5700-740-36</p> <p>FWHM / FWTM 23.0° / 50.0°</p> <p>Efficiency 96 %</p> <p>Peak intensity 3.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SCIOLUX</p> <p>LED XLE-S22C4XTEHE (XT-E HE)</p> <p>FWHM / FWTM 13.0° / 26.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 11.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SCIOLUX</p> <p>LED XLE-S26XHP35 (XHP35 HD)</p> <p>FWHM / FWTM 24.0° / 45.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

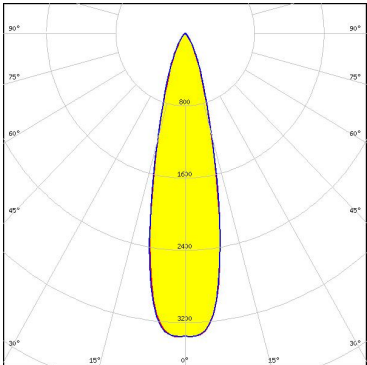
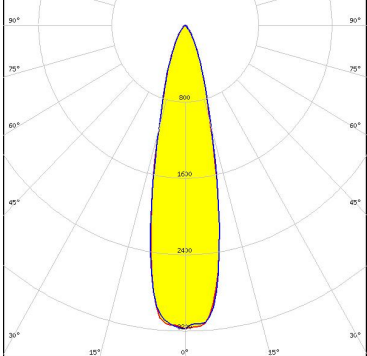
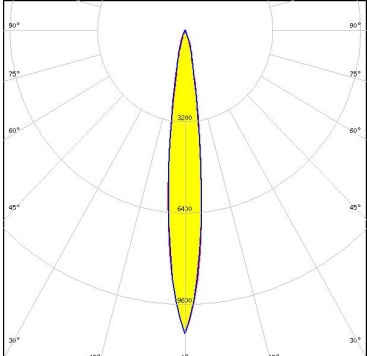
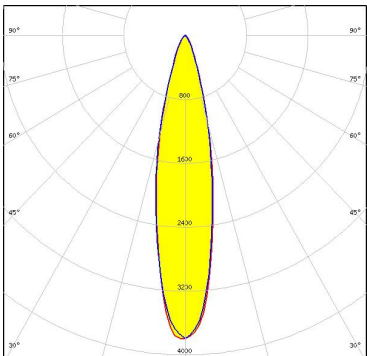
OPTICAL RESULTS (MEASURED):

<p>SEOUL SEMICONDUCTOR</p> <p>LED 2x6 5050 module - SMJD-3625012F-XX</p> <p>FWHM / FWTM 24.0° / 53.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED SMJQ-D36W12Mx</p> <p>FWHM / FWTM 15.0° / 39.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED SMJQ-D36W12Px</p> <p>FWHM / FWTM 16.0° / 36.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED Z5M1/Z5M2</p> <p>FWHM / FWTM 14.0° / 26.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 10 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

<p>SEOUL SEMICONDUCTOR</p> <p>LED Z5M3</p> <p>FWHM / FWTM 16.0° / 33.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 7.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22</p> <p>FWHM / FWTM 15.0° / 39.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22P</p> <p>FWHM / FWTM 17.0° / 34.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 6.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>TRIDONIC</p> <p>LED RLE 2x6 3000lm HP EXC2 OTD</p> <p>FWHM / FWTM 13.0° / 25.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 11.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

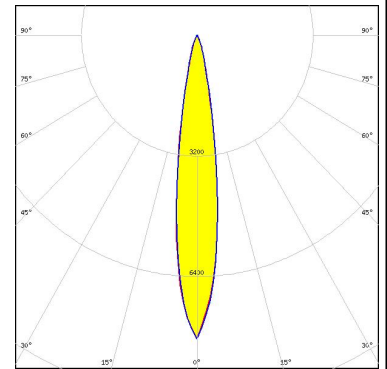
OPTICAL RESULTS (SIMULATED):

<p>CREE LEDs</p> <p>LED J Series 5050 Round LES</p> <p>FWHM / FWTM 25.0° / 51.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>CREE LEDs</p> <p>LED J Series 5050B 6V K Class</p> <p>FWHM / FWTM 24.0° / 52.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>CREE LEDs</p> <p>LED XB-H</p> <p>FWHM / FWTM 12.0° / 28.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 10.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>CREE LEDs</p> <p>LED XHP35 HD</p> <p>FWHM / FWTM 22.0° / 46.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 3.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

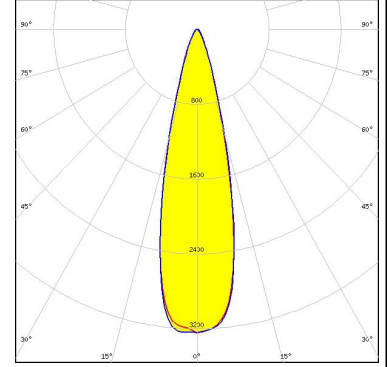
OPTICAL RESULTS (SIMULATED):



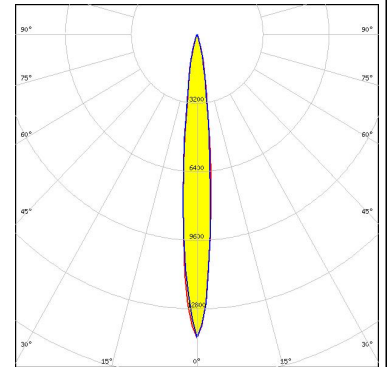
LED XHP35 HI
 FWHM / FWTM 16.0° / 32.0°
 Efficiency 93 %
 Peak intensity 8.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



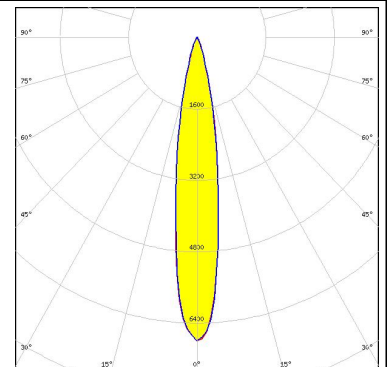
LED XHP35.2 HD
 FWHM / FWTM 26.0° / 48.0°
 Efficiency 92 %
 Peak intensity 3.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED XP-E2
 FWHM / FWTM 11.0° / 26.0°
 Efficiency 91 %
 Peak intensity 14.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



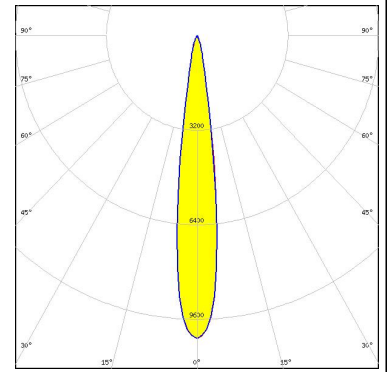
LED XP-G2 HE
 FWHM / FWTM 17.0° / 35.0°
 Efficiency 93 %
 Peak intensity 6.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



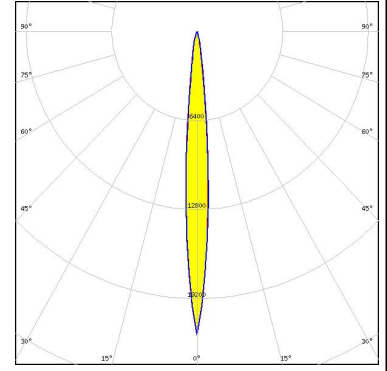
OPTICAL RESULTS (SIMULATED):



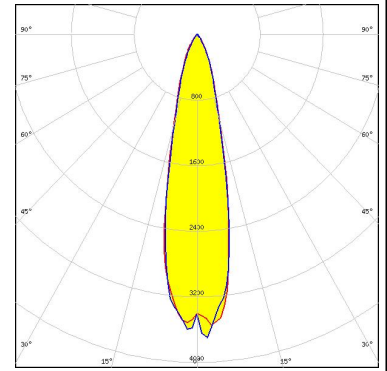
LED XP-G4
 FWHM / FWTM 14.0° / 26.0°
 Efficiency 93 %
 Peak intensity 10.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



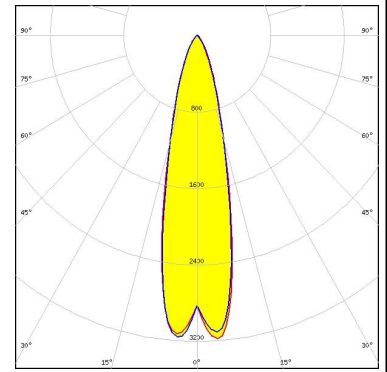
LED XQ-E HD
 FWHM / FWTM 8.0° / 19.0°
 Efficiency 92 %
 Peak intensity 21.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED LUXEON 5050 Round LES
 FWHM / FWTM 23.0° / 50.0°
 Efficiency 91 %
 Peak intensity 3.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED LUXEON 5050 Square LES
 FWHM / FWTM 25.0° / 52.0°
 Efficiency 94 %
 Peak intensity 3.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

<p>LUMILEDS</p> <p>LED: LUXEON C FWHM / FWTM: 10.0° / 23.0° Efficiency: 91 % Peak intensity: 17.3 cd/lm LEDs/each optic: 1 Light colour: Cyan Required components:</p>	
<p>NICHIA</p> <p>LED: NV4WB35AM FWHM / FWTM: 22.0° / 40.0° Efficiency: 94 % Peak intensity: 4.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM</p> <p>LED: PrevaLED Brick HP IP 2x6 FWHM / FWTM: 14.0° / 28.0° Efficiency: 92 % Peak intensity: 10.1 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ C 2424 FWHM / FWTM: 11.0° / 22.0° Efficiency: 93 % Peak intensity: 16.6 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

OPTICAL RESULTS (SIMULATED):

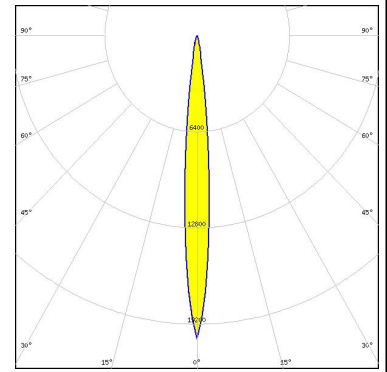
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3030</p> <p>FWHM / FWTM 9.0° / 20.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 21.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (2W version)</p> <p>FWHM / FWTM 12.0° / 25.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 13 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 19.0° / 37.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3737 Flat</p> <p>FWHM / FWTM 14.0° / 30.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 9.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

OSRAM

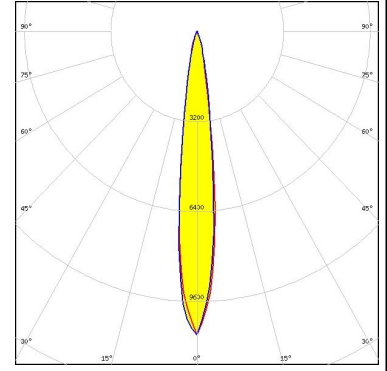
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3
 FWHM / FWTM 10.0° / 20.0°
 Efficiency 92 %
 Peak intensity 20.2 cd/lm
 LEDs/each optic 1
 Light colour Far Red
 Required components:



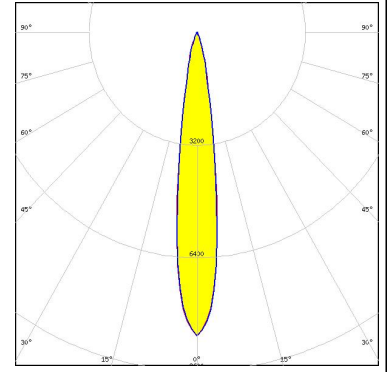
SAMSUNG

LED LH181B
 FWHM / FWTM 13.0° / 28.0°
 Efficiency 93 %
 Peak intensity 10.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



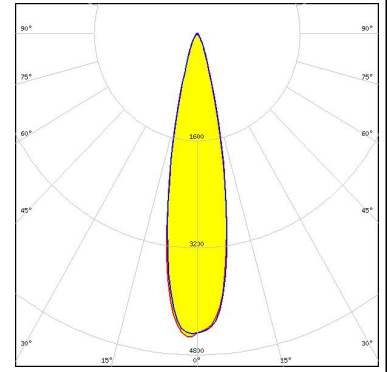
SAMSUNG

LED LH231B
 FWHM / FWTM 16.0° / 32.0°
 Efficiency 93 %
 Peak intensity 8.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

LED LH351D
 FWHM / FWTM 22.0° / 40.0°
 Efficiency 93 %
 Peak intensity 4.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

 SEOUL SEMICONDUCTOR		
LED	Z5M4	
FWHM / FWTM	16.0° / 34.0°	
Efficiency	93 %	
Peak intensity	7.7 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
 SEOUL SEMICONDUCTOR		
LED	Z8Y22T	
FWHM / FWTM	15.0° / 33.0°	
Efficiency	93 %	
Peak intensity	7.9 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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