

LINNEA-90

~90° + 90° wide beam optimized for 1.0 mm metal sheet or profile. Variant made from PC.

SPECIFICATION:

Dimensions	285.0 x 40.0 mm
Height	9.5 mm
Fastening	clips
ROHS compliant	yes ⓘ

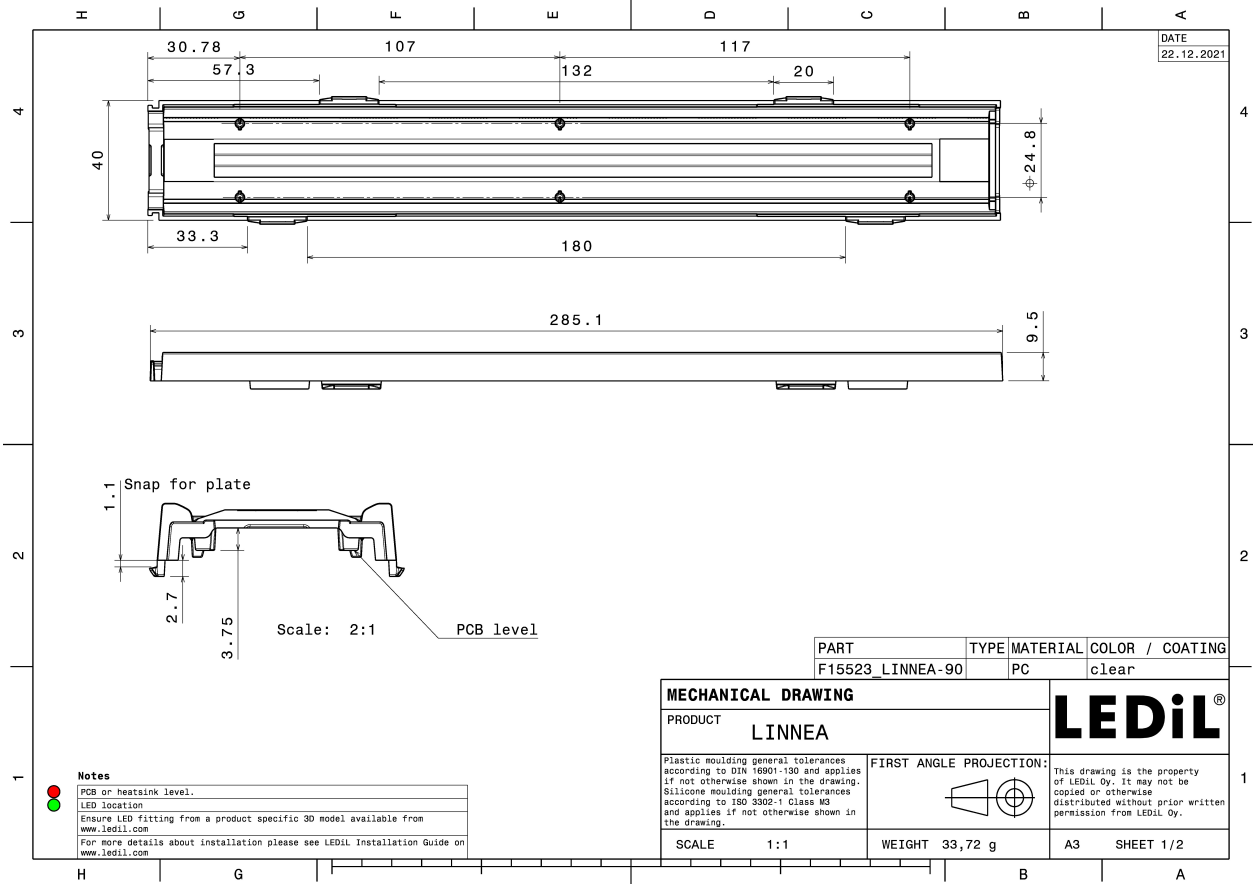
MATERIALS:

Component	Type	Material	Colour	Finish
LINNEA-90	Linear lens	PC	clear	

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F15523_LINNEA-90 » Box size: 398 x 298 x 265 mm	162	36	36	7.3



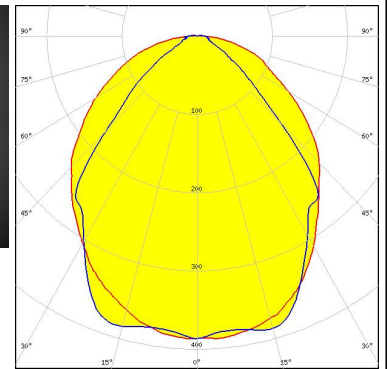
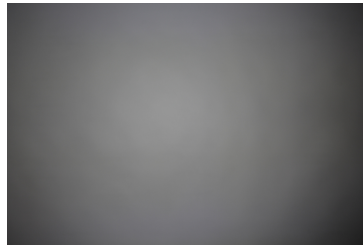


See also our general installation guide: www.ledil.com/installation_guide

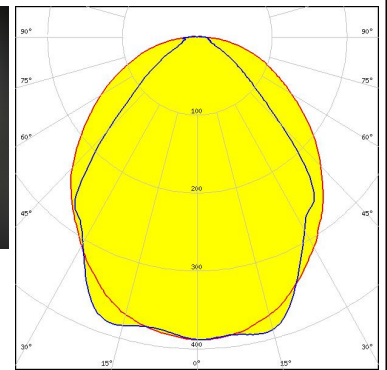
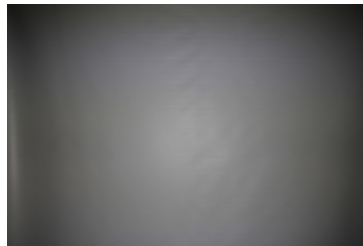
OPTICAL RESULTS (MEASURED):



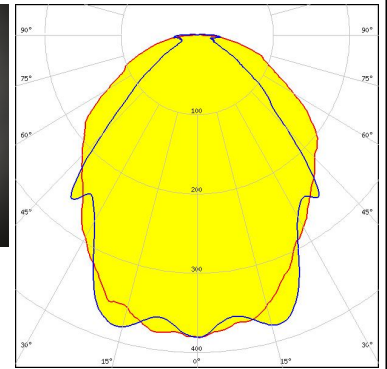
LED CALOSNU405-M7W1
 FWHM / FWTM 104.0 + 87.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



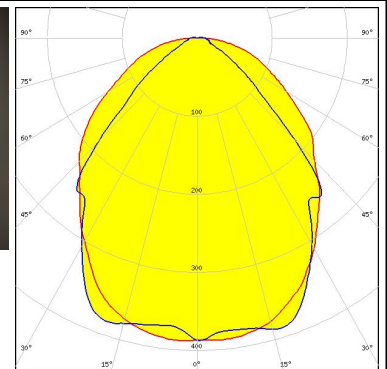
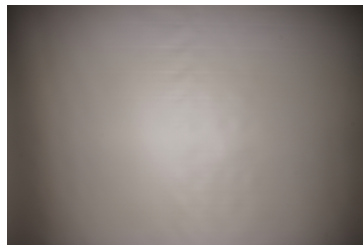
LED CALOSNU410-M7W1
 FWHM / FWTM 104.0 + 86.0° / 164.0 + 124.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:




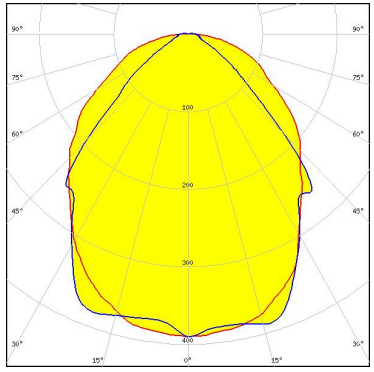

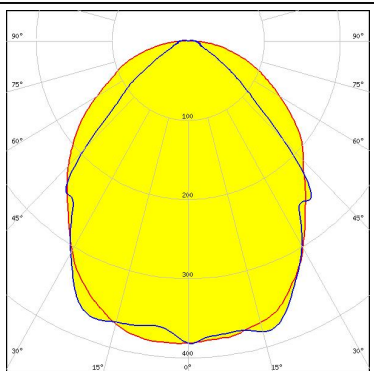

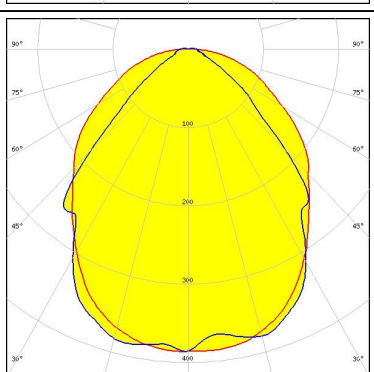
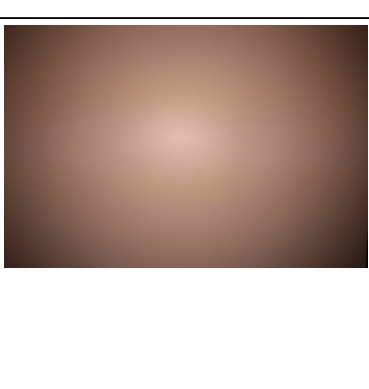
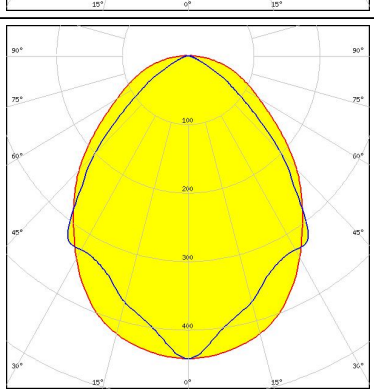
LED XP-E
 FWHM / FWTM 104.0 + 88.0° / 164.0 + 126.0°
 Efficiency 81 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED L-iC-282-827-865-011A
 FWHM / FWTM 102.0 + 89.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



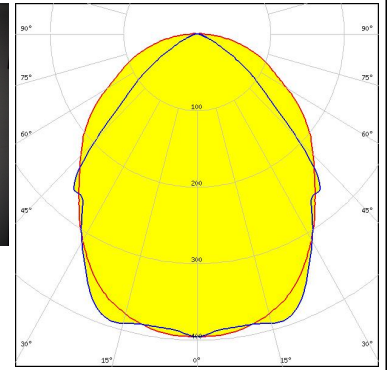
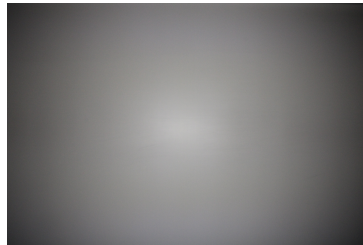
OPTICAL RESULTS (MEASURED):

<p>Helvar</p> <p>LED LP-282-840-009A 60/300 FWHM / FWTM 100.0 + 89.0° / 163.0 + 125.0° Efficiency 82 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>Helvar</p> <p>LED LS-282-840-011A FWHM / FWTM 102.0 + 90.0° / 164.0 + 125.0° Efficiency 81 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>Helvar</p> <p>LED LX-282-840-023A FWHM / FWTM 102.0 + 89.0° / 164.0 + 125.0° Efficiency 82 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		
<p>LUMITRONIX[®] <small>High-Performance LED-Technologies & Solutions</small></p> <p>LED LinearZ 280-112 Circadian TW FWHM / FWTM 93.0 + 87.0° / 159.0 + 122.0° Efficiency 84 % Peak intensity 0.4 cd/lm LEDs/each optic 1 Light colour Tunable White Required components:</p>		

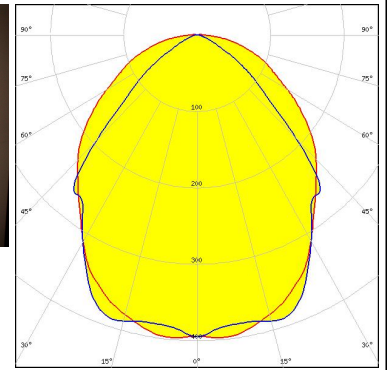
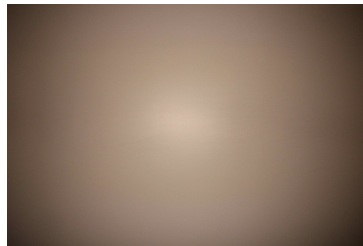
OPTICAL RESULTS (MEASURED):



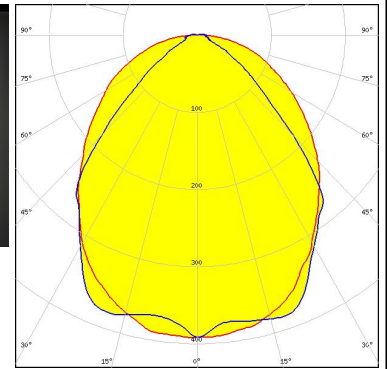
LED LinearZ 280-26
 FWHM / FWTM 101.0 + 89.0° / 164.0 + 124.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



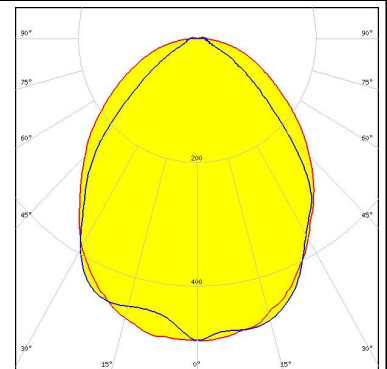
LED LinearZ 280-40 TW
 FWHM / FWTM 101.0 + 89.0° / 163.0 + 123.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour Tunable White
 Required components:




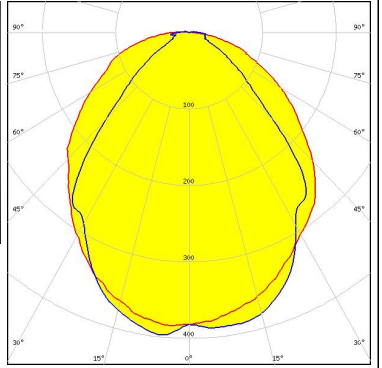
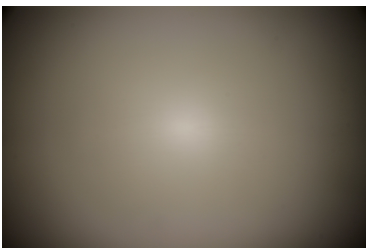
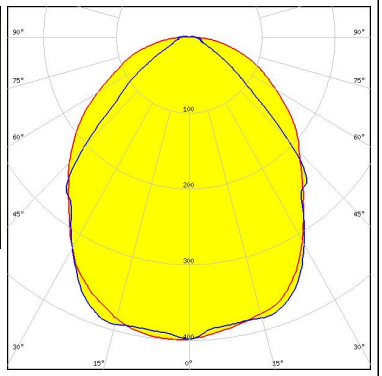

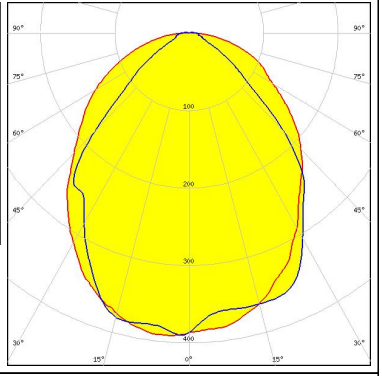
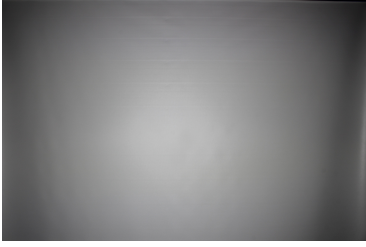
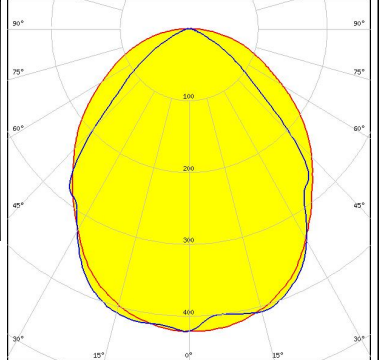
LED LinLED 280x24mm 1100lm 830 2C 30V LINNEA-GC G1
 FWHM / FWTM 88.0 + 100.0° / 125.0 + 164.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



LED NF2x757D
 FWHM / FWTM 86.0 + 99.0° / 125.0 + 159.0°
 Efficiency 0 %
 Peak intensity 0.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



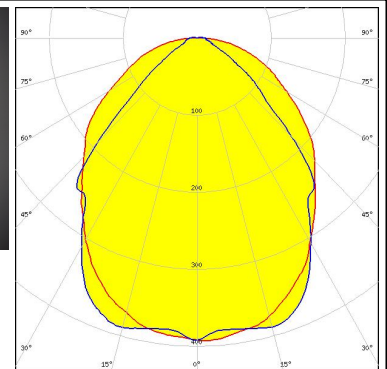
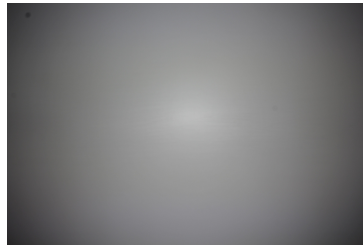
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED NF2x757G</p> <p>FWHM / FWTM 105.0 + 85.0° / 165.0 + 125.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>NICHIA</p> <p>LED NFSW757H</p> <p>FWHM / FWTM 100.0 + 90.0° / 163.0 + 125.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>NICHIA</p> <p>LED NFSx757G</p> <p>FWHM / FWTM 98.0 + 88.0° / 162.0 + 125.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p>OSRAM</p> <p>LED PL-LIN-IND-Z1 2800 560x24</p> <p>FWHM / FWTM 101.0 + 89.0° / 163.0 + 125.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		

OPTICAL RESULTS (MEASURED):

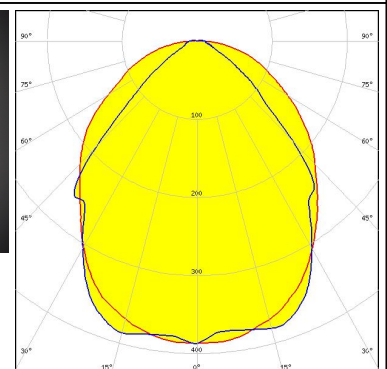
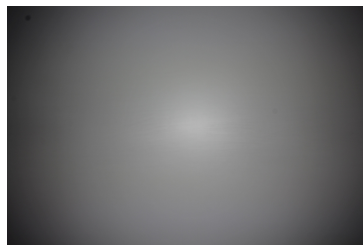
OSRAM

LED PL-LIN-Z5 1100 280x20
 FWHM / FWTM 101.0 + 89.0° / 164.0 + 125.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

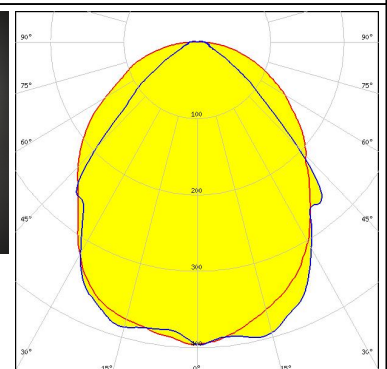
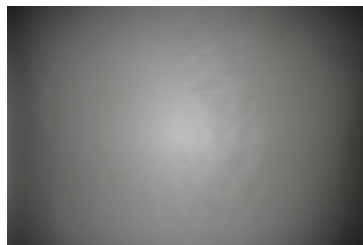
LED PL-LIN-Z5 2000 280x20
 FWHM / FWTM 101.0 + 89.0° / 164.0 + 125.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

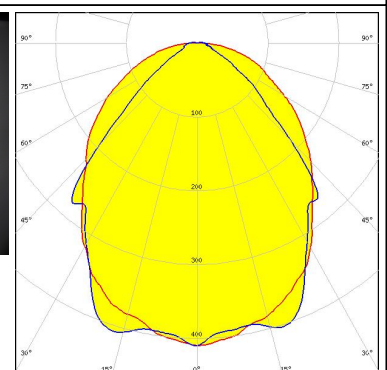
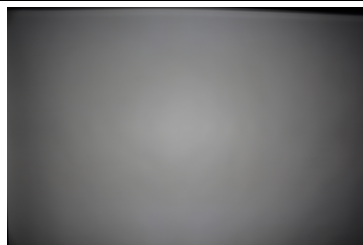
LED Duris S5 (2 chip)
 FWHM / FWTM 99.0 + 89.0° / 163.0 + 125.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OSRAM

Opto Semiconductors

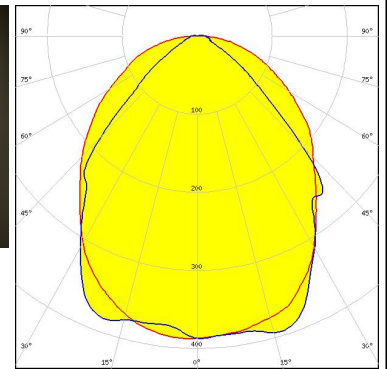
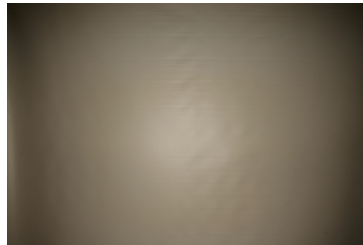
LED Duris S5 (Single chip)
 FWHM / FWTM 98.0 + 89.0° / 163.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

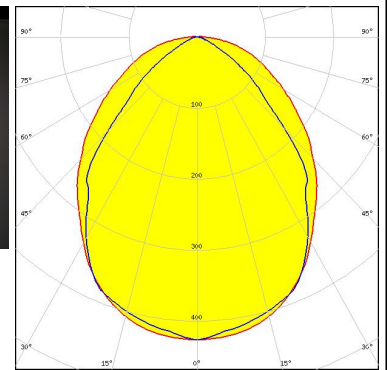
PHILIPS

LED Fortimo LED Strip 1ft 1100lm FC HV4 & LV4
 FWHM / FWTM 100.0 + 89.0° / 163.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



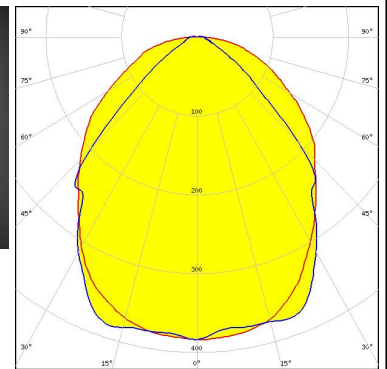
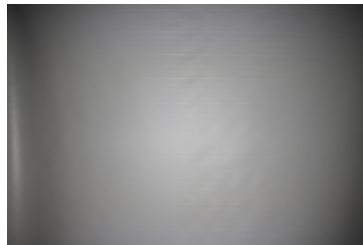
PHILIPS

LED Fortimo LED Strip 1ft 1100lm FC HV5 & LV5
 FWHM / FWTM 99.0 + 85.0° / 163.0 + 123.0°
 Efficiency 86 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



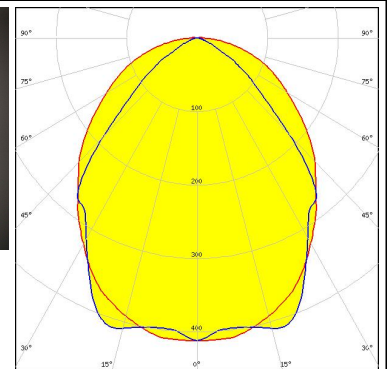
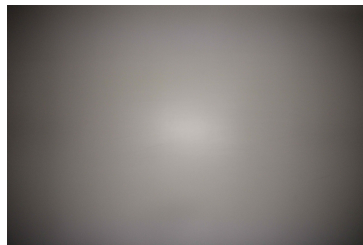
PHILIPS

LED Fortimo LED Strip 1ft 650lm FC HV4 & LV4
 FWHM / FWTM 102.0 + 90.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHILIPS

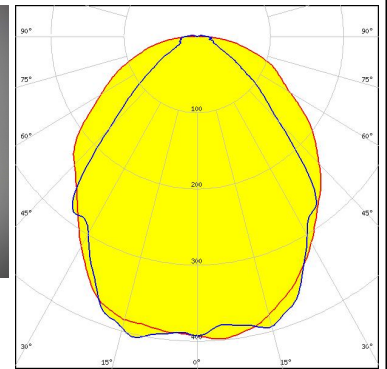
LED Fortimo LED Strip 1ft 650lm FC HV5 & LV5
 FWHM / FWTM 101.0 + 87.0° / 163.0 + 123.0°
 Efficiency 86 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

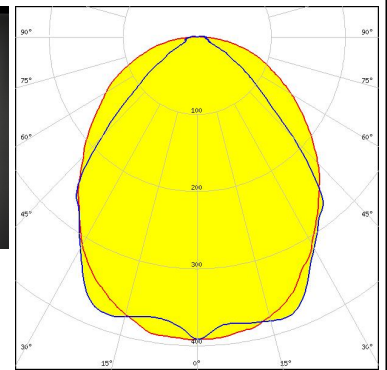
SAMSUNG

LED LM28xB Series
 FWHM / FWTM 105.0 + 86.0° / 165.0 + 124.0°
 Efficiency 84 %
 Peak intensity 0.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



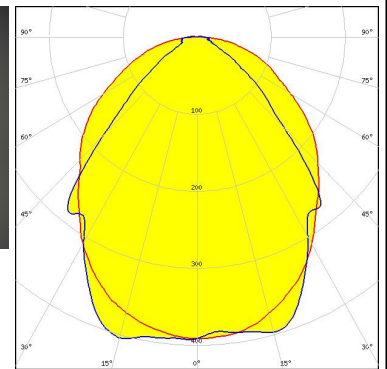
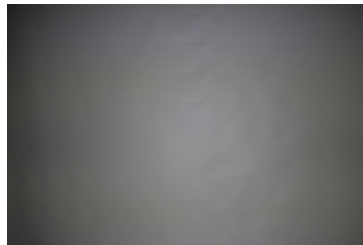
SAMSUNG

LED LM561B Plus
 FWHM / FWTM 88.0 + 100.0° / 125.0 + 164.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



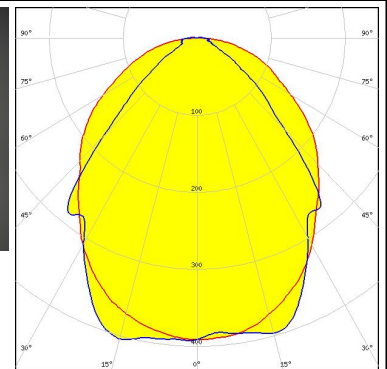
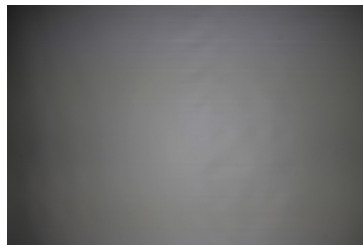
SAMSUNG

LED LT-H282C
 FWHM / FWTM 103.0 + 87.0° / 164.0 + 125.0°
 Efficiency 84 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

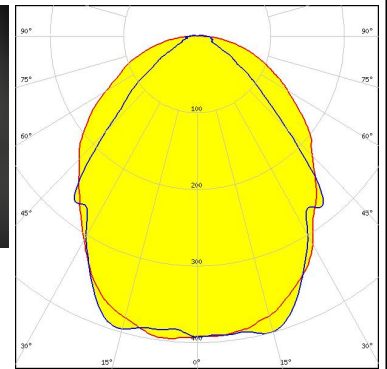
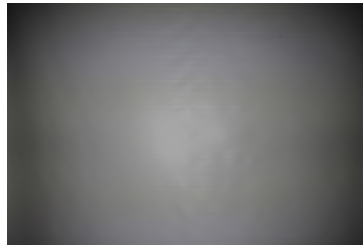
LED LT-H562C
 FWHM / FWTM 103.0 + 87.0° / 164.0 + 125.0°
 Efficiency 84 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

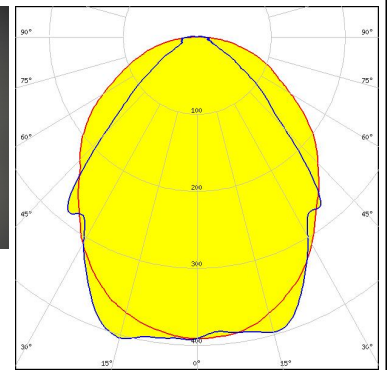
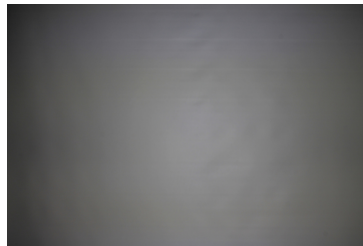
SAMSUNG

LED LT-Q282B
 FWHM / FWTM 101.0 + 87.0° / 164.0 + 125.0°
 Efficiency 84 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



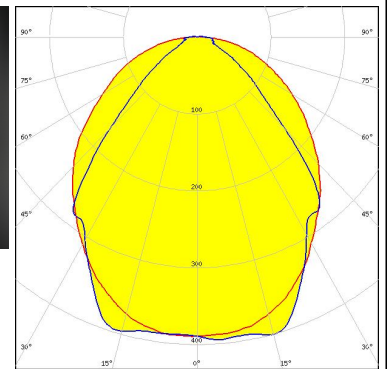
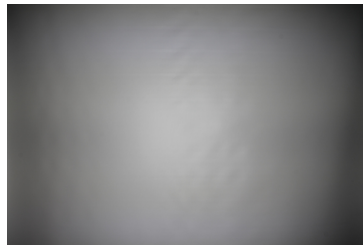
SAMSUNG

LED LT-S282H
 FWHM / FWTM 104.0 + 86.0° / 165.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



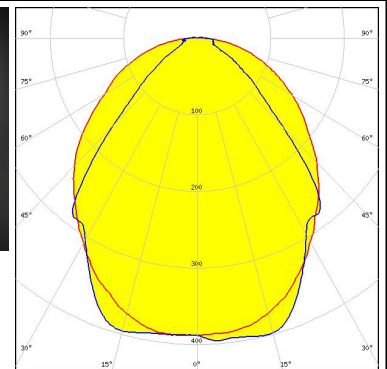
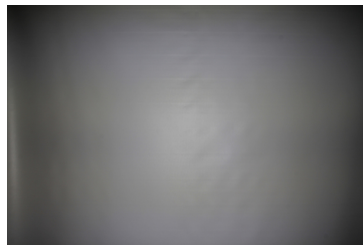
SAMSUNG

LED LT-S562H
 FWHM / FWTM 104.0 + 86.0° / 165.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SAMSUNG

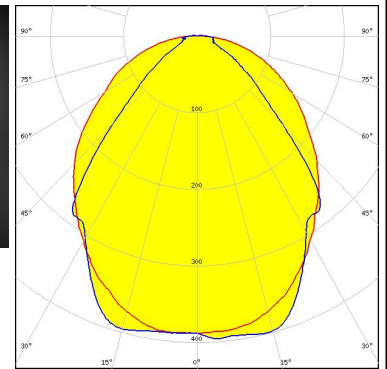
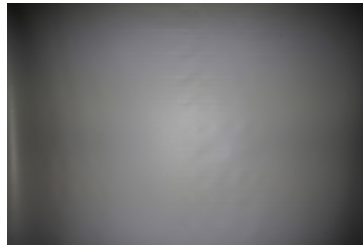
LED LT-V282E
 FWHM / FWTM 103.0 + 86.0° / 164.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



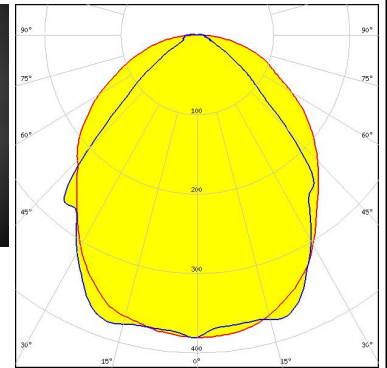
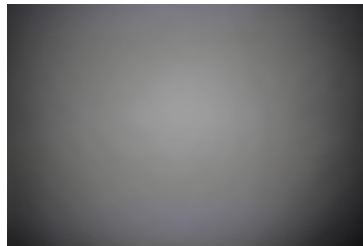
OPTICAL RESULTS (MEASURED):

SAMSUNG

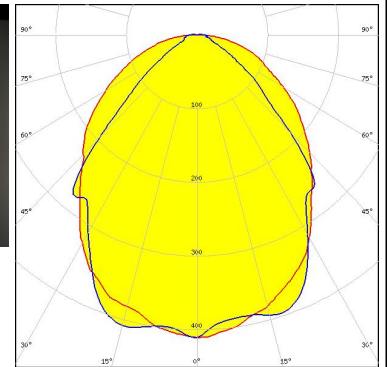
LED LT-V562E
 FWHM / FWTM 103.0 + 86.0° / 164.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



SEOUL SEMICONDUCTOR
 LED SEOUL 5630D
 FWHM / FWTM 93.0° / 141.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:

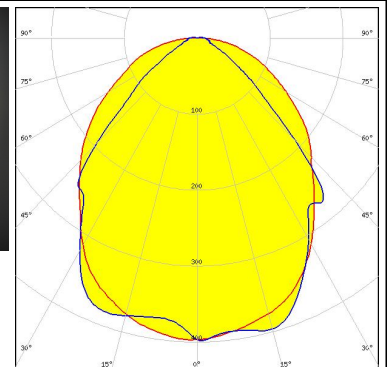
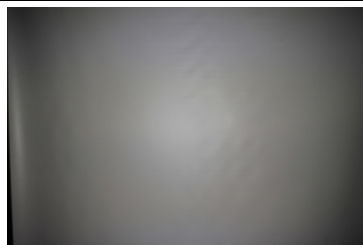


SEOUL SEMICONDUCTOR
 LED SEOUL DC 3030
 FWHM / FWTM 99.0 + 88.0° / 163.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



TRIDONIC

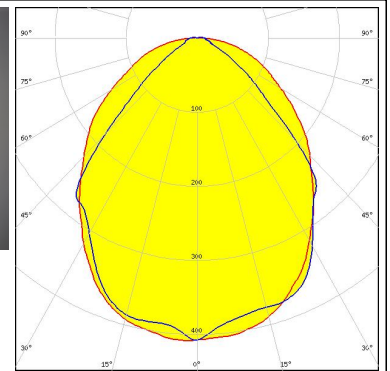
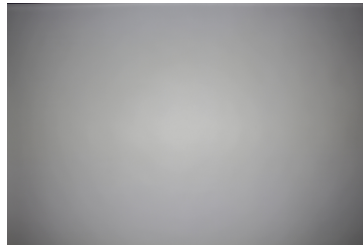
LED LLE G4 24x280mm 1250lm
 FWHM / FWTM 100.0 + 89.0° / 163.0 + 125.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



OPTICAL RESULTS (MEASURED):

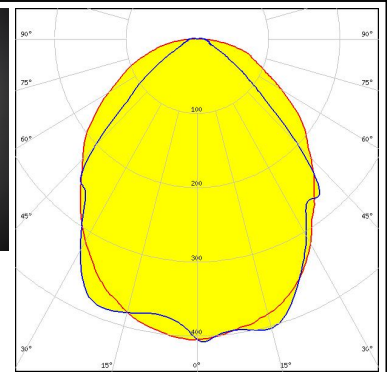
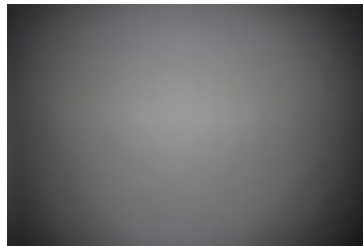
TRIDONIC

LED LLE G4 24x280mm 2000lm ADV
FWHM / FWTM 98.0 + 88.0° / 162.0 + 124.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



TRIDONIC

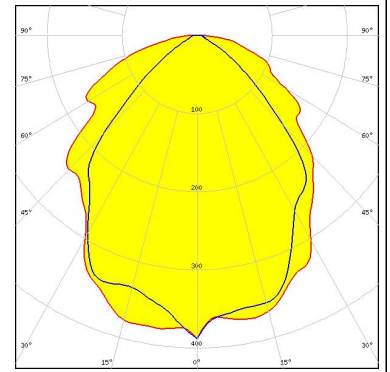
LED LLE G4 24x280mm 650lm
FWHM / FWTM 99.0 + 89.0° / 163.0 + 125.0°
Efficiency 84 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



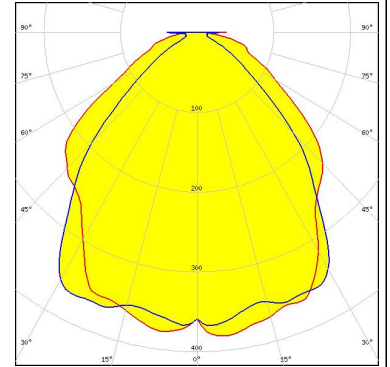
OPTICAL RESULTS (SIMULATED):



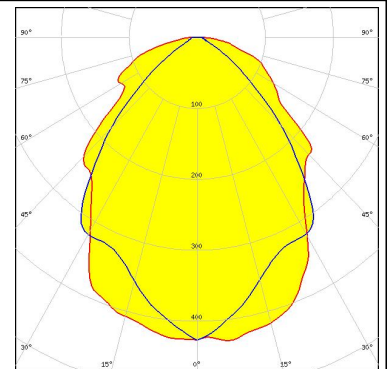
LED Bridgelux SMD 2835
Assembly NULL
FWHM / FWTM 100.0 + 86.0° / 165.0 + 120.0°
Efficiency 77 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



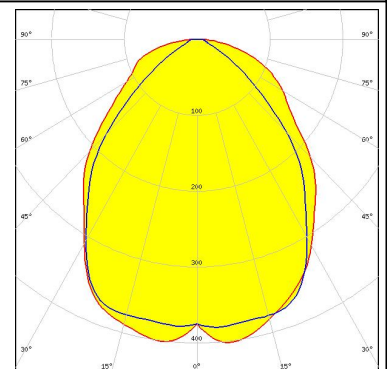
LED XP-G3
FWHM / FWTM 105.0 + 89.0° / 161.0 + 124.0°
Efficiency 81 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:



LED LUXEON 2835 Line
FWHM / FWTM 96.0 + 84.0° / 161.0 + 120.0°
Efficiency 80 %
Peak intensity 0.4 cd/lm
LEDs/each optic 2
Light colour White
Required components:



LED LUXEON 3030 2D (Round LES)
FWHM / FWTM 93.0 + 84.0° / 162.0 + 124.0°
Efficiency 82 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:

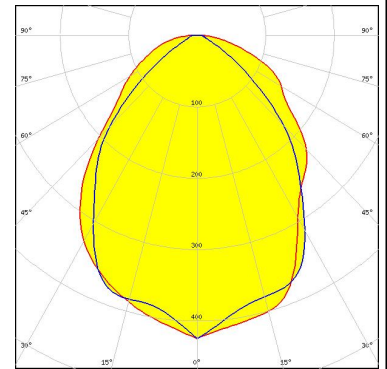


OPTICAL RESULTS (SIMULATED):

OSRAM

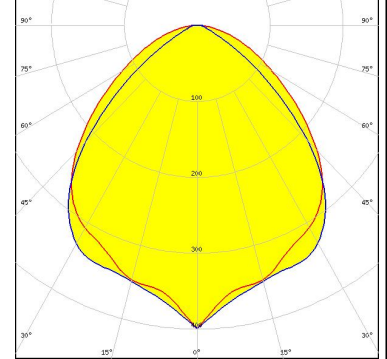
Opto Semiconductors

LED Duris E 2835
 FWHM / FWTM 83.0 + 91.0° / 122.0 + 159.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



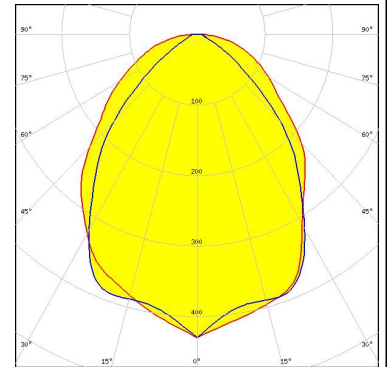
SAMSUNG

LED LM301B
 FWHM / FWTM 98.0 + 92.0° / 152.0 + 126.0°
 Efficiency 86 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



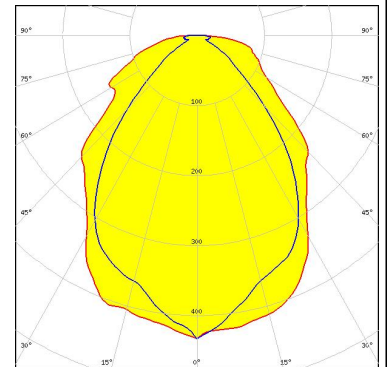
SEOUL SEMICONDUCTOR

LED SEOUL DC 3030C
 FWHM / FWTM 91.0 + 82.0° / 160.0 + 120.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:


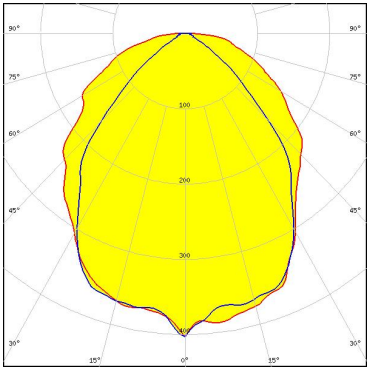

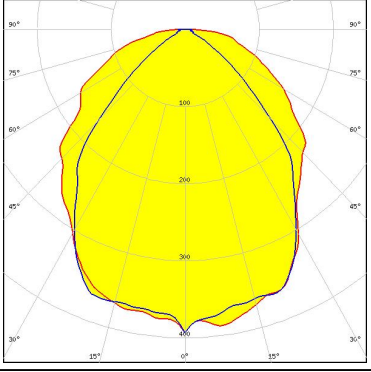

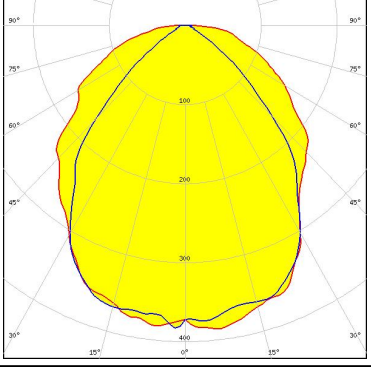

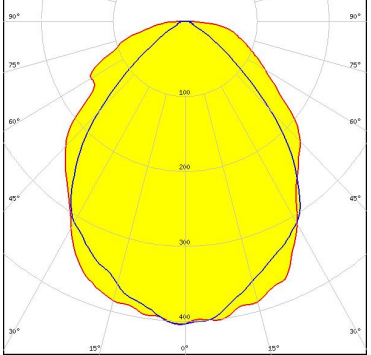


SEOUL SEMICONDUCTOR


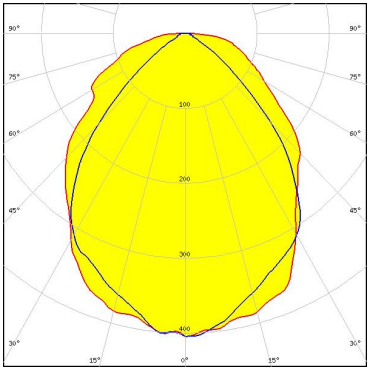

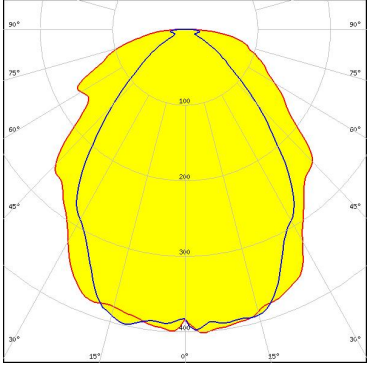

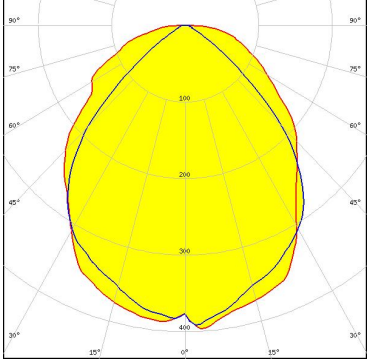
LED SEOUL DC 3528
 FWHM / FWTM 95.0 + 78.0° / 169.0 + 116.0°
 Efficiency 78 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 2
 Light colour White
 Required components:



OPTICAL RESULTS (SIMULATED):

<p> SEoul SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 102.0 + 84.0° / 168.0 + 117.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEoul SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 102.0 + 86.0° / 169.0 + 118.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEoul SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 104.0 + 86.0° / 169.0 + 118.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEoul SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 99.0 + 84.0° / 167.0 + 117.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	

OPTICAL RESULTS (SIMULATED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 99.0 + 84.0° / 167.0 + 116.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 2</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 100.0 + 80.0° / 170.0 + 118.0°</p> <p>Efficiency: 78 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components:</p>	
<p> SEOUL SEMICONDUCTOR</p> <p>LED: SEOUL DC 3528</p> <p>FWHM / FWTM: 99.0 + 88.0° / 166.0 + 118.0°</p> <p>Efficiency: 77 %</p> <p>Peak intensity: 0.4 cd/lm</p> <p>LEDs/each optic: 2</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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