

VERONICA-SQ-SE

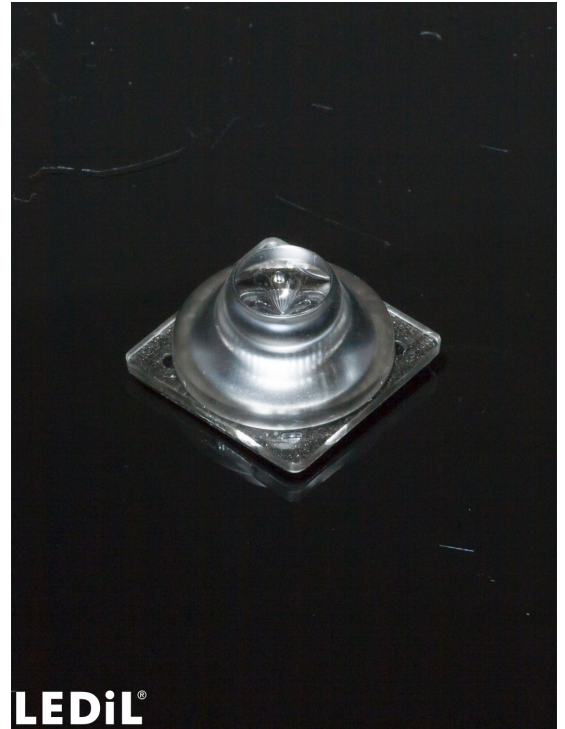
~190° side emitter beam

SPECIFICATION:

Dimensions	22.5 x 22.5 mm
Height	11.4 mm
Fastening	tape
ROHS compliant	yes ⓘ

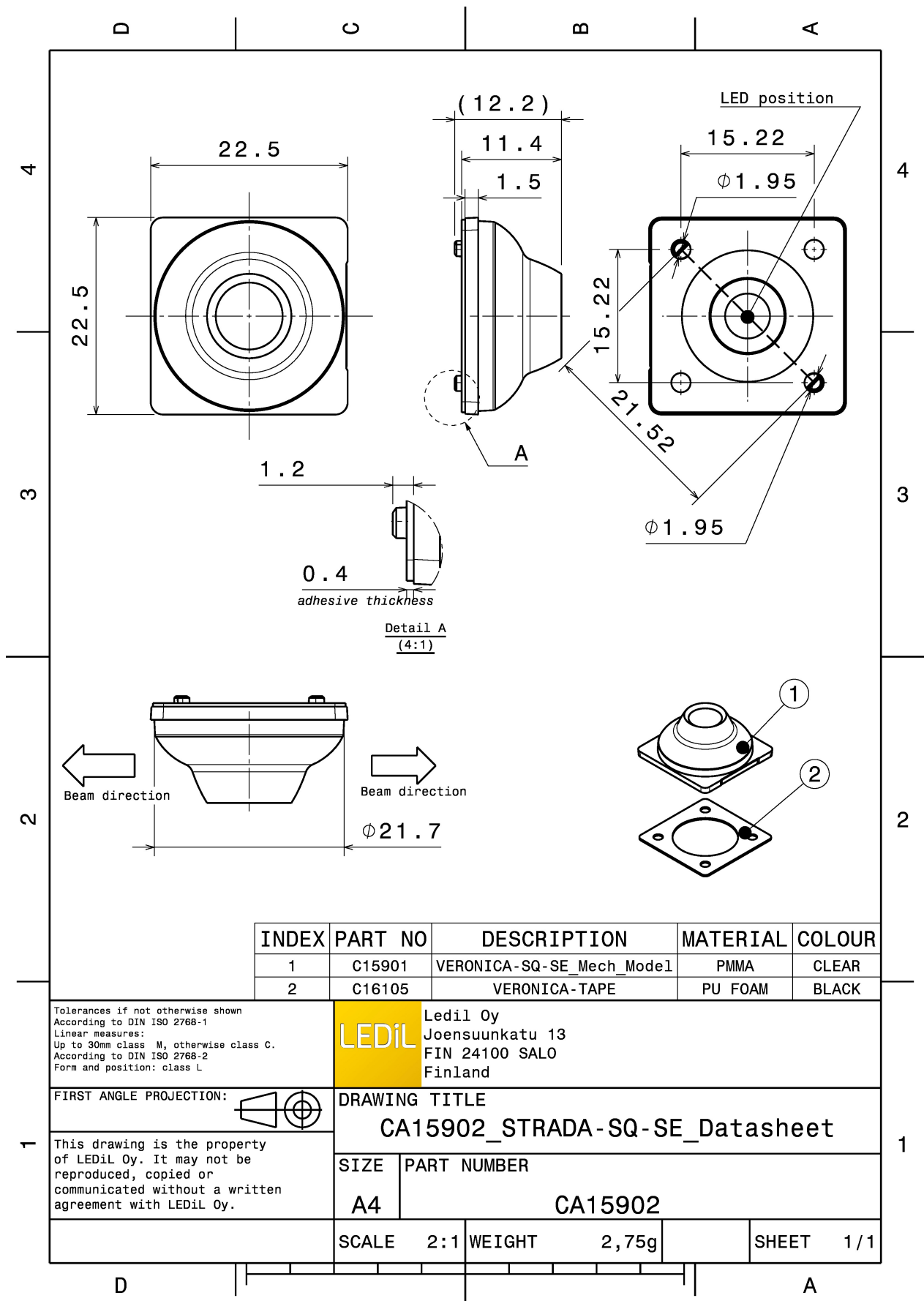
MATERIALS:

Component	Type	Material	Colour	Finish
VERONICA-SQ-SE	Single lens	PMMA	clear	
VERONICA-TAPE	Tape	Acrylic foam	clear	



ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CA15902_VERONICA-SQ-SE » Box size: 480 x 280 x 300 mm	Single lens	3060	360	180	9.6



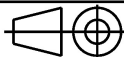
INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C15901	VERONICA-SQ-SE_Mech_Model1	PMMA	CLEAR
2	C16105	VERONICA-TAPE	PU FOAM	BLACK

Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
Up to 30mm class M, otherwise class C.
According to DIN ISO 2768-2
Form and position: class L

LEDiL

Ledil Oy
Joensuukatu 13
FIN 24100 SALO
Finland

FIRST ANGLE PROJECTION:



DRAWING TITLE

CA15902_STRADA-SQ-SE_Datasheet

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SIZE PART NUMBER

A4

CA15902

SCALE 2:1 WEIGHT 2,75g

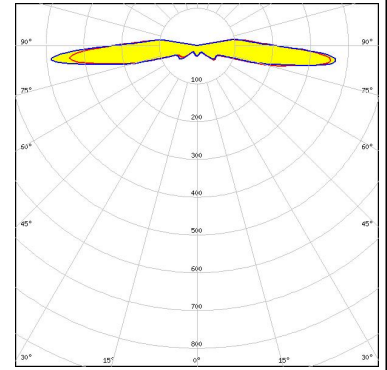
SHEET 1/1

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

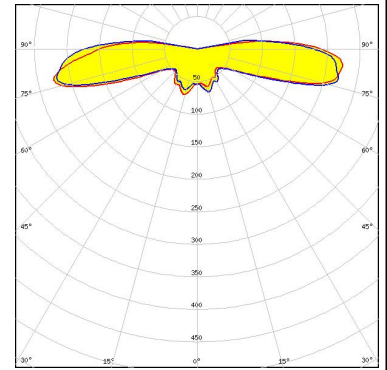
OPTICAL RESULTS (MEASURED):



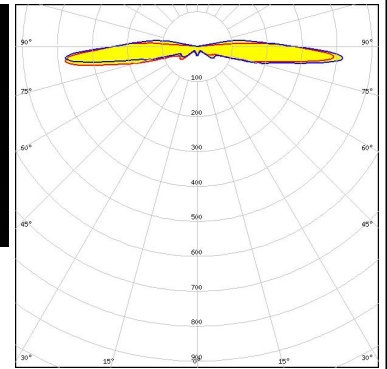
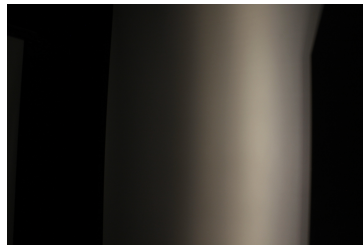
LED XHP35 HI
 FWHM / FWTM 183.0° / 201.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



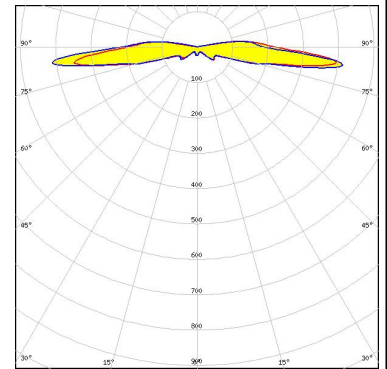
LED XHP70.2
 FWHM / FWTM 194.0° / 220.0°
 Efficiency 84 %
 Peak intensity 0.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED XP-G2
 FWHM / FWTM 184.0° / 196.0°
 Efficiency 87 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



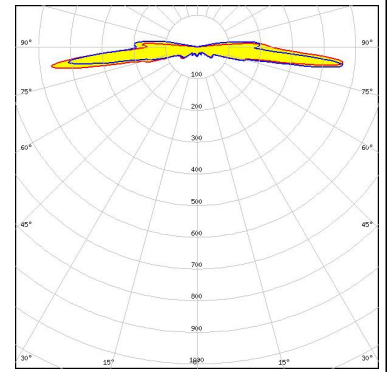
LED XP-L HI
 FWHM / FWTM 184.0° / 210.0°
 Efficiency 87 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



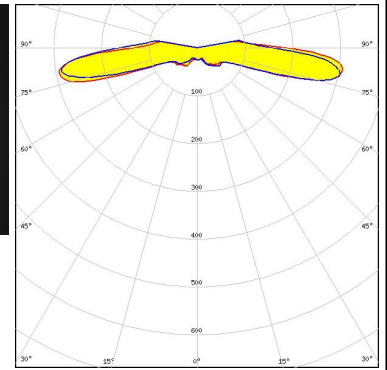
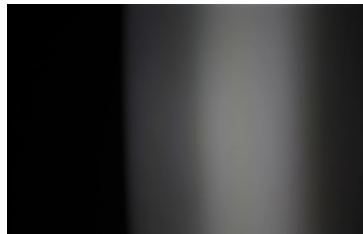
OPTICAL RESULTS (MEASURED):



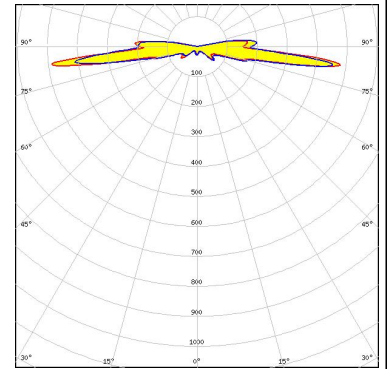
LED XQ-E HI
 FWHM / FWTM 176.0° / 195.0°
 Efficiency 87 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



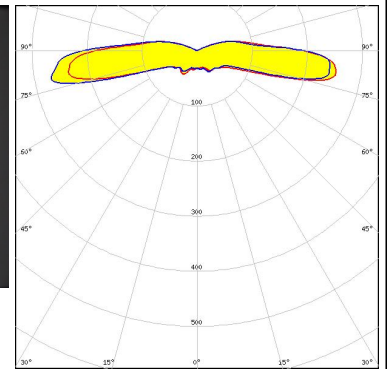
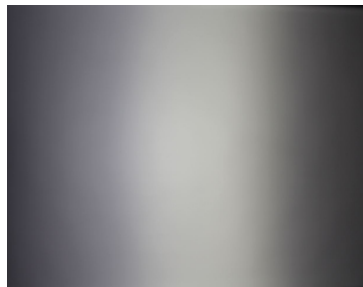
LED LUXEON 5050 Round LES
 FWHM / FWTM 180.0° / 200.0°
 Efficiency 87 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:




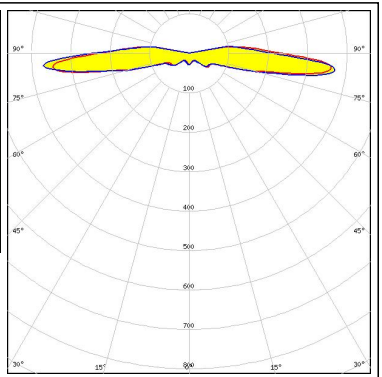

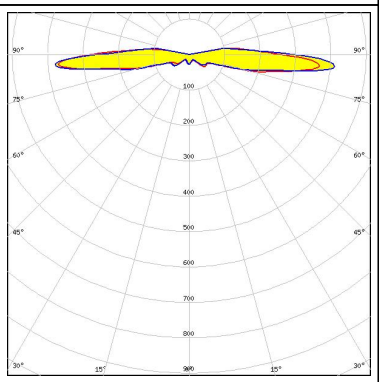
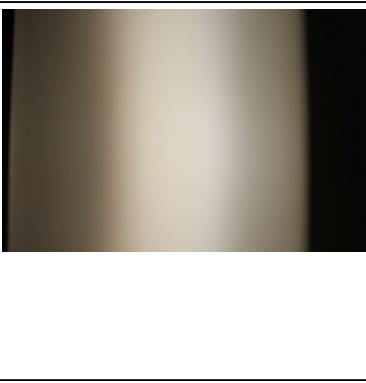
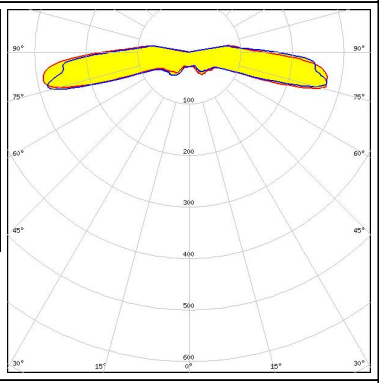

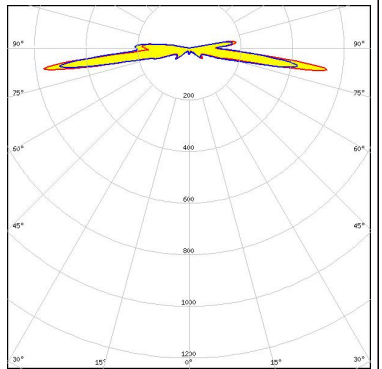
LED LUXEON CZ
 FWHM / FWTM 173.0° / 200.0°
 Efficiency 90 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED LUXEON M/MX
 FWHM / FWTM 189.0° / 225.0°
 Efficiency 91 %
 Peak intensity 2.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

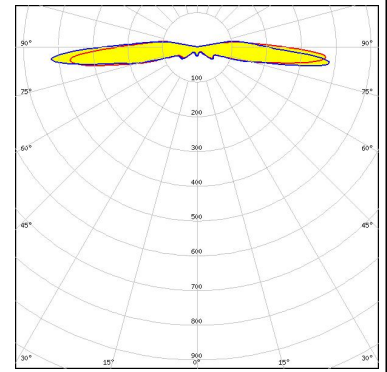
<p>LUMILEDS</p> <p>LED LUXEON TX FWHM / FWTM 185.0° / 201.0° Efficiency 88 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NVSW219F FWHM / FWTM 185.0° / 201.0° Efficiency 89 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED Duris S8 FWHM / FWTM 182.0° / 201.0° Efficiency 87 % Peak intensity 0.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED OSLOM Black Flat (LUW HWQP) FWHM / FWTM 170.0° / 210.0° Efficiency 89 % Peak intensity 0.6 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

OPTICAL RESULTS (MEASURED):

OSRAM

Opto Semiconductors

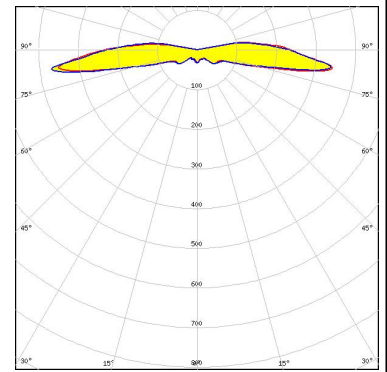
LED OSLON Square CSSRM2/CSSRM3
 FWHM / FWTM 186.0° / 220.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

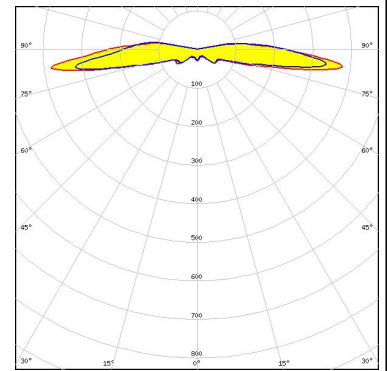
LED OSLON Square EC
 FWHM / FWTM 189.0° / 201.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

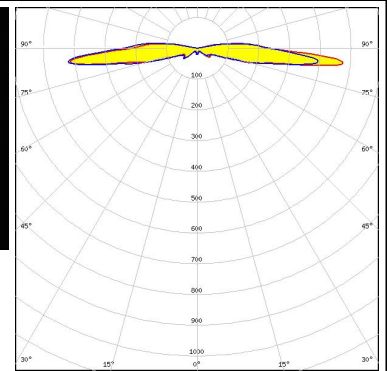
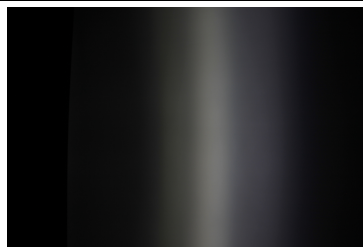
LED OSLON Square PC
 FWHM / FWTM 187.0° / 200.0°
 Efficiency 88 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

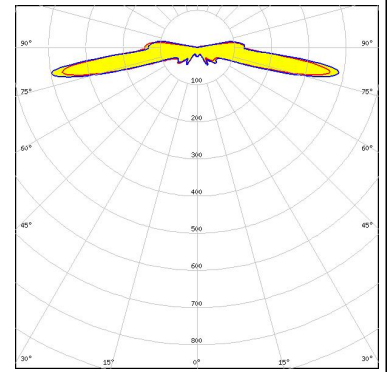
LED OSLON SSL 150
 FWHM / FWTM 182.0° / 200.0°
 Efficiency 89 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

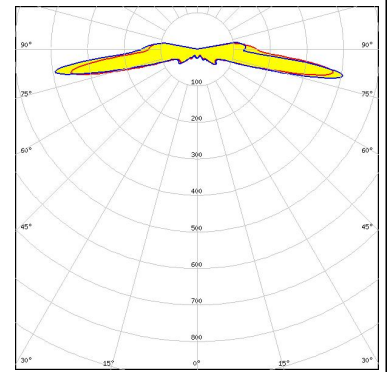
SAMSUNG

LED LH181A
 FWHM / FWTM 170.0° / 210.0°
 Efficiency 91 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



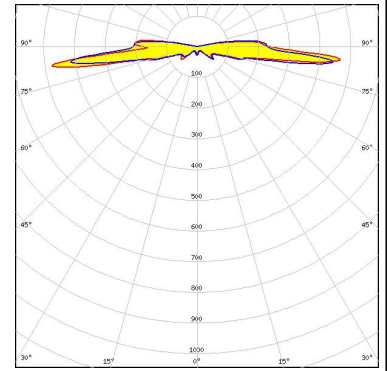
SAMSUNG

LED LH181B
 FWHM / FWTM 171.0° / 201.0°
 Efficiency 88 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



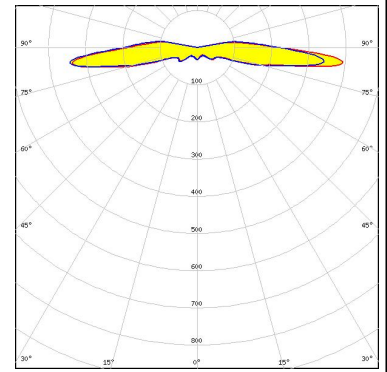
SEOUL SEMICONDUCTOR

LED nPola
 FWHM / FWTM 181.0° / 200.0°
 Efficiency 89 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

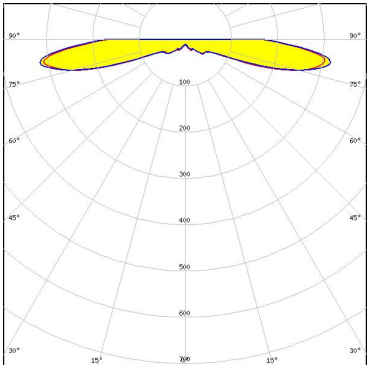
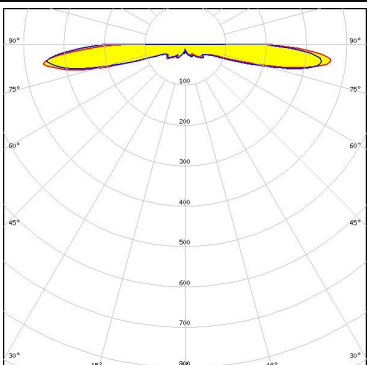
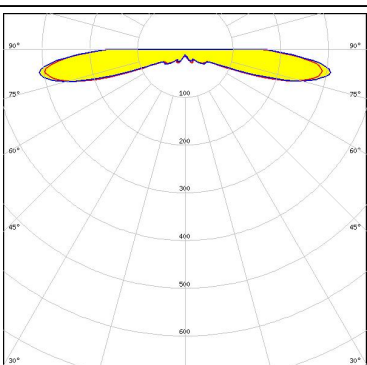
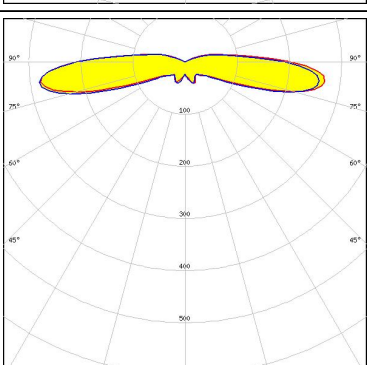


SEOUL SEMICONDUCTOR

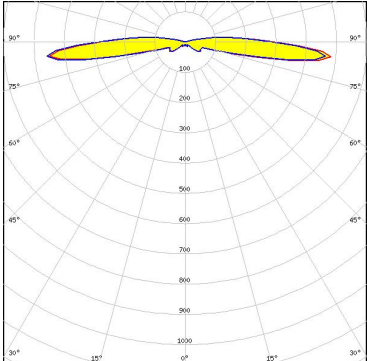
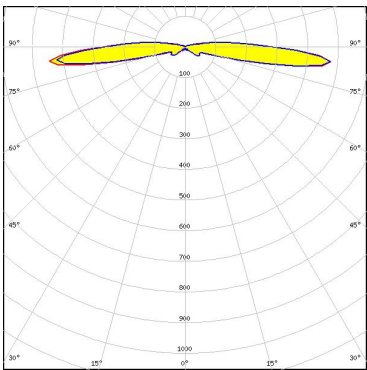
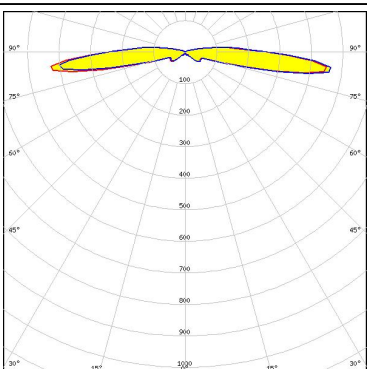
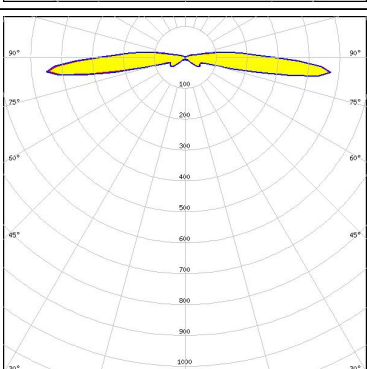
LED Z5M3
 FWHM / FWTM 184.0° / 201.0°
 Efficiency 89 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



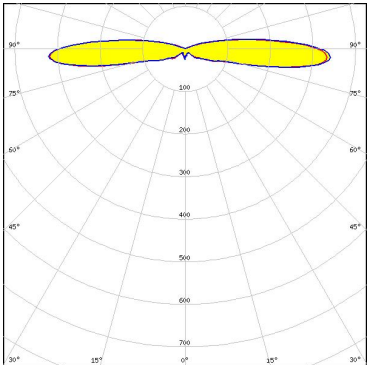
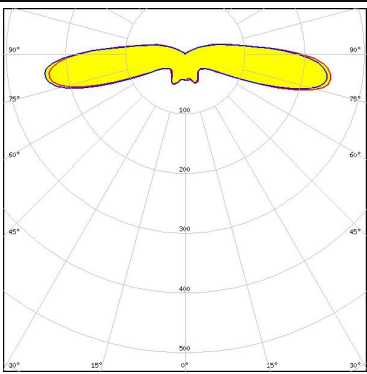
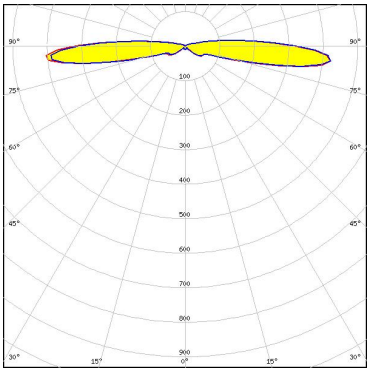
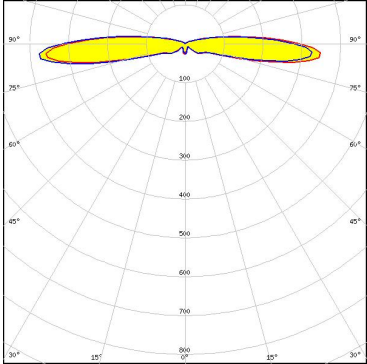
OPTICAL RESULTS (SIMULATED):

<p>CREE LEDs</p> <p>LED J Series 5050 Round LES FWHM / FWTM 180.0° / 182.0° Efficiency 75 % Peak intensity 0.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	
<p>CREE LEDs</p> <p>LED J Series 5050B 30V K Class FWHM / FWTM 180.0° / 182.0° Efficiency 75 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	
<p>CREE LEDs</p> <p>LED J Series 5050B 6V K Class FWHM / FWTM 180.0° / 182.0° Efficiency 75 % Peak intensity 0.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	
<p>CREE LEDs</p> <p>LED XD16 FWHM / FWTM 188.0° / 223.0° Efficiency 94 % Peak intensity 0.3 cd/lm LEDs/each optic 7 Light colour White Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p>CREE LEDs</p> <p>LED XE-G FWHM / FWTM 184.0° / 200.0° Efficiency 94 % Peak intensity 0.5 cd/lm LEDs/each optic 1 Light colour Green Required components:</p>	
<p>CREE LEDs</p> <p>LED XE-G FWHM / FWTM 182.0° / 204.0° Efficiency 96 % Peak intensity 0.5 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	
<p>CREE LEDs</p> <p>LED XE-G FWHM / FWTM 180.0° / 204.0° Efficiency 96 % Peak intensity 0.5 cd/lm LEDs/each optic 1 Light colour Red Required components:</p>	
<p>CREE LEDs</p> <p>LED XE-G FWHM / FWTM 184.0° / 204.0° Efficiency 96 % Peak intensity 0.5 cd/lm LEDs/each optic 1 Light colour Blue Required components:</p>	

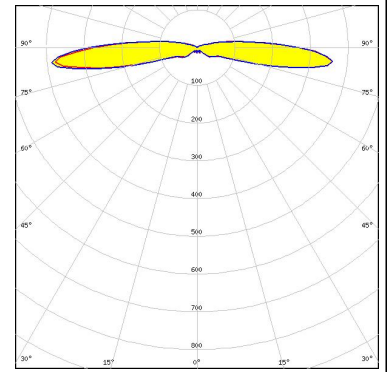
OPTICAL RESULTS (SIMULATED):

<p>CREE LEDs</p> <p>LED XHP35 HD FWHM / FWTM 194.0° / 216.0° Efficiency 94 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	
<p>CREE LEDs</p> <p>LED XHP70 FWHM / FWTM 190.0° / 232.0° Efficiency 94 % Peak intensity 0.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	
<p>CREE LEDs</p> <p>LED XP-E2 FWHM / FWTM 188.0° / 206.0° Efficiency 95 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour Red Required components:</p>	
<p>CREE LEDs</p> <p>LED XP-G2 HE FWHM / FWTM 191.0° / 212.0° Efficiency 95 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	

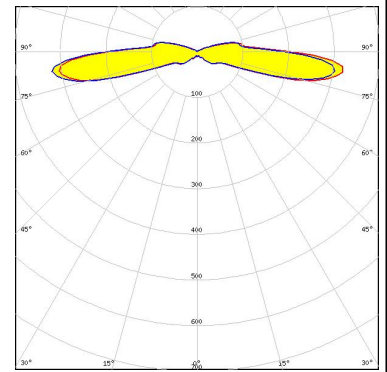
OPTICAL RESULTS (SIMULATED):



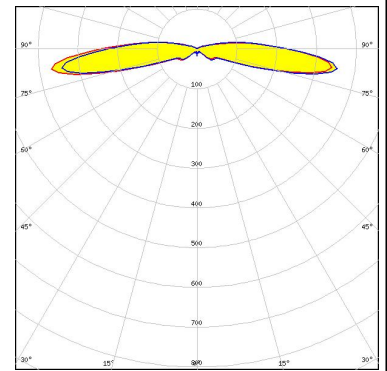
LED XP-G3
 FWHM / FWTM 186.0° / 211.0°
 Efficiency 94 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



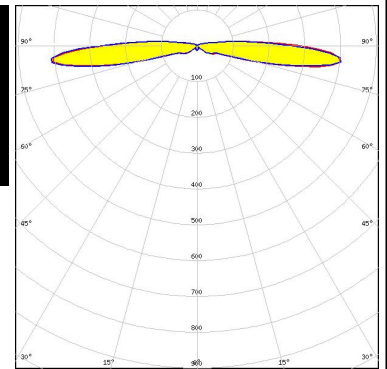
LED XQ-E HI
 FWHM / FWTM 183.0° / 221.0°
 Efficiency 94 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 4
 Light colour White
 Required components:



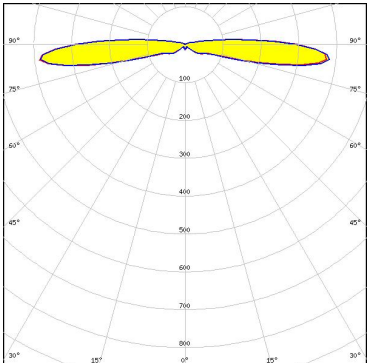
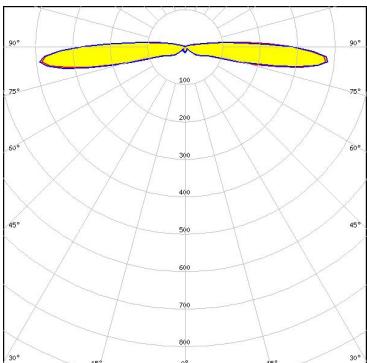
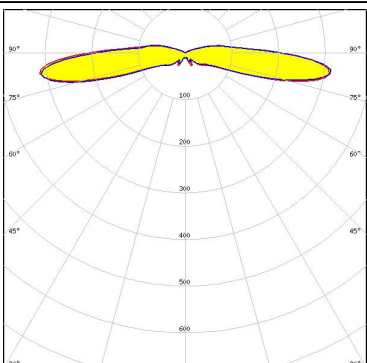
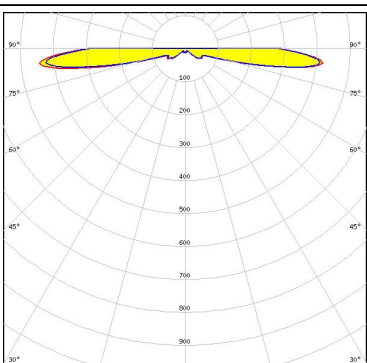
LED XT-E
 FWHM / FWTM 184.0° / 212.0°
 Efficiency 95 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



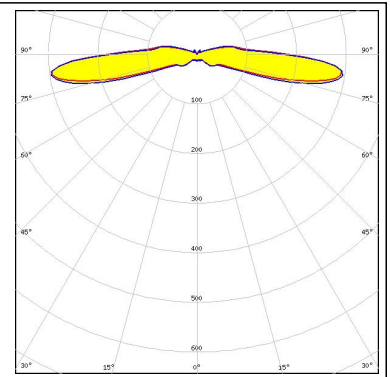
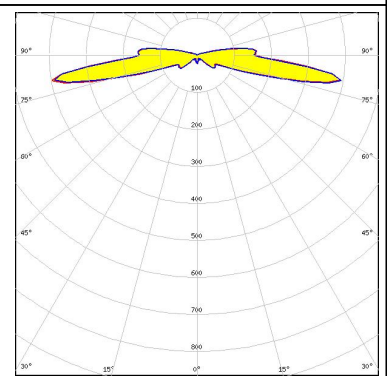
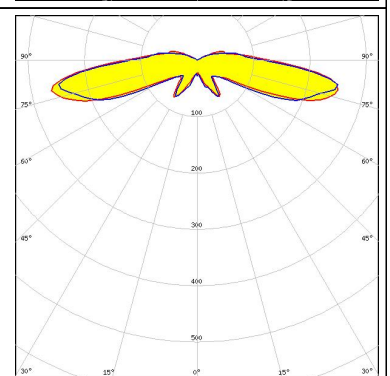
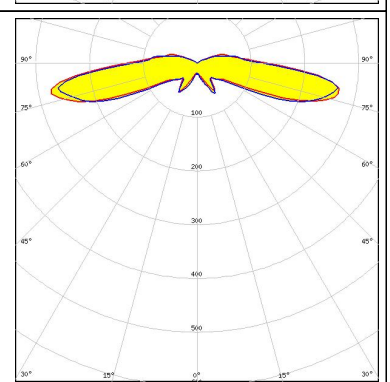
LED LUXEON C
 FWHM / FWTM 183.0° / 201.0°
 Efficiency 92 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour Green
 Required components:



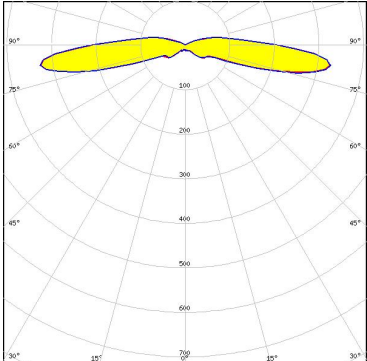
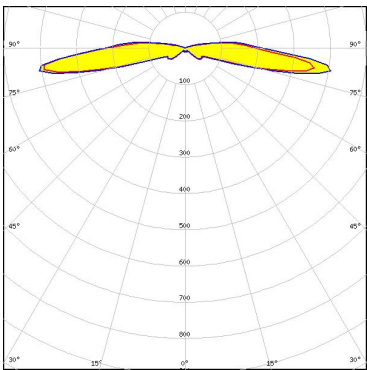
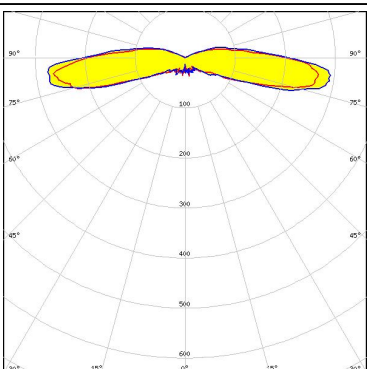
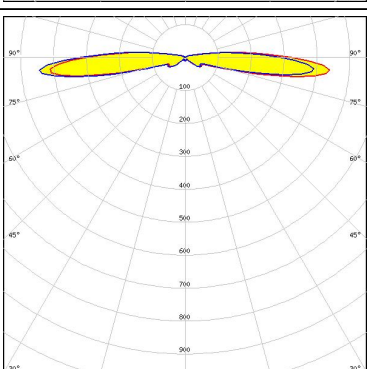
OPTICAL RESULTS (SIMULATED):

<p>LUMILEDS</p> <p>LED: LUXEON C</p> <p>FWHM / FWTM: 188.0° / 204.0°</p> <p>Efficiency: 93 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON C</p> <p>FWHM / FWTM: 184.0° / 204.0°</p> <p>Efficiency: 91 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON IR Compact</p> <p>FWHM / FWTM: 183.4° / 217.0°</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 0.3 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON Rebel</p> <p>FWHM / FWTM: 180.0° / 182.0°</p> <p>Efficiency: 75 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p>LUMILEDS</p> <p>LED: LUXEON Z FWHM / FWTM: 183.4° / 218.0° Efficiency: 89 % Peak intensity: 0.3 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NCSxE17A FWHM / FWTM: 173.0° / 208.0° Efficiency: 96 % Peak intensity: 0.4 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NCSxE17A FWHM / FWTM: 180.0° / 226.0° Efficiency: 96 % Peak intensity: 0.3 cd/lm LEDs/each optic: 7 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NCSxE17A FWHM / FWTM: 179.0° / 228.0° Efficiency: 96 % Peak intensity: 0.3 cd/lm LEDs/each optic: 7 Light colour: White Required components:</p>	

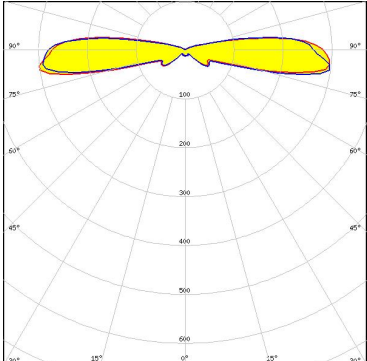
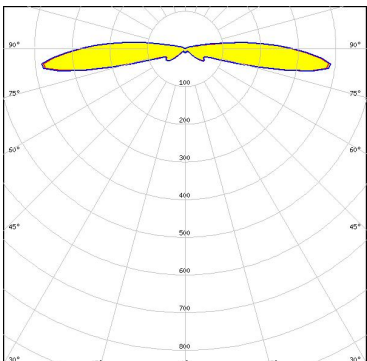
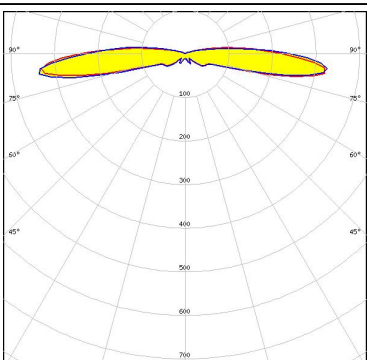
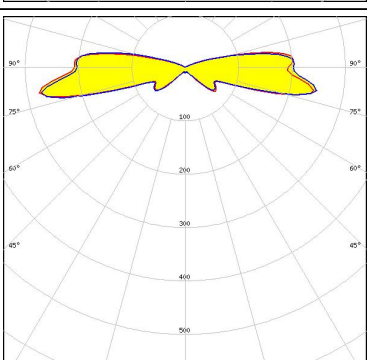
OPTICAL RESULTS (SIMULATED):

<p>NICHIA</p> <p>LED: NV4WB35AM FWHM / FWTM: 184.0° / 220.0° Efficiency: 95 % Peak intensity: 0.3 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSCONIQ P 3030 FWHM / FWTM: 181.0° / 208.0° Efficiency: 95 % Peak intensity: 0.4 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSCONIQ P 7070 FWHM / FWTM: 192.0° / 226.0° Efficiency: 95 % LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSLO Signal FWHM / FWTM: 186.0° / 203.0° Efficiency: 95 % Peak intensity: 0.5 cd/lm LEDs/each optic: 1 Light colour: Red Required components:</p>	

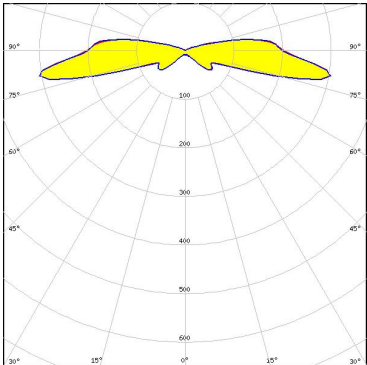
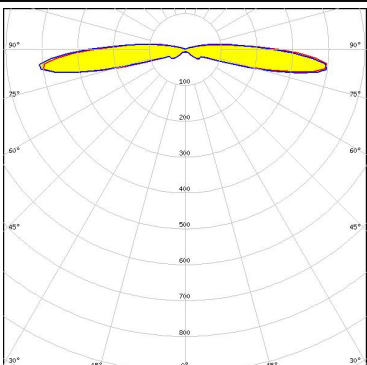
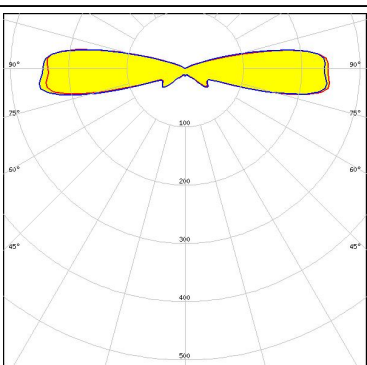
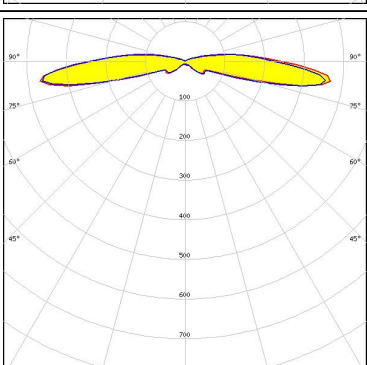
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED: OSLON SSL 120</p> <p>FWHM / FWTM: 188.0° / 212.0°</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 0.4 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: OSLON SSL 150</p> <p>FWHM / FWTM: 180.0° / 182.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSLON SSL 80</p> <p>FWHM / FWTM: 197.0° / 215.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 0.3 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Red</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSLON SSL 80</p> <p>FWHM / FWTM: 195.0° / 206.0°</p> <p>Efficiency: 93 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED: OSLON SSL 80 FWHM / FWTM: 198.0° / 216.0° Efficiency: 94 % Peak intensity: 0.3 cd/lm LEDs/each optic: 1 Light colour: Blue Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM: 188.0° / 208.0° Efficiency: 96 % Peak intensity: 0.4 cd/lm LEDs/each optic: 1 Light colour: Red Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: SFH 4170S FWHM / FWTM: 188.0° / 208.0° Efficiency: 87 % Peak intensity: 0.4 cd/lm LEDs/each optic: 1 Light colour: IR Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: SFH 4715AS FWHM / FWTM: 202.0° / 221.0° Efficiency: 95 % Peak intensity: 0.3 cd/lm LEDs/each optic: 1 Light colour: IR Required components:</p>	

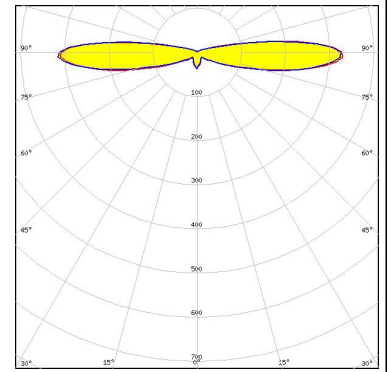
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED SFH 4715S</p> <p>FWHM / FWTM 196.0° / 216.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED SFH 4716AS</p> <p>FWHM / FWTM 184.0° / 207.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED SFH 4717AS</p> <p>FWHM / FWTM 207.0° / 224.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED SFH 4770S</p> <p>FWHM / FWTM 185.0° / 212.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

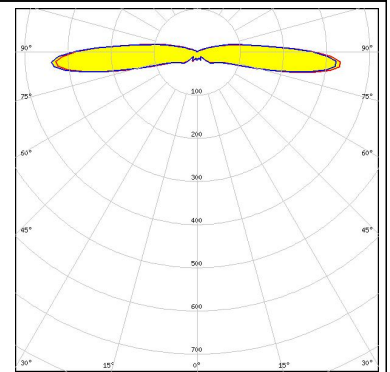
SAMSUNG

LED LH351C
 FWHM / FWTM 196.0° / 215.0°
 Efficiency 96 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



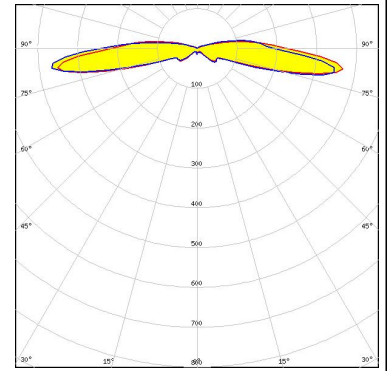
SAMSUNG

LED LH351D
 FWHM / FWTM 190.0° / 216.0°
 Efficiency 94 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



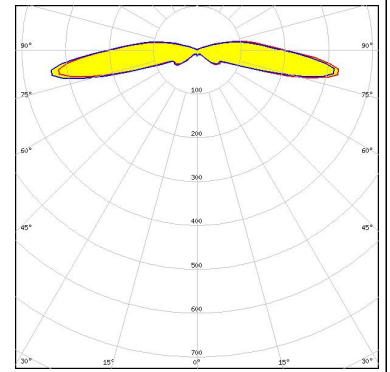
SEOUL SEMICONDUCTOR

LED MJT 3030
 FWHM / FWTM 184.0° / 212.0°
 Efficiency 95 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SEOUL SEMICONDUCTOR

LED Z5M4
 FWHM / FWTM 184.0° / 216.0°
 Efficiency 95 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):



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.

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LEDiL Oy

Joensuunkatu 13
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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