

# HB-2X2-M

~25° medium beam

## **TECHNICAL SPECIFICATIONS:**

Dimensions	50.0 x 50.0 mm
Height	8.5 mm
Fastening	glue, pin, screw
ROHS compliant	yes 🛈



## **MATERIAL SPECIFICATIONS:**

Component HB-2X2-M **Type** Multi-lens

Material	Colour	Finish
PMMA	clear	

### **ORDERING INFORMATION:**

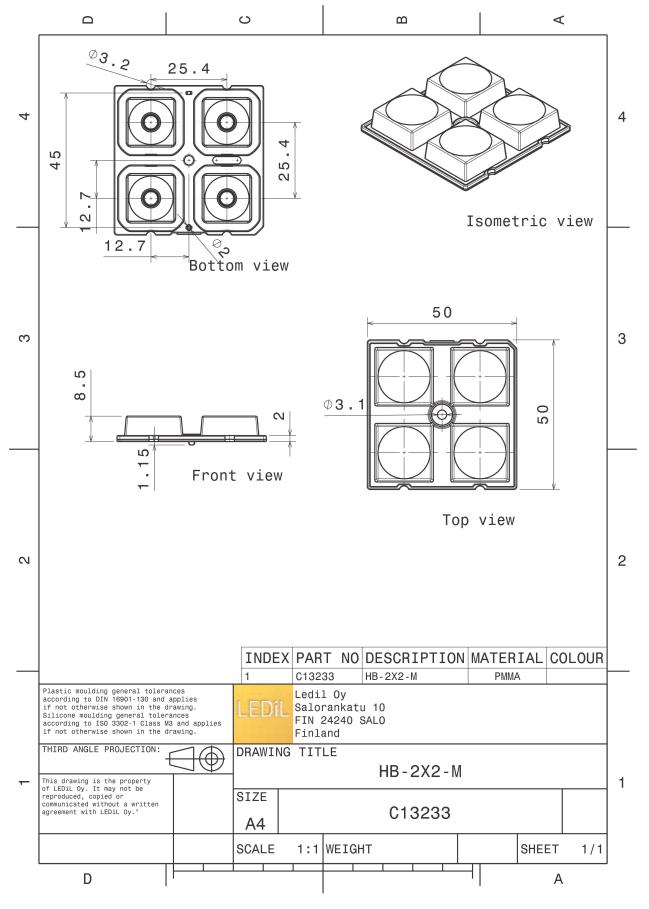
Component C13233\_HB-2X2-M » Box size: 480 x 280 x 300 mm

Qty in box	MOQ	MPQ	Box weight (kg)
800	160	160	9.2



PRODUCT DATASHEET C13233\_HB-2X2-M





See also our general installation guide: <u>www.ledil.com/installation\_guide</u>



LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	QUICK FLUX XTP 2x4 xxx LS G5 28.0° / 52.0° 94 % 3.1 cd/lm 1 White ts:	
EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	QUICK FLUX XTP 2x6 xxx LS G5 29.0° / 52.0° 94 % 3 cd/lm 1 White ts:	97 97 99 99 97 97 90 90 90 90 90 90 90 90 90 90 90 90 90
CREE CLED	XB-D 26.0° / 47.0° 94 %	800 12 10 10 10 10 10 10 10 10 10 10 10 10 10
Peak intensity LEDs/each optic Light colour Required componer	3.9 cd/lm 1 White ts:	
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G 31.0° / 54.0° 91 % 3.1 cd/lm 1 White	200 200 200 200 200 200 200 200



		59* 50*
LED	XP-G2	
FWHM / FWTM	33.0° / 54.0°	73
Efficiency	93 %	
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	gr di
Required compone	nts:	
		320
		34-
LED	XT-E	
EED FWHM / FWTM	25.0° / 46.0°	37
Efficiency	92 %	
Peak intensity	3.7 cd/lm	
LEDs/each optic	1	
Light colour	White	g. at
Required compone		240
riequired compone		$\times$ / $\times$ /
		20° 400 35° 40
-		
UMIL	EDS	50*
	EDS LUXEON Q	30 <sup>4</sup>
		90 <sup>5</sup> 72 73 70 75 75
LED	LUXEON Q	50 <sup>4</sup> 50 <sup>7</sup> 50 <sup>7</sup>
LED FWHM / FWTM Efficiency Peak intensity	LUXEON Q 26.0° / 49.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON Q 26.0° / 49.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White	64
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts:	er 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0° 91 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0° 91 % 5.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0° 91 % 5.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0° 91 % 5.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0° 91 % 5.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Q 26.0° / 49.0° 94 % 3.6 cd/lm 1 White nts: EDS LUXEON Z ES 21.0° / 42.0° 91 % 5.6 cd/lm 1 White	



<b>ØNICHI</b>			90*
LED	NVSxE21A		
FWHM / FWTM	20.0° / 40.0°		
Efficiency	94 %		100
Peak intensity	5 cd/lm		
LEDs/each optic	1		
Light colour	White		43° (
Required compone	nts:		3300
			30°
			13° 0° 35°
<b>ØNICHI</b>			90* 95
LED	NVSxx19B/NVSxx19C		75
FWHM / FWTM	29.0° / 53.0°		
Efficiency	90 %		60 <sup>s</sup>
Peak intensity	3 cd/lm		
LEDs/each optic	1		1600
Light colour	White		
Required compone	nts:		
			2400
			30* 3320 32
			15° 15°
MNICHIA			
			9x*9
LED	NVSxx19B/NVSxx19C		95 <sup>4</sup>
LED FWHM / FWTM	NVSxx19B/NVSxx19C 29.0° / 52.0°		
LED FWHM / FWTM Efficiency	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 %		75
LED FWHM / FWTM Efficiency Peak intensity	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm		71° 61° 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1		75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White		71° 61° 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White		71° 61° 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White		gr 25 gr 250 gr 250 gr 250 gr 250 gr 250 gr 25 gr 25 g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White		gr 25 gr 250 gr 250 gr 250 gr 250 gr 250 gr 25 gr 25 g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White		gr 25 gr 250 gr 250 gr 250 gr 250 gr 250 gr 25 gr 25 g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts:		27 60 61 62 7 7 7 7 7 7 7 7 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/Im 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>OSRAN</b> LED FWHM / FWTM Efficiency	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0° 93 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAN LED FWHM / FWTM Efficiency Peak intensity	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0° 93 % 3.4 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0° 93 % 3.4 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0° 93 % 3.4 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0° 93 % 3.4 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxx19B/NVSxx19C 29.0° / 52.0° 91 % 3.1 cd/lm 1 White nts: PrevaLED Brick HP 2x8 30.0° / 51.0° 93 % 3.4 cd/lm 1 White		



OSRAM Opto Semiconductors		99*
LED	OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM	30.0° / 51.0°	75
Efficiency	93 %	
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	g* a
Required compone	nts:	200
		229 64 229
OSRAM Opto Semiconductors		90 <sup>4</sup>
LED	OSLON Square PC	
FWHM / FWTM	30.0° / 54.0°	
Efficiency	91 %	eve
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	
		3300
GVWGI	ING	
SAMSU		99 <sup>-</sup>
LED	LH351B	35 <sup>5</sup>
LED FWHM / FWTM	LH351B 31.0° / 53.0°	23 29 29
LED FWHM / FWTM Efficiency	LH351B 31.0° / 53.0° 94 %	93 <sup>4</sup> 72 61 61 60 60
LED FWHM / FWTM Efficiency Peak intensity	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm	93* 9 73* 00. 63* 00.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White	95
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts: JNG LH351Z 32.0° / 52.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSU LED FWHM / FWTM Efficiency Peak intensity	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts: JNG LH351Z 32.0° / 52.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency Peak intensity	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>SAMSSU</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 31.0° / 53.0° 94 % 2.8 cd/lm 1 White nts:	



scoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y15 20.0° / 41.0° 89 % 4.6 cd/Im 1 White hts:	
scours semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y19 22.0° / 46.0° 89 % 3.8 cd/lm 1 White hts:	
seous semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22 24.0° / 53.0° 94 % 3 cd/lm 1 White hts:	
stout semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22P 28.0° / 56.0° 94 % 2.9 cd/lm 1 White hts:	



TOSHIBA Leading Innovation >>>		90* 90*
LED	TL1L4	
FWHM / FWTM	25.0° / 46.0°	75*
Efficiency	85 %	
Peak intensity	3.5 cd/lm	80 <sup>4</sup>
LEDs/each optic	1 White	43 <sup>4</sup>
Light colour Required component		2430
Required component		
		30° 15° 0° 15° 36°
TRIDON		90° 90°
LED	RLE 2x4 2000lm HP EXC2 OTD	75'
FWHM / FWTM	29.0° / 50.0°	
Efficiency	93 %	60* 60*
Peak intensity	3.4 cd/lm	$K \longrightarrow 1 \longrightarrow 7$
LEDs/each optic	1	
Light colour	White	gy
Required compone	nts:	2400
		15° 0° 15°
TRIDON		90* 90*
TRIDON		93 <sup>2</sup>
LED	RLE G1 49x121mm 2000lm xxx EXC OTD	51 <sup>4</sup> 71 71
LED FWHM / FWTM	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0°	
LED FWHM / FWTM Efficiency	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 %	77
LED FWHM / FWTM Efficiency Peak intensity	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm	77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1	77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	90 90 90 90 90 90 90 90 90 90 90 90 90 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	77 - 79 - 79 - 79 - 79 - 79 - 79 - 79 -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	90 90 90 90 90 90 90 90 90 90 90 90 90 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	77 - 79 - 79 - 79 - 79 - 79 - 79 - 79 -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	77 - 79 - 79 - 79 - 79 - 79 - 79 - 79 -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts:	21 21 21 21 21 21 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts:	7' G' G' G' G' G' G' G' G' G' G' G' G' G'
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts:	21 21 21 21 21 21 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component TRIDON LED FWHM / FWTM	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0°	31     32       32     30       33     30       34     30       30     30       30     30       30     30       30     30       30     30       30     30       30     30       30     30       30     30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component TRIDON LED FWHM / FWTM Efficiency	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 %	34     30       64     93       64     93       65     96       66     96       96     96       96     96       96     96       96     96
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component LED FWHM / FWTM Efficiency Peak intensity	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts:	30     30     30       31     30     30       32     30     30       61     62     61       62     62     62       63     62     62       64     75     62       65     75     75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1	30     30     30       31     30     30       32     30     30       61     62     61       62     62     62       63     62     62       64     75     62       65     75     75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	Gr.     1000     100     100       Ja.     1000     100     100     100       Ja.     1000     100     100     100     100       Ja.     1000     100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	Gr.     1000     100     100       Ja.     1000     100     100     100       Ja.     1000     100     100     100     100       Ja.     1000     100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	Gr.     1000     100     100       Ja.     1000     100     100     100       Ja.     1000     100     100     100     100       Ja.     1000     100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	a.     220     61       b.     200     62       d.     200     62
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White	a. 220 61   b. 220 61   b. 200 20   b. 200 61   d. 900 61   d. 900 61   d. 900 61   d. 900 62   d. 900 900



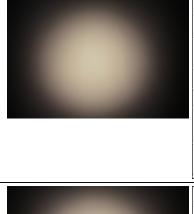
90

### **PHOTOMETRIC DATA (MEASURED):**

# **TRIDONIC**

LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour

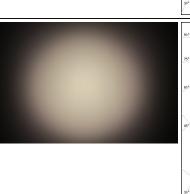
RLE G1 49x223mm 4000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White Required components:



# TRIDONIC

LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:

RLE G1 49x245mm 4000lm xxx EXC OTD 29.0° / 53.0° 94 % 3 cd/lm 1 White





# PHOTOMETRIC DATA (SIMULATED):

CREE LED	XD16 28.0° / 48.0° 95 % 3.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G2 32.0° / 52.0° 93 % 3 cd/lm 1 White	33*     3*       35*     00       64*     6*       10.9     0*
Protective plate	e, glass	30' 300 10' 3'
CREE LED	XQ-E HI 22.0° / 42.0° 93 % 5.5 cd/lm 1 White	209 209 209 209 209 209 209 209
EUMILED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) 28.0° / 49.0° 94 % 3.6 cd/lm 1 White	30° 50° 50° 50° 50° 50° 50° 50° 50° 50° 5



# PHOTOMETRIC DATA (SIMULATED):

	05	90* 90
LED FWHM / FWTM Efficiency Peak intensity	LUXEON C 25.0° / 45.0° 94 % 4.6 cd/lm	79 77 60 2000 00
LEDs/each optic	4.0 co/im 1	
Light colour	White	9° (3
Required components:		30 <sup>4</sup> 20 <sup>2</sup> 2 <sup>2</sup>
OSRAM Opto Semiconductors		90° A 90
LED	OSCONIQ C 2424	
FWHM / FWTM	26.0° / 43.0°	
Efficiency	96 %	60° 1600 60
Peak intensity	4.6 cd/lm	
LEDs/each optic	1	
Light colour	White	47*
Required components:		220
		30° <u>400</u> 30
OSRAM Opto Semiconductors		90 <sup>4</sup> 90
LED	OSLON SSL 80	
FWHM / FWTM	29.6° / 48.1°	23* 23
Efficiency	94 %	605
Peak intensity	3.5 cd/lm	1500
LEDs/each optic	1	
Light colour	White	67 63
Required components:		200 200 200 200 200
SAMSUN	IG	90 <sup>4</sup>
LED	LH231B	
FWHM / FWTM	28.0° / 50.0°	73 73
Efficiency	94 %	
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	1600
Light colour	White	gr a
Required components:		303



## **PHOTOMETRIC DATA (SIMULATED):**

SEOUL SEMICONDUCTOR		90 <sup>4</sup> 99 <sup>4</sup>
LED	Z8Y22T	75
FWHM / FWTM	28.0° / 51.0°	27
Efficiency	94 %	
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	gr det
Required component	ts:	200 200 200 200 200 200 200 200 200 200



### **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.

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#### LEDiL Oy

Joensuunkatu 13 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

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