

## LINNEA-60

~60° + 90° 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 ⓘ

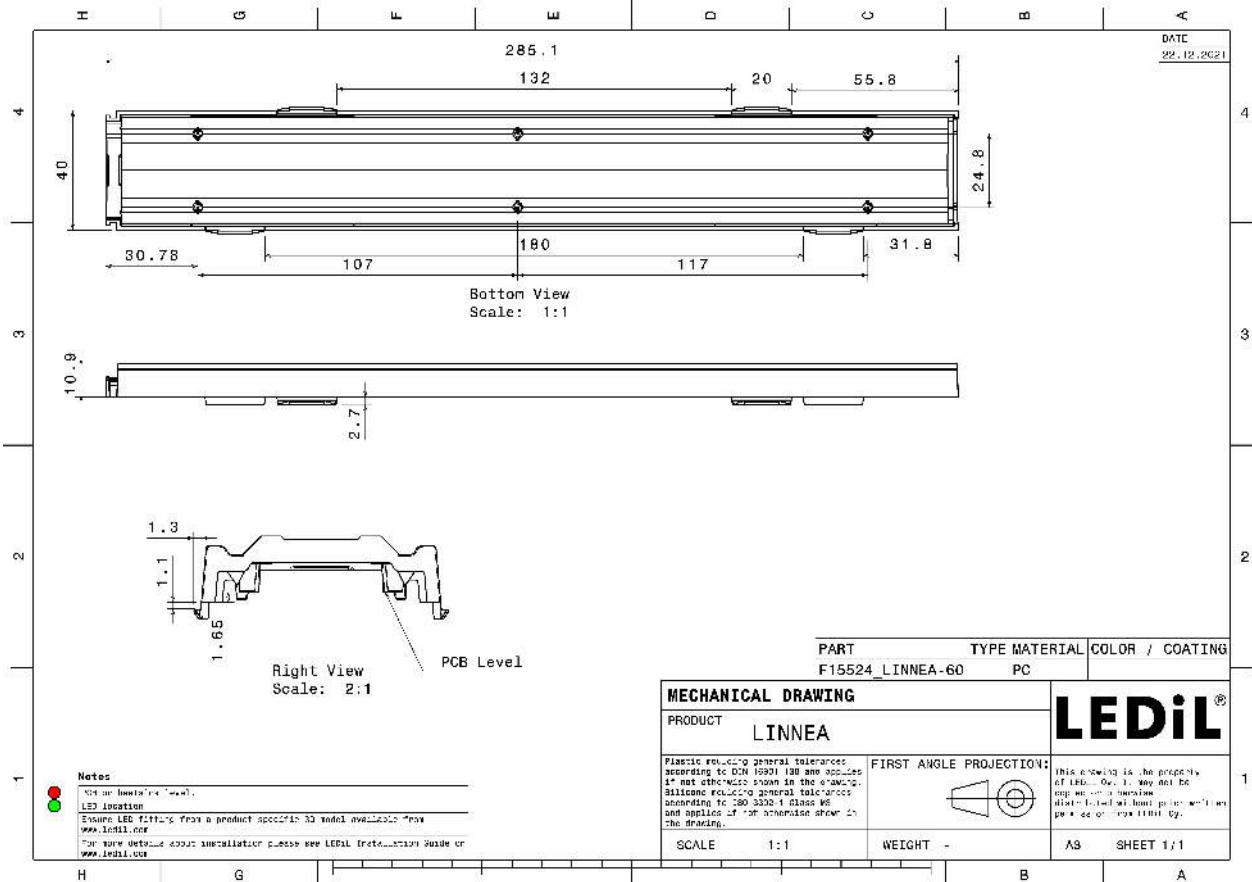
### MATERIALS:

Component	Type	Material	Colour	Finish
LINNEA-60	Linear lens	PC	clear	

### ORDERING INFORMATION:


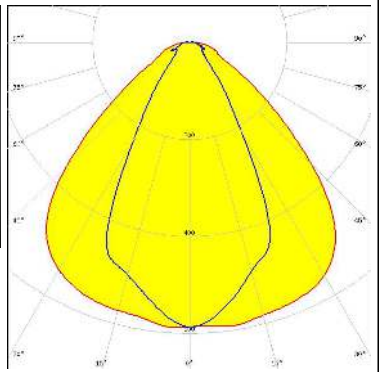

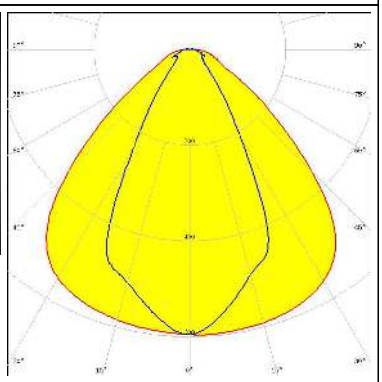

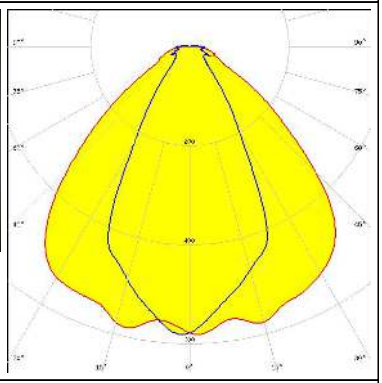
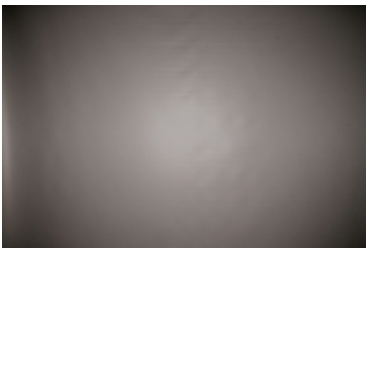
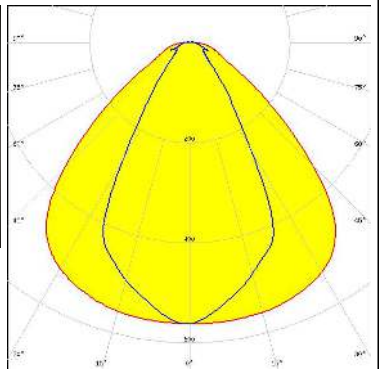
Component	Qty in box	MOQ	MPQ	Box weight (kg)
F15524_LINNEA-60 » Box size: 398 x 298 x 265 mm	153	36	36	8.3




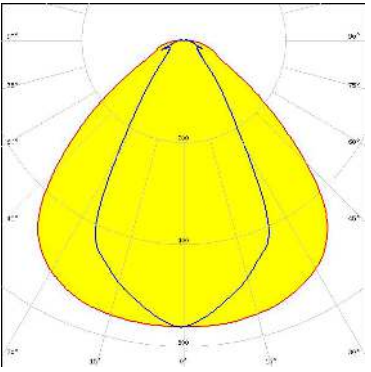
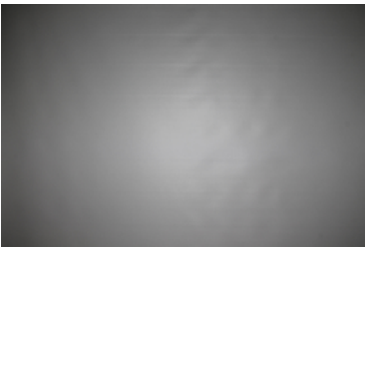
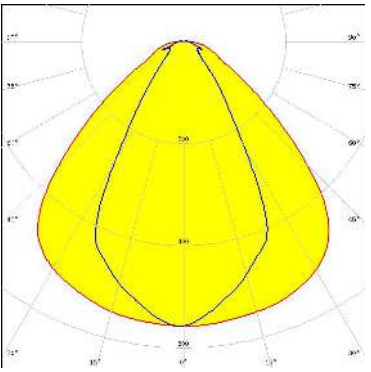
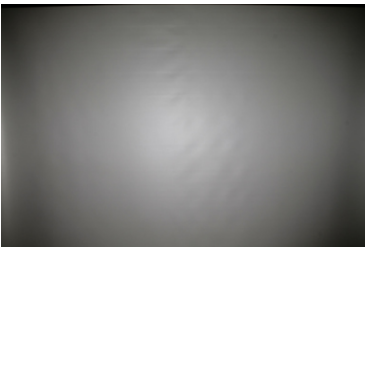
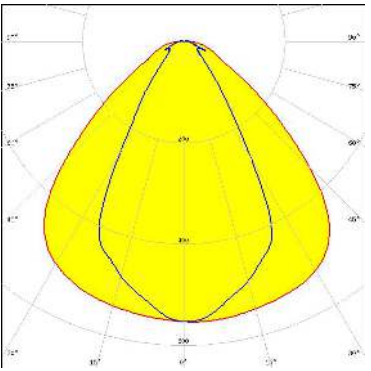

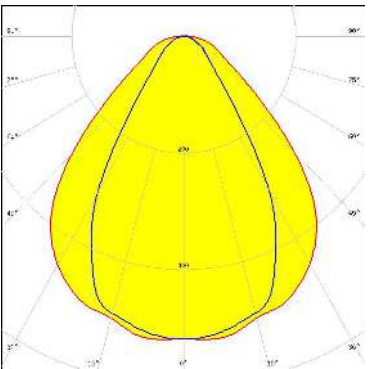


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)


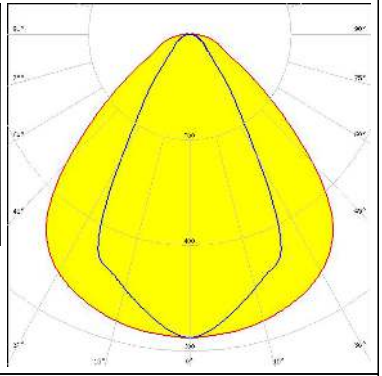
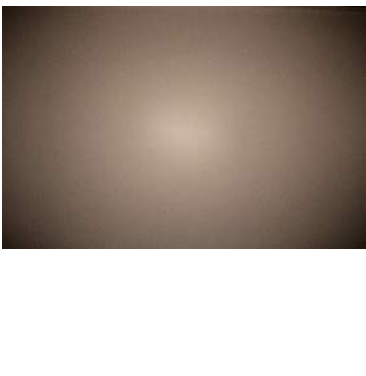
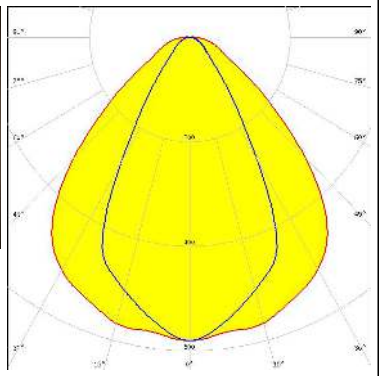

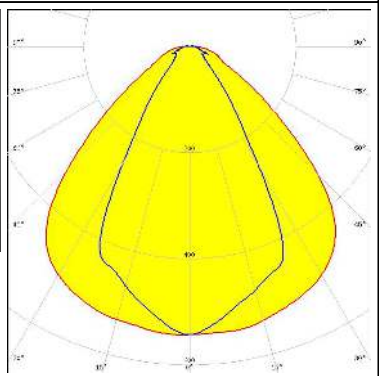
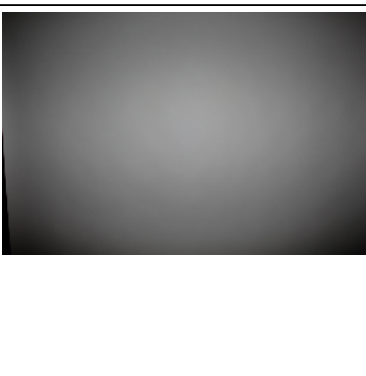
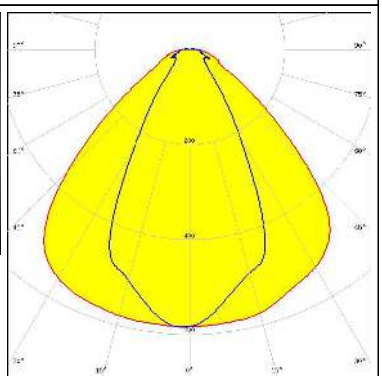
#### OPTICAL RESULTS (MEASURED):

<p><b>aled</b></p> <p>LED CALOSNU405-M7W1</p> <p>FWHM / FWTM 96.0 + 55.0° / 141.0 + 87.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>aled</b></p> <p>LED CALOSNU410-M7W1</p> <p>FWHM / FWTM 95.0 + 55.0° / 139.0 + 86.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>CREE LED</b></p> <p>LED XP-E</p> <p>FWHM / FWTM 96.0 + 54.0° / 139.0 + 86.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>Helvar</b></p> <p>LED L-iC-282-827-865-011A</p> <p>FWHM / FWTM 97.0 + 58.0° / 142.0 + 91.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

#### OPTICAL RESULTS (MEASURED):


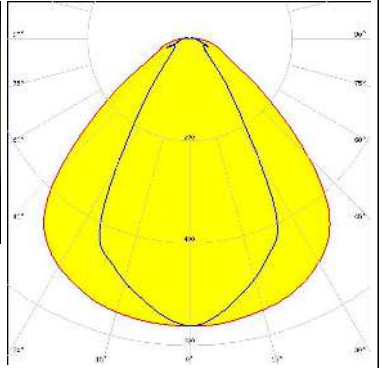
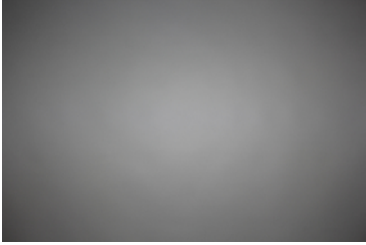
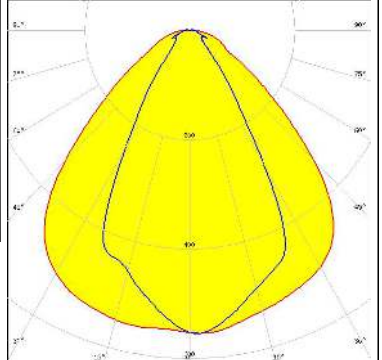

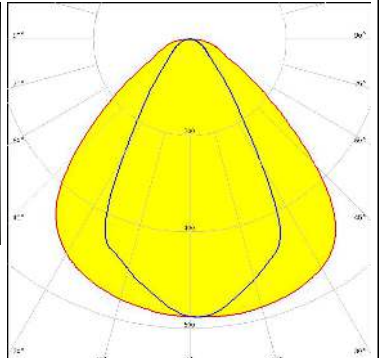
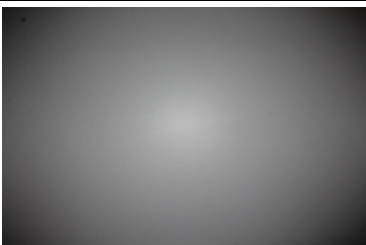
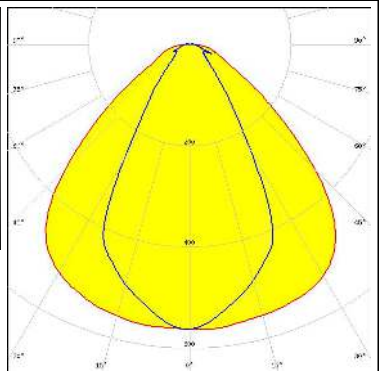
<p><b>Helvar</b></p> <p>LED LP-282-840-009A 60/300            FWHM / FWTM 97.0 + 58.0° / 142.0 + 91.0°            Efficiency 84 %            Peak intensity 0.6 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>Helvar</b></p> <p>LED LS-282-840-011A            FWHM / FWTM 97.0 + 58.0° / 145.0 + 91.0°            Efficiency 84 %            Peak intensity 0.6 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>Helvar</b></p> <p>LED LX-282-840-023A            FWHM / FWTM 96.0 + 59.0° / 144.0 + 92.0°            Efficiency 85 %            Peak intensity 0.6 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>LUMITRONIX<sup>®</sup></b>  <small>High performance LED technology for 60/300 and 60/360</small></p> <p>LED LinearZ 280-112 Circadian TW            FWHM / FWTM 92.0 + 64.0° / 147.0 + 104.0°            Efficiency 85 %            Peak intensity 0.5 cd/m            LEDs/each optic 1            Light colour Tunable White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>LUMITRONIX<sup>®</sup></b> <small>Techno-energeticas LLC, registered in Lithuania</small></p> <p>LED LinearZ 280-26</p> <p>FWHM / FWTM 96.0 + 59.0° / 145.0 + 92.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMITRONIX<sup>®</sup></b> <small>Techno-energeticas LLC, registered in Lithuania</small></p> <p>LED LinearZ 280-40 TW</p> <p>FWHM / FWTM 94.0 + 59.0° / 142.0 + 92.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components:</p>		
<p><b>MST</b> <small>Your solutions</small></p> <p>LED LinLED 280x24mm 1100lm 830 2C 30V LINNEA-GC G1</p> <p>FWHM / FWTM 96.0 + 59.0° / 143.0 + 89.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NF2x757G</p> <p>FWHM / FWTM 96.0 + 54.0° / 141.0 + 87.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		



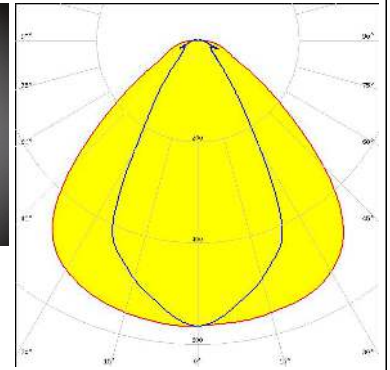
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NFSW757H</p> <p>FWHM / FWTM 96.0 + 60.0° / 145.0 + 93.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NFSx757G</p> <p>FWHM / FWTM 96.0 + 59.0° / 145.0 + 88.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>OSRAM</b></p> <p>LED PL-LIN-IND-Z1 2800 560x24</p> <p>FWHM / FWTM 96.0 + 60.0° / 144.0 + 96.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>OSRAM</b></p> <p>LED PL-LIN-Z5 1100 280x20</p> <p>FWHM / FWTM 97.0 + 58.0° / 143.0 + 91.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

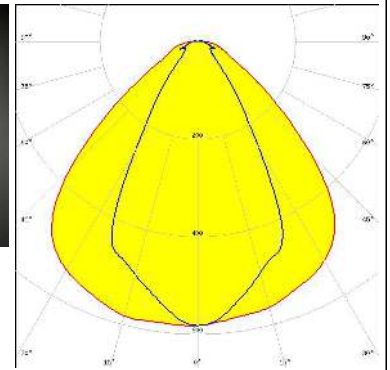
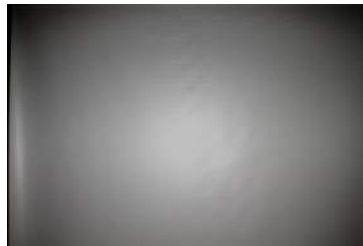
### OSRAM

LED PL-LIN-Z5 2000 280x20  
 FWHM / FWTM 97.0 + 58.0° / 143.0 + 91.0°  
 Efficiency 84 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



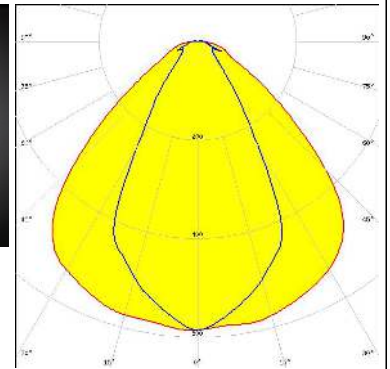
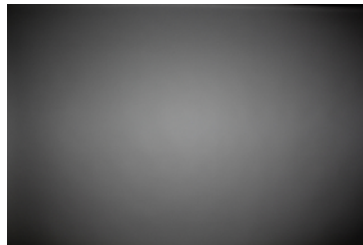
### OSRAM

Opto Semiconductors  
 LED Duris S5 (2 chip)  
 FWHM / FWTM 95.0 + 57.0° / 140.0 + 88.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



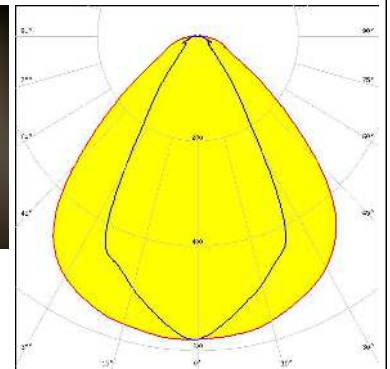
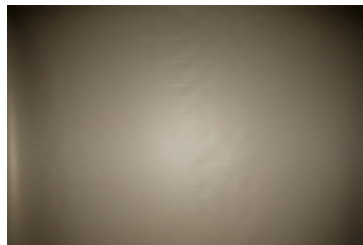
### OSRAM

Opto Semiconductors  
 LED Duris S5 (Single chip)  
 FWHM / FWTM 96.0 + 57.0° / 143.0 + 91.0°  
 Efficiency 86 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### PHILIPS

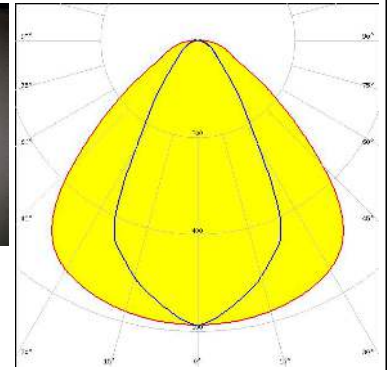
LED Fortimo LED Strip 1ft 1100lm FC HV4 & LV4  
 FWHM / FWTM 95.0 + 59.0° / 141.0 + 88.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

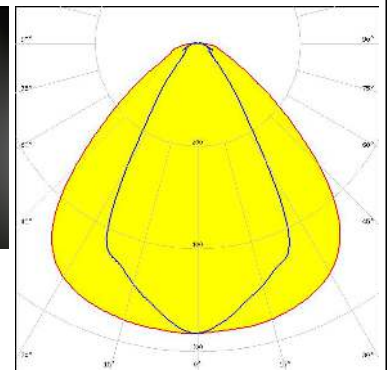
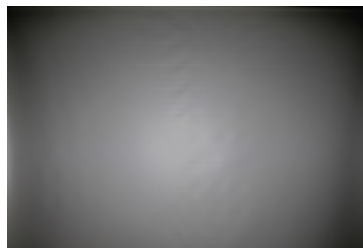
### PHILIPS

LED Fortimo LED Strip 1ft 1100lm FC HV5 & LV5  
 FWHM / FWTM 97.0 + 58.0° / 145.0 + 95.0°  
 Efficiency 86 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



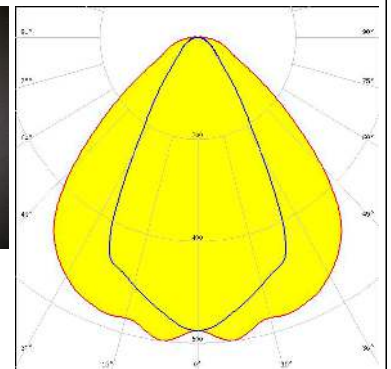
### PHILIPS

LED Fortimo LED Strip 1ft 650lm FC HV4 & LV4  
 FWHM / FWTM 95.0 + 59.0° / 139.0 + 89.0°  
 Efficiency 84 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



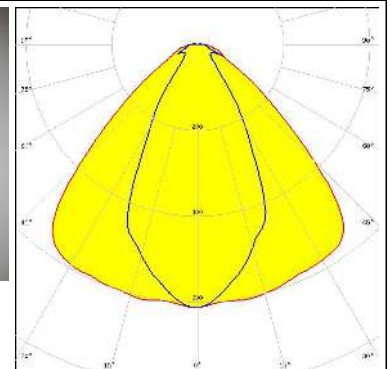
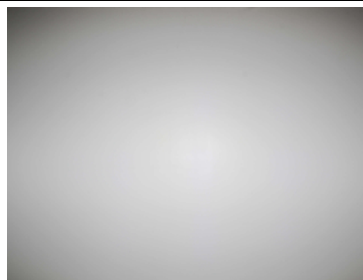
### PHILIPS

LED Fortimo LED Strip 1ft 650lm FC HV5 & LV5  
 FWHM / FWTM 96.0 + 58.0° / 143.0 + 94.0°  
 Efficiency 87 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

LED LM28xB Series  
 FWHM / FWTM 95.0 + 53.0° / 136.0 + 106.0°  
 Efficiency 84 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

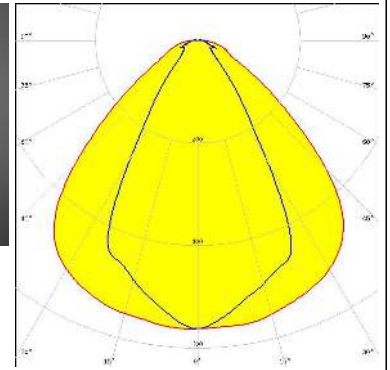
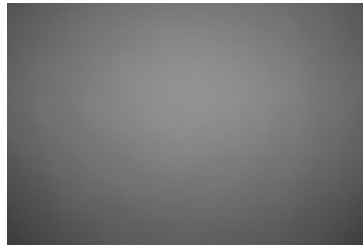




#### OPTICAL RESULTS (MEASURED):

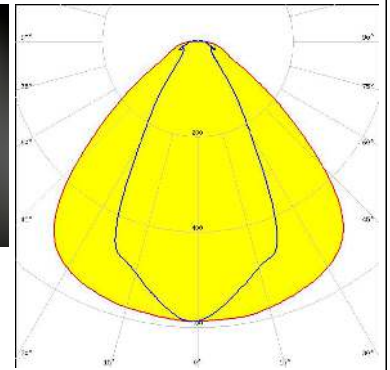
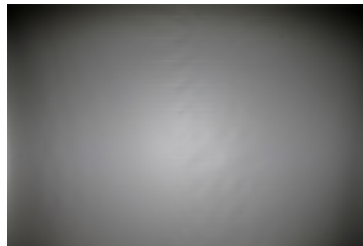
### SAMSUNG

LED LM561B Plus  
 FWHM / FWTM 96.0 + 59.0° / 143.0 + 89.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



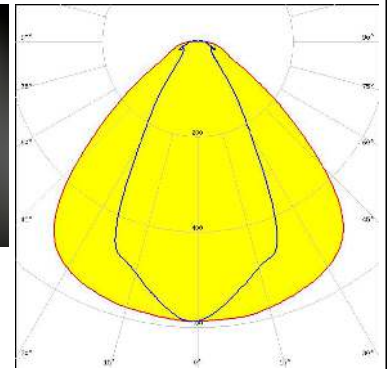
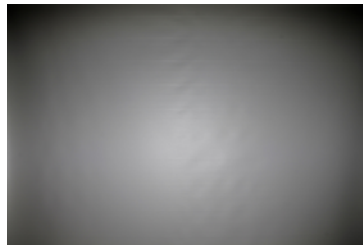
### SAMSUNG

LED LT-H282C  
 FWHM / FWTM 96.0 + 55.0° / 141.0 + 87.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



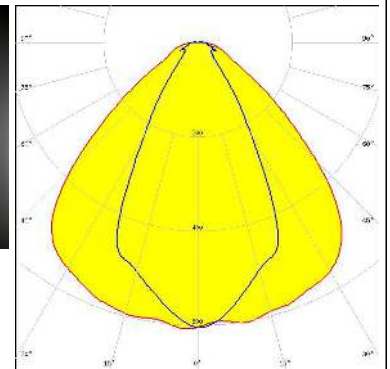
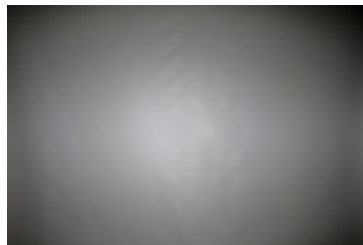
### SAMSUNG

LED LT-H562C  
 FWHM / FWTM 96.0 + 55.0° / 141.0 + 87.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

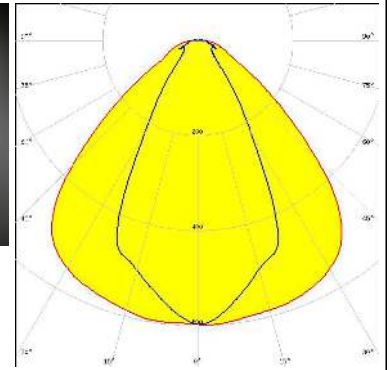
LED LT-Q282B  
 FWHM / FWTM 95.0 + 54.0° / 138.0 + 86.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

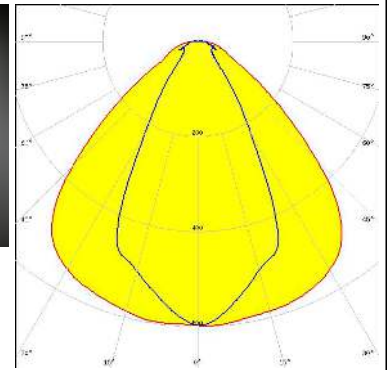
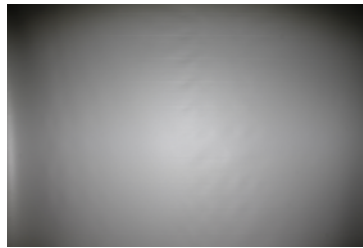
### SAMSUNG

LED LT-S282H  
 FWHM / FWTM 96.0 + 54.0° / 140.0 + 86.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



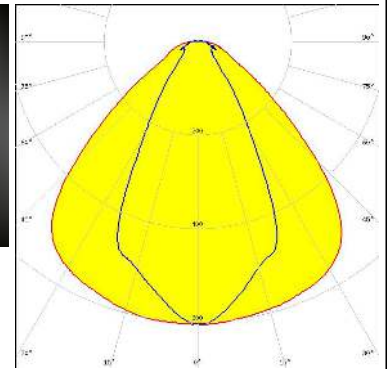
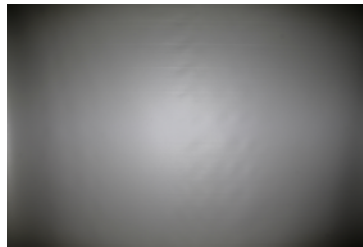
### SAMSUNG

LED LT-S562H  
 FWHM / FWTM 96.0 + 54.0° / 140.0 + 86.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



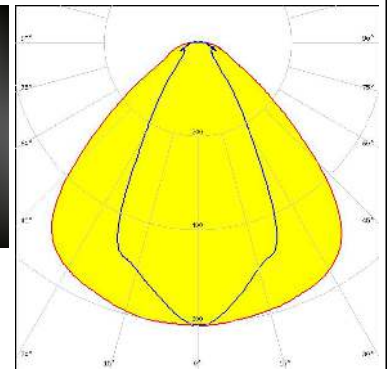
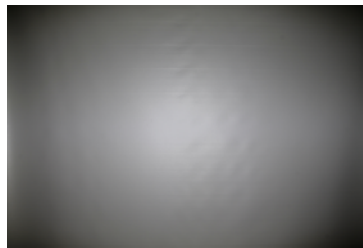
### SAMSUNG

LED LT-V282E  
 FWHM / FWTM 96.0 + 54.0° / 140.0 + 86.0°  
 Efficiency 86 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



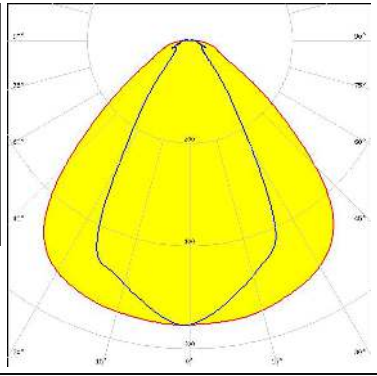


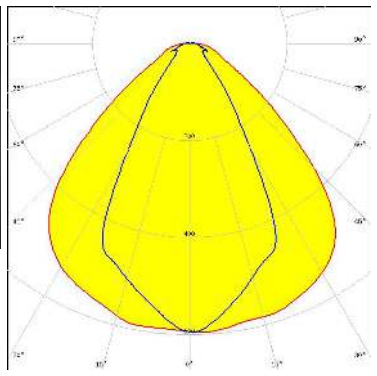

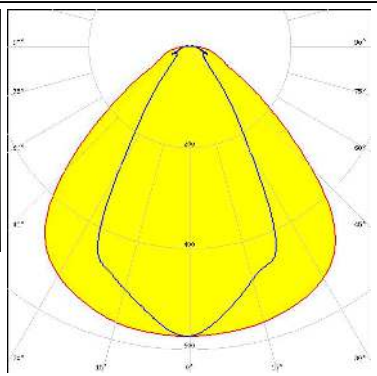
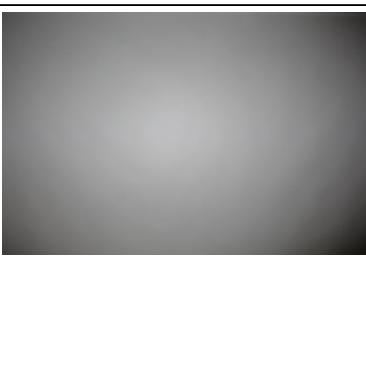
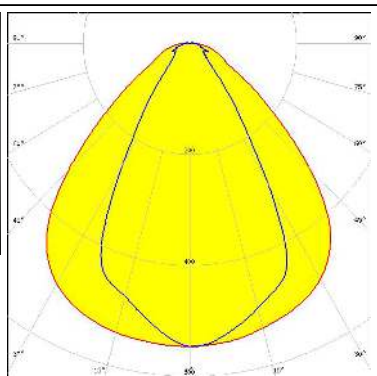


### SAMSUNG

LED LT-V562E  
 FWHM / FWTM 96.0 + 54.0° / 140.0 + 86.0°  
 Efficiency 86 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



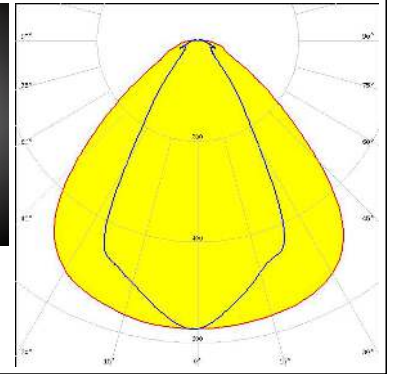
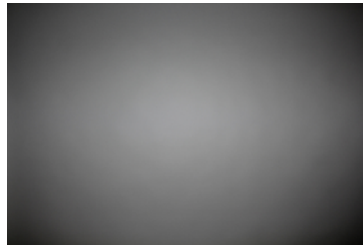
#### OPTICAL RESULTS (MEASURED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED SEOUL 5630D</p> <p>FWHM / FWTM 73.0° / 112.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.6 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 3030</p> <p>FWHM / FWTM 96.0 + 57.0° / 139.0 + 88.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED LLE G4 24x280mm 1250lm</p> <p>FWHM / FWTM 96.0 + 58.0° / 141.0 + 88.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED LLE G4 24x280mm 2000lm ADV</p> <p>FWHM / FWTM 95.0 + 60.0° / 143.0 + 91.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

### OPTICAL RESULTS (MEASURED):


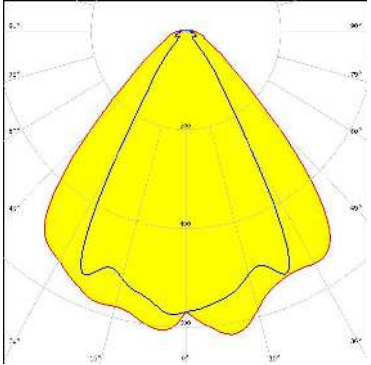
#### TRIDONIC

LED LLE G4 24x280mm 650lm  
FWHM / FWTM 95.0 + 59.0° / 140.0 + 89.0°  
Efficiency 85 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



#### OPTICAL RESULTS (SIMULATED):

		
LED	Bridgelux SMD 2835	
Assembly	NULL	
FWHM / FWTM	90.0 + 58.0° / 127.0 + 82.0°	
Efficiency	81 %	
Peak intensity	0.6 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		


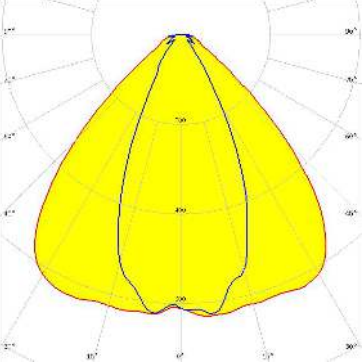

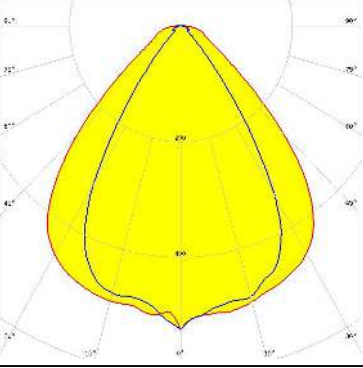

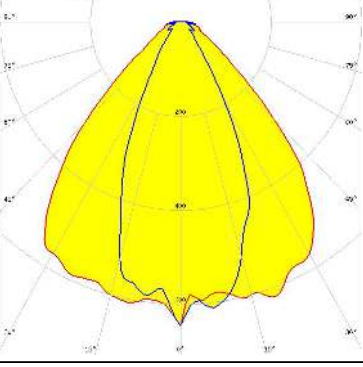

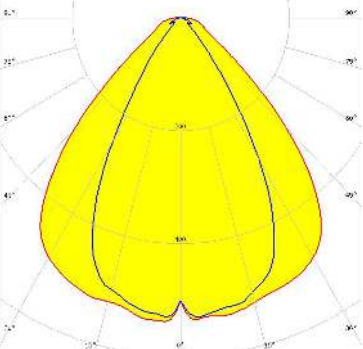
		
LED	LUXEON 3030 2D (Round LES)	
FWHM / FWTM	89.0 + 60.0° / 125.0 + 80.0°	
Efficiency	84 %	
Peak intensity	0.6 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		

		
LED	SEOUL DC 3030C	
FWHM / FWTM	92.0 + 60.0° / 134.0 + 80.0°	
Efficiency	85 %	
Peak intensity	0.7 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		


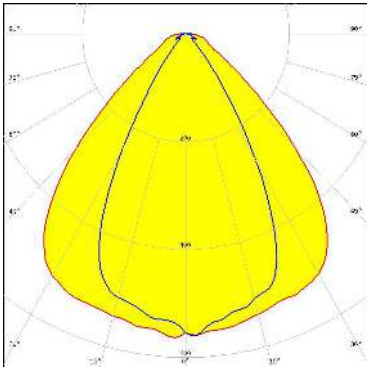

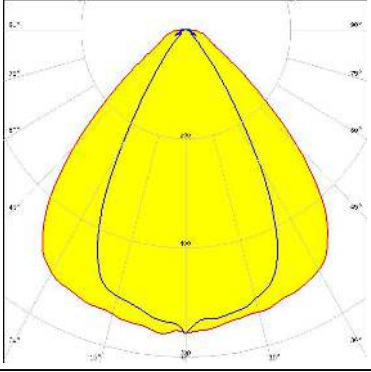

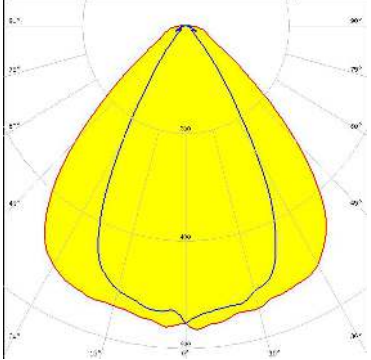
		
LED	SEOUL DC 3528	
FWHM / FWTM	90.0 + 60.0° / 128.0 + 85.0°	
Efficiency	77 %	
Peak intensity	0.5 cd/lm	
LEDs/each optic	2	
Light colour	White	
Required components:		



#### OPTICAL RESULTS (SIMULATED):

<p> SEOULED SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 91.0 + 48.0° / 122.0 + 77.0°</p> <p>Efficiency: 76 %</p> <p>Peak intensity: 0.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOULED SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 90.0 + 65.0° / 131.0 + 87.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOULED SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 88.0 + 48.0° / 122.0 + 76.0°</p> <p>Efficiency: 76 %</p> <p>Peak intensity: 0.6 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOULED SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 90.0 + 60.0° / 128.0 + 85.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p> <b>SEOUL SEMICONDUCTOR</b></p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 92.0 + 59.0° / 127.0 + 82.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> <b>SEOUL SEMICONDUCTOR</b></p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 92.0 + 59.0° / 128.0 + 82.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> <b>SEOUL SEMICONDUCTOR</b></p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 92.0 + 59.0° / 128.0 + 82.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.6 cd/lm</p> <p>LEDs/each optic: 1</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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