

## HB-2X2-RW

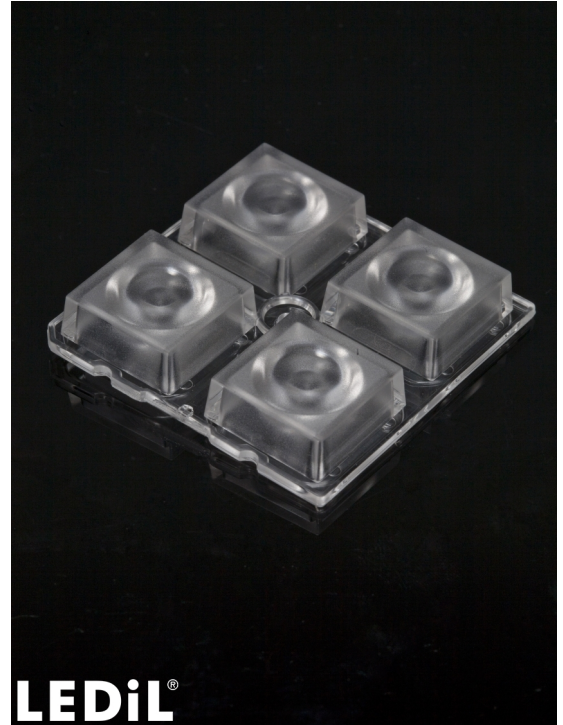
~50° wide beam optimized for CREE XP-L and XM-L

### TECHNICAL SPECIFICATIONS:

Dimensions	50.0 mm
Height	8.5 mm
Fastening	pin, screw
ROHS compliant	yes ⓘ

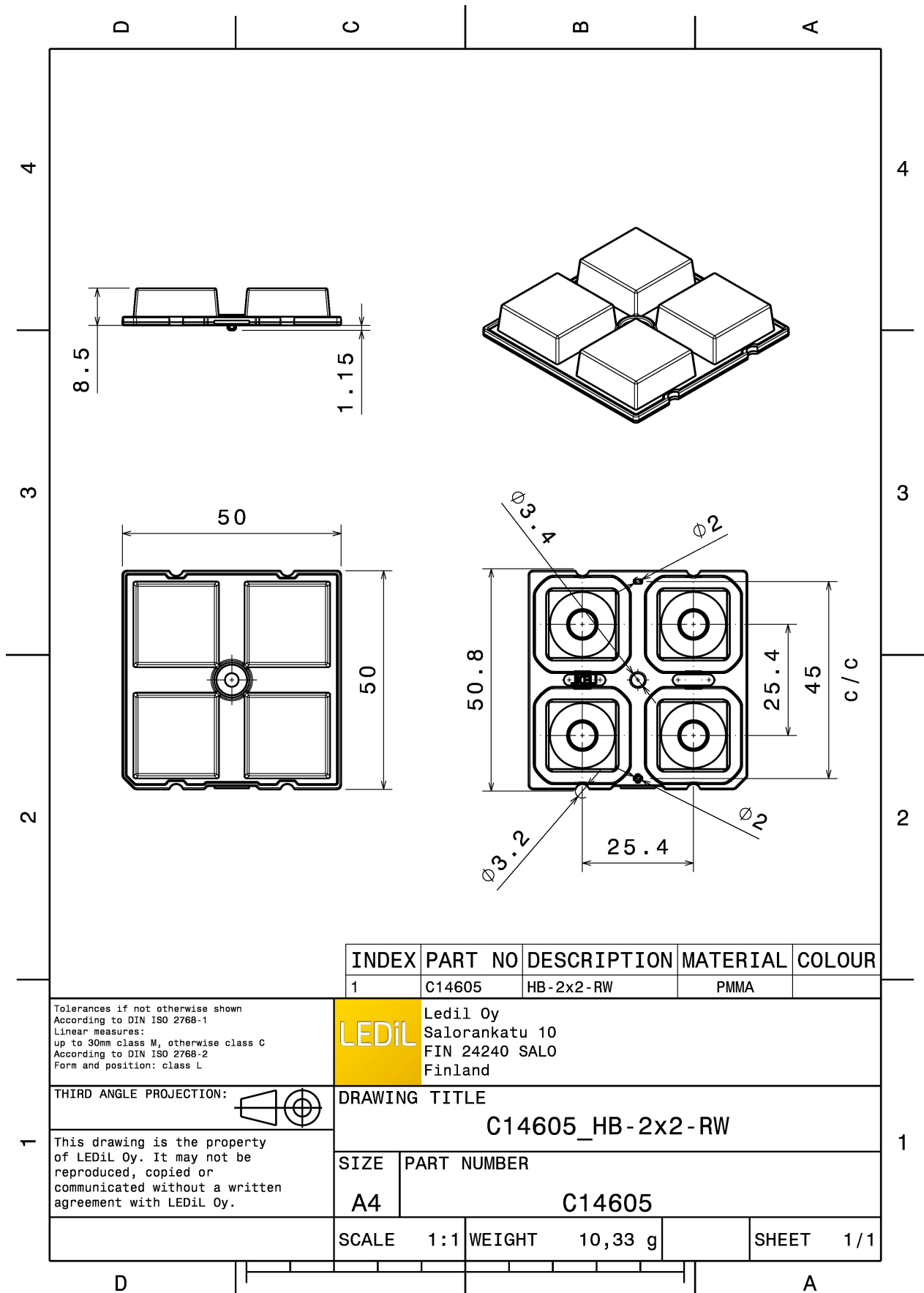
### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish
HB-2X2-RW	Multi-lens	PMMA	clear	



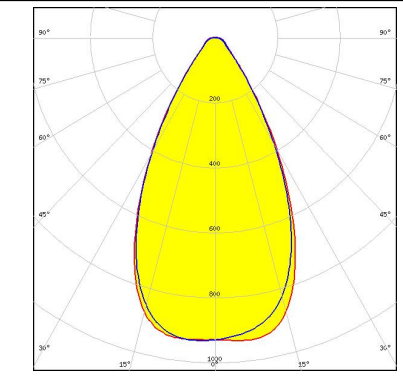

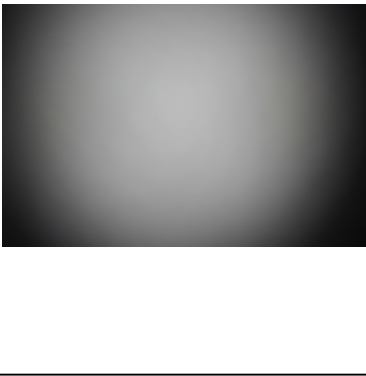
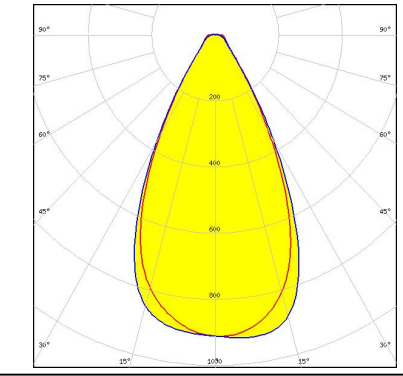

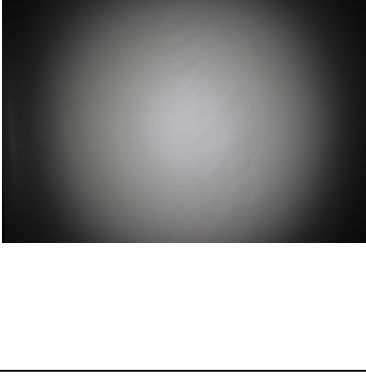
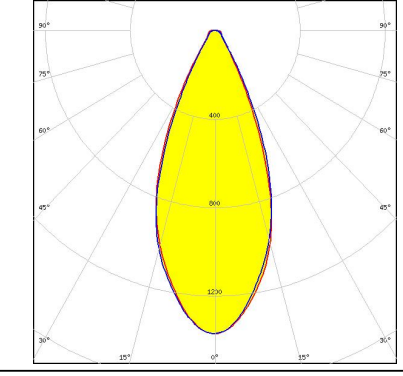

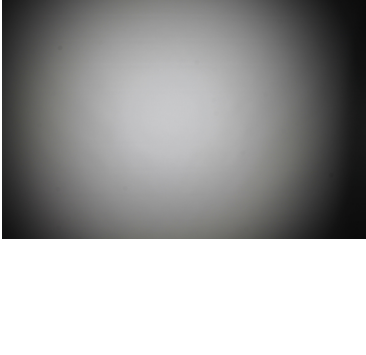
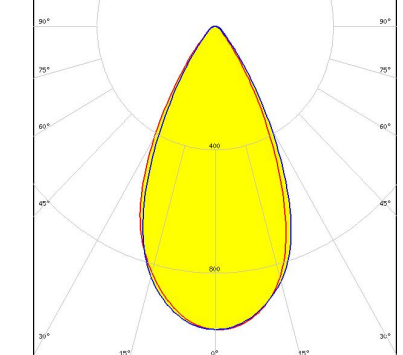


### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C14605_HB-2X2-RW » Box size: 476 x 273 x 292 mm	800	160	160	9.1



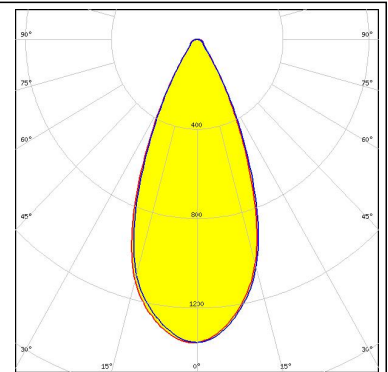
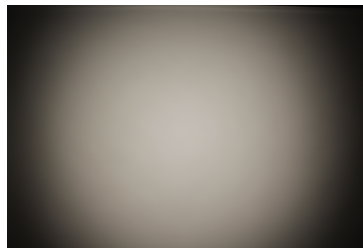
#### PHOTOMETRIC DATA (MEASURED):

<p> <b>bridgelux</b></p> <p>LED                    Bridgelux SMD 5050            FWHM                56.0°            Efficiency            94 %            Peak intensity      0.9 cd/lm            LEDs/each optic    1            Light colour        White            Required components:</p>		
<p> <b>CREE</b></p> <p>LED                    XD16            FWHM                54.0°            Efficiency            92 %            Peak intensity      0.9 cd/lm            LEDs/each optic    4            Light colour        White            Required components:</p>		
<p> <b>CREE</b></p> <p>LED                    XD16            FWHM                44.0°            Efficiency            90 %            Peak intensity      1.4 cd/lm            LEDs/each optic    1            Light colour        White            Required components:</p>		
<p> <b>CREE</b></p> <p>LED                    XHP35 HD            FWHM                53.0°            Efficiency            84 %            Peak intensity      1 cd/lm            LEDs/each optic    1            Light colour        White            Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

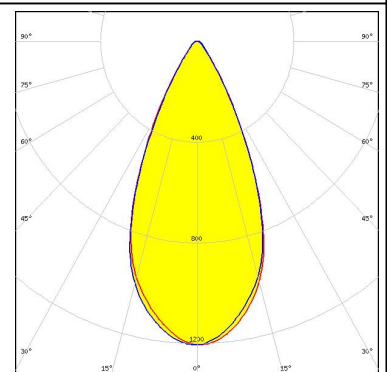
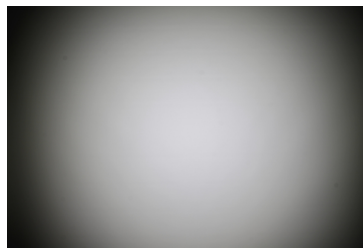
**CREE** 

LED XP-G2  
 FWHM 45.0°  
 Efficiency 94 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



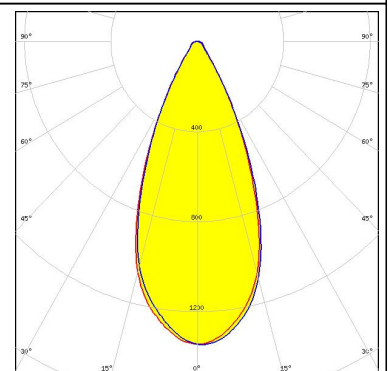
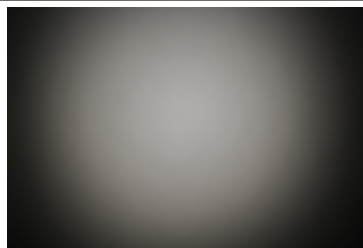
**CREE** 

LED XP-G3  
 FWHM 48.0°  
 Efficiency 86 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



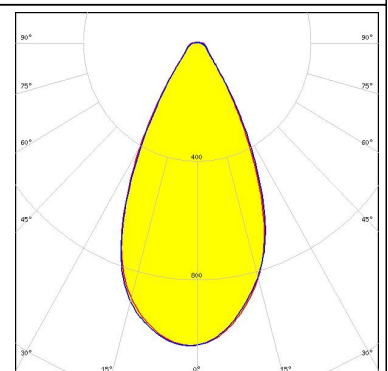
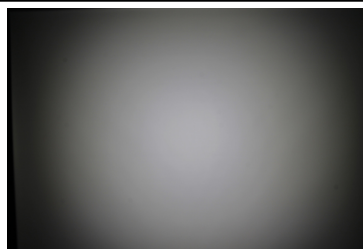
**CREE** 

LED XP-L HI  
 FWHM 45.0°  
 Efficiency 92 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



**CREE** 

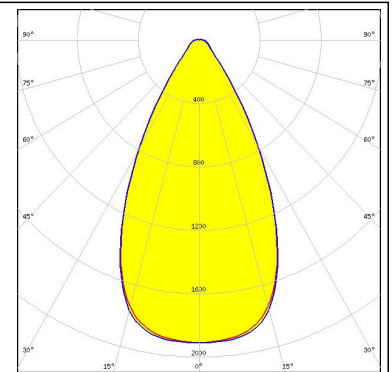
LED XP-L2  
 FWHM 52.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

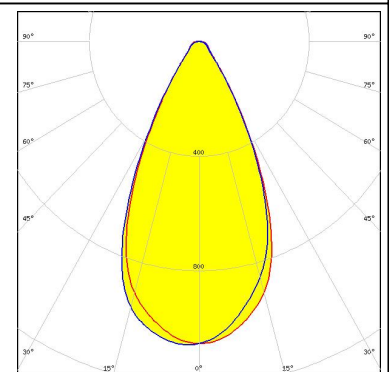
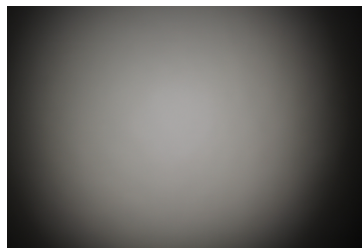
##### LUMILEDS

LED LUXEON 5050 Round LES  
 FWHM 55.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:



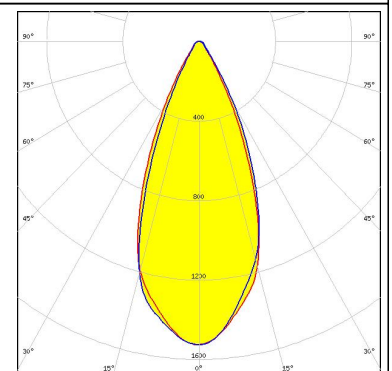
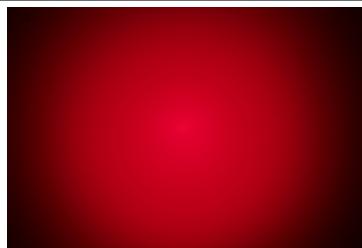
##### LUMILEDS

LED LUXEON V  
 FWHM 52.0°  
 Efficiency 93 %  
 Peak intensity 1.1 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:



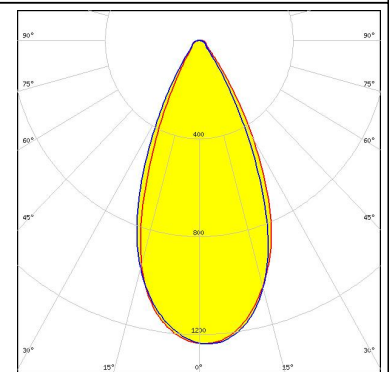
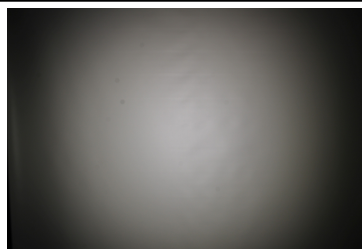
##### LUMINUS

LED SST-10-B130  
 FWHM 44.0°  
 Efficiency 96 %  
 Peak intensity 1.5 cd/Im  
 LEDs/each optic 1  
 Light colour Deep Red  
 Required components:


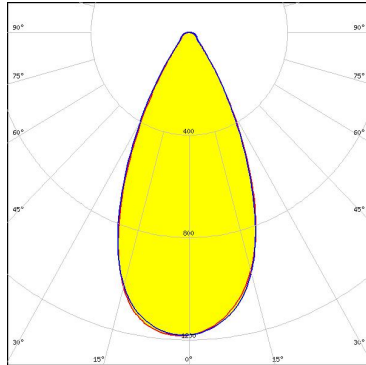
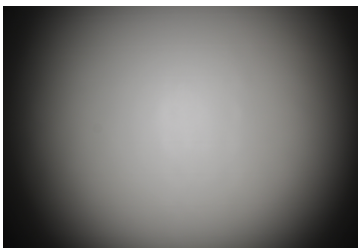
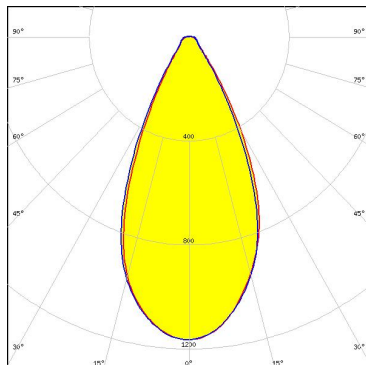

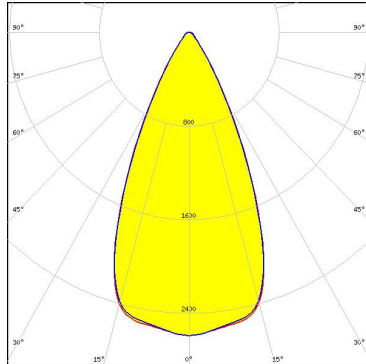
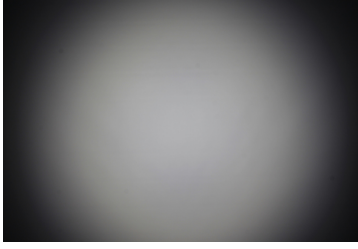
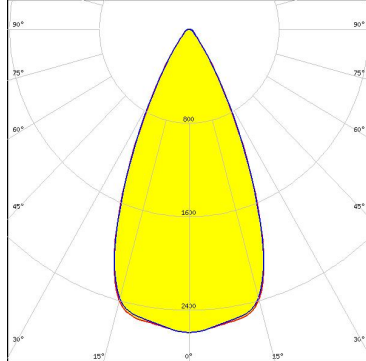


##### NICHIA

LED NVSW219F  
 FWHM 48.0°  
 Efficiency 94 %  
 Peak intensity 1.2 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:



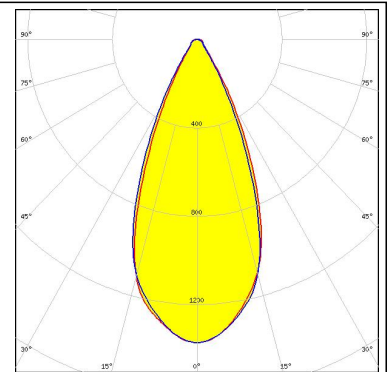
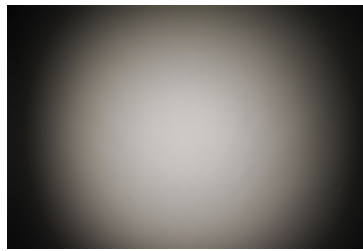
#### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED NVSW319B            FWHM 50.0°            Efficiency 94 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NVSW3x9A            FWHM 50.0°            Efficiency 93 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b></p> <p>LED PrevaLED Brick HP 2x8            FWHM 49.0°            Efficiency 94 %            Peak intensity 1.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED OSLOM Square CSSRM2/CSSRM3            FWHM 49.0°            Efficiency 94 %            Peak intensity 1.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

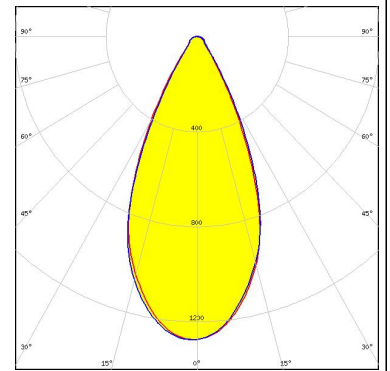
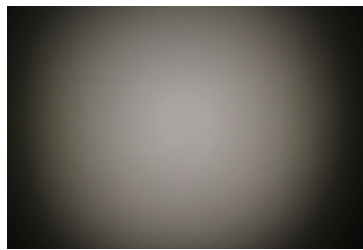
### PHILIPS

LED Fortimo FastFlex LED 2x8 DA G4  
 FWHM 45.0°  
 Efficiency 93 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



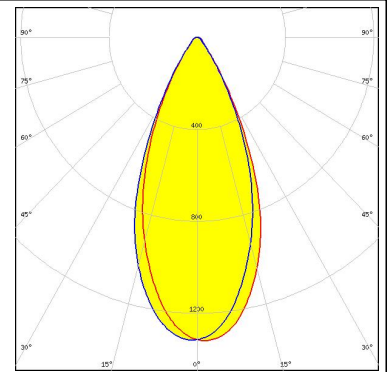
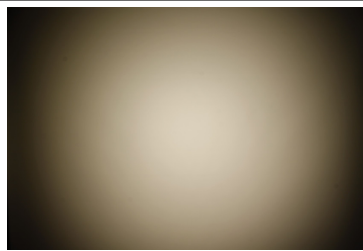
### SAMSUNG

LED HiLOM RH16 (LH351C)  
 FWHM 48.0°  
 Efficiency 94 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



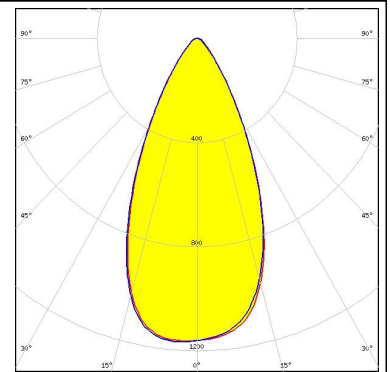
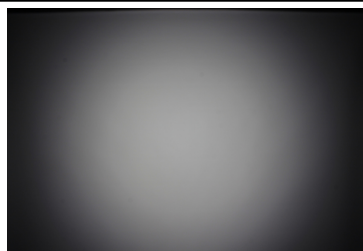
### SAMSUNG

LED LH351B  
 FWHM 45.0°  
 Efficiency 86 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



### SAMSUNG

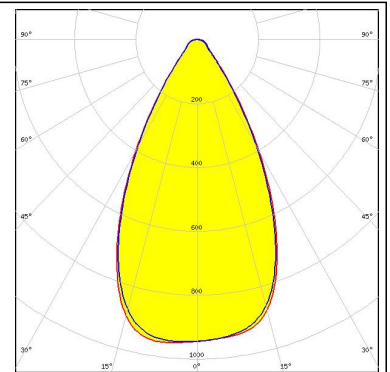
LED LH351D  
 FWHM 49.0°  
 Efficiency 94 %  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

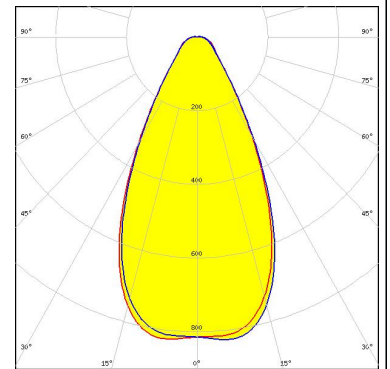
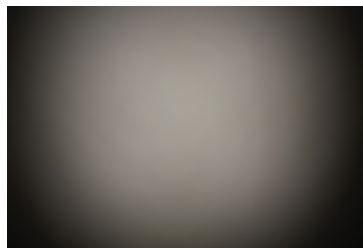
### SAMSUNG

LED LH508A  
 FWHM 56.0°  
 Efficiency 93 %  
 Peak intensity 1 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:



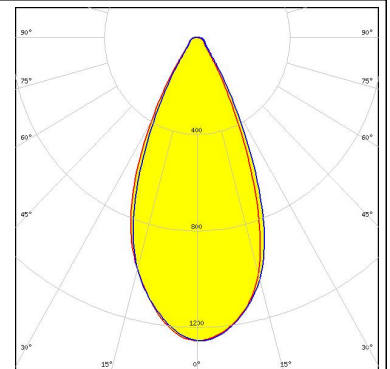
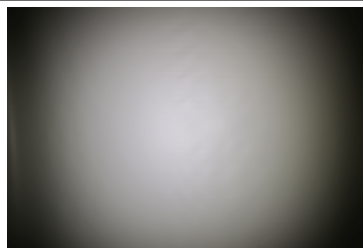
SEOUL SEMICONDUCTOR

LED 2x2 Y22 module - SMJQ-D48W16AA-XX  
 FWHM 54.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:



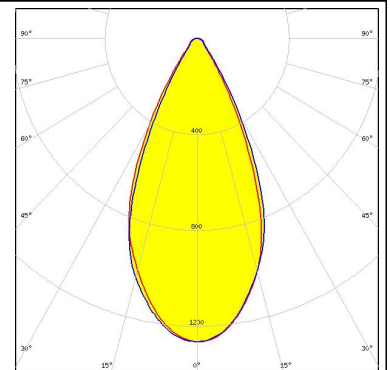
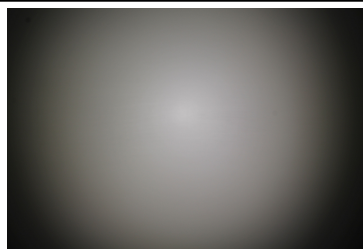
SEOUL SEMICONDUCTOR

LED Z5M3  
 FWHM 47.0°  
 Efficiency 94 %  
 Peak intensity 1.3 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:




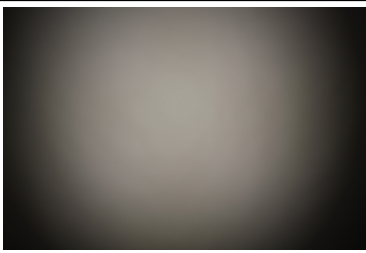
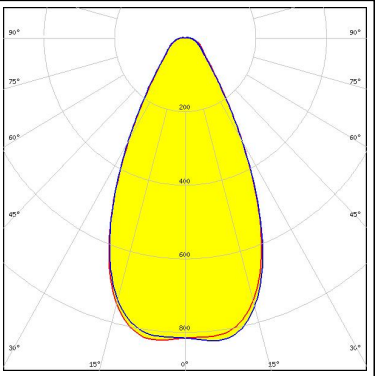

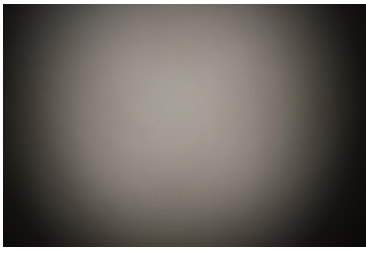
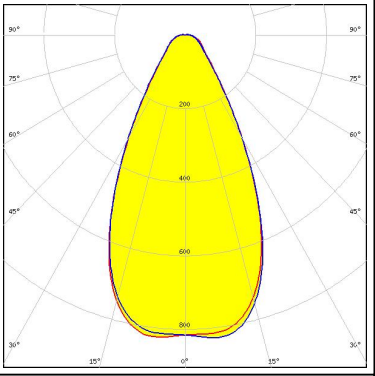

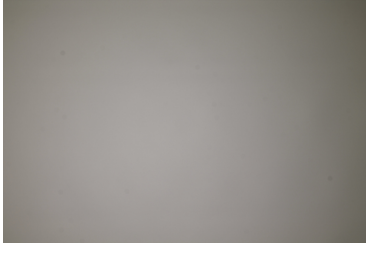
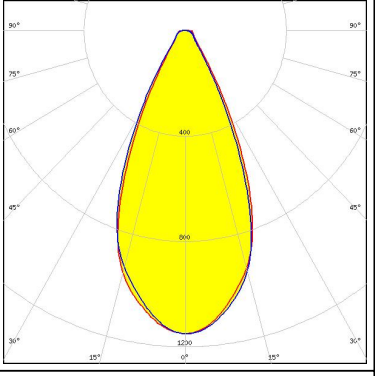
SEOUL SEMICONDUCTOR

LED Z5M4  
 FWHM 49.0°  
 Efficiency 96 %  
 Peak intensity 1.3 cd/Im  
 LEDs/each optic 1  
 Light colour White  
 Required components:





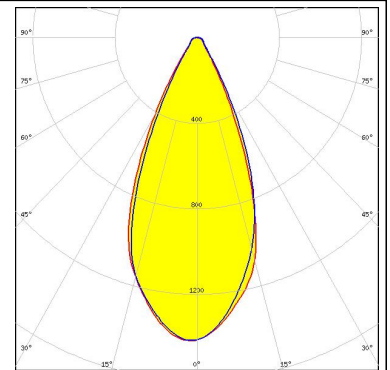
#### PHOTOMETRIC DATA (MEASURED):

<p> SEUL SEMICONDUCTOR</p> <p>LED Z8Y19            FWHM 54.0°            Efficiency 92 %            Peak intensity 0.8 cd/lm            LEDs/each optic 4            Light colour White            Required components:</p>		
<p> SEUL SEMICONDUCTOR</p> <p>LED Z8Y19            FWHM 54.0°            Efficiency 92 %            Peak intensity 0.8 cd/lm            LEDs/each optic 4            Light colour White            Required components:</p>		
<p> SEUL SEMICONDUCTOR</p> <p>LED Z8Y22P            FWHM 48.0°            Efficiency 92 %            Peak intensity 1.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>TRIDONIC</b></p> <p>LED RLE 2x4 2000lm HP EXC2 OTD            FWHM 46.0°            Efficiency 94 %            Peak intensity 1.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### PHOTOMETRIC DATA (MEASURED):

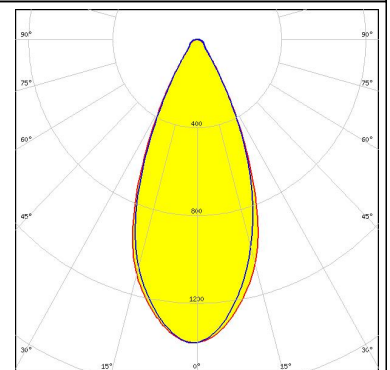
#### TRIDONIC

LED RLE 2x8 4000lm HP EXC2 OTD  
 FWHM 46.0°  
 Efficiency 94 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



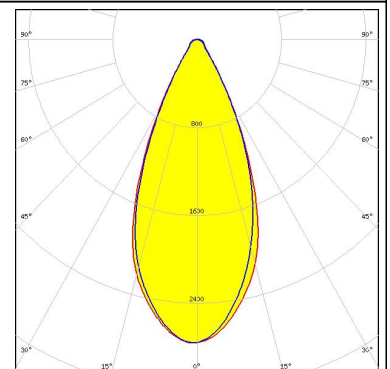
#### TRIDONIC

LED RLE G1 49x121mm 2000lm xxx EXC OTD  
 FWHM 46.0°  
 Efficiency 94 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



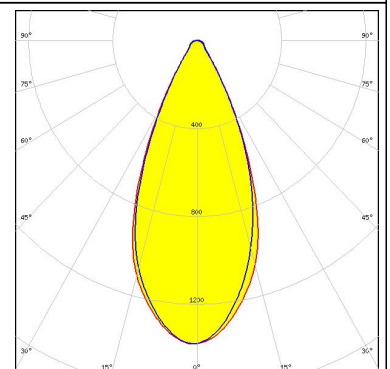
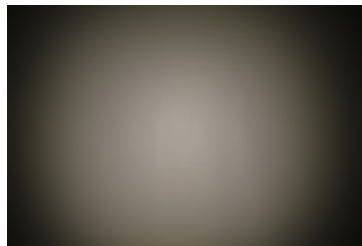
#### TRIDONIC

LED RLE G1 49x133mm 2000lm xxx EXC OTD  
 FWHM 46.0°  
 Efficiency 94 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### TRIDONIC

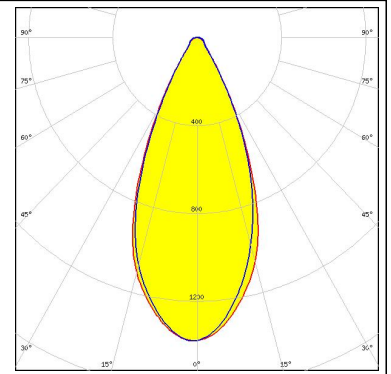
LED RLE G1 49x223mm 4000lm xxx EXC OTD  
 FWHM 46.0°  
 Efficiency 94 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



## PHOTOMETRIC DATA (MEASURED):

### TRIDONIC

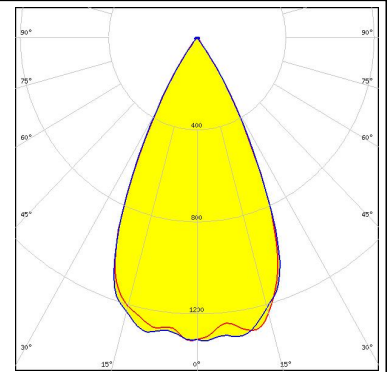
LED RLE G1 49x245mm 4000lm xxx EXC OTD  
FWHM 46.0°  
Efficiency 94 %  
Peak intensity 1.4 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



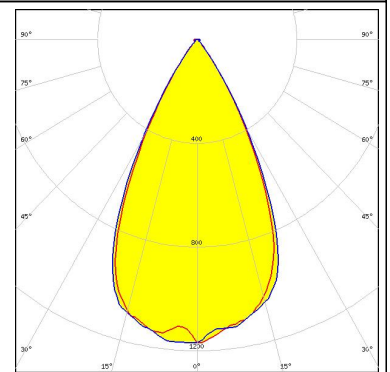
#### PHOTOMETRIC DATA (SIMULATED):



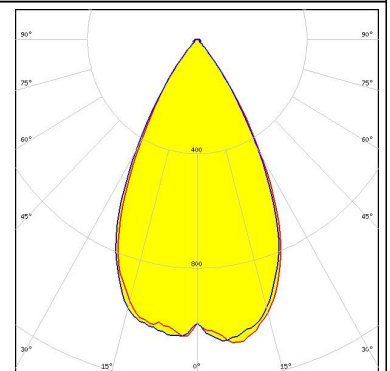
LED XHP35 HI  
 FWHM 52.0°  
 Efficiency 93 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



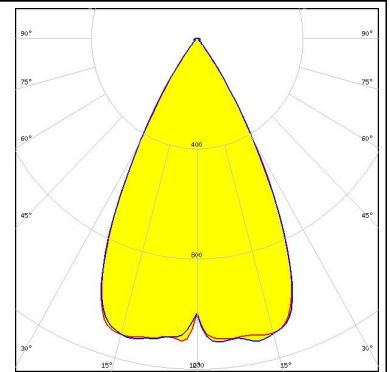
LED XM-L  
 FWHM 54.0°  
 Efficiency 92 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



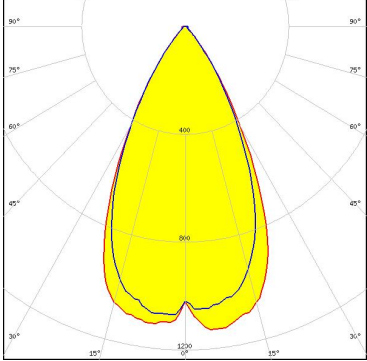
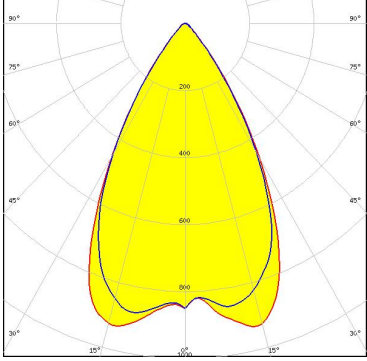
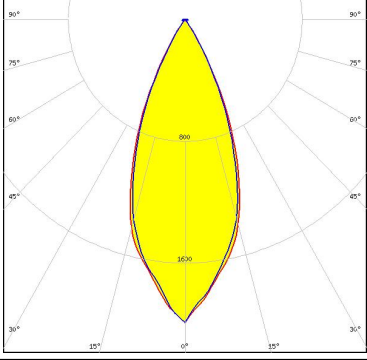
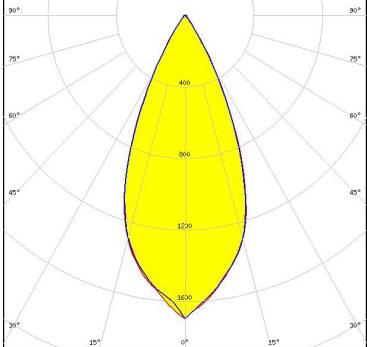
LED XP-L HD  
 FWHM 55.0°  
 Efficiency 93 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED NV4WB35AM  
 FWHM 56.0°  
 Efficiency 95 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (SIMULATED):

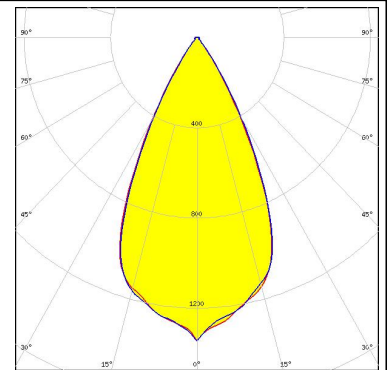
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S8            FWHM 53.0°            Efficiency 91 %            Peak intensity 1.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S8            FWHM 57.0°            Efficiency 90 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p> <p style="background-color: #e0f0ff; padding: 2px;">Transparent protective cover</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3030            FWHM 42.0°            Efficiency 96 %            Peak intensity 2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSCONIQ P 3737 (2W version)            FWHM 45.0°            Efficiency 96 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>	

#### PHOTOMETRIC DATA (SIMULATED):

#### OSRAM

Opto Semiconductors

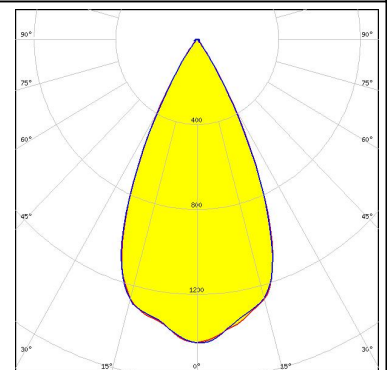
LED OSCONIQ P 3737 (3W version)  
 FWHM 52.0°  
 Efficiency 94 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

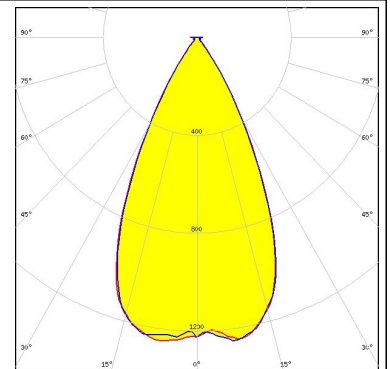
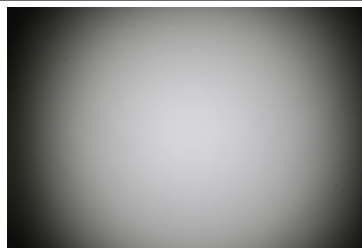
Opto Semiconductors

LED OSCONIQ P 3737 Flat  
 FWHM 50.0°  
 Efficiency 96 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



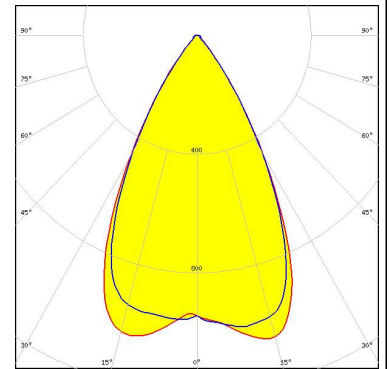
#### PHILIPS

LED Fortimo FastFlex LED 2x8 DAX G4  
 FWHM 51.0°  
 Efficiency 94 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

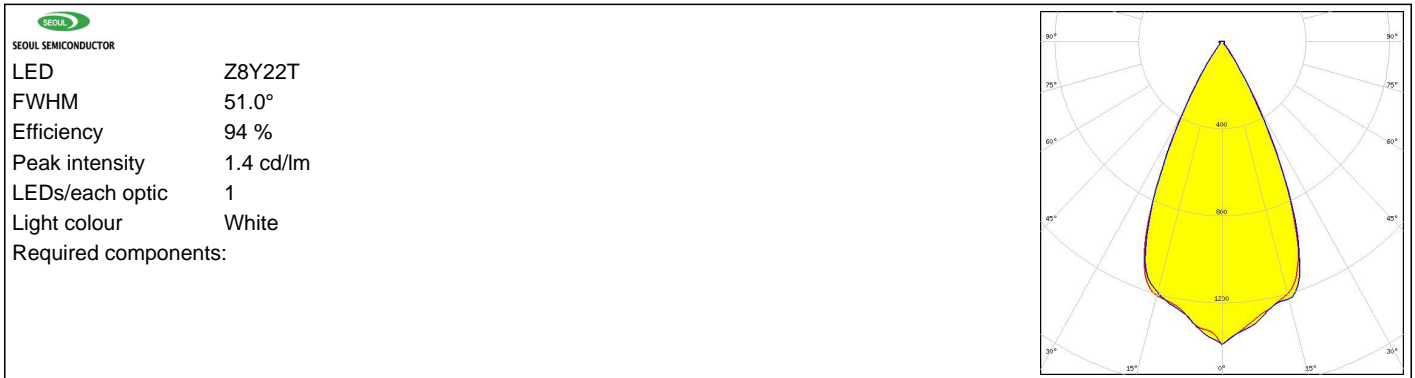


SEOUL SEMICONDUCTOR

LED SEOUL DC 5050 6V  
 FWHM 54.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



## PHOTOMETRIC DATA (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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