

## MIRELLA-50-M-PIN

~30° medium beam

### SPECIFICATION:

Dimensions	Ø 49.9 mm
Height	23.9 mm
Fastening	pin
ROHS compliant	yes ⓘ

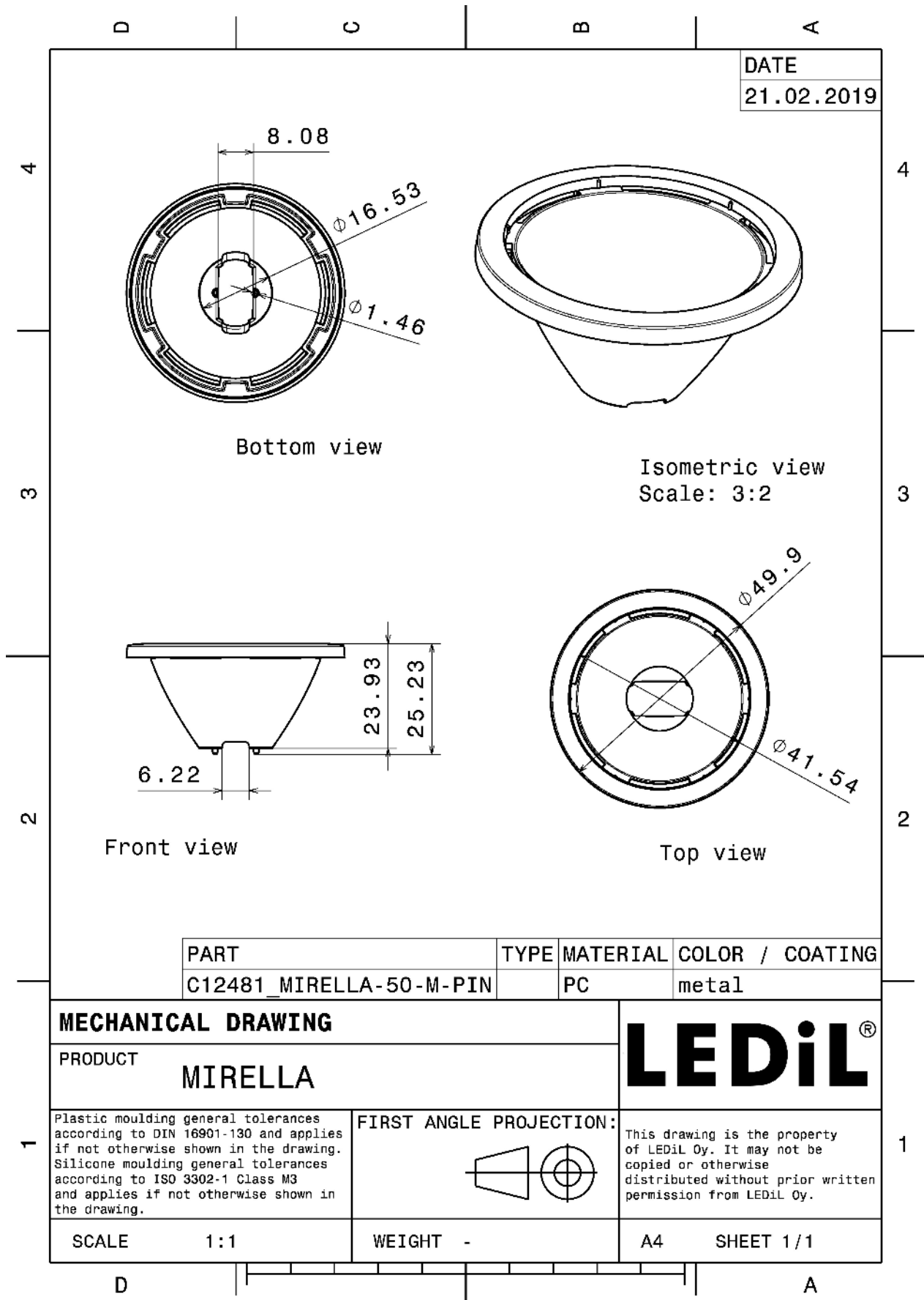
### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
MIRELLA-50-M-PIN	Reflector	PC	metal		lacquer

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C12481_MIRELLA-50-M-PIN » Box size: 480 x 280 x 300 mm	336	112	28	3.1





PART	TYPE	MATERIAL	COLOR / COATING
C12481_MIRELLA-50-M-PIN		PC	metal

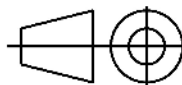
**MECHANICAL DRAWING**

PRODUCT  
**MIRELLA**

**LEDiL<sup>®</sup>**

Plastic moulding general tolerances according to DIN 16901-130 and applies if not otherwise shown in the drawing. Silicone moulding general tolerances according to ISO 3302-1 Class M3 and applies if not otherwise shown in the drawing.

FIRST ANGLE PROJECTION:



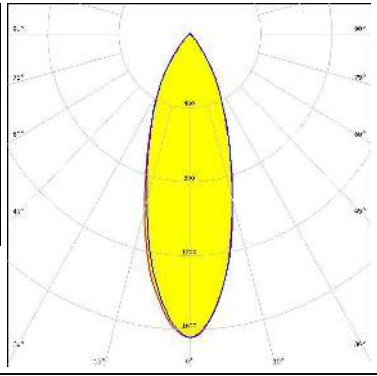


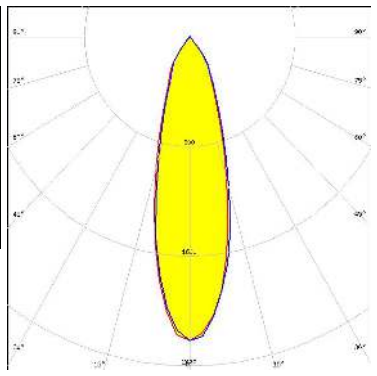



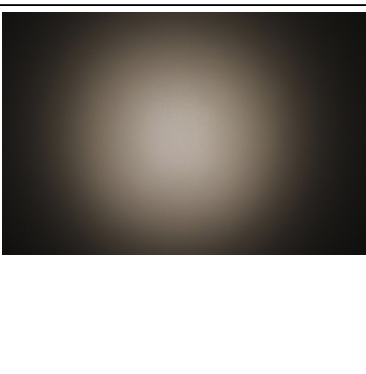


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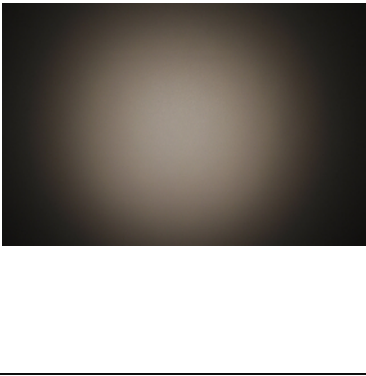
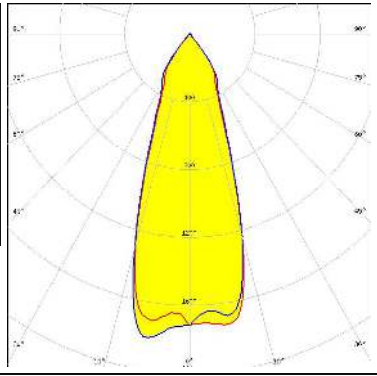

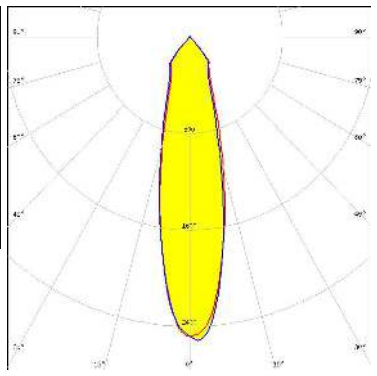

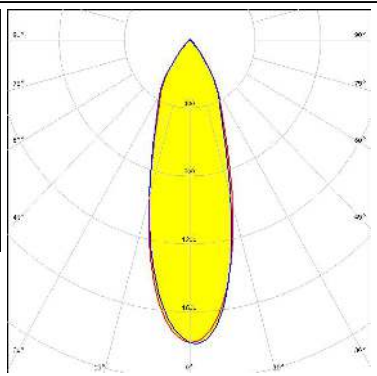
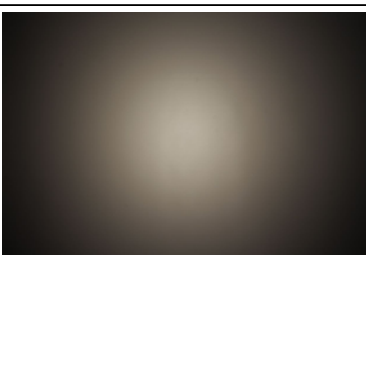
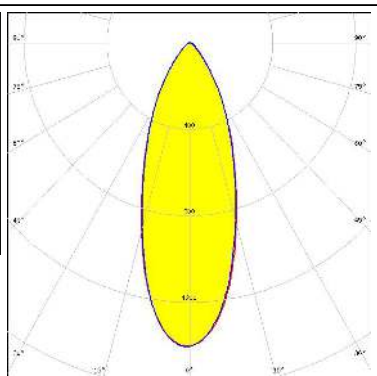
SCALE	1:1	WEIGHT	-	A4	SHEET 1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

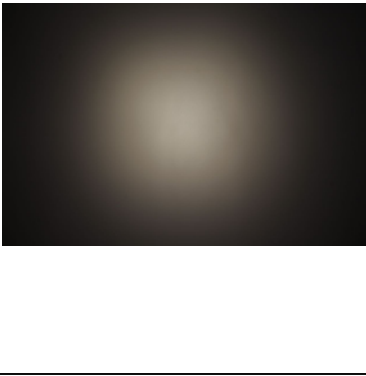
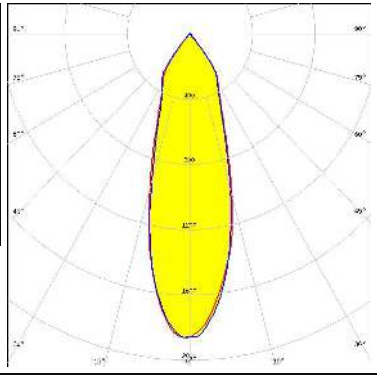

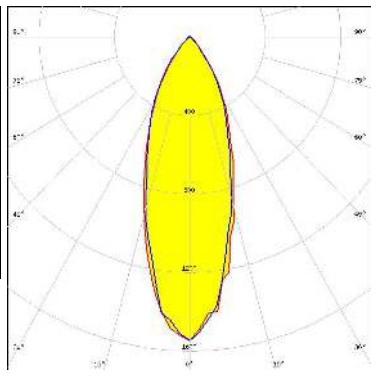

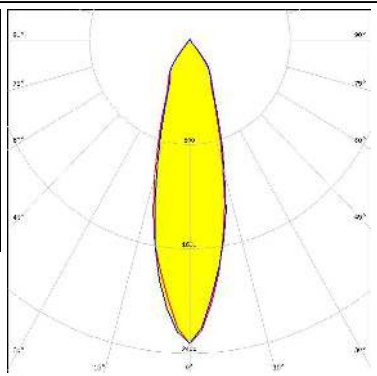

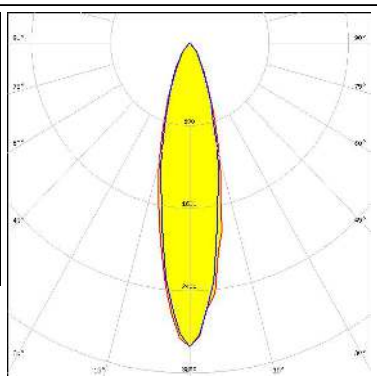
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED SM4            FWHM / FWTM 35.0° / 73.0°            Efficiency 78 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		
<p></p> <p>LED SM4            FWHM / FWTM 29.0° / 68.0°            Efficiency 80 %            Peak intensity 2.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13333_MIRELLA-CL</p>		
<p></p> <p>LED MHB-A/B            FWHM / FWTM 34.0° / 78.0°            Efficiency 83 %            Peak intensity 2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13333_MIRELLA-CL</p>		
<p></p> <p>LED MHB-A/B            FWHM / FWTM 28.0° / 80.0°            Efficiency 88 %            Peak intensity 2.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

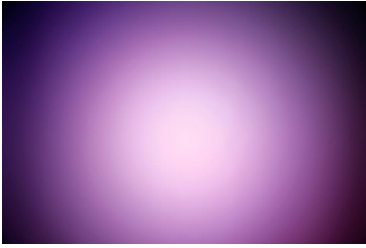
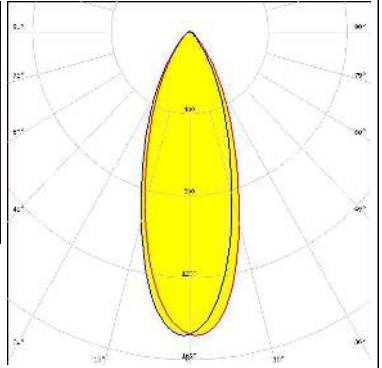

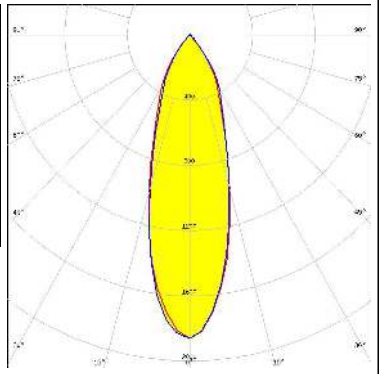

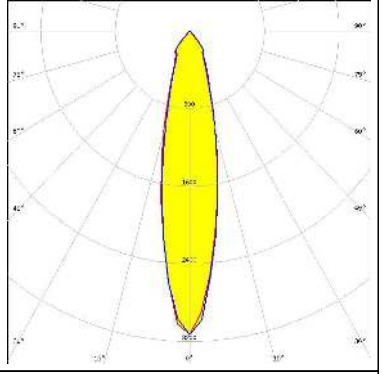
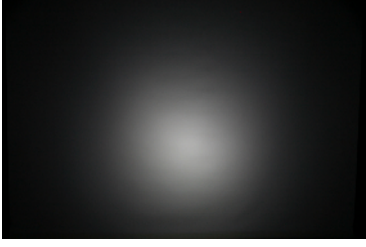
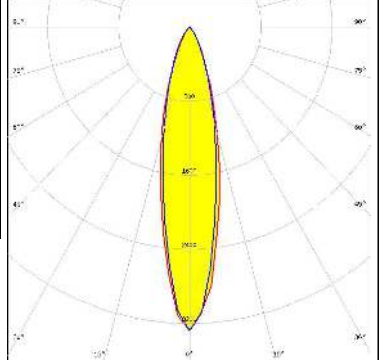
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED MHB-A/B            FWHM / FWTM 35.0° / 76.0°            Efficiency 83 %            Peak intensity 1.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XHP50            FWHM / FWTM 25.0° / 77.0°            Efficiency 90 %            Peak intensity 2.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XHP50            FWHM / FWTM 32.0° / 74.0°            Efficiency 86 %            Peak intensity 1.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XHP50            FWHM / FWTM 37.0° / 78.0°            Efficiency 83 %            Peak intensity 1.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13723_MIRELLA-RZL</p>		


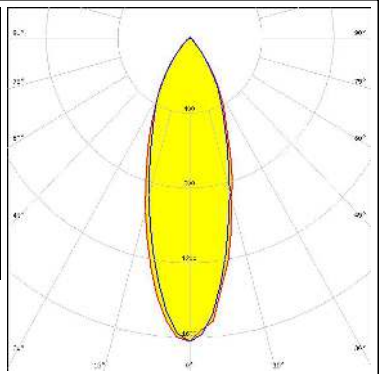
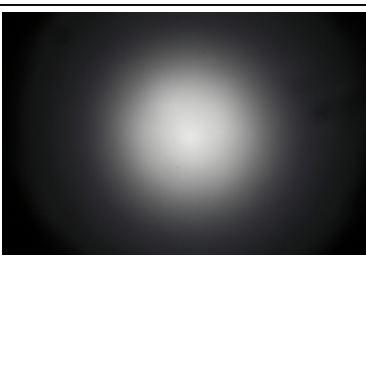
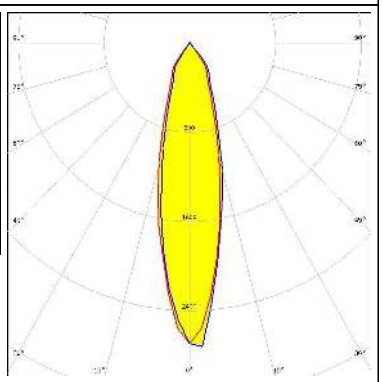


#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XHP50            FWHM / FWTM 32.0° / 76.0°            Efficiency 85 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13333_MIRELLA-CL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L            FWHM / FWTM 35.0° / 76.0°            Efficiency 80 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L            FWHM / FWTM 28.0° / 72.0°            Efficiency 84 %            Peak intensity 2.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13333_MIRELLA-CL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED XM-L            FWHM / FWTM 24.0° / 56.0°            Efficiency 89 %            Peak intensity 2.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE → LED</b></p> <p>LED XM-L RGBW (XMLCTW)</p> <p>FWHM / FWTM 37.0° / 76.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 1.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13723_MIRELLA-RZL</p>		
<p><b>CREE → LED</b></p> <p>LED XM-L2</p> <p>FWHM / FWTM 33.0° / 74.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL</p>		
<p><b>CREE → LED</b></p> <p>LED XM-L2</p> <p>FWHM / FWTM 22.0° / 58.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 3.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>CREE → LED</b></p> <p>LED XP-G</p> <p>FWHM / FWTM 24.0° / 53.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 3.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

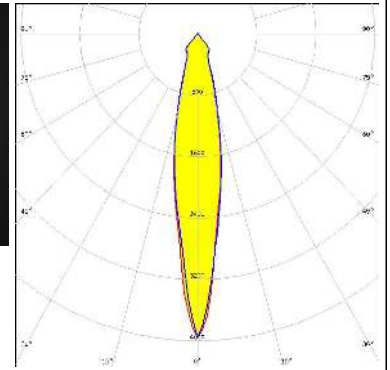
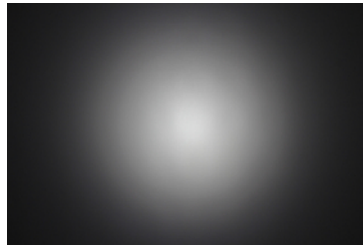
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE → LED</b></p> <p>LED            XP-G            FWHM / FWTM    34.0° / 74.0°            Efficiency        81 %            Peak intensity    1.6 cd/lm            LEDs/each optic   1            Light colour      White            Required components:                      C12479_MIRELLA-DL</p>		
<p><b>CREE → LED</b></p> <p>LED            XP-G            FWHM / FWTM    24.0° / 68.0°            Efficiency        83 %            Peak intensity    2.7 cd/lm            LEDs/each optic   1            Light colour      White            Required components:                      C13333_MIRELLA-CL</p>		
<p><b>CREE → LED</b></p> <p>LED            XP-G2            FWHM / FWTM    30.0° / 74.0°            Efficiency        83 %            Peak intensity    2 cd/lm            LEDs/each optic   1            Light colour      White            Required components:                      C12479_MIRELLA-DL</p>		
<p><b>CREE → LED</b></p> <p>LED            XP-G2            FWHM / FWTM    22.0° / 76.0°            Efficiency        88 %            Peak intensity    2.9 cd/lm            LEDs/each optic   1            Light colour      White            Required components:</p>		

#### OPTICAL RESULTS (MEASURED):

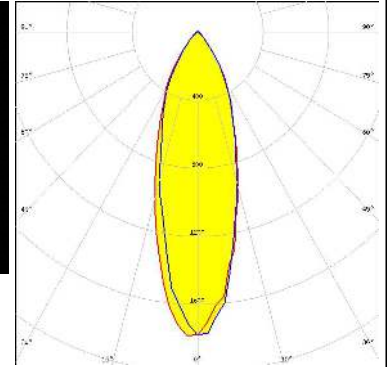
##### CREE → LED

LED XP-L HI  
 FWHM / FWTM 17.0° / 48.0°  
 Efficiency 88 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



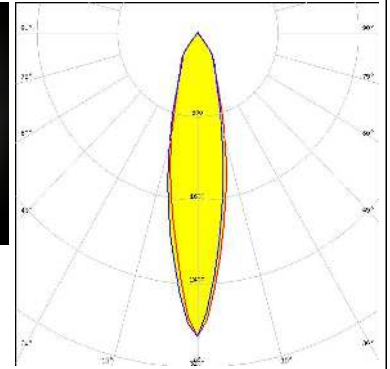
##### CREE → LED

LED XT-E  
 FWHM / FWTM 32.0° / 73.0°  
 Efficiency 78 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12479\_MIRELLA-DL



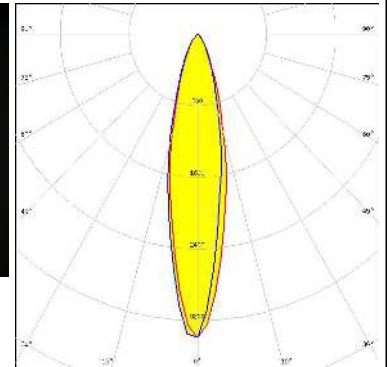
##### CREE → LED

LED XT-E  
 FWHM / FWTM 22.0° / 64.0°  
 Efficiency 81 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13333\_MIRELLA-CL



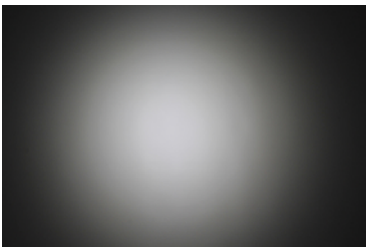
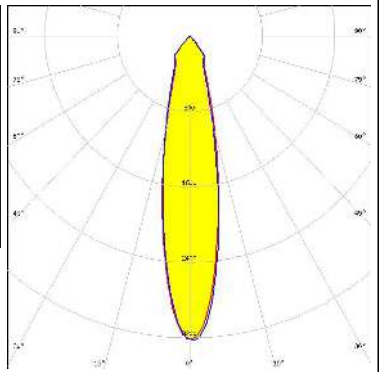
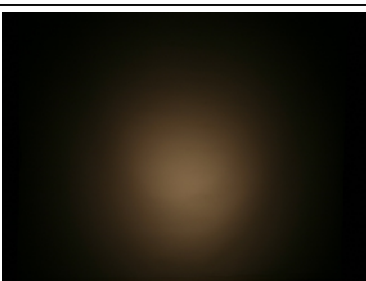
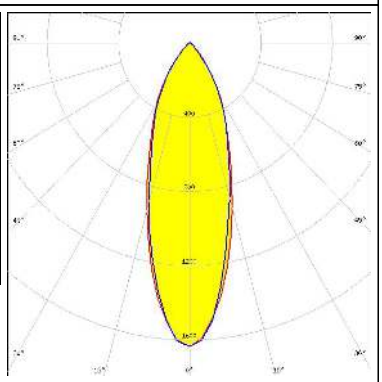

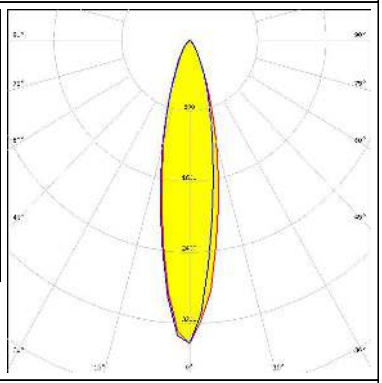

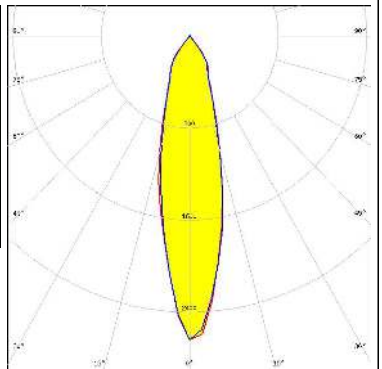
##### CREE → LED

LED XT-E  
 FWHM / FWTM 23.0° / 51.0°  
 Efficiency 85 %  
 Peak intensity 3.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

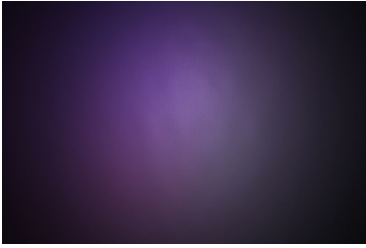
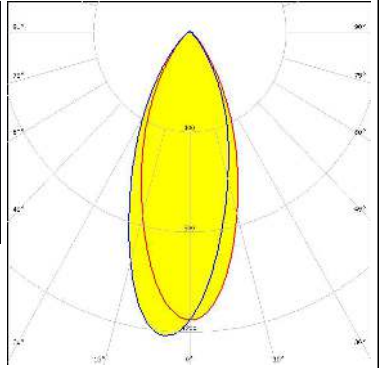

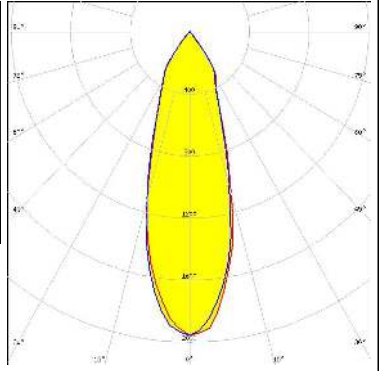
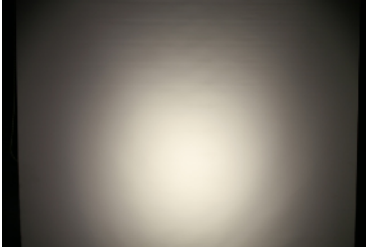
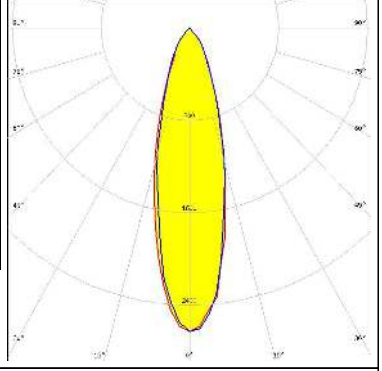
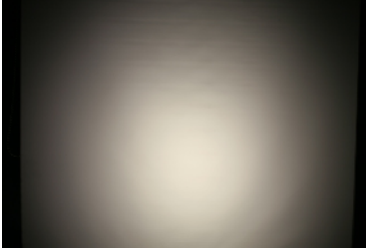
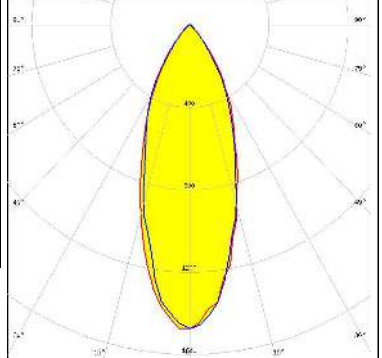





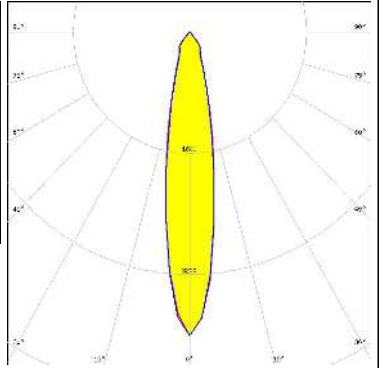

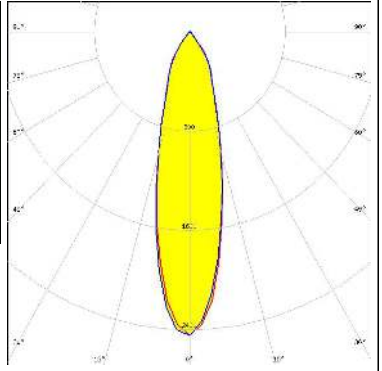
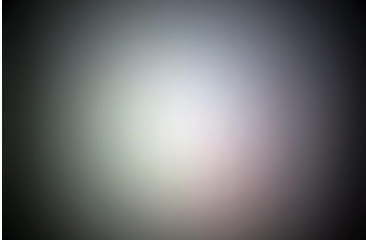
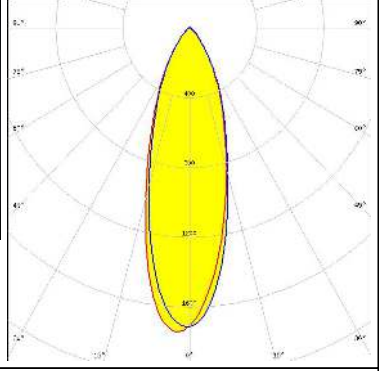
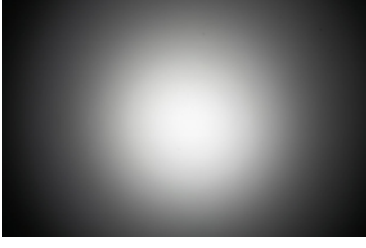
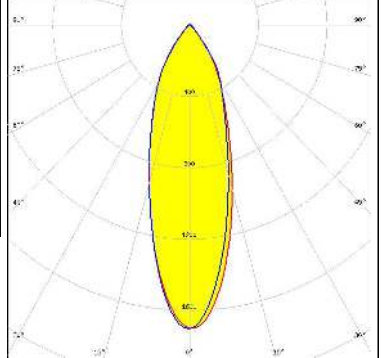
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON 5050 Round LES</p> <p>FWHM / FWTM 22.0° / 59.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 3.2 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 A</p> <p>FWHM / FWTM 34.0° / 75.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON A</p> <p>FWHM / FWTM 22.0° / 52.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 3.4 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 A</p> <p>FWHM / FWTM 24.0° / 69.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 2.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13333_MIRELLA-CL</p>		

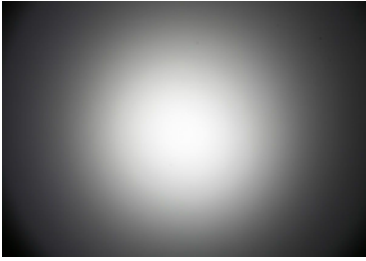
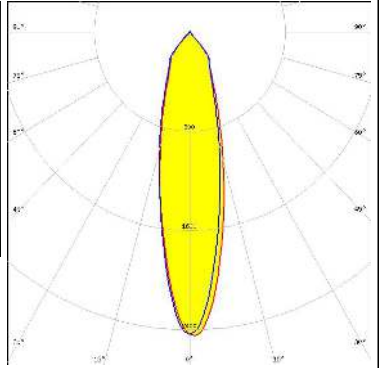
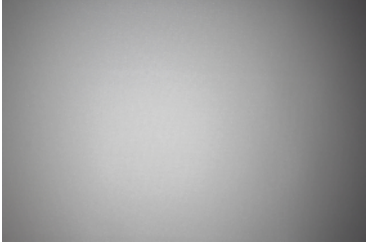
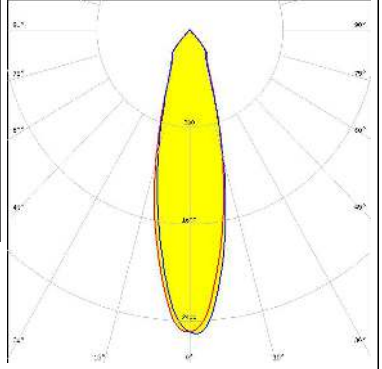
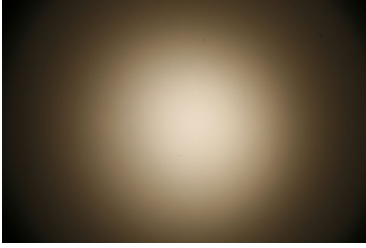
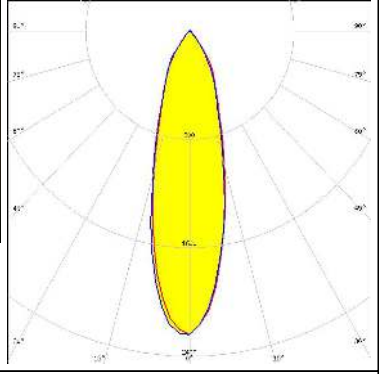

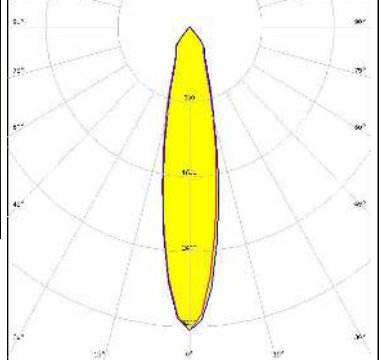
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON C</p> <p>FWHM / FWTM 39.0° / 79.0°</p> <p>Efficiency 74 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 4</p> <p>Light colour RGBW</p> <p>Required components: C13723_MIRELLA-RZL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON M/MX</p> <p>FWHM / FWTM 33.0° / 74.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13333_MIRELLA-CL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON M/MX</p> <p>FWHM / FWTM 24.0° / 63.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 2.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON M/MX</p> <p>FWHM / FWTM 38.0° / 78.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL</p>		


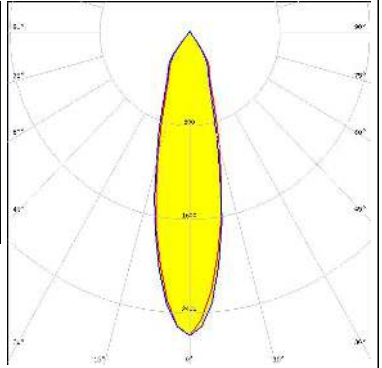

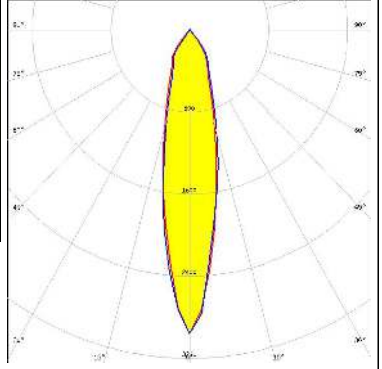

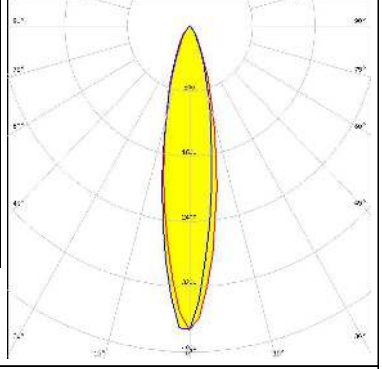
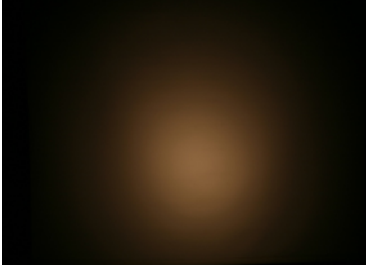
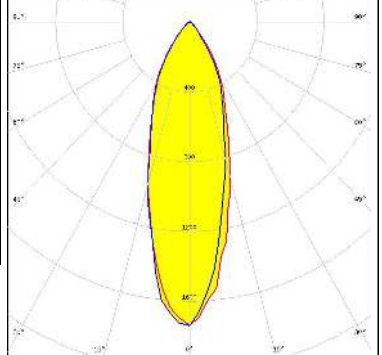
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON MZ            FWHM / FWTM 20.0° / 47.0°            Efficiency 88 %            Peak intensity 4 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON MZ            FWHM / FWTM 27.0° / 69.0°            Efficiency 84 %            Peak intensity 2.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON Z            FWHM / FWTM 31.0° / 71.0°            Efficiency 83 %            Peak intensity 1.7 cd/lm            LEDs/each optic 4            Light colour RGBW            Required components:            C13723_MIRELLA-RZL</p>		
<p><b>NICHIA</b></p> <p>LED NS9x383            FWHM / FWTM 32.0° / 74.0°            Efficiency 83 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		

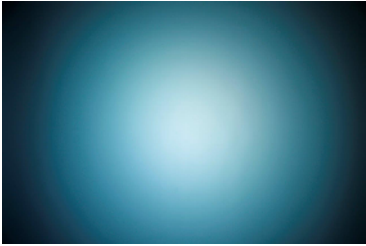
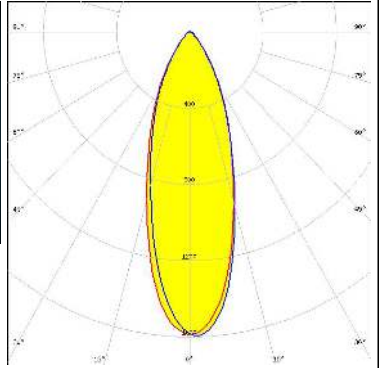

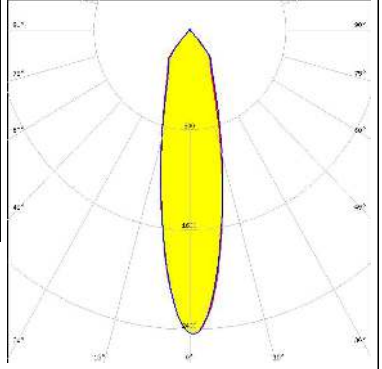
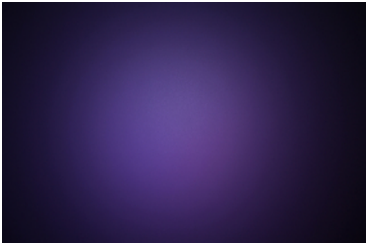
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NS9x383            FWHM / FWTM 24.0° / 78.0°            Efficiency 88 %            Peak intensity 2.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>NICHIA</b></p> <p>LED NV4x144A            FWHM / FWTM 27.0° / 73.0°            Efficiency 89 %            Peak intensity 2.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Duris S8            FWHM / FWTM 28.0° / 69.0°            Efficiency 84 %            Peak intensity 2.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12479_MIRELLA-DL</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Duris S8            FWHM / FWTM 22.0° / 58.0°            Efficiency 88 %            Peak intensity 3.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:</p>		

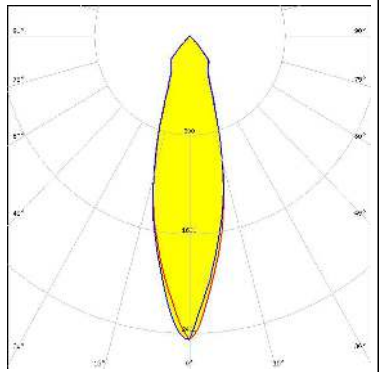
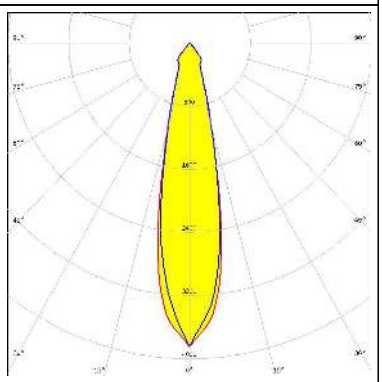
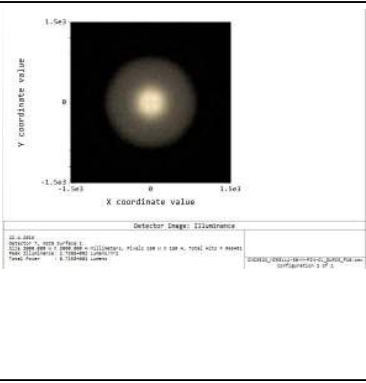
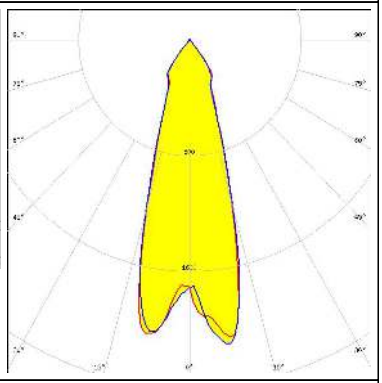
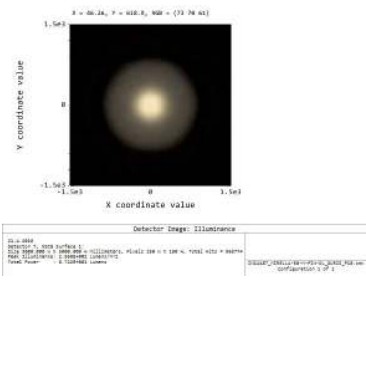
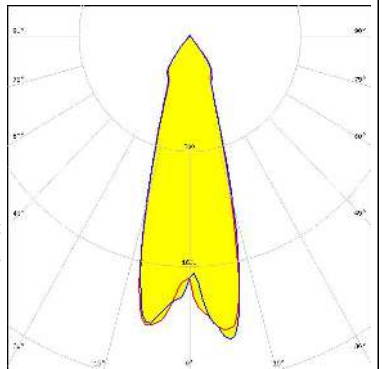
#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S8</p> <p>FWHM / FWTM 26.0° / 70.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 2.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13333_MIRELLA-CL</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLOM Square EC</p> <p>FWHM / FWTM 22.0° / 67.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13333_MIRELLA-CL</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLOM Square EC</p> <p>FWHM / FWTM 22.0° / 49.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 3.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED OSLOM Square EC</p> <p>FWHM / FWTM 32.0° / 75.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL</p>		

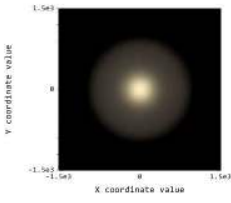
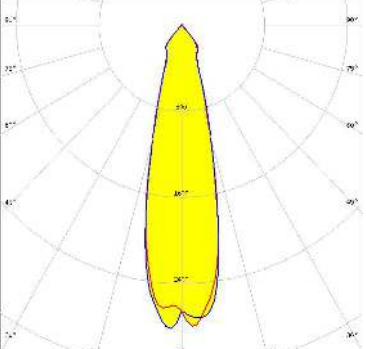
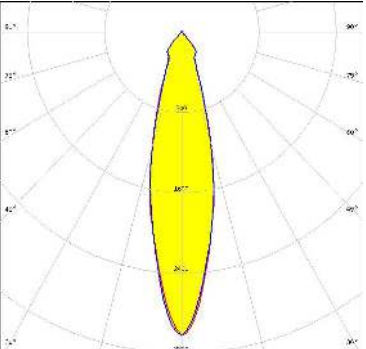
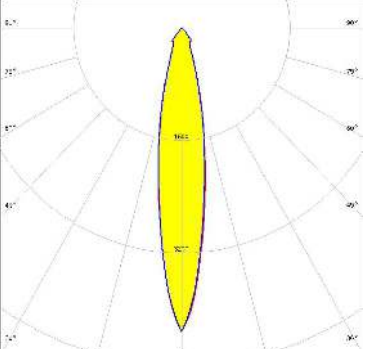
#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Ostar-SMT RGB FWHM / FWTM 34.0° / 74.0° Efficiency 83 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White Required components: C13723_MIRELLA-RZL</p>		
<p><b>SAMSUNG</b></p> <p>LED LH508A FWHM / FWTM 24.0° / 78.0° Efficiency 88 % Peak intensity 2.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p><b>SEMI</b> SEOUL SEMICONDUCTOR</p> <p>LED F50360 (RGB) FWHM / FWTM 33.0° / 76.0° Efficiency 82 % Peak intensity 1.8 cd/lm LEDs/each optic 1 Light colour White Required components: C13723_MIRELLA-RZL</p>		

#### OPTICAL RESULTS (SIMULATED):

<p><b>CREE</b> LED</p> <p>LED: XHP35 HD            FWHM / FWTM: 28.0° / 77.0°            Efficiency: 92 %            Peak intensity: 2.5 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED: LUXEON 5258            FWHM / FWTM: 23.0° / 45.0°            Efficiency: 91 %            Peak intensity: 3.8 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 7070            FWHM / FWTM: 29.0° / 70.0°            Efficiency: 87 %            Peak intensity: 2.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C13333_MIRELLA-CL</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED: OSCONIQ P 7070            FWHM / FWTM: 31.0° / 72.0°            Efficiency: 88 %            Peak intensity: 2.4 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C12479_MIRELLA-DL</p>		

#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: OSCONIQ P 7070</p> <p>FWHM / FWTM: 26.0° / 63.0°</p> <p>Efficiency: 91 %</p> <p>Peak intensity: 2.9 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	 <p>Detector image: Illuminance</p> <p>OSRAM LED LIGHTING SIMULATION SOFTWARE  <small>© 2018 OSRAM Opto Semiconductors        2018 OSRAM Opto Semiconductors        2018 OSRAM Opto Semiconductors        2018 OSRAM Opto Semiconductors        2018 OSRAM Opto Semiconductors</small></p>	
<p><b>SAMSUNG</b></p> <p>LED: LH351D</p> <p>FWHM / FWTM: 26.0° / 54.0°</p> <p>Efficiency: 90 %</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>SEMI</b> SEOUL SEMICONDUCTOR</p> <p>LED: Z8Y22P</p> <p>FWHM / FWTM: 19.0° / 44.0°</p> <p>Efficiency: 89 %</p> <p>Peak intensity: 4.3 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>		



#### GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

#### MATERIALS:

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