

## STRADA-2X2-LN1

Beam for EN13201 M-class requirements with high poles or where road width is equal or less the pole height.

### SPECIFICATION:

Dimensions	50.0 x 50.0 mm
Height	7.1 mm
Fastening	glue, pin, screw
ROHS compliant	yes ⓘ

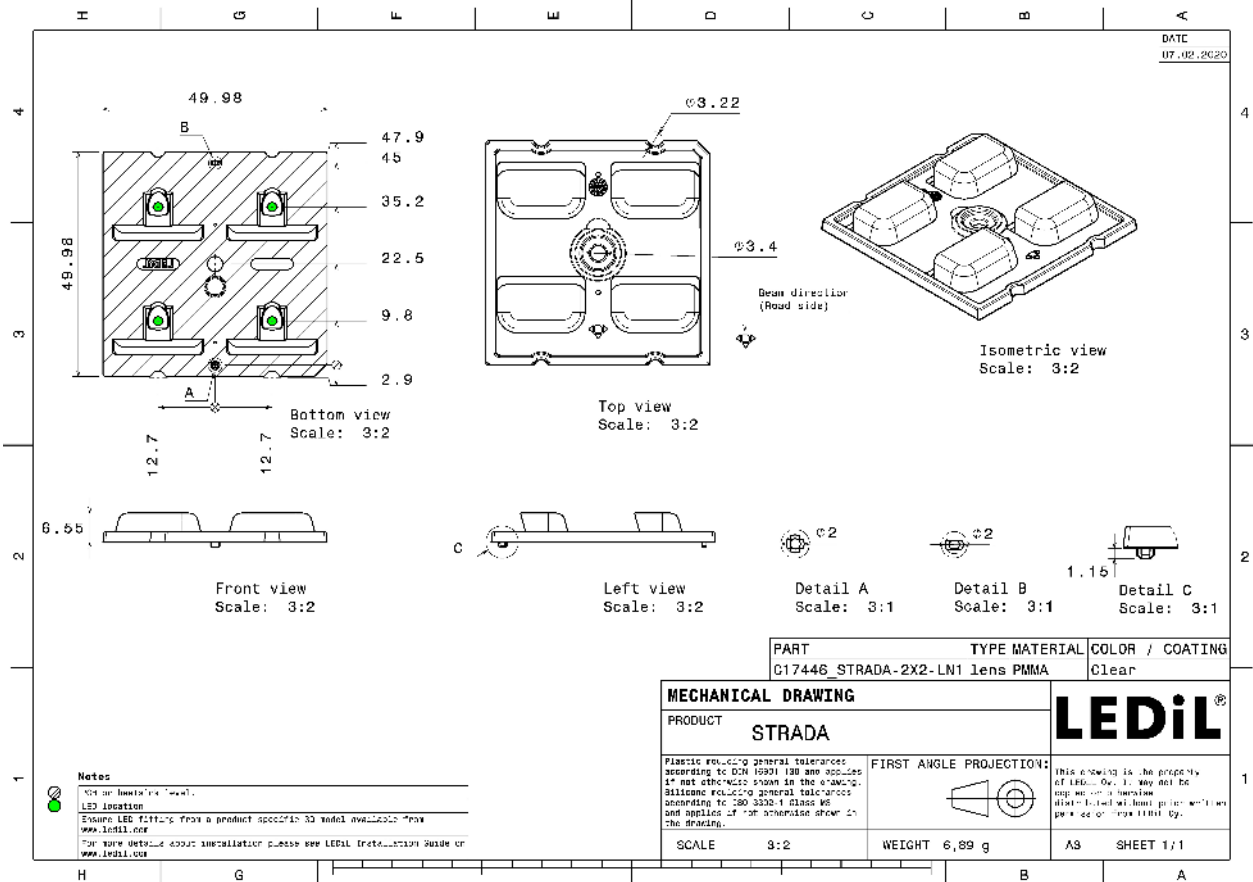


### MATERIALS:

Component	Type	Material	Colour	Finish
STRADA-2X2-LN1	Multi-lens	PMMA	clear	

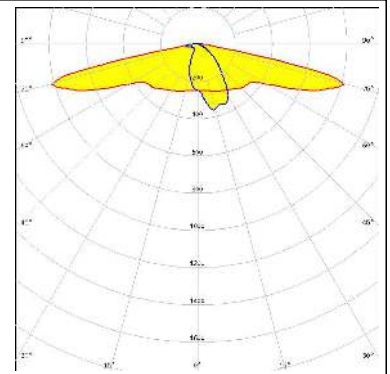
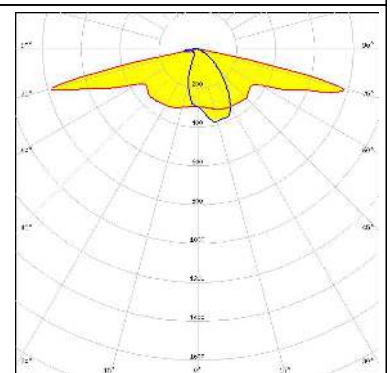
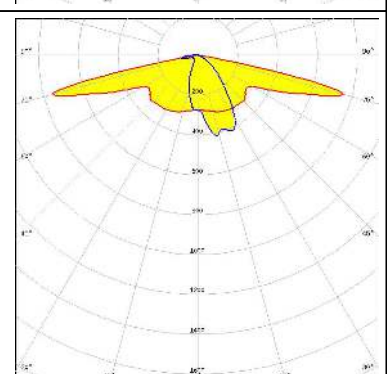
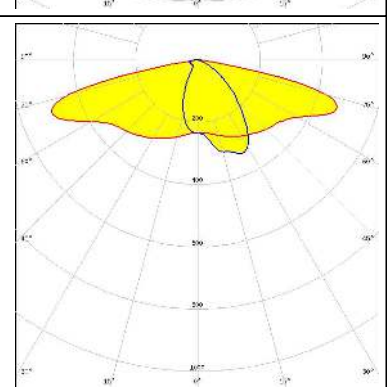
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C17446_STRADA-2X2-LN1 » Box size: 480 x 280 x 300 mm	800	160	160	6.3



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

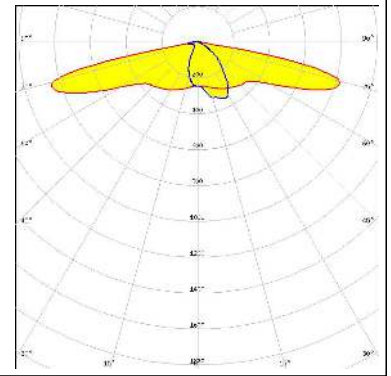
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LED</p> <p>LED: XP-G3            FWHM / FWTM: Asymmetric            Efficiency: 97 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>MST</b> Your solutions</p> <p>LED: RecLED 122x50mm 1900lm 730 2x4 Opt G1            FWHM / FWTM: Asymmetric            Efficiency: 97 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>PHILIPS</b></p> <p>LED: Fortimo FastFlex LED 2x8 DA G5            FWHM / FWTM: Asymmetric            Efficiency: 97 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>SAMSUNG</b></p> <p>LED: LH351C            FWHM / FWTM: Asymmetric            Efficiency: 84 %            Peak intensity: 0.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	


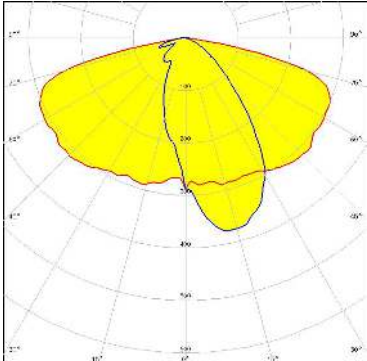

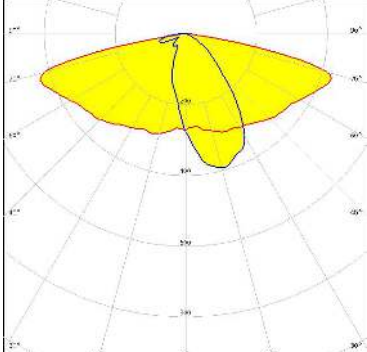

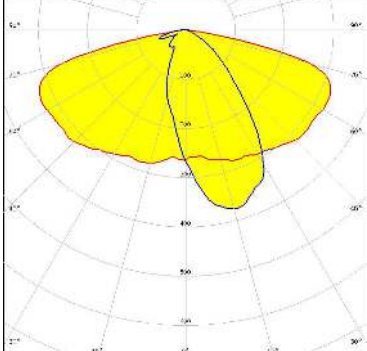

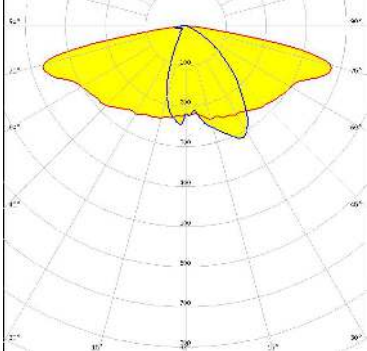
#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

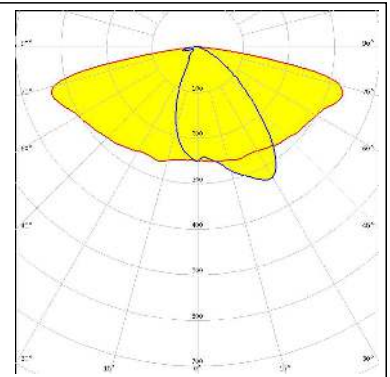
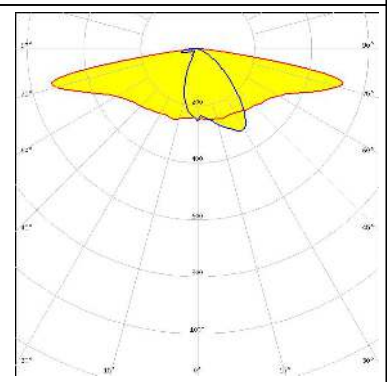
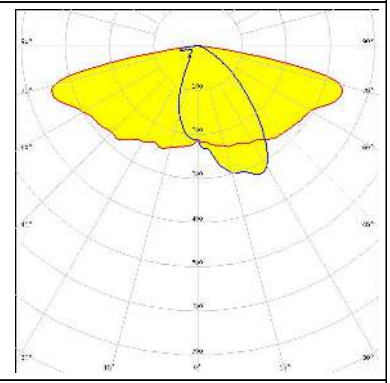
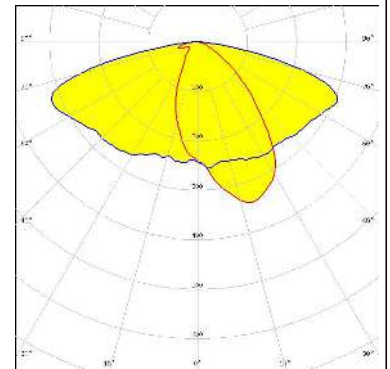
LED LH351C  
FWHM / FWTM Asymmetric  
Efficiency 97 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



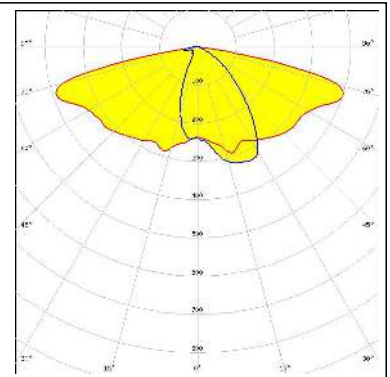
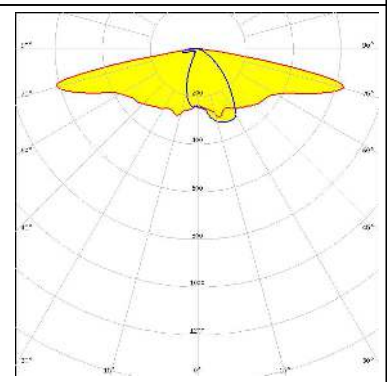
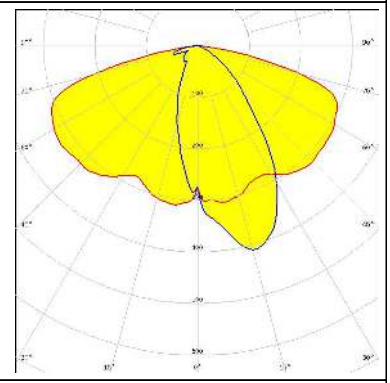
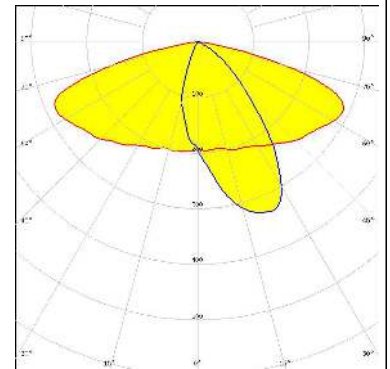
#### OPTICAL RESULTS (SIMULATED):

<p> <b>LED</b> Bridgelux SMD 5050</p> <p><b>FWHM / FWTM</b> Asymmetric</p> <p><b>Efficiency</b> 81 %</p> <p><b>Peak intensity</b> 0.4 cd/lm</p> <p><b>LEDs/each optic</b> 1</p> <p><b>Light colour</b> White</p> <p><b>Required components:</b></p> <p style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p> <b>LED</b> J Series 5050 Round LES</p> <p><b>FWHM / FWTM</b> Asymmetric</p> <p><b>Efficiency</b> 95 %</p> <p><b>Peak intensity</b> 0.5 cd/lm</p> <p><b>LEDs/each optic</b> 1</p> <p><b>Light colour</b> White</p> <p><b>Required components:</b></p>	
<p> <b>LED</b> J Series 5050 Round LES</p> <p><b>FWHM / FWTM</b> Asymmetric</p> <p><b>Efficiency</b> 83 %</p> <p><b>Peak intensity</b> 0.4 cd/lm</p> <p><b>LEDs/each optic</b> 1</p> <p><b>Light colour</b> White</p> <p><b>Required components:</b></p> <p style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p> <b>LED</b> XP-G</p> <p><b>FWHM / FWTM</b> 160.0 + 63.0° / 166.0 + 93.0°</p> <p><b>Efficiency</b> 80 %</p> <p><b>Peak intensity</b> 0.5 cd/lm</p> <p><b>LEDs/each optic</b> 1</p> <p><b>Light colour</b> White</p> <p><b>Required components:</b></p> <p style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	

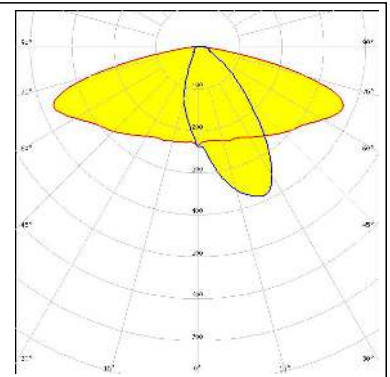
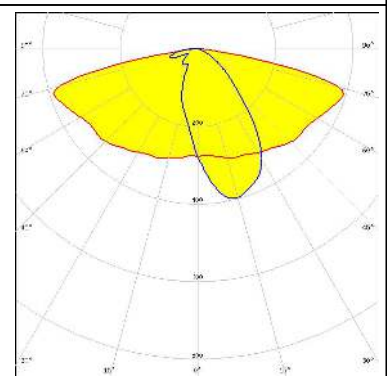
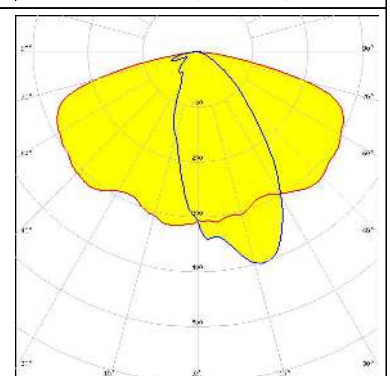
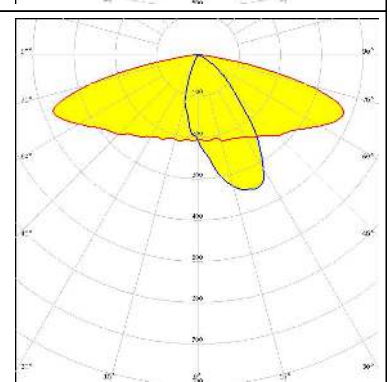
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XP-G2 HE            FWHM / FWTM: Asymmetric            Efficiency: 83 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XP-G2 HE            FWHM / FWTM: Asymmetric            Efficiency: 91 %            Peak intensity: 0.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XP-G3            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 0.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED: XP-L HD            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

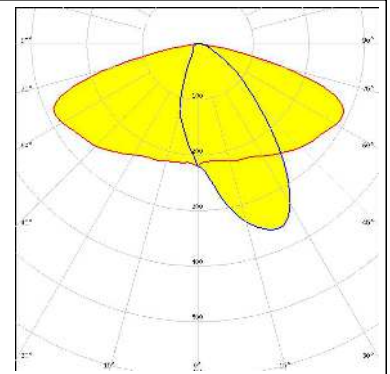
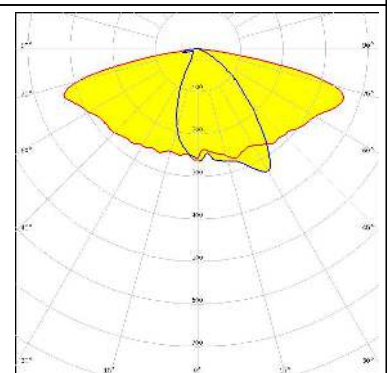
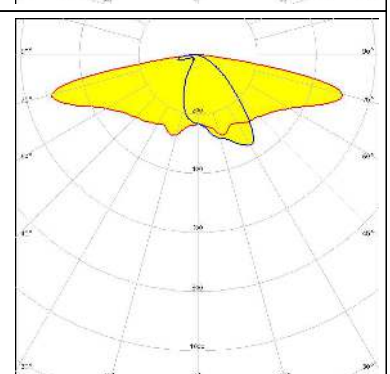
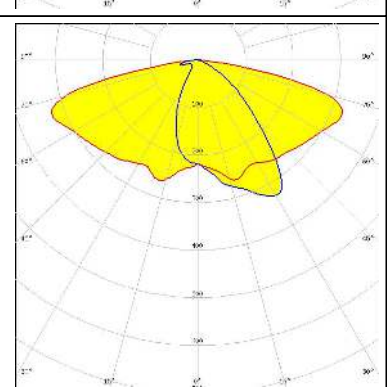
<p><b>CREE</b> LED</p> <p>LED: XT-E HE            FWHM / FWTM: 158.0 + 60.0° / 164.0 + 141.0°            Efficiency: 83 %            Peak intensity: 0.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            Protective plate, glass</p>	
<p><b>CREE</b> LED</p> <p>LED: XT-E HE            FWHM / FWTM: 160.0 + 60.0° / 164.0 + 151.0°            Efficiency: 94 %            Peak intensity: 0.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON 5050 Round LES            FWHM / FWTM: Asymmetric            Efficiency: 82 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON 5050 Square LES            FWHM / FWTM: Asymmetric            Efficiency: 65 %            Peak intensity: 0.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C17677_STRADA-2X2-SHD-BLK            Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

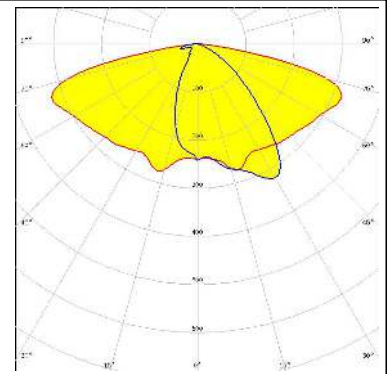
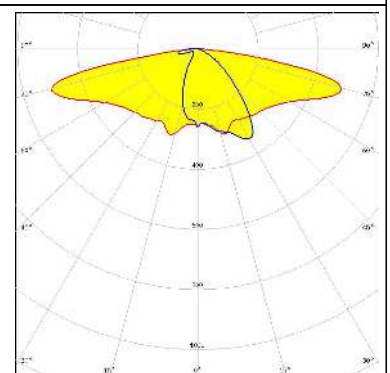
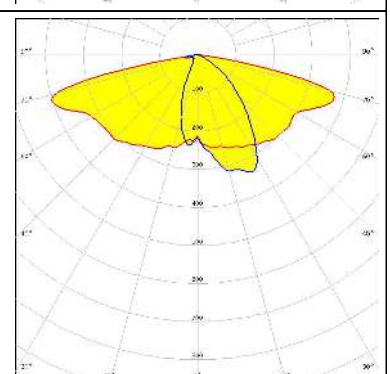
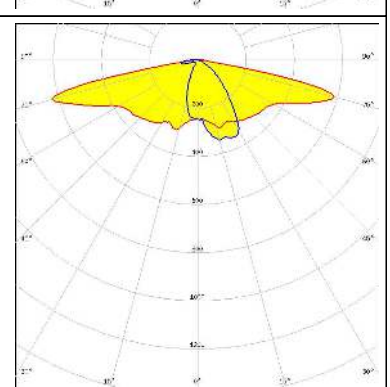
<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Square LES</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C17580_STRADA-2X2-SHD-WHT</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Square LES</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 95 %</p> <p>Peak intensity 0.5 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 5050 Square LES</p> <p>FWHM / FWTM Asymmetric</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>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Square LES</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 74 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C17677_STRADA-2X2-SHD-BLK</p>	



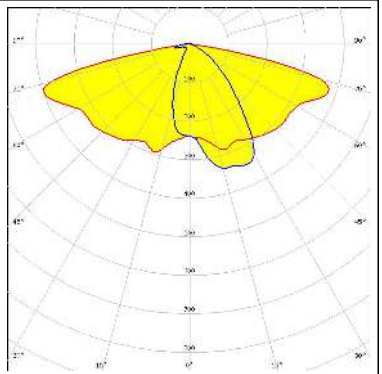
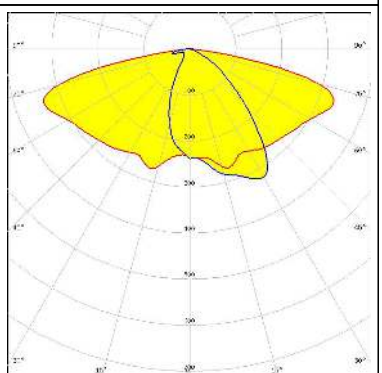
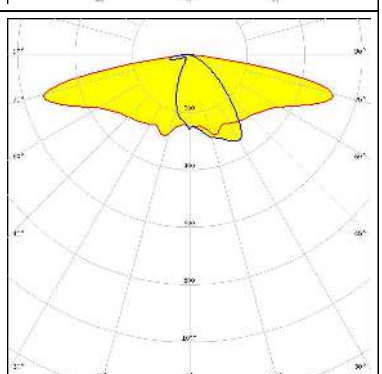
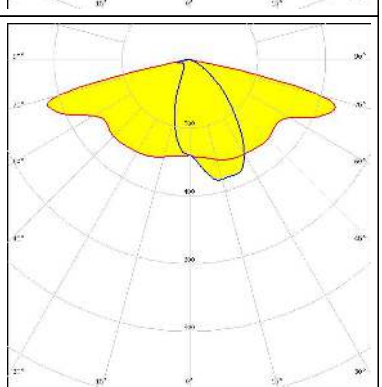
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON 5050 Square LES</p> <p>FWHM / FWTM: Asymmetric</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: C17580_STRADA-2X2-SHD-WHT</p> <p>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL2X</p> <p>FWHM / FWTM: 157.0 + 62.0° / 166.0 + 141.0°</p> <p>Efficiency: 81 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL2X-D</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 0.7 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 HL2X-D</p> <p>FWHM / FWTM: Asymmetric</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>Protective plate, glass</p>	

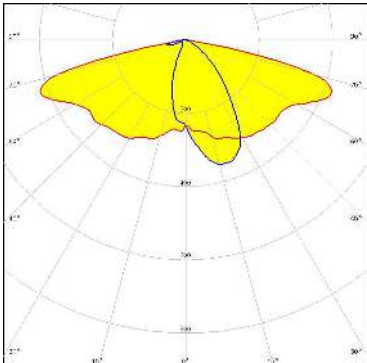
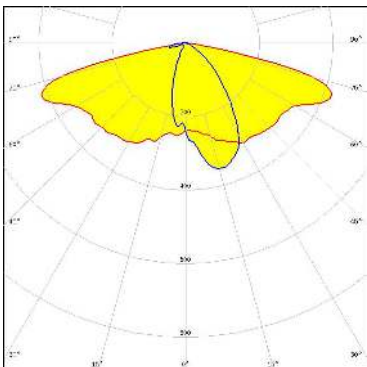
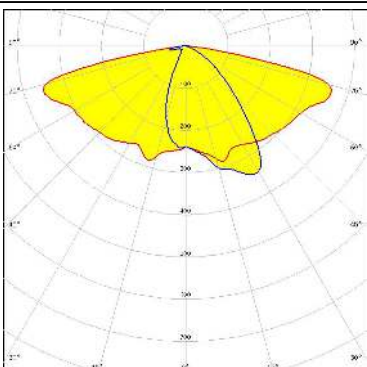
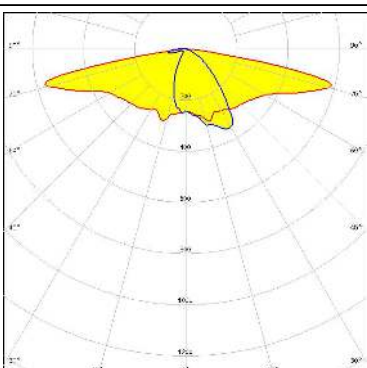
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL2X-P</p> <p>FWHM / FWTM: Asymmetric</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>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL2X-P</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 0.7 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 TX</p> <p>FWHM / FWTM: 157.0 + 58.0° / 164.0 + 139.0°</p> <p>Efficiency: 81 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON V2</p> <p>FWHM / FWTM: 158.0 + 57.0° / 164.0 + 149.0°</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 0.9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

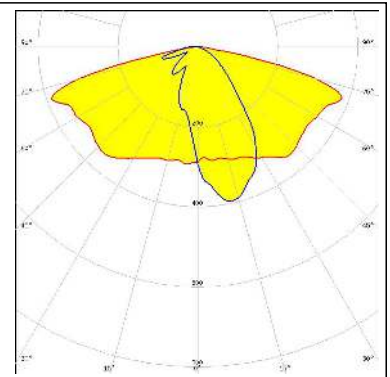
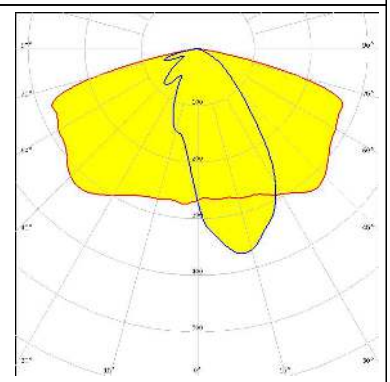
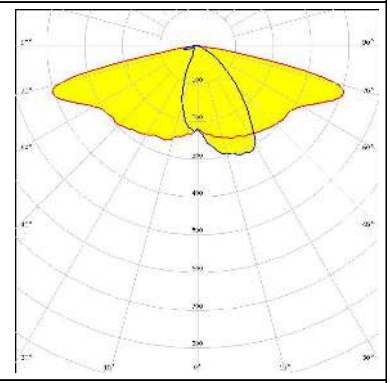
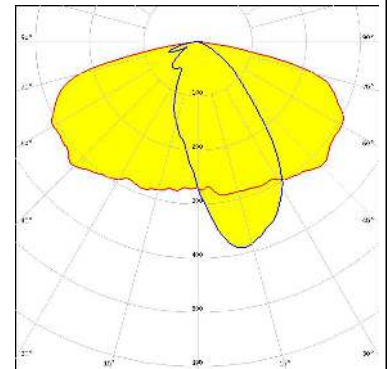
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON V2</p> <p>FWHM / FWTM: 157.0 + 57.0° / 164.0 + 140.0°</p> <p>Efficiency: 84 %</p> <p>Peak intensity: 0.5 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)</p> <p>FWHM / FWTM: Asymmetric</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>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 0.7 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>MST</b>   Your solutions</p> <p>LED: RecLED 122x50mm 1900lm 730 2x4 Opt G1</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 84 %</p> <p>Peak intensity: 0.7 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	

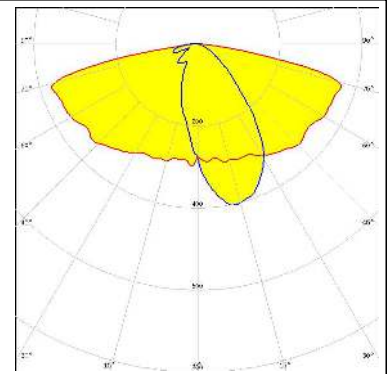
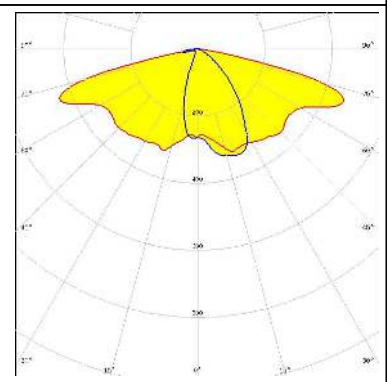
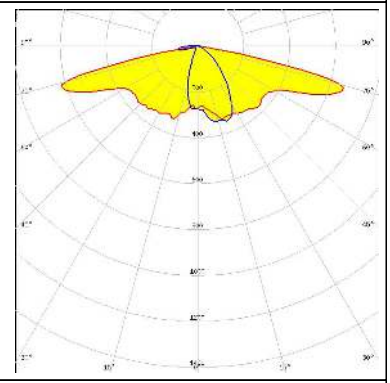
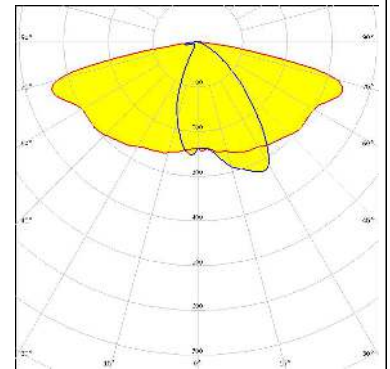
#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED NF2x757G            FWHM / FWTM Asymmetric            Efficiency 81 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED NFSx757G            FWHM / FWTM Asymmetric            Efficiency 80 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED NVSW219F            FWHM / FWTM 158.0 + 59.0° / 164.0 + 141.0°            Efficiency 84 %            Peak intensity 0.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED NVSW219F            FWHM / FWTM 160.0 + 59.0° / 166.0 + 150.0°            Efficiency 94 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

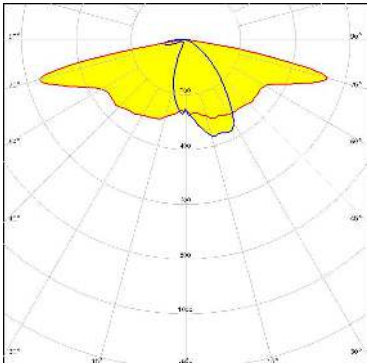
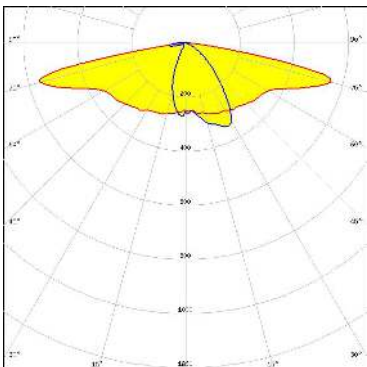
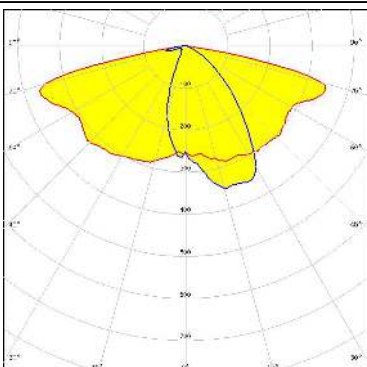
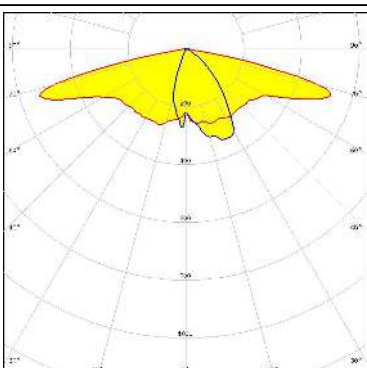
#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED NVSxE21A            FWHM / FWTM Asymmetric            Efficiency 92 %            Peak intensity 0.4 cd/lm            LEDs/each optic 4            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSxE21A            FWHM / FWTM Asymmetric            Efficiency 80 %            Peak intensity 0.4 cd/lm            LEDs/each optic 4            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM Asymmetric            Efficiency 79 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Duris S8            FWHM / FWTM Asymmetric            Efficiency 83 %            Peak intensity 0.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S8</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 92 %</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 C 2424</p> <p>FWHM / FWTM 154.0 + 55.0° / 160.0 + 141.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ C 2424</p> <p>FWHM / FWTM 156.0 + 55.0° / 160.0 + 148.0°</p> <p>Efficiency 96 %</p> <p>Peak intensity 1.1 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 OSLOM Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 78 %</p> <p>Peak intensity 0.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

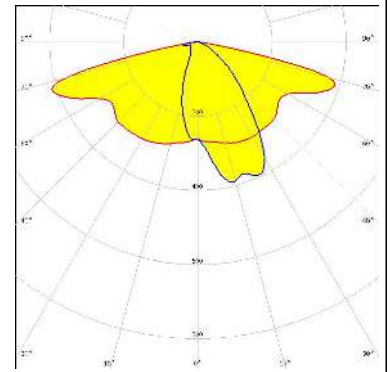
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 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 Asymmetric</p> <p>Efficiency 82 %</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 style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 81 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C17677_STRADA-2X2-SHD-BLK</p>	

#### OPTICAL RESULTS (SIMULATED):

### PHILIPS

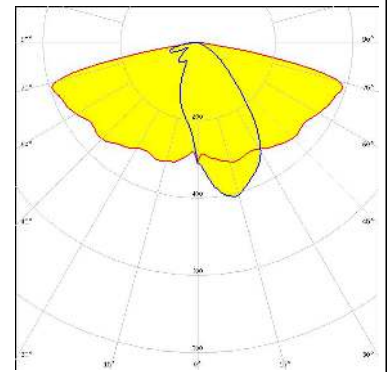
LED Fortimo FastFlex LED 2x8 DA G5  
 FWHM / FWTM Asymmetric  
 Efficiency 84 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



### PHILIPS

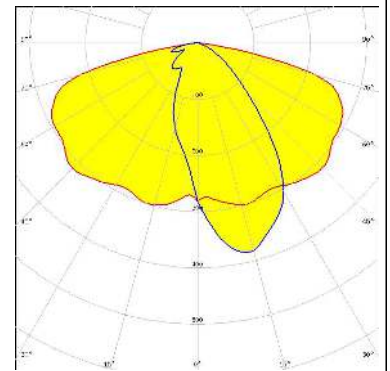
LED Fortimo FastFlex LED 2x8 DA HE  
 FWHM / FWTM Asymmetric  
 Efficiency 96 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### PHILIPS

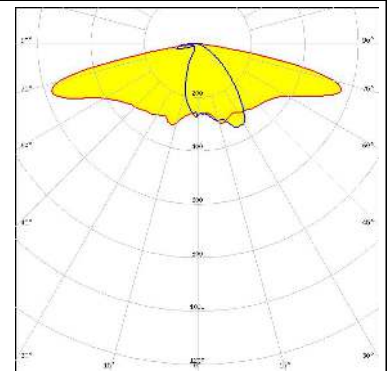
LED Fortimo FastFlex LED 2x8 DA HE  
 FWHM / FWTM Asymmetric  
 Efficiency 82 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



### SAMSUNG

LED LH351B  
 FWHM / FWTM 158.0 + 60.0° / 164.0 + 151.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



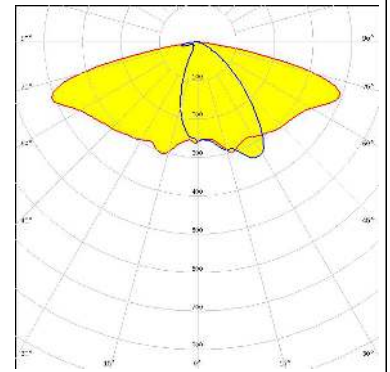


#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

LED LH351B  
 FWHM / FWTM 155.0 + 60.0° / 163.0 + 143.0°  
 Efficiency 84 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

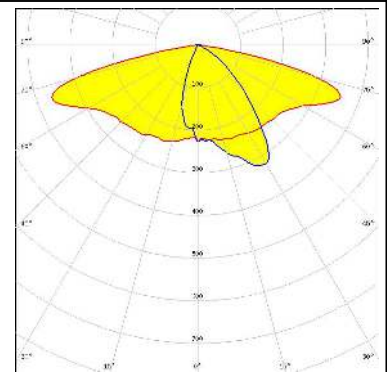


### SAMSUNG

LED LH351C  
 FWHM / FWTM Asymmetric  
 Efficiency 71 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

C17677\_STRADA-2X2-SHD-BLK

Protective plate, glass

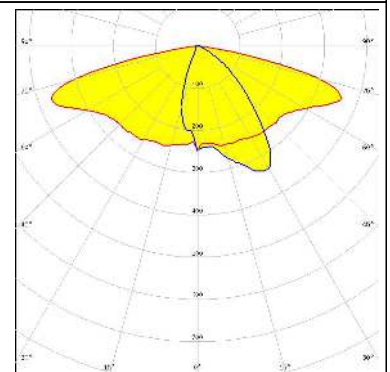


### SAMSUNG

LED LH351C  
 FWHM / FWTM Asymmetric  
 Efficiency 75 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

C17580\_STRADA-2X2-SHD-WHT

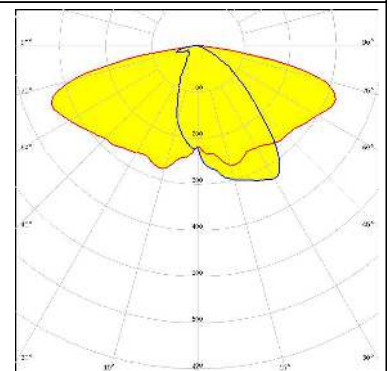
Protective plate, glass



### SAMSUNG

LED LH351D  
 FWHM / FWTM 158.0 + 61.0° / 167.0 + 143.0°  
 Efficiency 83 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

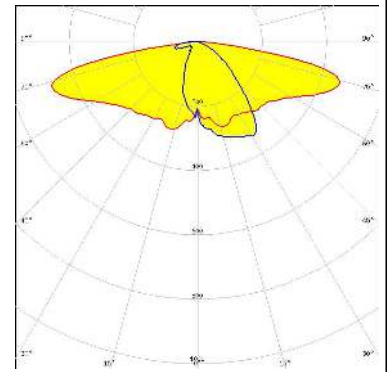
Protective plate, glass



#### OPTICAL RESULTS (SIMULATED):

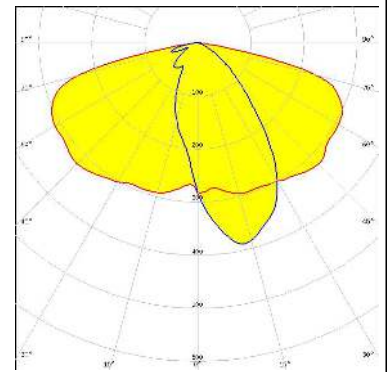
#### SAMSUNG

LED LH351D  
 FWHM / FWTM 162.0 + 61.0° / 170.0 + 152.0°  
 Efficiency 94 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

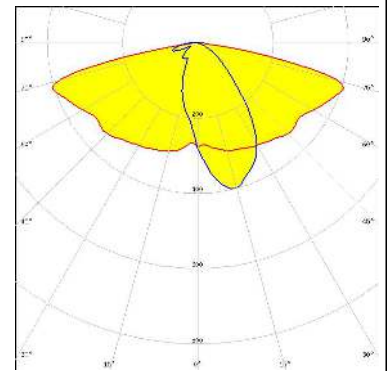
LED LH502C  
 FWHM / FWTM Asymmetric  
 Efficiency 82 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



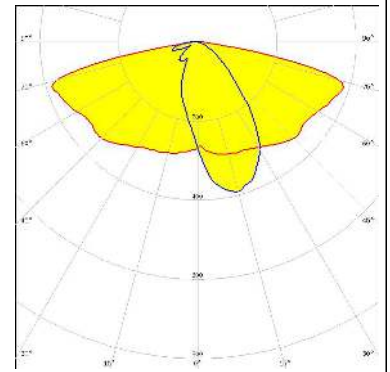
Protective plate, glass

#### SAMSUNG


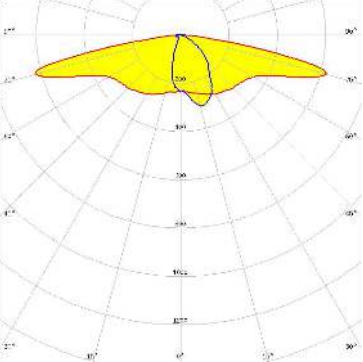

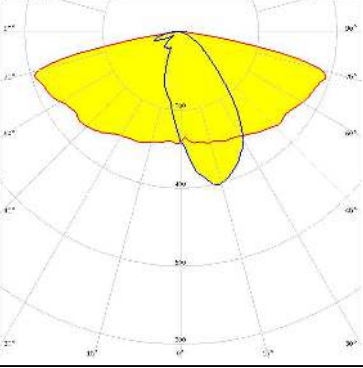

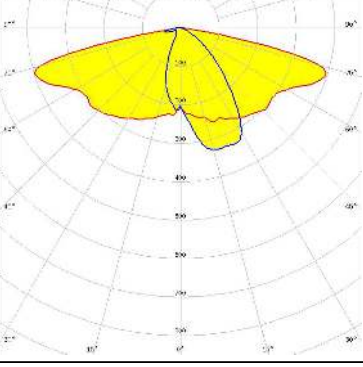

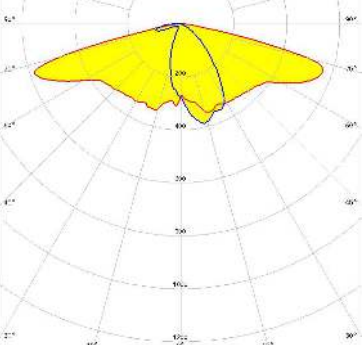
LED LH502D  
 FWHM / FWTM Asymmetric  
 Efficiency 93 %  
 Peak intensity 0.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



SEOL SEMICONDUCTOR  
 LED MJT 5050  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 0.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p> <b>SEOUL SEMICONDUCTOR</b></p> <p>LED: SEOUL DC 3030C</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 0.8 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 5050 6V</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 92 %</p> <p>Peak intensity: 0.5 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: Z5M3</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 80 %</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 style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p> <b>SEOUL SEMICONDUCTOR</b></p> <p>LED: Z5M4</p> <p>FWHM / FWTM: 154.0 + 51.0° / 164.0 + 147.0°</p> <p>Efficiency: 96 %</p> <p>Peak intensity: 0.9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED: Z5M4</p> <p>FWHM / FWTM: 152.0 + 51.0° / 161.0 + 140.0°</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 style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: Z8Y22</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 93 %</p> <p>Peak intensity: 1 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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