

## FLORENCE-Z90

~90° wide beam. Ideal for retail and industrial lighting. Can be used for general office lighting with shade.

### TECHNICAL SPECIFICATIONS:

Dimensions	61.0 x 286.0 mm
Height	8.5 mm
Fastening	screw
ROHS compliant	yes ⓘ

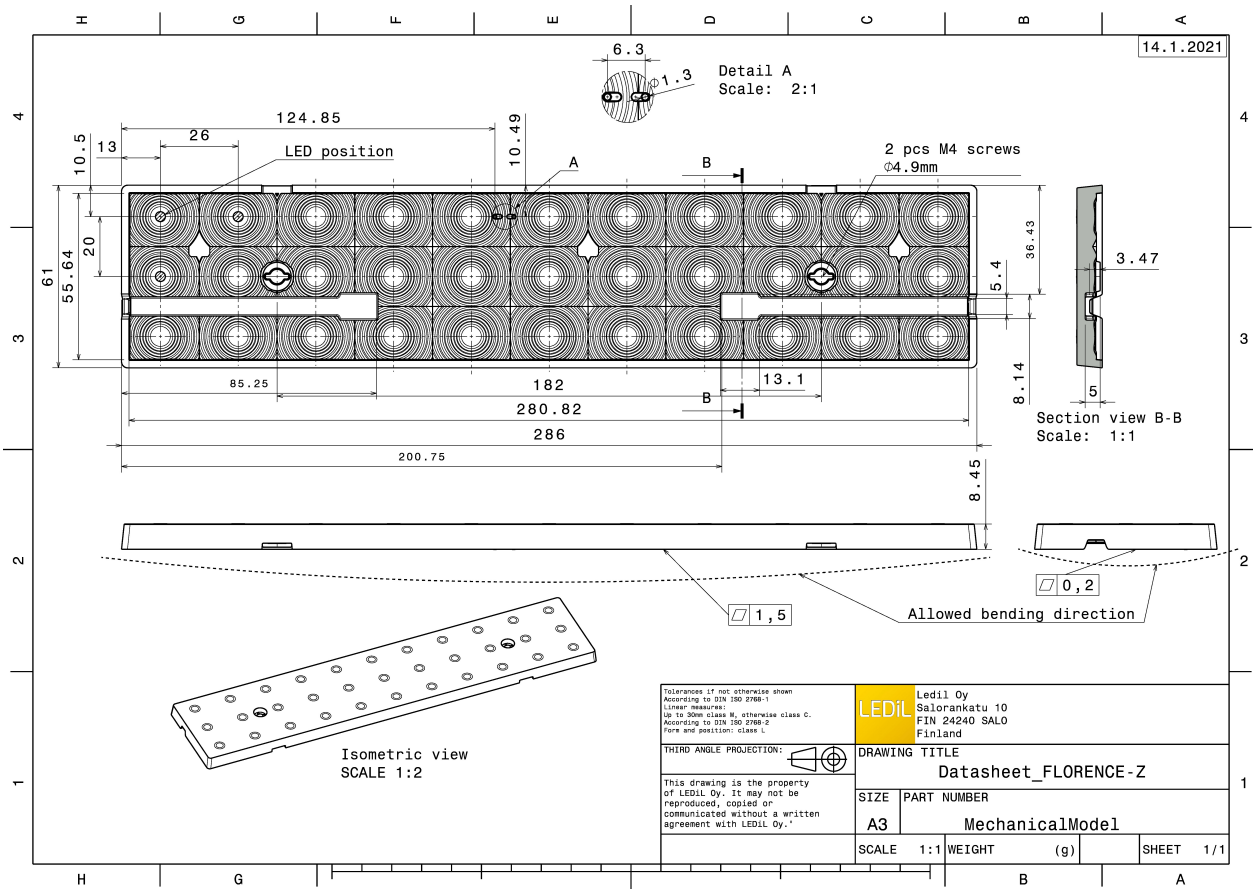
### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish
FLORENCE-Z90	Linear lens	PMMA	clear	

### ORDERING INFORMATION:

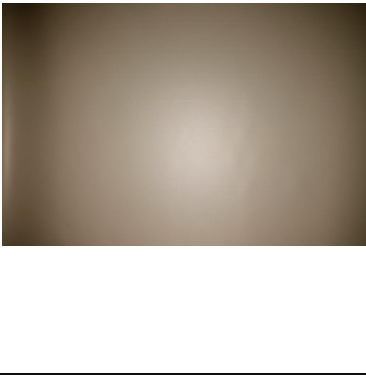
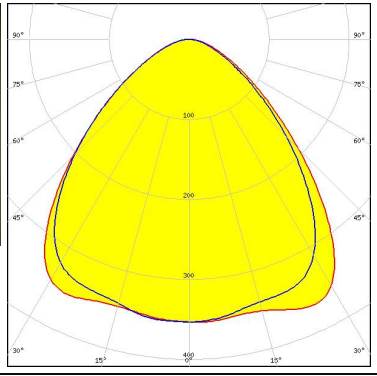

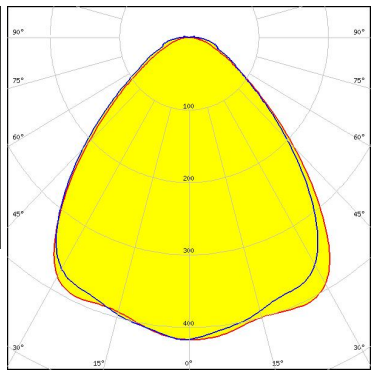

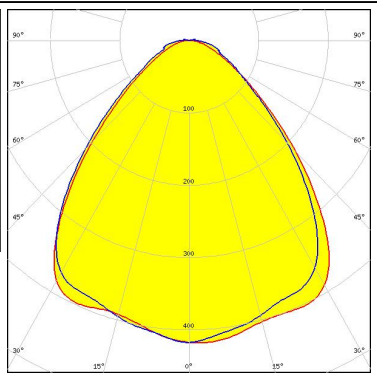
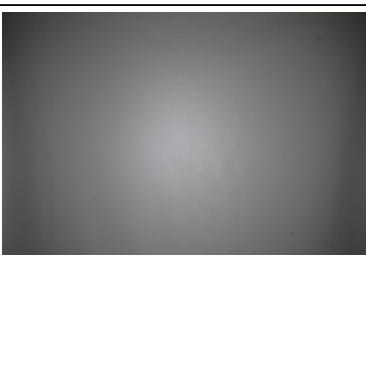
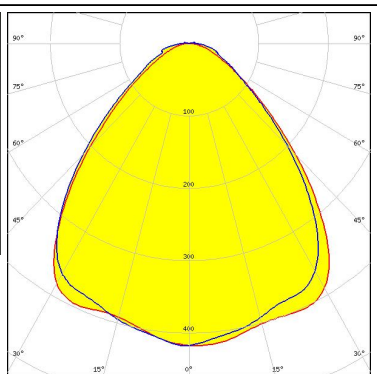
Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13853_FLORENCE-Z90 » Box size: 398 x 298 x 140 mm	72	18	6	7.8




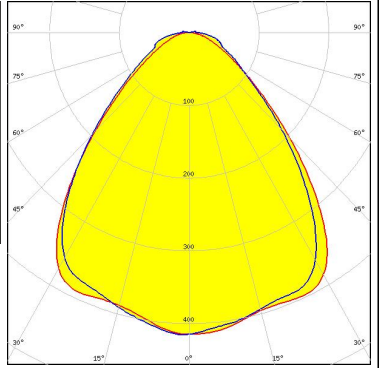

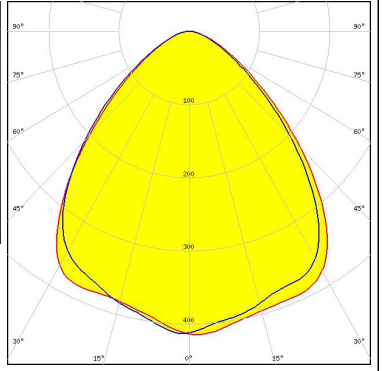
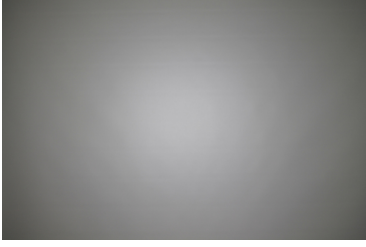
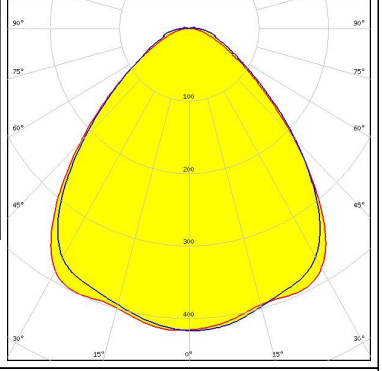

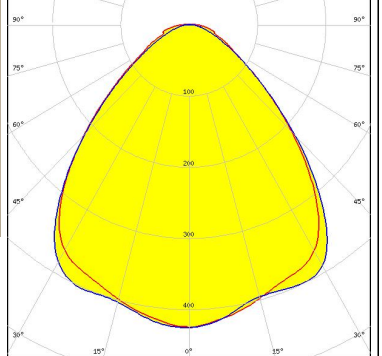


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### PHOTOMETRIC DATA (MEASURED):

<p><b>CREE</b> LED</p> <p>LED XH-B/G            FWHM / FWTM 95.0° / 140.0°            Efficiency 82 %            Peak intensity 0.4 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>FRANK</b></p> <p>LED LED-Modul 280 x 55 mm 1B            FWHM / FWTM 90.0° / 134.0 + 144.0°            Efficiency 92 %            Peak intensity 0.4 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>FRANK</b></p> <p>LED LED-Modul 280 x 55 mm 1F            FWHM / FWTM 90.0° / 133.0 + 144.0°            Efficiency 92 %            Peak intensity 0.4 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>FRANK</b></p> <p>LED LED-Modul 280 x 55 mm 2F            FWHM / FWTM 90.0° / 133.0 + 144.0°            Efficiency 92 %            Peak intensity 0.4 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		

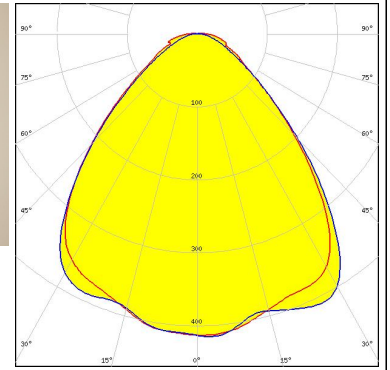
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON 3030 2D (Square LES)</p> <p>FWHM / FWTM 88.0 + 87.0° / 133.0 + 153.0°</p> <p>Efficiency 91 %</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><b>LUMILEDS</b></p> <p>LED LUXEON 3535 2D</p> <p>FWHM / FWTM 92.0° / 135.0°</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>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON 3535L HE</p> <p>FWHM / FWTM 92.0° / 139.0°</p> <p>Efficiency 93 %</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><b>LUMILEDS</b></p> <p>LED LUXEON XR-3535L (L202 - xxxx033C30001)</p> <p>FWHM / FWTM 91.0° / 134.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

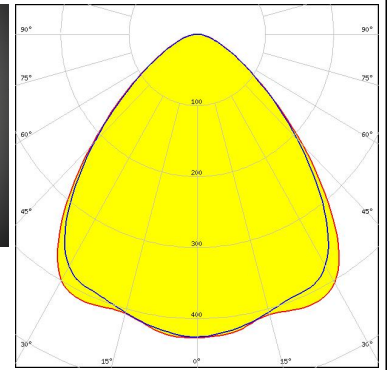
#### PHOTOMETRIC DATA (MEASURED):



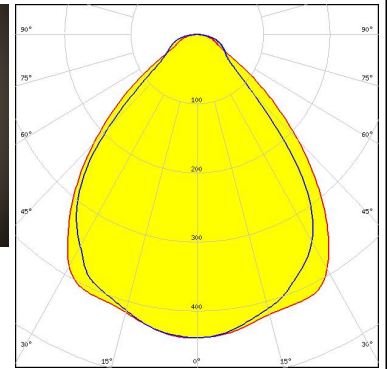
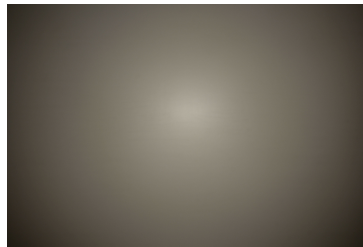
LED MP-2016  
 FWHM / FWTM 90.0° / 140.0°  
 Efficiency 91 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



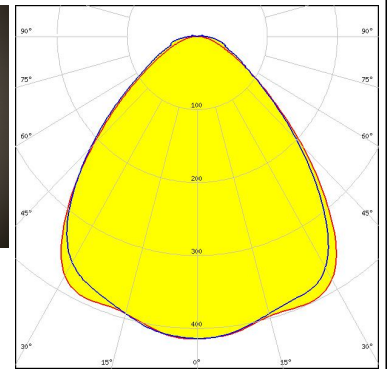
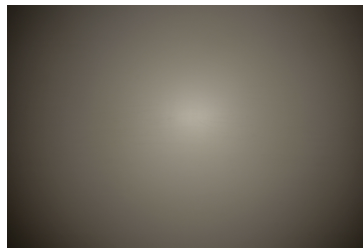
LED NF2x757D  
 FWHM / FWTM 92.0° / 134.0°  
 Efficiency 90 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED NFSW757H  
 FWHM / FWTM 90.0 + 83.0° / 122.0 + 131.0°  
 Efficiency 87 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14646\_FLORENCE-3R-SHD-WHT



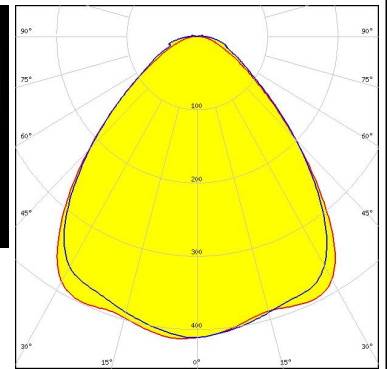
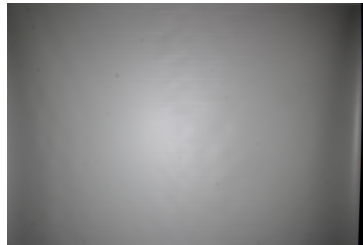
LED NFSW757H  
 FWHM / FWTM 91.0 + 90.0° / 134.0 + 145.0°  
 Efficiency 92 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

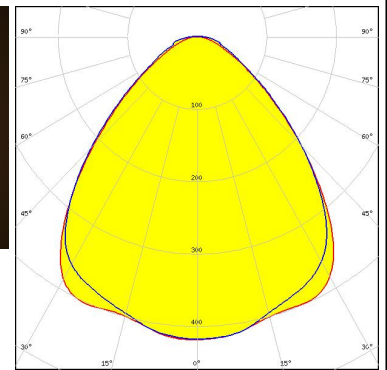
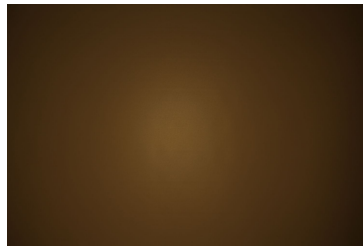
#### OSRAM

LED PL-BAR-G3 1100 280x55  
 FWHM / FWTM 90.0° / 140.0°  
 Efficiency 92 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

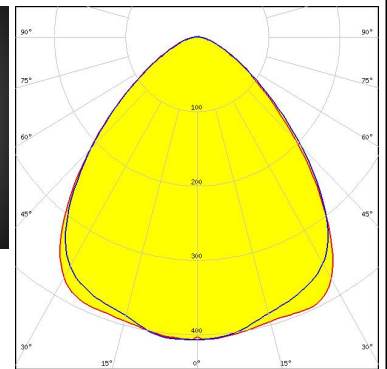
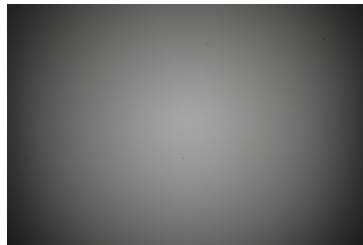
LED PLG2-BAR-1100-xxx-280x55-DC  
 FWHM / FWTM 92.0° / 138.0°  
 Efficiency 92 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

Opto Semiconductors

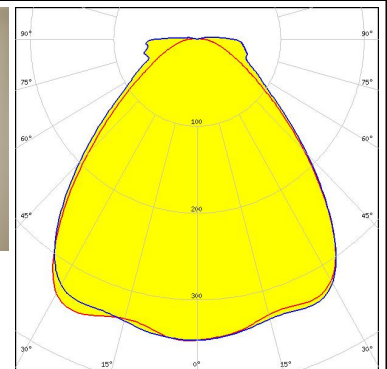
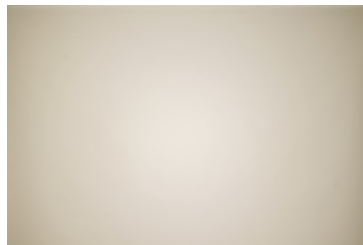
LED Duris E5  
 FWHM / FWTM 92.0° / 135.0°  
 Efficiency 88 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:




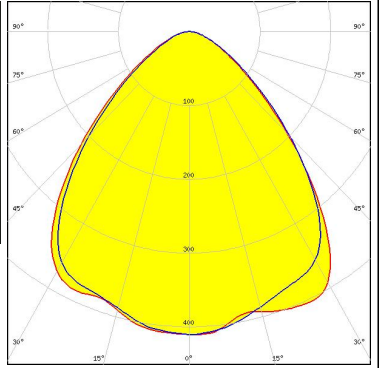
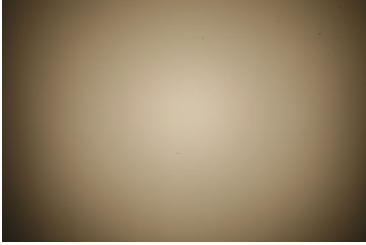
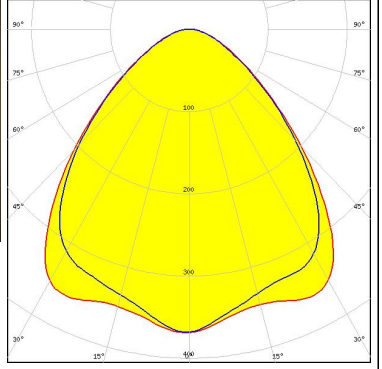

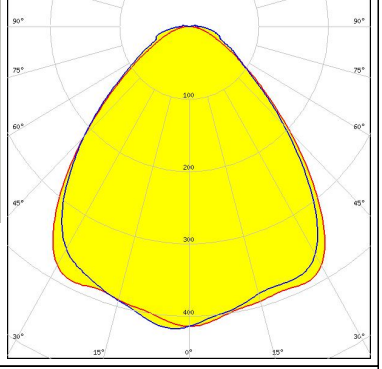

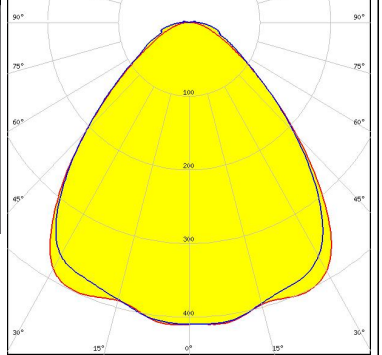
#### OSRAM

Opto Semiconductors

LED Duris S2  
 FWHM / FWTM 95.0° / 165.0°  
 Efficiency 90 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



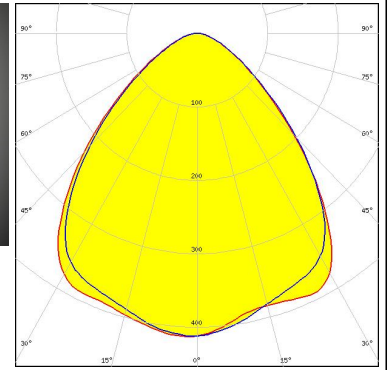
#### PHOTOMETRIC DATA (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S5 (Single chip)</p> <p>FWHM / FWTM 91.0° / 133.0°</p> <p>Efficiency 88 %</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><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 2226</p> <p>FWHM / FWTM 94.0° / 140.0°</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><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 91.0° / 145.0°</p> <p>Efficiency 93 %</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><b>PHILIPS</b></p> <p>LED Fortimo LED Line 1ft 650lm 3R HV4 &amp; LV4</p> <p>FWHM / FWTM 90.0° / 142.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

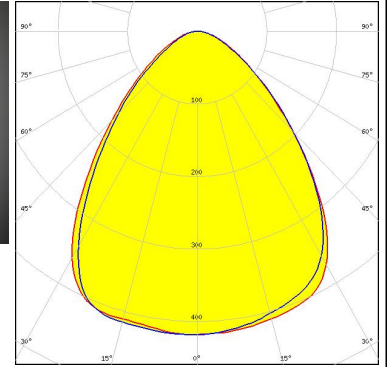
### SAMSUNG

LED LM231 A/B  
 FWHM / FWTM 91.0° / 134.0°  
 Efficiency 88 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



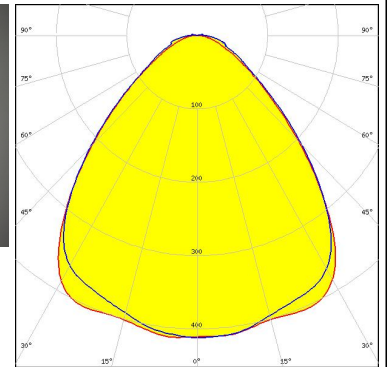
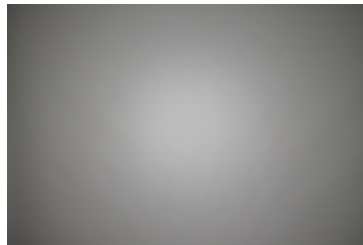
### SAMSUNG

LED LM561B  
 FWHM / FWTM 86.0° / 133.0°  
 Efficiency 85 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



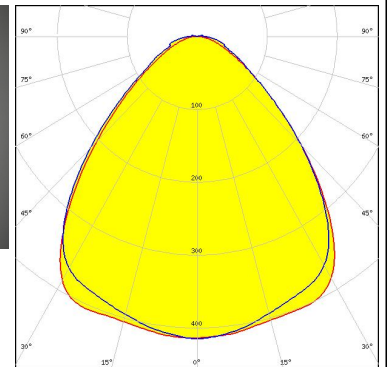
### SAMSUNG

LED LM561B Plus  
 FWHM / FWTM 92.0° / 141.0°  
 Efficiency 93 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

LED LM561C  
 FWHM / FWTM 92.0° / 140.0°  
 Efficiency 93 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

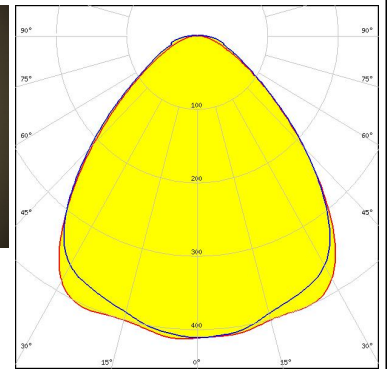
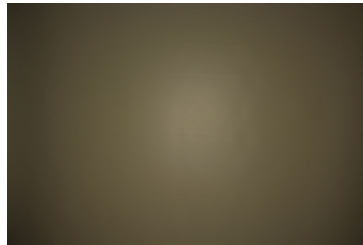




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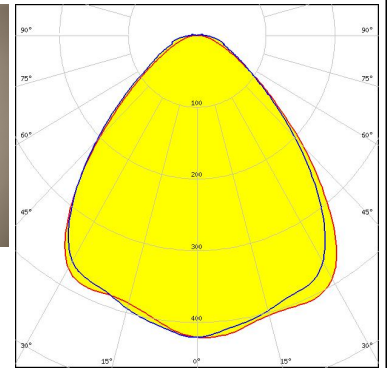
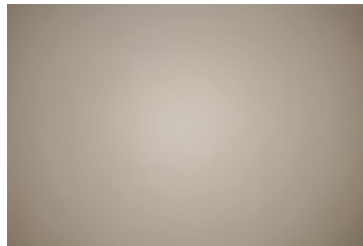
### SAMSUNG

LED LT-R286A  
 FWHM / FWTM 93.0° / 140.0°  
 Efficiency 93 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



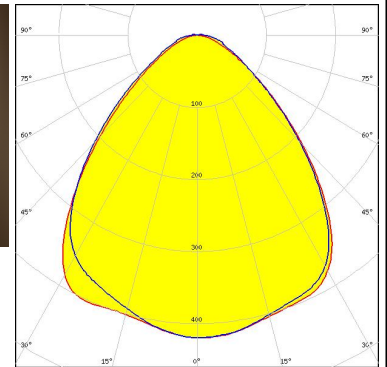
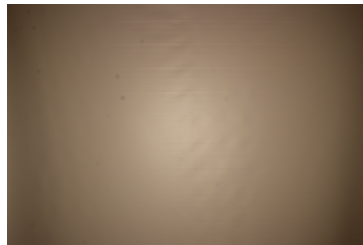
SEOUL SEMICONDUCTOR

LED SEOUL 3030  
 FWHM / FWTM 91.0° / 138.0°  
 Efficiency 91 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



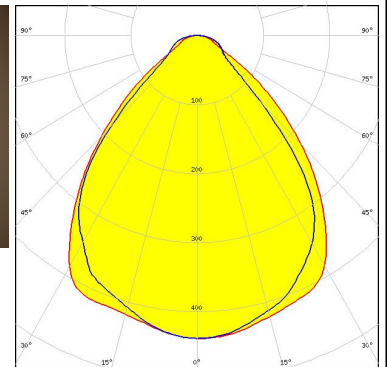
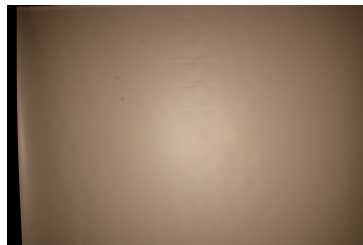
SEOUL SEMICONDUCTOR

LED SEOUL 5630C  
 FWHM / FWTM 90.0° / 136.0°  
 Efficiency 91 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

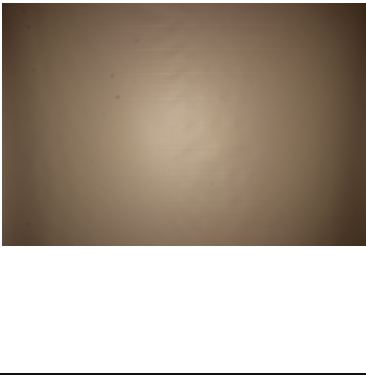
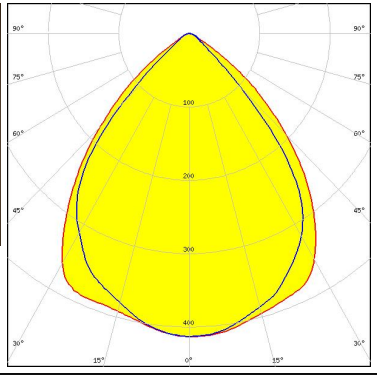
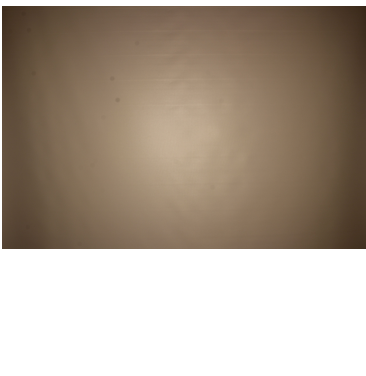
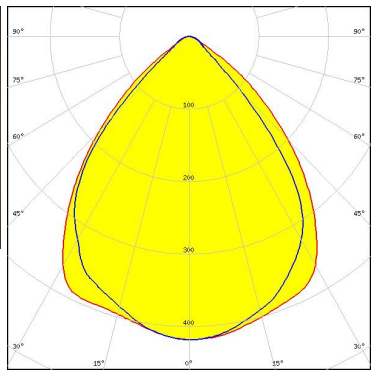

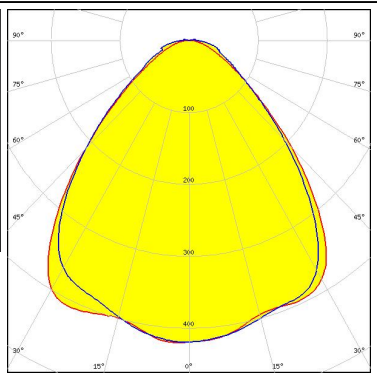
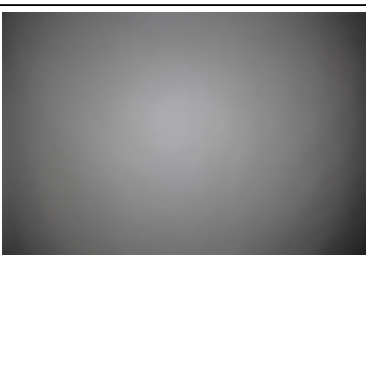
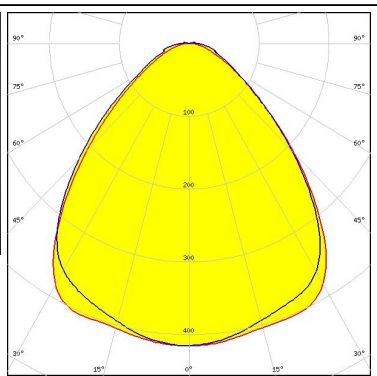


SEOUL SEMICONDUCTOR

LED SEOUL 5630C  
 FWHM / FWTM 89.0 + 83.0° / 121.0 + 123.0°  
 Efficiency 86 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14646\_FLORENCE-3R-SHD-WHT



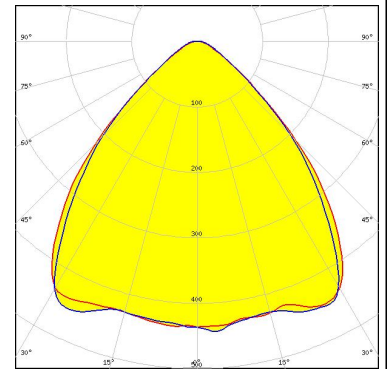
#### PHOTOMETRIC DATA (MEASURED):

<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED                    SEOUL 5630C</p> <p>FWHM / FWTM        87.0 + 81.0° / 115.0 + 101.0°</p> <p>Efficiency            71 %</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>          C14592_FLORENCE-3R-SHD-BLK</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED                    SEOUL 5630C</p> <p>FWHM / FWTM        87.0 + 81.0° / 116.0 + 103.0°</p> <p>Efficiency            74 %</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>          C14453_FLORENCE-3R-SHD-GR</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED                    SEOUL DC 3030</p> <p>FWHM / FWTM        90.0° / 140.0°</p> <p>Efficiency            93 %</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><b>TRIDONIC</b></p> <p>LED                    LLE G2 55x280mm 2000lm</p> <p>FWHM / FWTM        91.0° / 135.0°</p> <p>Efficiency            93 %</p> <p>Peak intensity        0.4 cd/lm</p> <p>LEDs/each optic     1</p> <p>Light colour         White</p> <p>Required components:</p>		

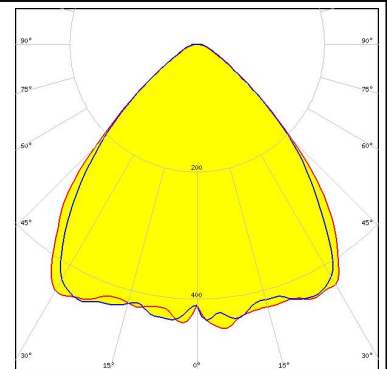
#### PHOTOMETRIC DATA (SIMULATED):



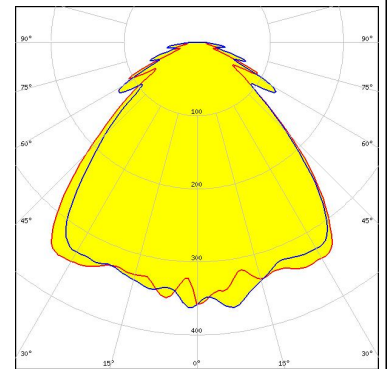
LED J Series 5050 Round LES  
 FWHM / FWTM 88.0° / 120.0°  
 Efficiency 91 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



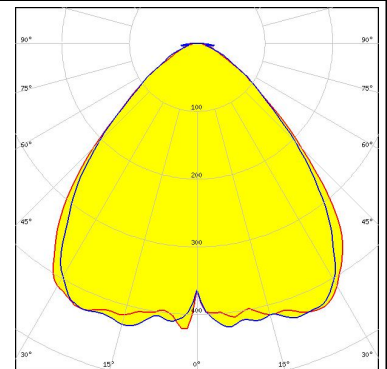
LED LUXEON 5050 Round LES  
 FWHM / FWTM 90.0° / 120.0°  
 Efficiency 91 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



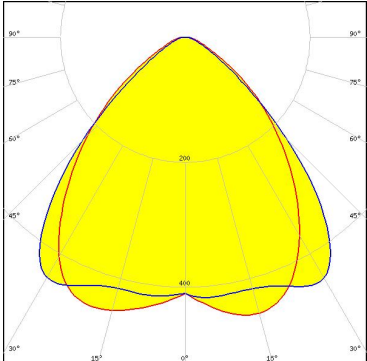
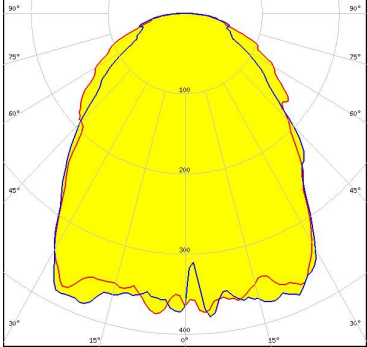
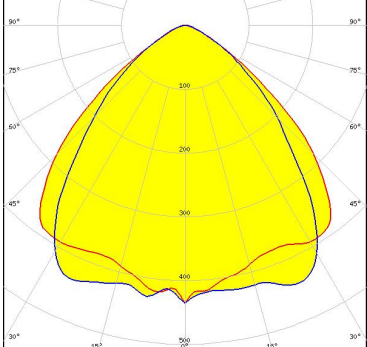
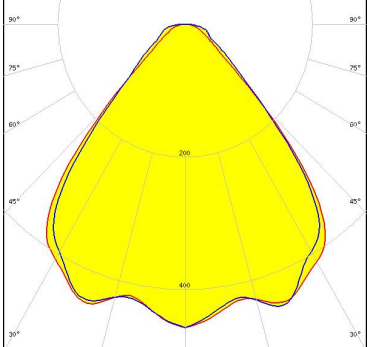
LED NF2x757G  
 FWHM / FWTM 90.0° / 146.0°  
 Efficiency 80 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED NFMW48xA  
 FWHM / FWTM 89.0° / 130.0°  
 Efficiency 92 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

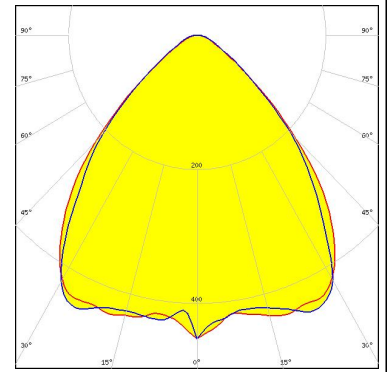
<p><b>NICHIA</b></p> <p>LED NFSx757G</p> <p>FWHM / FWTM 86.0 + 90.0° / 128.0 + 122.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 2</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSxE21A</p> <p>FWHM / FWTM 90.0° / 163.0°</p> <p>Efficiency 94 %</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><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris E 2835</p> <p>FWHM / FWTM 86.0 + 87.0° / 120.0 + 126.0°</p> <p>Efficiency 92 %</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><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris E 2835</p> <p>FWHM / FWTM 85.0° / 122.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

#### OSRAM

Opto Semiconductors

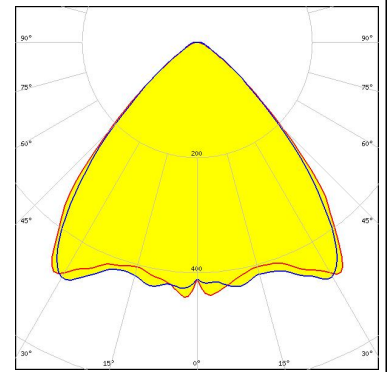
LED Duris S8  
 FWHM / FWTM 89.0° / 121.0°  
 Efficiency 91 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

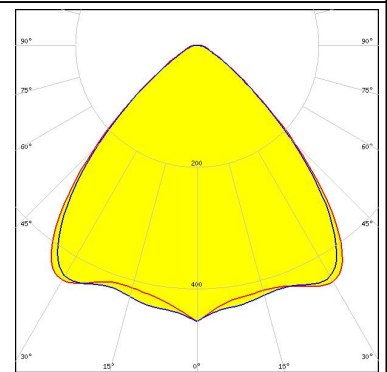
Opto Semiconductors

LED OSCONIQ C 2424  
 FWHM / FWTM 88.0° / 114.0°  
 Efficiency 92 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



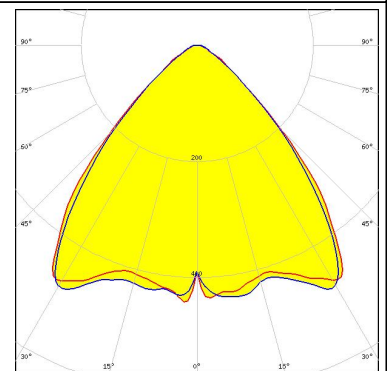
#### SAMSUNG

LED LM28xB Series  
 FWHM / FWTM 90.0° / 120.0°  
 Efficiency 93 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

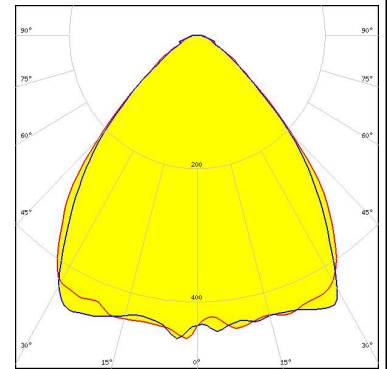
LED LM301B  
 FWHM / FWTM 88.0° / 119.0°  
 Efficiency 92 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

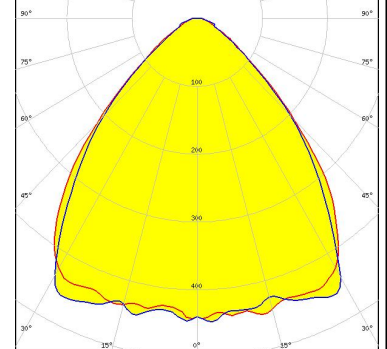
### SAMSUNG

LED LM301B  
 FWHM / FWTM 88.0° / 122.0°  
 Efficiency 91 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 2  
 Light colour White  
 Required components:



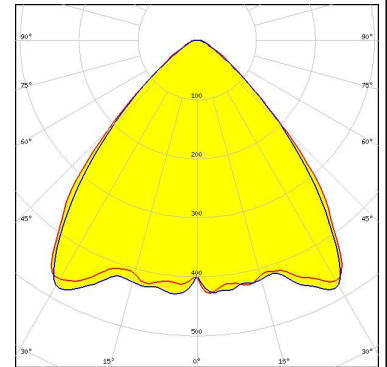
### SAMSUNG

LED LM302Z plus  
 FWHM / FWTM 87.0° / 122.0°  
 Efficiency 91 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 2  
 Light colour White  
 Required components:



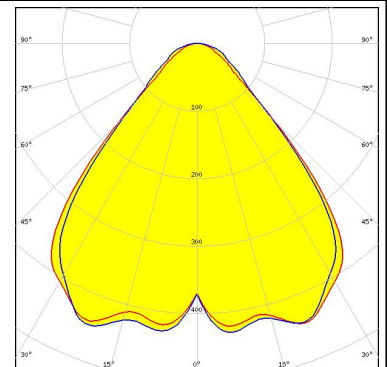
### SAMSUNG

LED LM302Z plus  
 FWHM / FWTM 87.0° / 118.0°  
 Efficiency 92 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:


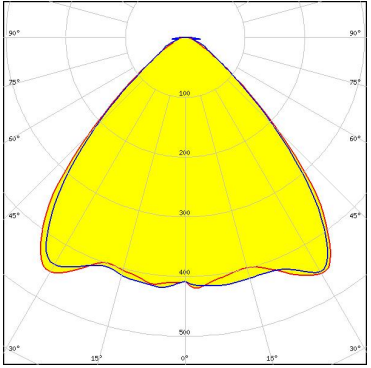
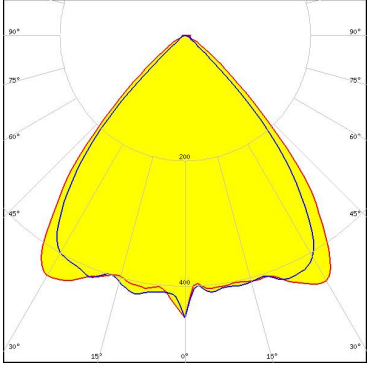


SEOUL SEMICONDUCTOR

LED SEOUL 5630D  
 FWHM / FWTM 83.0° / 127.0°  
 Efficiency 84 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR		
LED	SEOUL DC 3030C	
FWHM / FWTM	89.0° / 120.0°	
Efficiency	94 %	
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
<b>TRIDONIC</b>		
LED	LLE G2 55x280mm 2000lm	
FWHM / FWTM	85.0 + 81.0° / 108.0 + 97.0°	
Efficiency	77 %	
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
	C14592_FLORENCE-3R-SHD-BLK	

### 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.

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