

# PRODUCT DATASHEET CS15767\_HB-2X2MX-8-M

## HB-2X2MX-8-M

~30° wide beam. New revision.

#### **SPECIFICATION:**

Dimensions	90.0 x 90.0 mm
Height	16.4 mm
Fastening	screw
Ingress protection classes	IP67
ROHS compliant	yes 🛈



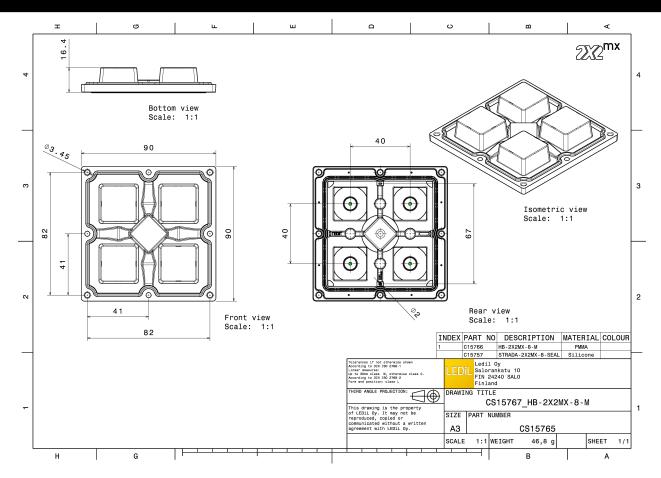
#### **MATERIALS:**

Component	Туре	Material	Colour	Finish
HB-2X2MX-8-M	Multi-lens	PMMA	clear	
STRADA-2X2MX-8-SEAL	Seal	Silicone	clear	

#### **ORDERING INFORMATION:**

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CS15767_HB-2X2MX-8-M	Multi-lens	156	52	52	8.3
» Box size: 480 x 280 x 300 mm					





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



## **OPTICAL RESULTS (MEASURED):**

		99*
LED	CXA/B 15xx	
FWHM / FWTM	31.0° / 101.0°	
Efficiency	91 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	95
Required compone	ents:	
	41 Typ 2x2MX HV	
		24
-		255 00 252
🥙 LUMIL	.EDS	90* 9
LED	LUXEON M/MX	
FWHM / FWTM	25.0° / 52.0°	
Efficiency	94 %	
Peak intensity	3.2 cd/lm	
LEDs/each optic	1	
Light colour	White	gr e
Required compone	ents:	300
		34
		( <u>15<sup>9</sup>)</u> 0 <sup>0</sup> 15 <sup>9</sup>
	FDS	
		90 <sup>4</sup>
LED	LUXEON XR-7070 (L224-xxxx004MLU010)	<u>36</u> , 36
LED FWHM / FWTM	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0°	30 <sup>4</sup>
LED FWHM / FWTM Efficiency	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	91 <sup>4</sup> 72 60 61 61 62 62 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	91 <sup>4</sup> 27 60 97 80 80 80 80 80 80 80 80 80 80 80 80 80
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	93 <sup>3</sup> 97 97 97 97 90 97 90 90 97 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White	30% 20% 20% 20%
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White ents:	30% 20% 20% 20%
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White white MING HiLOM SC16 (LH181B)	30% 20% 20% 20%
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSI LED FWHM / FWTM	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White ents: <b>JNGC</b> HiLOM SC16 (LH181B) 25.0° / 64.0°	30% 20% 20% 20%
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSI LED FWHM / FWTM Efficiency	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White ents: <b>JNGC</b> HiLOM SC16 (LH181B) 25.0° / 64.0° 93 %	30% 20% 20% 20%
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>SAMS</b> LED FWHM / FWTM Efficiency Peak intensity	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White ents: <b>JNGG</b> HiLOM SC16 (LH181B) 25.0° / 64.0° 93 % 1.9 cd/lm	30% 20% 20% 20%
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>SAMS</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White white MILOM SC16 (LH181B) 25.0° / 64.0° 93 % 1.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>SAMS</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White white MILOM SC16 (LH181B) 25.0° / 64.0° 93 % 1.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>SAMS</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White white MILOM SC16 (LH181B) 25.0° / 64.0° 93 % 1.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>SAMS</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-7070 (L224-xxxx004MLU010) 26.0° / 61.0° 94 % 2.5 cd/lm 1 White white MILOM SC16 (LH181B) 25.0° / 64.0° 93 % 1.9 cd/lm 1 White	



## **OPTICAL RESULTS (MEASURED):**

SCIO		5°* 5
LED FWHM / FWTM	XLE-S22C4XD16 (XD16) 23.0° / 50.0°	78
Efficiency	23.0° / 50.0° 93 %	
	93 % 3.3 cd/lm	
Peak intensity		
LEDs/each optic	4 White	
Light colour Required compone		
Required compone	ян <b>с</b> .	30° 30° 15° q° 15°
		99 <sup>3</sup>
LED	WICOP 5050	
FWHM / FWTM	24.0° / 51.0°	
Efficiency	95 %	
Peak intensity	3.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	300 30 <sup>7</sup> 25 <sup>9</sup> 6 <sup>4</sup> 25 <sup>9</sup>
SEOUL		90'
SEOUL SEMICONDUCTOR	Z8Y22	
FWHM / FWTM	27.0° / 63.0°	
Efficiency	91 %	
Peak intensity	2.1 cd/lm	91 <sup>1</sup>
LEDs/each optic	4	
Light colour	White	e / / /
Required compone		



bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Bridgelux SMD 5050 19.0° / 43.0° 94 % 5.3 cd/lm 1 White	200 201 202 203 203 203 204 203 203 204 204 205 205 205 205 205 205 205 205
CITIZEN		90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 434 Ty	CLU700/701/702/703 22.0° / 58.0° 92 % 2.9 cd/lm 1 White	57 64 67 100 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 448 Ty	CMA1303 16.0° / 44.0° 96 % 5.7 cd/lm 1 White	x y y y y y y y y y y y y y
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XHP35 HD 17.0° / 34.0° 94 % 6.6 cd/lm 1 White	200 21 21 22 20 20 20 20 20 20 20 20 20



		90° 90°
LED	XHP35 HI	
FWHM / FWTM	14.0° / 30.0°	75.
Efficiency	94 %	
Peak intensity	9.8 cd/lm	60° 60°
		$  \times / /   \wedge \times  $
LEDs/each optic	1 White	454 454
Light colour Required components:	White	6130
Required components:		
		$\times$ $($ $) \times$
		30" 35" 36"
		90° 90°
LED	XHP50.2	
FWHM / FWTM	22.0° / 44.0°	75*
Efficiency	94 %	
Peak intensity	4.4 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	' White	45°
Required components:	White	$\times / \times /$
Required components.		
		30°
		50°
	XHP70.2	50° 50°
LED	XHP70.2 30.0° / 62.0°	5 <sup>4</sup> 5 <sup>7</sup> 2 <sup>7</sup>
LED FWHM / FWTM	30.0° / 62.0°	35. 35. 36.
LED FWHM / FWTM Efficiency	30.0° / 62.0° 91 %	64 67 67
LED FWHM / FWTM Efficiency Peak intensity	30.0° / 62.0° 91 % 2.2 cd/lm	77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 62.0° 91 % 2.2 cd/lm 1	77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 62.0° 91 % 2.2 cd/lm	73 60 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 62.0° 91 % 2.2 cd/lm 1	73° - 75° 64° - 86°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 62.0° 91 % 2.2 cd/lm 1 White	73 60 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	30.0° / 62.0° 91 % 2.2 cd/lm 1 White	27 60 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	30.0° / 62.0° 91 % 2.2 cd/lm 1 White	57 60 90 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	30.0° / 62.0° 91 % 2.2 cd/lm 1 White	57 60 90 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	30.0° / 62.0° 91 % 2.2 cd/lm 1 White a, glass	57 60 90 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	30.0° / 62.0° 91 % 2.2 cd/lm 1 White 2, glass XHP70.3 HD 28.0° / 56.0°	22 23 25 25 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	30.0° / 62.0° 91 % 2.2 cd/lm 1 White 2.3 glass XHP70.3 HD 28.0° / 56.0° 96 %	24 24 24 25 25 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREECS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 62.0° 91 % 2.2 cd/lm 1 White e, glass XHP70.3 HD 28.0° / 56.0° 96 % 2.8 cd/lm 1	



	DS	90*
LED FWHM / FWTM Efficiency	LUXEON 7070 24.0° / 58.0° 96 %	37 00 23
Peak intensity	3.2 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		200
	US	50° 50
LED	MP 7070	
FWHM / FWTM	22.0° / 52.0°	
Efficiency	97 %	
Peak intensity	4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		220
-		20 <sup>0</sup> 0 <sup>1</sup> 25 <sup>4</sup> 0 <sup>1</sup>
	US	30* 50
LED	SFT-40-WCS	75
FWHM / FWTM	10.0° / 20.0°	
Efficiency	97 %	80 <sup>5</sup> 60
Peak intensity	17.7 cd/lm	
LEDs/each optic	1	
Light colour Required components:	White	ar
		24 <sup>10</sup> 25 <sup>17</sup> 13600 25 <sup>17</sup>
	US	50° A X
LED	SFT-70X-WCS	
FWHM / FWTM	12.0° / 26.0°	77 23
Efficiency	97 %	
Peak intensity	12.5 cd/lm	
LEDs/each optic	1	
Light colour	White	9 <sup>4</sup>
Required components:		



ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NF2x757G 34.0° / 66.0 + 67.0° 97 % 2 cd/lm 4 White	99* 97* 99* 97* 99* 000 00* 99* 000 00* 99* 00* 90*
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NFMW48xA 19.0° / 42.0° 94 % 5.5 cd/lm 1 White	99 <sup>1</sup> 99 <sup>1</sup> 9
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NV4WB35AM 16.0° / 34.0° 97 % 7.8 cd/lm 1 White	30° 000 00° 000 00° 000 00° 000 00° 000 00° 000 00° 000 00°
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NVSxE21A 14.0° / 28.0° 94 % 10.4 cd/lm 1 White	20 20 20 20 20 20 20 20 20 20

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OSRAM Opto Semiconductors		50* 90*
LED	Duris S10	
FWHM / FWTM	20.0° / 43.0°	75' 75'
Efficiency	94 %	
Peak intensity	4.9 cd/lm	60 <sup>e</sup> 60 <sup>e</sup> 60 <sup>e</sup>
	4.9 co/min 1	
LEDs/each optic	ı White	a
Light colour	White	3230
Required components:		
		$\times$ $($ $\times$ $)$ $\times$
		30° 30° 30°
OSRAM Opto Semiconductors		50° 50°
Opto Semiconductors	OSCONIQ C 2424	
ED FWHM / FWTM	28.0° / 52.0°	75. 75.
Efficiency	97 %	
Peak intensity	3.3 cd/lm	60°
LEDs/each optic	4	
Light colour	4 White	43"
Required components:	WIIG	
		2430
		X / X
		30° 30°
		15° 0° 15°
SAMSIIN	IG	13 <sup>5</sup> 0 <sup>6</sup> 35 <sup>4</sup>
SAMSUN		99* 99*
LED	LH181B	20 <sup>4</sup> 25 <sup>4</sup> 25 <sup>4</sup>
LED FWHM / FWTM	LH181B 14.0° / 28.0°	90 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup> 125 <sup>0</sup>
LED FWHM / FWTM Efficiency	LH181B 14.0° / 28.0° 96 %	604 604 604 7000 604 7000 705 705 705 705 705 705 705 705 70
LED FWHM / FWTM Efficiency Peak intensity	LH181B 14.0° / 28.0° 96 % 11 cd/lm	64 65 65 900 900 900 900 900 900 900 900 900 900
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1	51 000 000 100 000 100 00 100 00 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm	25° 0° 25°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1	157 & 25 <sup>2</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1	500 500 500 500 500 500 500 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1	2000 400 400 400 400 400 400 400
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White	30. 30. 30.   30. 12. 0. 32.   30. 12. 0. 32.   30. 12. 0. 32.   30. 12. 0. 32.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White	250 250 250 250 250 250 250 250
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0°	32 32   36 32   36 32   36 32   36 32   36 32   37 32   38 32   39 32   39 32   32 32   33 32   34 32   35 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM Efficiency	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM Efficiency Peak intensity	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 % 10 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 % 10 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 % 10 cd/lm	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 % 10 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SAMSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 % 10 cd/lm 1	6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: <b>SANNSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH181B 14.0° / 28.0° 96 % 11 cd/lm 1 White LH231B 14.0° / 30.0° 96 % 10 cd/lm 1	6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,



#### **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.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

#### **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.

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