HB-IP-2X6-M

~25° medium 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-M	Multi-lens	PMMA	clear	
2X6-SEAL25	Seal	Silicone	white	
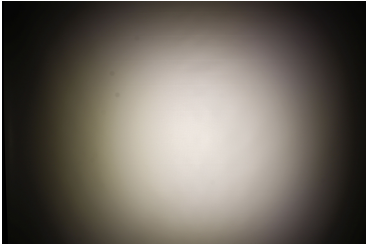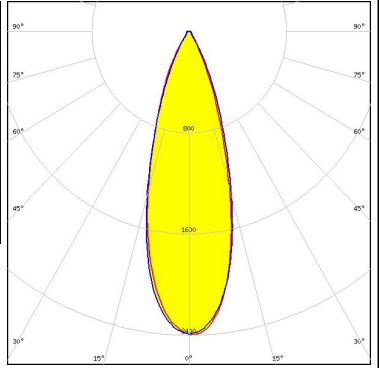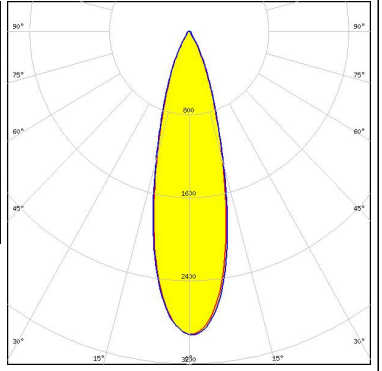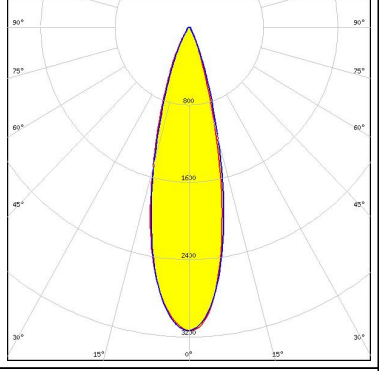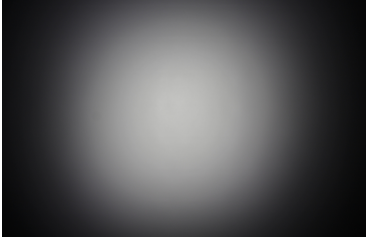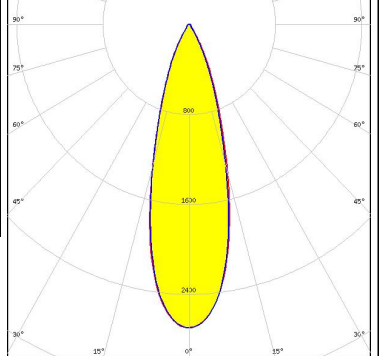
ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CS14891_HB-IP-2X6-M	Multi-lens	120	40	40	8.1
» Box size: 476 x 273 x 247 mm					

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

(146.5)
pcb typically 146.6mm
25.4   12.7
61
25.4
12.7
(44.9)
pcb typ. 45mm
50.8   1.7
pos.pin   hole
54.2   54.2   54.2
Ø3.45

Detail A
Scale: 2:1
3.2

Detail B
Scale: 2:1
3.2

3.2
5.35   3.45
M3
D-D
Scale: 2:1
6°

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

D
D
C
C
71.4
5.35   11.39
173

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

1.65 (silicone)
2.65 (rib)
9.89
1.6(pcb)
Section view C-C
Scale: 1:1

PART	TYPE	MATERIAL	COLOR / COATING
C14051_HB-IP-2X6-M	Lens	PMMA	Clear
C14018_2X6-SEAL25	Lens	Silicone	White

MECHANICAL DRAWING

PRODUCT
CS14891_HB-IP-2X6-M

Plastic moulding general tolerances according to DIN 16901-130 and applies if not otherwise shown in the drawing. Silicone moulding general tolerances according to ISO 3302-1 Class M3 and applies if not otherwise shown in the drawing.

FIRST ANGLE PROJECTION:

This drawing is the property of LEDiL Oy. It may not be copied or otherwise distributed without prior written permission from LEDiL Oy.

| SCALE | 1:1 | WEIGHT | - | A3 | SHEET 1/1 |

Notes
● PCB or heatsink level.
● LED location
Ensure LED fitting from a product specific 3D model available from www.ledil.com
For more details about installation please see LEDiL Installation Guide on www.ledil.com

DATE
13.05.2019

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	32.0° / 59.0°
Efficiency	94 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

COMET ELECTRONICS

LED	QUICK FLUX 2x6 LED XT xxx G5
FWHM / FWTM	28.0° / 55.0°
Efficiency	94 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XM-L
FWHM / FWTM	27.0° / 50.0°
Efficiency	94 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-G2
FWHM / FWTM	30.0° / 57.0°
Efficiency	94 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

|	
CREE LEDs	
LED	XP-G3
FWHM / FWTM	32.0° / 58.0°
Efficiency	94 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs	
LED	XP-L HD
FWHM / FWTM	39.0° / 66.0°
Efficiency	94 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs	
LED	XP-L2
FWHM / FWTM	39.0° / 67.0°
Efficiency	94 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs	
LED	XT-E
FWHM / FWTM	25.0° / 52.0°
Efficiency	92 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

CREE LEDs

LED	XT-E HE
FWHM / FWTM	26.0° / 53.0°
Efficiency	94 %
Peak intensity	3.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

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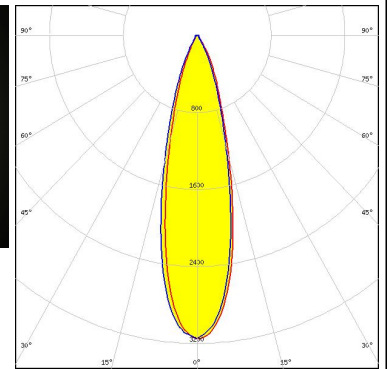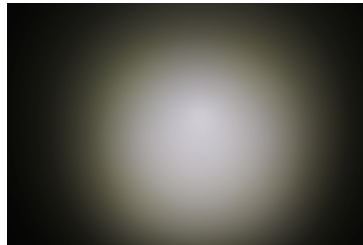
LED	LUXEON T
FWHM / FWTM	29.0° / 55.0°
Efficiency	94 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMILEDS
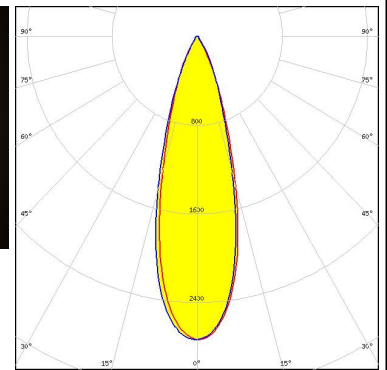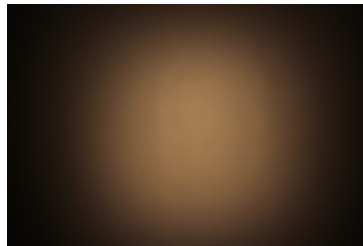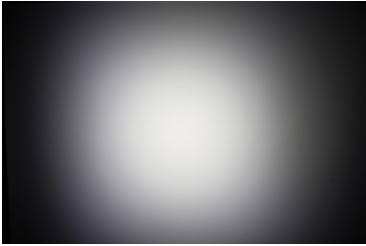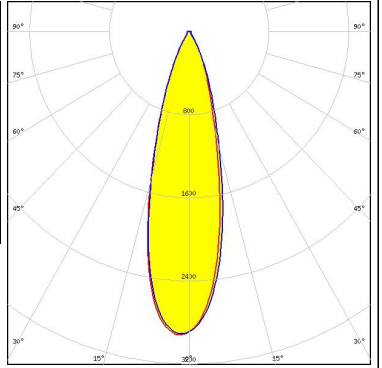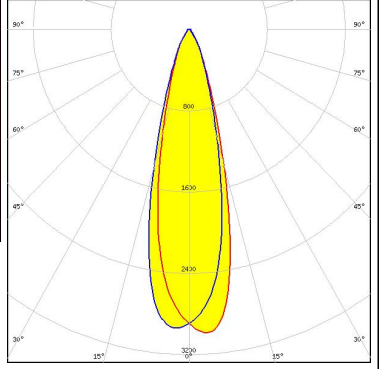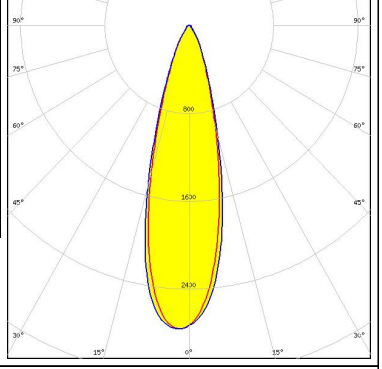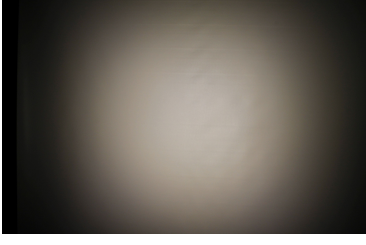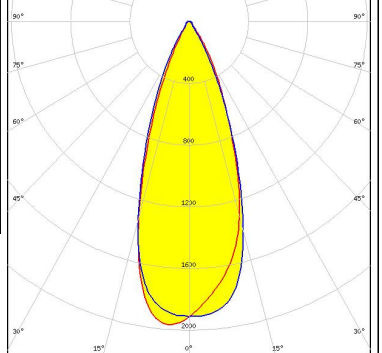
LED	LUXEON V
FWHM / FWTM	35.0° / 62.0°
Efficiency	93 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
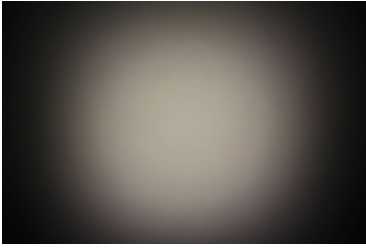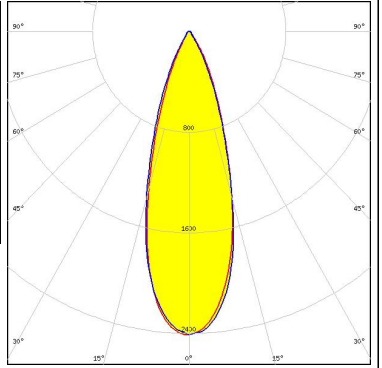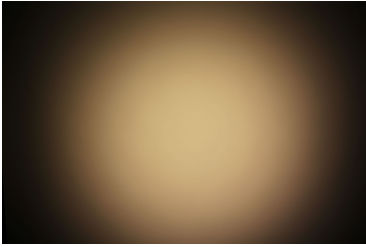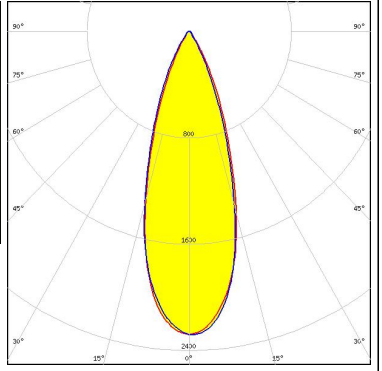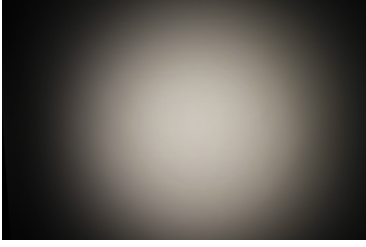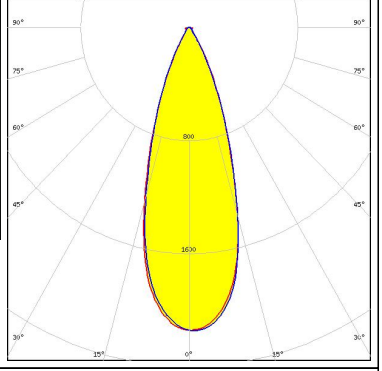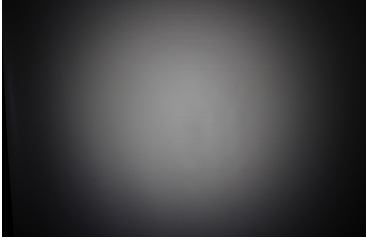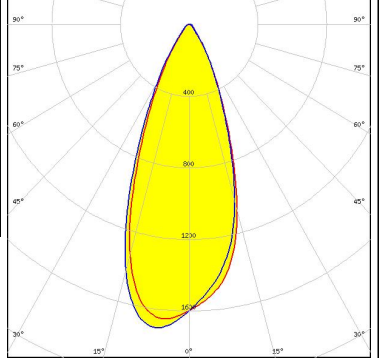
LUMILEDS
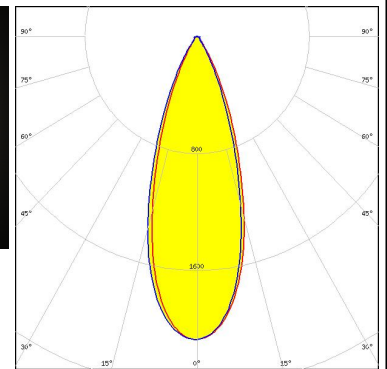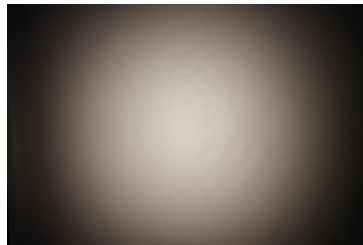
LED	LUXEON V2
FWHM / FWTM	28.0° / 54.0°
Efficiency	94 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
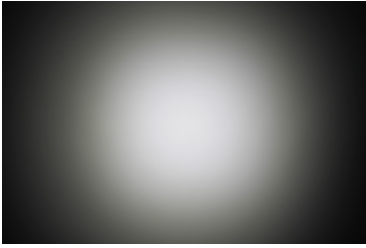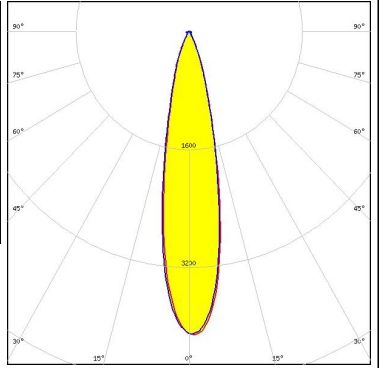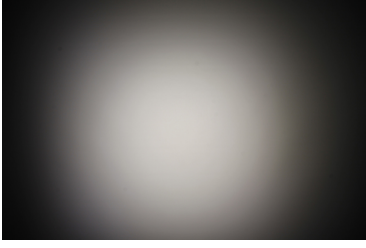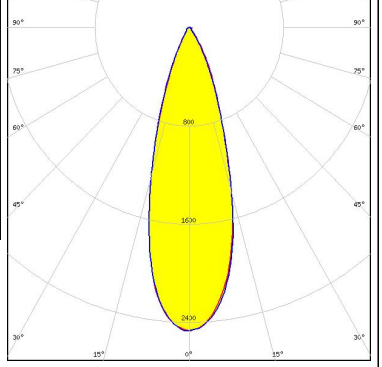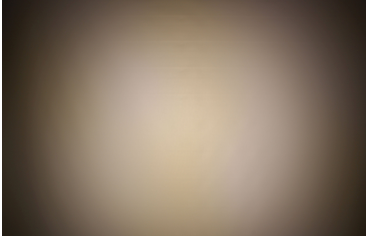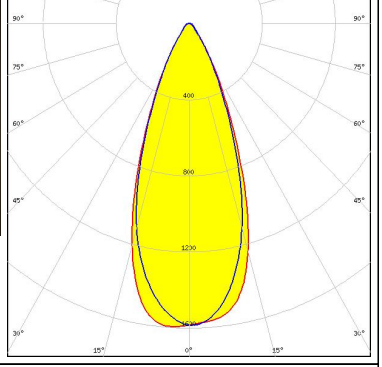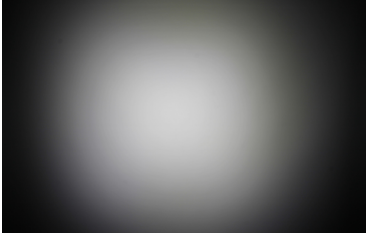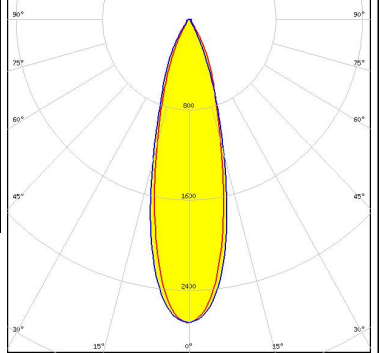
OPTICAL RESULTS (MEASURED):

LUMILEDS

LED	LUXEON XR-TX (L2T0-xxxx012M0000)
FWHM / FWTM	28.0° / 54.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMINUS

LED	SST-10-B130
FWHM / FWTM	27.0° / 53.0°
Efficiency	95 %
Peak intensity	3 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	28.0° / 55.0°
Efficiency	95 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NVSW219D
FWHM / FWTM	38.0° / 63.0°
Efficiency	94 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

NICHIA

LED	NVSW219F
FWHM / FWTM	33.0° / 59.0°
Efficiency	94 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NVSW319B
FWHM / FWTM	34.0° / 61.0°
Efficiency	94 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NVSW3x9A
FWHM / FWTM	34.0° / 60.0°
Efficiency	94 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NVSW519A
FWHM / FWTM	40.0° / 70.0°
Efficiency	95 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

NICHIA

LED	NVSxE21A
FWHM / FWTM	24.0° / 53.0°
Efficiency	92 %
Peak intensity	4.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

NICHIA

LED	NVSxx19B/NVSxx19C
FWHM / FWTM	31.0° / 58.0°
Efficiency	93 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	Duris S8
FWHM / FWTM	41.0° / 70.0°
Efficiency	94 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM
Opto Semiconductors

LED	OSLON Square PC
FWHM / FWTM	29.0° / 57.0°
Efficiency	93 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

PHILIPS

LED	Fortimo FastFlex LED 2x6 DP G5
FWHM / FWTM	32.0° / 62.0°
Efficiency	96 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
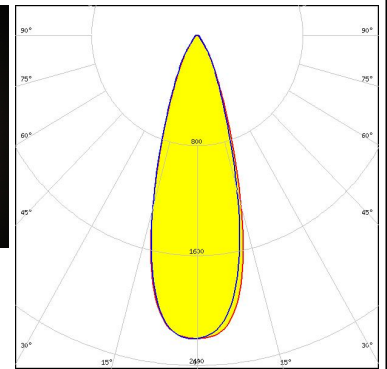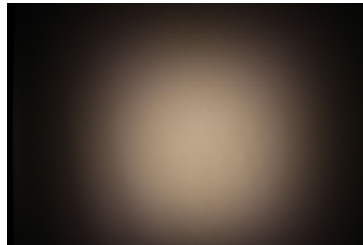
PHILIPS

LED	Fortimo FastFlex LED 2x6 DP HE
FWHM / FWTM	38.0° / 68.0°
Efficiency	97 %
Peak intensity	1.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
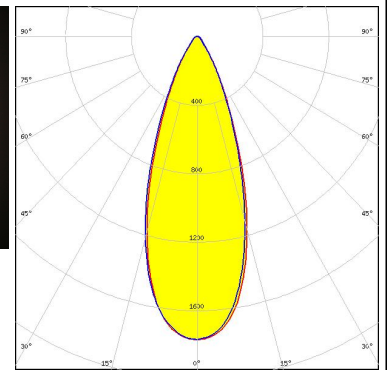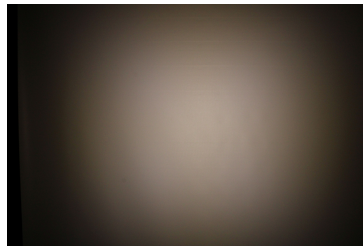
PHILIPS

LED	Fortimo FastFlex LED 2x6 DPX G4
FWHM / FWTM	32.0° / 58.0°
Efficiency	94 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
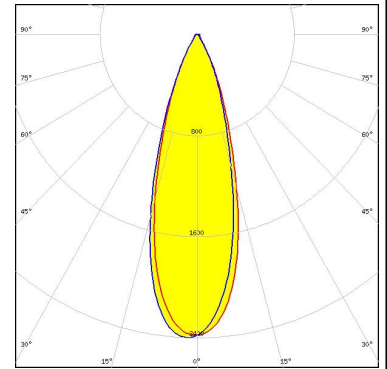
SAMSUNG

LED	HiLOM RH12 (LH351C)
FWHM / FWTM	33.0° / 61.0°
Efficiency	94 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
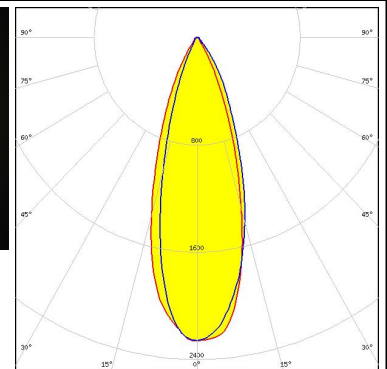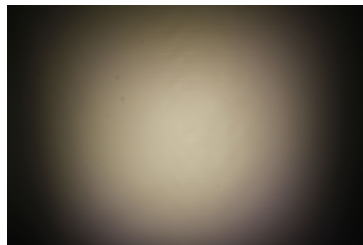
OPTICAL RESULTS (MEASURED):

SAMSUNG

LED	HiLOM RM12 ZP (LH502C)
FWHM / FWTM	38.0° / 69.0°
Efficiency	96 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
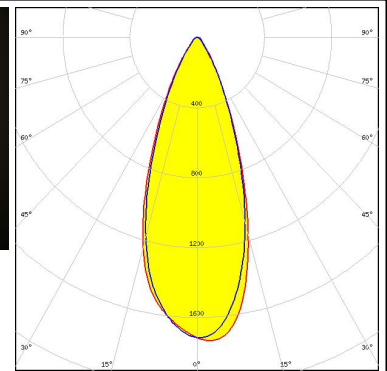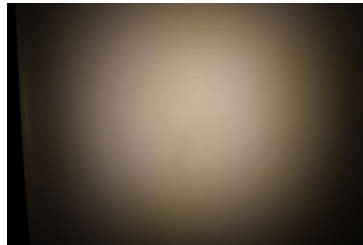
SCIOLUX

LED	XLE-S22C4XTEHE (XT-E HE)
FWHM / FWTM	26.0° / 53.0°
Efficiency	94 %
Peak intensity	3.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
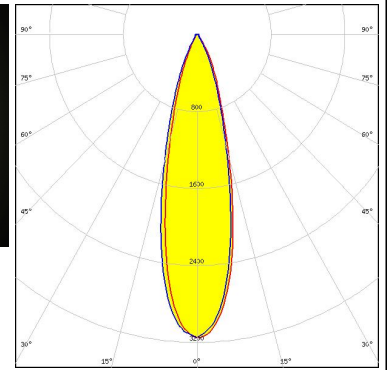
SCIOLUX

LED	XLE-S26XHP35 (XHP35 HD)
FWHM / FWTM	42.0° / 71.0°
Efficiency	94 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
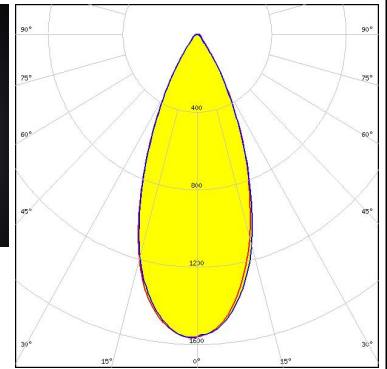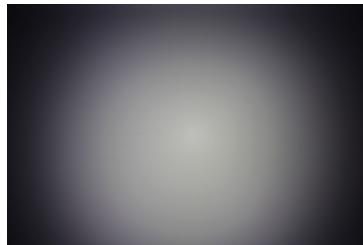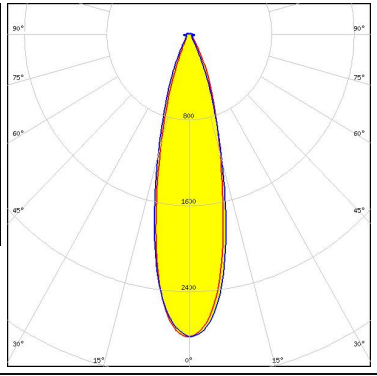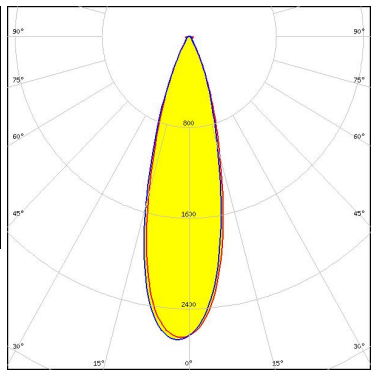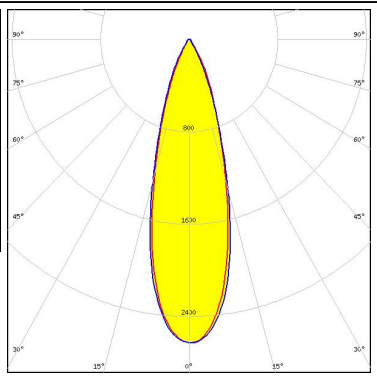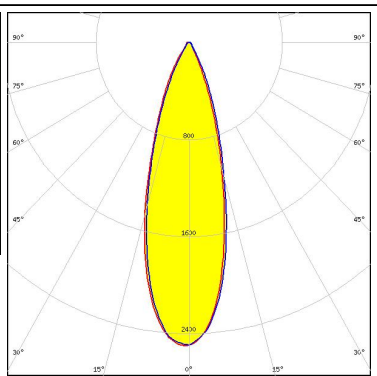
SEOUL SEMICONDUCTOR

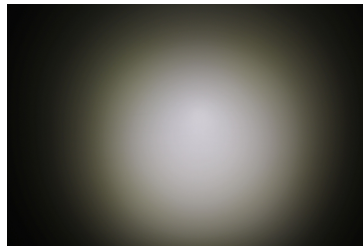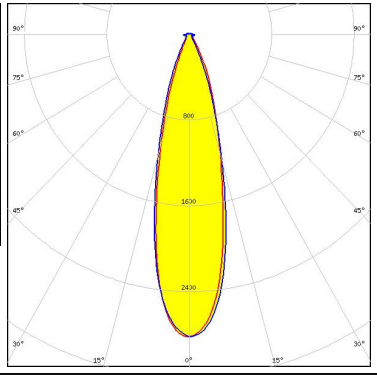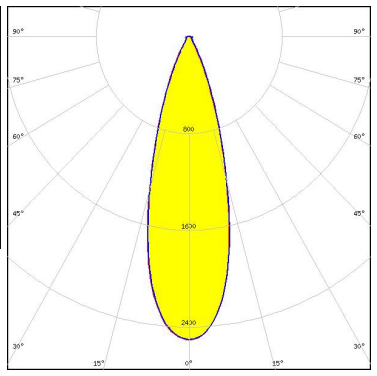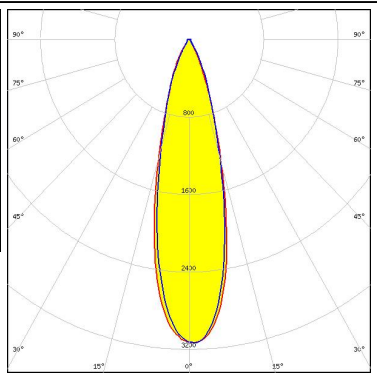|	
LED	2x6 5050 module - SMJD-3625012F-XX
FWHM / FWTM	38.0° / 65.0°
Efficiency	94 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

LED	SMJQ-D36W12Mx
FWHM / FWTM	26.0° / 52.0°
Efficiency	91 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LED	SMJQ-D36W12Px
FWHM / FWTM	29.0° / 54.0°
Efficiency	94 %
Peak intensity	2.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LED	Z5M1/Z5M2
FWHM / FWTM	30.0° / 57.0°
Efficiency	93 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LED	Z5M3
FWHM / FWTM	30.0° / 58.0°
Efficiency	94 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (MEASURED):

SEOUL SEMICONDUCTOR

LED	Z8Y22
FWHM / FWTM	26.0° / 52.0°
Efficiency	91 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

SEOUL SEMICONDUCTOR

LED	Z8Y22P
FWHM / FWTM	30.0° / 55.0°
Efficiency	93 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

TRIDONIC

LED	RLE 2x6 3000lm HP EXC2 OTD
FWHM / FWTM	26.0° / 53.0°
Efficiency	94 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):
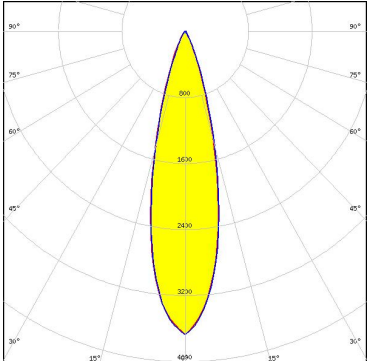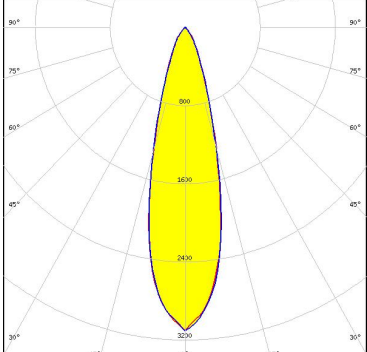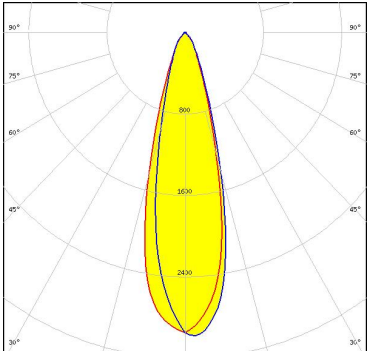
CREE LEDs

LED	XP-E
FWHM / FWTM	28.0° / 56.0°
Efficiency	94 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-G2 HE
FWHM / FWTM	31.0° / 53.0°
Efficiency	95 %
Peak intensity	2.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

CREE LEDs

LED	XP-G4
FWHM / FWTM	38.0° / 70.0°
Efficiency	96 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

LUMILEDS

LED	LUXEON 5050 Round LES
FWHM / FWTM	37.0° / 68.0°
Efficiency	93 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

NICHIA

LED	NV4WB35AM
FWHM / FWTM	34.0° / 62.0°
Efficiency	95 %
Peak intensity	2.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM

LED	PrevaLED Brick HP IP 2x6
FWHM / FWTM	30.0° / 58.0°
Efficiency	95 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM Opto Semiconductors

LED	OSCONIQ P 3030
FWHM / FWTM	20.0° / 42.0°
Efficiency	96 %
Peak intensity	4.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM Opto Semiconductors

LED	OSCONIQ P 3737 (2W version)
FWHM / FWTM	26.0° / 52.0°
Efficiency	96 %
Peak intensity	3.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

OSRAM Opto Semiconductors

LED	OSCONIQ P 3737 (3W version)
FWHM / FWTM	26.0° / 48.0°
Efficiency	94 %
Peak intensity	3.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM Opto Semiconductors

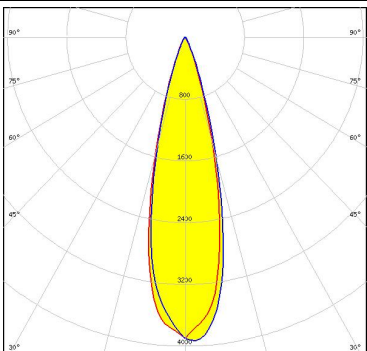|	
LED	OSCONIQ P 3737 Flat
FWHM / FWTM	27.0° / 54.0°
Efficiency	96 %
Peak intensity	3.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OSRAM Opto Semiconductors

LED	OSLON Square CSSRM2/CSSRM3
FWHM / FWTM	27.0° / 53.0°
Efficiency	94 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

PHILIPS

LED	Fortimo FastFlex LED 2x6 DP G4
FWHM / FWTM	26.0° / 45.0°
Efficiency	94 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	

OPTICAL RESULTS (SIMULATED):

SAMSUNG

LED	LH181B
FWHM / FWTM	27.0° / 50.0°
Efficiency	94 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
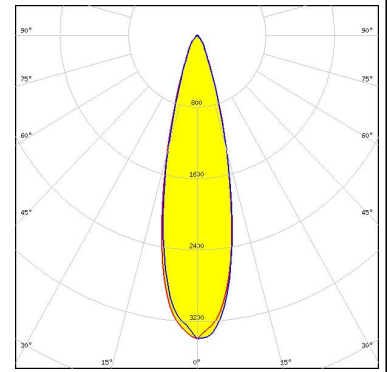
SAMSUNG

LED	LH231B
FWHM / FWTM	28.0° / 52.0°
Efficiency	95 %
Peak intensity	3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
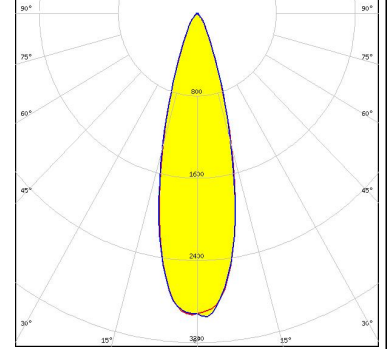
SAMSUNG

LED	LH351C
FWHM / FWTM	39.5° / 72.3°
Efficiency	94 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
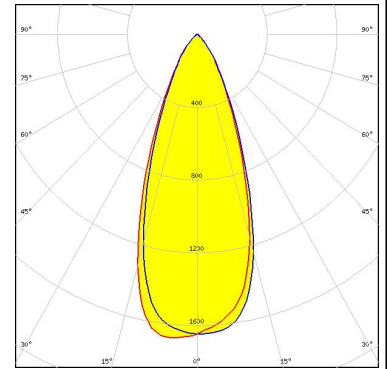
SAMSUNG

LED	LH351D
FWHM / FWTM	46.0° / 79.9°
Efficiency	94 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
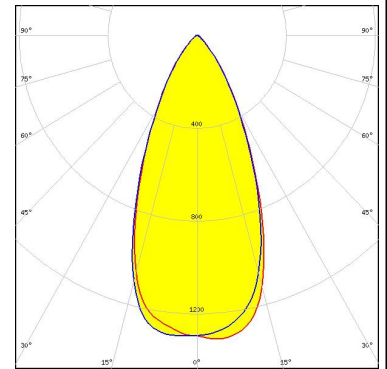
OPTICAL RESULTS (SIMULATED):

SAMSUNG

LED	LH508B
FWHM / FWTM	36.0° / 70.0°
Efficiency	94 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
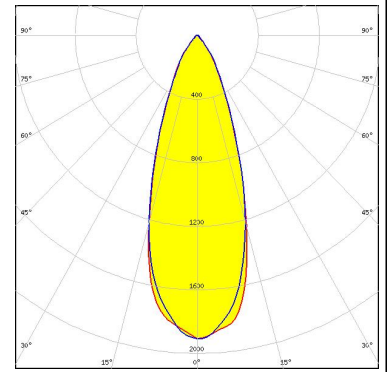
SEOUL SEMICONDUCTOR

LED	SEOUL DC 5050 6V
FWHM / FWTM	39.0° / 72.0°
Efficiency	94 %
Peak intensity	1.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
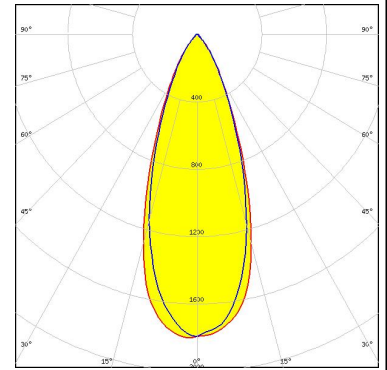
SEOUL SEMICONDUCTOR

LED	Z5M4
FWHM / FWTM	28.0° / 55.0°
Efficiency	95 %
Peak intensity	2.9 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
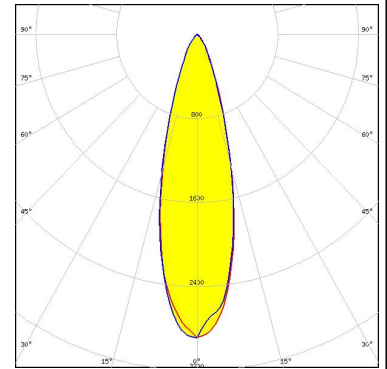
SEOUL SEMICONDUCTOR

LED	Z8Y22T
FWHM / FWTM	28.0° / 51.0°
Efficiency	94 %
Peak intensity	3.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
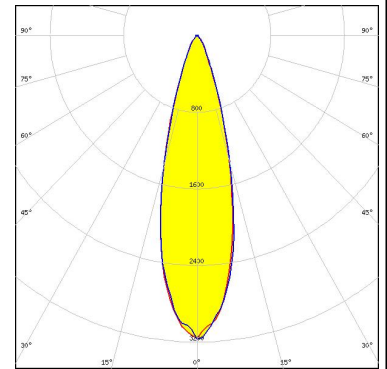
GENERAL INFORMATION:

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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