

## SPORT-2X2-FT6

Narrow forward throw beam with optimized cut-off for high masts

### SPECIFICATION:

Dimensions	50.0 x 50.0 mm
Height	11 mm
Fastening	screw
ROHS compliant	yes ⓘ

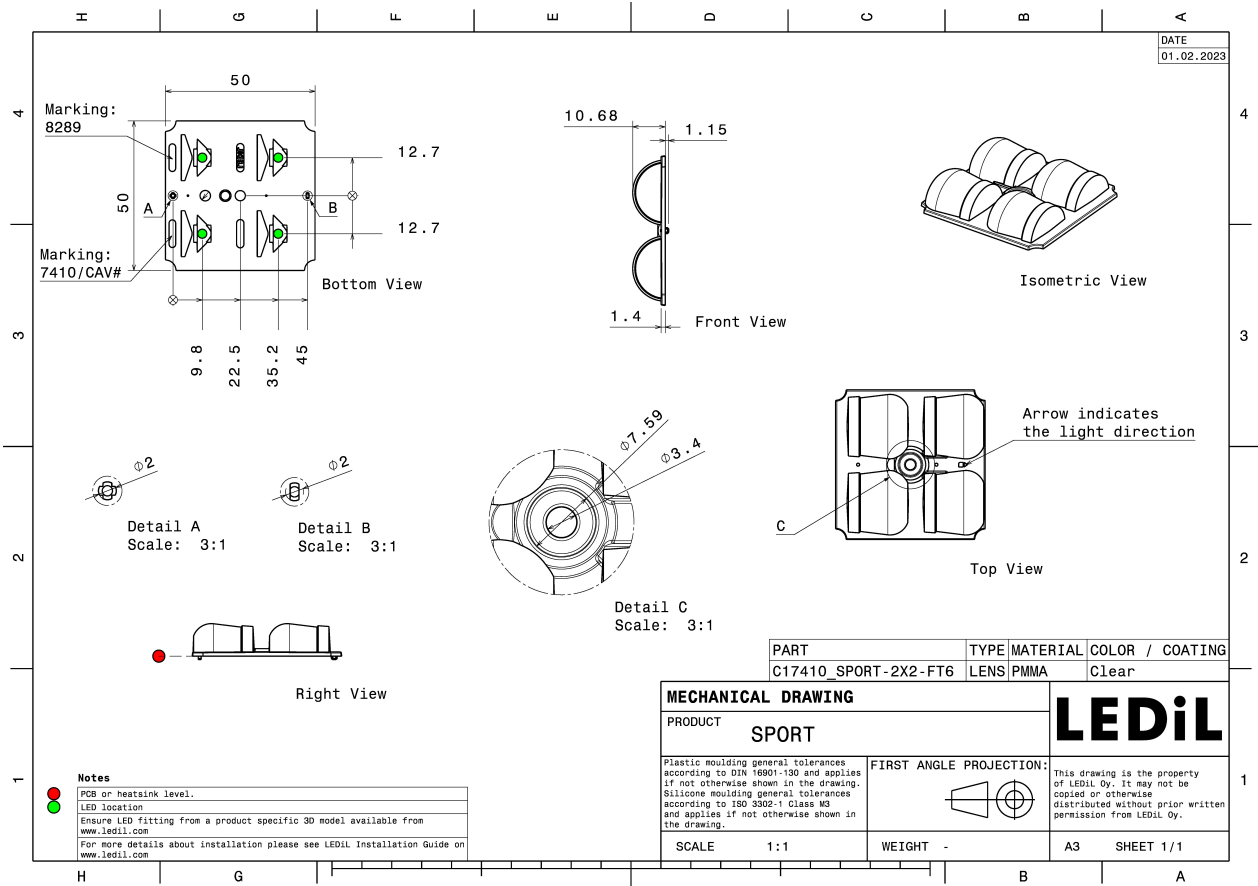


### MATERIALS:

Component	Type	Material	Colour	Finish
SPORT-2X2-FT6	Multi-lens	PMMA	clear	

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C17410_SPORT-2X2-FT6 » Box size: 480 x 280 x 300 mm	640	128	128	8.8

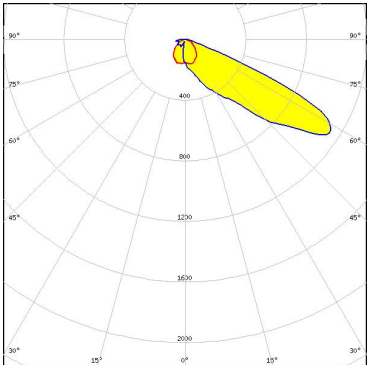
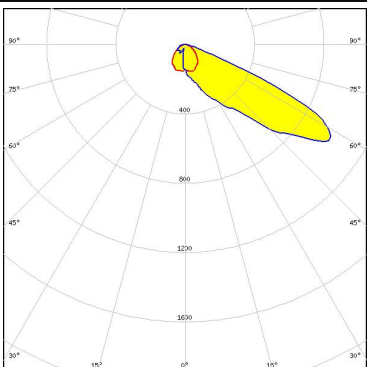
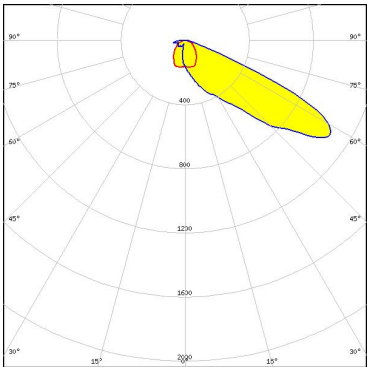
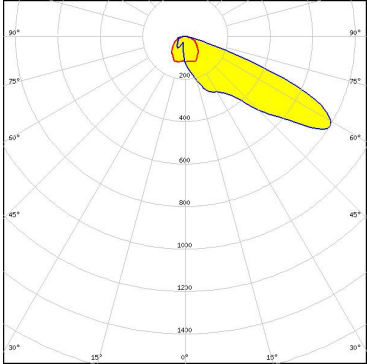


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Square LES</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 95 %</p> <p>Peak intensity 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 OSCONIQ C 3030</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 95 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>TEPCOMP group</b></p> <p>LED PassivePAQ-R-222x50.OS1.9.7K-750-5 V1.0</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 96 %</p> <p>Peak intensity 1.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>TEPCOMP group</b></p> <p>LED PassivePAQ-R-274x51-NI0-21K-857-5</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 95 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

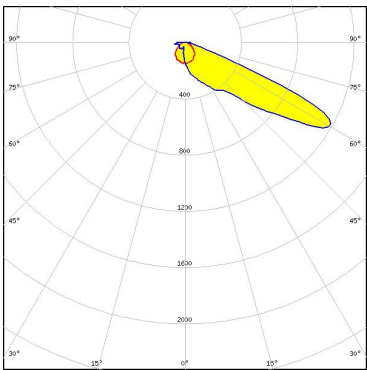
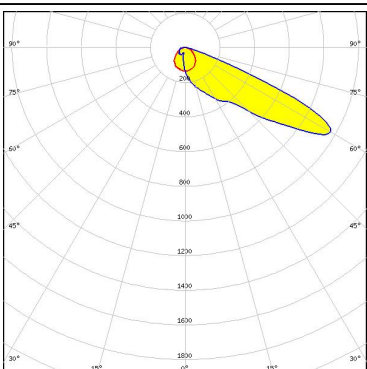
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED J Series 5050 Round LES</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 94 %</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>CREE</b> LEDs</p> <p>LED J Series 5050 Round LES</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 82 %</p> <p>Peak intensity 1 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>CREE</b> LEDs</p> <p>LED J Series 5050C 6V E Class</p> <p>FWHM / FWTM Asymmetric</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>	
<p><b>CREE</b> LEDs</p> <p>LED XHP35.2 HD</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 76 %</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>Protective plate, glass</p>	

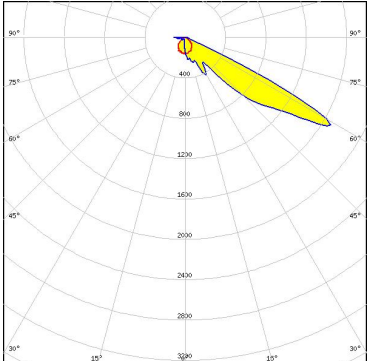
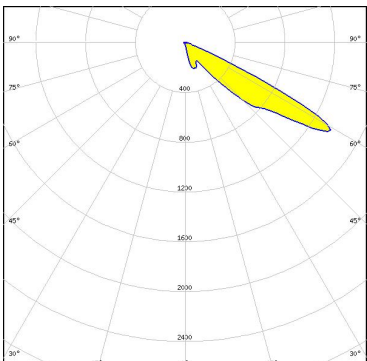
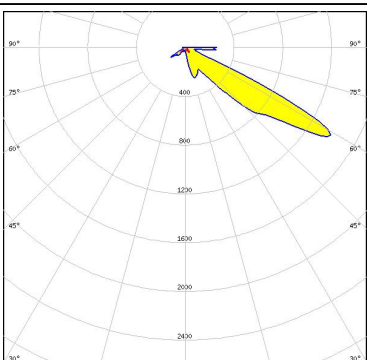
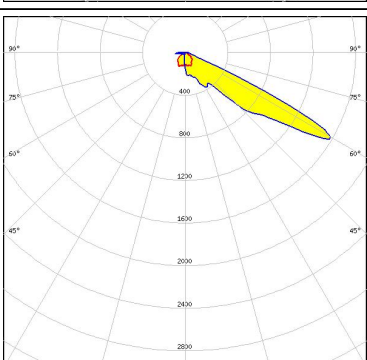
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED: XHP35.2 HD            FWHM / FWTM: Asymmetric            Efficiency: 92 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XHP35.2 HI            FWHM / FWTM: Asymmetric            Efficiency: 95 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XHP35.2 HI            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XHP50.3 HI            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED: XHP50.3 HI            FWHM / FWTM: Asymmetric            Efficiency: 94 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XM-L3            FWHM / FWTM: Asymmetric            Efficiency: 93 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XM-L3            FWHM / FWTM: Asymmetric            Efficiency: 77 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-E2            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

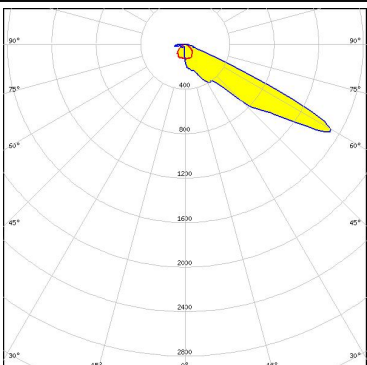
<p><b>CREE</b> LEDs</p> <p>LED: XP-E2            FWHM / FWTM: Asymmetric            Efficiency: 94 %            Peak intensity: 1.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-G2 HE            FWHM / FWTM: Asymmetric            Efficiency: 63 %            Peak intensity: 1.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C17929_SPORT-2X2-FT-SHD-BLK</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-G2 HE            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C18069_SPORT-2X2-FT-SHD-WHT</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-G2 HE            FWHM / FWTM: Asymmetric            Efficiency: 92 %            Peak intensity: 1.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED: XP-G3            FWHM / FWTM: Asymmetric            Efficiency: 77 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-L HD            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-L HD            FWHM / FWTM: Asymmetric            Efficiency: 94 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-L HI            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	



#### OPTICAL RESULTS (SIMULATED):

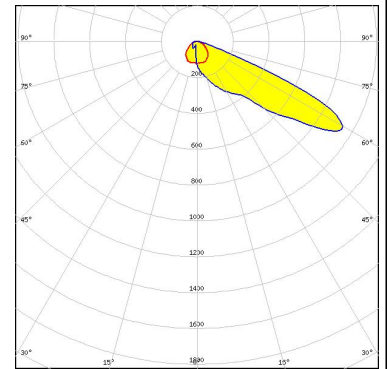
<p><b>CREE</b> LEDs</p> <p>LED: XP-L HI            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p style="background-color: #ADD8E6; padding: 2px; display: inline-block;">Protective plate, glass</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-L HI            FWHM / FWTM: Asymmetric            Efficiency: 95 %            Peak intensity: 1.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-L HI            FWHM / FWTM: Asymmetric            Efficiency: 93 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-L2            FWHM / FWTM: Asymmetric            Efficiency: 91 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

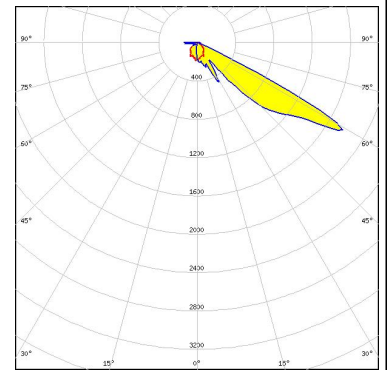


LED XP-L2  
 FWHM / FWTM Asymmetric  
 Efficiency 76 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

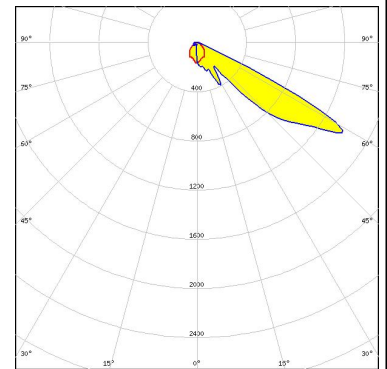


LED XP-P  
 FWHM / FWTM Asymmetric  
 Efficiency 95 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



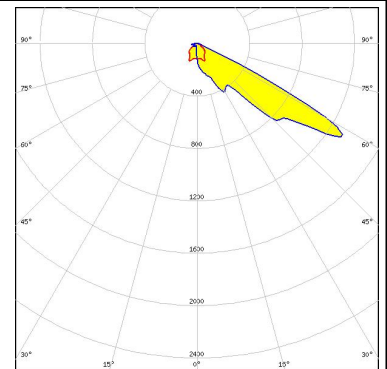
LED XP-P  
 FWHM / FWTM Asymmetric  
 Efficiency 81 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



LED LUXEON 3030 2D (Round LES)  
 FWHM / FWTM Asymmetric  
 Efficiency 81 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

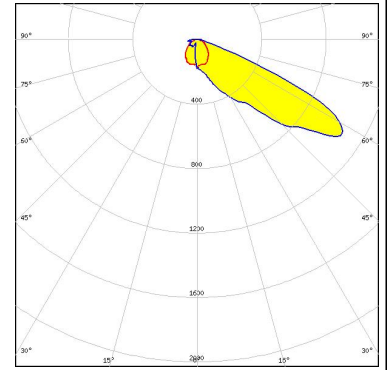
Protective plate, glass



#### OPTICAL RESULTS (SIMULATED):

##### LUMILEDS

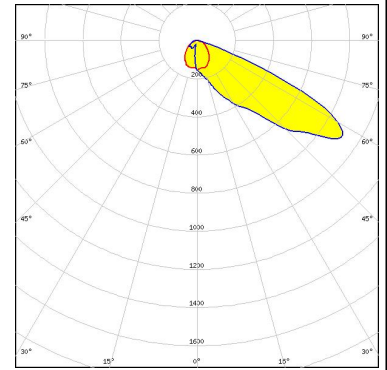
LED LUXEON 5050 HE  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### LUMILEDS

LED LUXEON 5050 HE  
 FWHM / FWTM Asymmetric  
 Efficiency 78 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

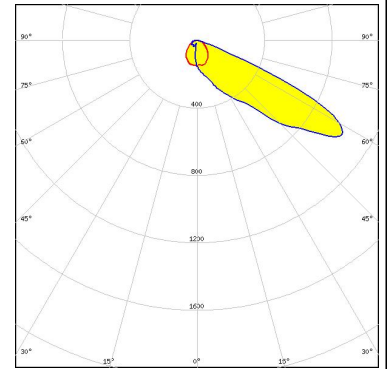
Protective plate, glass



##### LUMILEDS

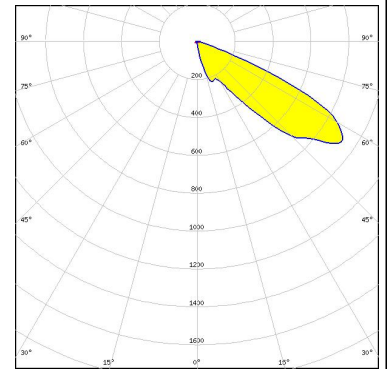
LED LUXEON 5050 Round LES  
 FWHM / FWTM Asymmetric  
 Efficiency 80 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



##### LUMILEDS

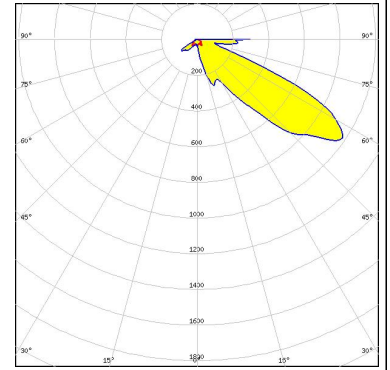
LED LUXEON 5050 Square LES  
 FWHM / FWTM Asymmetric  
 Efficiency 59 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C17929\_SPORT-2X2-FT-SHD-BLK



#### OPTICAL RESULTS (SIMULATED):

##### LUMILEDS

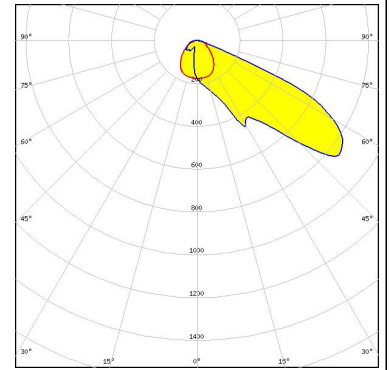
LED LUXEON 5050 Square LES  
 FWHM / FWTM Asymmetric  
 Efficiency 76 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C18069\_SPORT-2X2-FT-SHD-WHT



##### LUMILEDS

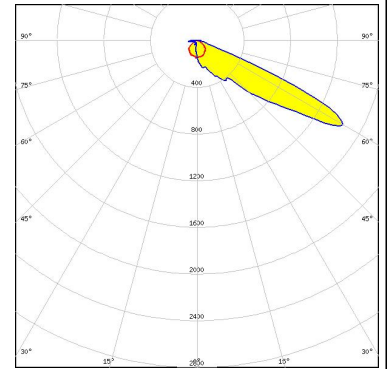
LED LUXEON 5050 Square LES  
 FWHM / FWTM Asymmetric  
 Efficiency 81 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



##### LUMILEDS

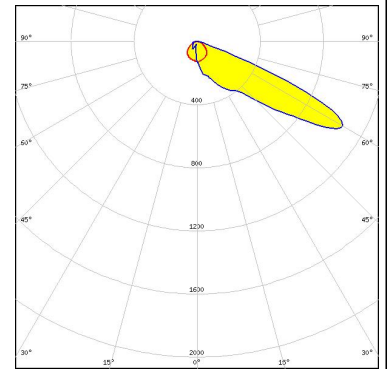
LED LUXEON HL2X  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### LUMILEDS

LED LUXEON HL2X-D  
 FWHM / FWTM Asymmetric  
 Efficiency 80 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

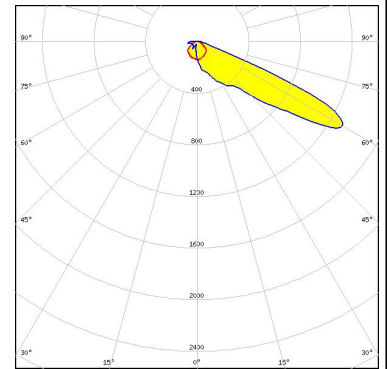
Protective plate, glass



#### OPTICAL RESULTS (SIMULATED):

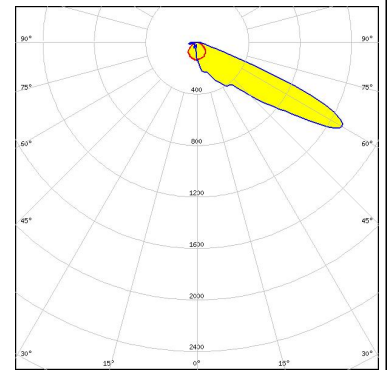
##### LUMILEDS

LED LUXEON HL2X-D  
 FWHM / FWTM Asymmetric  
 Efficiency 95 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



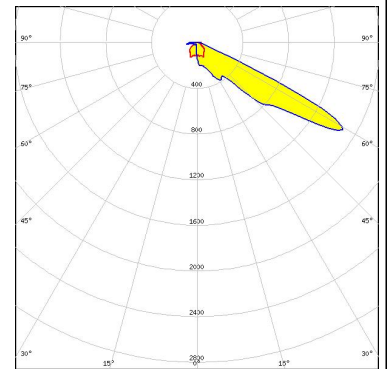
##### LUMILEDS

LED LUXEON HL2X-P  
 FWHM / FWTM Asymmetric  
 Efficiency 93 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



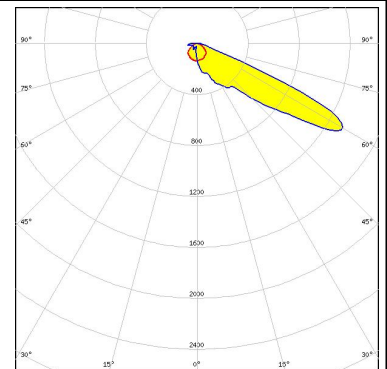
##### LUMILEDS

LED LUXEON TX  
 FWHM / FWTM Asymmetric  
 Efficiency 91 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### LUMILEDS

LED LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)  
 FWHM / FWTM Asymmetric  
 Efficiency 95 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 80 %</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>Protective plate, glass</p>	
<p><b>LUMINUS</b></p> <p>LED: SFT-40-WCS</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 1.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>LUMINUS</b></p> <p>LED: SFT-70X-WCS</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 1.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>LUMINUS</b></p> <p>LED: SST-70X-WCS</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 1.1 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMINUS</b></p> <p>LED SST-70X-WCS            FWHM / FWTM Asymmetric            Efficiency 79 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED NF2x757G            FWHM / FWTM Asymmetric            Efficiency 81 %            Peak intensity 1.3 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 81 %            Peak intensity 1.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED NV4WB35AM            FWHM / FWTM Asymmetric            Efficiency 58 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C17929_SPORT-2X2-FT-SHD-BLK</p>	

#### OPTICAL RESULTS (SIMULATED):

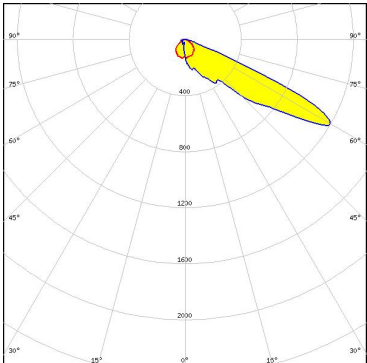
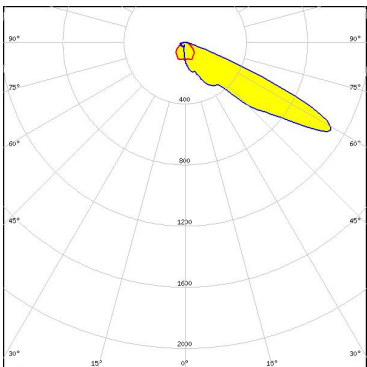
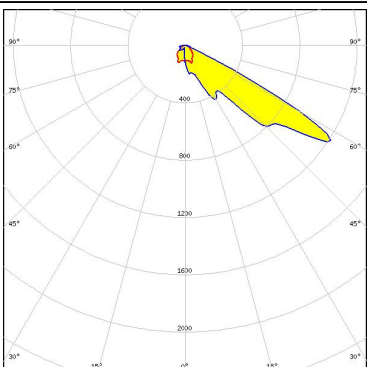
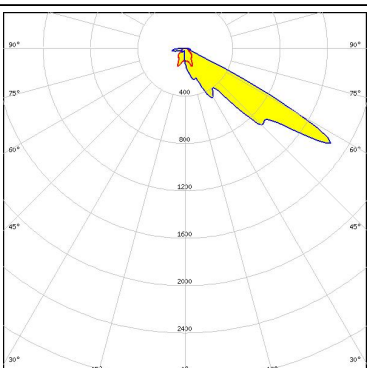
<p><b>NICHIA</b></p> <p>LED: NV4WB35AM            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED: NV4WB35AM            FWHM / FWTM: Asymmetric            Efficiency: 92 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 4            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NV4x144A            FWHM / FWTM: Asymmetric            Efficiency: 90 %            Peak intensity: 0.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NV4x144A            FWHM / FWTM: Asymmetric            Efficiency: 91 %            Peak intensity: 0.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NV4x144A            FWHM / FWTM: Asymmetric            Efficiency: 75 %            Peak intensity: 0.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW219D            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 1.3 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: Asymmetric            Efficiency: 93 %            Peak intensity: 1.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW219F            FWHM / FWTM: Asymmetric            Efficiency: 92 %            Peak intensity: 1.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NVSW219F            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW3x9A            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxE21A            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxE21A            FWHM / FWTM: Asymmetric            Efficiency: 93 %            Peak intensity: 1.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

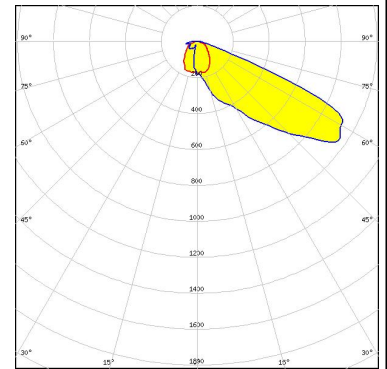
<p><b>NICHIA</b></p> <p>LED: NVSxx19B/NVSxx19C            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 1.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            Protective plate, glass</p>	
<p><b>NICHIA</b></p> <p>LED: NVSxx19B/NVSxx19C            FWHM / FWTM: Asymmetric            Efficiency: 93 %            Peak intensity: 1.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: Duris S8            FWHM / FWTM: Asymmetric            Efficiency: 81 %            Peak intensity: 0.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            Protective plate, glass</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: Duris S8            FWHM / FWTM: Asymmetric            Efficiency: 58 %            Peak intensity: 0.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C17929_SPORT-2X2-FT-SHD-BLK</p>	

#### OPTICAL RESULTS (SIMULATED):

##### OSRAM

Opto Semiconductors

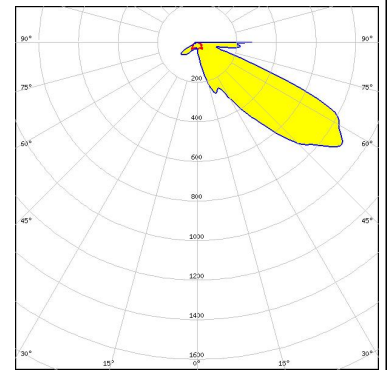
LED Duris S8  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### OSRAM

Opto Semiconductors

LED Duris S8  
 FWHM / FWTM Asymmetric  
 Efficiency 75 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C18069\_SPORT-2X2-FT-SHD-WHT

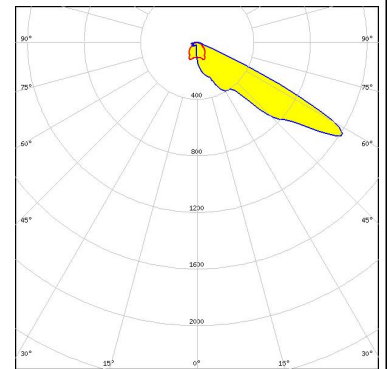


##### OSRAM

Opto Semiconductors

LED OSCONIQ C 3030  
 FWHM / FWTM Asymmetric  
 Efficiency 80 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

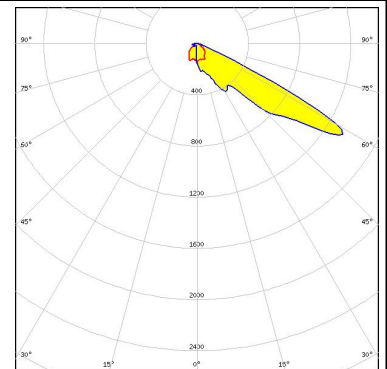


##### OSRAM

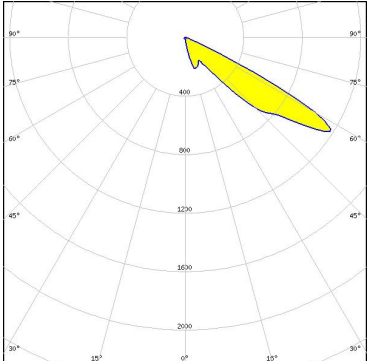
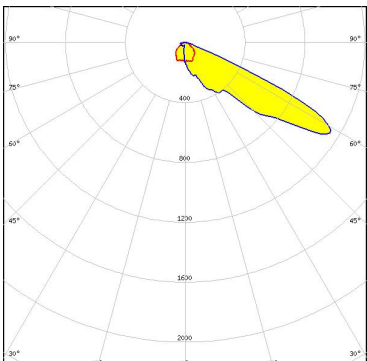
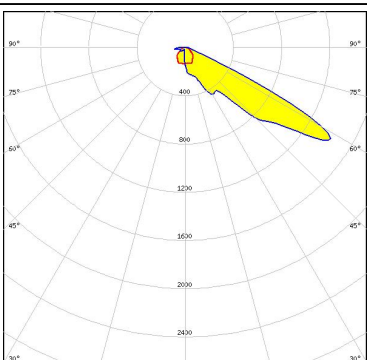
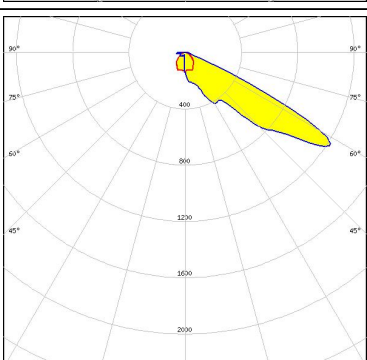
Opto Semiconductors

LED OSCONIQ P 3737 (2W version)  
 FWHM / FWTM Asymmetric  
 Efficiency 81 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED                   OSCONIQ P 3737 (2W version)</p> <p>FWHM / FWTM       Asymmetric</p> <p>Efficiency            53 %</p> <p>Peak intensity       1.2 cd/lm</p> <p>LEDs/each optic     1</p> <p>Light colour         White</p> <p>Required components: C17929_SPORT-2X2-FT-SHD-BLK</p> <p>Protective plate, glass</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED                   OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM       Asymmetric</p> <p>Efficiency            80 %</p> <p>Peak intensity       1.1 cd/lm</p> <p>LEDs/each optic     1</p> <p>Light colour         White</p> <p>Required components: Protective plate, glass</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED                   OSCONIQ P 3737 Flat</p> <p>FWHM / FWTM       Asymmetric</p> <p>Efficiency            95 %</p> <p>Peak intensity       1.4 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 3737 Flat</p> <p>FWHM / FWTM       Asymmetric</p> <p>Efficiency            84 %</p> <p>Peak intensity       1.2 cd/lm</p> <p>LEDs/each optic     1</p> <p>Light colour         White</p> <p>Required components: Protective plate, glass</p>	

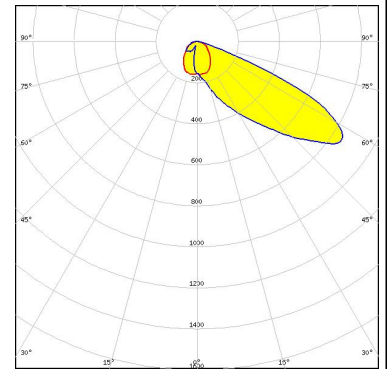
#### OPTICAL RESULTS (SIMULATED):

##### OSRAM

Opto Semiconductors

LED OSCONIQ S 5050  
 FWHM / FWTM Asymmetric  
 Efficiency 80 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

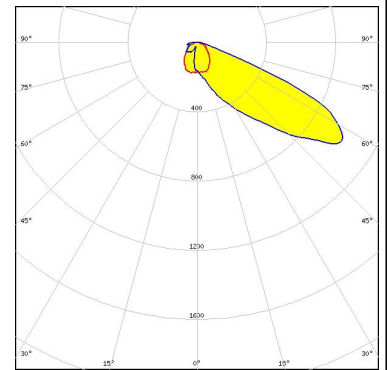
Protective plate, glass



##### OSRAM

Opto Semiconductors

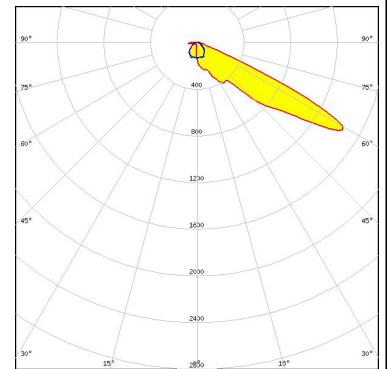
LED OSCONIQ S 5050  
 FWHM / FWTM Asymmetric  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### OSRAM

Opto Semiconductors

LED OSLOM Square CSSRM2/CSSRM3  
 FWHM / FWTM Asymmetric  
 Efficiency 91 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

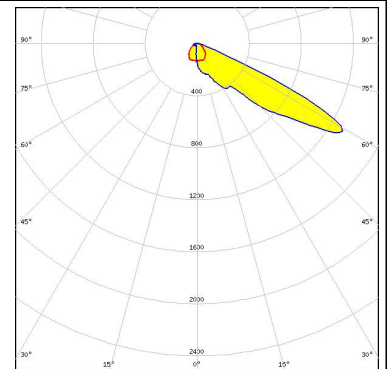


##### OSRAM

Opto Semiconductors

LED OSLOM Square CSSRM2/CSSRM3  
 FWHM / FWTM Asymmetric  
 Efficiency 85 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



### OPTICAL RESULTS (SIMULATED):

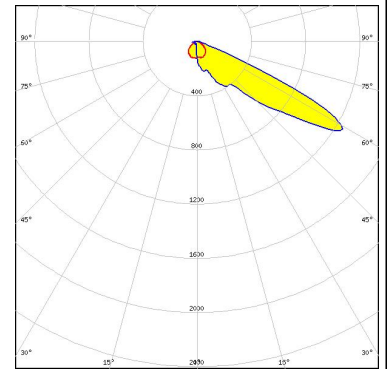
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLOX Square Flat</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 84 %</p> <p>Peak intensity: 1.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p> <p style="background-color: #ADD8E6; padding: 2px;">Protective plate, glass</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSLOX Square Flat</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 94 %</p> <p>Peak intensity: 1.6 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: OSTAR Projection Compact (KW.CSLNM1.TG)</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 95 %</p> <p>Peak intensity: 1.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p><b>SAMSUNG</b></p> <p>LED: LH231B</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 93 %</p> <p>Peak intensity: 1.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

LED LH351B  
 FWHM / FWTM Asymmetric  
 Efficiency 81 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

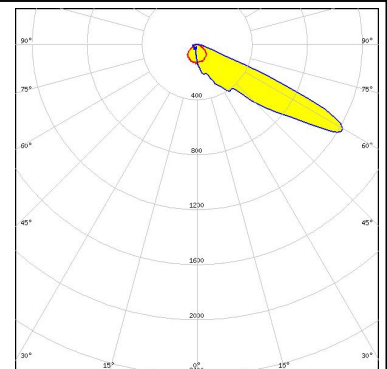
Protective plate, glass



### SAMSUNG

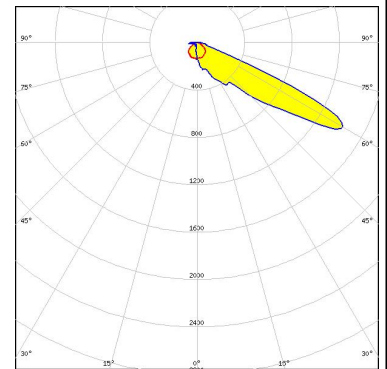
LED LH351C  
 FWHM / FWTM Asymmetric  
 Efficiency 82 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



### SAMSUNG

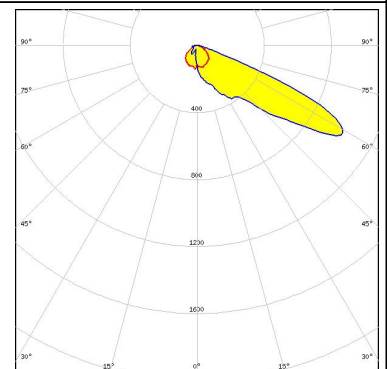
LED LH351C  
 FWHM / FWTM Asymmetric  
 Efficiency 93 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

LED LH351D  
 FWHM / FWTM Asymmetric  
 Efficiency 80 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

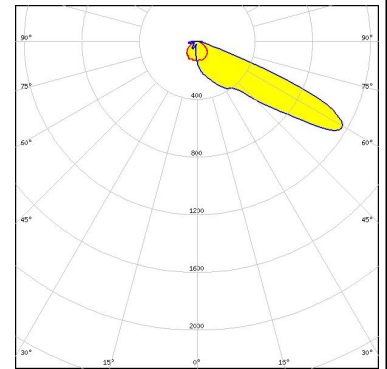




#### OPTICAL RESULTS (SIMULATED):

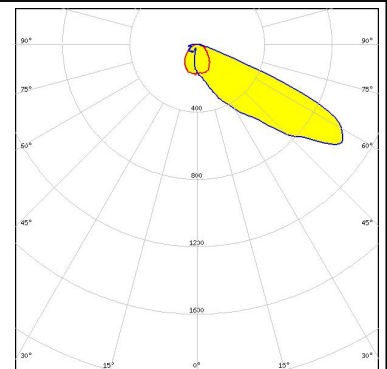
### SAMSUNG

LED LH351D  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

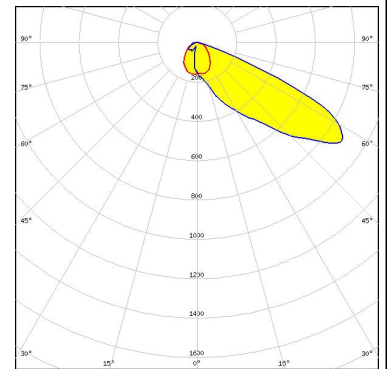
LED LH502C  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

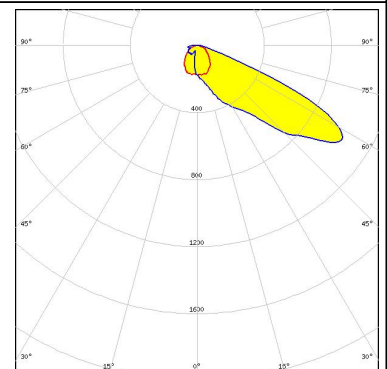
LED LH502C  
 FWHM / FWTM Asymmetric  
 Efficiency 79 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



### SAMSUNG

LED LH508A Plus  
 FWHM / FWTM Asymmetric  
 Efficiency 93 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

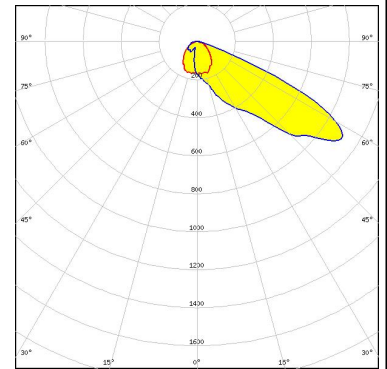


#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

LED LH508A Plus  
 FWHM / FWTM Asymmetric  
 Efficiency 82 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

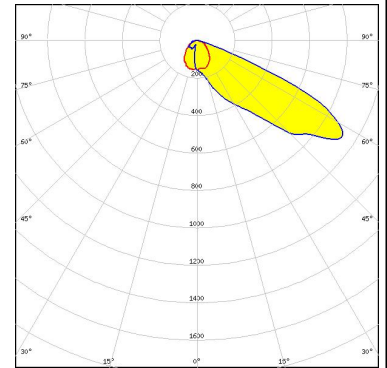
Protective plate, glass



SEOUL SEMICONDUCTOR

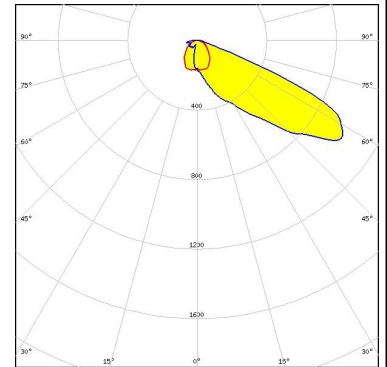
LED MJT 5050  
 FWHM / FWTM Asymmetric  
 Efficiency 79 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



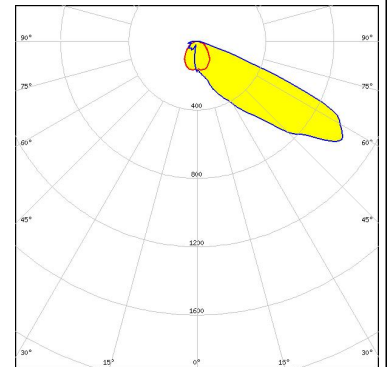
SEOUL SEMICONDUCTOR

LED SEOUL DC 5050 6V  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



SEOUL SEMICONDUCTOR

LED SEOUL DC 5050 6V  
 FWHM / FWTM Asymmetric  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

<p><b>SEOU</b> SEOU SEMICONDUCTOR</p> <p>LED: SEOUL DC 5050 6V            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 0.9 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>SEOU</b> SEOU SEMICONDUCTOR</p> <p>LED: SEOUL DC 5050 6V            FWHM / FWTM: Asymmetric            Efficiency: 80 %            Peak intensity: 0.9 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>SEOU</b> SEOU SEMICONDUCTOR</p> <p>LED: Z5M3            FWHM / FWTM: Asymmetric            Efficiency: 79 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	
<p><b>SEOU</b> SEOU SEMICONDUCTOR</p> <p>LED: Z5M4            FWHM / FWTM: Asymmetric            Efficiency: 82 %            Peak intensity: 1.3 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:</p> <p>Protective plate, glass</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED: Z5M5</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 80 %</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>Protective plate, glass</p>	
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED: Z5M5</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 92 %</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: Z8Y22</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 91 %</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: Z8Y50P</p> <p>FWHM / FWTM: Asymmetric</p> <p>Efficiency: 78 %</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>	

### 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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The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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