HB-IP-2X6-W

~60° wide 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-W	Multi-lens	PMMA	clear	
2X6-SEAL25	Seal	Silicone	white	
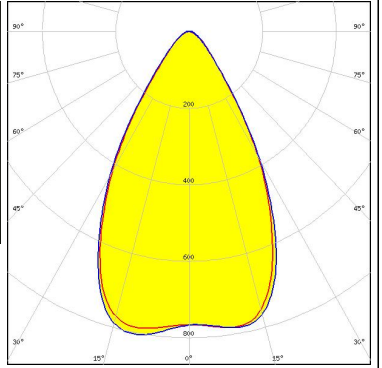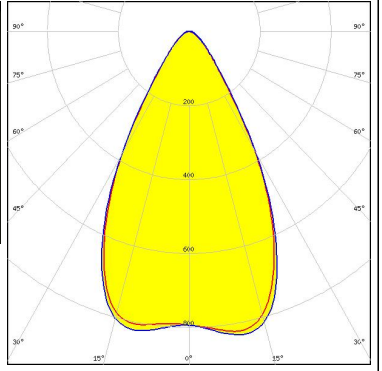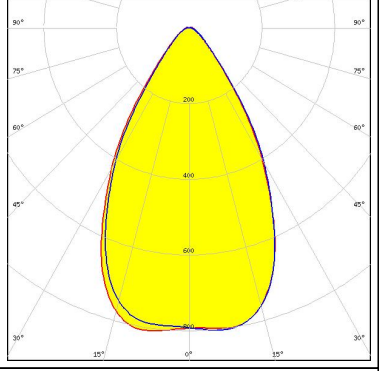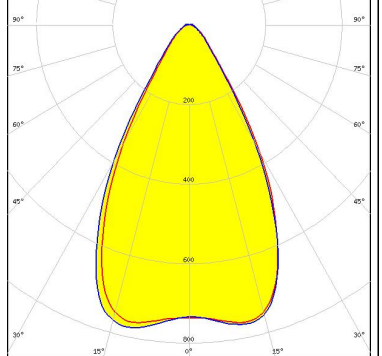
ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CS14130_HB-IP-2X6-W	Multi-lens	120	40	40	8.4
» Box size: 476 x 273 x 247 mm					

Wiring:
PCB is fully sealed between the lens with silicone seal and the heatsink. Wiring needs to be done trough the PCB and heat sink to maintain high IP rating.

Detail A
Scale: 2:1

Detail B
Scale: 2:1

M3 screw size

Section view D-D
Scale: 2:1

Led position

50.8
pos pin

1.7
hole

Fasten middle screws first. Recommended torque with pan head screw: 0.57Nm (for 1.6mm thick PCB, no thermal pad)

Silicone seal is tested to work in LEDiL test assemblies. Customer is recommended to test the sealing in the end product due many variables, such as heat sink surface and possible chemical traces

9.9

1.6 (1.6mm pcb)

Ribs

Section view C-C
Scale: 1:1

INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	CS14130	HB-IP-2x6-W	PMMA 8N, Silicone seal	

Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:

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DRAWING TITLE
CS14130_HB-IP-2x6-W

SIZE	PART NUMBER	
A3	CS14130	

| SCALE | 1:1 | WEIGHT | | SHEET | 1/1 |

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
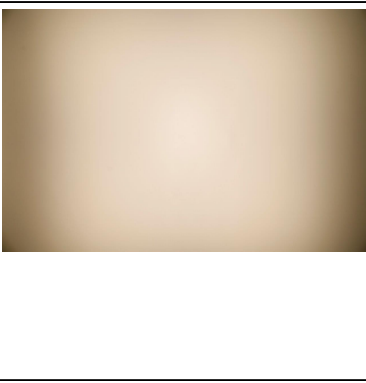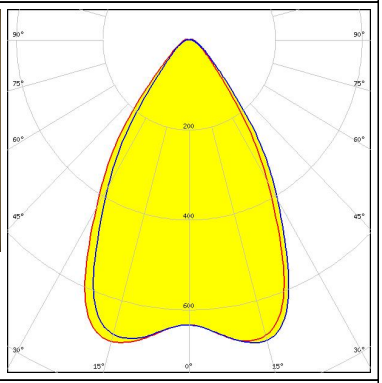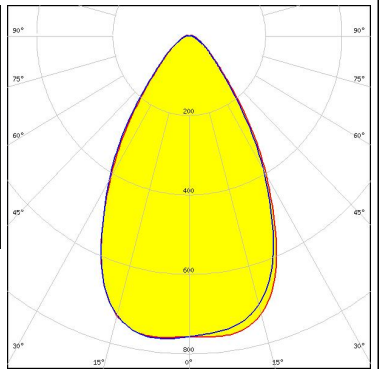Form and position: class L

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

OPTICAL RESULTS (MEASURED):

COMET ELECTRONICS

LED	QUICK FLUX 2x6 LED XG xxx G7+
FWHM / FWTM	60.0° / 93.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

COMET ELECTRONICS

LED	QUICK FLUX 2x6 LED XT xxx G5
FWHM / FWTM	58.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XM-L2
FWHM / FWTM	61.0° / 93.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-G
FWHM / FWTM	60.0° / 91.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

CREE LEDs

LED	XP-G2
FWHM / FWTM	58.0° / 87.0°
Efficiency	93 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-G3
FWHM / FWTM	59.0° / 94.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-L HD
FWHM / FWTM	67.0° / 99.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-L2
FWHM / FWTM	62.0° / 101.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

CREE LEDs

LED	XT-E
FWHM / FWTM	58.0° / 93.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs
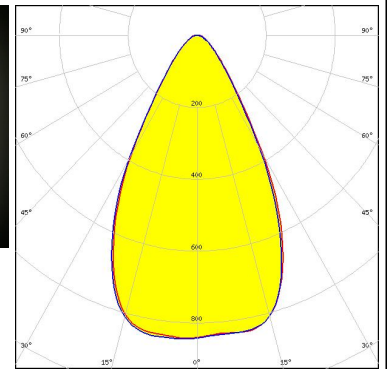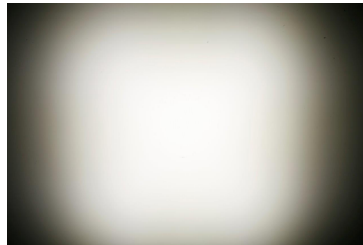
LED	XT-E HE
FWHM / FWTM	56.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMILEDS
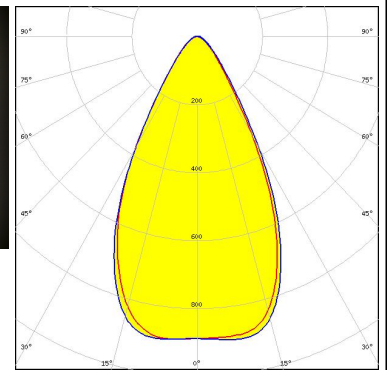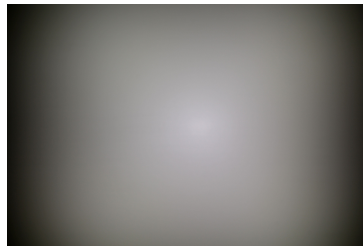
LED	LUXEON R
FWHM / FWTM	58.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
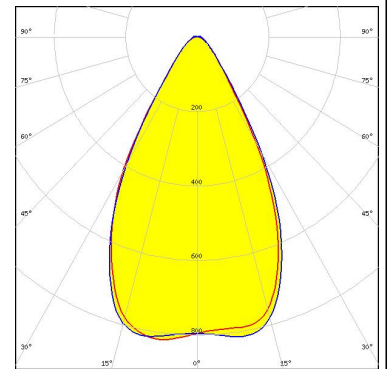
LUMILEDS

LED	LUXEON Rebel ES
FWHM / FWTM	57.0° / 88.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
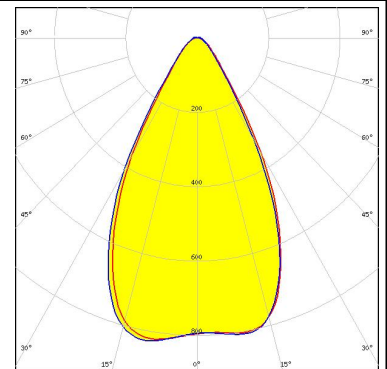
OPTICAL RESULTS (MEASURED):

LUMILEDS

LED	LUXEON T
FWHM / FWTM	60.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
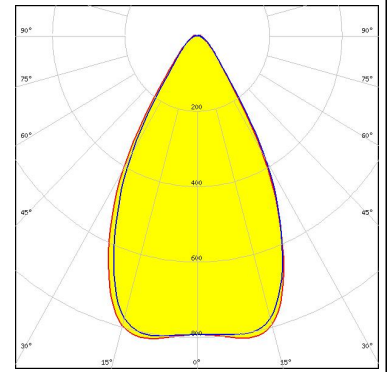
LUMILEDS

LED	LUXEON TX
FWHM / FWTM	54.0° / 87.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
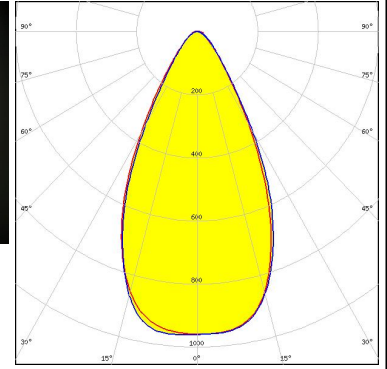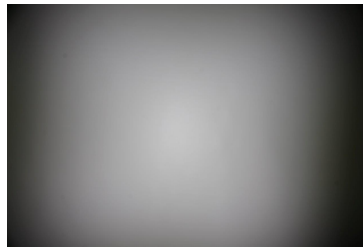
LUMILEDS

LED	LUXEON V
FWHM / FWTM	59.0° / 93.0°
Efficiency	93 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
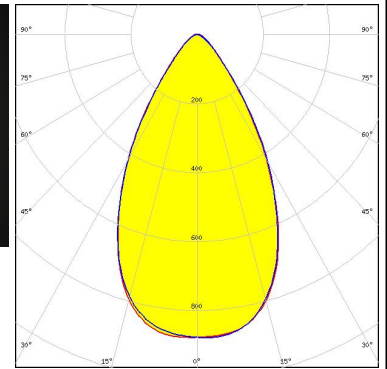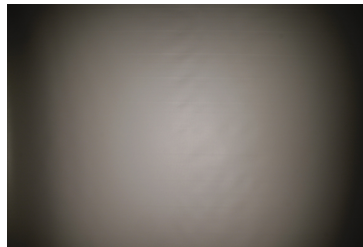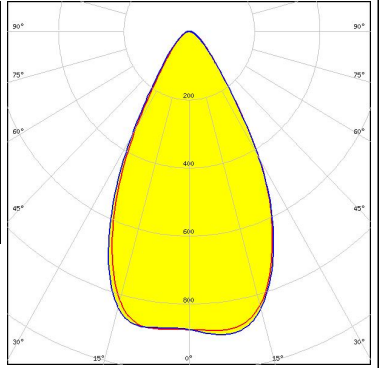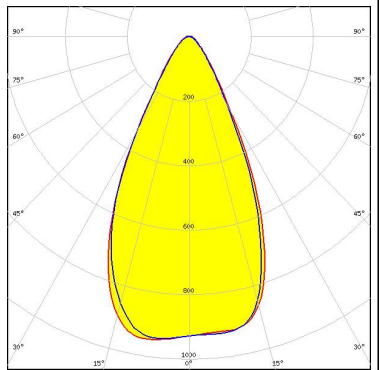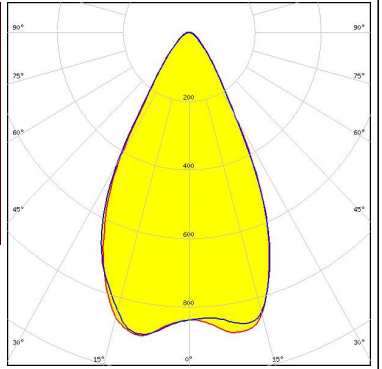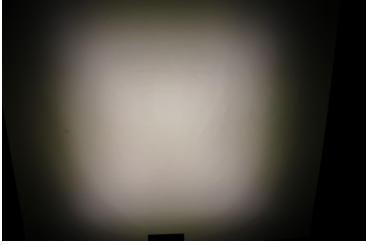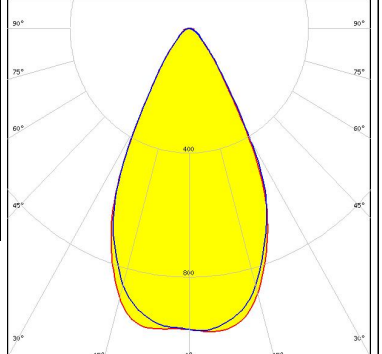
LUMILEDS

LED	LUXEON V2
FWHM / FWTM	56.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

LUMILEDS

LED	LUXEON XR-TX (L2T0-xxxx012M0000)
FWHM / FWTM	60.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMILEDS

LED	LUXEON Z ES
FWHM / FWTM	52.0° / 83.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMINUS

LED	SST-10-B130
FWHM / FWTM	56.0° / 87.0°
Efficiency	96 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	Deep Red
Required components:	

MST | Your solutions

LED	RecLED 146x45mm 2900lm 730 2x6 IP G1
FWHM / FWTM	55.0° / 85.0°
Efficiency	98 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

NICHIA

LED	NVSW219D
FWHM / FWTM	64.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA
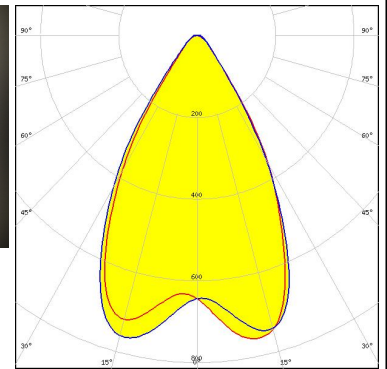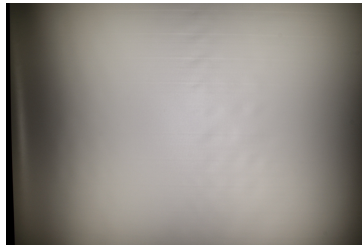
LED	NVSW219F
FWHM / FWTM	60.0° / 90.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA
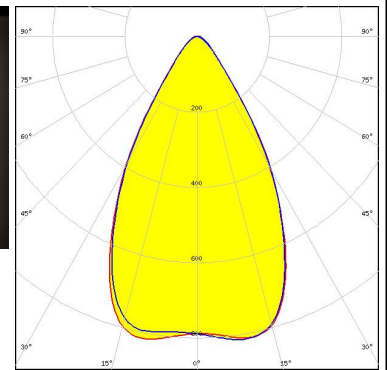
LED	NVSW319B
FWHM / FWTM	64.0° / 94.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA
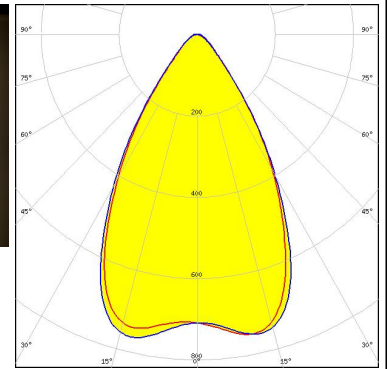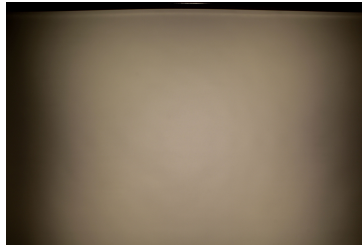
LED	NVSW3x9A
FWHM / FWTM	60.0° / 93.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

NICHIA
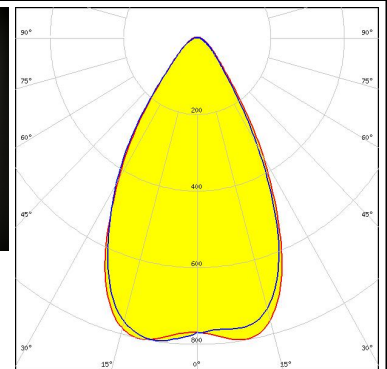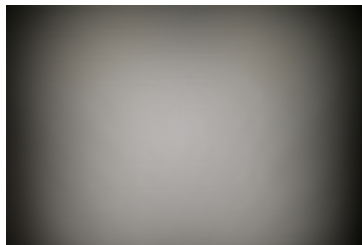
LED	NVSW519A
FWHM / FWTM	61.0° / 92.0°
Efficiency	95 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA
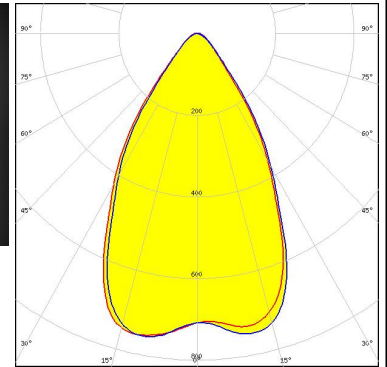
LED	NVSxE21A
FWHM / FWTM	51.0° / 83.0°
Efficiency	94 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA
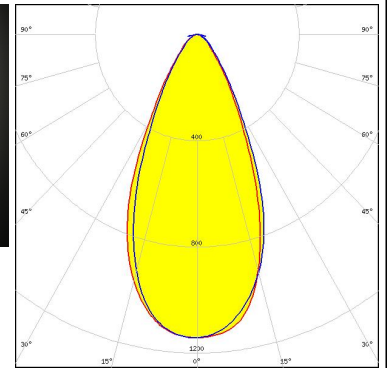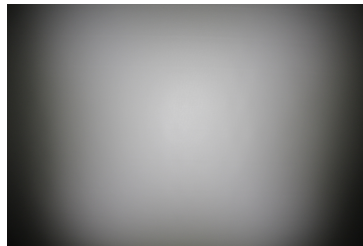
LED	NVSxx19B/NVSxx19C
FWHM / FWTM	58.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors
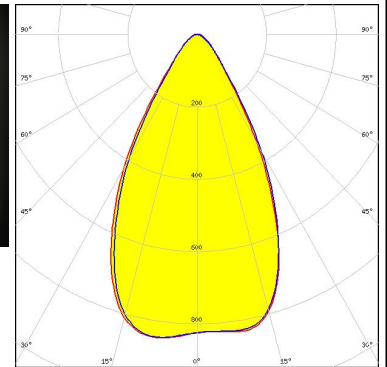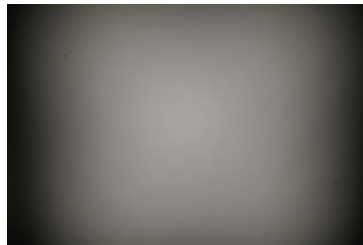
LED	Duris S8
FWHM / FWTM	54.0° / 92.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
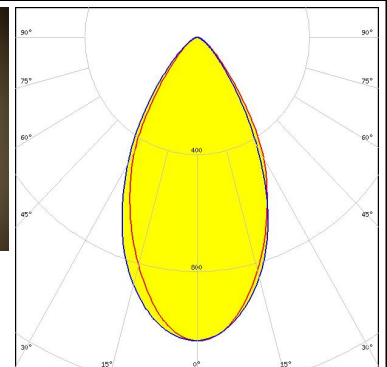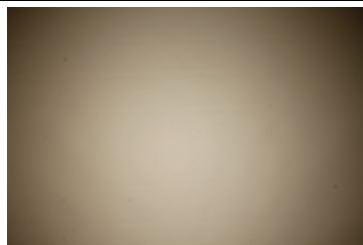
OPTICAL RESULTS (MEASURED):

PHILIPS

LED	Fortimo FastFlex LED 2x6 DP G4
FWHM / FWTM	58.0° / 87.0°
Efficiency	93 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
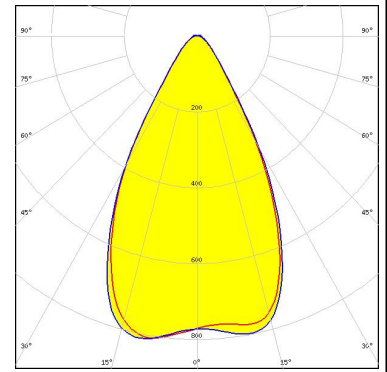
PHILIPS

LED	Fortimo FastFlex LED 2x6 DP G5
FWHM / FWTM	58.0° / 85.0°
Efficiency	97 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
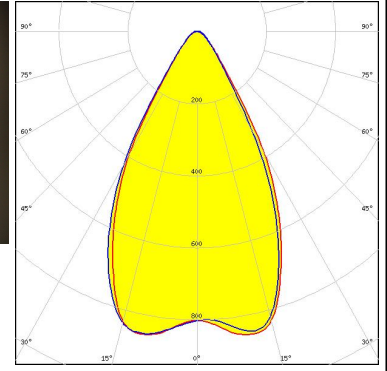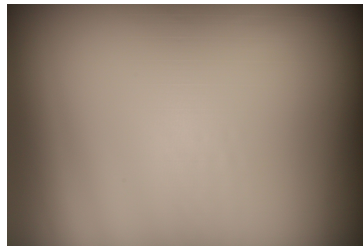
PHILIPS

LED	Fortimo FastFlex LED 2x6 DP HE
FWHM / FWTM	55.0° / 93.0°
Efficiency	98 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
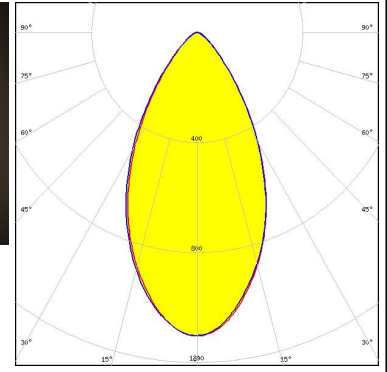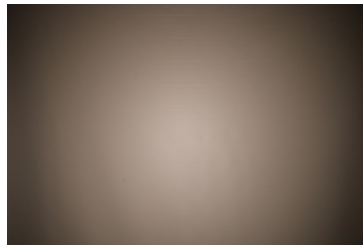
PHILIPS

LED	Fortimo FastFlex LED 2x6 DPX G4
FWHM / FWTM	59.0° / 94.0°
Efficiency	94 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
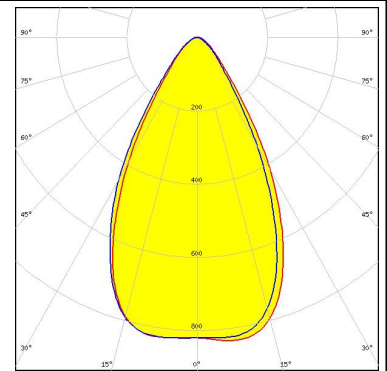
OPTICAL RESULTS (MEASURED):

SAMSUNG

LED	HiLOM RH12 (LH351C)
FWHM / FWTM	61.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
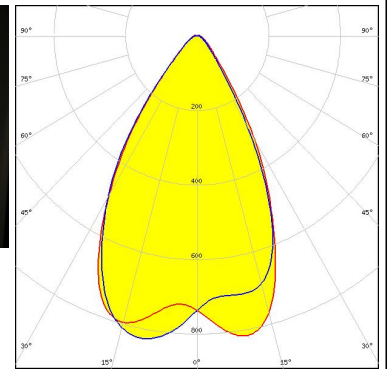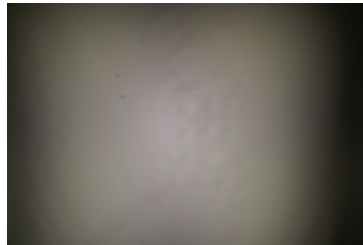
SAMSUNG

LED	HiLOM RM12 ZP (LH502C)
FWHM / FWTM	55.0° / 93.0°
Efficiency	97 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
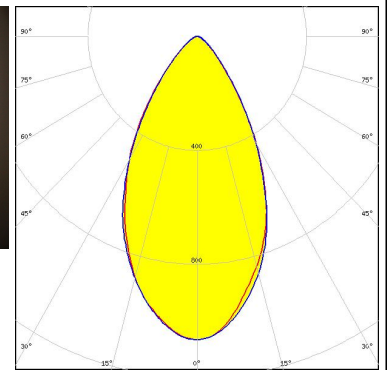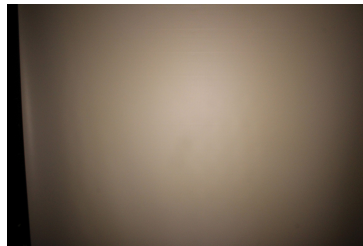
SCIOLUX

LED	XLE-S22C4XTEHE (XT-E HE)
FWHM / FWTM	56.0° / 89.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
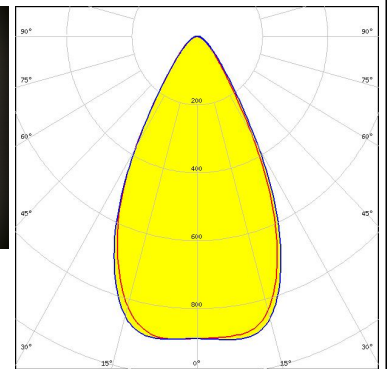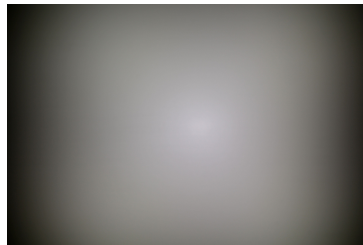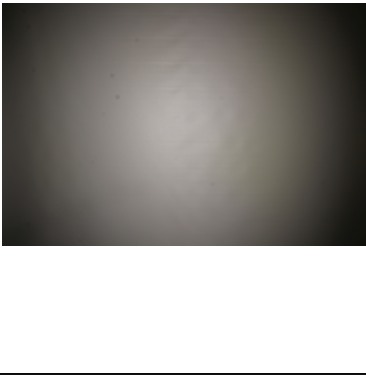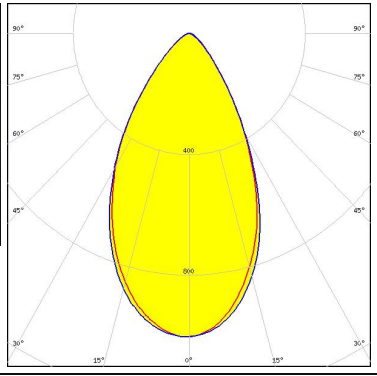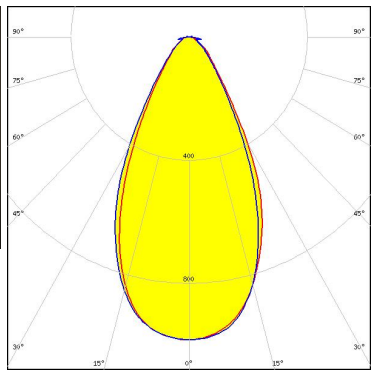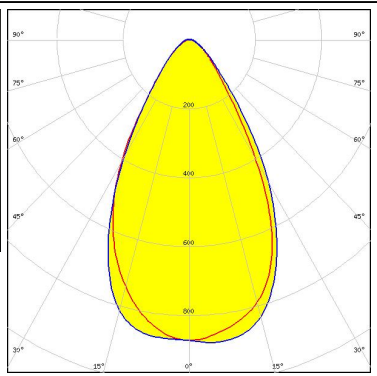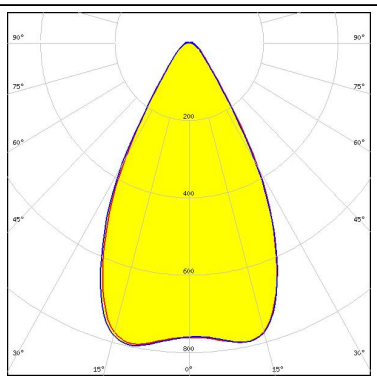
SCIOLUX
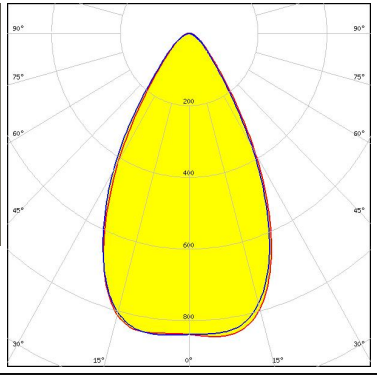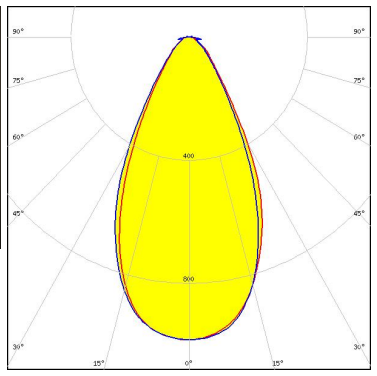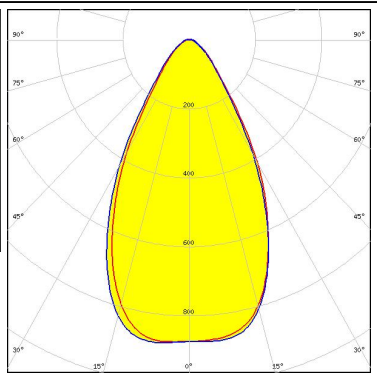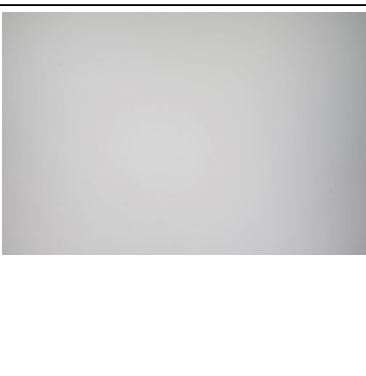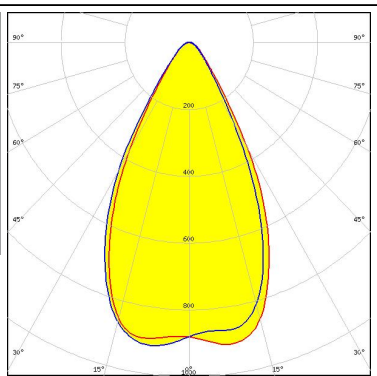
LED	XLE-S26XHP35 (XHP35 HD)
FWHM / FWTM	65.0° / 102.0°
Efficiency	94 %
Peak intensity	0.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR		
LED	2x6 5050 module - SMJD-3625012F-XX	
FWHM / FWTM	57.0° / 95.0°	
Efficiency	94 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

SEOUL SEMICONDUCTOR		
LED	SMJQ-D36W12Mx	
FWHM / FWTM	53.0° / 91.0°	
Efficiency	93 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

SEOUL SEMICONDUCTOR		
LED	SMJQ-D36W12Px	
FWHM / FWTM	58.0° / 95.0°	
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

SEOUL SEMICONDUCTOR		
LED	Z5M1/Z5M2	
FWHM / FWTM	59.0° / 87.0°	
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR		
LED	Z5M3	
FWHM / FWTM	59.0° / 93.0°	
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

SEOUL SEMICONDUCTOR		
LED	Z8Y22	
FWHM / FWTM	53.0° / 91.0°	
Efficiency	93 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

SEOUL SEMICONDUCTOR		
LED	Z8Y22P	
FWHM / FWTM	57.0° / 95.0°	
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

TOSHIBA Leading Innovation »»		
LED	TL1L4	
FWHM / FWTM	56.0° / 85.0°	
Efficiency	94 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

OPTICAL RESULTS (MEASURED):

TRIDONIC

LED	RLE 2x6 3000lm HP EXC2 OTD
FWHM / FWTM	57.0° / 87.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
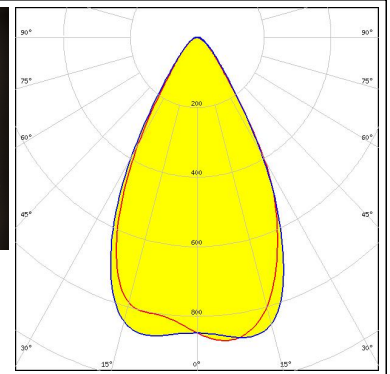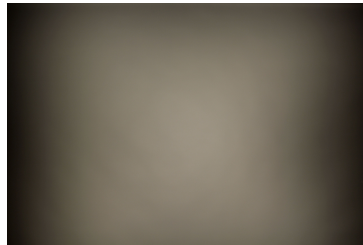
TRIDONIC
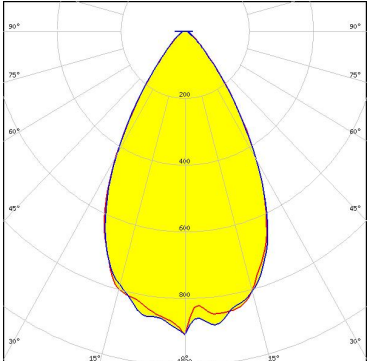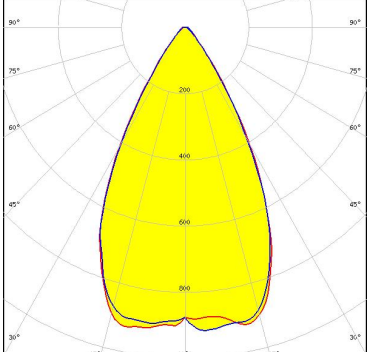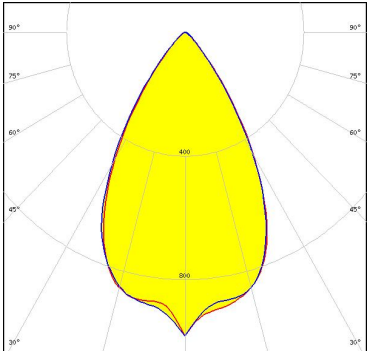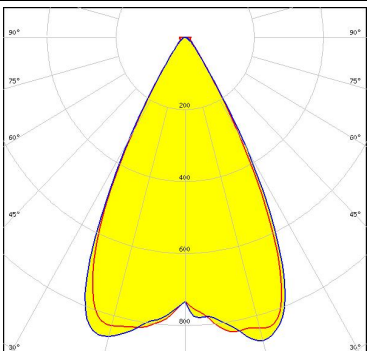
LED	RLE 2x6 4500lm HP HE EXC3 OTD Z19
FWHM / FWTM	55.0° / 92.0°
Efficiency	98 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
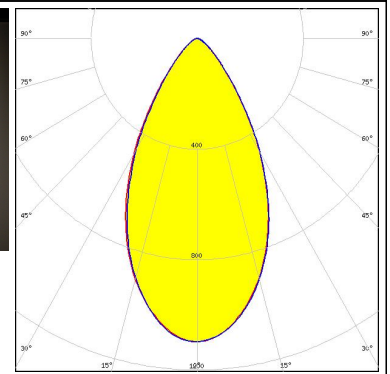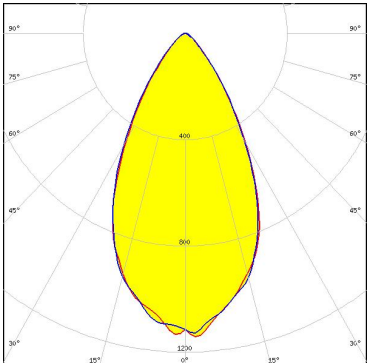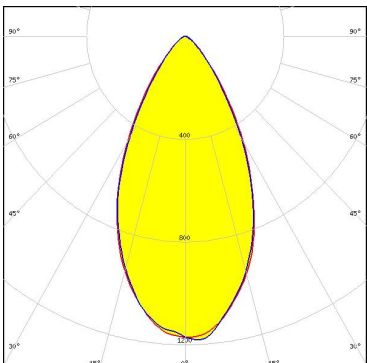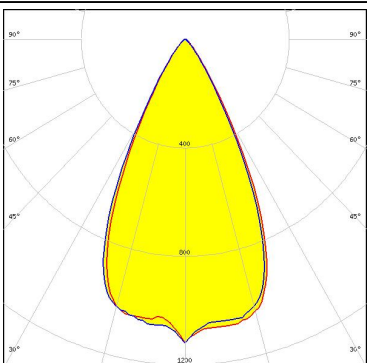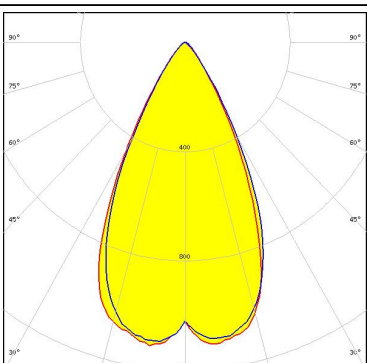
OPTICAL RESULTS (SIMULATED):

CREE LEDs		
LED	J Series 5050 Round LES	
FWHM / FWTM	55.0° / 86.0°	
Efficiency	94 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

CREE LEDs		
LED	J Series 5050B 6V K Class	
FWHM / FWTM	54.0° / 88.0°	
Efficiency	97 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

CREE LEDs		
LED	MHB-A/B	
FWHM / FWTM	60.0° / 96.0°	
Efficiency	91 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

CREE LEDs		
LED	XB-D	
FWHM / FWTM	52.0° / 80.0°	
Efficiency	90 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
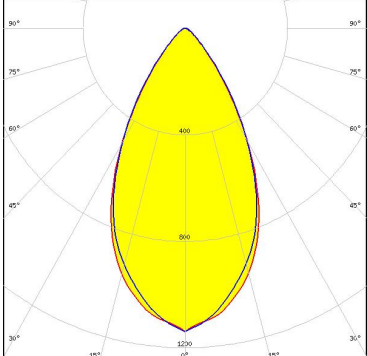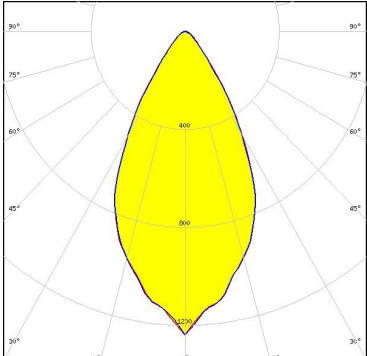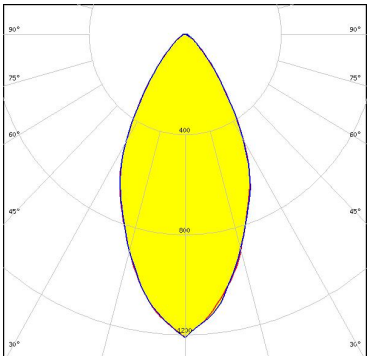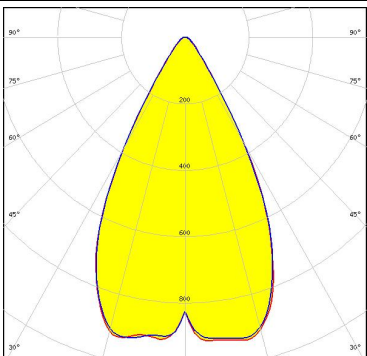
OPTICAL RESULTS (SIMULATED):

CREE LEDs

LED	XHP35 HD
FWHM / FWTM	60.0° / 92.0°
Efficiency	94 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XHP35 HI
FWHM / FWTM	57.0° / 82.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XM-L
FWHM / FWTM	57.0° / 85.0°
Efficiency	93 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-E2
FWHM / FWTM	56.0° / 76.0°
Efficiency	94 %
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

LUMILEDS

LED	LUXEON 5050 Round LES
FWHM / FWTM	54.0° / 88.0°
Efficiency	95 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMILEDS

LED	LUXEON 5050 Square LES
FWHM / FWTM	52.0° / 89.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMILEDS

LED	LUXEON Rebel
FWHM / FWTM	50.0° / 70.0°
Efficiency	93 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NF2x757A
FWHM / FWTM	50.0° / 76.0°
Efficiency	93 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

NICHIA

LED	NFMW48xA
FWHM / FWTM	55.0° / 91.0°
Efficiency	97 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NV4WB35AM
FWHM / FWTM	54.0° / 84.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NVSxE21A
FWHM / FWTM	52.0° / 90.0°
Efficiency	95 %
Peak intensity	1.2 cd/lm
LEDs/each optic	4
Light colour	White
Required components:	

OSRAM

LED	PrevaLED Brick HP IP 2x6
FWHM / FWTM	56.0° / 80.0°
Efficiency	96 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

LED	OSCONIQ P 3030
FWHM / FWTM	50.0° / 80.0°
Efficiency	94 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 (2W version)
FWHM / FWTM	57.0° / 79.0°
Efficiency	94 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 (3W version)
FWHM / FWTM	56.0° / 84.0°
Efficiency	94 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	OSCONIQ P 3737 Flat
FWHM / FWTM	52.0° / 80.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	56.0° / 78.0°
Efficiency	94 %
LEDs/each optic	1
Light colour	White
Required components:	
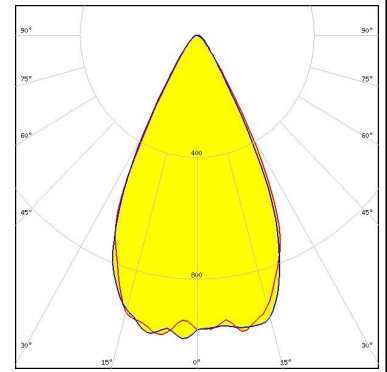
OSRAM
Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	58.0° / 82.0°
Efficiency	96 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	Hyper Red
Required components:	
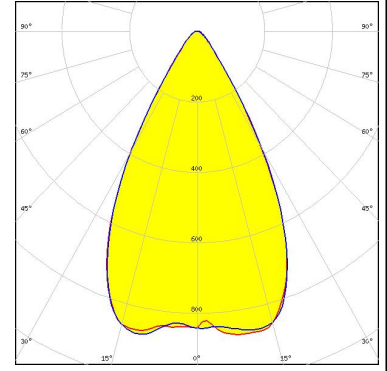
OSRAM
Opto Semiconductors

LED	OSLON Square EC
FWHM / FWTM	56.0° / 70.0°
Efficiency	93 %
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	OSLON Square PC
FWHM / FWTM	56.0° / 70.0°
Efficiency	93 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
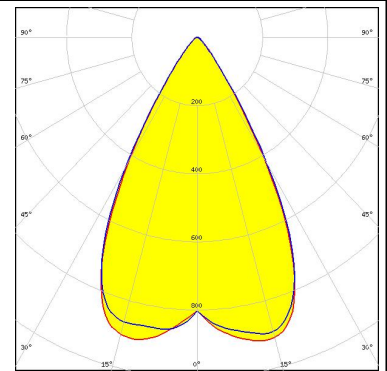
OPTICAL RESULTS (SIMULATED):

OSRAM Opto Semiconductors

LED	OSLON SSL 80
FWHM / FWTM	52.0° / 69.0°
Efficiency	94 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

SAMSUNG

LED	LH181B
FWHM / FWTM	50.0° / 78.0°
Efficiency	96 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

SAMSUNG

LED	LH181B
FWHM / FWTM	54.0° / 80.0°
Efficiency	94 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

SAMSUNG

LED	LH231B
FWHM / FWTM	52.0° / 80.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

SAMSUNG

LED	LH502C
FWHM / FWTM	54.0° / 90.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
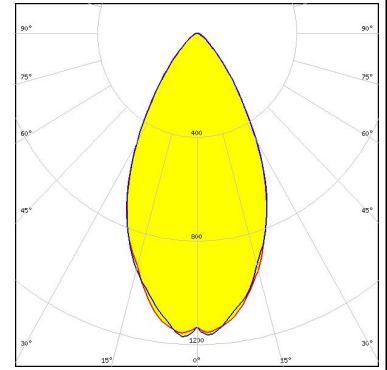
SAMSUNG

LED	LH502D
FWHM / FWTM	52.0° / 88.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
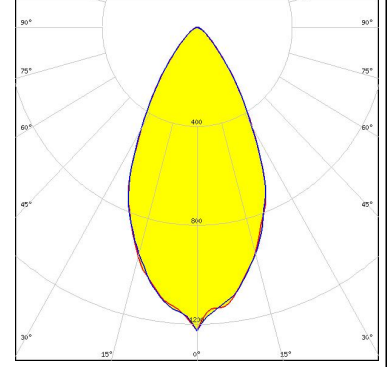
SAMSUNG

LED	LH508B
FWHM / FWTM	52.0° / 89.0°
Efficiency	94 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
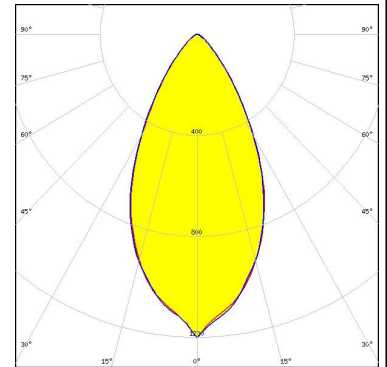
SEOUL SEMICONDUCTOR

LED	Acrich MJT 4040
FWHM / FWTM	52.0° / 82.0°
Efficiency	93 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
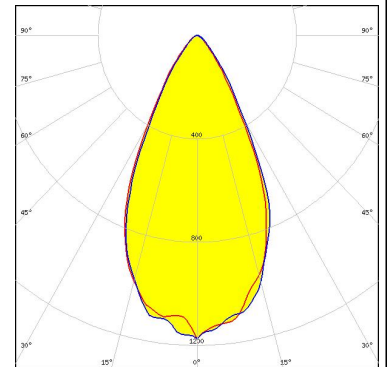
OPTICAL RESULTS (SIMULATED):

SEOUL SEMICONDUCTOR

LED	Z5M
FWHM / FWTM	50.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

SEOUL SEMICONDUCTOR

LED	Z5M4
FWHM / FWTM	52.0° / 78.0°
Efficiency	97 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

SEOUL SEMICONDUCTOR

LED	Z8Y22T
FWHM / FWTM	53.0° / 79.0°
Efficiency	94 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

TOSHIBA
Leading Innovation »»

LED	TL1L2
FWHM / FWTM	55.0° / 79.0°
Efficiency	94 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

TOSHIBA Leading Innovation »

LED	TL1L3
FWHM / FWTM	54.0°
Efficiency	89 %
LEDs/each optic	1
Light colour	White
Required components:	