

## HB-2X2-WW

~65° wide beam optimized for CREE XP-L and XM-L

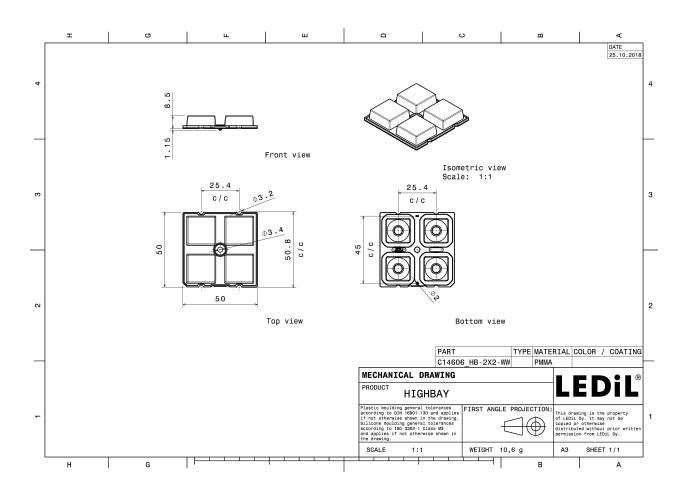
#### **TECHNICAL SPECIFICATIONS:**

Dimensions	50.0 mm
Height	8.5 mm
Fastening	pin, screw
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	9.2 kg
Quantity in Box	800 pcs
ROHS compliant	yes 🛈



#### **MATERIAL SPECIFICATIONS:**

Component HB-2X2-WW **Type** Multi-lens **Material** PMMA Colour clear

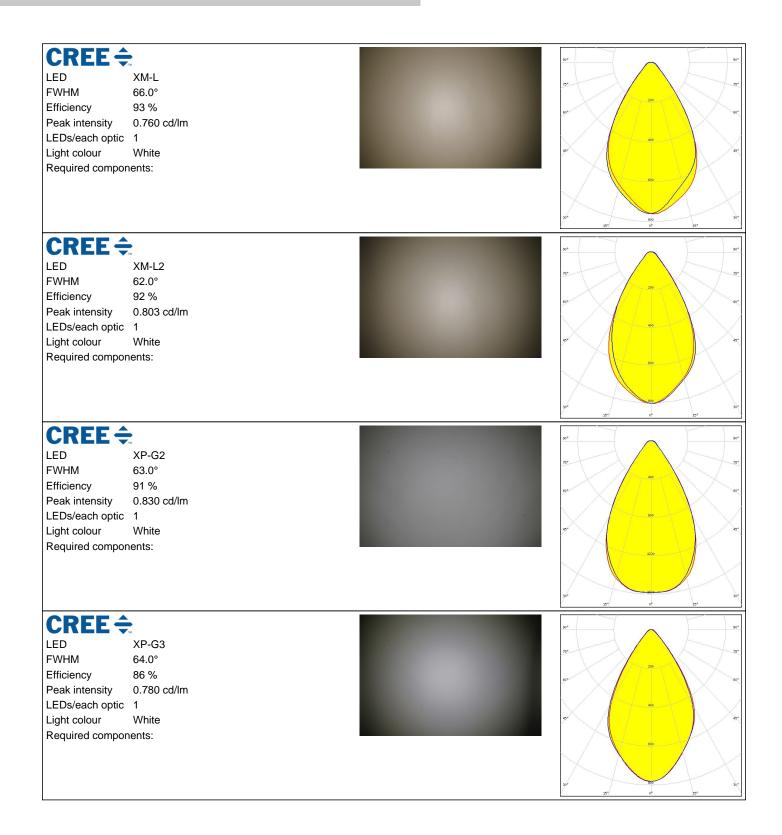


R



bridgetux. LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	White	5°, 5°, 6°, 6°, 6°, 6°, 6°, 6°, 6°, 6°, 6°, 6
CREE LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	XD16 61.0° 92 % 0.780 cd/lm 4 White	
CREE LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	XD16 63.0° 93 % 0.800 cd/lm 1 White	91 92 92 92 92 92 92 92 92 92 92 92 92 92
CREE LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	XHP35 HD 67.0° 84 % 0.700 cd/lm 1 White	







CREE LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	XP-L HD 66.0° 93 % 0.735 cd/lm 1 White	
CREE LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	XP-L2 62.0° 93 % 0.770 cd/lm 1 White	40 60 60 60 60 60 60 60 60 60 6
<b>C</b> LG Innot LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	H35C1 (LEMWA33) 63.0° 92 % 0.820 cd/lm 1 White	
W LUMIL LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	LUXEON 5050 Round LES 61.0° 94 % 0.820 cd/lm 1 White	



EUMIL LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	LUXEON V 63.0° 93 % 0.800 cd/lm 1 White	
CUMIL LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	LUXEON V2 61.0° 94 % 0.880 cd/lm 1 White	
ED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	NVSW219D 64.0° 94 % 0.810 cd/lm 1 White	
<b>NICHIA</b> LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	White	



EFWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	NVSW319B 68.0° 93 % 0.750 cd/lm 1 White	
<b>NICHIA</b> LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	NVSW3x9A 62.0° 93 % 0.830 cd/lm 1 White	
<b>NICHIA</b> LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	NWSx229A 63.0° 85 % 0.770 cd/lm 1 White	
OSRAM LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	PrevaLED Brick HP 2x8 64.0° 92 % 0.820 cd/lm 1 White	



OSRAM Opto Semiconductors LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	White	
OSRAM Opto Semiconductors LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	White	20 00 00 00 00 00 00 00 00 00
PHILIP LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	Fortimo FastFlex LED 2x8 DA G4 64.0° 93 % 0.790 cd/lm 1 White	
SAMSU LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	HiLOM RH16 (LH351C) 61.0° 94 % 0.850 cd/lm 1 White	25° 0° 25° 0° 26° 000 27° 000 28° 0° 200 200 200 200 200 200 20°



SAMSU LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	LH351B 62.0° 86 % 0.830 cd/lm 1 White	
SAMSU LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	LH351C 62.0° 93 % 0.840 cd/lm 1 White	99 <sup>4</sup> 9 77 200 99 99 99 99 90 90 90 90 90 90 90 90 9
SAMSU LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	LH351D 62.0° 91 % 0.780 cd/lm 1 White	50 50 50 50 50 50 50 50 50 50
SAMSU LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	NG LH508A 60.0° 93 % 0.820 cd/lm 1 White	200 30 <sup>4</sup> 35 <sup>5</sup> 0 <sup>4</sup> 200 6 <sup>4</sup> 200 200 200 200 200 200 200 20
	ono.	34* 157 0* 15°



SECUL SEMICONDUCTOR LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	White	9x* 9y* 9y* 9y* 9y* 9y* 9y* 9y* 9y* 9y* 9y
seoul senconductor LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	White	20 20 20 20 20 20 20 20 20 20
seoul seniconductor LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	White	94*     95*       72*     72       64*     65*       65*     66*       60*     60*       90     90*
SEOUL SEMICONDUCTOR LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compon	White	200 - 200 -

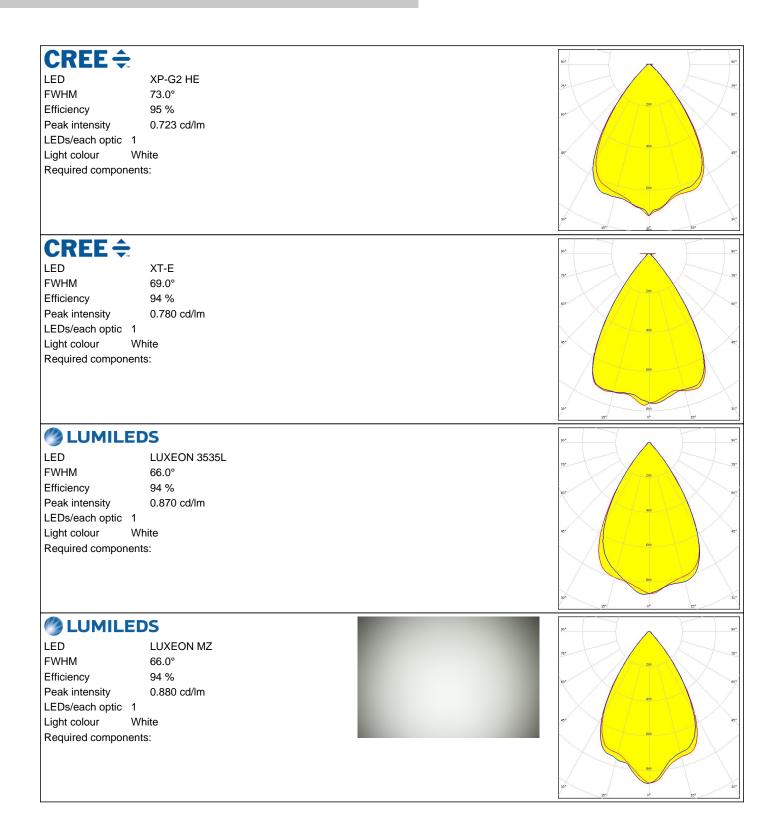


seoul semiconductor LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	White	200 00 00 00 00 00 00 00 00 00
TRIDON LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	RLE 2x4 2000lm HP EXC2 OTD 61.0° 94 % 0.850 cd/lm 1 White	
<b>TRIDON</b> LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	RLE 2x8 4000lm HP EXC2 OTD 61.0° 94 % 0.850 cd/lm 1 White	20 00 00 00 00 00 00 00 00 00
<b>TRIDON</b> LED FWHM Efficiency Peak intensity LEDs/each optic Light colour Required compor	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° 94 % 0.830 cd/lm 1 White	20 0 0 0 0 0 0 0 0 0 0 0 0 0



TRIDON	IC	90*
LED	RLE G1 49x133mm 2000lm xxx EXC OTD	75*
FWHM	61.0°	400
Efficiency	94 %	60* 60
Peak intensity	0.830 cd/lm	
LEDs/each optic	1	
Light colour	White	es. es
Required compor	ents:	120 160 160 160 160
TRIDON	IC	50'
LED	RLE G1 49x223mm 4000lm xxx EXC OTD	
FWHM	61.0°	400
Efficiency	94 %	607 60
Peak intensity	0.830 cd/lm	
LEDs/each optic		
Light colour	White	er e
Required compor		30 <sup>4</sup> 22 <sup>5</sup> 0 <sup>4</sup> 22 <sup>5</sup> 30
TRIDON		50° 50
LED	RLE G1 49x245mm 4000lm xxx EXC OTD	
FWHM	61.0°	75'
Efficiency	94 %	
Peak intensity	0.830 cd/lm	
LEDs/each optic	1	400
Light colour	White	ar a
Required compor	ents:	900 - 500 -







OSRAM Opto Semiconductors LED OSCONIQ P 3030	
LED OSCONIQ P 3030	90'
FWHM 66.0°	7.00
Efficiency 96 %	
Peak intensity 0.831 cd/lm	60'
LEDs/each optic 1	$\backslash$
Light colour White	
Required components:	K
	$\Lambda X$
80	
30 <sup>4</sup> 135 <sup>9</sup> 0 <sup>4</sup>	12,
OSRAM Opto Semiconductors	90'
LED OSCONIQ P 3737 (2W version)	
FWHM 66.0°	20
Efficiency 96 %	
Peak intensity 0.872 cd/lm	<u> </u>
LEDs/each optic 1	$\setminus$
Light colour White	45'
Required components:	
	X
30°	30'
- 100 - 100	12, 30,
DSRAM Opto Semiconductors	120 300
Opto Semiconductors	12° 30'
Opto Semiconductors	15° 30'
Opto Semiconductors Note Semiconductors   LED OSCONIQ P 3737 (3W version)	30 30 30
Optio Semiconductors LED OSCONIQ P 3737 (3W version)   FWHM 66.0°	90°
Opto Semiconductors 20   LED OSCONIQ P 3737 (3W version)   FWHM 66.0°   Efficiency 94 %   Peak intensity 0.920 cd/lm	25 <sup>3</sup> 30 <sup>3</sup>
Optio Semiconductors DSCONIQ P 3737 (3W version)   FWHM 66.0°   Efficiency 94 %	25 30 99 72 72
Opto Semiconductors Version)   LED OSCONIQ P 3737 (3W version)   FWHM 66.0°   Efficiency 94 %   Peak intensity 0.920 cd/lm   LEDs/each optic 1 40	27 27 29 29 29 29
Corpos Semiconductors DSCONIQ P 3737 (3W version)   FWHM 66.0°   Efficiency 94 %   Peak intensity 0.920 cd/lm   LEDs/each optic 1   Light colour White	25 <sup>1</sup> 30 72 72 62
Optio Semiconductors LED OSCONIQ P 3737 (3W version)   FWHM 66.0°   Efficiency 94 %   Peak intensity 0.920 cd/lm   LEDs/each optic 1   Light colour White	35 99 72 60 60
Corpos Semiconductors DSCONIQ P 3737 (3W version)   FWHM 66.0°   Efficiency 94 %   Peak intensity 0.920 cd/lm   LEDs/each optic 1   Light colour White	
Optiosemiconductors     LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   1     Light colour   White     Required components:   6°	151 151 151 151 151 151 151 151 151 151
Optiosemiconductors     LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components:   60     COSCONS   500	25 25 25 25 25 25 25 25 25 25 25 25 25 2
Optiosemicenductors   LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components:   Image: Colour of the second se	25 25 25 25 25 25 25 25 25 25 25 25 25 25 2
Optiosemiconductors     LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components:   Image: Colour of the semiconductors     OSCONIQ P 3737 Flat   Image: Colour of the semiconductors     LED   OSCONIQ P 3737 Flat     FWHM   64.0°	23 99 72 72 72 72 72 72 72 72 72 72 72 72 72
Option Semiconductors   LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components:   Image: Component Semiconductors     OSCONIQ P 3737 Flat   Image: Component Semiconductors     LED   OSCONIQ P 3737 Flat     FWHM   64.0°     Efficiency   95 %	22 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25
Optimizeductors   LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components:   Image: Colour of the second	
Ueb semiconductors   LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components:   Image: Component State Stat	151 151 151 151 151 151 151 151 151 151
UED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components   Required components     SERMENT   Second P 3737 Flat     FWHM   64.0°     Efficiency   95 %     Peak intensity   0.915 cd/lm     LEDs/each optic 1   Light colour     Light colour   White	22 23 24 25 25 25 25 25 25 25 25 25 25
UED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components   Image: Colour of the second sec	25 25 25 25 25 25 25 25 25 25 25 25 25 2
Devisementations     LED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components   Image: Colour of the second o	151 151 151 151 151 151 151 151 151 151
UED   OSCONIQ P 3737 (3W version)     FWHM   66.0°     Efficiency   94 %     Peak intensity   0.920 cd/lm     LEDs/each optic 1   Light colour     Light colour   White     Required components   Required components     SERMENT   Second P 3737 Flat     FWHM   64.0°     Efficiency   95 %     Peak intensity   0.915 cd/lm     LEDs/each optic 1   Light colour     Light colour   White	



OSRAM Opto Semiconductors		90*
LED	OSLON SSL 80	
FWHM	55.6°	73
Efficiency	94 %	60
Peak intensity	1.100 cd/lm	400
LEDs/each optic 1		
Light colour W	nite	e. e.
Required component	S:	
		304 36
DUUUDO		15 <sup>7</sup> 0 <sup>4</sup> 15 <sup>7</sup>
PHILIPS		90* 90*
LED	Fortimo FastFlex LED 2x8 DAX G4	75
FWHM	71.0°	200
Efficiency	94 %	ese es
Peak intensity	0.760 cd/lm	
LEDs/each optic 1		
0	nite	e. (c)
Required component	S:	
		30 <sup>°</sup> 800 30 <sup>°</sup>
SAMSUN	IG	
LED	LH231B	
FWHM	60.0°	
Efficiency	94 % 1.000 cd/lm	
Peak intensity LEDs/each optic 4	1.000 ca/im	
	nite	
Required component		
	5.	
SEOUL		
SEOUL SEMICONDUCTOR		90 <sup>4</sup> 90
LED	SEOUL DC 5050 6V	75
FWHM	64.0°	
Efficiency	94 %	60*
Peak intensity	0.790 cd/lm	
LEDs/each optic 1		40
	nite	
Required component	S:	
		34* 000 36
		15 00 15 15



SEOUL SEOUL SEMICONDUCTOR		<u>90*</u>
LED	Z8Y22T	75°
FWHM	55.0°	
Efficiency	94 %	60.0 60.0
Peak intensity	1.130 cd/lm	
LEDs/each optic 1		
Light colour Wł	nite	98°
Required components:		
		34° 120 120 120



#### **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 13 FI-24240 SALO Finland

#### LEDiL Inc.

228 West Page Street Suite D Sycamore IL 60178 USA

#### Local sales and technical support www.ledil.com/ where\_to\_buy

Shipping locations Salo, Finland Hong Kong, China

Distribution Partners www.ledil.com/ where\_to\_buy