# HB-2X2-O

**~20° + 115° oval beam for aisle lighting**


## TECHNICAL SPECIFICATIONS:

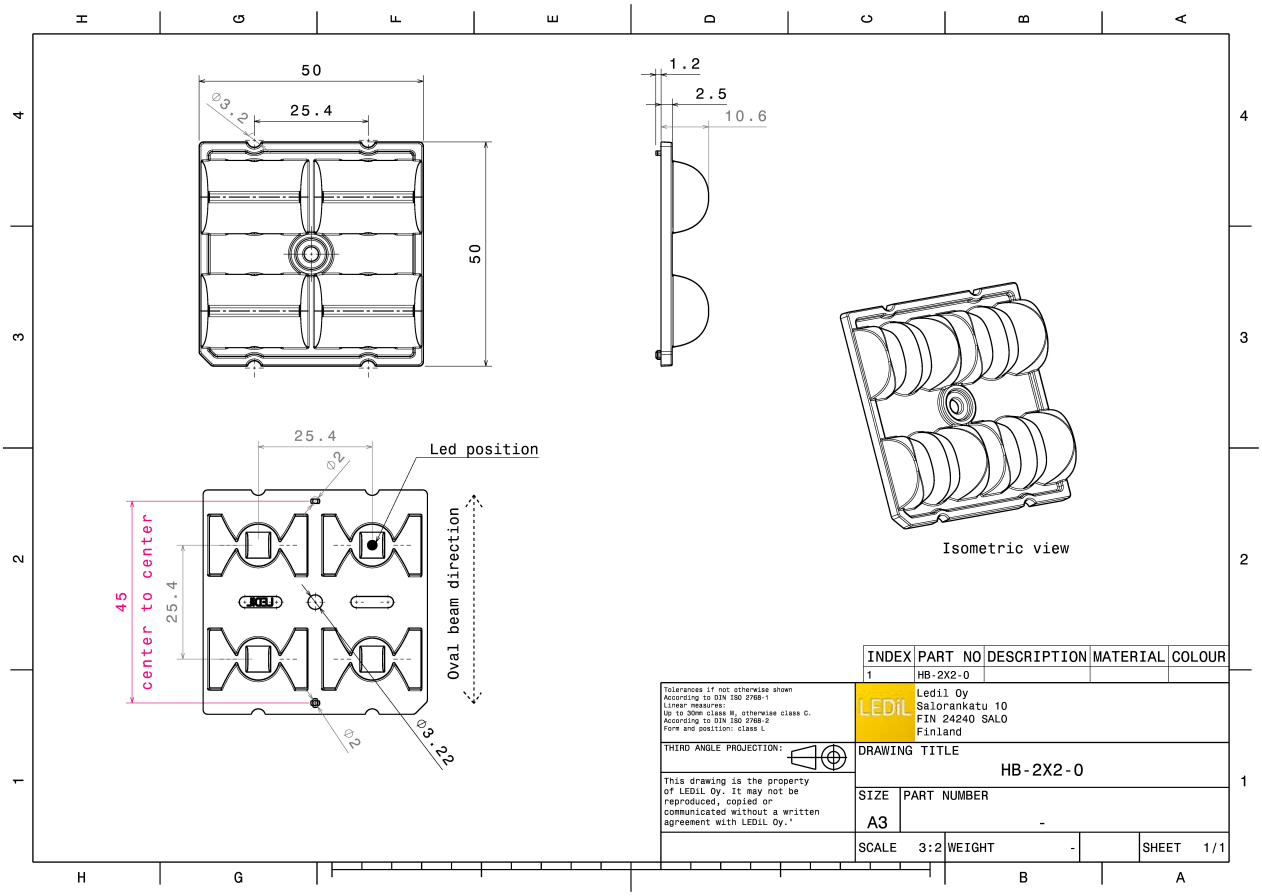
| | |
|---|---|
| Dimensions | 50.0 mm |
| Height | 10.6 mm |
| Fastening | glue, pin, screw |
| ROHS compliant | yes |

## MATERIAL SPECIFICATIONS:

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

## ORDERING INFORMATION:

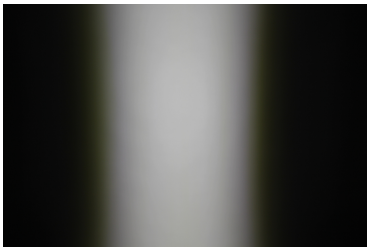
| Component | Qty in box | MOQ | MPQ | Box weight (kg) |
|---|---|---|---|---|
| C13749_HB-2X2-O<br>» Box size: 480 x 280 x 300 mm | 800 | 160 | 160 | 10.4 |

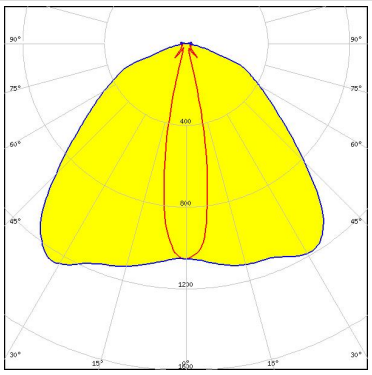

50
25.4
Ø3.2
50
1.2
2.5
10.6
25.4
Ø2
Led position
45
center to center
25.4
Oval beam direction
Ø2
Ø3.22
Isometric view
INDEX
PART NO
DESCRIPTION
MATERIAL
COLOUR
1
HB-2X2-0
Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
Up to 30mm class B, otherwise class C.
According to DIN ISO 2768-2
Form and position: class L
Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland
THIRD ANGLE PROJECTION:
DRAWING TITLE
HB-2X2-0
This drawing is the property of LEDiL Oy. It may not be reproduced, copied or communicated without a written agreement with LEDiL Oy.*
SIZE
A3
PART NUMBER
-
SCALE 3:2
WEIGHT -
SHEET 1/1

## PHOTOMETRIC DATA (MEASURED):

COMET ELECTRONICS

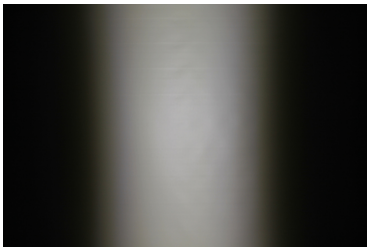
| | |
|---|---|
| LED | QUICK FLUX XTP 2x4 xxx LS G5 |
| FWHM | 21.0 + 111.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

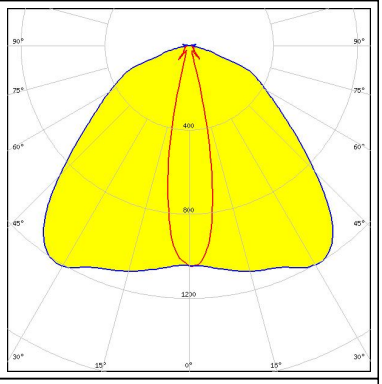




COMET ELECTRONICS

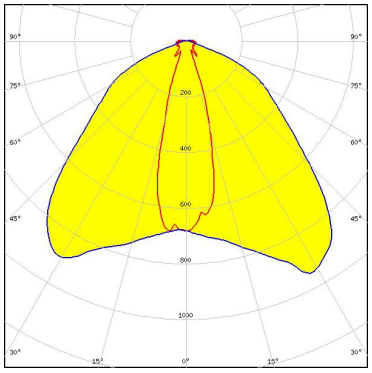
| | |
|---|---|
| LED | QUICK FLUX XTP 2x6 xxx LS G5 |
| FWHM | 22.0 + 111.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





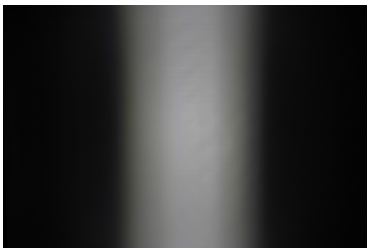
CREE

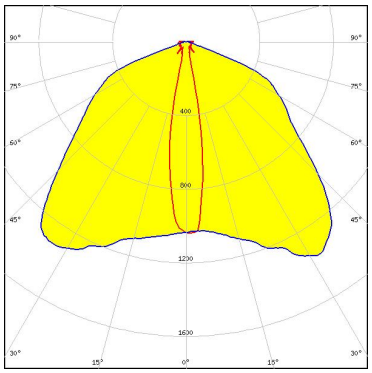
| | |
|---|---|
| LED | XD16 |
| FWHM | 29.0 + 116.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 4 |
| Light colour | White |
| Required components: | |



CREE

| | |
|---|---|
| LED | XD16 |
| FWHM | 19.0 + 127.0° |
| Efficiency | 93 % |
| Peak intensity | 1.4 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



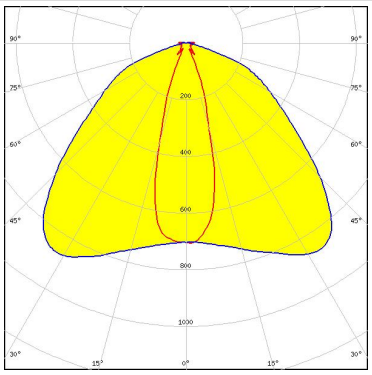


## PHOTOMETRIC DATA (MEASURED):

CREE

| | |
|---|---|
| LED | XHP35 HD |
| FWHM | 29.0 + 117.0° |
| Efficiency | 94 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

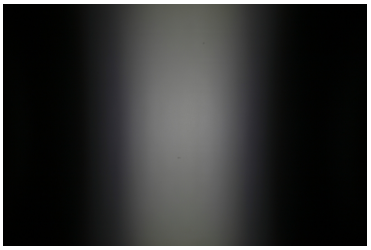
Required components:

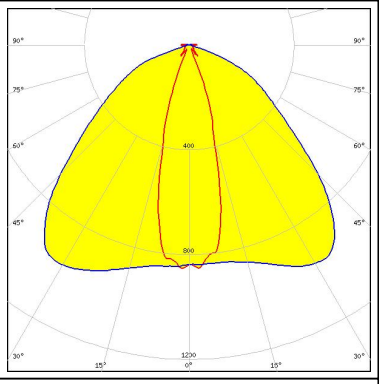


CREE

| | |
|---|---|
| LED | XM-L |
| FWHM | 28.0 + 108.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

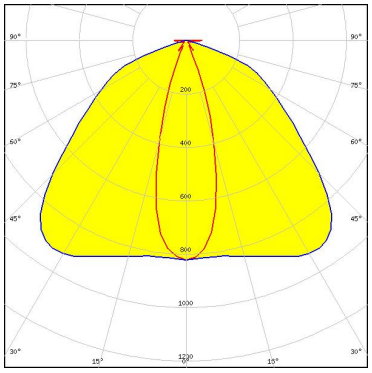




CREE

| | |
|---|---|
| LED | XM-L2 |
| FWHM | 30.0 + 106.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

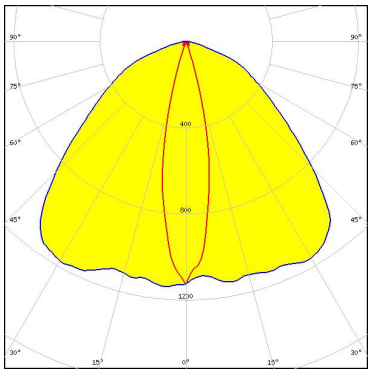
Required components:



CREE

| | |
|---|---|
| LED | XP-G |
| FWHM | 26.0 + 115.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

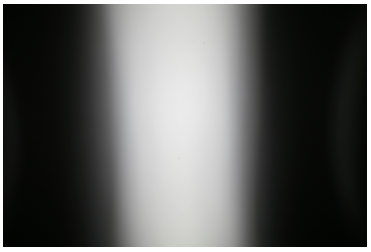
Required components:

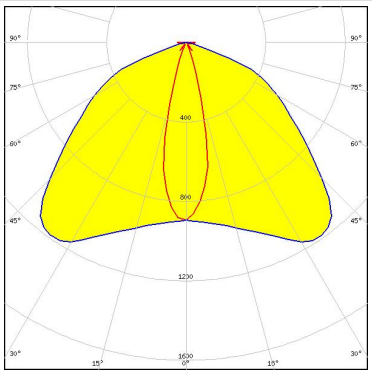


## PHOTOMETRIC DATA (MEASURED):

CREE

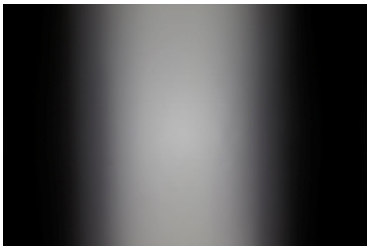
| | |
|---|---|
| LED | XP-G2 |
| FWHM | 27.0 + 112.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

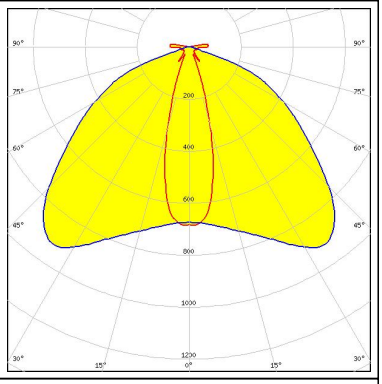




CREE

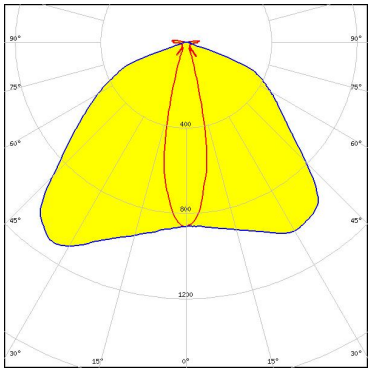
| | |
|---|---|
| LED | XP-L HD |
| FWHM | 29.0 + 117.0° |
| Efficiency | 94 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





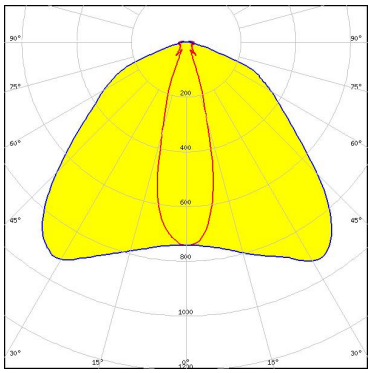
CREE

| | |
|---|---|
| LED | XP-L HI |
| FWHM | 25.0 + 123.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



CREE

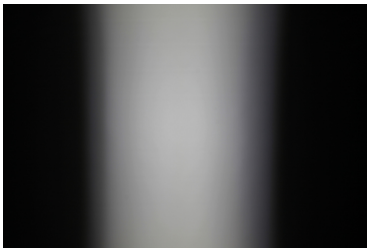
| | |
|---|---|
| LED | XP-L2 |
| FWHM | 28.0 + 117.0° |
| Efficiency | 94 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

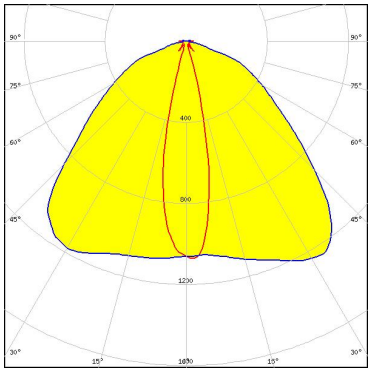


## PHOTOMETRIC DATA (MEASURED):

LG Innotek

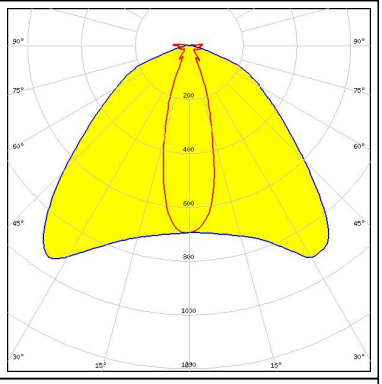
| | |
|---|---|
| LED | H35C1 (LEMWA33) |
| FWHM | 23.0 + 110.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





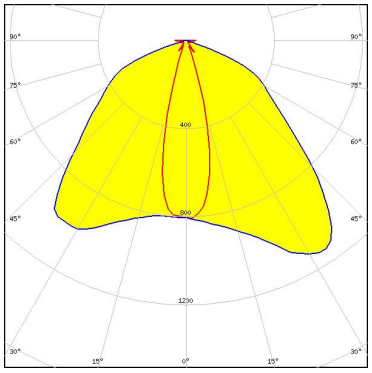
LUMILEDS

| | |
|---|---|
| LED | LUXEON 5050 Round LES |
| FWHM | 29.0 + 114.0° |
| Efficiency | 94 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



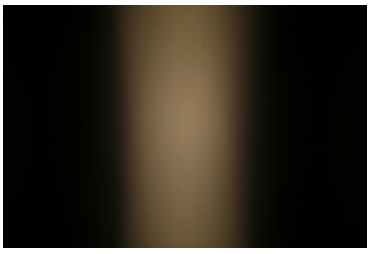
LUMILEDS

| | |
|---|---|
| LED | LUXEON MZ |
| FWHM | 28.0 + 103.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



LUMILEDS

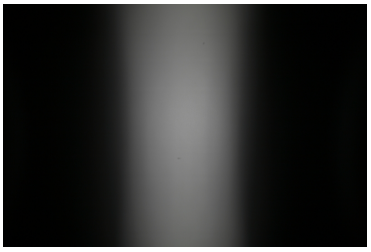
| | |
|---|---|
| LED | LUXEON R |
| FWHM | 25.0 + 105.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

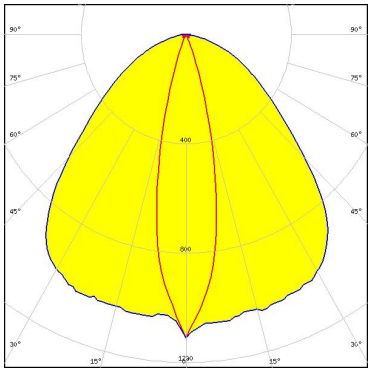


## PHOTOMETRIC DATA (MEASURED):

LUMILEDS

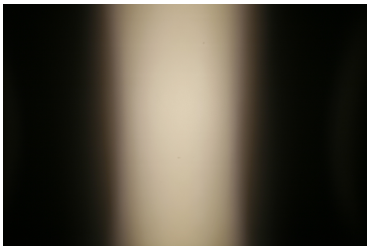
| | |
|---|---|
| LED | LUXEON Rebel ES |
| FWHM | 25.0 + 106.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

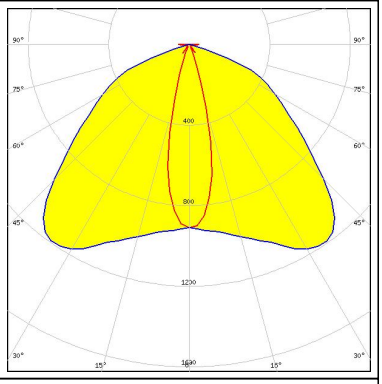




LUMILEDS

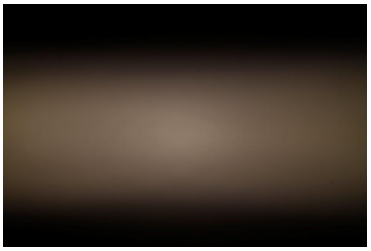
| | |
|---|---|
| LED | LUXEON T |
| FWHM | 26.0 + 110.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

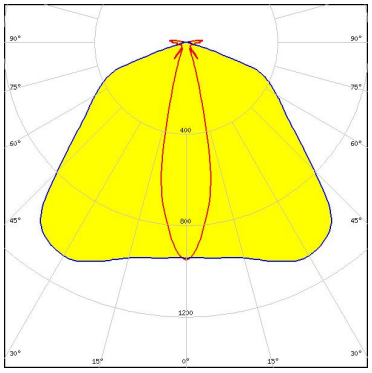




LUMILEDS

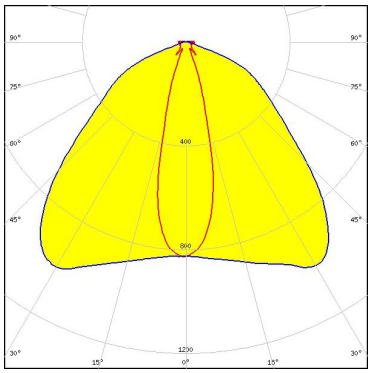
| | |
|---|---|
| LED | LUXEON TX |
| FWHM | 24.0 + 118.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





LUMILEDS

| | |
|---|---|
| LED | LUXEON V |
| FWHM | 26.0 + 108.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

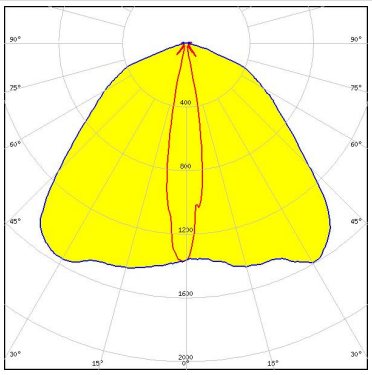


## PHOTOMETRIC DATA (MEASURED):

LUMINUS

| | |
|---|---|
| LED | SST-10-B130 |
| FWHM | 18.0 + 104.0° |
| Efficiency | 97 % |
| Peak intensity | 1.6 cd/lm |
| LEDs/each optic | 1 |
| Light colour | Deep Red |

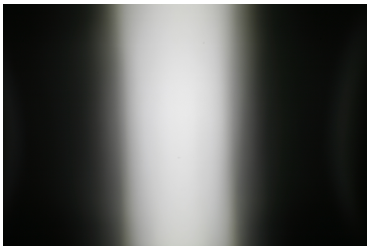
Required components:

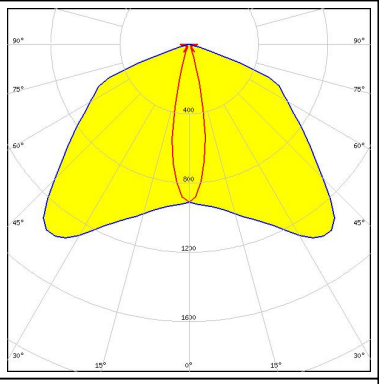


NICHIA

| | |
|---|---|
| LED | NCSxx19B |
| FWHM | 23.0 + 113.0° |
| Efficiency | 94 % |
| Peak intensity | 1.4 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

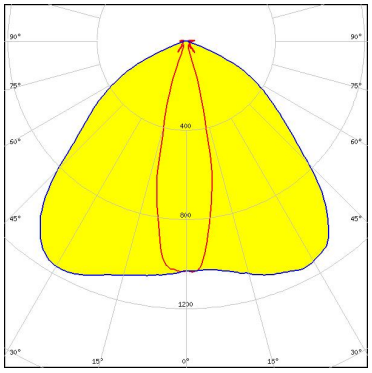




NICHIA

| | |
|---|---|
| LED | NVSW219D |
| FWHM | 25.0 + 107.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

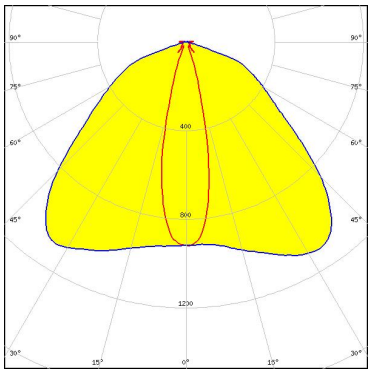
Required components:



NICHIA

| | |
|---|---|
| LED | NVSW319B |
| FWHM | 25.0 + 113.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

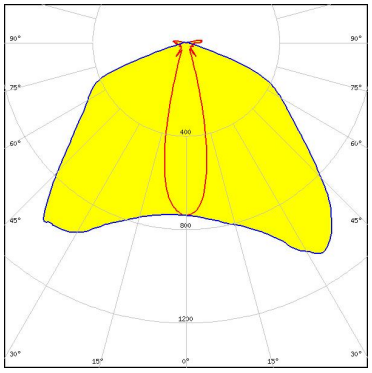
Required components:



## PHOTOMETRIC DATA (MEASURED):

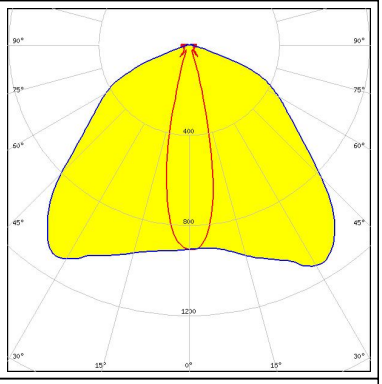
NICHIA

| | |
|---|---|
| LED | NVSW3x9A |
| FWHM | 25.0 + 134.0° |
| Efficiency | 93 % |
| Peak intensity | 0.4 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



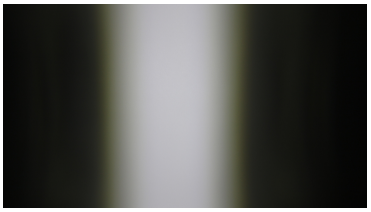
NICHIA

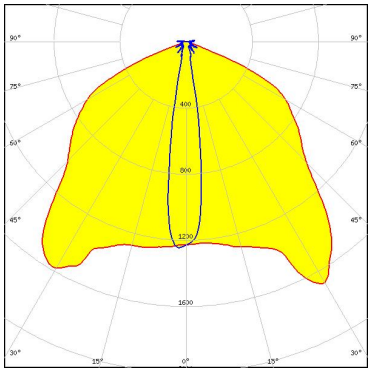
| | |
|---|---|
| LED | NVSW3x9A |
| FWHM | 24.0 + 119.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



NICHIA

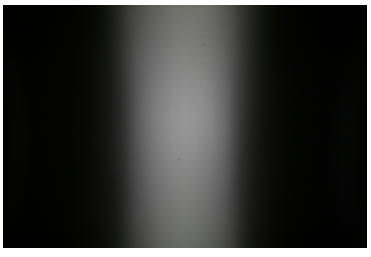
| | |
|---|---|
| LED | NVSxE21A |
| FWHM | 17.0 + 125.0° |
| Efficiency | 94 % |
| Peak intensity | 1.7 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

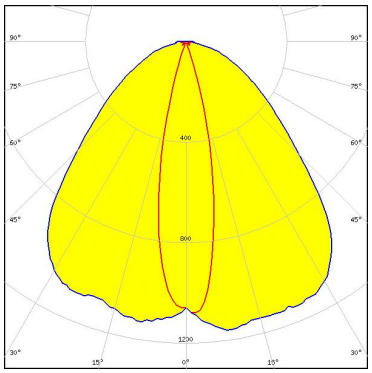




NICHIA

| | |
|---|---|
| LED | NVSxx19A |
| FWHM | 24.0 + 105.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

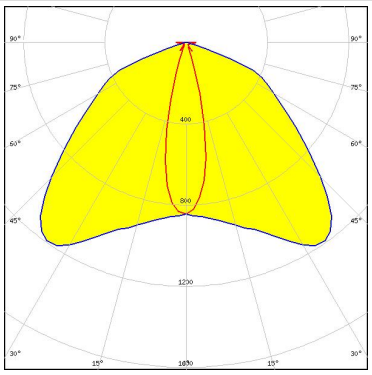




## PHOTOMETRIC DATA (MEASURED):

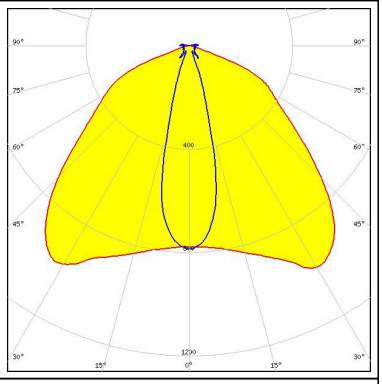
NICHIA

| | |
|---|---|
| LED | NVSxx19B/NVSxx19C |
| FWHM | 26.0 + 108.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



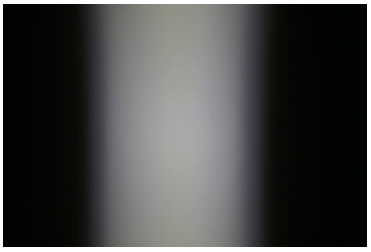
NICHIA

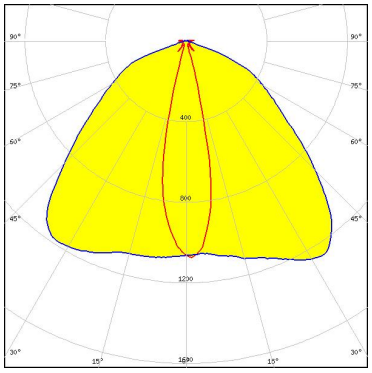
| | |
|---|---|
| LED | NWSx229A |
| FWHM | 27.0 + 118.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



OSRAM

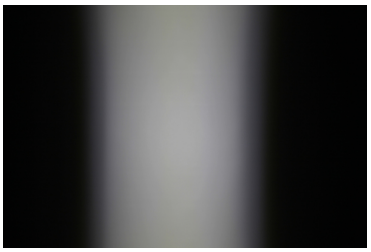
| | |
|---|---|
| LED | PrevaLED Brick HP 2x8 |
| FWHM | 23.0 + 111.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

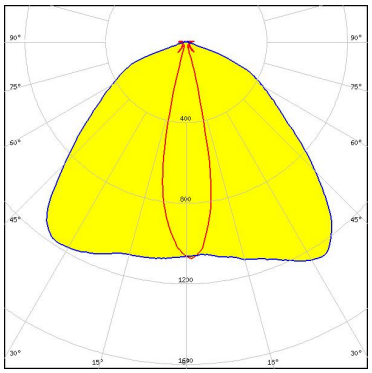




OSRAM
Opto Semiconductors

| | |
|---|---|
| LED | OSLON Square CSSRM2/CSSRM3 |
| FWHM | 23.0 + 111.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

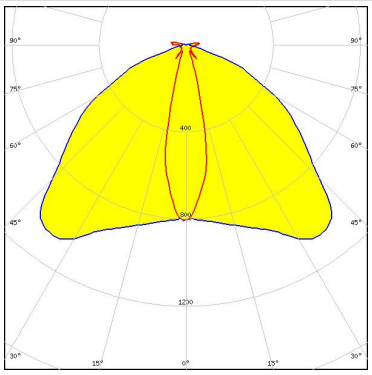




## PHOTOMETRIC DATA (MEASURED):

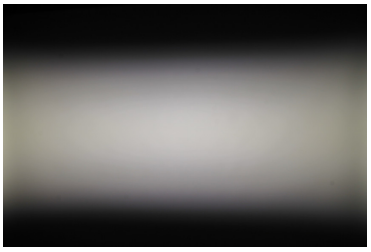
**OSRAM**
Opto Semiconductors

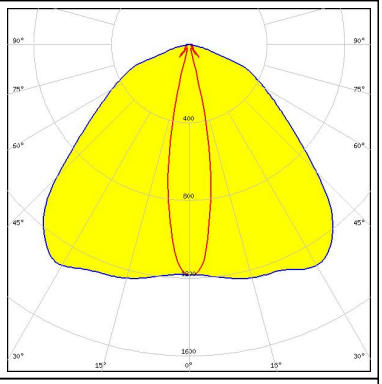
| | |
|---|---|
| LED | OSLON Square PC |
| FWHM | 25.0 + 124.0° |
| Efficiency | 91 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



**PHILIPS**

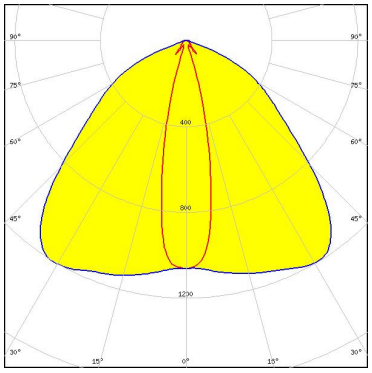
| | |
|---|---|
| LED | Fortimo FastFlex LED 2x8 DA G4 |
| FWHM | 21.0 + 108.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





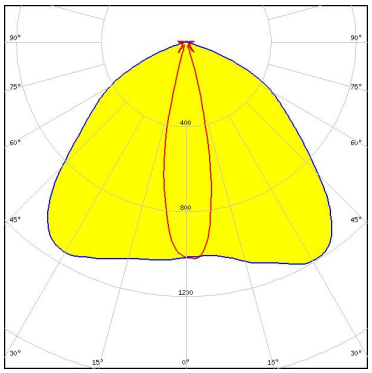
**SAMSUNG**

| | |
|---|---|
| LED | HiLOM RH16 (LH351C) |
| FWHM | 23.0 + 106.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



**SAMSUNG**

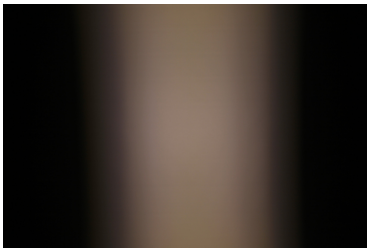
| | |
|---|---|
| LED | LH351B |
| FWHM | 23.0 + 113.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

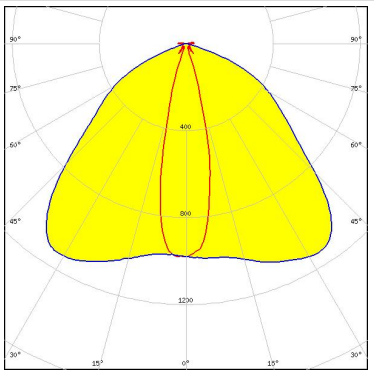


## PHOTOMETRIC DATA (MEASURED):

SAMSUNG

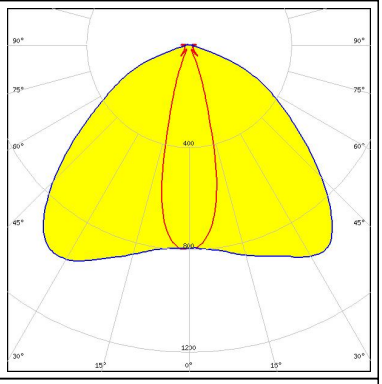
| | |
|---|---|
| LED | LH351C |
| FWHM | 24.0 + 111.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |





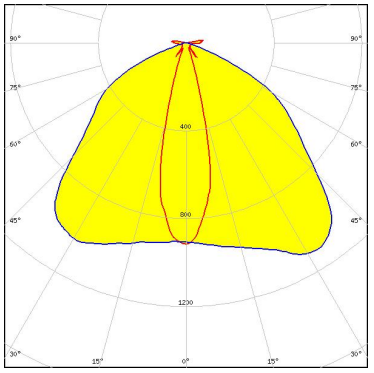
SAMSUNG

| | |
|---|---|
| LED | LH351D |
| FWHM | 27.0 + 116.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



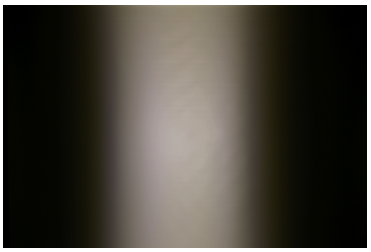
SAMSUNG

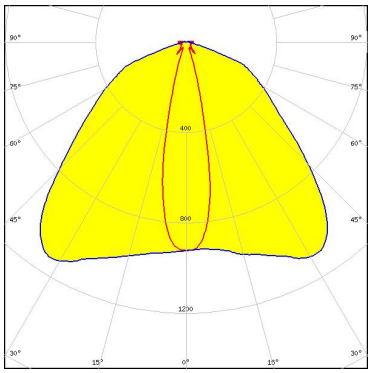
| | |
|---|---|
| LED | LH351Z |
| FWHM | 26.0 + 117.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | Z5M3 |
| FWHM | 23.0 + 113.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



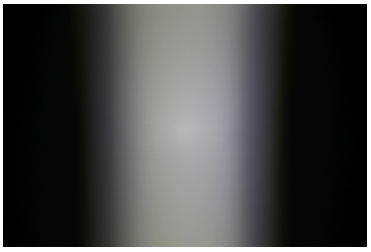


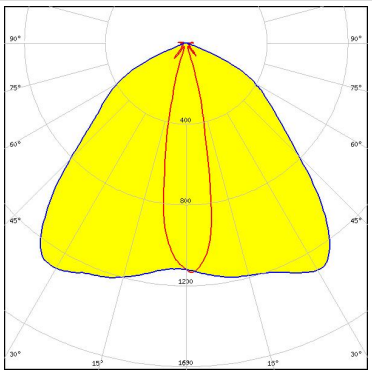
## PHOTOMETRIC DATA (MEASURED):

SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | Z5M4 |
| FWHM | 22.0 + 97.0° |
| Efficiency | 98 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

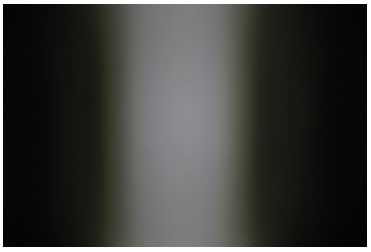


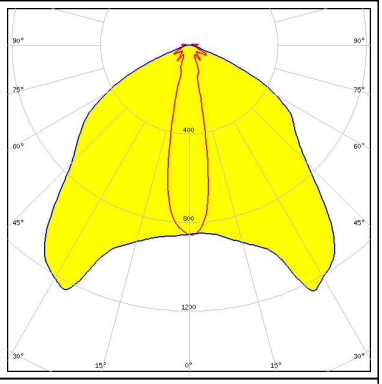


SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | Z8Y22 |
| FWHM | 21.0 + 121.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

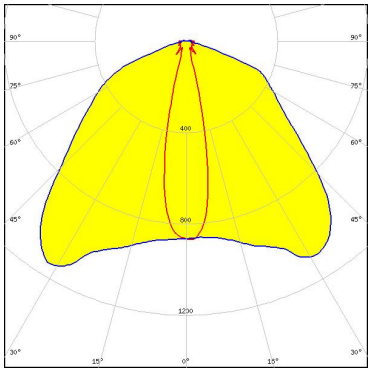




SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | Z8Y22P |
| FWHM | 23.0 + 121.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

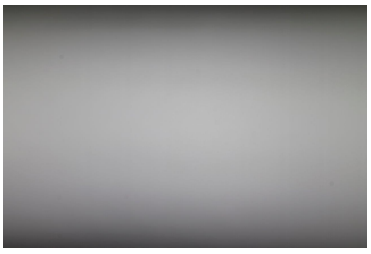
Required components:



TOSHIBA
Leading Innovation

| | |
|---|---|
| LED | TL1L4 |
| FWHM | 24.0 + 119.0° |
| Efficiency | 89 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:



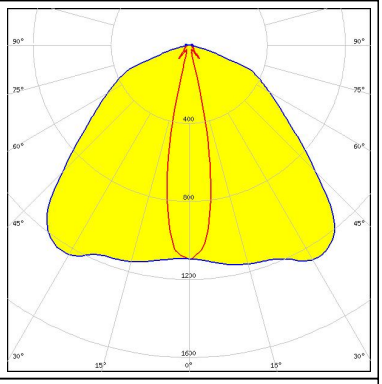
## PHOTOMETRIC DATA (MEASURED):

**TRIDONIC**

| | |
|---|---|
| LED | RLE 2x4 2000lm HP EXC2 OTD |
| FWHM | 22.0 + 113.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

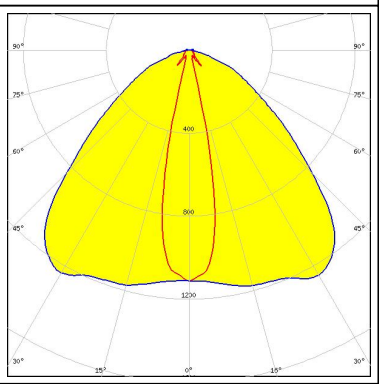
**TRIDONIC**

| | |
|---|---|
| LED | RLE 2x8 4000lm HP EXC2 OTD |
| FWHM | 22.0 + 113.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



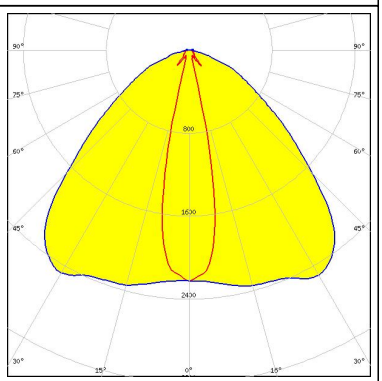
**TRIDONIC**

| | |
|---|---|
| LED | RLE G1 49x121mm 2000lm xxx EXC OTD |
| FWHM | 23.0 + 104.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



**TRIDONIC**

| | |
|---|---|
| LED | RLE G1 49x133mm 2000lm xxx EXC OTD |
| FWHM | 23.0 + 104.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

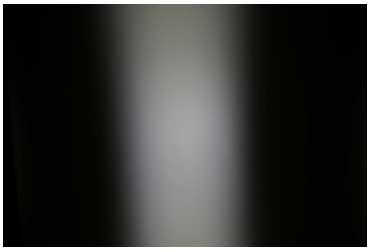


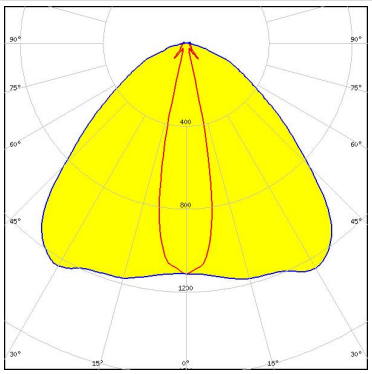
## PHOTOMETRIC DATA (MEASURED):

**TRIDONIC**

| | |
|---|---|
| LED | RLE G1 49x223mm 4000lm xxx EXC OTD |
| FWHM | 23.0 + 104.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

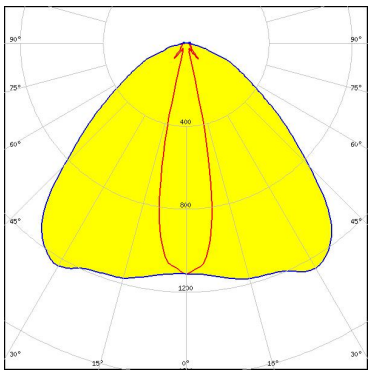




**TRIDONIC**

| | |
|---|---|
| LED | RLE G1 49x245mm 4000lm xxx EXC OTD |
| FWHM | 23.0 + 104.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

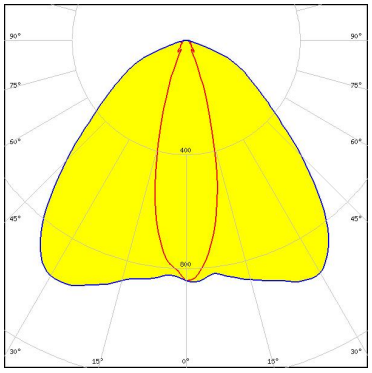


## PHOTOMETRIC DATA (SIMULATED):

CREE

| | |
|---|---|
| LED | J Series 5050 |
| FWHM | 30.0 + 97.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

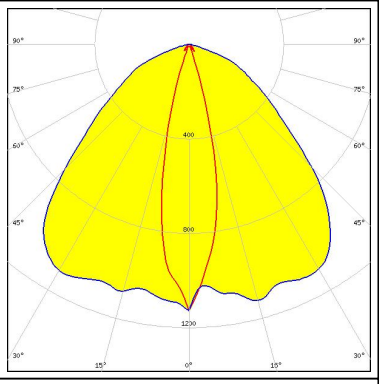
Required components:



CREE

| | |
|---|---|
| LED | XHP35 HI |
| FWHM | 101.0 + 27.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

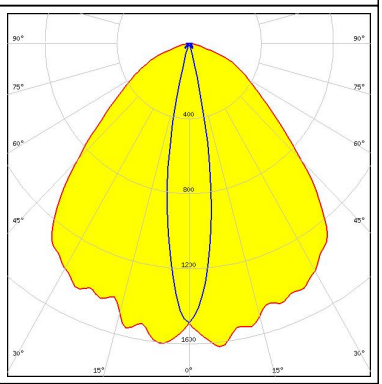
Required components:



CREE

| | |
|---|---|
| LED | XP-E2 |
| FWHM | 93.0 + 18.0° |
| Efficiency | 94 % |
| Peak intensity | 1.6 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

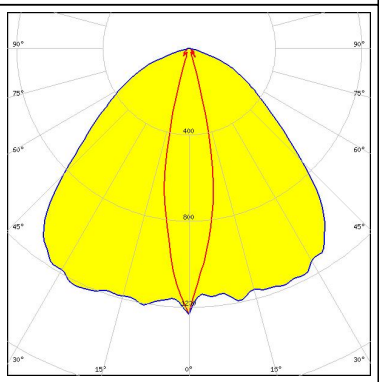


CREE

| | |
|---|---|
| LED | XP-G2 |
| FWHM | 21.0 + 98.0° |
| Efficiency | 91 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

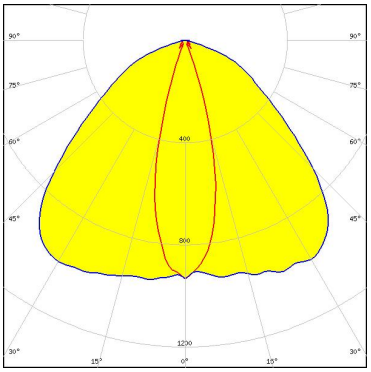
Transparent protective cover



## PHOTOMETRIC DATA (SIMULATED):

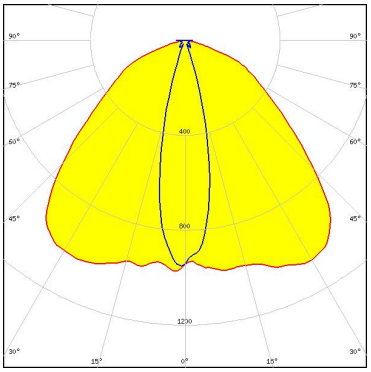
CREE

| | |
|---|---|
| LED | XP-G2 HE |
| FWHM | 28.0 + 103.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



CREE

| | |
|---|---|
| LED | XP-G3 |
| FWHM | 103.0 + 29.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

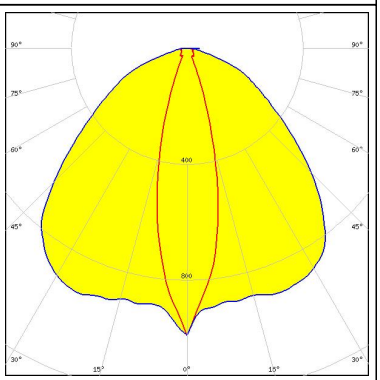


CREE

| | |
|---|---|
| LED | XQ-E HI |
| FWHM | 96.0 + 14.0° |
| Efficiency | % |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |

CREE

| | |
|---|---|
| LED | XT-E HE |
| FWHM | 100.0 + 24.0° |
| Efficiency | 94 % |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



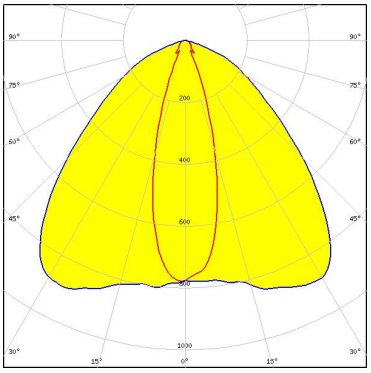
## PHOTOMETRIC DATA (SIMULATED):

LUMILEDS

| | |
|---|---|
| LED | LUXEON 5050 Round LES |
| FWHM | 30.0 + 96.0° |
| Efficiency | 88 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

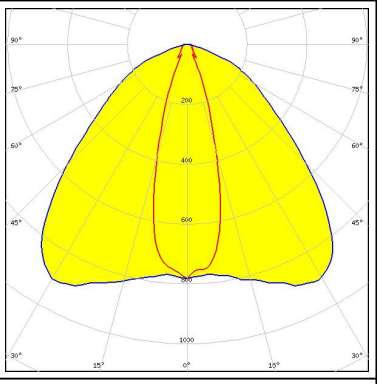
Transparent protective cover



LUMILEDS

| | |
|---|---|
| LED | LUXEON 5050 Square LES |
| FWHM | 30.0 + 98.0° |
| Efficiency | 95 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

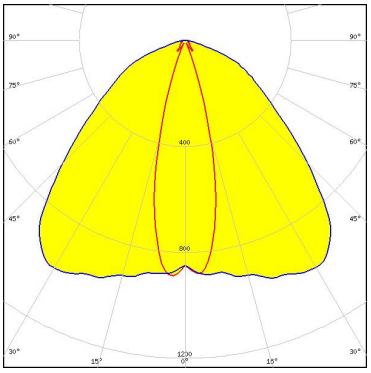
Required components:



NICHIA

| | |
|---|---|
| LED | NV4WB35AM |
| FWHM | 28.0 + 100.0° |
| Efficiency | 95 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

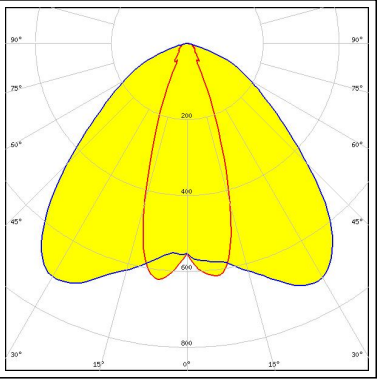


OSRAM
Opto Semiconductors

| | |
|---|---|
| LED | Duris S8 |
| FWHM | 36.0 + 98.0° |
| Efficiency | 87 % |
| Peak intensity | 0.7 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |

Required components:

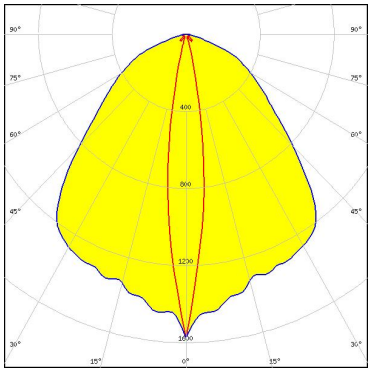
Transparent protective cover



## PHOTOMETRIC DATA (SIMULATED):

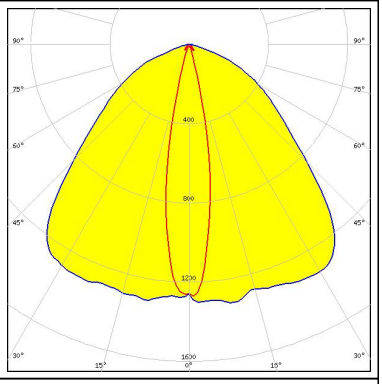
OSRAM
Opto Semiconductors

| | |
|---|---|
| LED | OSCONIQ P 3030 |
| FWHM | 14.0 + 92.0° |
| Efficiency | 95 % |
| Peak intensity | 1.6 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



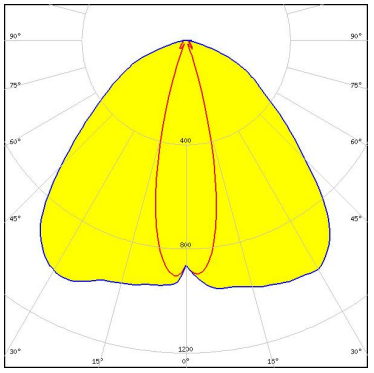
OSRAM
Opto Semiconductors

| | |
|---|---|
| LED | OSCONIQ P 3737 (2W version) |
| FWHM | 99.0 + 19.0° |
| Efficiency | 94 % |
| Peak intensity | 1.3 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



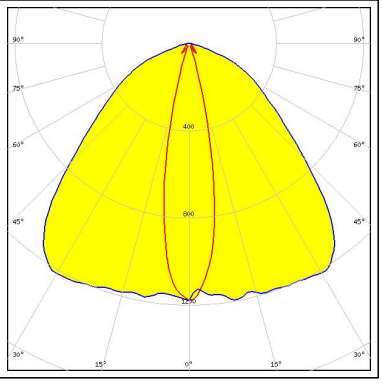
OSRAM
Opto Semiconductors

| | |
|---|---|
| LED | OSCONIQ P 3737 (3W version) |
| FWHM | 100.0 + 30.0° |
| Efficiency | 94 % |
| Peak intensity | 1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



OSRAM
Opto Semiconductors

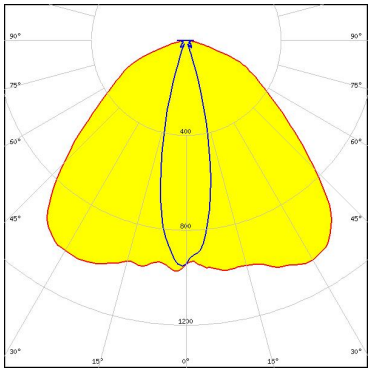
| | |
|---|---|
| LED | OSCONIQ P 3737 Flat |
| FWHM | 22.0 + 98.0° |
| Efficiency | 96 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



## PHOTOMETRIC DATA (SIMULATED):

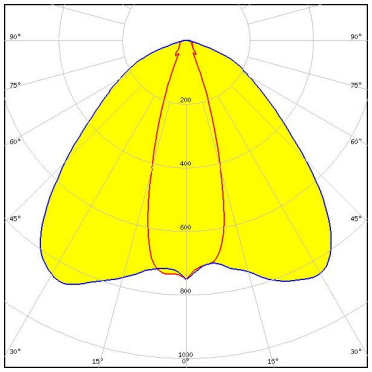
PHILIPS

| | |
|---|---|
| LED | Fortimo FastFlex LED 2x8 DAX G4 |
| FWHM | 103.0 + 29.0° |
| Efficiency | 94 % |
| Peak intensity | 1.1 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



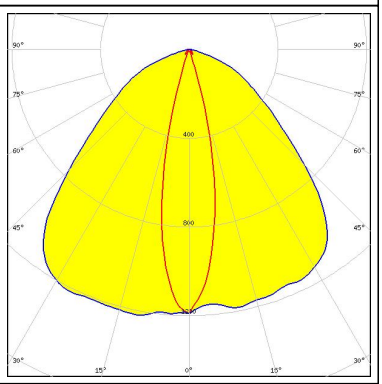
SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | SEOUL DC 5050 6V |
| FWHM | 33.0 + 98.0° |
| Efficiency | 94 % |
| Peak intensity | 0.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



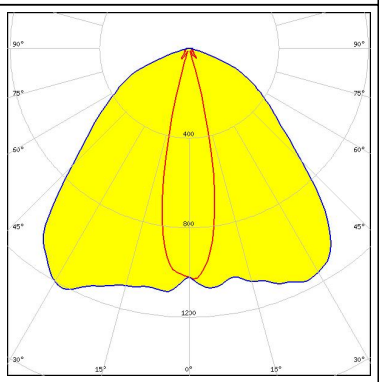
SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | Z5M1/Z5M2 |
| FWHM | 22.0 + 97.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



SEOUL SEMICONDUCTOR

| | |
|---|---|
| LED | Z8Y22T |
| FWHM | 21.0 + 96.0° |
| Efficiency | 94 % |
| Peak intensity | 1.2 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: | |



## 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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