

## STRADA-2X2-FR

Asymmetric spotlight beam for floodlighting railway tracks according to Russian normative

### SPECIFICATION:

Dimensions	50.0 x 50.0 mm
Height	11.8 mm
Fastening	glue, pin, screw
ROHS compliant	yes ⓘ

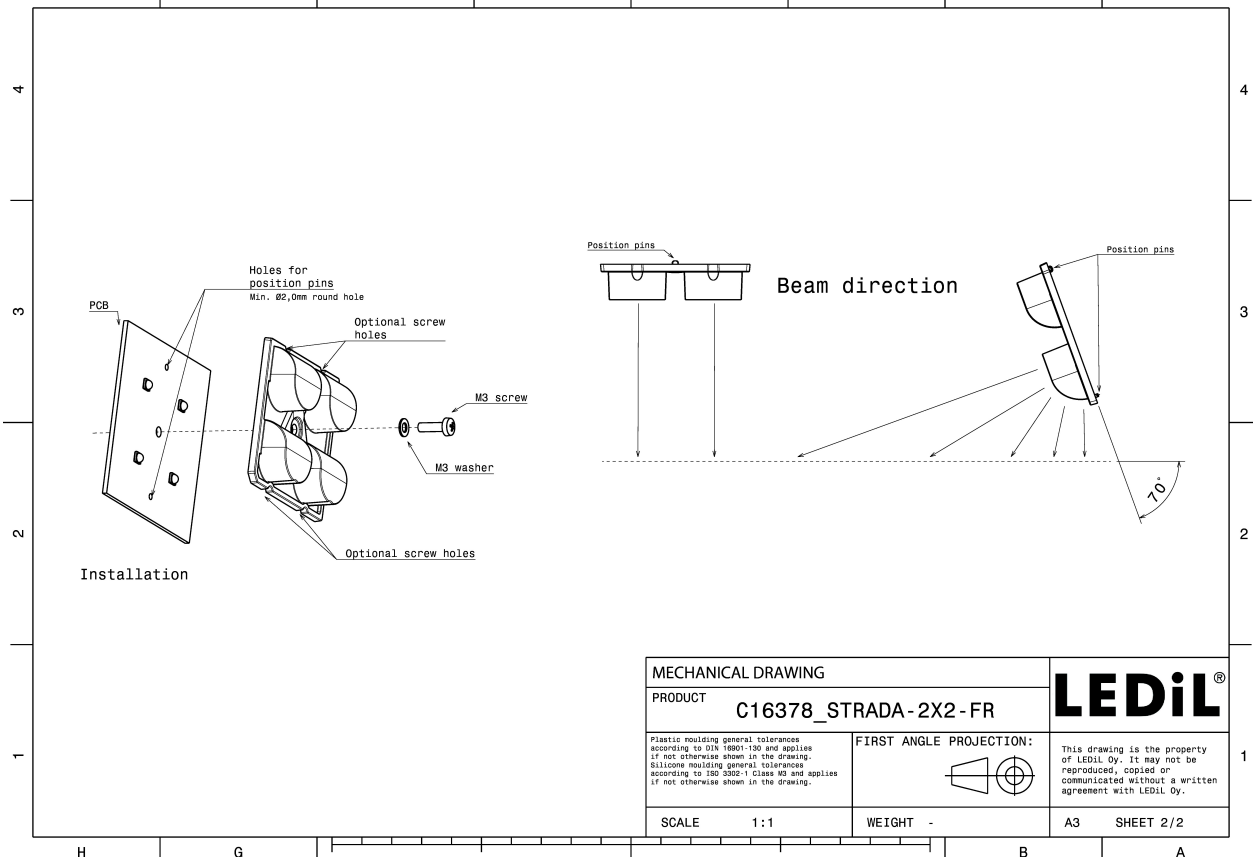
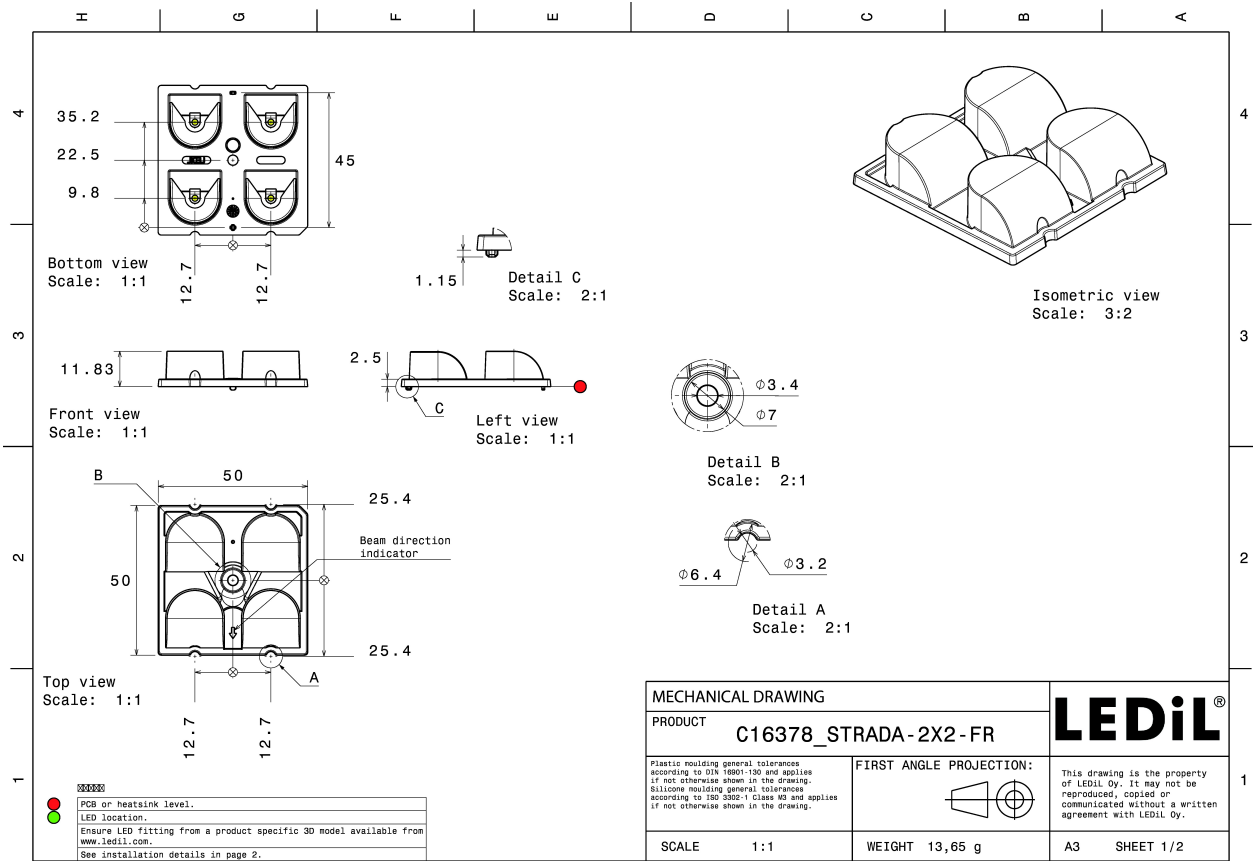


### MATERIALS:

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

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C16378_STRADA-2X2-FR » Box size: 476 x 273 x 292 mm	800		160	11.7

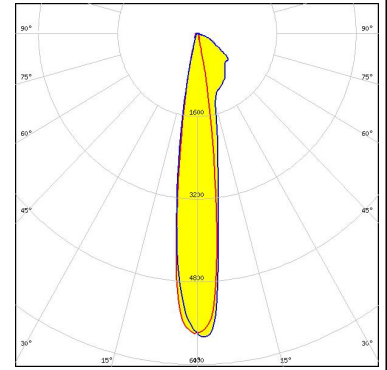


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

##### CREE LED

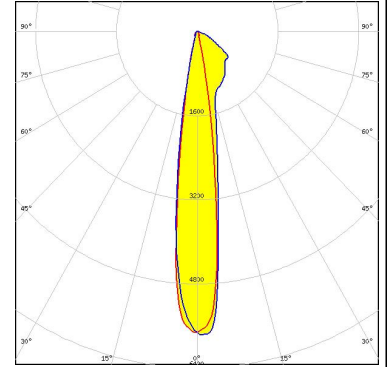
LED XP-G2  
 FWHM / FWTM 15.0 + 16.0° / 27.0 + 70.0°  
 Efficiency 94 %  
 Peak intensity 5.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### CREE LED

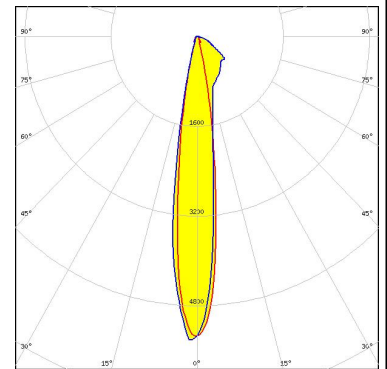
LED XP-G2  
 FWHM / FWTM 15.0 + 16.0° / 26.0 + 69.0°  
 Efficiency 90 %  
 Peak intensity 5.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



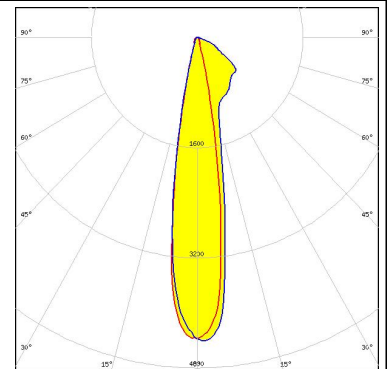
##### MST Your solutions

LED RecLED 122x50mm 1900lm 730 2x4 Opt G1  
 FWHM / FWTM Asymmetric  
 Efficiency 97 %  
 Peak intensity 5.4 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### NICHIA

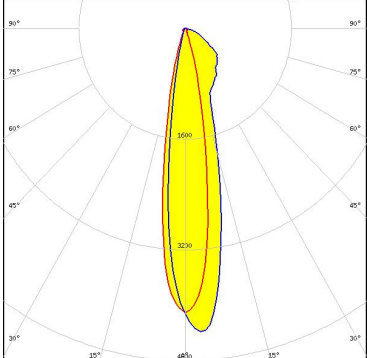
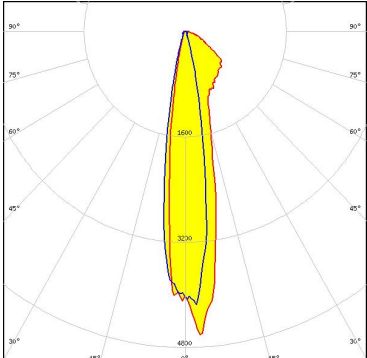
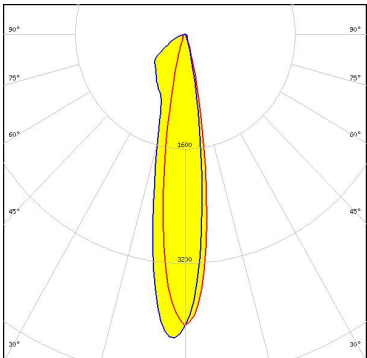
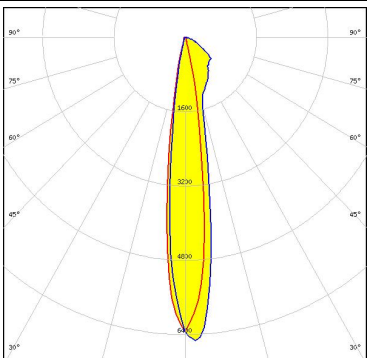
LED NVSW219F  
 FWHM / FWTM 18.0 + 20.0° / 31.0 + 74.0°  
 Efficiency 94 %  
 Peak intensity 4.4 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NVSW319B</p> <p>FWHM / FWTM 20.0 + 22.0° / 34.0 + 76.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 3.9 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 OSLOM Square PC</p> <p>FWHM / FWTM 14.0 + 15.0° / 27.0 + 71.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 5.6 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 94 %</p> <p>Peak intensity 3.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	

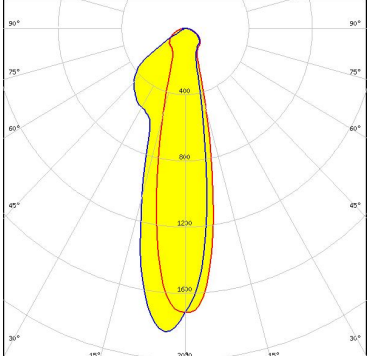
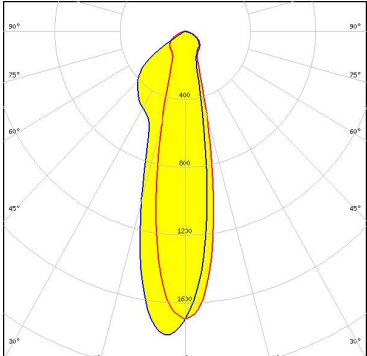
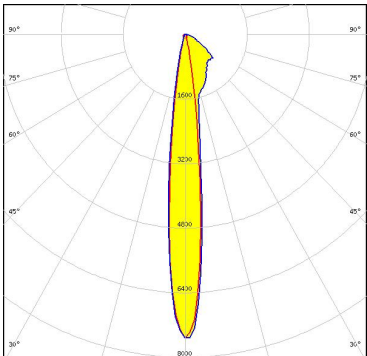
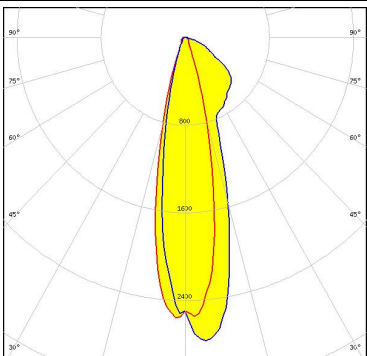
#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE LED</b></p> <p>LED: XP-G2 HE            FWHM / FWTM: 18.0 + 21.0° / 34.0 + 70.0°            Efficiency: 92 %            Peak intensity: 4.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE LED</b></p> <p>LED: XP-G3            FWHM / FWTM: 17.0 + 18.0° / 32.0 + 72.0°            Efficiency: 92 %            Peak intensity: 4.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>CREE LED</b></p> <p>LED: XP-G3            FWHM / FWTM: Asymmetric            Efficiency: 85 %            Peak intensity: 4.2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p> <p>Protective plate, glass</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON TX            FWHM / FWTM: 15.0 + 16.0° / 28.0 + 66.0°            Efficiency: 93 %            Peak intensity: 6.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

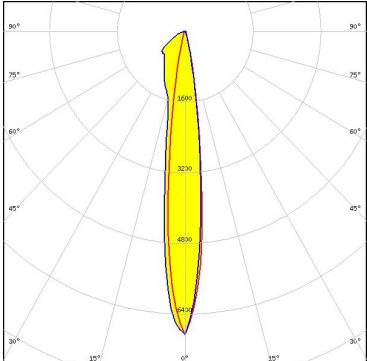
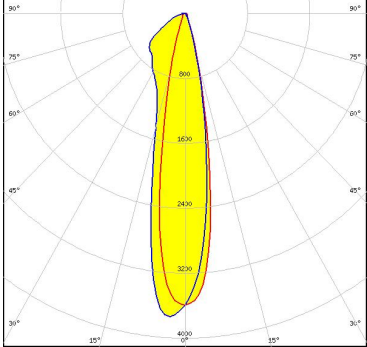
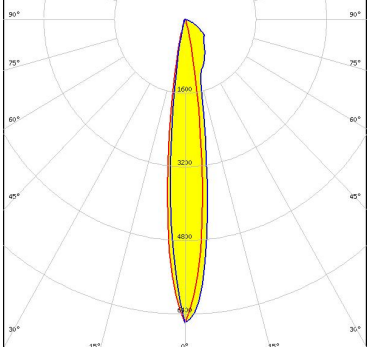
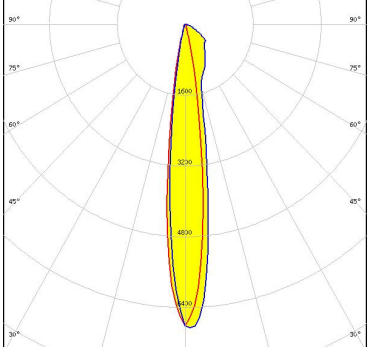
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON XR-HL2X (L2H2-xxxxxxxMLU010)</p> <p>FWHM / FWTM 20.0 + 23.0° / 46.0 + 76.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 2 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 20.0 + 22.0° / 44.0 + 75.0°</p> <p>Efficiency 95 %</p> <p>Peak intensity 2.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NV4WB35AM</p> <p>FWHM / FWTM 22.0 + 24.0° / 44.0 + 82.0°</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><b>NICHIA</b></p> <p>LED NV4WB35AM</p> <p>FWHM / FWTM Asymmetric</p> <p>Efficiency 88 %</p> <p>Peak intensity 2.7 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: NVSW519A            FWHM / FWTM: 23.0 + 24.0° / 52.0 + 79.0°            Efficiency: 93 %            Peak intensity: 1.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NVSW519A            FWHM / FWTM: 23.0 + 25.0° / 53.0 + 79.0°            Efficiency: 88 %            Peak intensity: 1.8 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>NICHIA</b></p> <p>LED: NVSxE21A            FWHM / FWTM: 12.0 + 13.0° / 25.0 + 67.0°            Efficiency: 93 %            Peak intensity: 7.6 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NWSx229A            FWHM / FWTM: 24.0 + 25.0° / 42.0 + 81.0°            Efficiency: 93 %            Peak intensity: 2.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

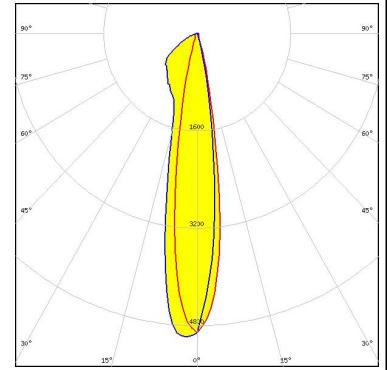
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (2W version)</p> <p>FWHM / FWTM 14.0° / 26.0 + 65.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (3W version)</p> <p>FWHM / FWTM 20.0 + 22.0° / 38.0 + 76.0°</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>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 13.0 + 14.0° / 26.0 + 52.0°</p> <p>Efficiency 86 %</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 style="background-color: #ADD8E6; padding: 2px; display: inline-block;">Protective plate, glass</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 13.0 + 14.0° / 26.0 + 53.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

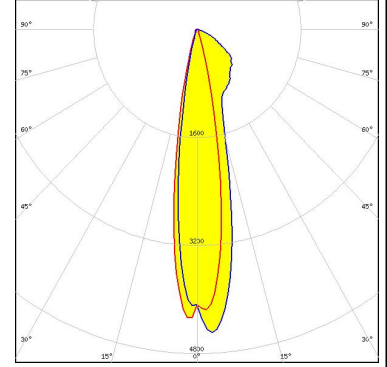
### SAMSUNG

LED LH351B  
 FWHM / FWTM 18.0 + 19.0° / 32.0 + 70.0°  
 Efficiency 94 %  
 Peak intensity 5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



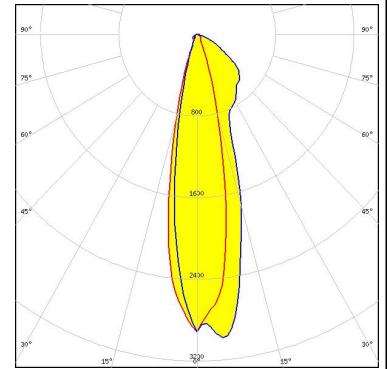
### SAMSUNG

LED LH351C  
 FWHM / FWTM 18.0 + 20.0° / 33.0 + 71.0°  
 Efficiency 94 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

LED LH351D  
 FWHM / FWTM 22.0 + 26.0° / 41.0 + 77.0°  
 Efficiency 94 %  
 Peak intensity 3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### 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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