

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
Height	9.5 mm
Fastening	clips
ROHS compliant	yes ⓘ

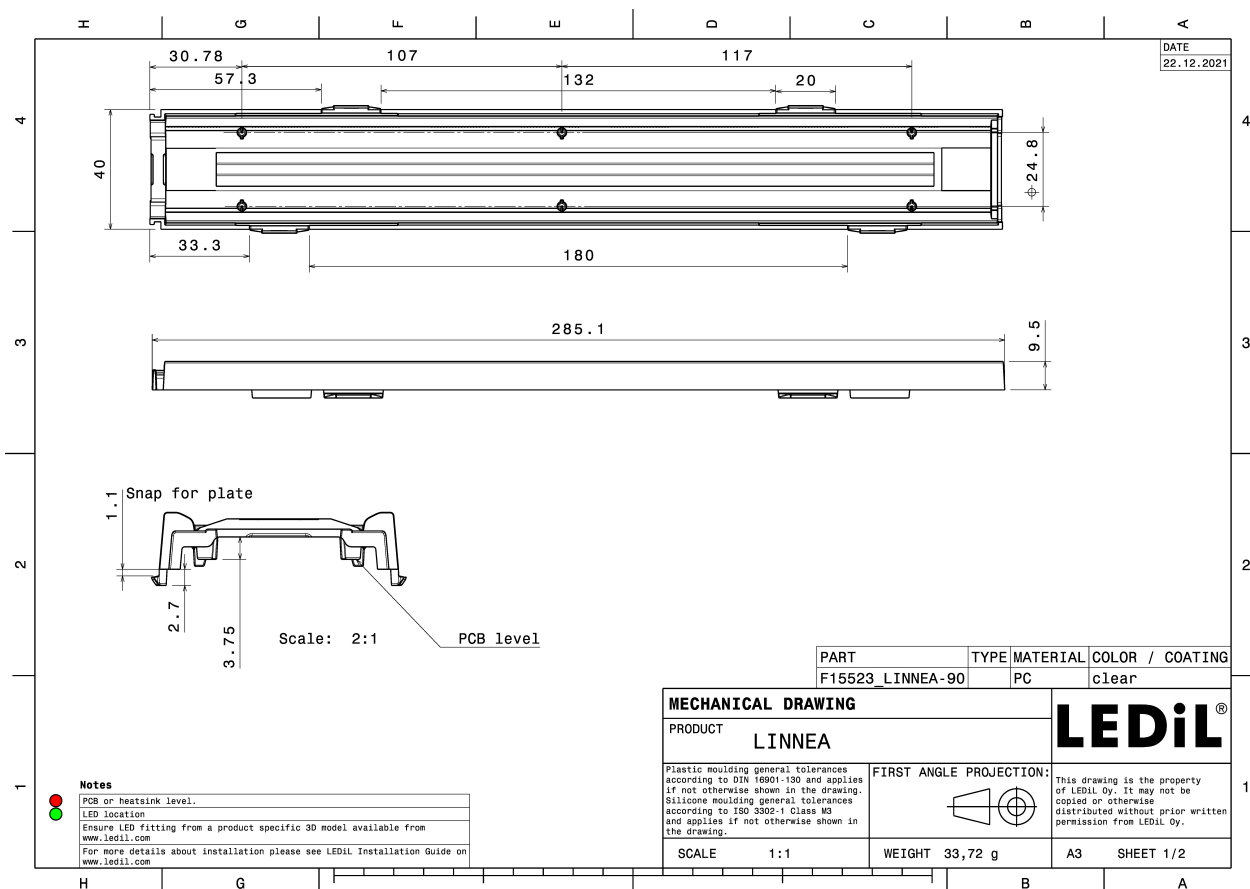


MATERIALS:

Component	Type	Material	Colour	Finish	Length (mm)
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	9	7.3

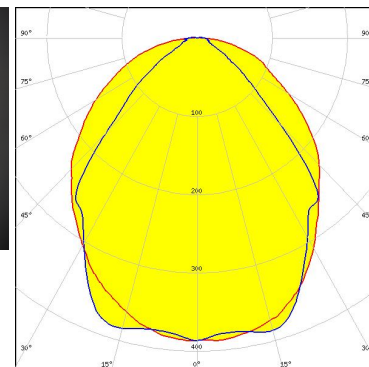
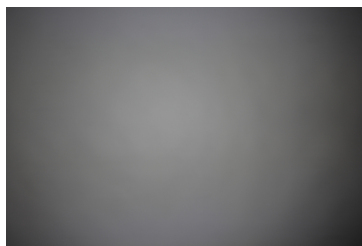


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):



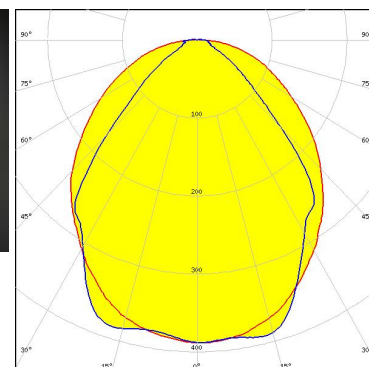
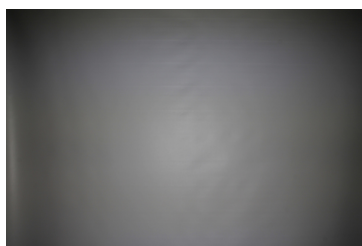
LED CALOSNU405-M7W1
 FWHM / FWTM 104.0 + 87.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



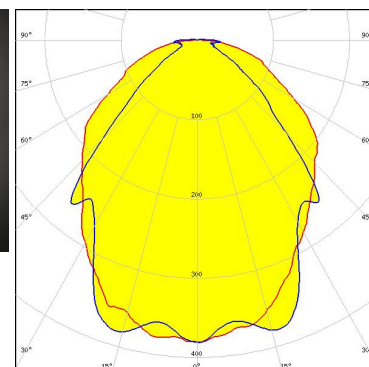
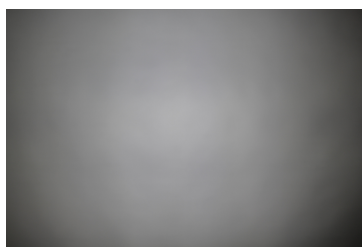
LED CALOSNU410-M7W1
 FWHM / FWTM 104.0 + 86.0° / 164.0 + 124.0°
 Efficiency 83 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



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/type White
 Required components:

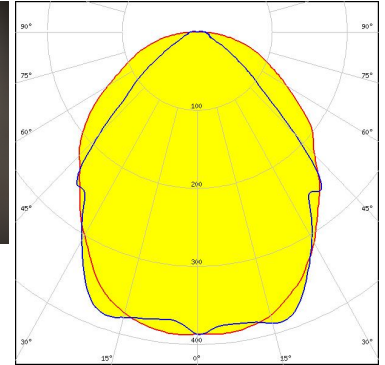
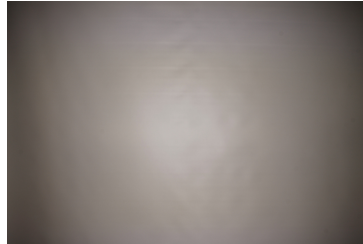


Light distribution files

OPTICAL RESULTS (MEASURED):

Helvar

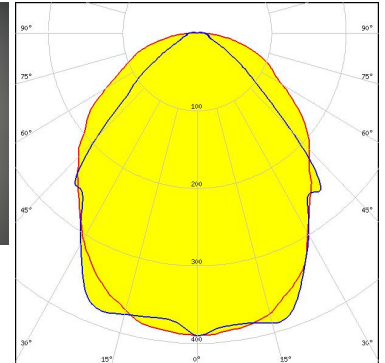
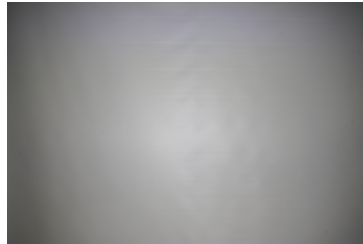
LED L-iC-282-827-865-011A
 FWHM / FWTM 102.0 + 89.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

Helvar

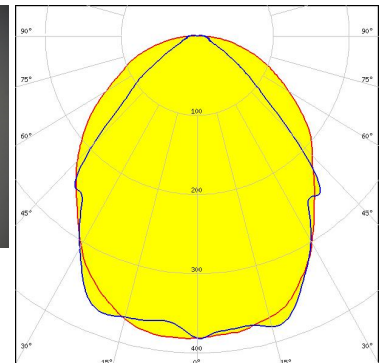
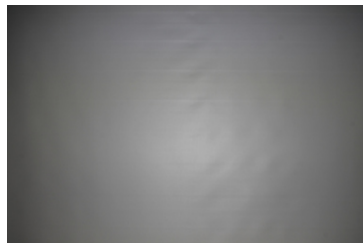
LED LP-282-840-009A 60/300
 FWHM / FWTM 100.0 + 89.0° / 163.0 + 125.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

Helvar

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/type White
 Required components:

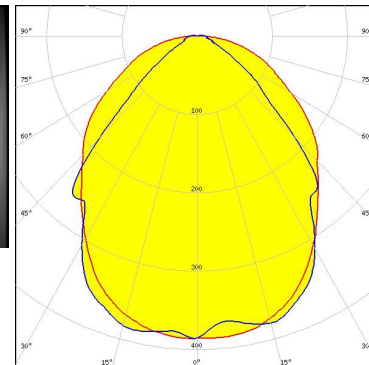
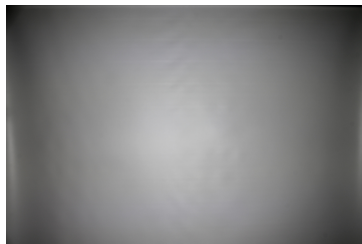


Light distribution files

OPTICAL RESULTS (MEASURED):

Helvar

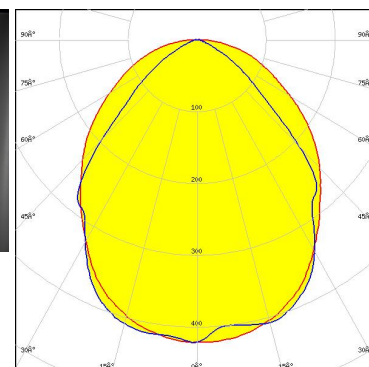
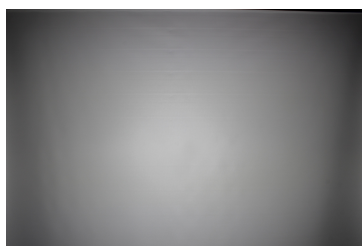
LED LX-282-840-023A
 FWHM / FWTM 102.0 + 89.0° / 164.0 + 125.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

inventronics

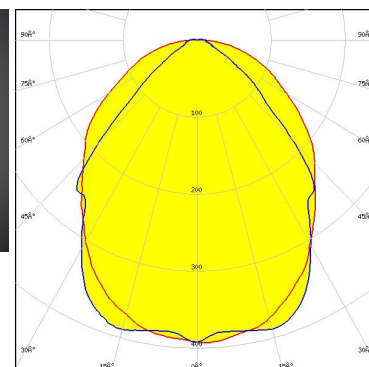
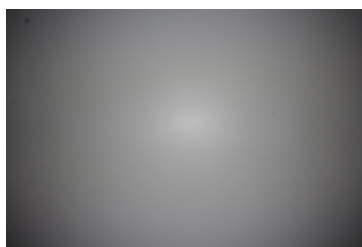
LED PL-LIN-IND-Z1 2800 560x24
 FWHM / FWTM 101.0 + 89.0° / 163.0 + 125.0°
 Efficiency 87 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

inventronics

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/type White
 Required components:

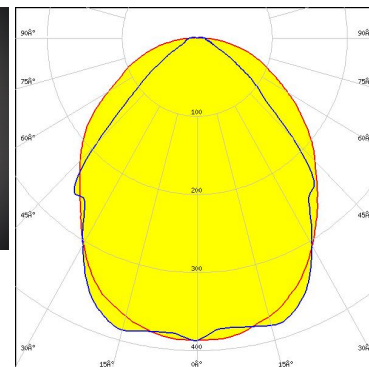
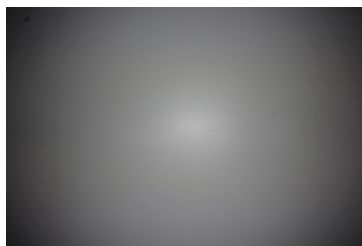


Light distribution files

OPTICAL RESULTS (MEASURED):

inventronics

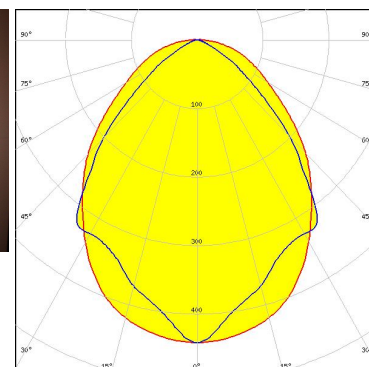
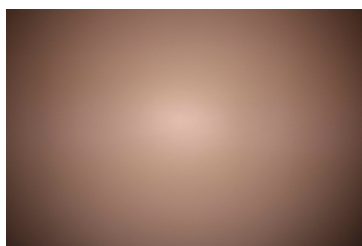
LED PL-LIN-Z5 2000 280x20
FWHM / FWTM 101.0 + 89.0° / 164.0 + 125.0°
Efficiency 82 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

LUMITRONIX® High-Performance LED-Technologies & Solutions

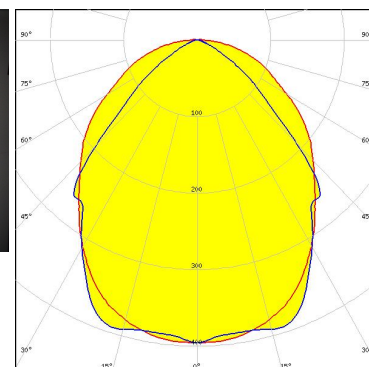
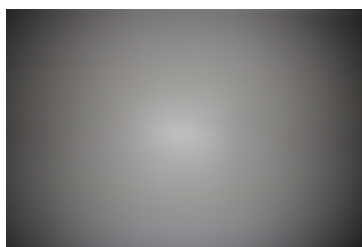
LED LinearZ 280-112 Circadian TW
FWHM / FWTM 93.0 + 87.0° / 159.0 + 122.0°
Efficiency 84 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type Tunable White
Required components:



Light distribution files

LUMITRONIX® High-Performance LED-Technologies & Solutions

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/type White
Required components:

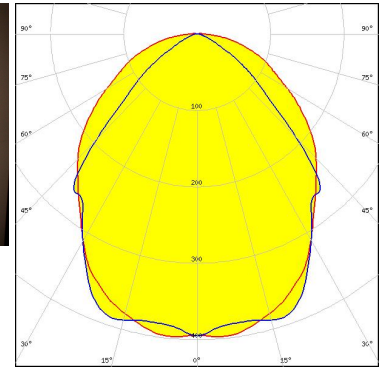
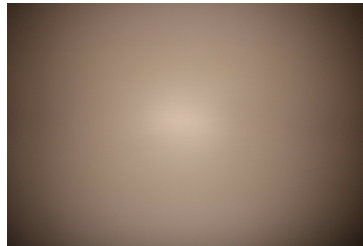


Light distribution files

OPTICAL RESULTS (MEASURED):



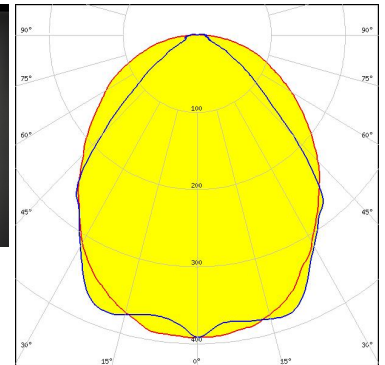
LED LinearZ 280-40 TW
FWHM / FWTM 101.0 + 89.0° / 163.0 + 123.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type Tunable White
Required components:



Light distribution files



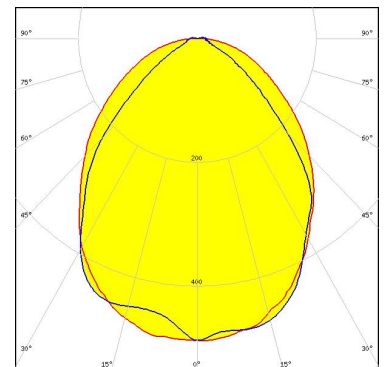
LED LinLED 280x24mm 1100lm 830 2C 30V LINNEA-GC G1
FWHM / FWTM 88.0 + 100.0° / 125.0 + 164.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



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/type White
Required components:

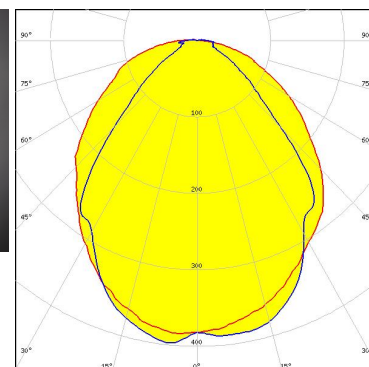
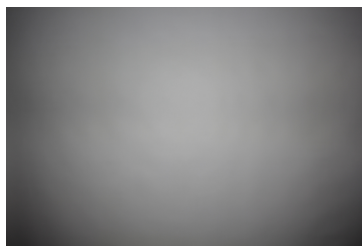


Light distribution files

OPTICAL RESULTS (MEASURED):



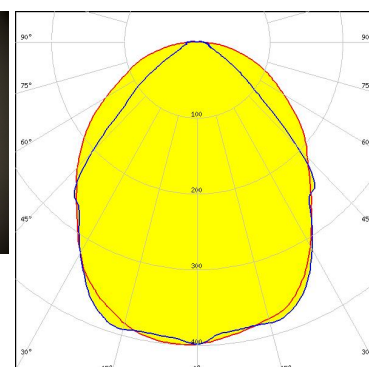
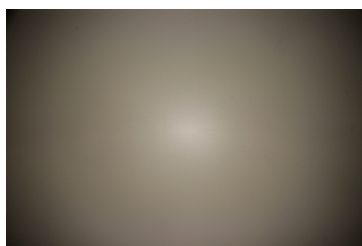
LED NF2x757G
FWHM / FWTM 105.0 + 85.0° / 165.0 + 125.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



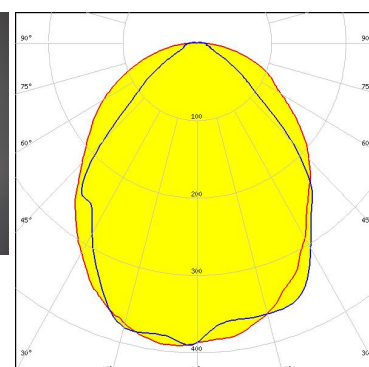
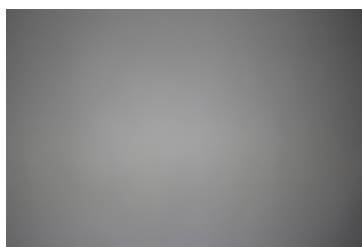
LED NFSW757H
FWHM / FWTM 100.0 + 90.0° / 163.0 + 125.0°
Efficiency 85 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files



LED NFSx757G
FWHM / FWTM 98.0 + 88.0° / 162.0 + 125.0°
Efficiency 81 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:

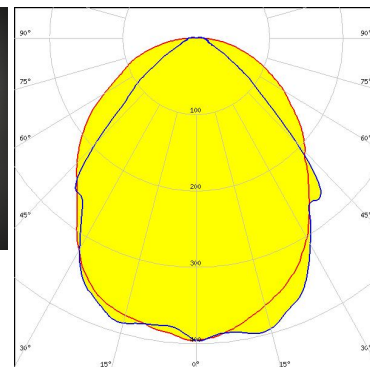
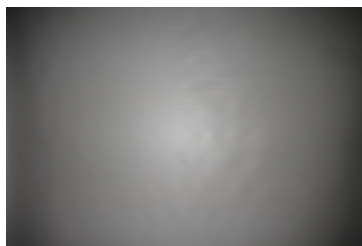


Light distribution files

OPTICAL RESULTS (MEASURED):

OSRAM
Opto Semiconductors

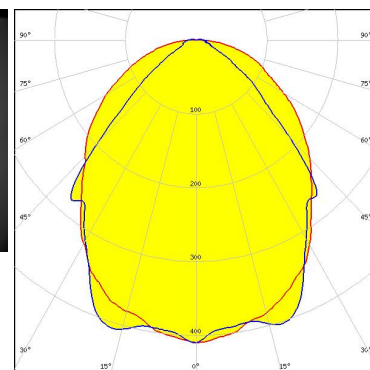
LED Duris S5 (2 chip)
FWHM / FWTM 99.0 + 89.0° / 163.0 + 125.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

OSRAM
Opto Semiconductors

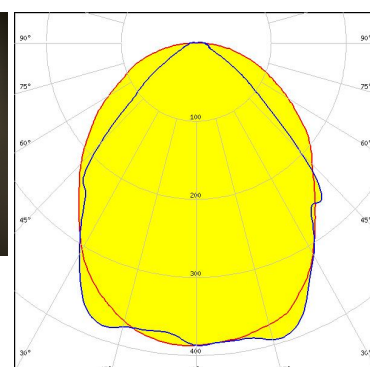
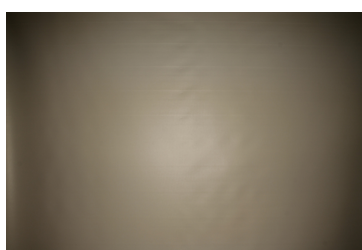
LED Duris S5 (Single chip)
FWHM / FWTM 98.0 + 89.0° / 163.0 + 125.0°
Efficiency 85 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

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/type White
Required components:

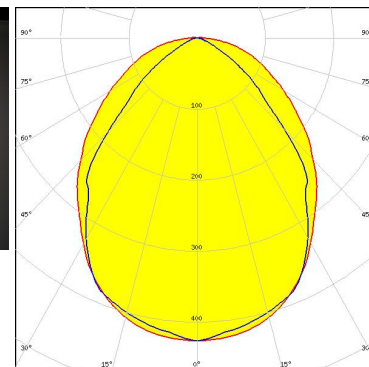


Light distribution files

OPTICAL RESULTS (MEASURED):

PHILIPS

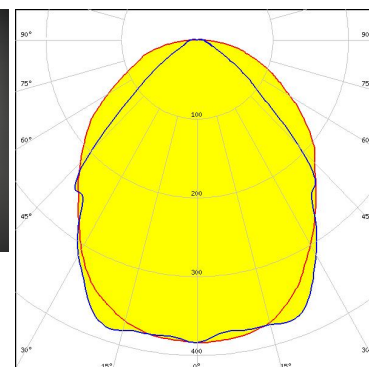
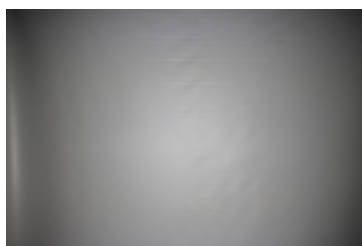
LED Fortimo LED Strip 1ft 1100lm FC HV5 & LV5
 FWHM / FWTM 99.0 + 85.0° / 163.0 + 123.0°
 Efficiency 86 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

PHILIPS

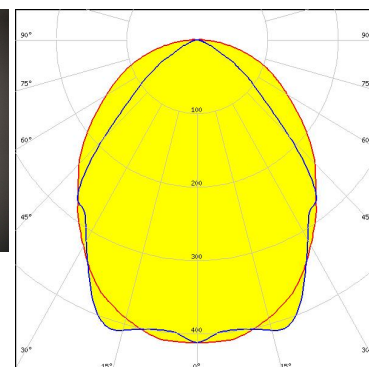
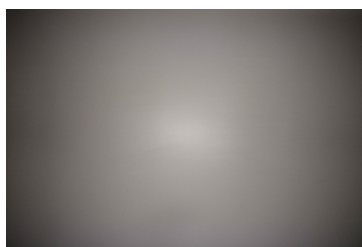
LED Fortimo LED Strip 1ft 650lm FC HV4 & LV4
 FWHM / FWTM 102.0 + 90.0° / 164.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

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/type White
 Required components:

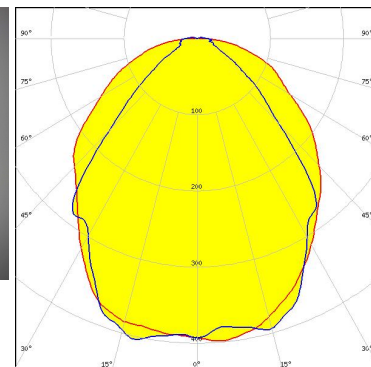
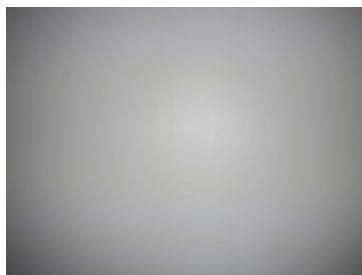


Light distribution files

OPTICAL RESULTS (MEASURED):

SAMSUNG

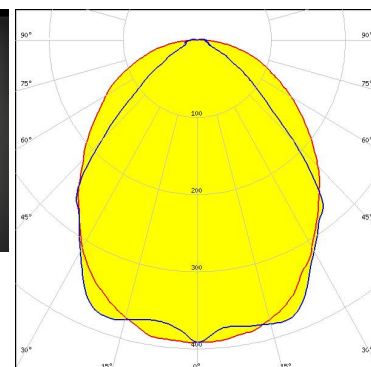
LED LM28xB Series
FWHM / FWTM 105.0 + 86.0° / 165.0 + 124.0°
Efficiency 84 %
Peak intensity 0.3 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

SAMSUNG

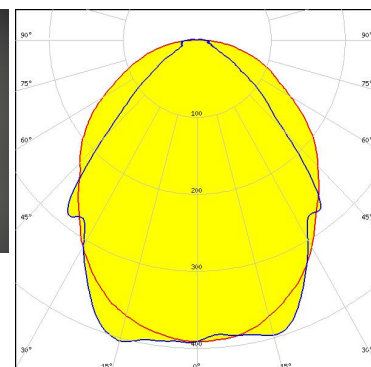
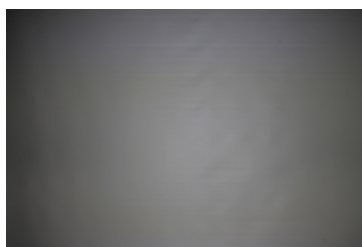
LED LM561B Plus
FWHM / FWTM 88.0 + 100.0° / 125.0 + 164.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

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/type White
Required components:

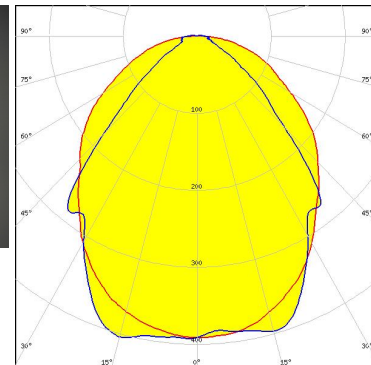
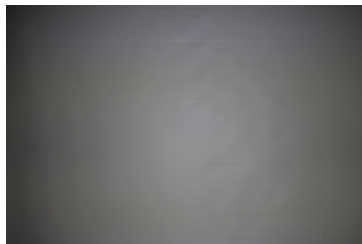


Light distribution files

OPTICAL RESULTS (MEASURED):

SAMSUNG

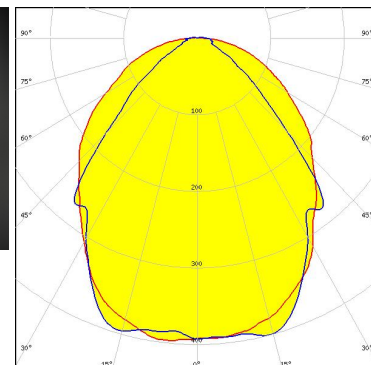
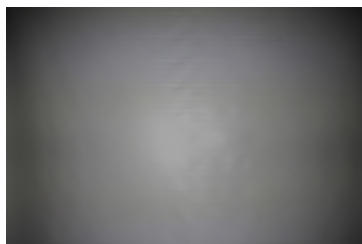
LED LT-H562C
FWHM / FWTM 103.0 + 87.0° / 164.0 + 125.0°
Efficiency 84 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

SAMSUNG

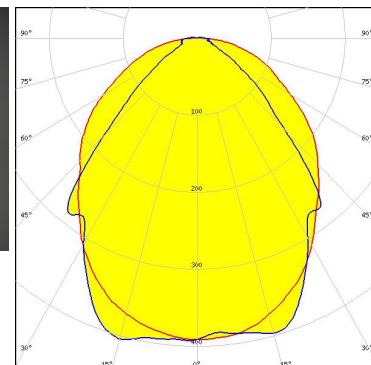
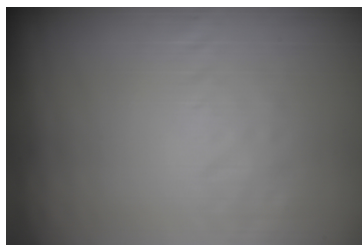
LED LT-Q282B
FWHM / FWTM 101.0 + 87.0° / 164.0 + 125.0°
Efficiency 84 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

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/type White
Required components:

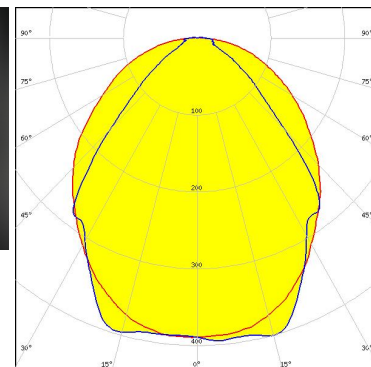
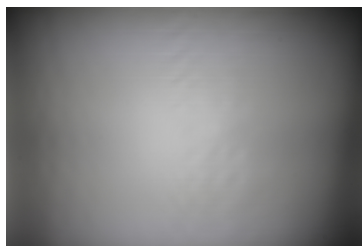


Light distribution files

OPTICAL RESULTS (MEASURED):

SAMSUNG

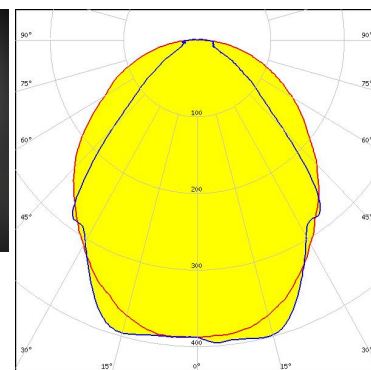
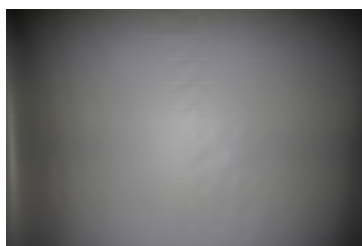
LED LT-S562H
FWHM / FWTM 104.0 + 86.0° / 165.0 + 125.0°
Efficiency 85 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

SAMSUNG

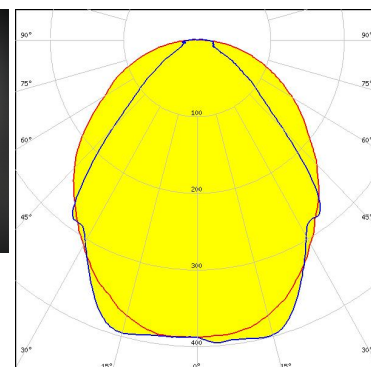
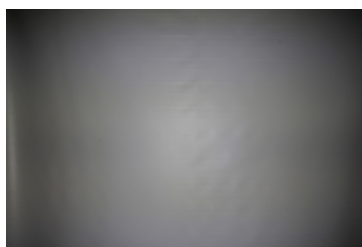
LED LT-V282E
FWHM / FWTM 103.0 + 86.0° / 164.0 + 125.0°
Efficiency 85 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

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/type White
Required components:

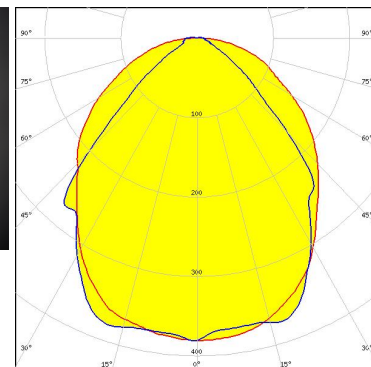
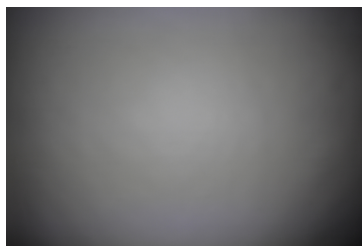


Light distribution files

OPTICAL RESULTS (MEASURED):



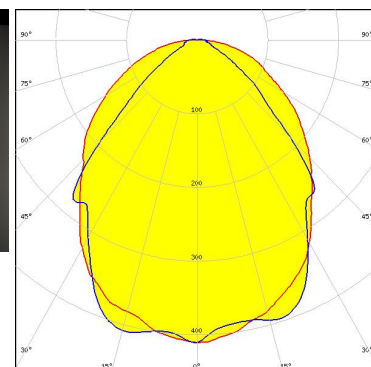
LED SEOUL 5630D
 FWHM / FWTM 93.0° / 141.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



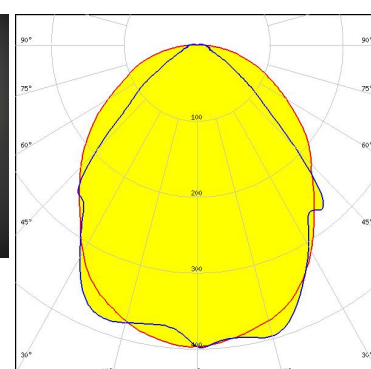
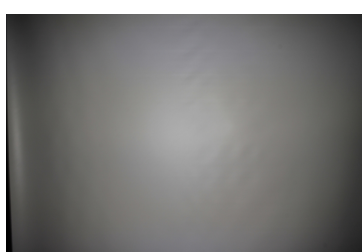
LED SEOUL DC 3030
 FWHM / FWTM 99.0 + 88.0° / 163.0 + 125.0°
 Efficiency 85 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files

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/type White
 Required components:

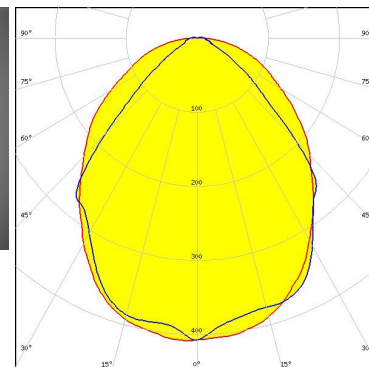
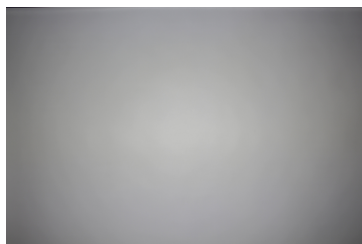


Light distribution files

OPTICAL RESULTS (MEASURED):

TRIDONIC

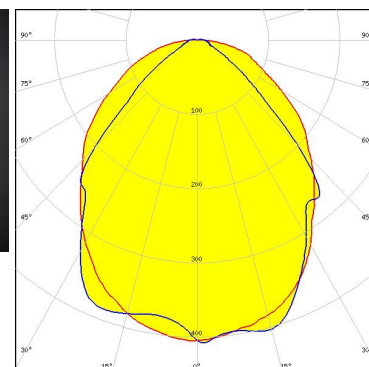
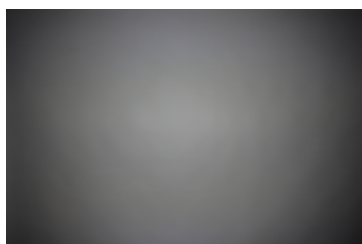
LED LLE G4 24x280mm 2000lm ADV
FWHM / FWTM 98.0 + 88.0° / 162.0 + 124.0°
Efficiency 83 %
Peak intensity 0.4 cd/lm
LEDs/each optic 1
Light colour/type White
Required components:



Light distribution files

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/type White
Required components:

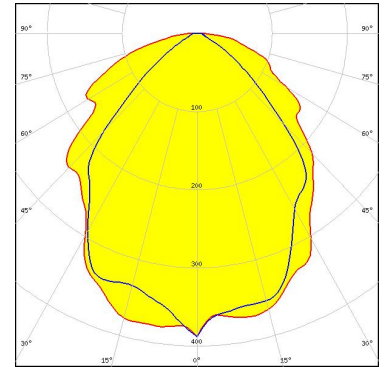


Light distribution files

OPTICAL RESULTS (SIMULATED):



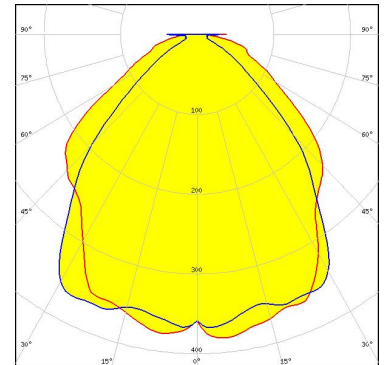
LED Bridgelux SMD 2835
 FWHM / FWTM 100.0 + 86.0° / 165.0 + 120.0°
 Efficiency 77 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



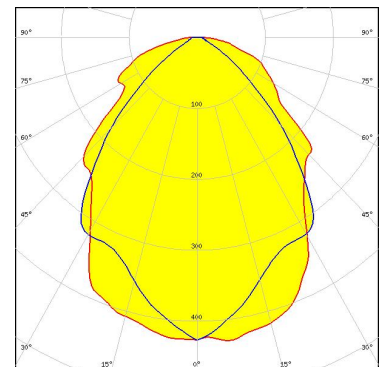
LED XP-G3
 FWHM / FWTM 105.0 + 89.0° / 161.0 + 124.0°
 Efficiency 81 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



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/type White
 Required components:

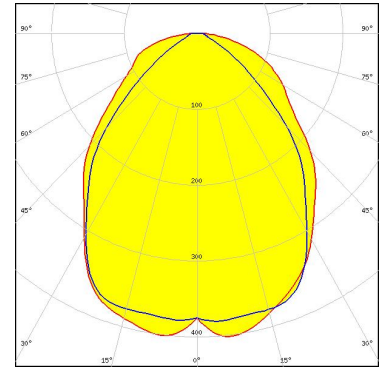


Light distribution files

OPTICAL RESULTS (SIMULATED):



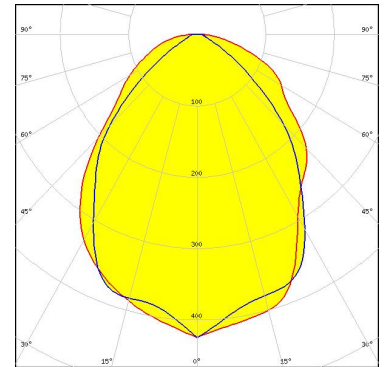
LED LUXEON 3030 2D (Round LES)
 FWHM / FWTM 93.0 + 84.0° / 162.0 + 124.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



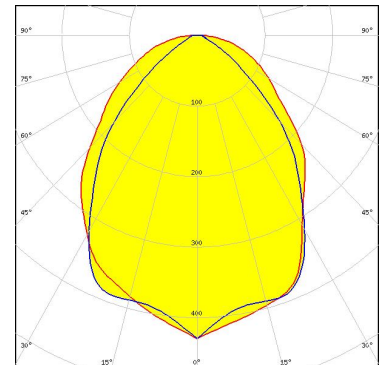
LED Duris E 2835
 FWHM / FWTM 83.0 + 91.0° / 122.0 + 159.0°
 Efficiency 82 %
 Peak intensity 0.4 cd/lm
 LEDs/each optic 1
 Light colour/type White
 Required components:



Light distribution files



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/type White
 Required components:

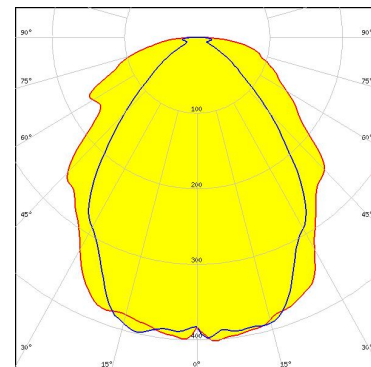


Light distribution files

OPTICAL RESULTS (SIMULATED):



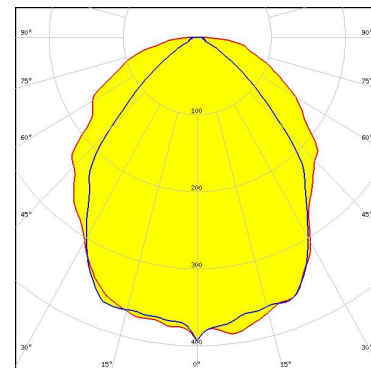
LED: SEOUL DC 3528
 FWHM / FWTM: 100.0 + 80.0° / 170.0 + 118.0°
 Efficiency: 78 %
 Peak intensity: 0.4 cd/lm
 LEDs/each optic: 1
 Light colour/type: White
 Required components:



Light distribution files



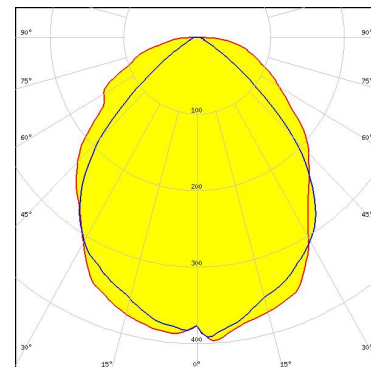
LED: SEOUL DC 3528
 FWHM / FWTM: 102.0 + 86.0° / 169.0 + 118.0°
 Efficiency: 77 %
 Peak intensity: 0.4 cd/lm
 LEDs/each optic: 1
 Light colour/type: White
 Required components:



Light distribution files



LED: SEOUL DC 3528
 FWHM / FWTM: 99.0 + 88.0° / 166.0 + 118.0°
 Efficiency: 77 %
 Peak intensity: 0.4 cd/lm
 LEDs/each optic: 2
 Light colour/type: White
 Required components:

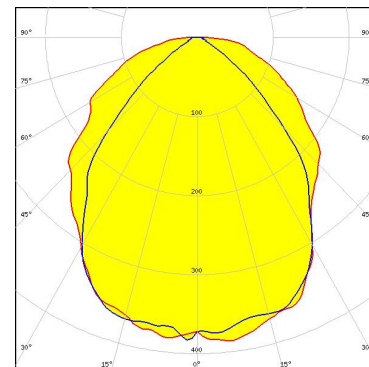


Light distribution files

OPTICAL RESULTS (SIMULATED):



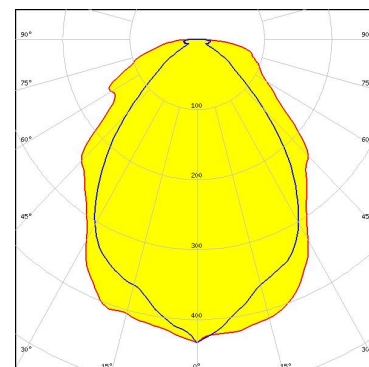
LED: SEOUL DC 3528
 FWHM / FWTM: 104.0 + 86.0° / 169.0 + 118.0°
 Efficiency: 77 %
 Peak intensity: 0.4 cd/lm
 LEDs/each optic: 1
 Light colour/type: White
 Required components:



Light distribution files



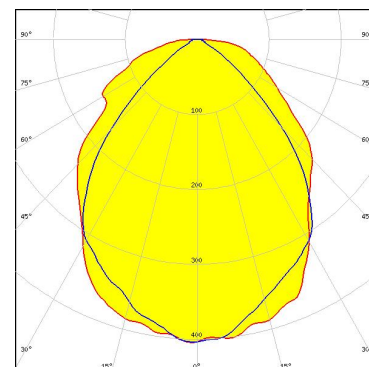
LED: SEOUL DC 3528
 FWHM / FWTM: 95.0 + 78.0° / 169.0 + 116.0°
 Efficiency: 78 %
 Peak intensity: 0.4 cd/lm
 LEDs/each optic: 2
 Light colour/type: White
 Required components:



Light distribution files

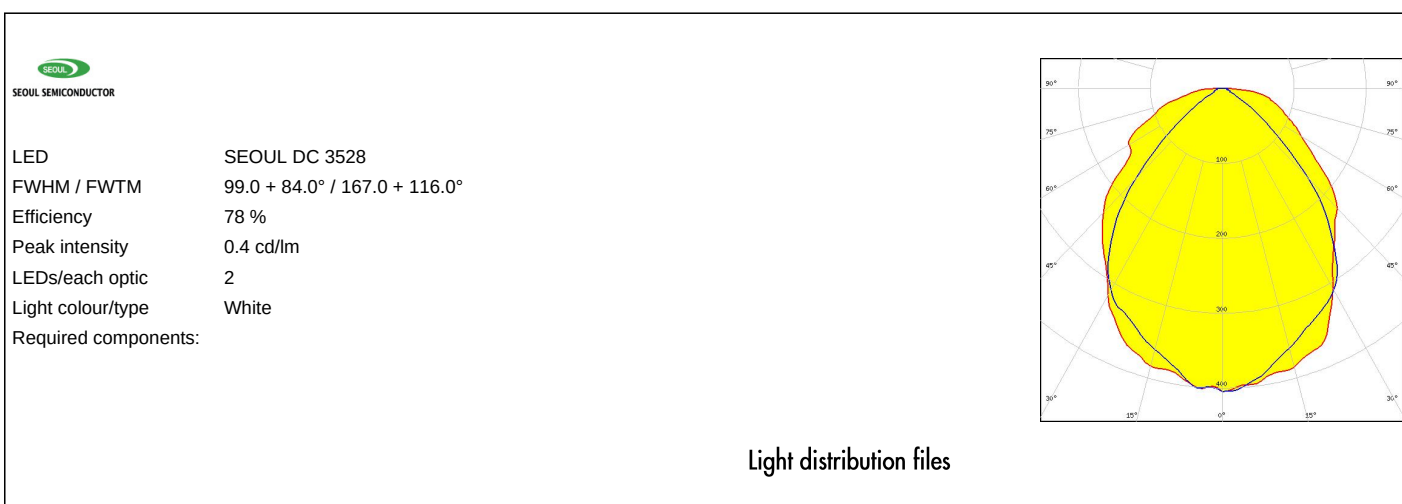
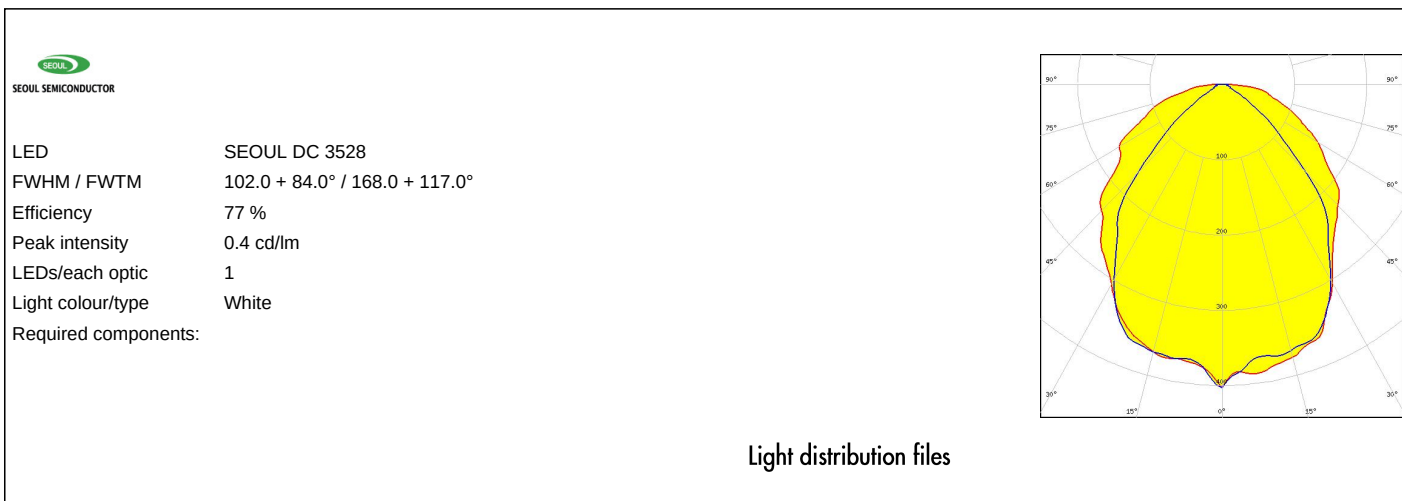


LED: SEOUL DC 3528
 FWHM / FWTM: 99.0 + 84.0° / 167.0 + 117.0°
 Efficiency: 78 %
 Peak intensity: 0.4 cd/lm
 LEDs/each optic: 2
 Light colour/type: White
 Required components:



Light distribution files

OPTICAL RESULTS (SIMULATED):



GENERAL INFORMATION:

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

MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

LEDiL Oy

Joensuunkatu 7
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Ledil Optics Technology (Shenzhen) Co., Ltd.

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

Local sales and technical support

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)

Shipping locations

Poznan, Poland
Hong Kong, China

Distribution Partners

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Ledil:](#)

[F15523_LINNEA-90](#)