

LINNEA-90

~90° + 90° wide beam optimized for 1.0 mm metal sheet or profile. Variant made from PC.

SPECIFICATION:

Dimensions	285.0 x 40.0 mm
Height	9.5 mm
Fastening	clips
ROHS compliant	yes ⓘ

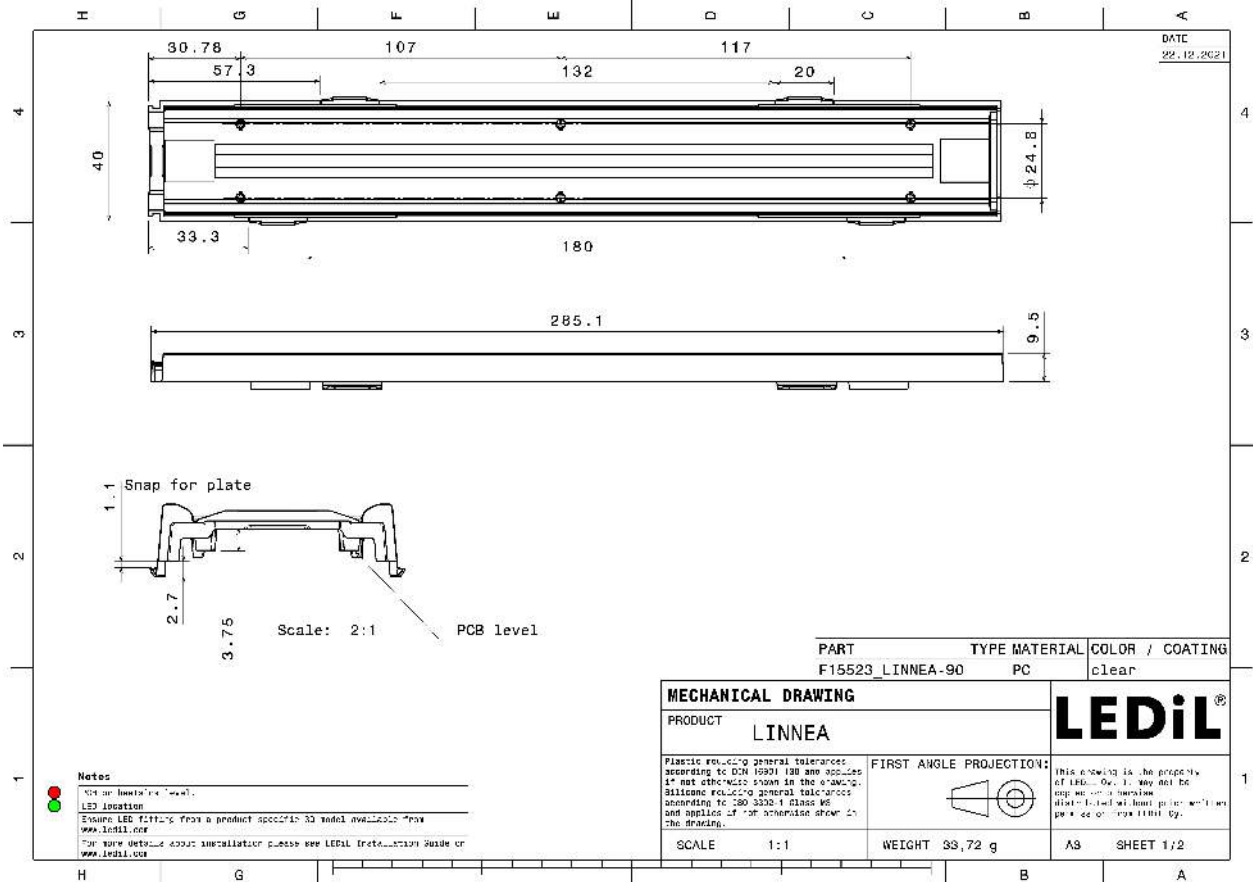
MATERIALS:

Component	Type	Material	Colour	Finish
LINNEA-90	Linear lens	PC	clear	

ORDERING INFORMATION:


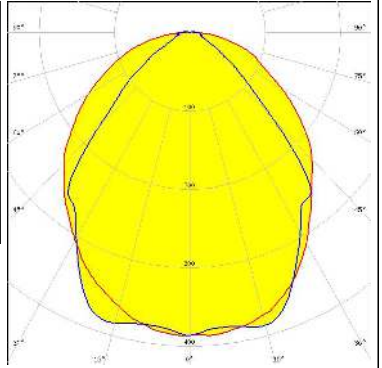
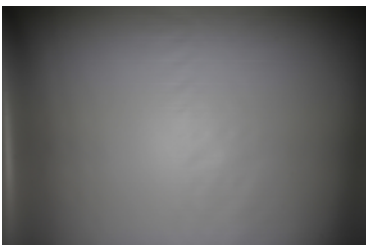
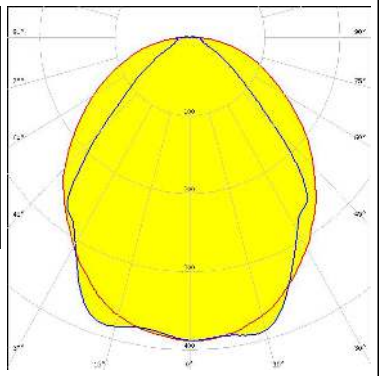
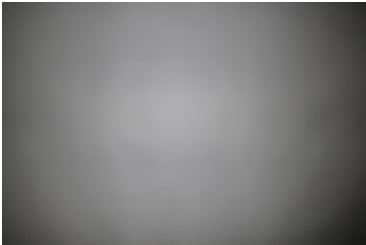
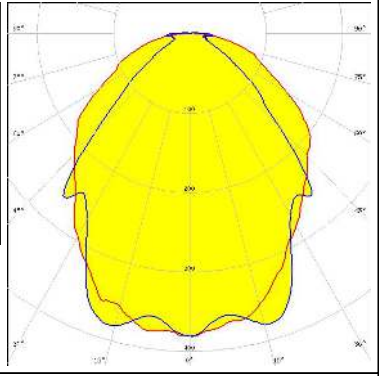
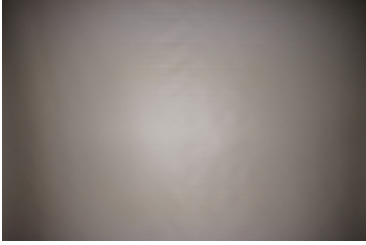
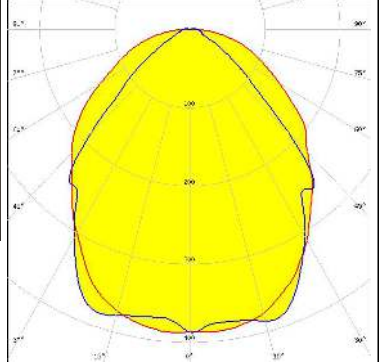
Component	Qty in box	MOQ	MPQ	Box weight (kg)
F15523_LINNEA-90 » Box size: 398 x 298 x 265 mm	162	36	36	7.3



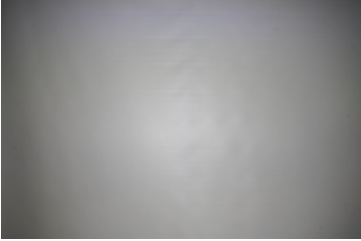
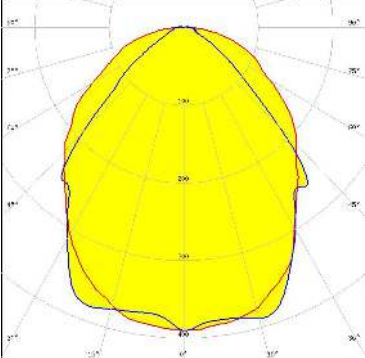

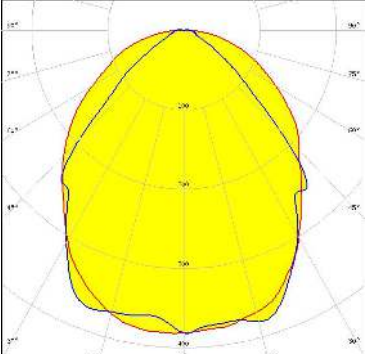
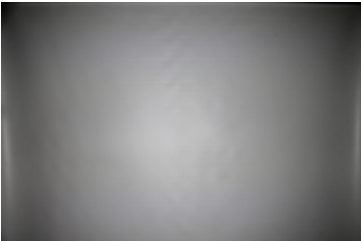
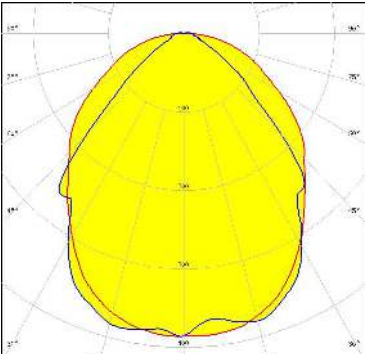
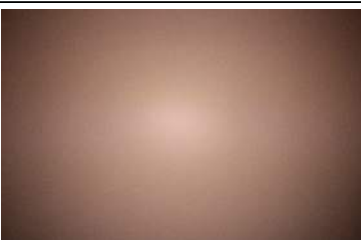
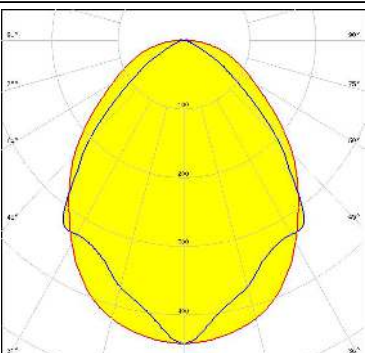


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

<p>aled</p> <p>LED CALOSNU405-M7W1</p> <p>FWHM / FWTM 104.0 + 87.0° / 164.0 + 124.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>aled</p> <p>LED CALOSNU410-M7W1</p> <p>FWHM / FWTM 104.0 + 86.0° / 164.0 + 124.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>CREE LED</p> <p>LED XP-E</p> <p>FWHM / FWTM 104.0 + 88.0° / 164.0 + 126.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>Helvar</p> <p>LED L-iC-282-827-865-011A</p> <p>FWHM / FWTM 102.0 + 89.0° / 164.0 + 124.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

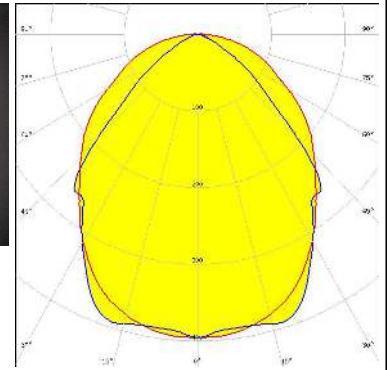
OPTICAL RESULTS (MEASURED):

<p>Helvar</p> <p>LED LP-282-840-009A 60/300</p> <p>FWHM / FWTM 100.0 + 89.0° / 163.0 + 125.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 0.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>Helvar</p> <p>LED LS-282-840-011A</p> <p>FWHM / FWTM 102.0 + 90.0° / 164.0 + 125.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 0.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>Helvar</p> <p>LED LX-282-840-023A</p> <p>FWHM / FWTM 102.0 + 89.0° / 164.0 + 125.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 0.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>LUMITRONIX[®] <small>Technologien für die Beleuchtung der Zukunft</small></p> <p>LED LinearZ 280-112 Circadian TW</p> <p>FWHM / FWTM 93.0 + 87.0° / 159.0 + 122.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components:</p>		

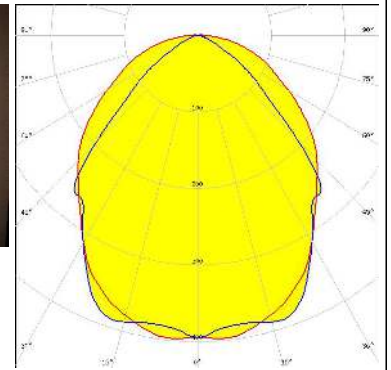
OPTICAL RESULTS (MEASURED):



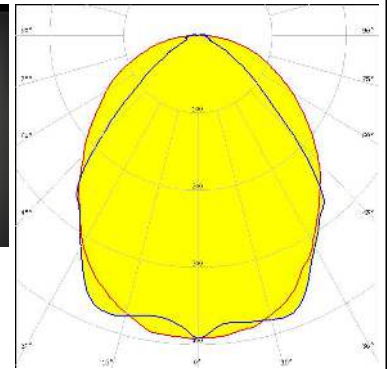
LED LinearZ 280-26
 FWHM / FWTM 101.0 + 89.0° / 164.0 + 124.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



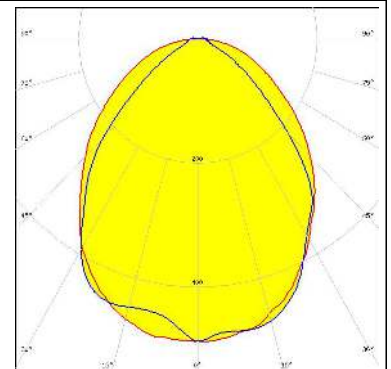
LED LinearZ 280-40 TW
 FWHM / FWTM 101.0 + 89.0° / 163.0 + 123.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour Tunable White
 Required components:




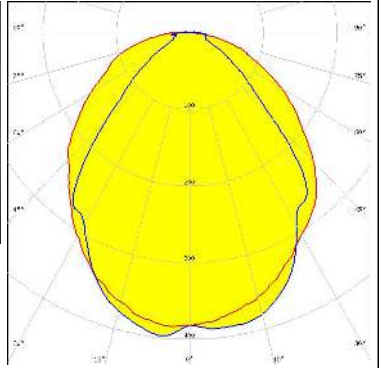
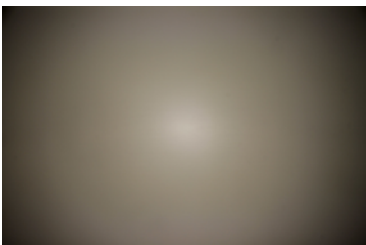
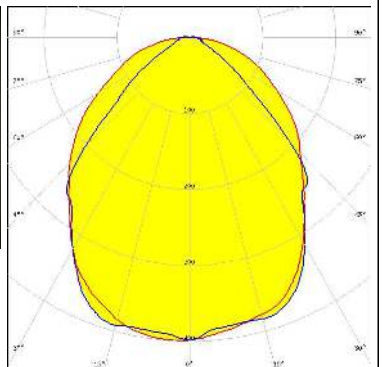
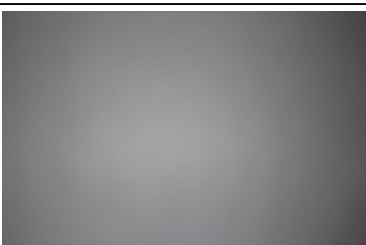
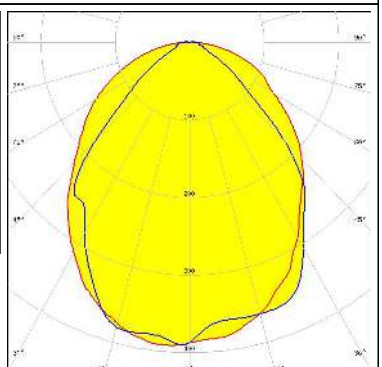

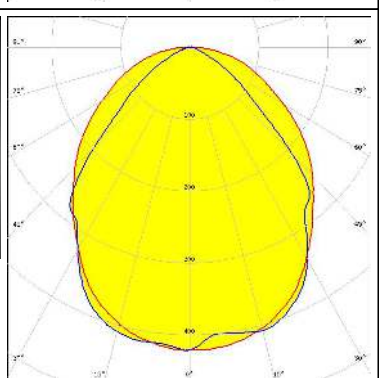
LED LinLED 280x24mm 1100lm 830 2C 30V LINNEA-GC G1
 FWHM / FWTM 88.0 + 100.0° / 125.0 + 164.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED NF2x757D
 FWHM / FWTM 86.0 + 99.0° / 125.0 + 159.0°
 Efficiency 0 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



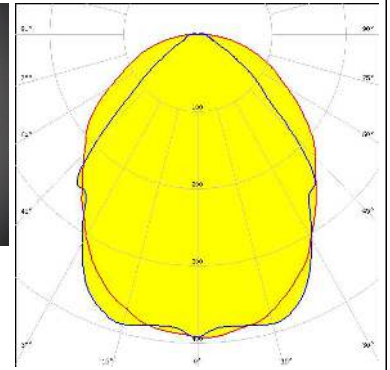
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED NF2x757G</p> <p>FWHM / FWTM 105.0 + 85.0° / 165.0 + 125.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>NICHIA</p> <p>LED NFSW757H</p> <p>FWHM / FWTM 100.0 + 90.0° / 163.0 + 125.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>NICHIA</p> <p>LED NFSx757G</p> <p>FWHM / FWTM 98.0 + 88.0° / 162.0 + 125.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>OSRAM</p> <p>LED PL-LIN-IND-Z1 2800 560x24</p> <p>FWHM / FWTM 101.0 + 89.0° / 163.0 + 125.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

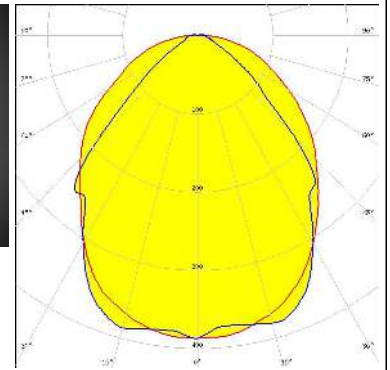
OSRAM

LED PL-LIN-Z5 1100 280x20
 FWHM / FWTM 101.0 + 89.0° / 164.0 + 125.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



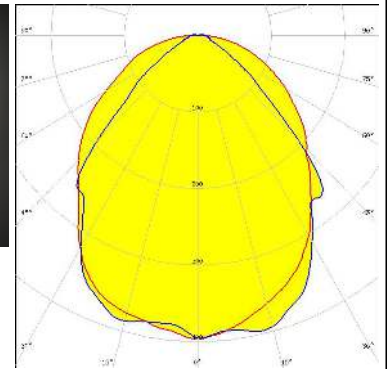
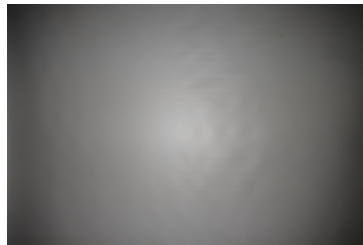
OSRAM

LED PL-LIN-Z5 2000 280x20
 FWHM / FWTM 101.0 + 89.0° / 164.0 + 125.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



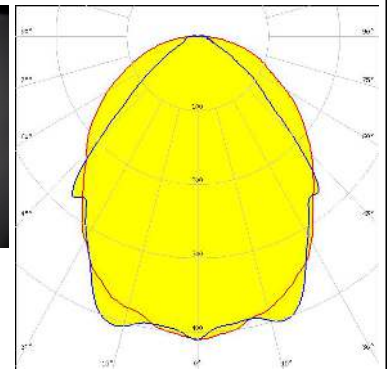
OSRAM

Opto Semiconductors
 LED Duris S5 (2 chip)
 FWHM / FWTM 99.0 + 89.0° / 163.0 + 125.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

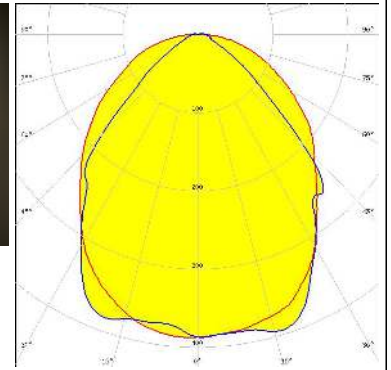
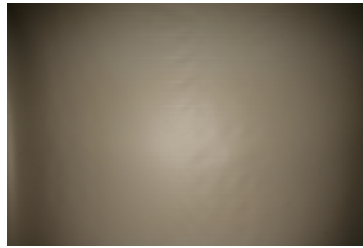
Opto Semiconductors
 LED Duris S5 (Single chip)
 FWHM / FWTM 98.0 + 89.0° / 163.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

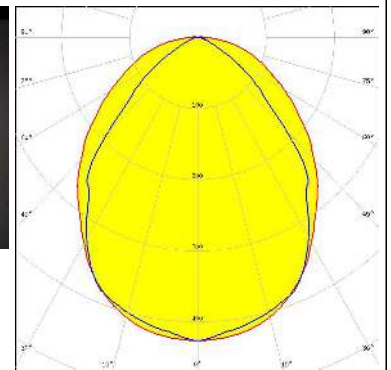
PHILIPS

LED Fortimo LED Strip 1ft 1100lm FC HV4 & LV4
 FWHM / FWTM 100.0 + 89.0° / 163.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



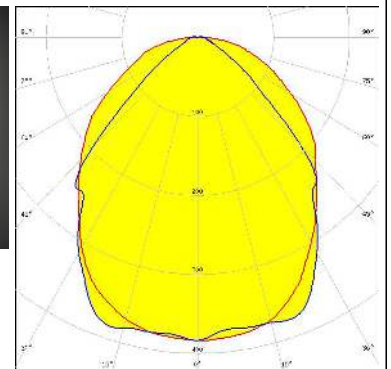
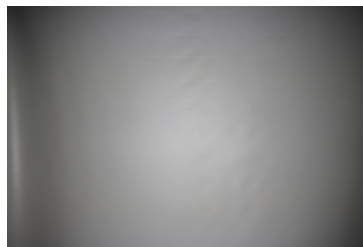
PHILIPS

LED Fortimo LED Strip 1ft 1100lm FC HV5 & LV5
 FWHM / FWTM 99.0 + 85.0° / 163.0 + 123.0°
 Efficiency 86 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



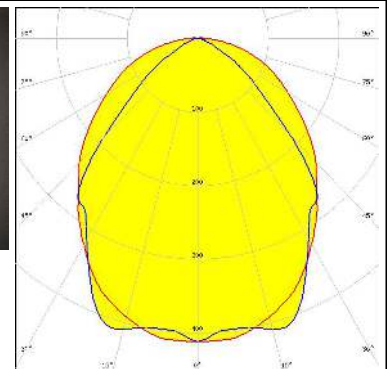
PHILIPS

LED Fortimo LED Strip 1ft 650lm FC HV4 & LV4
 FWHM / FWTM 102.0 + 90.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHILIPS

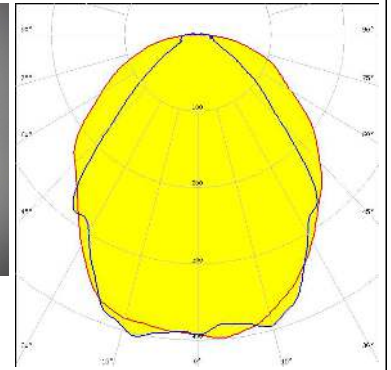
LED Fortimo LED Strip 1ft 650lm FC HV5 & LV5
 FWHM / FWTM 101.0 + 87.0° / 163.0 + 123.0°
 Efficiency 86 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

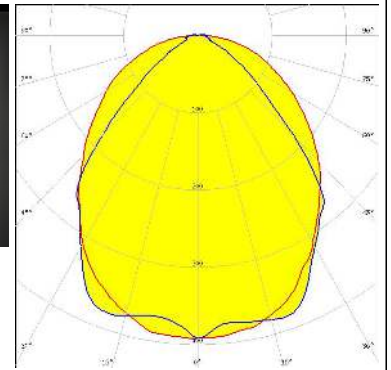
SAMSUNG

LED LM28xB Series
 FWHM / FWTM 105.0 + 86.0° / 165.0 + 124.0°
 Efficiency 84 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



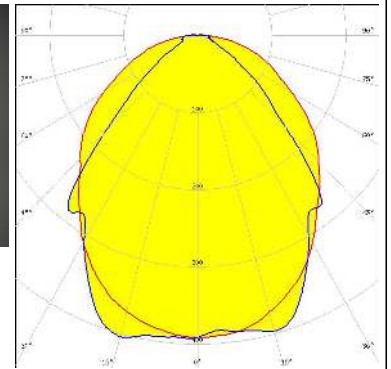
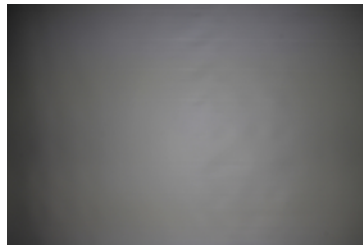
SAMSUNG

LED LM561B Plus
 FWHM / FWTM 88.0 + 100.0° / 125.0 + 164.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



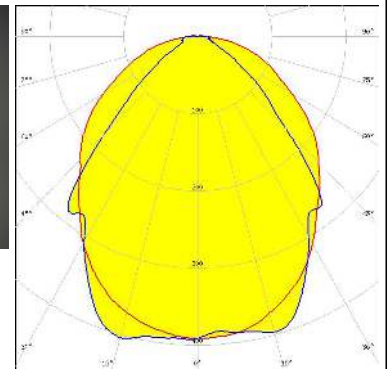
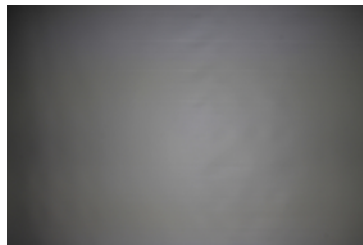
SAMSUNG

LED LT-H282C
 FWHM / FWTM 103.0 + 87.0° / 164.0 + 125.0°
 Efficiency 84 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

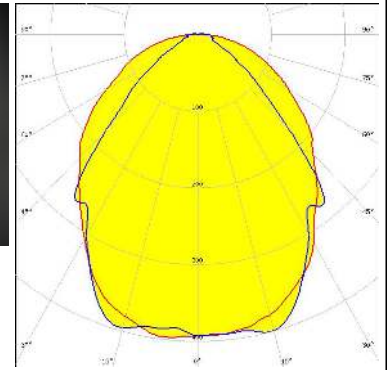
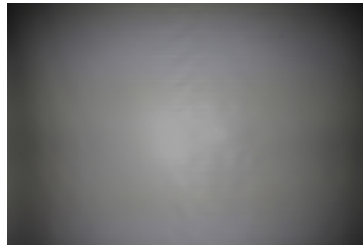
LED LT-H562C
 FWHM / FWTM 103.0 + 87.0° / 164.0 + 125.0°
 Efficiency 84 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

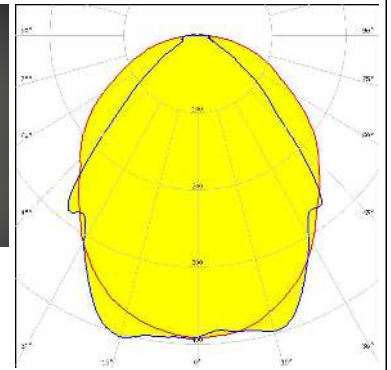
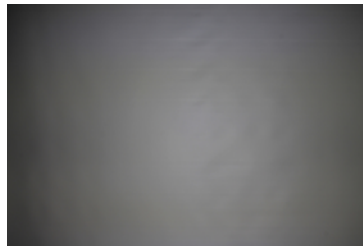
SAMSUNG

LED LT-Q282B
 FWHM / FWTM 101.0 + 87.0° / 164.0 + 125.0°
 Efficiency 84 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



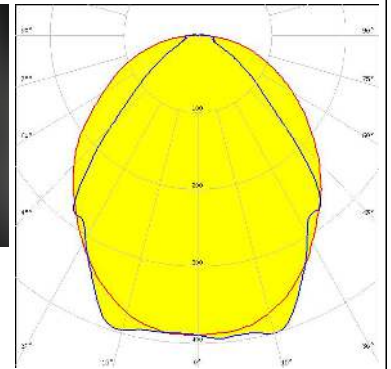
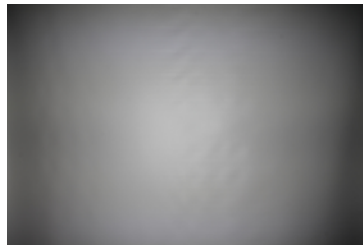
SAMSUNG

LED LT-S282H
 FWHM / FWTM 104.0 + 86.0° / 165.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



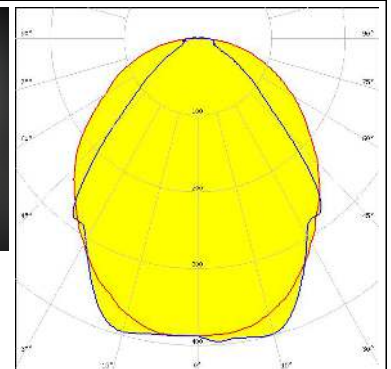
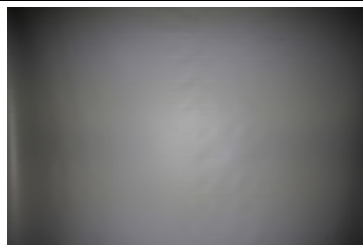
SAMSUNG

LED LT-S562H
 FWHM / FWTM 104.0 + 86.0° / 165.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

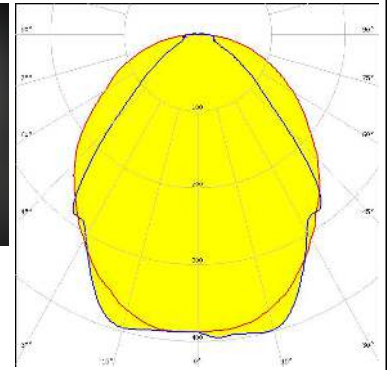
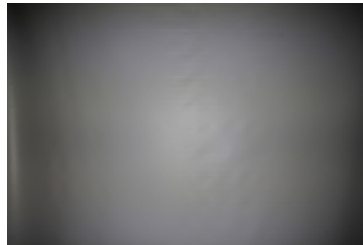
LED LT-V282E
 FWHM / FWTM 103.0 + 86.0° / 164.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:




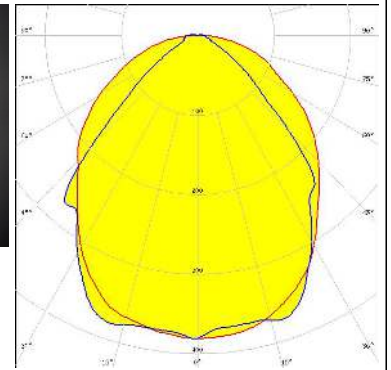
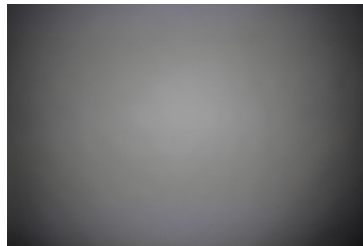
OPTICAL RESULTS (MEASURED):


SAMSUNG

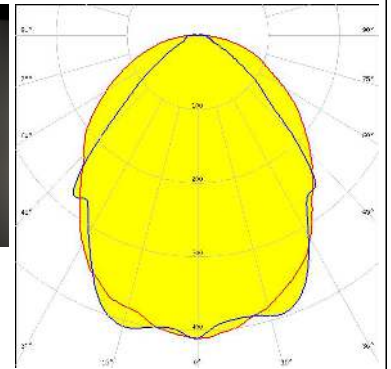
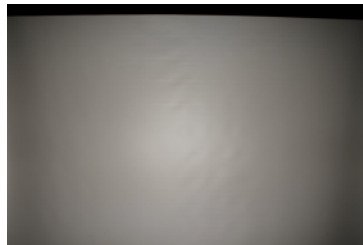
LED LT-V562E
 FWHM / FWTM 103.0 + 86.0° / 164.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



 **SEOUL SEMICONDUCTOR**
 LED SEOUL 5630D
 FWHM / FWTM 93.0° / 141.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

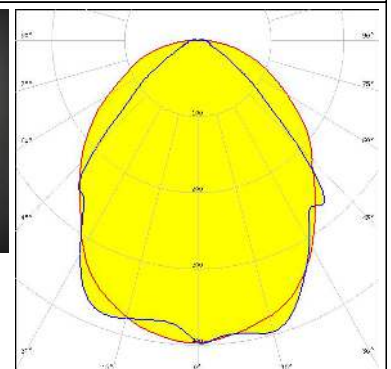
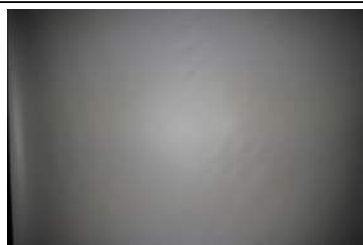


 **SEOUL SEMICONDUCTOR**
 LED SEOUL DC 3030
 FWHM / FWTM 99.0 + 88.0° / 163.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



TRIDONIC

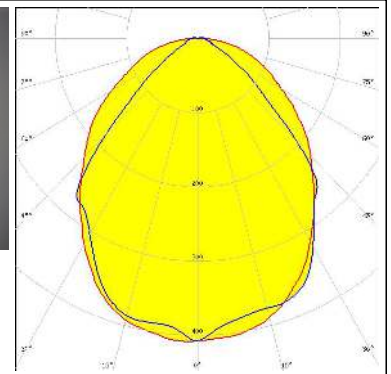
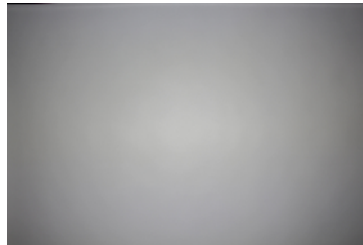
LED LLE G4 24x280mm 1250lm
 FWHM / FWTM 100.0 + 89.0° / 163.0 + 125.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

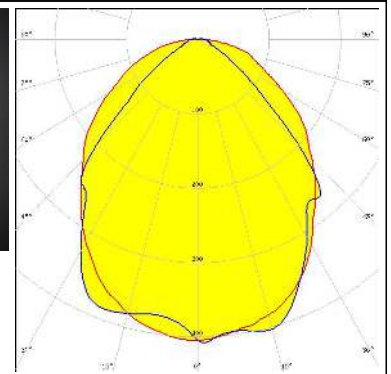
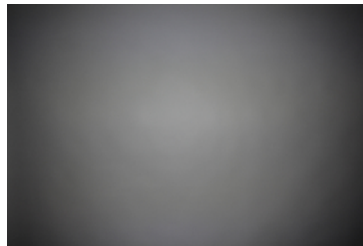
TRIDONIC

LED LLE G4 24x280mm 2000lm ADV
FWHM / FWTM 98.0 + 88.0° / 162.0 + 124.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:




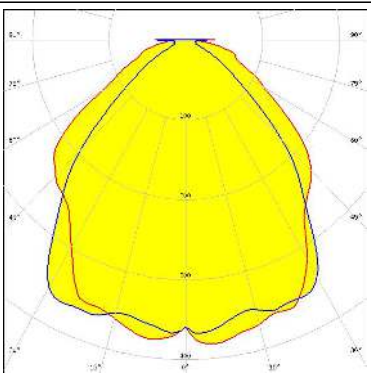
TRIDONIC

LED LLE G4 24x280mm 650lm
FWHM / FWTM 99.0 + 89.0° / 163.0 + 125.0°
Efficiency 84 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



OPTICAL RESULTS (SIMULATED):

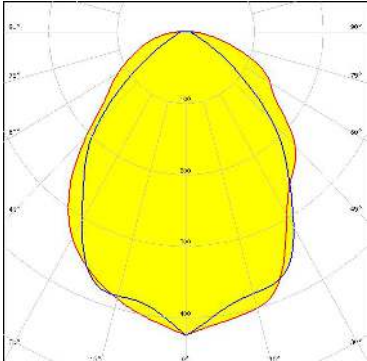
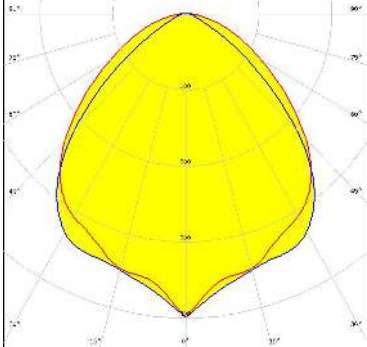
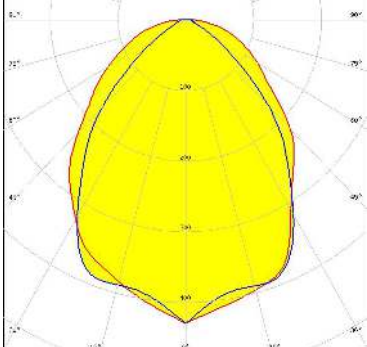
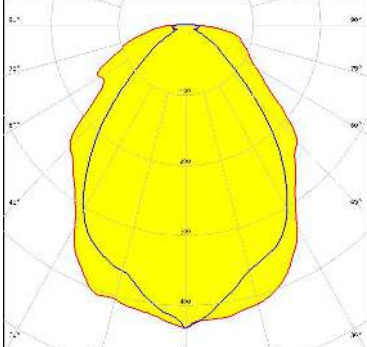
		
LED	Bridgelux SMD 2835	
Assembly	NULL	
FWHM / FWTM	100.0 + 86.0° / 165.0 + 120.0°	
Efficiency	77 %	
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

		
LED	XP-G3	
FWHM / FWTM	105.0 + 89.0° / 161.0 + 124.0°	
Efficiency	81 %	
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		


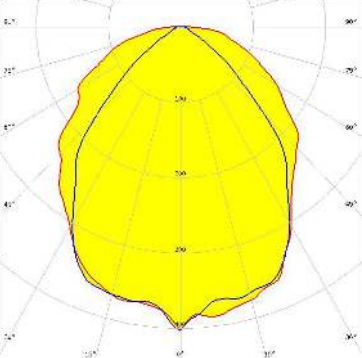

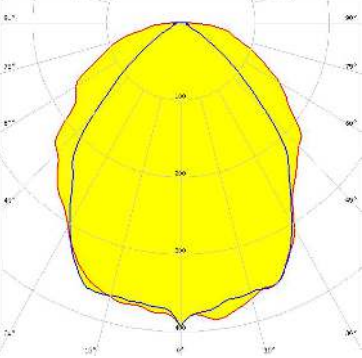

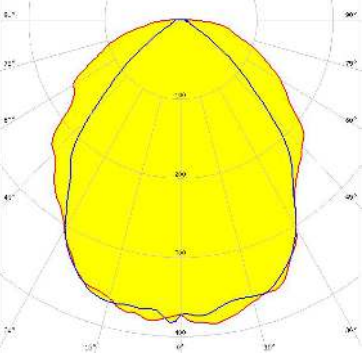

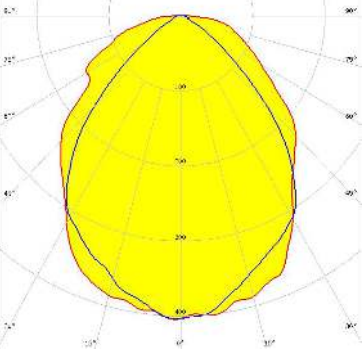
		
LED	LUXEON 2835 Line	
FWHM / FWTM	96.0 + 84.0° / 161.0 + 120.0°	
Efficiency	80 %	
Peak intensity	0.4 cd/lm	
LEDs/each optic	2	
Light colour	White	
Required components:		

		
LED	LUXEON 3030 2D (Round LES)	
FWHM / FWTM	93.0 + 84.0° / 162.0 + 124.0°	
Efficiency	82 %	
Peak intensity	0.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		


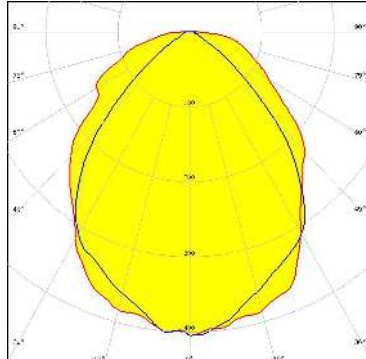

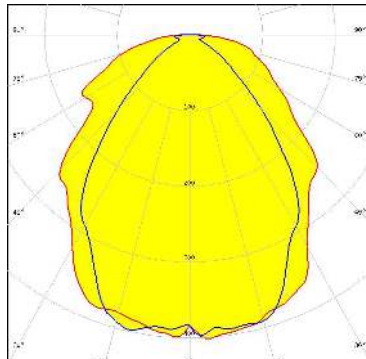

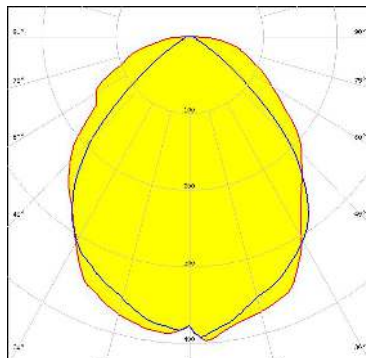
OPTICAL RESULTS (SIMULATED):

<p>OSRAM Opto Semiconductors</p> <p>LED Duris E 2835</p> <p>FWHM / FWTM 83.0 + 91.0° / 122.0 + 159.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>SAMSUNG</p> <p>LED LM301B</p> <p>FWHM / FWTM 98.0 + 92.0° / 152.0 + 126.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>SEOUL SEMICONDUCTOR</p> <p>LED SEOUL DC 3030C</p> <p>FWHM / FWTM 91.0 + 82.0° / 160.0 + 120.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p>SEOUL SEMICONDUCTOR</p> <p>LED SEOUL DC 3528</p> <p>FWHM / FWTM 95.0 + 78.0° / 169.0 + 116.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 2</p> <p>Light colour White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 102.0 + 84.0° / 168.0 + 117.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 102.0 + 86.0° / 169.0 + 118.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 104.0 + 86.0° / 169.0 + 118.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 99.0 + 84.0° / 167.0 + 117.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 99.0 + 84.0° / 167.0 + 116.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 100.0 + 80.0° / 170.0 + 118.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 99.0 + 88.0° / 166.0 + 118.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>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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