

## HB-IP-2X6-RS

~20° spot beam

### SPECIFICATION:

Dimensions	173.0 x 71.4 mm
Height	11.4 mm
Fastening	pin, screw
Ingress protection classes	IP67
ROHS compliant	yes ⓘ

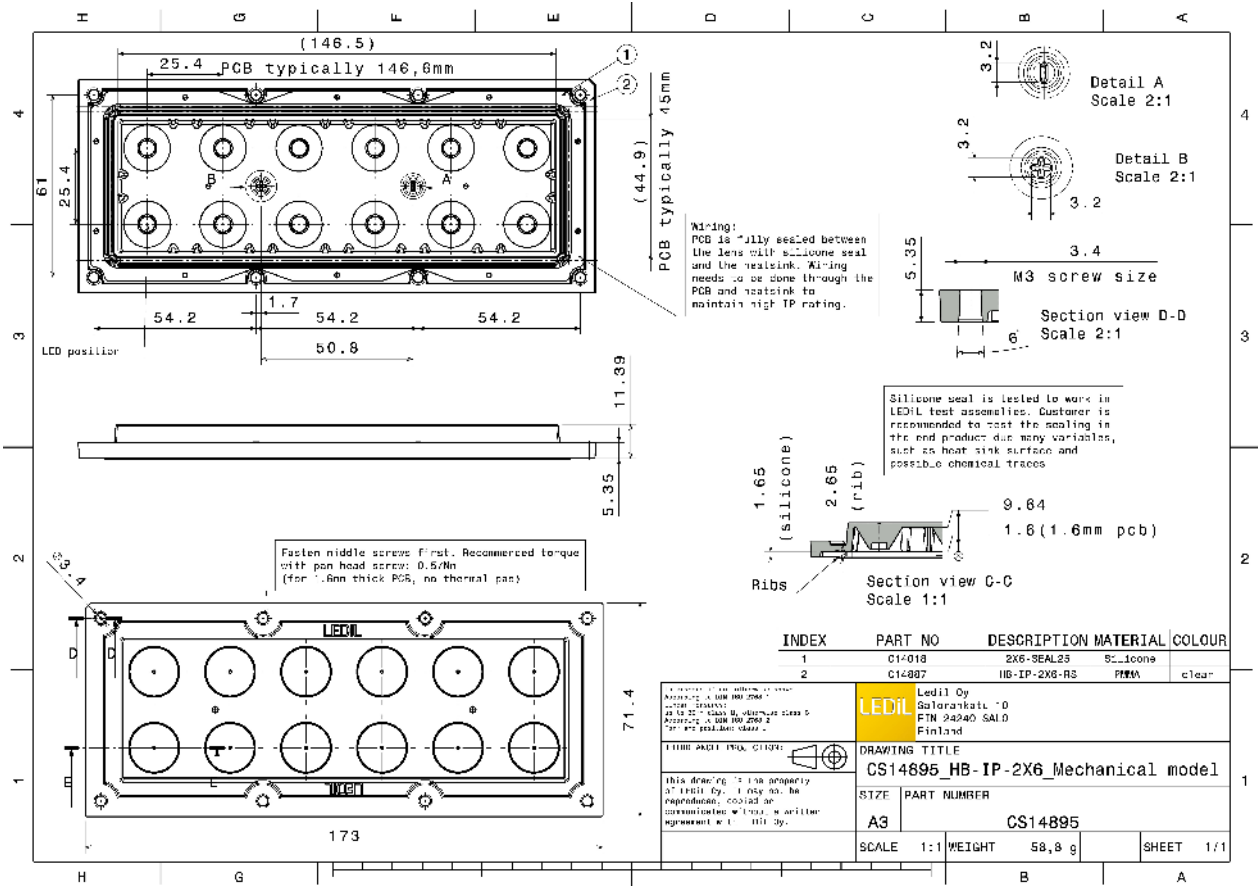
### MATERIALS:

Component	Type	Material	Colour	Finish
HB-IP-2X6-RS	Multi-lens	PMMA	clear	
2X6-SEAL25	Seal	Silicone	white	





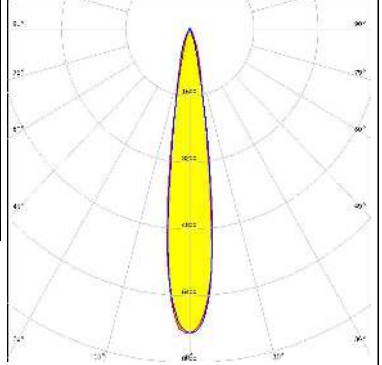


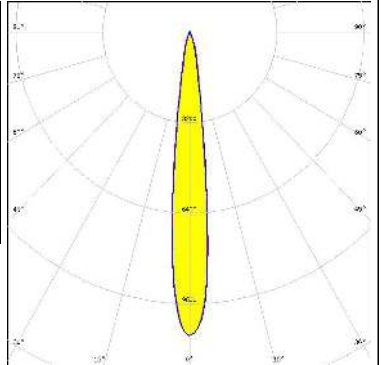

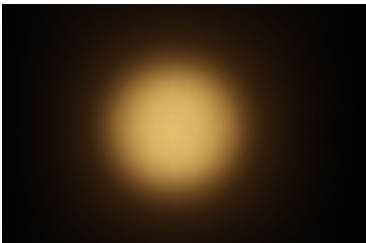
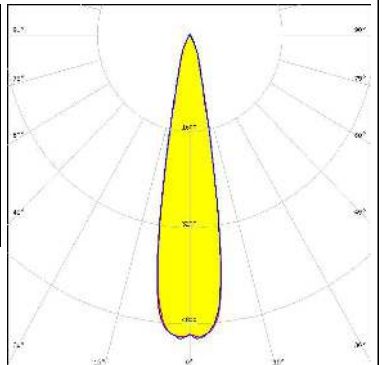


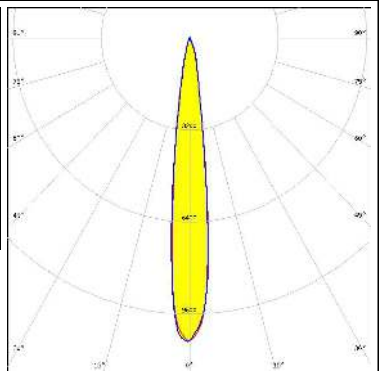
### ORDERING INFORMATION:

Component	Type	Qty in box	MOQ	MPQ	Box weight (kg)
CS14895_HB-IP-2X6-RS » Box size: 476 x 273 x 247 mm	Multi-lens	120	40	40	8.0


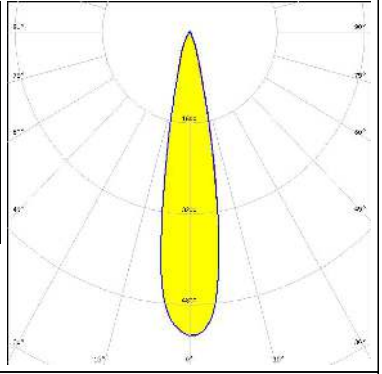
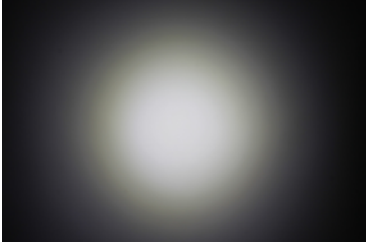
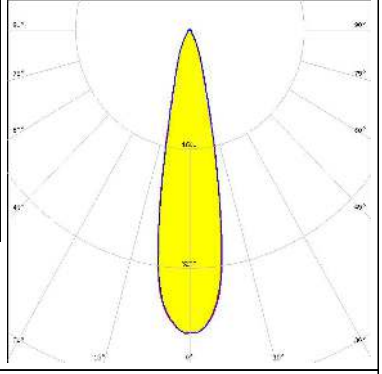

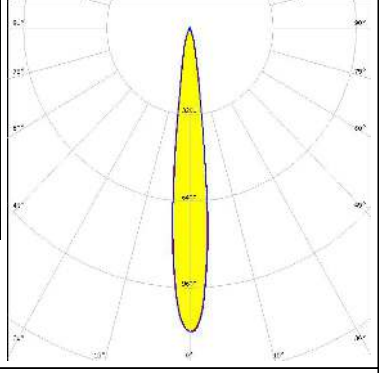

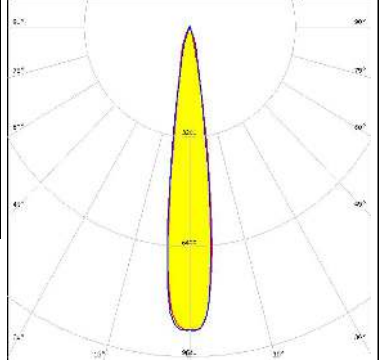


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

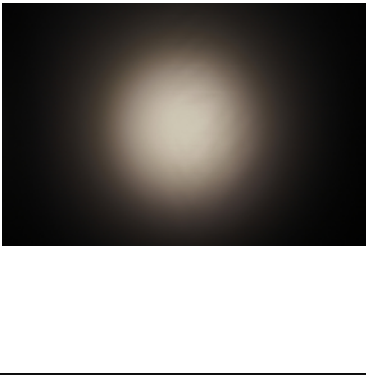
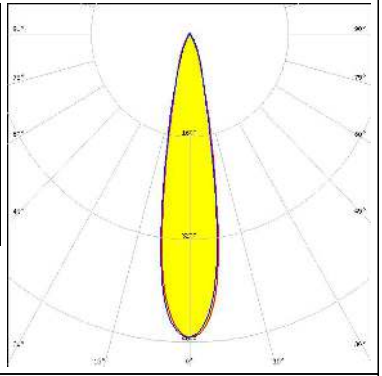

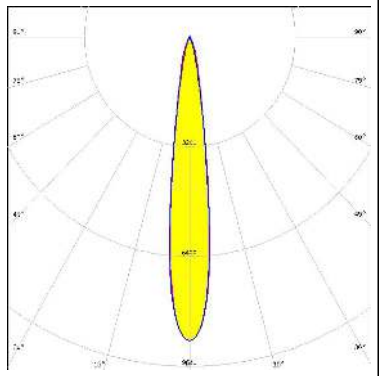

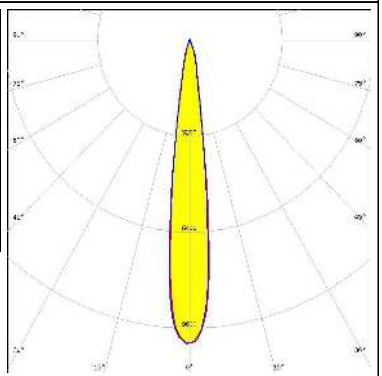
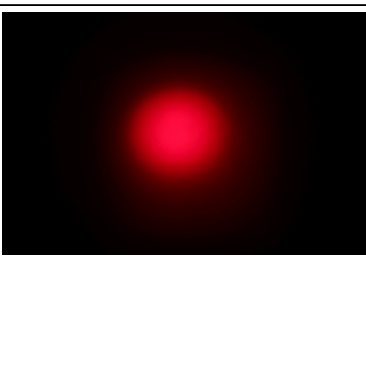
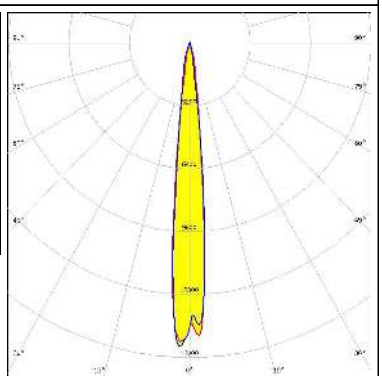
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED QUICK FLUX 2x6 LED XG xxx G7+</p> <p>FWHM / FWTM 16.0° / 33.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 7.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p></p> <p>LED QUICK FLUX 2x6 LED XT xxx G5</p> <p>FWHM / FWTM 13.0° / 26.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 10.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p></p> <p>LED XM-L</p> <p>FWHM / FWTM 21.0° / 38.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p></p> <p>LED XP-G2</p> <p>FWHM / FWTM 13.0° / 27.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 10.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

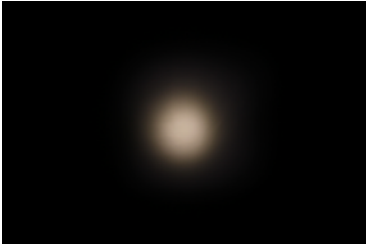
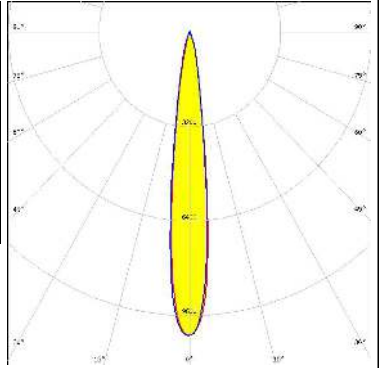

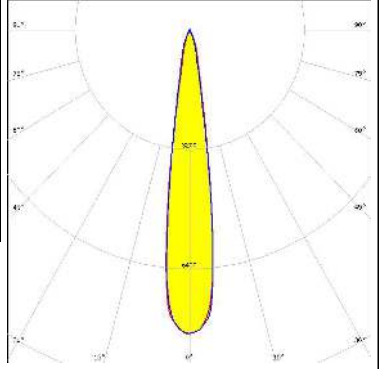

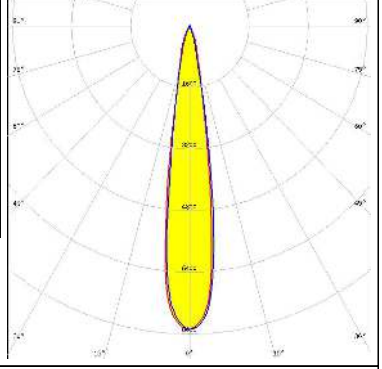

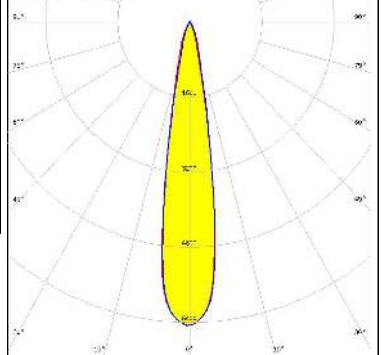
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED XP-L HD            FWHM / FWTM 20.0° / 37.0°            Efficiency 93 %            Peak intensity 5.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> LEDs</p> <p>LED XP-L2            FWHM / FWTM 22.0° / 43.0°            Efficiency 93 %            Peak intensity 4.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> LEDs</p> <p>LED XT-E HE            FWHM / FWTM 13.0° / 26.0°            Efficiency 94 %            Peak intensity 11.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON T            FWHM / FWTM 15.0° / 29.0°            Efficiency 94 %            Peak intensity 8.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		


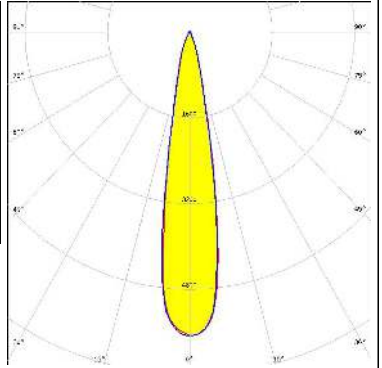

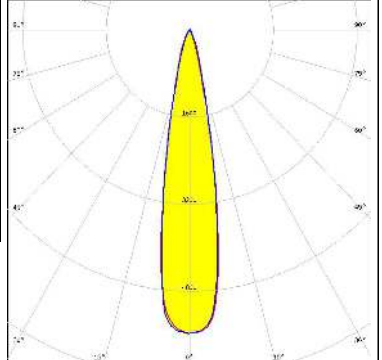
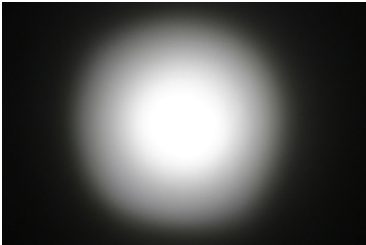
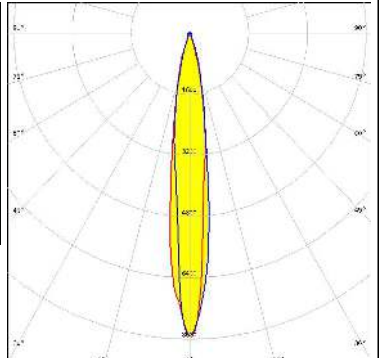
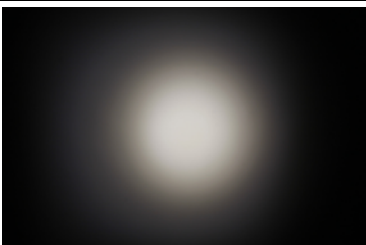
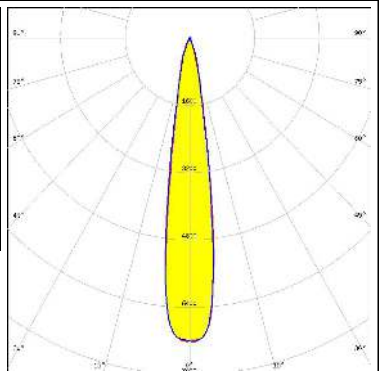
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON V</p> <p>FWHM / FWTM 20.0° / 41.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 4.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON V2</p> <p>FWHM / FWTM 15.0° / 30.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 8.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON XR-TX (L2T0-xxx012M0000)</p> <p>FWHM / FWTM 14.0° / 27.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 10.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMINUS</b></p> <p>LED SST-10-B130</p> <p>FWHM / FWTM 12.0° / 22.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 15.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour Deep Red</p> <p>Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>MST</b> <i>Your solutions</i></p> <p>LED RecLED 146x45mm 2900lm 730 2x6 IP G1            FWHM / FWTM 14.0° / 27.0°            Efficiency 95 %            Peak intensity 10.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW219D            FWHM / FWTM 16.0° / 30.0°            Efficiency 94 %            Peak intensity 8.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW219F            FWHM / FWTM 16.0° / 31.0°            Efficiency 8 %            Peak intensity 94 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW319B            FWHM / FWTM 18.0° / 34.0°            Efficiency 94 %            Peak intensity 6.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

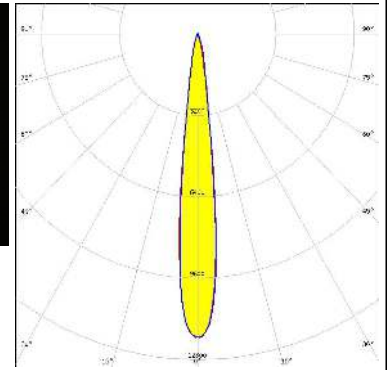
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<p><b>NICHIA</b></p> <p>LED NVSW519A            FWHM / FWTM 20.0° / 37.0°            Efficiency 95 %            Peak intensity 5.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSxE21A            FWHM / FWTM 13.0° / 33.0°            Efficiency 94 %            Peak intensity 8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSxx19B/NVSxx19C            FWHM / FWTM 16.0° / 32.0°            Efficiency 92 %            Peak intensity 7.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

#### OSRAM

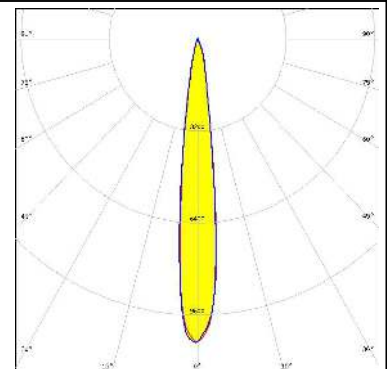
Opto Semiconductors

LED OSLON Square CSSRM2/CSSRM3  
 FWHM / FWTM 13.0° / 24.0°  
 Efficiency 94 %  
 Peak intensity 12 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



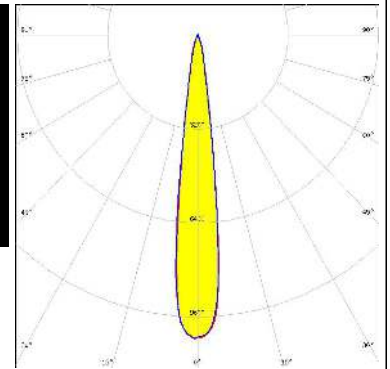
#### PHILIPS

LED Fortimo FastFlex LED 2x6 DP G4  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 94 %  
 Peak intensity 10.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



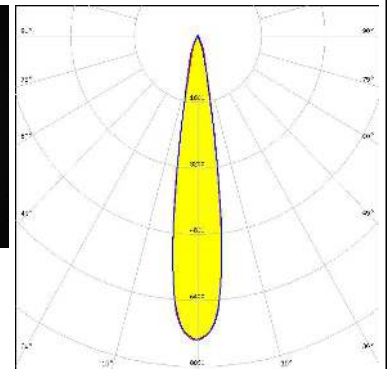
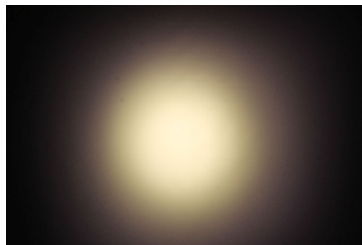
#### PHILIPS

LED Fortimo FastFlex LED 2x6 DP G5  
 FWHM / FWTM 14.0° / 26.0°  
 Efficiency 96 %  
 Peak intensity 10.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:




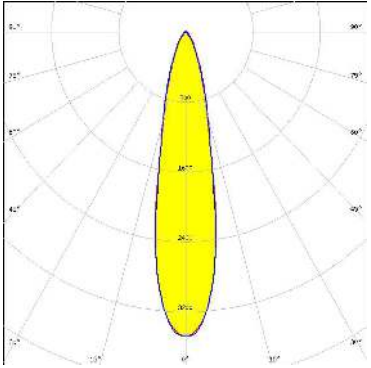

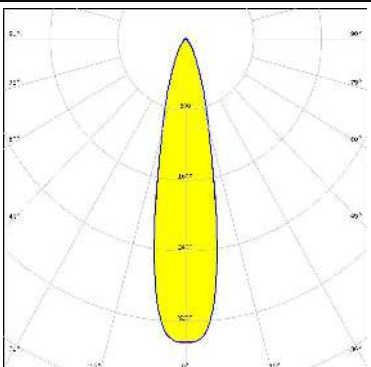

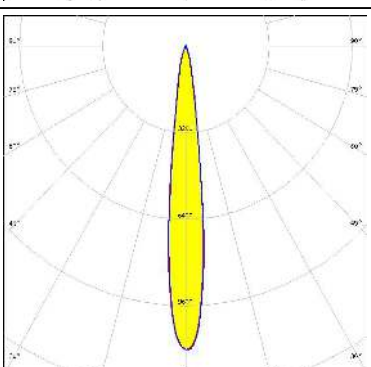

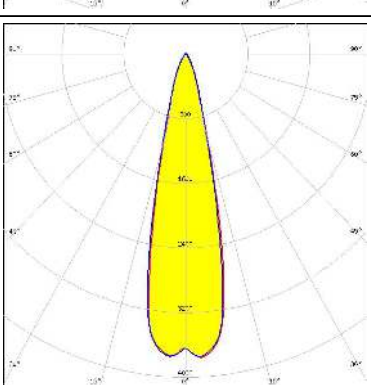
#### SAMSUNG

LED HiLOM RH12 (LH351C)  
 FWHM / FWTM 17.0° / 31.0°  
 Efficiency 94 %  
 Peak intensity 7.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



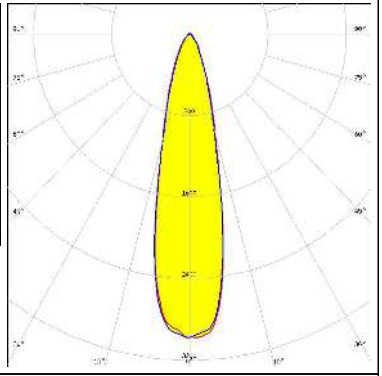


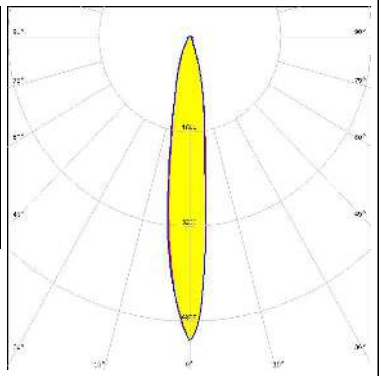


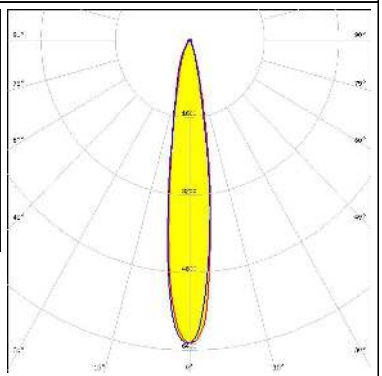


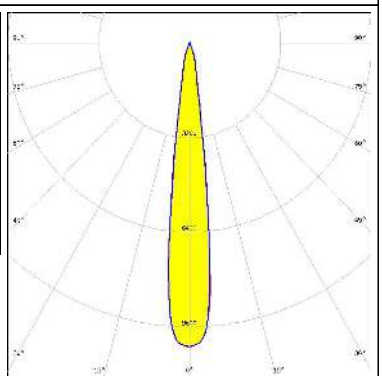






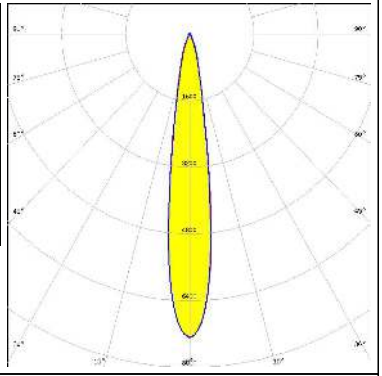


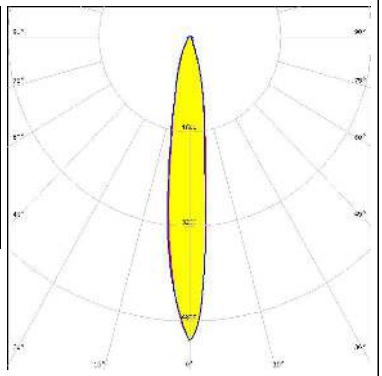


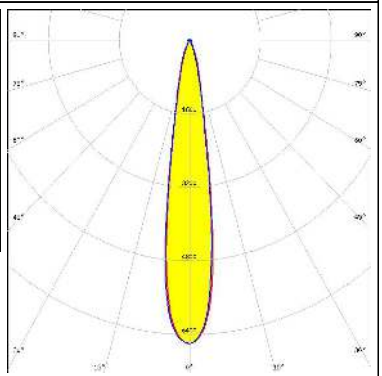

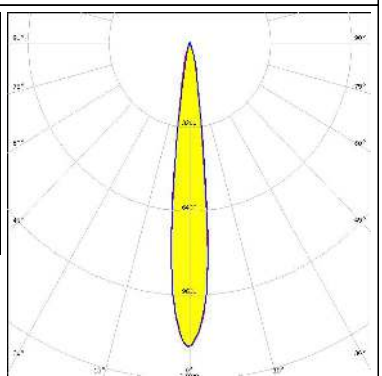
#### OPTICAL RESULTS (MEASURED):

<p><b>SCIOLUX</b></p> <p>LED BALAM-VP-5250-750-36</p> <p>FWHM / FWTM 22.0° / 50.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 3.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>SCIOLUX</b></p> <p>LED BALAMEC-VE-5700-740-36</p> <p>FWHM / FWTM 23.0° / 50.0°</p> <p>Efficiency 96 %</p> <p>Peak intensity 3.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>SCIOLUX</b></p> <p>LED XLE-S22C4XTEHE (XT-E HE)</p> <p>FWHM / FWTM 13.0° / 26.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 11.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>SCIOLUX</b></p> <p>LED XLE-S26XHP35 (XHP35 HD)</p> <p>FWHM / FWTM 24.0° / 45.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED 2x6 5050 module - SMJD-3625012F-XX</p> <p>FWHM / FWTM 24.0° / 53.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED SMJQ-D36W12Mx</p> <p>FWHM / FWTM 15.0° / 39.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED SMJQ-D36W12Px</p> <p>FWHM / FWTM 16.0° / 36.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED Z5M1/Z5M2</p> <p>FWHM / FWTM 14.0° / 26.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 10 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

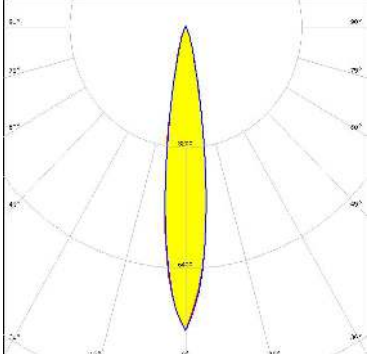
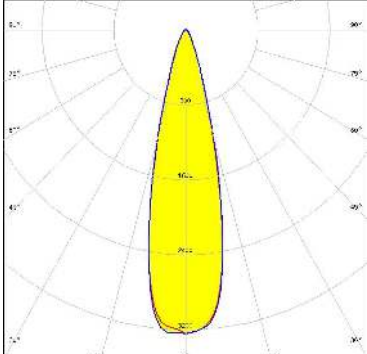
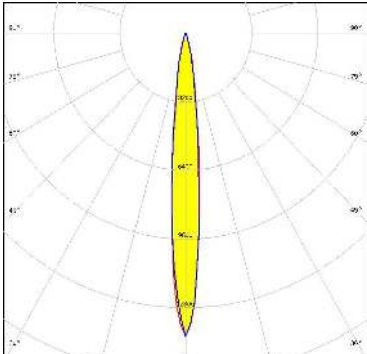
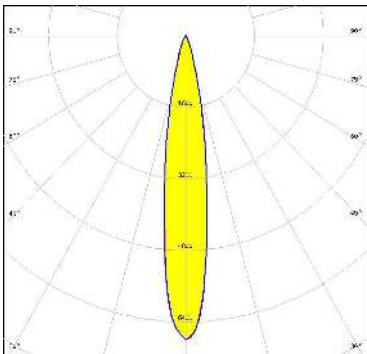
#### OPTICAL RESULTS (MEASURED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED Z5M3</p> <p>FWHM / FWTM 16.0° / 33.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 7.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22</p> <p>FWHM / FWTM 15.0° / 39.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 5.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p> SEOUL SEMICONDUCTOR</p> <p>LED Z8Y22P</p> <p>FWHM / FWTM 17.0° / 34.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 6.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED RLE 2x6 3000lm HP EXC2 OTD</p> <p>FWHM / FWTM 13.0° / 25.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 11.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

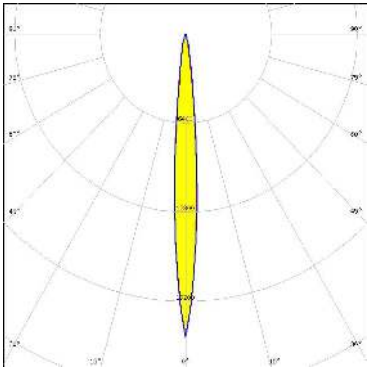
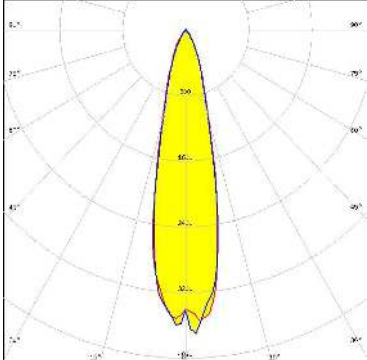
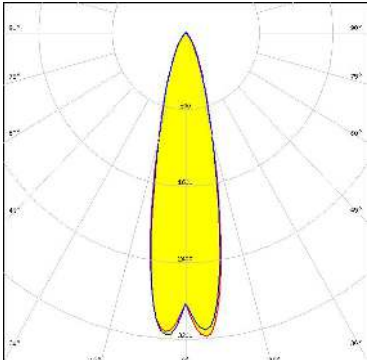
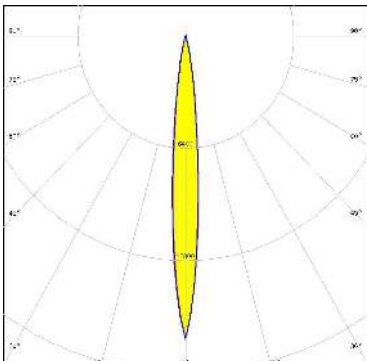
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED J Series 5050 Round LES            FWHM / FWTM 25.0° / 51.0°            Efficiency 94 %            Peak intensity 3.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED J Series 5050B 6V K Class            FWHM / FWTM 24.0° / 52.0°            Efficiency 94 %            Peak intensity 3.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED XB-H            FWHM / FWTM 12.0° / 28.0°            Efficiency 92 %            Peak intensity 10.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED XHP35 HD            FWHM / FWTM 22.0° / 46.0°            Efficiency 93 %            Peak intensity 3.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

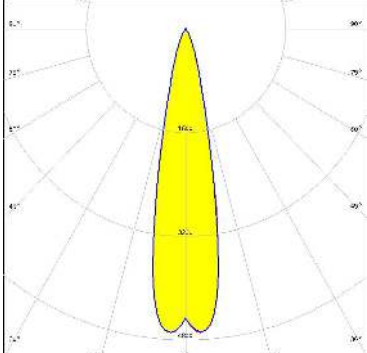
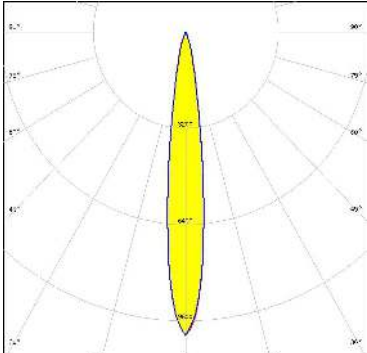
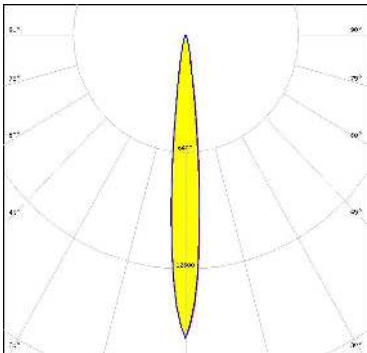
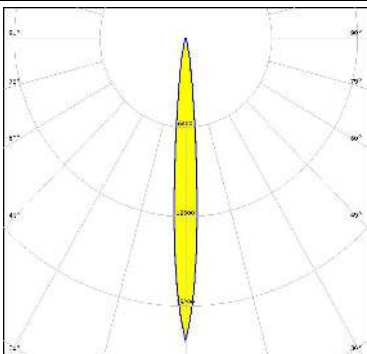
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED: XHP35 HI            FWHM / FWTM: 16.0° / 32.0°            Efficiency: 93 %            Peak intensity: 8.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XHP35.2 HD            FWHM / FWTM: 26.0° / 48.0°            Efficiency: 92 %            Peak intensity: 3.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE</b> LEDs</p> <p>LED: XP-E2            FWHM / FWTM: 11.0° / 26.0°            Efficiency: 91 %            Peak intensity: 14.1 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: 17.0° / 35.0°            Efficiency: 93 %            Peak intensity: 6.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LEDs</p> <p>LED: XQ-E HD            FWHM / FWTM: 8.0° / 19.0°            Efficiency: 92 %            Peak intensity: 21.8 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: 23.0° / 50.0°            Efficiency: 91 %            Peak intensity: 3.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON 5050 Square LES            FWHM / FWTM: 25.0° / 52.0°            Efficiency: 94 %            Peak intensity: 3.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON C            FWHM / FWTM: 10.0° / 23.0°            Efficiency: 91 %            Peak intensity: 17.3 cd/lm            LEDs/each optic: 1            Light colour: Cyan            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED: NV4WB35AM            FWHM / FWTM: 22.0° / 40.0°            Efficiency: 94 %            Peak intensity: 4.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b></p> <p>LED: PrevaLED Brick HP IP 2x6            FWHM / FWTM: 14.0° / 28.0°            Efficiency: 92 %            Peak intensity: 10.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ C 2424            FWHM / FWTM: 11.0° / 22.0°            Efficiency: 93 %            Peak intensity: 16.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ P 3030            FWHM / FWTM: 9.0° / 20.0°            Efficiency: 94 %            Peak intensity: 21.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

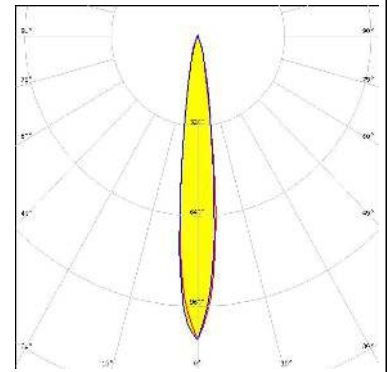
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSCONIQ P 3737 (2W version)</p> <p>FWHM / FWTM 12.0° / 25.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 13 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 19.0° / 37.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSCONIQ P 3737 Flat</p> <p>FWHM / FWTM 14.0° / 30.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 9.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 10.0° / 20.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 20.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Far Red</p> <p>Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

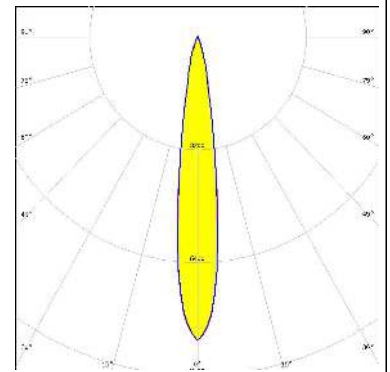
### SAMSUNG

LED LH181B  
 FWHM / FWTM 13.0° / 28.0°  
 Efficiency 93 %  
 Peak intensity 10.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



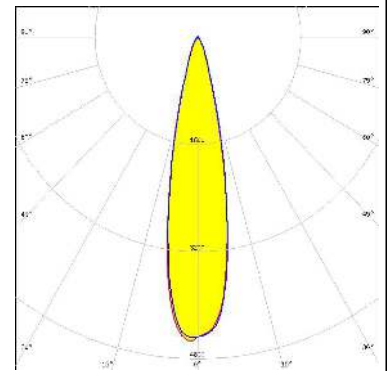
### SAMSUNG

LED LH231B  
 FWHM / FWTM 16.0° / 32.0°  
 Efficiency 93 %  
 Peak intensity 8.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



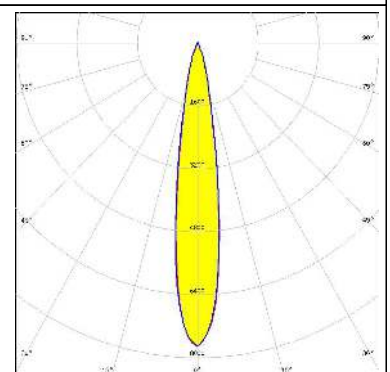
### SAMSUNG

LED LH351D  
 FWHM / FWTM 22.0° / 40.0°  
 Efficiency 93 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



SEOUL SEMICONDUCTOR

LED Z5M4  
 FWHM / FWTM 16.0° / 34.0°  
 Efficiency 93 %  
 Peak intensity 7.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):



### 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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