

## STRADELLA-16-HB-S

~25° spot beam for industrial applications

### SPECIFICATION:

Dimensions	49.5 x 49.5 mm
Height	7.5 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

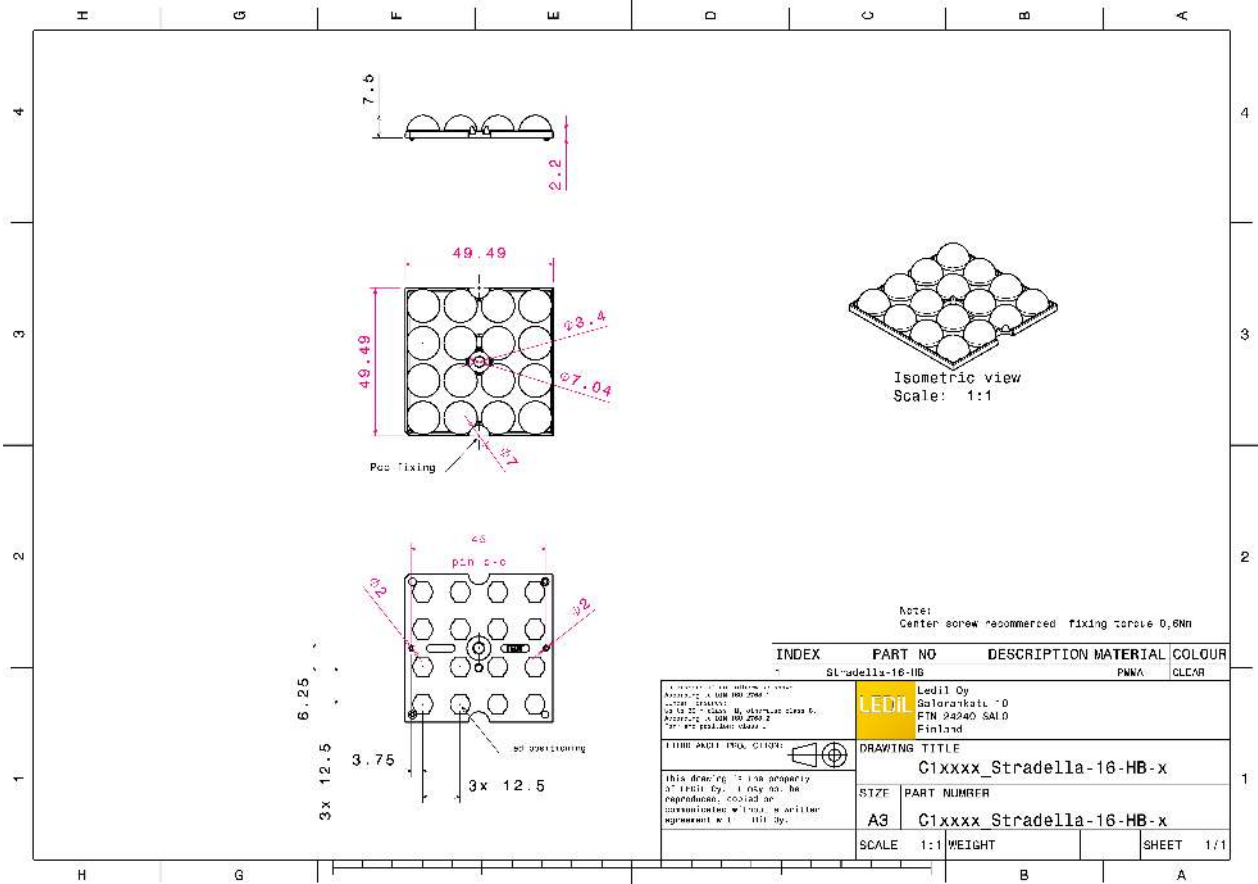
### MATERIALS:

Component	Type	Material	Colour	Finish
STRADELLA-16-HB-S	Multi-lens	PMMA	clear	

### ORDERING INFORMATION:


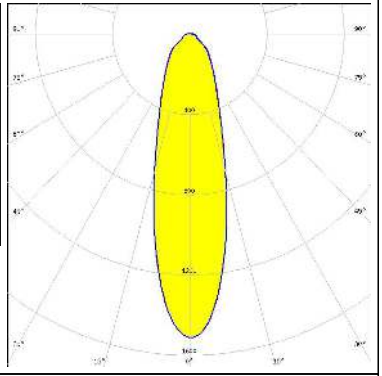

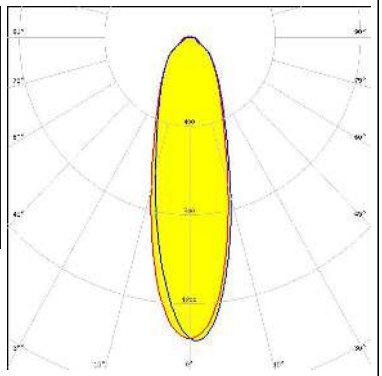
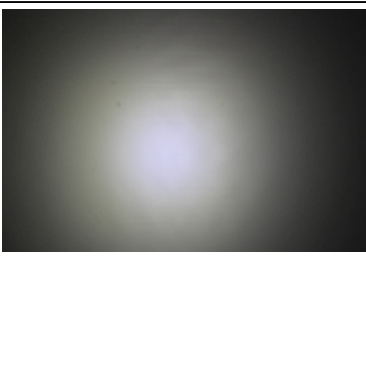
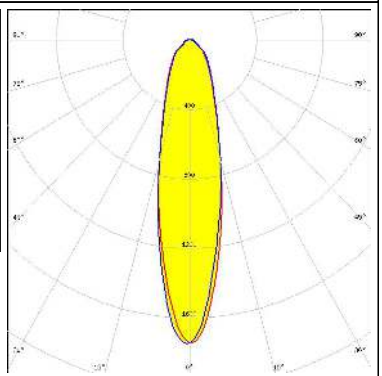

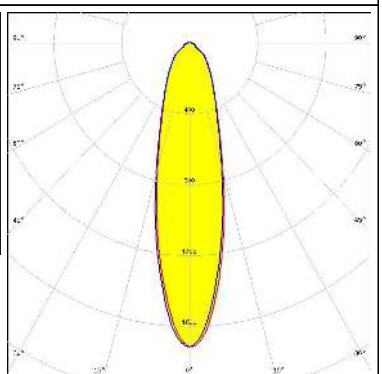
Component	Qty in box	MOQ	MPQ	Box weight (kg)
C15430_STRADELLA-16-HB-S » Box size: 480 x 280 x 300 mm	800	160	160	6.3




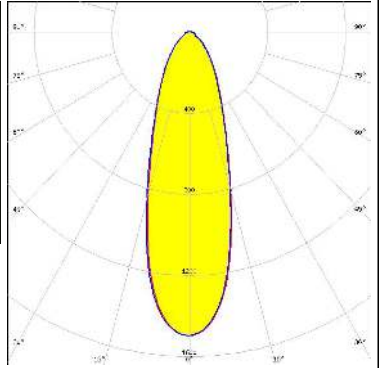

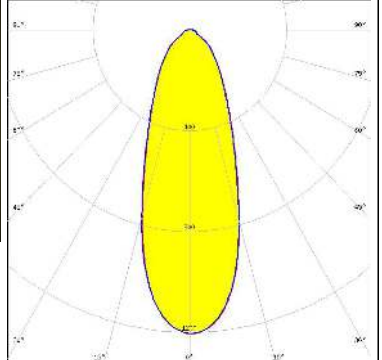

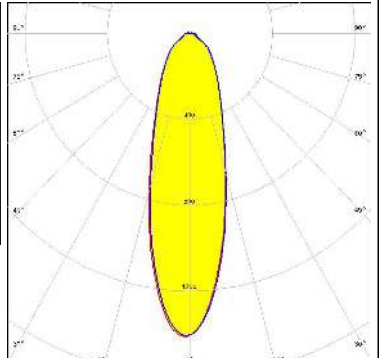
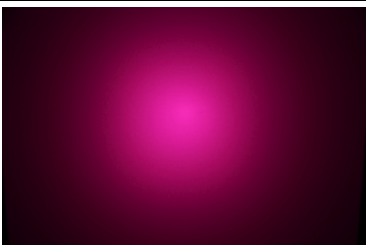
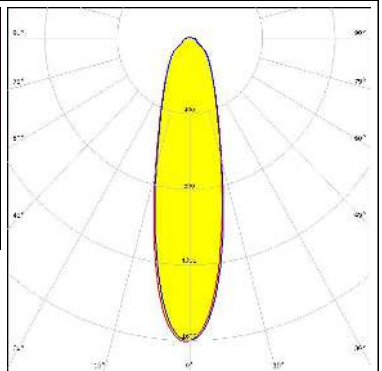


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LED</p> <p>LED J Series 3030            FWHM / FWTM 29.0° / 86.0°            Efficiency 91 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>ELECTRIO</b></p> <p>LED EHP-223.5x50-1604-xx-70-LS30-06-NTC            FWHM / FWTM 30.0° / 95.0°            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 NFSx757D            FWHM / FWTM 25.0° / 78.0°            Efficiency 90 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NFSx757G            FWHM / FWTM 27.0° / 80.0°            Efficiency 93 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

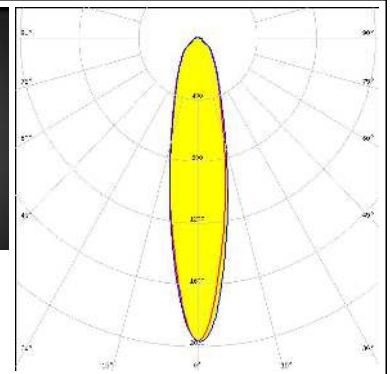
<p><b>NICHIA</b></p> <p>LED NVSW219D            FWHM / FWTM 32.0° / 83.0°            Efficiency 93 %            Peak intensity 1.5 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW319B            FWHM / FWTM 37.0° / 97.0°            Efficiency 93 %            Peak intensity 1.2 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b></p> <p>LED PrevaLED Brick MP 4x16            FWHM / FWTM 30.0° / 92.0°            Efficiency 92 %            Peak intensity 1.4 cd/m            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Duris S5 (2 chip)            FWHM / FWTM 27.0° / 83.0°            Efficiency 92 %            Peak intensity 1.6 cd/m            LEDs/each optic 1            Light colour Purple            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

#### OSRAM

Opto Semiconductors

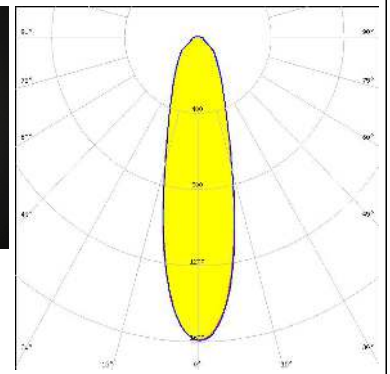
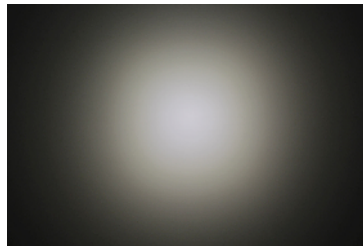
LED Duris S5 (Single chip)  
 FWHM / FWTM 23.0° / 72.0°  
 Efficiency 90 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

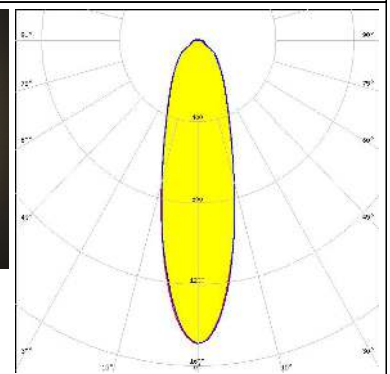
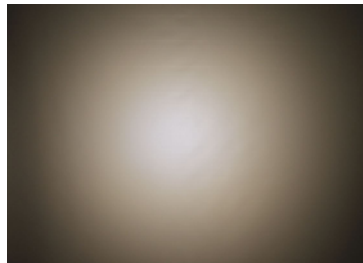
Opto Semiconductors

LED OSCONIQ S 3030 (QSLR31)  
 FWHM / FWTM 28.0° / 82.0°  
 Efficiency 91 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



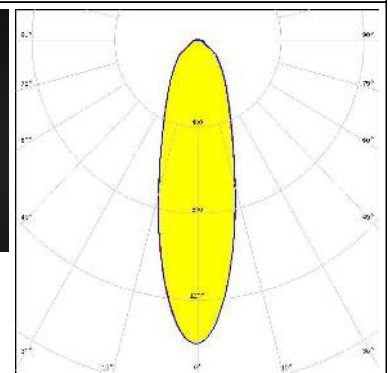
#### PHILIPS

LED Fortimo FastFlex LED 4x16 DHE G4  
 FWHM / FWTM 29.0° / 88.0°  
 Efficiency 92 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

LED HiLOM RM64 (LM301B)  
 FWHM / FWTM 30.0° / 92.0°  
 Efficiency 93 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

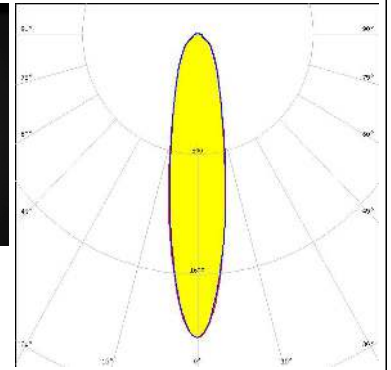




#### OPTICAL RESULTS (MEASURED):

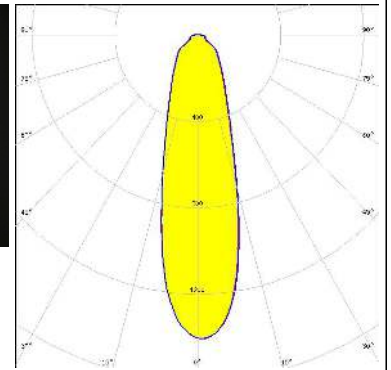
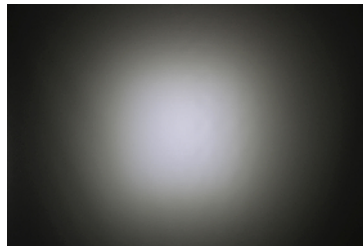
#### SAMSUNG

LED LM231 A/B  
 FWHM / FWTM 22.0° / 70.0°  
 Efficiency 91 %  
 Peak intensity 2 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



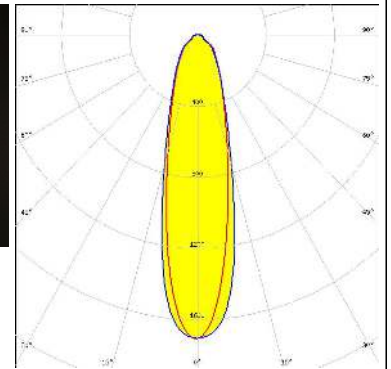
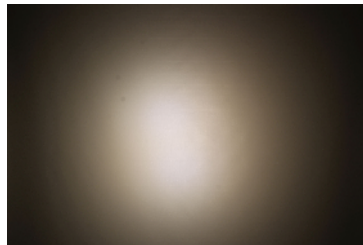
#### SCIOLUX

LED XLE-S44XTEHE (XT-E HE)  
 FWHM / FWTM 29.0° / 89.0°  
 Efficiency 92 %  
 Peak intensity 1.4 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



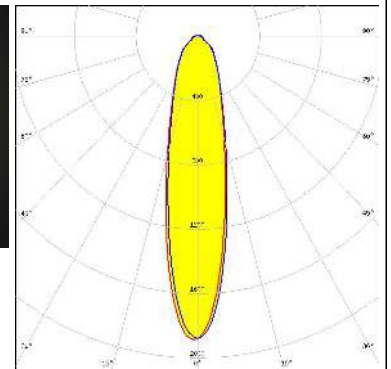
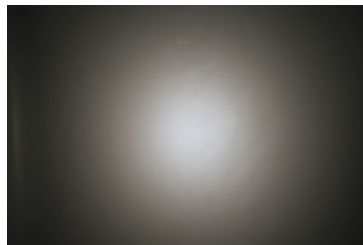
#### SEOUL SEMICONDUCTOR

LED SEOUL 3030  
 FWHM / FWTM 26.0° / 78.0°  
 Efficiency 90 %  
 Peak intensity 1.7 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



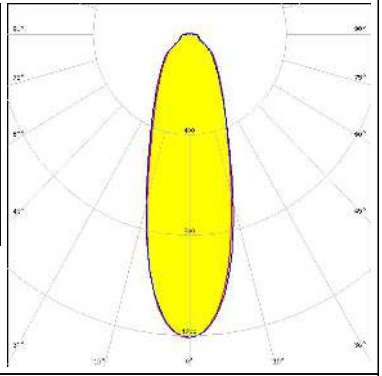

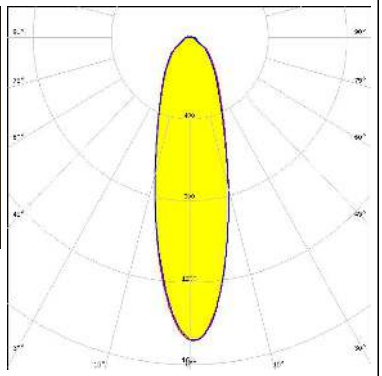


#### SEOUL SEMICONDUCTOR


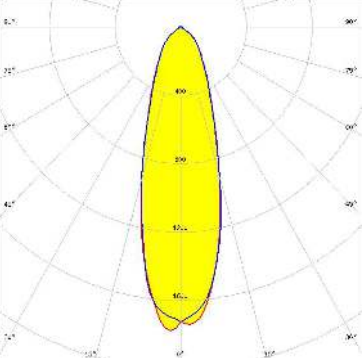

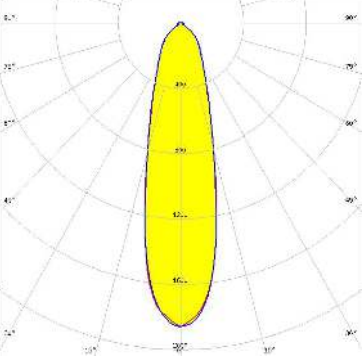

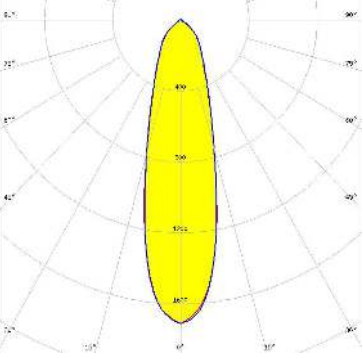

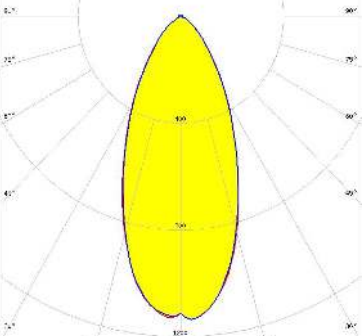
LED SEOUL DC 3030  
 FWHM / FWTM 24.0° / 75.0°  
 Efficiency 94 %  
 Peak intensity 1.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (MEASURED):

<p> <b>SEKUL SEMICONDUCTOR</b></p> <p>LED Z5M3            FWHM / FWTM 33.0° / 100.0°            Efficiency 94 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED RLE 4x16 4000lm MP ADV2 OTD            FWHM / FWTM 29.0° / 89.0°            Efficiency 93 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED RLE 4x8 2000lm MP ADV2 OTD            FWHM / FWTM 29.0° / 89.0°            Efficiency 93 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (SIMULATED):

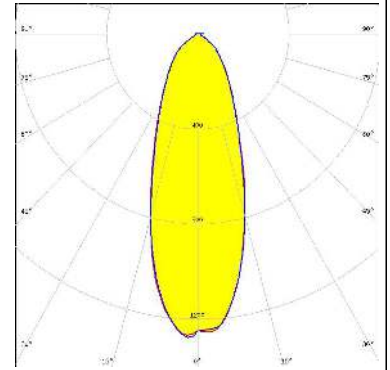
<p></p> <p>LED: Bridgelux SMD 2835            FWHM / FWTM: 31.0° / 81.0°            Efficiency: 94 %            Peak intensity: 1.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p></p> <p>LED: CSP 2727 (BXCP)            FWHM / FWTM: 28.0° / 80.0 + 78.0°            Efficiency: 93 %            Peak intensity: 1.9 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p></p> <p>LED: CSP 2727 (BXCP)            FWHM / FWTM: 28.0° / 80.0 + 78.0°            Efficiency: 84 %            Peak intensity: 1.7 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></p> <p>LED: XP-G2 HE            FWHM / FWTM: 46.0° / 90.0°            Efficiency: 90 %            Peak intensity: 1.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

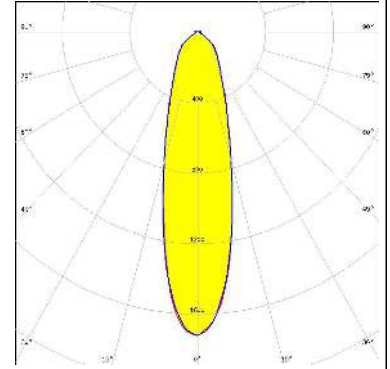
##### CREE LED

LED XP-G3  
 FWHM / FWTM 37.0° / 95.0°  
 Efficiency 91 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### CREE LED

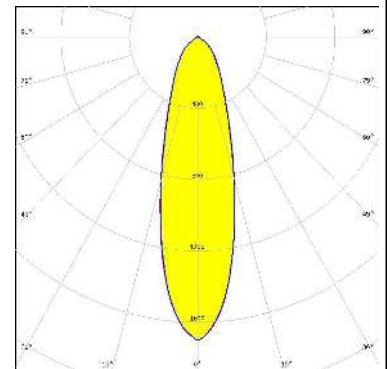
LED XT-E  
 FWHM / FWTM 28.0° / 82.0°  
 Efficiency 91 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### LUMILEDS

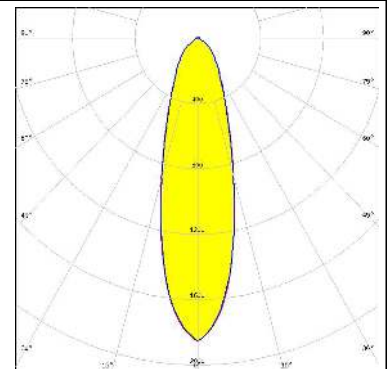
LED LUXEON 2835 Line  
 FWHM / FWTM 30.0° / 78.0°  
 Efficiency 85 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

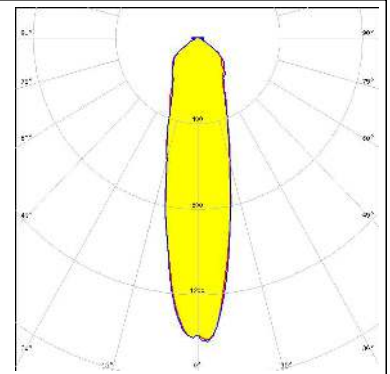
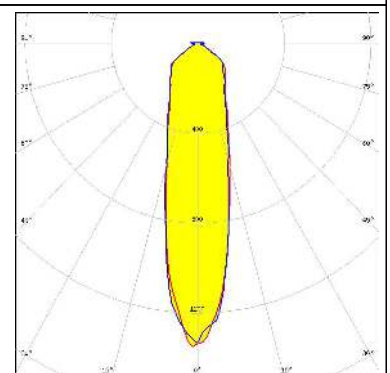
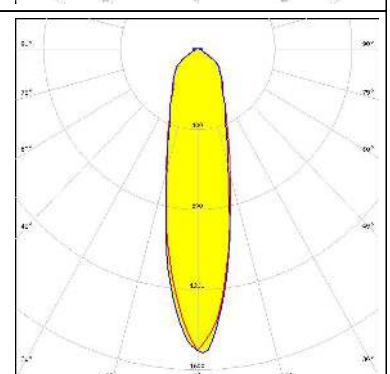
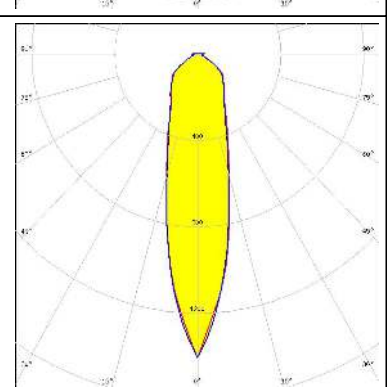


##### LUMILEDS

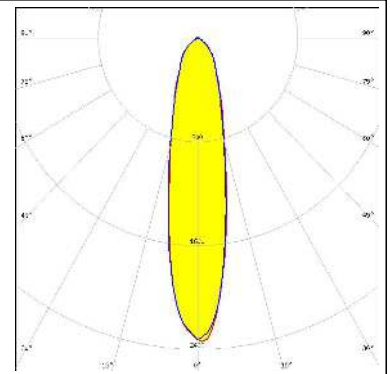
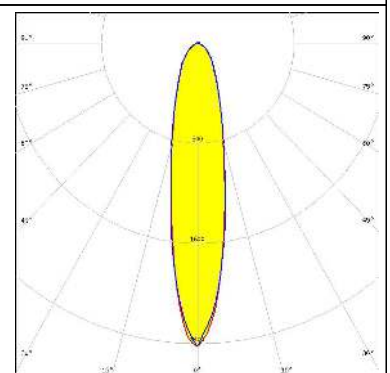
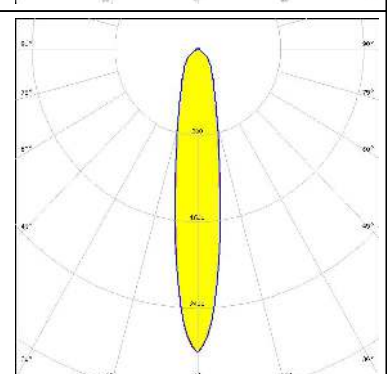
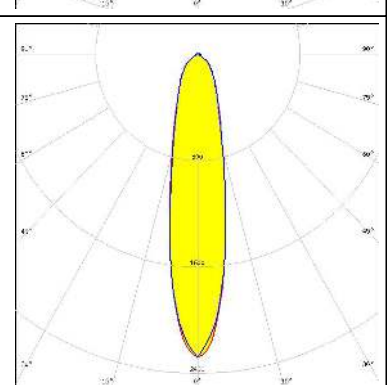
LED LUXEON 2835 Line  
 FWHM / FWTM 28.0° / 78.0°  
 Efficiency 93 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



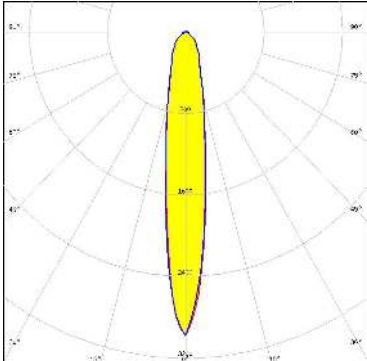
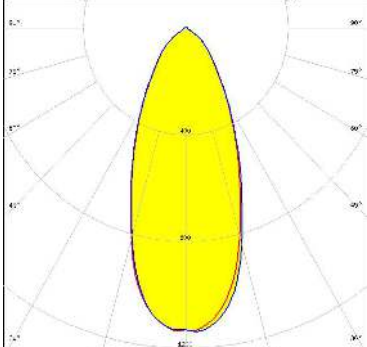
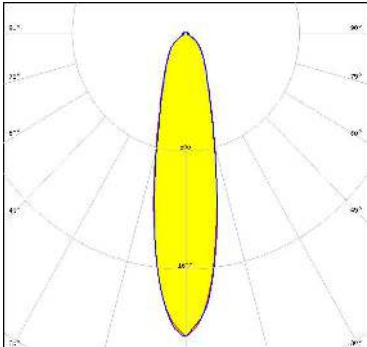
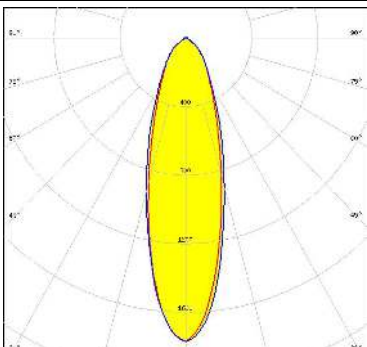
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON C            FWHM / FWTM 25.0° / 104.0°            Efficiency 91 %            Peak intensity 1.4 cd/lm            LEDs/each optic 1            Light colour Blue            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON C            FWHM / FWTM 25.0° / 107.0°            Efficiency 90 %            Peak intensity 1.4 cd/lm            LEDs/each optic 1            Light colour Green            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON C            FWHM / FWTM 25.0° / 96.0°            Efficiency 91 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED LUXEON C            FWHM / FWTM 25.0° / 105.0°            Efficiency 91 %            Peak intensity 1.4 cd/lm            LEDs/each optic 1            Light colour RGBW            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON CZ            FWHM / FWTM: 23.0° / 70.0°            Efficiency: 94 %            Peak intensity: 2.4 cd/lm            LEDs/each optic: 1            Light colour: RGBW            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON CZ            FWHM / FWTM: 22.0° / 67.0°            Efficiency: 94 %            Peak intensity: 2.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON HL1Z            FWHM / FWTM: 18.0° / 62.0°            Efficiency: 94 %            Peak intensity: 2.8 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED: NCSxE17A            FWHM / FWTM: 22.0° / 69.0°            Efficiency: 91 %            Peak intensity: 2.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED NFSWE11A            FWHM / FWTM 16.0° / 56.0°            Efficiency 90 %            Peak intensity 3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSW519A            FWHM / FWTM 43.0° / 95.0°            Efficiency 90 %            Peak intensity 1.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>NICHIA</b></p> <p>LED NVSxE21A            FWHM / FWTM 25.0° / 74.0°            Efficiency 92 %            Peak intensity 2.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Duris E5            FWHM / FWTM 30.0° / 80.0°            Efficiency 93 %            Peak intensity 1.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

#### OPTICAL RESULTS (SIMULATED):

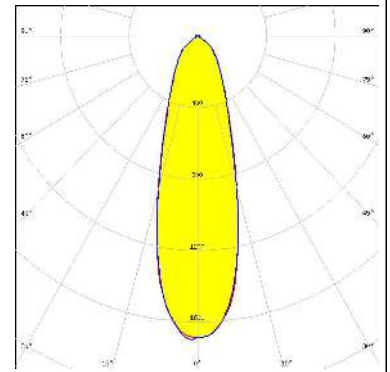
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSCONIQ C 2424</p> <p>FWHM / FWTM 26.0° / 73.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 2.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>	
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSCONIQ P 3030</p> <p>FWHM / FWTM 22.0° / 60.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.8 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 25.0° / 74.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 2.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Far Red</p> <p>Required components:</p>	
<b>OSRAM</b> <small>Opto Semiconductors</small>	<p>LED OSLON Square CSSRM2/CSSRM3</p> <p>FWHM / FWTM 32.0° / 87.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Red</p> <p>Required components:</p>	



#### OPTICAL RESULTS (SIMULATED):

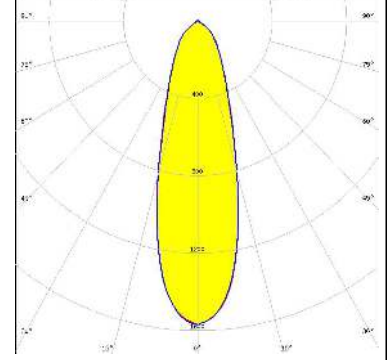
#### SAMSUNG

LED LH231B  
 FWHM / FWTM 31.0° / 82.0°  
 Efficiency 91 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

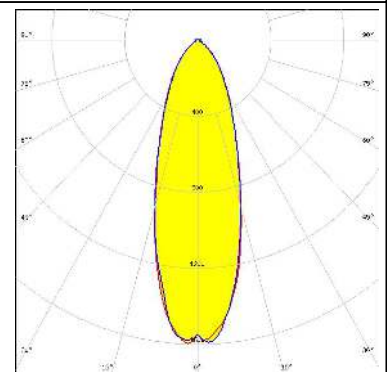
LED LH231B  
 FWHM / FWTM 31.0° / 80.0°  
 Efficiency 83 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



Protective plate, glass

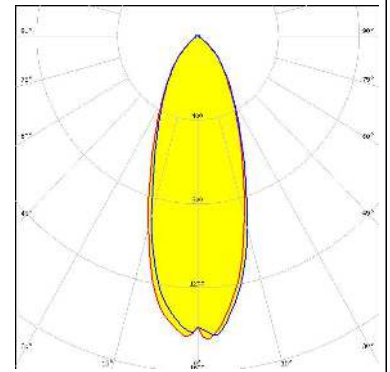
#### SAMSUNG

LED LH351B  
 FWHM / FWTM 33.0° / 83.0°  
 Efficiency 94 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

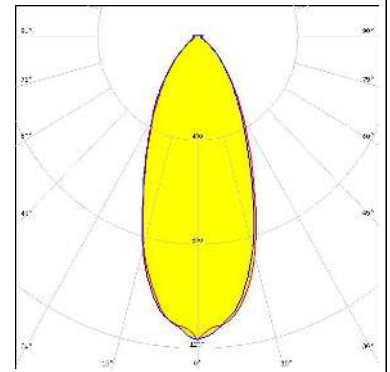
LED LH351C  
 FWHM / FWTM 37.0° / 87.0°  
 Efficiency 94 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

#### SAMSUNG

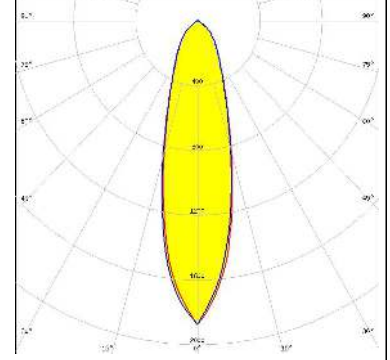
LED LH351D  
 FWHM / FWTM 44.0° / 93.0°  
 Efficiency 93 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

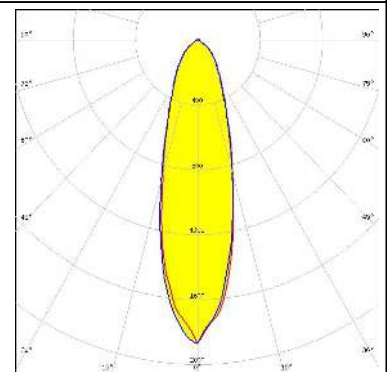
LED LM301B  
 FWHM / FWTM 28.0° / 76.0°  
 Efficiency 87 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass



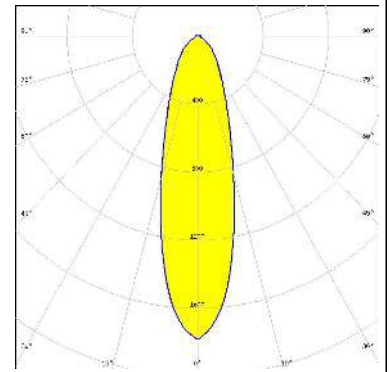
#### SAMSUNG

LED LM301B  
 FWHM / FWTM 27.0° / 78.0°  
 Efficiency 93 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

LED LM302D  
 FWHM / FWTM 29.0° / 79.0°  
 Efficiency 93 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

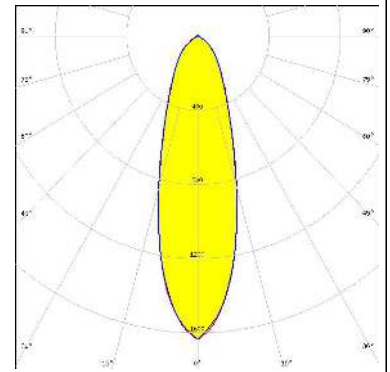


#### OPTICAL RESULTS (SIMULATED):

#### SAMSUNG

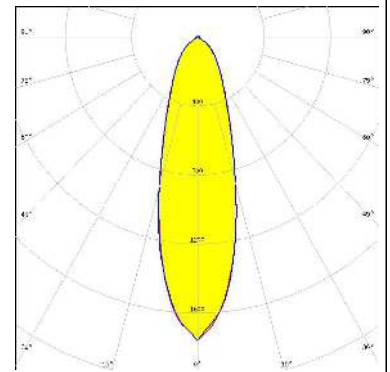
LED LM302Z plus  
 FWHM / FWTM 30.0° / 82.0°  
 Efficiency 87 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

Protective plate, glass

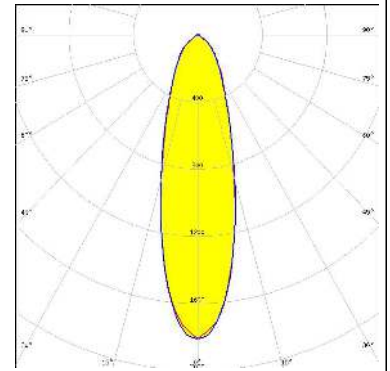


#### SAMSUNG

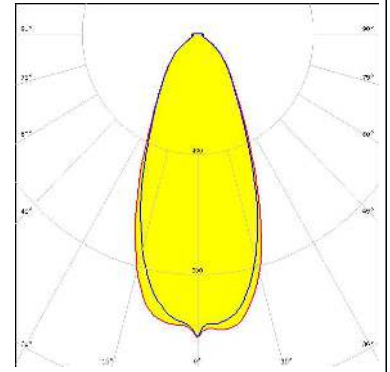
LED LM302Z plus  
 FWHM / FWTM 30.0° / 80.0°  
 Efficiency 93 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED SEOUL DC 3030C  
 FWHM / FWTM 30.0° / 80.0°  
 Efficiency 93 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED SEOUL DC 5050 6V  
 FWHM / FWTM 45.0° / 100.0°  
 Efficiency 91 %  
 Peak intensity 1 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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#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Ledil Optics Technology (Shenzhen) Co., Ltd.

# 405 , Block B  
Casic Motor Building  
Shenzhen 518057  
P.R.CHINA

#### Local sales and technical support

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