



**THE DATASHEET OF
FP16560_LISA3-W-PIN**



LISA3-W-PIN

~35° wide beam with location pin installation

SPECIFICATION:

Dimensions	Ø 9.9 mm
Height	7 mm
Fastening	pin
ROHS compliant	yes ⓘ

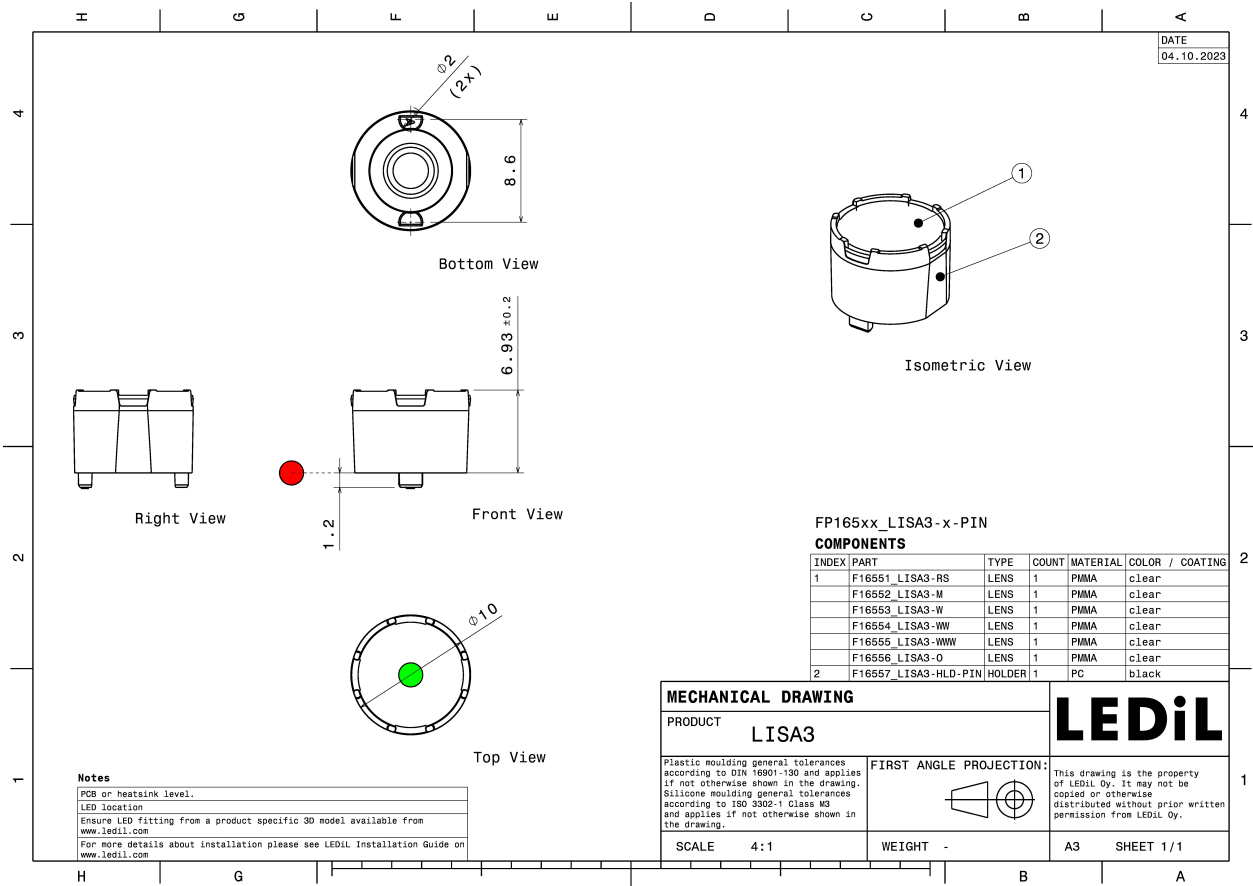
MATERIALS:

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

ORDERING INFORMATION:


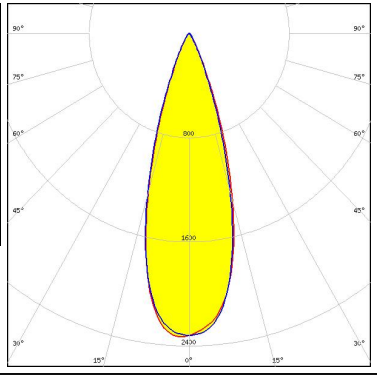

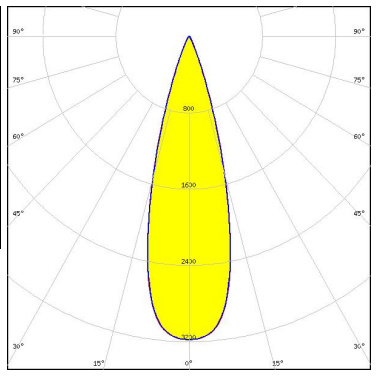

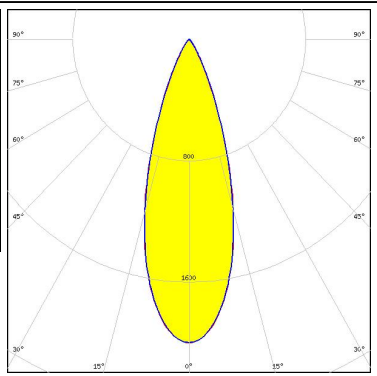
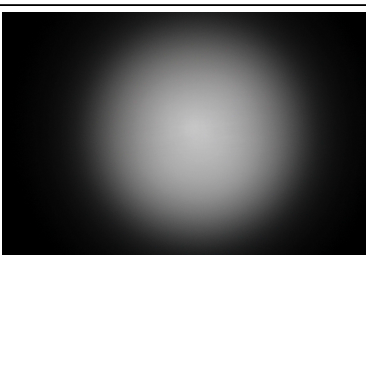
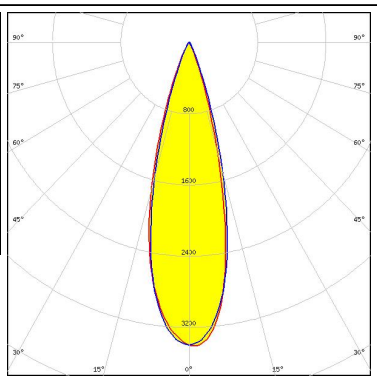
Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP16560_LISA3-W-PIN	Single lens	2000	300	100	1.3
» Box size: 310 x 230 x 60 mm					




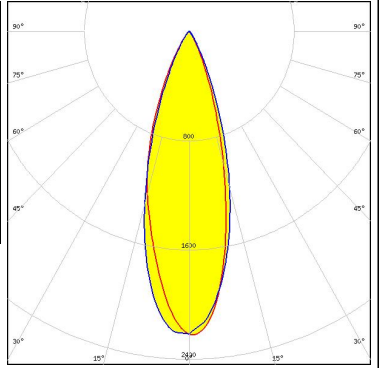

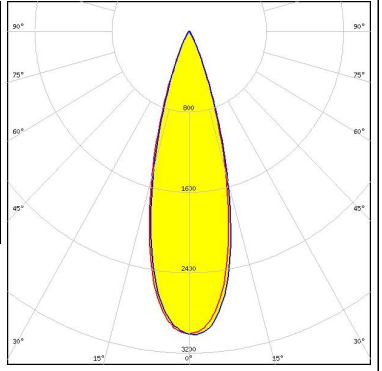
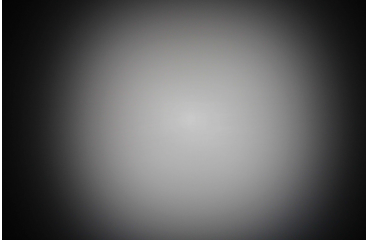
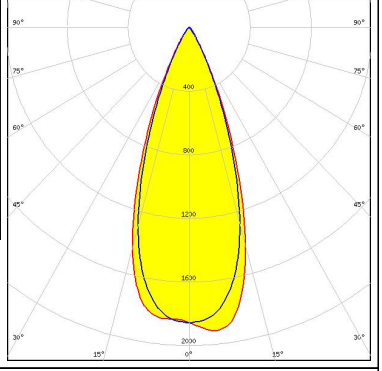
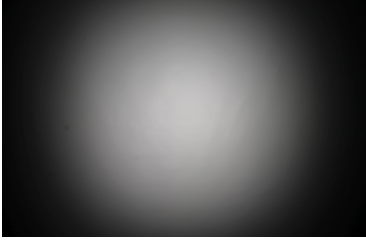
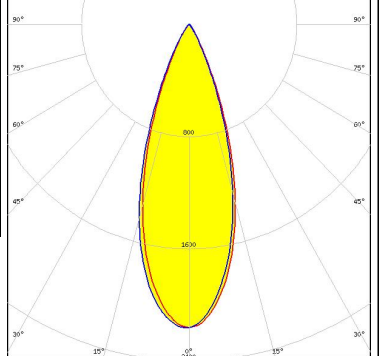


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

<p>CREE LEDs</p> <p>LED XD16 FWHM / FWTM 32.0° / 52.0° Efficiency 77 % Peak intensity 2.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-E2 FWHM / FWTM 29.0° / 46.0° Efficiency 86 % Peak intensity 3.2 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>CREE LEDs</p> <p>LED XP-G3 FWHM / FWTM 34.0° / 58.0° Efficiency 78 % Peak intensity 2 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>LUMILEDS</p> <p>LED LUXEON CZ FWHM / FWTM 29.0° / 47.0° Efficiency 88 % Peak intensity 3.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		


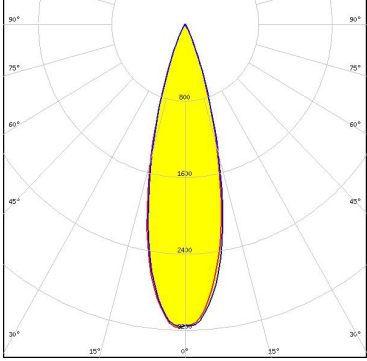

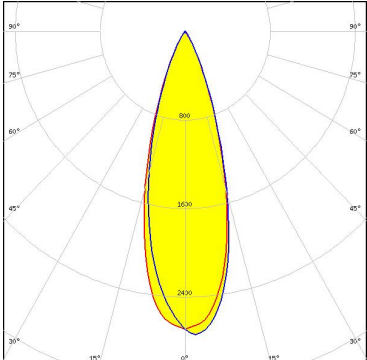

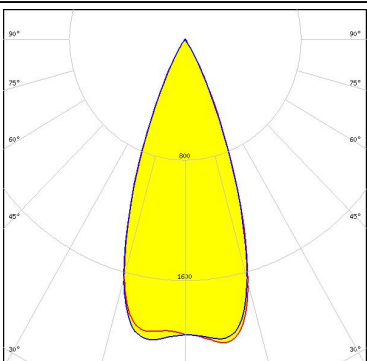

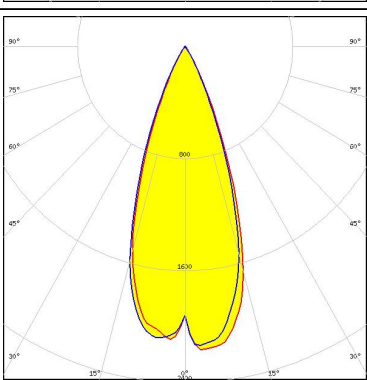
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED NF2x757G</p> <p>FWHM / FWTM 32.0° / 57.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 2.2 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 C 2424</p> <p>FWHM / FWTM 30.0° / 50.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 3 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 CSSRM2/CSSRM3</p> <p>FWHM / FWTM 39.0° / 60.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>SAMSUNG</p> <p>LED LH351C</p> <p>FWHM / FWTM 35.0° / 58.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 2.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):



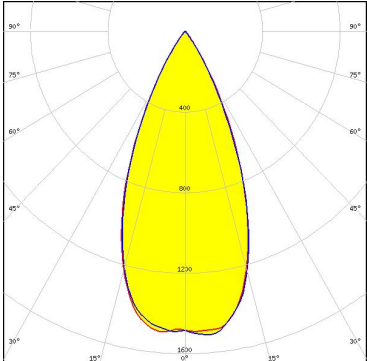
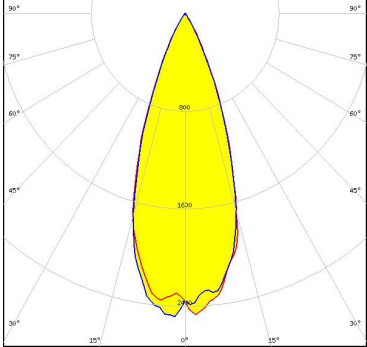
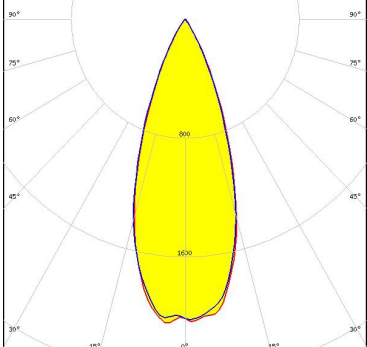
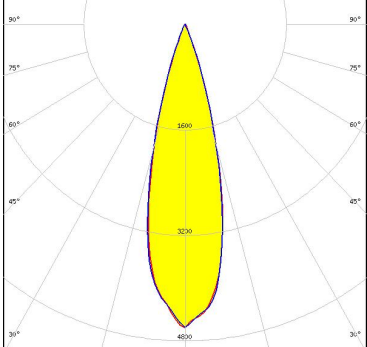
OPTICAL RESULTS (SIMULATED):

<p> LED CSP 2323 (BXCP)</p> <p>FWHM / FWTM 28.0° / 47.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 3.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> LED J Series 2835</p> <p>FWHM / FWTM 31.0° / 54.0°</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>	
<p> LED XP-E</p> <p>FWHM / FWTM 41.0° / 59.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 2.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p> LED XP-G2</p> <p>FWHM / FWTM 39.0° / 58.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.2 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: 48.0° / 72.0° Efficiency: 87 % Peak intensity: 1.4 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>CREE LEDs</p> <p>LED: XT-E FWHM / FWTM: 30.0° / 49.0° Efficiency: 82 % Peak intensity: 2.9 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON 2835 Line FWHM / FWTM: 30.0° / 52.0° Efficiency: 89 % Peak intensity: 3.1 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON 3030 2D (Round LES) FWHM / FWTM: 30.0° / 50.0° Efficiency: 85 % Peak intensity: 3.2 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

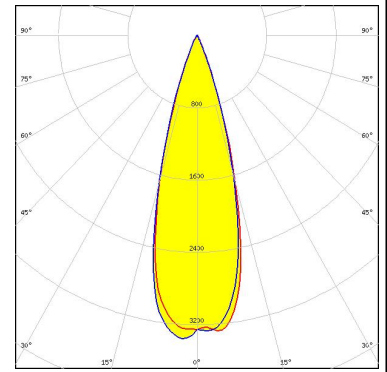
OPTICAL RESULTS (SIMULATED):

<p>LUMILEDS</p> <p>LED: LUXEON HL2X</p> <p>FWHM / FWTM: 46.0° / 68.0°</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 1.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON TX</p> <p>FWHM / FWTM: 36.0° / 55.0°</p> <p>Efficiency: 87 %</p> <p>Peak intensity: 2.3 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON V2</p> <p>FWHM / FWTM: 36.0° / 61.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 2.2 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p>LUMILEDS</p> <p>LED: LUXEON Z</p> <p>FWHM / FWTM: 27.5° / 42.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 4.2 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

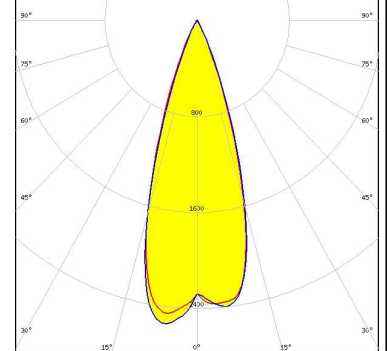
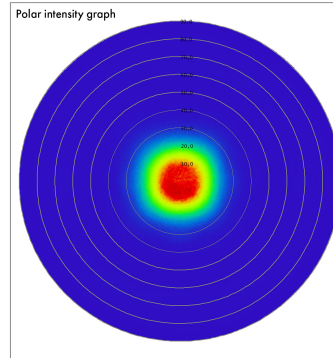
LUMILEDS

LED LUXEON Z ES
 FWHM / FWTM 30.0° / 46.0°
 Efficiency 89 %
 Peak intensity 3.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



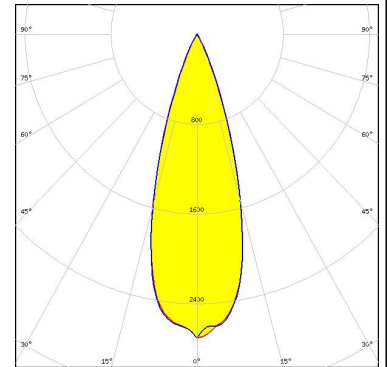
LUMINUS

LED SST-10-IR-B90
 FWHM / FWTM 34.0° / 51.0°
 Efficiency 87 %
 Peak intensity 2.6 cd/lm
 LEDs/each optic 1
 Light colour IR
 Required components:



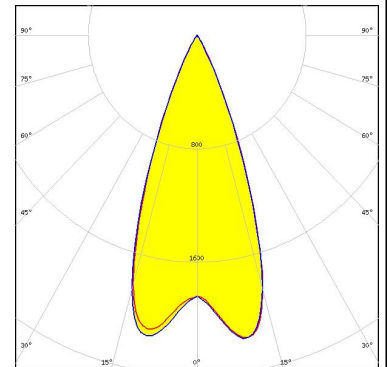
LUMINUS

LED SST-20
 FWHM / FWTM 32.0° / 52.0°
 Efficiency 87 %
 Peak intensity 2.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

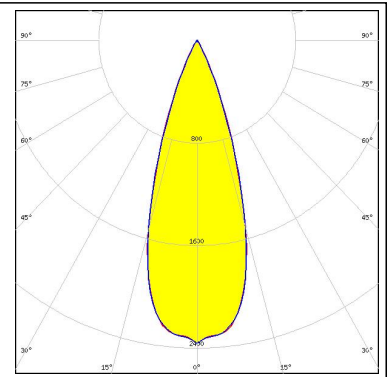
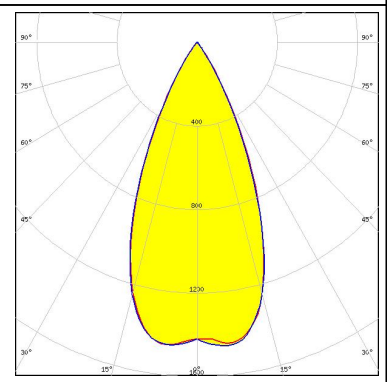
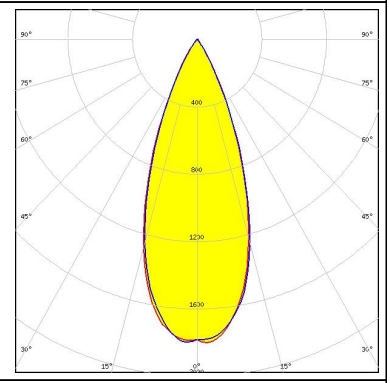
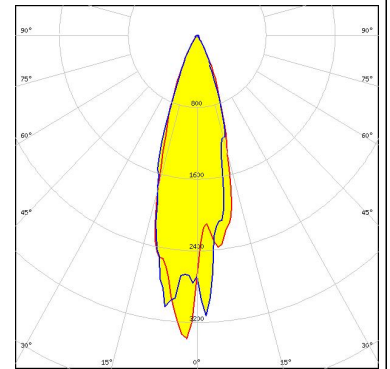


NICHIA

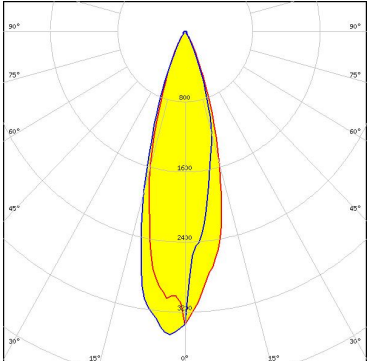
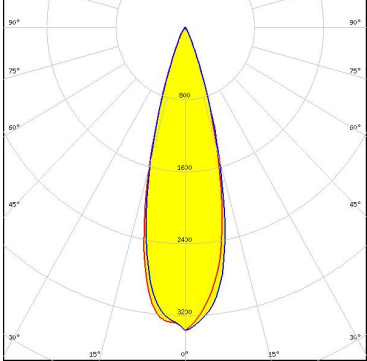
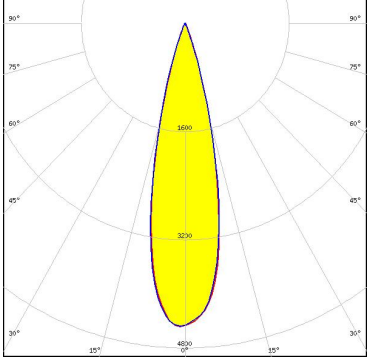
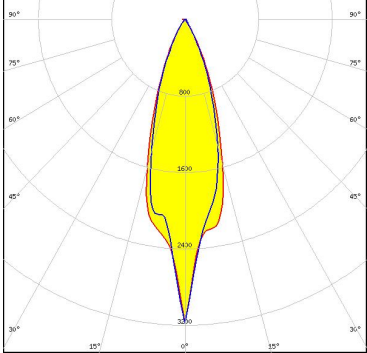
LED NCSU276C
 FWHM / FWTM 41.0° / 57.0°
 Efficiency 91 %
 LEDs/each optic 1
 Light colour UV-A
 Required components:



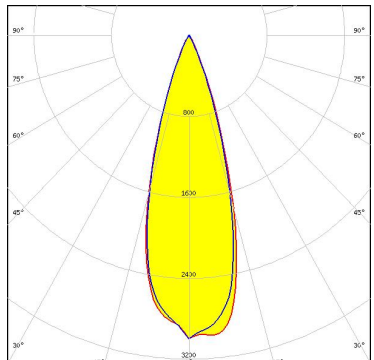
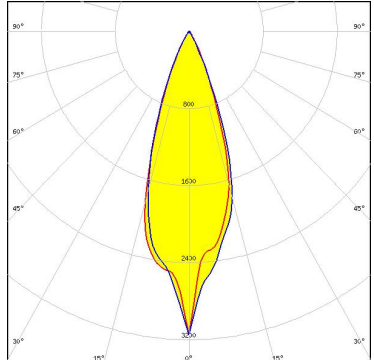
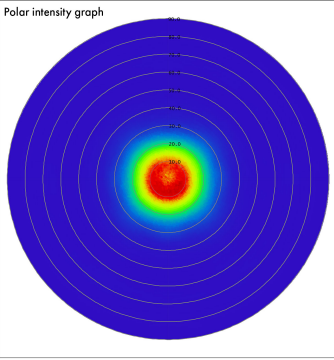
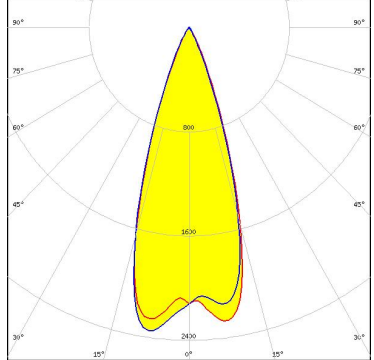
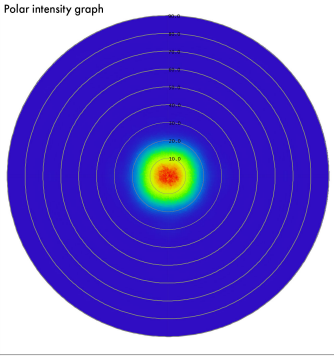
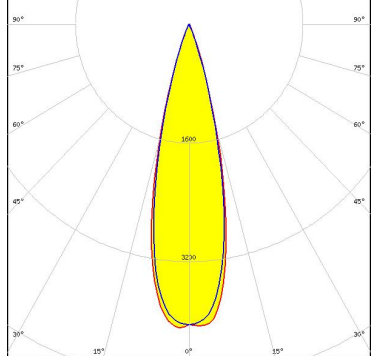
OPTICAL RESULTS (SIMULATED):

<p>NICHIA</p> <p>LED: NCSxx19B FWHM / FWTM: 34.0° / 54.0° Efficiency: 84 % Peak intensity: 2.4 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NVSW219F FWHM / FWTM: 46.0° / 68.0° Efficiency: 88 % Peak intensity: 1.5 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	
<p>NICHIA</p> <p>LED: NVSxx19B/NVSxx19C FWHM / FWTM: 38.9° / 62.5° Efficiency: 83 % Peak intensity: 1.8 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: 30.0° / 52.0° Efficiency: 87 % Peak intensity: 2.9 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>	

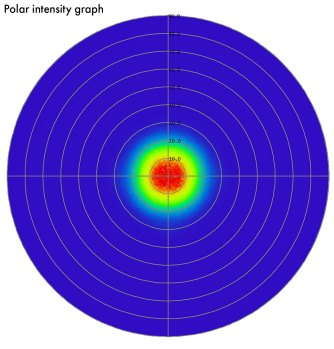
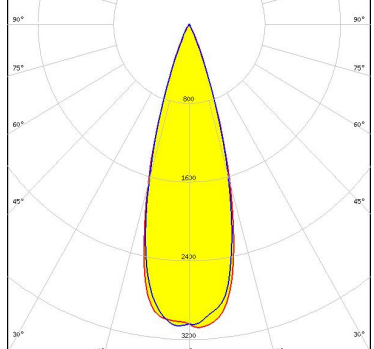
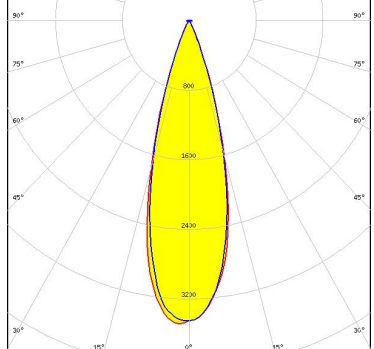
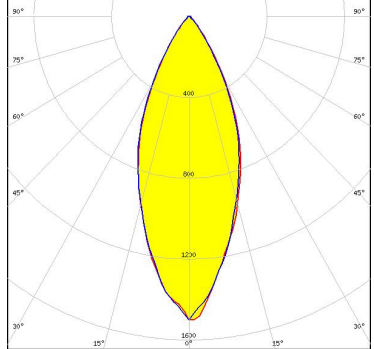
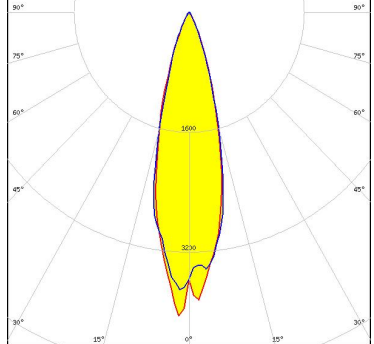
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED Duris S5 (Single chip)</p> <p>FWHM / FWTM 30.0° / 50.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 3.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSCONIQ P 3030</p> <p>FWHM / FWTM 29.0° / 46.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 3.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>OSRAM Opto Semiconductors</p> <p>LED OSLON Black</p> <p>FWHM / FWTM 25.0° / 40.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 4.5 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 35.0° / 55.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 2.4 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 / FWMT: 32.0° / 50.0°</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 3 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 150</p> <p>FWHM / FWMT: 35.0° / 52.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 2.6 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 80</p> <p>FWHM / FWMT: 35.0° / 53.0°</p> <p>Efficiency: 87 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: Far Red</p> <p>Required components:</p>	<p>Polar intensity graph</p> 	
<p>OSRAM Opto Semiconductors</p> <p>LED: SFH 4715S</p> <p>FWHM / FWMT: 26.0° / 40.0°</p> <p>Efficiency: 87 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: IR</p> <p>Required components:</p>	<p>Polar intensity graph</p> 	

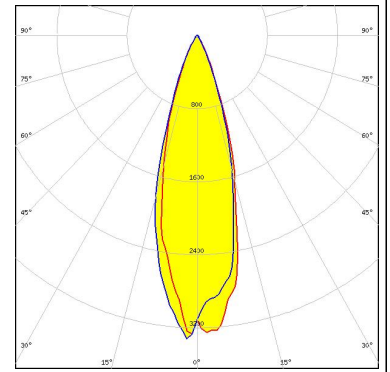
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED: SFH 4716S FWHM / FWTM: 31.0° / 47.0° 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: 30.0° / 48.0° Efficiency: 97 % Peak intensity: 3.5 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>		
<p>SAMSUNG</p> <p>LED: LH351D FWHM / FWTM: 41.0° / 73.0° Efficiency: 85 % Peak intensity: 1.5 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>		
<p>SAMSUNG</p> <p>LED: LM301A FWHM / FWTM: 29.0° / 48.0° Efficiency: 87 % Peak intensity: 3.5 cd/lm LEDs/each optic: 1 Light colour: White Required components:</p>		

OPTICAL RESULTS (SIMULATED):

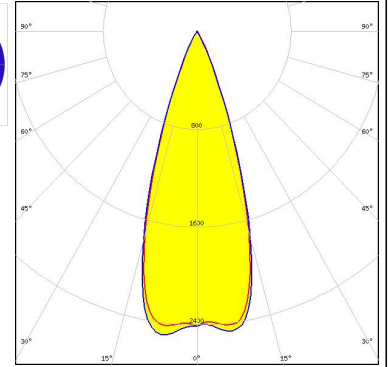
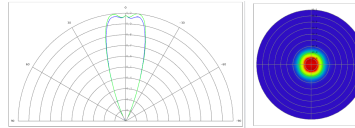
SAMSUNG

LED LM302A
 FWHM / FWTM 30.0° / 51.0°
 Efficiency 87 %
 Peak intensity 3.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



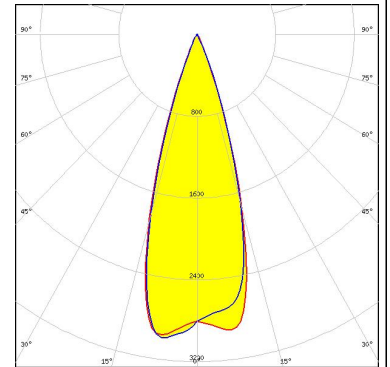
STANLEY

LED FWR1108MS
 FWHM / FWTM 35.0° / 51.0°
 Efficiency 90 %
 LEDs/each optic 1
 Light colour IR
 Required components:



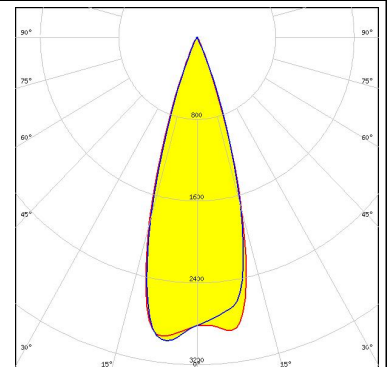
STANLEY

LED MFN1108MS
 FWHM / FWTM 33.0° / 47.0°
 Efficiency 91 %
 Peak intensity 3 cd/lm
 LEDs/each optic 1
 Light colour IR
 Required components:

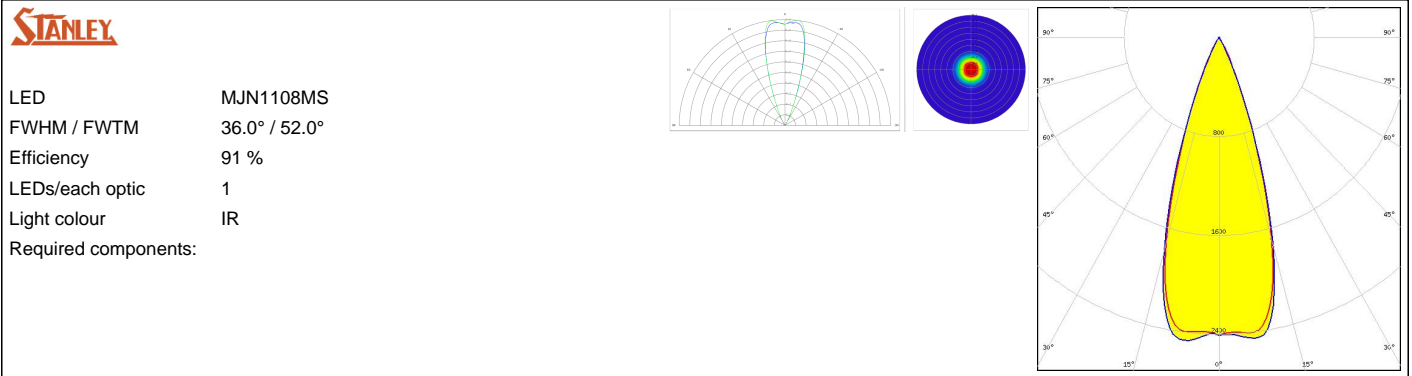


STANLEY

LED MGN1108MS
 FWHM / FWTM 33.0° / 47.0°
 Efficiency 91 %
 Peak intensity 3 cd/lm
 LEDs/each optic 1
 Light colour IR
 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.

MATERIALS:

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