

LISA3-M-PIN

~25° medium beam with location pin installation

SPECIFICATION:

Dimensions	Ø 10.0 mm
Height	7.9 mm
Fastening	glue
ROHS compliant	yes ⓘ

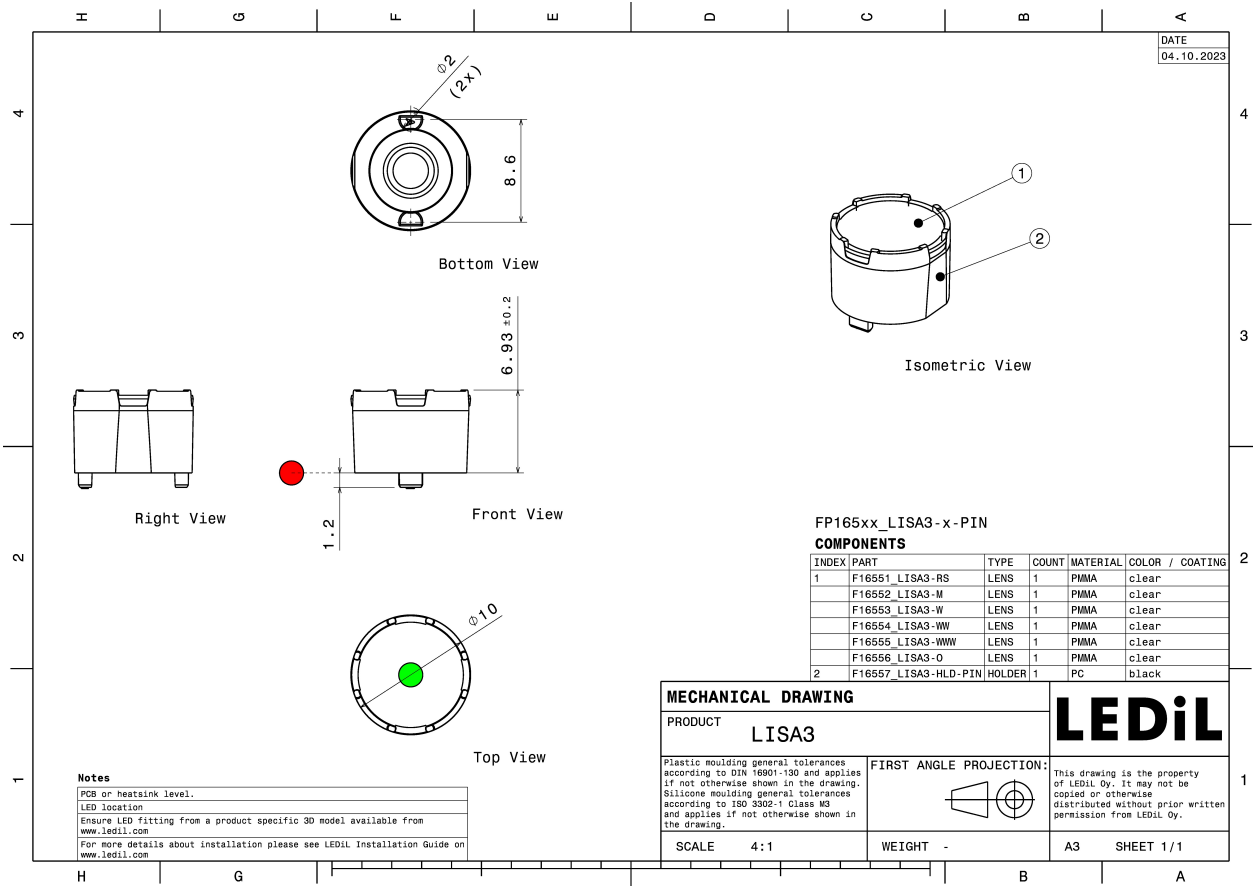
MATERIALS:

Component	Type	Material	Colour	Finish
LISA3-M	Single lens	PMMA	clear	
LISA3-HLD-PIN	Holder	PC	black	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP16559_LISA3-M-PIN	Single lens	2000	300	100	1.3
» Box size: 310 x 230 x 60 mm					



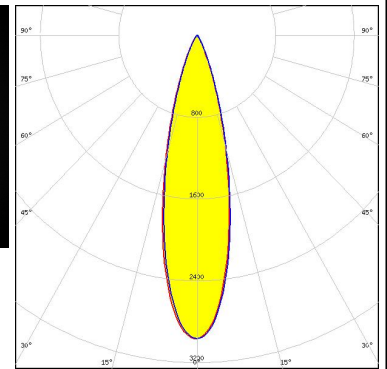
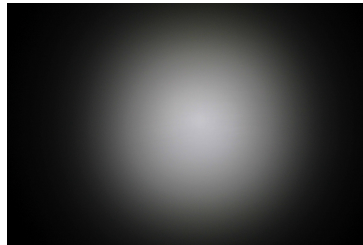


See also our general installation guide: www.ledil.com/installation_guide

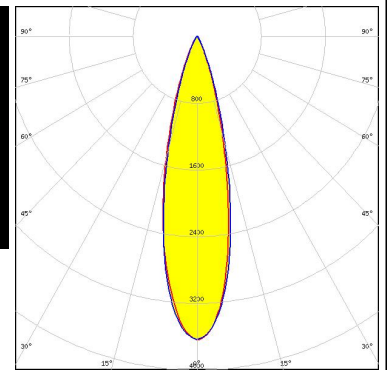
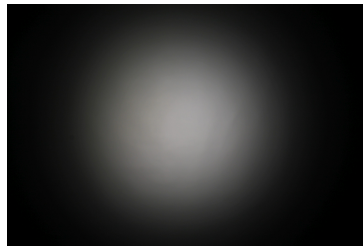
OPTICAL RESULTS (MEASURED):



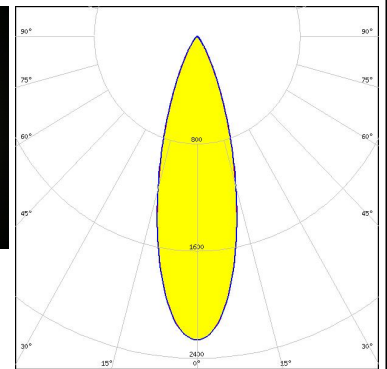
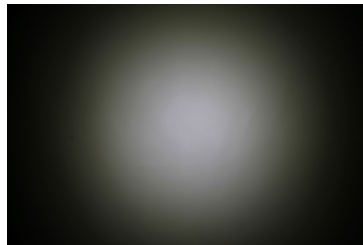
LED XD16
 FWHM / FWTM 26.0° / 49.0°
 Efficiency 76 %
 Peak intensity 3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



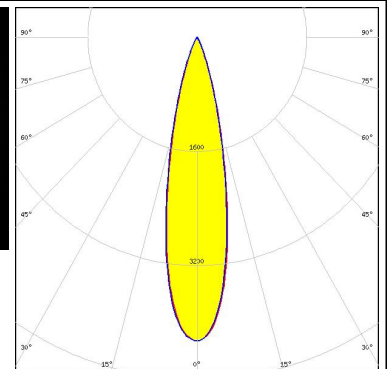
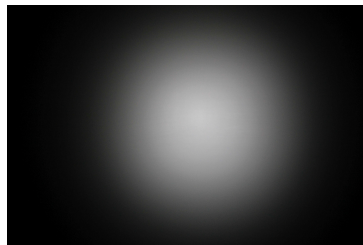
LED XP-E2
 FWHM / FWTM 25.0° / 47.0°
 Efficiency 88 %
 Peak intensity 3.6 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:




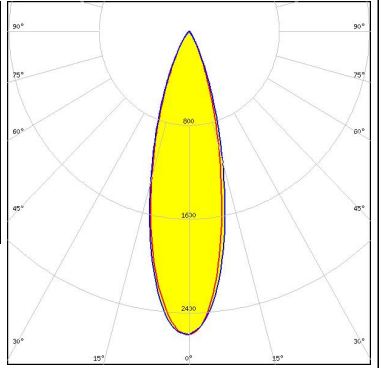
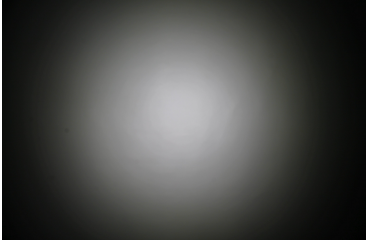
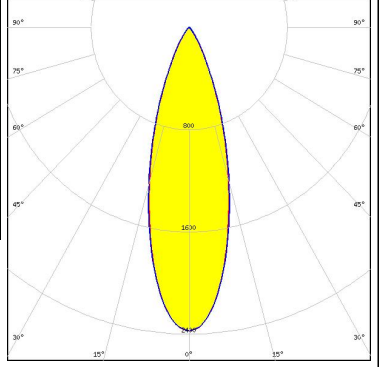
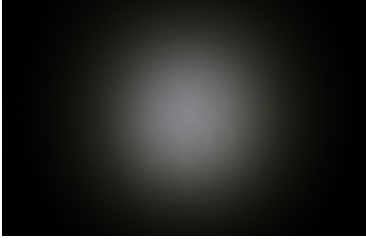
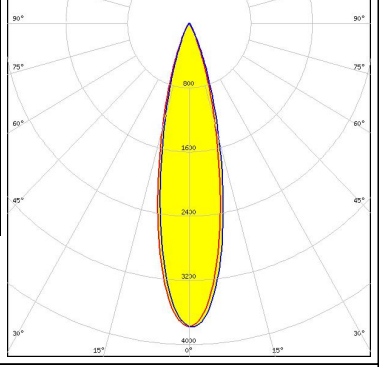
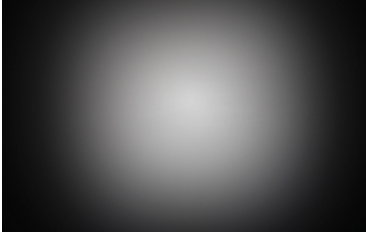
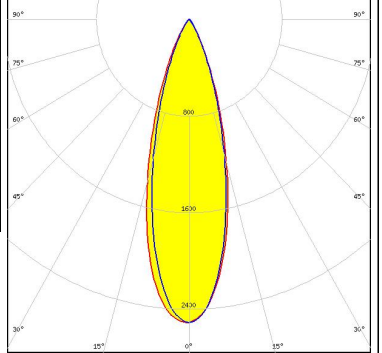
LED XP-G3
 FWHM / FWTM 31.0° / 58.0°
 Efficiency 81 %
 Peak intensity 2.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



LED LUXEON CZ
 FWHM / FWTM 23.0° / 43.0°
 Efficiency 87 %
 Peak intensity 4.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



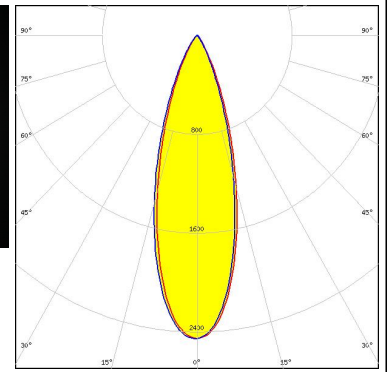
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED NF2x757G FWHM / FWTM 28.0° / 54.0° Efficiency 79 % Peak intensity 2.6 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>NICHIA</p> <p>LED NVSW219F FWHM / FWTM 32.0° / 59.0° Efficiency 88 % Peak intensity 2.4 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED OSCONIQ C 2424 FWHM / FWTM 24.0° / 46.0° Efficiency 87 % Peak intensity 3.8 cd/m LEDs/each optic 1 Light colour White Required components:</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED OSLON Square CSSRM2/CSSRM3 FWHM / FWTM 30.0° / 55.0° Efficiency 87 % Peak intensity 2.5 cd/m LEDs/each optic 1 Light colour White Required components:</p>		

OPTICAL RESULTS (MEASURED):

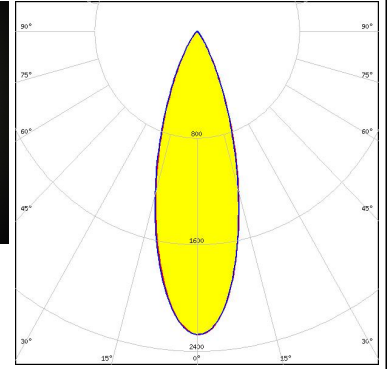
SAMSUNG

LED LH351C
 FWHM / FWTM 31.0° / 58.0°
 Efficiency 89 %
 Peak intensity 2.5 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:


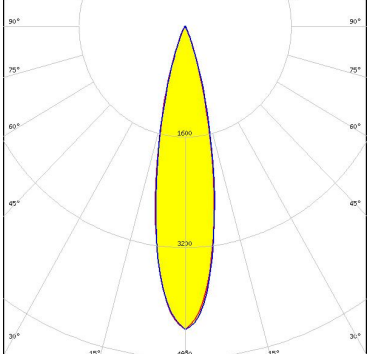

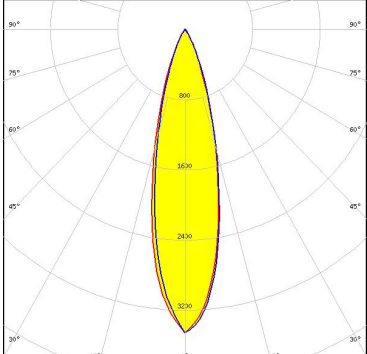

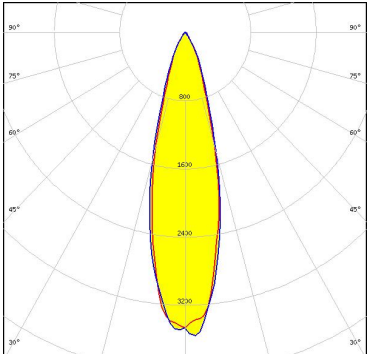

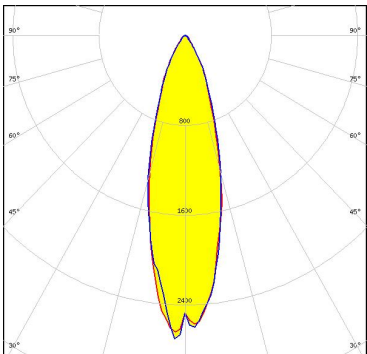


SEOUL SEMICONDUCTOR

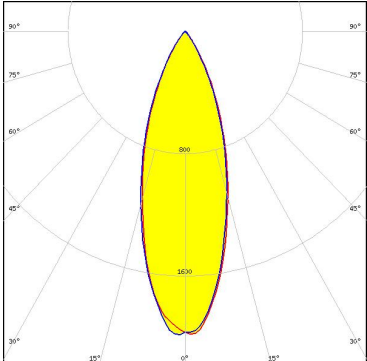
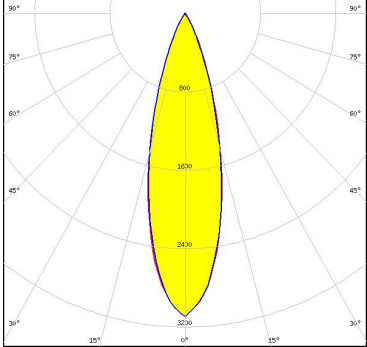
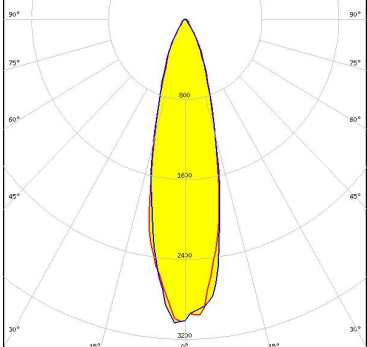
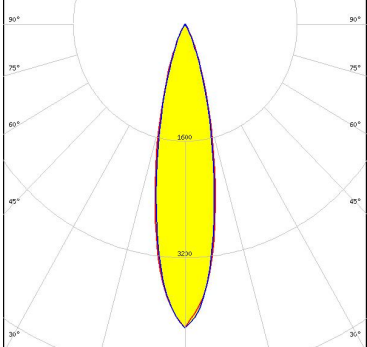
LED Z5M4
 FWHM / FWTM 33.0° / 61.0°
 Efficiency 88 %
 Peak intensity 2.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:



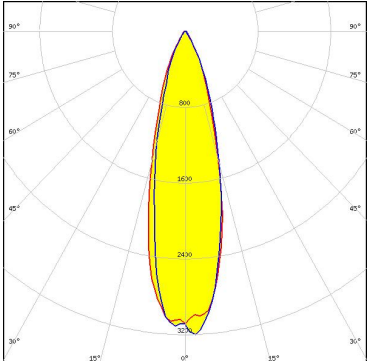
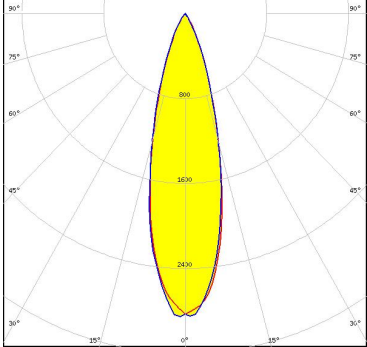
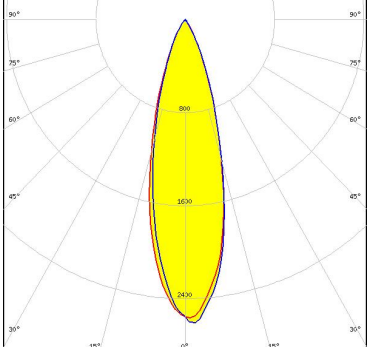
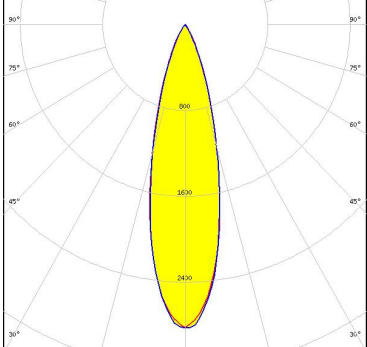
OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED CSP 2323 (BXCP)</p> <p>FWHM / FWTM 22.0° / 42.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 4.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p></p> <p>LED J Series 2835</p> <p>FWHM / FWTM 25.0° / 50.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 3.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p></p> <p>LED XP-E</p> <p>FWHM / FWTM 28.0° / 45.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 3.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p></p> <p>LED XP-G</p> <p>FWHM / FWTM 30.0° / 50.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 2.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p>CREE LEDs</p> <p>LED: XP-G2 HE FWHM / FWTM: 34.0° / 66.0° Efficiency: 86 % Peak intensity: 2 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>CREE LEDs</p> <p>LED: XP-G4 FWHM / FWTM: 28.0° / 52.0° Efficiency: 91 % Peak intensity: 3.1 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>CREE LEDs</p> <p>LED: XT-E FWHM / FWTM: 24.0° / 46.0° Efficiency: 82 % Peak intensity: 3.6 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON 2835 Line FWHM / FWTM: 23.0° / 46.0° Efficiency: 89 % Peak intensity: 4.2 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

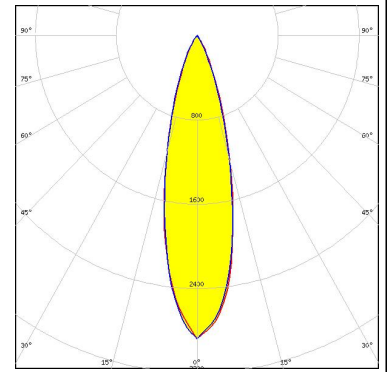
OPTICAL RESULTS (SIMULATED):

<p>LUMILEDS</p> <p>LED LUXEON 3030 2D (Round LES)</p> <p>FWHM / FWTM 25.0° / 45.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 4.1 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 28.0° / 52.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 2.9 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 28.0° / 54.0°</p> <p>Efficiency 75 %</p> <p>Peak intensity 2.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Deep Red</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED LUXEON C</p> <p>FWHM / FWTM 26.0° / 52.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 2.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Green</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

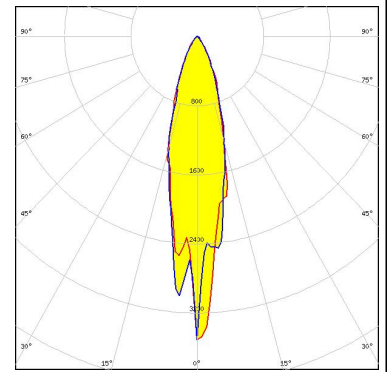
LUMILEDS

LED LUXEON C
 FWHM / FWTM 27.0° / 51.0°
 Efficiency 76 %
 Peak intensity 2.9 cd/lm
 LEDs/each optic 1
 Light colour Royal Blue
 Required components:



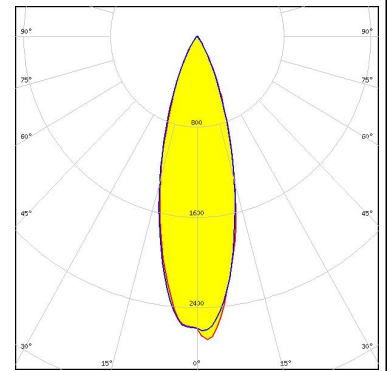
LUMILEDS

LED LUXEON TX
 FWHM / FWTM 28.0° / 50.0°
 Efficiency 87 %
 Peak intensity 3.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



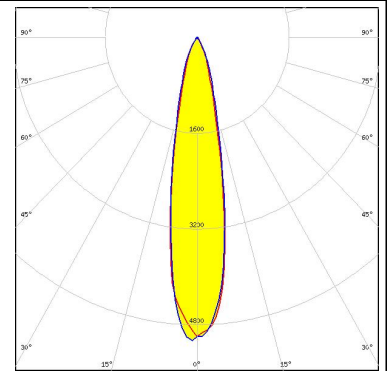
LUMILEDS

LED LUXEON V2
 FWHM / FWTM 30.0° / 56.0°
 Efficiency 90 %
 Peak intensity 2.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

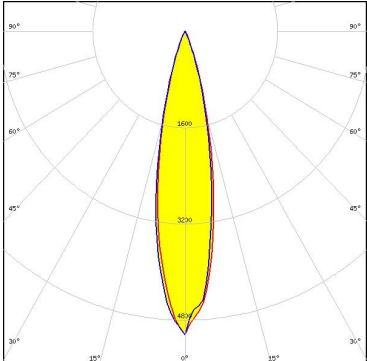
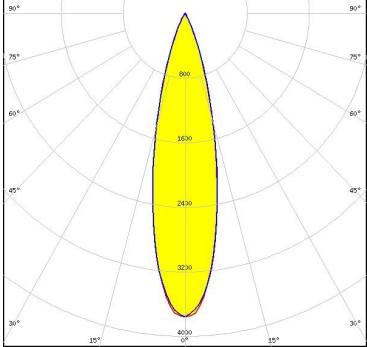
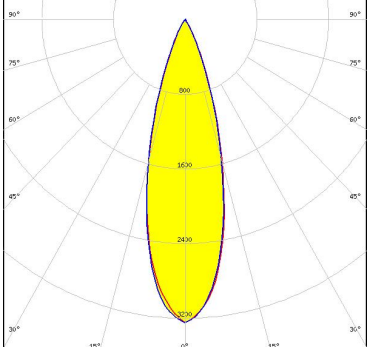
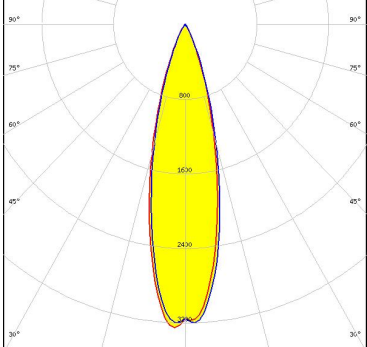


LUMILEDS

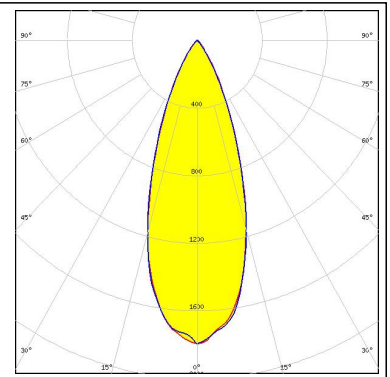
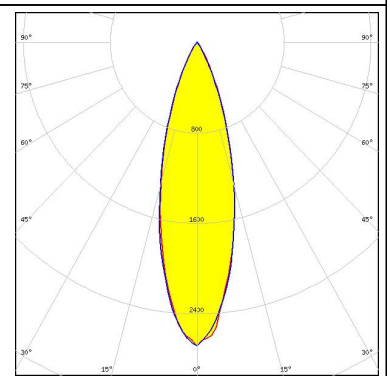
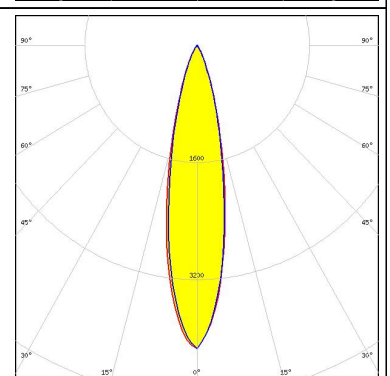
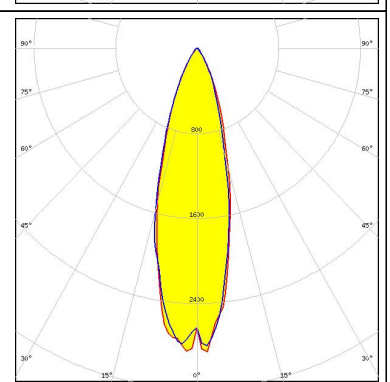
LED LUXEON Z
 FWHM / FWTM 20.0° / 38.0°
 Efficiency 88 %
 Peak intensity 6.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



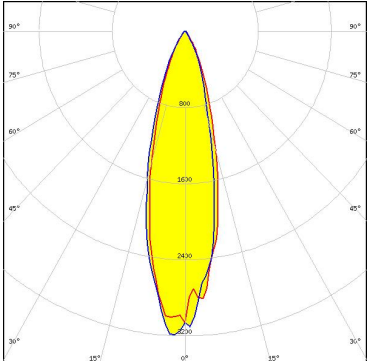
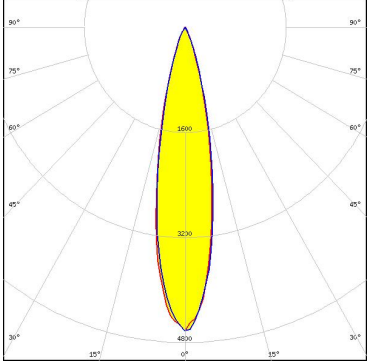
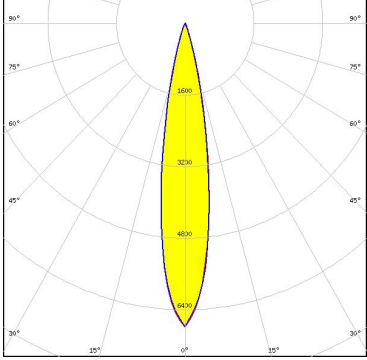
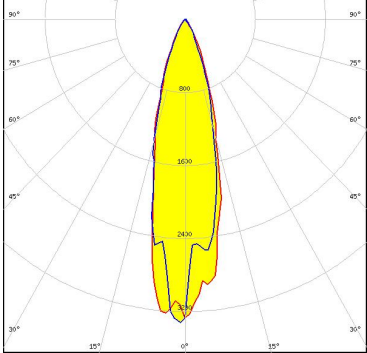
OPTICAL RESULTS (SIMULATED):

<p>LUMILEDS</p> <p>LED: LUXEON Z ES FWHM / FWTM: 22.0° / 41.0° Efficiency: 89 % Peak intensity: 5 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>LUMINUS</p> <p>LED: SST-20 FWHM / FWTM: 26.0° / 46.0° Efficiency: 87 % Peak intensity: 3.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NCSU276C FWHM / FWTM: 30.0° / 52.0° Efficiency: 89 % LEDs/each optic: 1 Light colour: UV-A Required components:</p>	
<p>NICHIA</p> <p>LED: NCSxx19B FWHM / FWTM: 26.0° / 49.0° Efficiency: 83 % Peak intensity: 3.3 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p>NICHIA</p> <p>LED: NV4WB35AM FWHM / FWTM: 38.0° / 66.0° Efficiency: 85 % Peak intensity: 1.8 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NVSxx19B/NVSxx19C FWHM / FWTM: 29.0° / 56.0° Efficiency: 86 % Peak intensity: 2.7 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED: Duris E 2835 FWHM / FWTM: 23.0° / 46.0° Efficiency: 87 % Peak intensity: 4.1 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED: Duris S5 (2 chip) FWHM / FWTM: 25.0° / 45.0° Efficiency: 89 % Peak intensity: 3.2 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

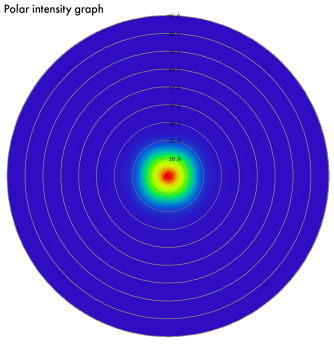
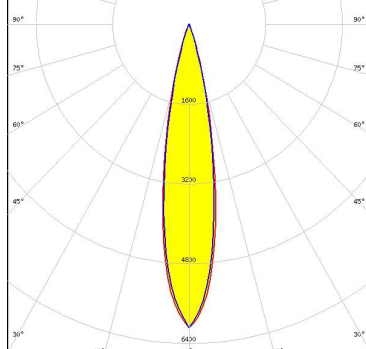
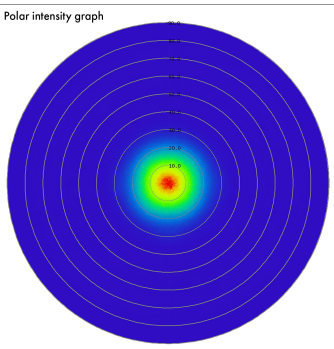
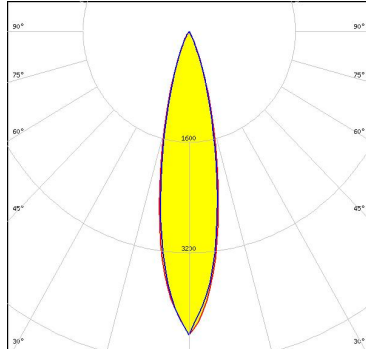

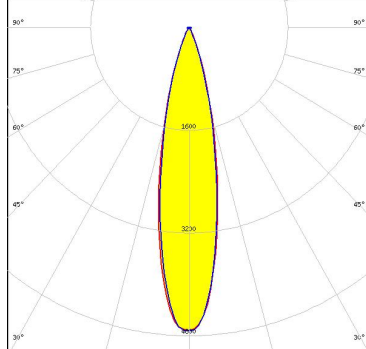

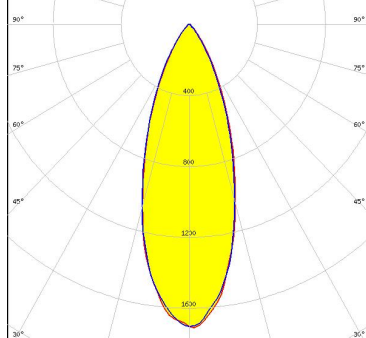
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED Duris S5 (Single chip)</p> <p>FWHM / FWTM 25.0° / 45.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 3.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3030</p> <p>FWHM / FWTM 22.0° / 42.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 4.7 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 Black</p> <p>FWHM / FWTM 18.0° / 34.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 6.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSLON Square EC</p> <p>FWHM / FWTM 26.0° / 49.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 3.4 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: OSLOM Square Flat</p> <p>FWHM / FWTM: 24.0° / 45.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 3.6 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: OSLOM SSL 120</p> <p>FWHM / FWTM: 23.0° / 41.0°</p> <p>Efficiency: 91 %</p> <p>Peak intensity: 4.8 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: Hyper Red</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED: OSLOM SSL 150</p> <p>FWHM / FWTM: 25.0° / 45.0°</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 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: OSLOM SSL 80</p> <p>FWHM / FWTM: 21.0° / 40.0°</p> <p>Efficiency: 87 %</p> <p>Peak intensity: 5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

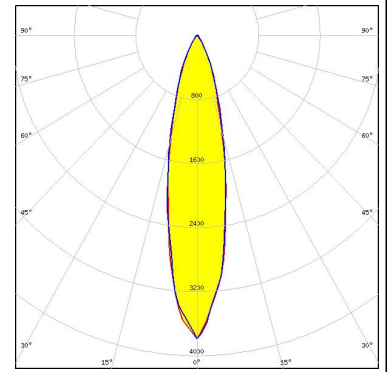
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED SFH 4715S FWHM / FWTM 20.0° / 35.0° Efficiency 87 % LEDs/each optic 1 Light colour IR Required components:</p>	<p>Polar intensity graph</p> 	
<p>OSRAM Opto Semiconductors</p> <p>LED SFH 4716S FWHM / FWTM 22.0° / 44.0° Efficiency 86 % LEDs/each optic 1 Light colour IR Required components:</p>	<p>Polar intensity graph</p> 	
<p>OSRAM Opto Semiconductors</p> <p>LED SYNIOS S2222 FWHM / FWTM 23.0° / 44.0° Efficiency 97 % Peak intensity 4.7 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	<p>Polar intensity graph</p> 	
<p>SAMSUNG</p> <p>LED LH351D FWHM / FWTM 36.0° / 70.0° Efficiency 85 % Peak intensity 1.7 cd/lm LEDs/each optic 1 Light colour White Required components:</p>	<p>Polar intensity graph</p> 	

OPTICAL RESULTS (SIMULATED):

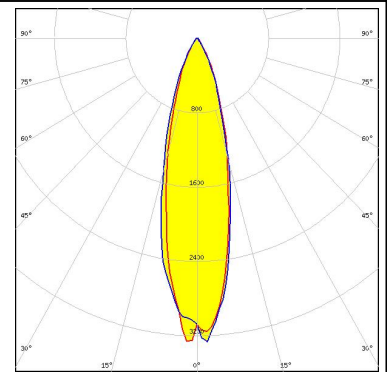
SAMSUNG

LED LM301A
 FWHM / FWTM 22.0° / 41.0°
 Efficiency 87 %
 Peak intensity 3.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



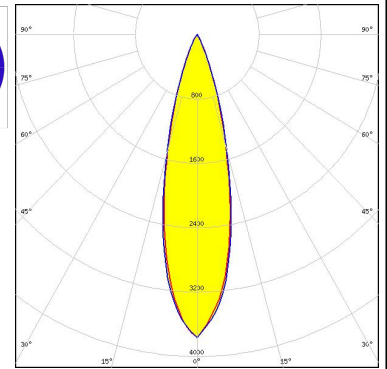
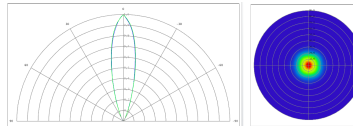
SAMSUNG

LED LM302A
 FWHM / FWTM 25.0° / 47.0°
 Efficiency 87 %
 Peak intensity 3.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



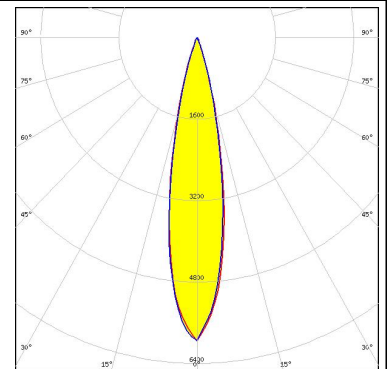
STANLEY

LED FWR1108MS
 FWHM / FWTM 25.0° / 46.0°
 Efficiency 89 %
 LEDs/each optic 1
 Light colour IR
 Required components:


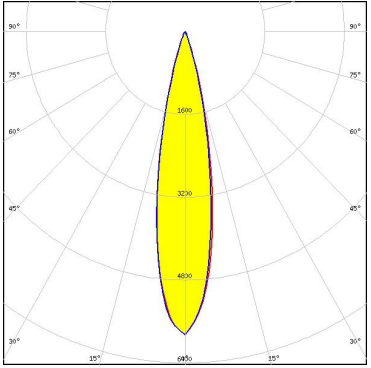

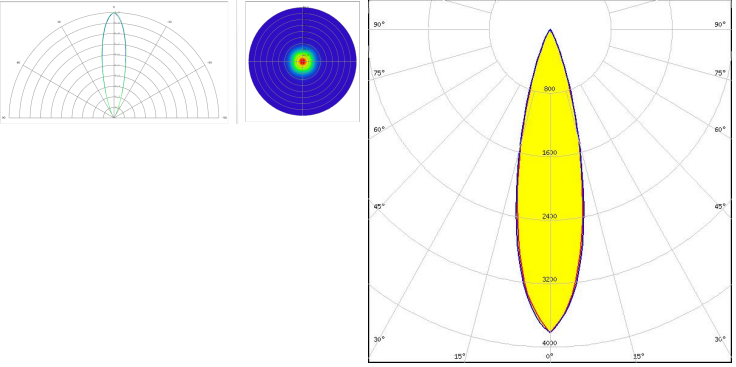


STANLEY

LED MFN1108MS
 FWHM / FWTM 21.0° / 37.0°
 Efficiency 91 %
 Peak intensity 6 cd/lm
 LEDs/each optic 1
 Light colour IR
 Required components:



OPTICAL RESULTS (SIMULATED):

	<p>LED: MGN1108MS FWHM / FWTM: 22.0° / 37.0° Efficiency: 91 % Peak intensity: 5.9 cd/lm LEDs/each optic: 1 Light colour: IR Required components:</p>	
	<p>LED: MJN1108MS FWHM / FWTM: 25.0° / 46.0° Efficiency: 90 % LEDs/each optic: 1 Light colour: IR Required components:</p>	

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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