

## EMERALD-A

Asymmetric beam. Assembly with installation tape.

### SPECIFICATION:

Dimensions	Ø 21.6 mm
Height	7.3 mm
Fastening	tape, pin
ROHS compliant	yes ⓘ

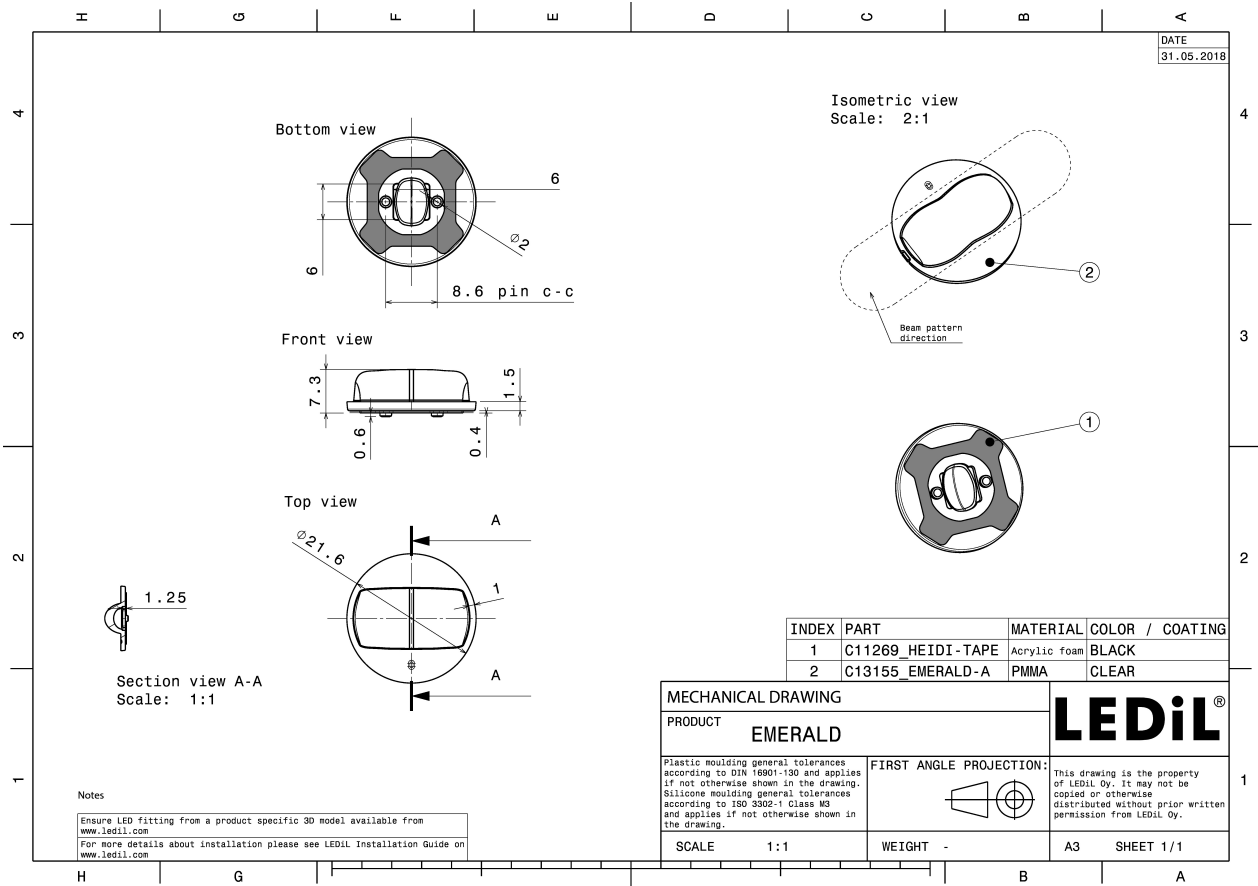


### MATERIALS:

Component	Type	Material	Colour	Finish
EMERALD-A	Single lens	PMMA	clear	
HEIDI-TAPE	Tape	Acrylic foam	black	

### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA13156_EMERALD-A	Single lens	2128	336	112	4.9
» Box size: 480 x 280 x 300 mm					

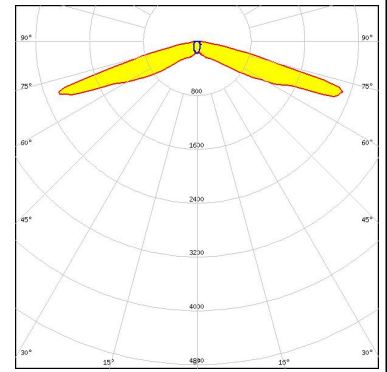


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

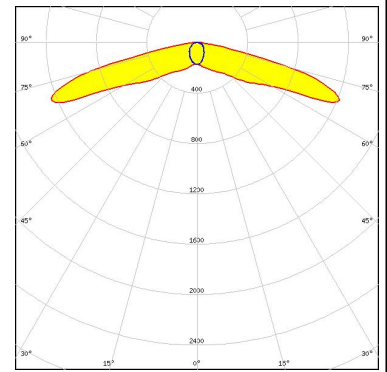
### OPTICAL RESULTS (MEASURED):



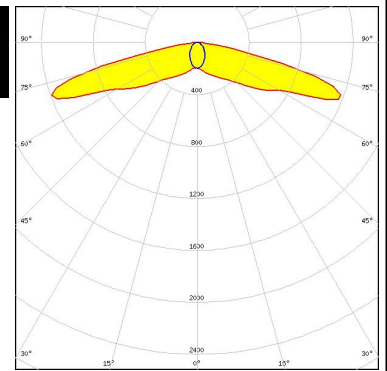
LED XB-D  
 FWHM / FWTM 150.0 + 63.0°  
 Efficiency 88 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



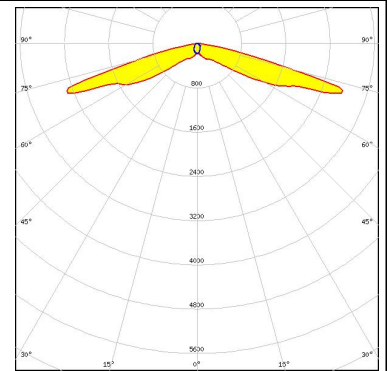
LED XM-L  
 FWHM / FWTM 152.0 + 81.0°  
 Efficiency 91 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED XM-L2  
 FWHM / FWTM 167.0 + 71.0°  
 Efficiency 92 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



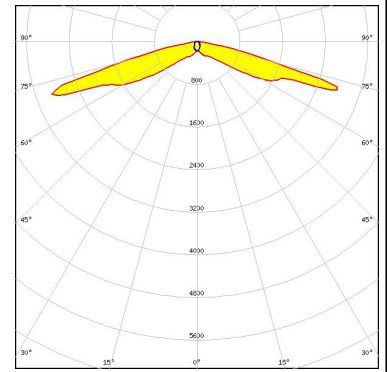
LED XP-E  
 FWHM / FWTM 152.0 + 71.0°  
 Efficiency 93 %  
 Peak intensity 2.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



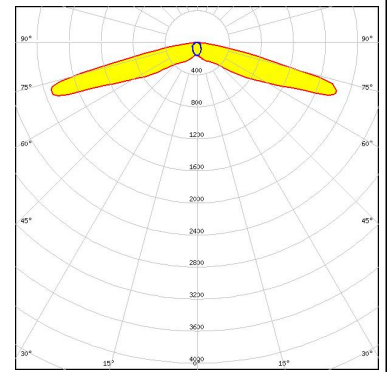
### OPTICAL RESULTS (MEASURED):



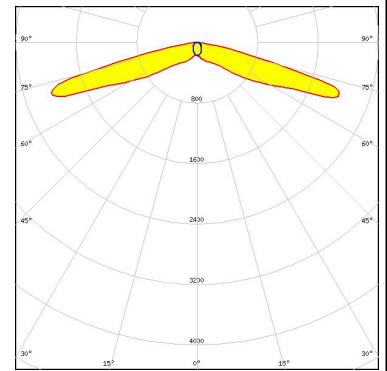
LED XP-E2  
 FWHM / FWTM 153.0 + 70.0°  
 Efficiency 93 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



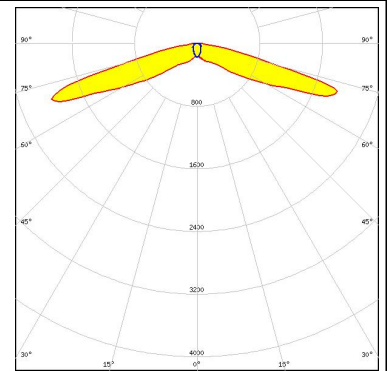
LED XP-G  
 FWHM / FWTM 153.0 + 92.0°  
 Efficiency 88 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED XP-G2  
 FWHM / FWTM 151.0 + 75.0°  
 Efficiency 91 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



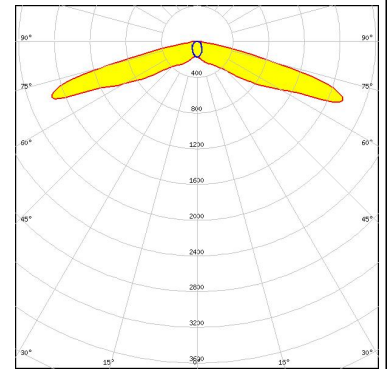
LED XT-E  
 FWHM / FWTM 150.0 + 64.0°  
 Efficiency 88 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OPTICAL RESULTS (MEASURED):

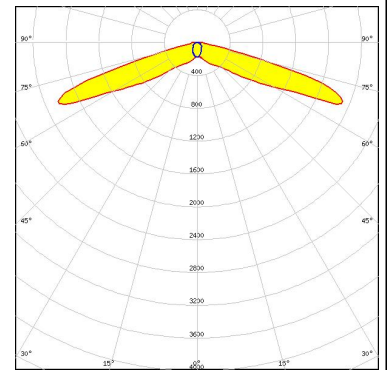
#### LUMILEDS

LED LUXEON A  
 FWHM / FWTM 151.0 + 73.0°  
 Efficiency 89 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



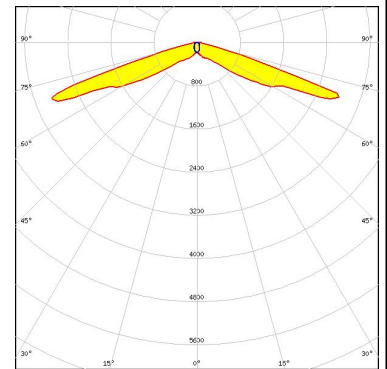
#### LUMILEDS

LED LUXEON R  
 FWHM / FWTM 147.0 + 71.0°  
 Efficiency 88 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



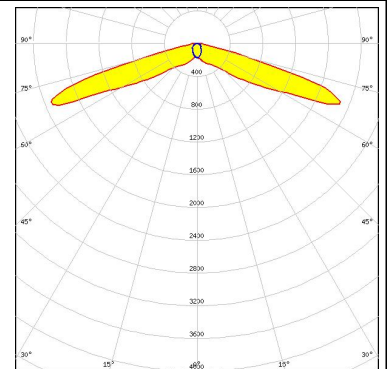
#### LUMILEDS

LED LUXEON Rebel  
 FWHM / FWTM 146.0 + 64.0°  
 Efficiency 88 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### LUMILEDS

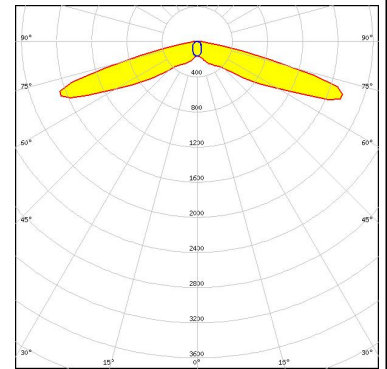
LED LUXEON Rebel ES  
 FWHM / FWTM 147.0 + 73.0°  
 Efficiency 88 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OPTICAL RESULTS (MEASURED):

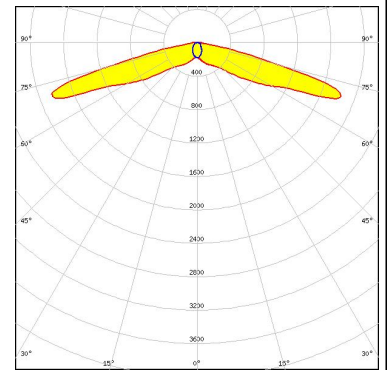
#### LUMILEDS

LED LUXEON T  
 FWHM / FWTM 151.0 + 75.0°  
 Efficiency 93 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



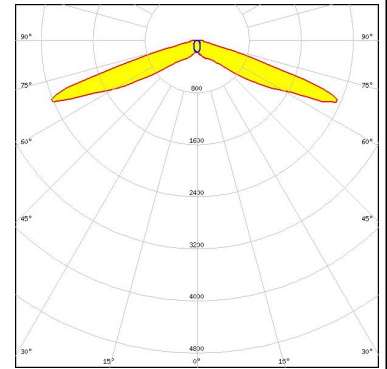
#### LUMILEDS

LED LUXEON TX  
 FWHM / FWTM 151.0 + 71.0°  
 Efficiency 92 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



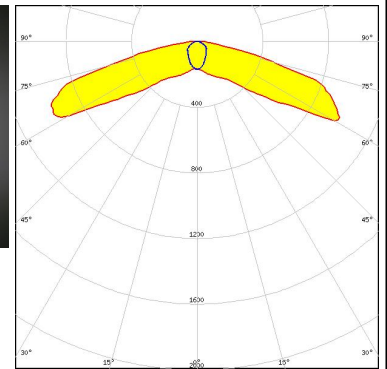
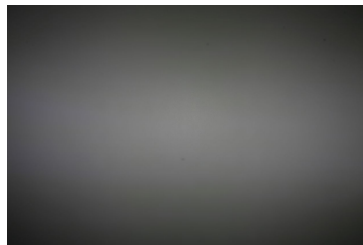
#### NICHIA

LED NCSxx19A  
 FWHM / FWTM 145.0 + 64.0°  
 Efficiency 88 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

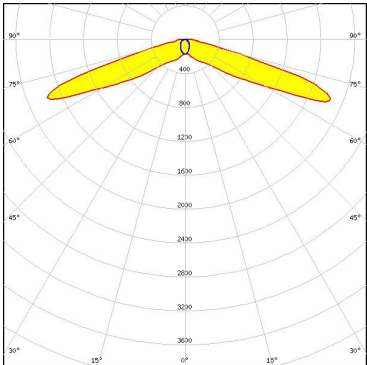
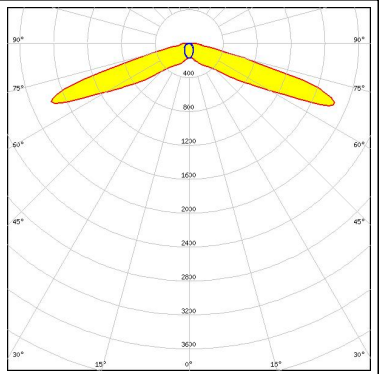
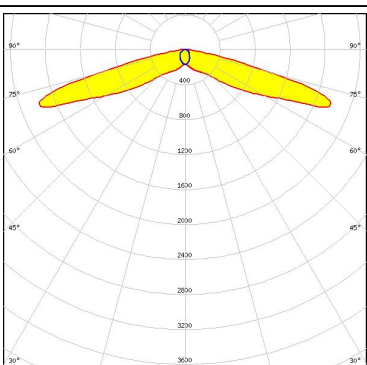
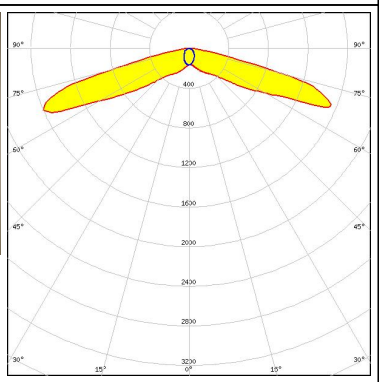


#### NICHIA

LED NS9x383  
 FWHM / FWTM 150.0 + 82.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OPTICAL RESULTS (MEASURED):

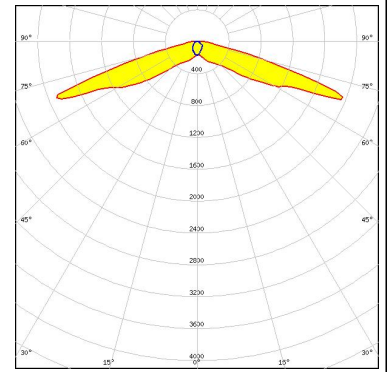
<p><b>NICHIA</b></p> <p>LED NVSxx19A            FWHM / FWTM 147.0 + 70.0°            Efficiency 87 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM 151.0 + 77.0° / 163.0 + 152.0°            Efficiency 87 %            Peak intensity 1.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3            FWHM / FWTM 152.0 + 76.0° / 163.0 + 158.0°            Efficiency 90 %            Peak intensity 1.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square EC            FWHM / FWTM 150.0 + 76.0°            Efficiency 89 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

### OPTICAL RESULTS (MEASURED):

#### OSRAM

Opto Semiconductors

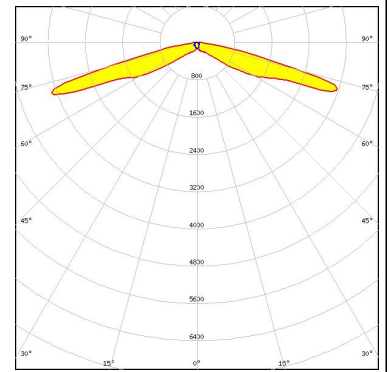
LED OSLON Square PC  
 FWHM / FWTM 150.0 + 86.0°  
 Efficiency 89 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

Opto Semiconductors

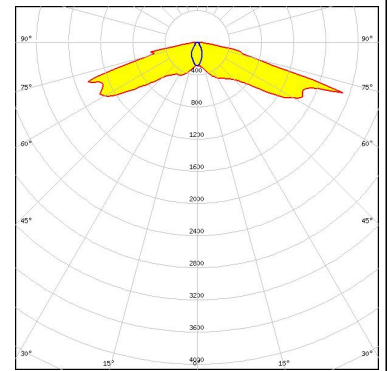
LED OSLON SSL 150  
 FWHM / FWTM 152.0 + 99.0°  
 Efficiency 92 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

Opto Semiconductors

LED OSLON SSL 80  
 FWHM / FWTM 148.0 + 53.0°  
 Efficiency 89 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

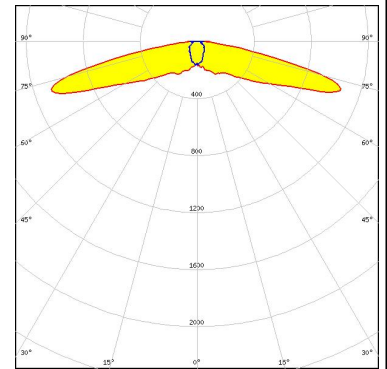




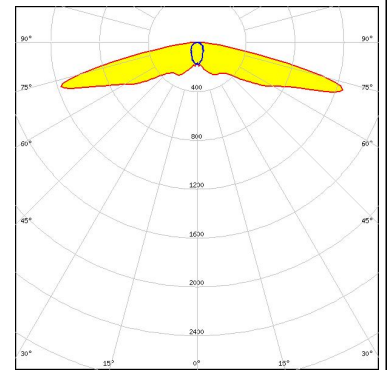
### OPTICAL RESULTS (SIMULATED):



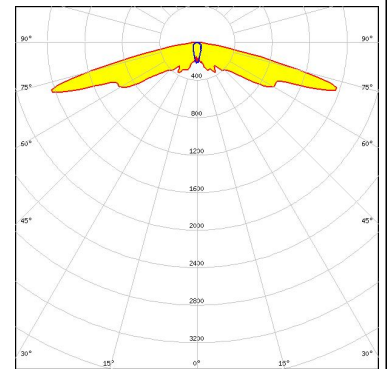
LED XP-G3  
 FWHM / FWTM 157.0 + 79.0° / 171.0 + 182.0°  
 Efficiency 88 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



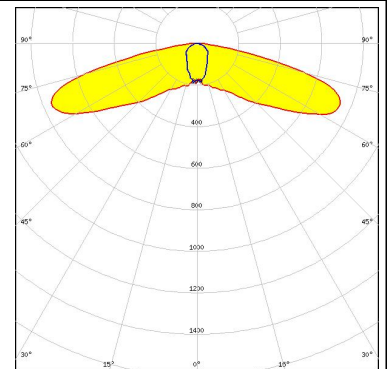
LED XP-L HI  
 FWHM / FWTM 156.0 + 64.0° / 168.0 + 166.0°  
 Efficiency 90 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



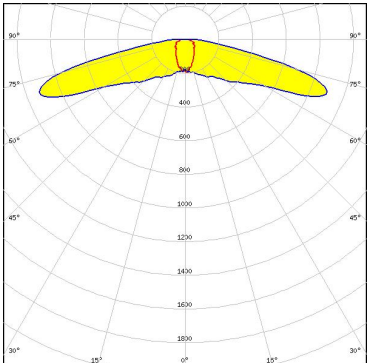
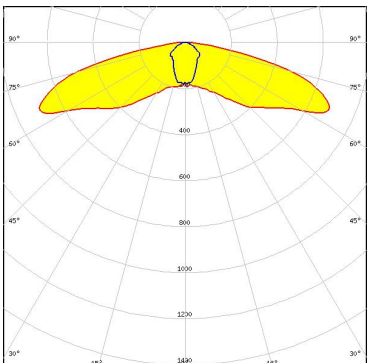
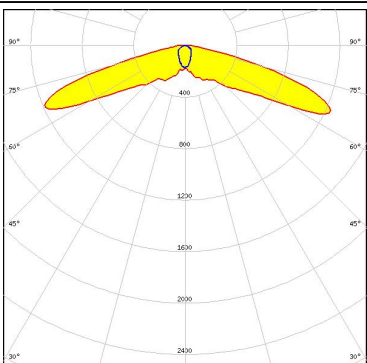
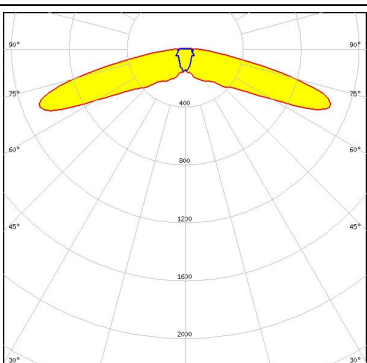
LED XP-P  
 FWHM / FWTM 153.0 + 39.0° / 165.0 + 148.0°  
 Efficiency 91 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED LUXEON 5050 Round LES  
 FWHM / FWTM Asymmetric  
 Efficiency 87 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON V</p> <p>FWHM / FWTM 64.0 + 156.0° / 176.0 + 175.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 0.9 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 S 5050</p> <p>FWHM / FWTM 154.0 + 72.0° / 168.0 + 154.0°</p> <p>Efficiency 87 %</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>SEOUL SEMICONDUCTOR</b></p> <p>LED Z5M4</p> <p>FWHM / FWTM 149.0 + 67.0° / 164.0 + 140.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.2 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 Z8Y22P</p> <p>FWHM / FWTM 154.6 + 110.7° / 172.0 + 180.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1.1 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:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

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