

# PRODUCT DATASHEET CS16593\_HB-IP-2X6-G2-WWW

# HB-IP-2X6-G2-WWW

~90° wide beam

#### **SPECIFICATION:**

Dimensions	172.0 x 71.0 mm
Height	8.2 mm
Fastening	pin, screw
Ingress protection classes	IP67
ROHS compliant	yes 🛈



### **MATERIALS:**

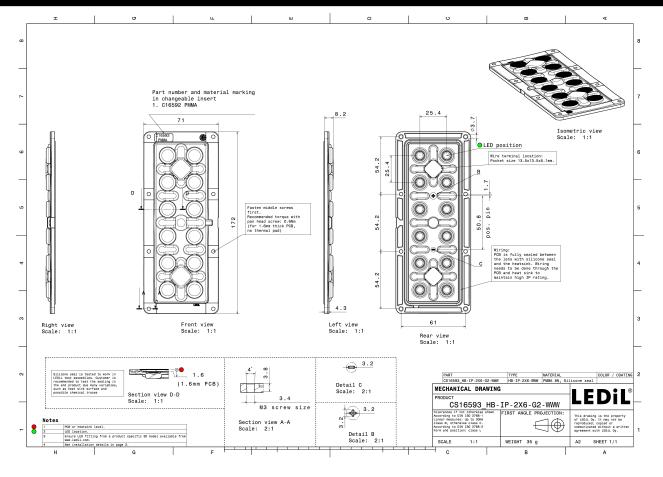
Component	Туре	Material	Colour	Finish
HB-IP-2X6-G2-WWW	Multi-lens	PMMA	clear	
SEAL-IP-2X6-G2	Seal	Silicone	white	

#### **ORDERING INFORMATION:**

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CS16593_HB-IP-2X6-G2-WWW	Multi-lens	132	44	44	5.8
» Box size: 476 x 273 x 247 mm					



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



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

CREE LED FWHM / FWTM Efficiency	XP-L2 96.0° / 118.0°		2 <sup>1</sup>
LED FWHM / FWTM Efficiency			70
Efficiency	96.0° / 118.0°		75 75
			100
1	94 %		
Peak intensity	0.4 cd/lm		50° 60
LEDs/each optic	1		
Light colour	White		45*
Required componer	nts:		
			400
			$\times$
			30* 500 300
	FDS		12 <sup>3</sup> 0 <sup>6</sup> 12 <sup>5</sup>
			90* 90
LED	LUXEON 5050 Round LES		75%
FWHM / FWTM	92.0° / 112.0 + 112.5°		
Efficiency	97 %		60 <sup>4</sup> 200 60
Peak intensity	0.5 cd/lm		
LEDs/each optic	1		
Light colour	White		-6°
Required componer	ITS:		
			30° 15° 30
<b>ØNICHI</b>	<u> </u>		90* 90
LED	NVSW519A		
FWHM / FWTM	96.0° / 113.0°		75% 200 75
Efficiency	95 %		
Peak intensity	0.4 cd/lm		50° 60
LEDs/each optic	1	and the second	
Light colour	White		457
Required componer	nts:		
			400
			XITX
			30* 200 30
ортфег			14 <sup>2</sup> 0 <sup>0</sup> 19 <sup>4</sup>
			90*90
	OLP-5065F6L-06A		750
FWHM / FWTM	93.5° / 112.0 + 112.5°		
Efficiency	97 %		50 <sup>4</sup> 60
Peak intensity	0.5 cd/lm		
LEDs/each optic	1 White		
Light colour Required componer	White		••• <b>•</b> ••
	115.		
Required compone.			
Required compone			
.EDs/each optic .ight colour Required componer	1 White nts:		



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

OSRAM		
Opto Semiconductors	Duris S8	90* 90*
FWHM / FWTM	90.0° / 113.0°	75* 78*
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	White	45*
Required compone	ints:	
		30* 15* 0* 15* 30*
SAMSU	ING	T T
		90* 90*
LED	HiLOM RM12 ZP (LH502C)	75°
FWHM / FWTM	91.0° / 113.0°	
Efficiency	96 %	504 604
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	6°
Required compone	nts:	
		30* <u>15</u> <sup>5</sup> 0 <sup>6</sup> 15 <sup>5</sup> 30 <sup>4</sup>
SCIO	LUX	
LED	BALAM-VP-5250-750-36	90°
FWHM / FWTM	91.0° / 113.0°	75%
Efficiency	96 %	
Peak intensity	0.5 cd/lm	604 604
LEDs/each optic	1	
Light colour	White	45*
Required compone	ints:	
		400
		19 <sup>2</sup> 19 <sup>2</sup> 9 <sup>4</sup> 19 <sup>4</sup> 39 <sup>2</sup>
SCIO	LUX	90* 99*
LED	ROY-S26XPL2 (XP-L2)	
FWHM / FWTM	96.0° / 118.0°	75%
Efficiency	94 %	
Peak intensity	0.4 cd/lm	60* <u>200</u> 60*
LEDs/each optic	1	
Light colour	White	45*
Required compone	ints:	
		440
		30* 200
		13 <sup>1</sup> 0 <sup>0</sup> 15 <sup>0</sup>



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

SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	2x6 5050 module - SMJD-3625012F-XX 93.0° / 113.0° 94 % 0.5 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE 2x6 3000lm HP EXC2 OTD 95.0° / 111.0° 94 % 0.5 cd/lm 1 White	94° 94° 194



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bridgelux.		90° 90°
LED	Bridgelux SMD 5050	
FWHM / FWTM	87.4° / 114.0°	75*
Efficiency	96 %	
Peak intensity	0.6 cd/lm	60° - 200 - 60°
LEDs/each optic	1	
Light colour	White	6° 6°
Required components:	wine	
Required components.		
		30° 00 36° 36°
		90* 90*
LED	J Series 5050 Round LES	75%
FWHM / FWTM	90.0° / 110.0°	
Efficiency	95 %	604 604
Peak intensity	0.5 cd/lm	
LEDs/each optic		
Light colour	White	-6°
Required components:		400
		30 <sup>4</sup> 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>4</sup> 30 <sup>4</sup>
		90* 90*
LED	J Series 5050B 6V K Class	75.
FWHM / FWTM	90.0° / 111.0°	
Efficiency	94 %	60* 60*
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	ge.
Required components:		
		34
		30° 0° 13°
		20° 0° 12°
LED	MHB-A/B	
LED FWHM / FWTM	89.2° / 113.0°	<u>12</u> <u>15</u> <u>15</u> <u>15</u> <u>15</u> <u>15</u> <u>15</u>
LEDs LED FWHM / FWTM Efficiency	89.2° / 113.0° 96 %	
LEDs LED FWHM / FWTM Efficiency Peak intensity	89.2° / 113.0°	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	89.2° / 113.0° 96 % 0.6 cd/lm 1	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	89.2° / 113.0° 96 % 0.6 cd/lm	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	89.2° / 113.0° 96 % 0.6 cd/lm 1	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	89.2° / 113.0° 96 % 0.6 cd/lm 1	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	89.2° / 113.0° 96 % 0.6 cd/lm 1	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	89.2° / 113.0° 96 % 0.6 cd/lm 1	



LED	XP-G2	90°* 90°*
FWHM / FWTM	93.0° / 112.0°	75°
Efficiency	94 %	
Peak intensity	0.5 cd/lm	.50° 60°.
LEDs/each optic	1	
Light colour	White	
Required components:	white	
required components.		400
		30* 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>*</sup> 30*
		90°
LED	XP-G2 HE	
FWHM / FWTM	98.0° / 116.0°	73° 75°
Efficiency	91 %	
Peak intensity	0.4 cd/lm	60°
LEDs/each optic	1	
Light colour	White	45° (
Required components:		
1		
		30* 25 <sup>5</sup> 56 15* 30 <sup>2</sup>
		50° 10° 20°
	XP-G3	87. <u>15</u> , <u>86</u> <u>15</u> , <u>87</u> , 87.
LED	XP-G3 92.8° / 112.5°	29 <sup>4</sup> 29 <sup>2</sup> 29 <sup>2</sup> 29 <sup>2</sup> 29 <sup>2</sup> 29 <sup>2</sup>
LED FWHM / FWTM	92.8° / 112.5°	20° 12° 20° 12° 20°
LED FWHM / FWTM Efficiency	92.8° / 112.5° 95 %	20 20 20 20 20 20 20 20 20 20 20 20 20 2
LED FWHM / FWTM Efficiency Peak intensity	92.8° / 112.5°	200 604
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	92.8° / 112.5° 95 % 0.5 cd/lm 1	200 10 <sup>0</sup> 10 <sup>0</sup> 200 60 <sup>0</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	92.8° / 112.5° 95 % 0.5 cd/lm	200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	92.8° / 112.5° 95 % 0.5 cd/lm 1	200 60 <sup>4</sup> 50 <sup>4</sup> 50 <sup>4</sup> 50 <sup>4</sup> 60 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	92.8° / 112.5° 95 % 0.5 cd/lm 1	200 60 <sup>4</sup> 60 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	92.8° / 112.5° 95 % 0.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1	200 200 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0° 94 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0° 94 % 0.4 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0° 94 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0° 94 % 0.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	92.8° / 112.5° 95 % 0.5 cd/lm 1 White NF3W585AR 99.0 + 102.0° / 117.0 + 118.0° 94 % 0.4 cd/lm 1	



<b>WICHIA</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NFMW48xA 88.8° / 113.0° 96 % 0.6 cd/lm 1 White	50° 50° 7° 72° 60° 200 60° 60° 60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NV4WB35AM 97.0° / 114.0° 94 % 0.5 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NVSxE21A 92.0° / 112.0° 93 % 0.6 cd/lm 1 White	90° 90° 90° 200 60° 90° 200 60° 90° 200 60° 90° 200 60°
OSRAM LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	PrevaLED Brick HP IP 2x6 90.0° / 110.0° 94 % 0.5 cd/lm 1 White	200



0000444		
OSRAM Opto Semiconductors		90°
LED	OSCONIQ P 3030	
FWHM / FWTM	88.0° / 110.0°	75* 75
Efficiency	95 %	
Peak intensity	0.6 cd/lm	
LEDs/each optic	1	
Light colour	White	95-
Required components:		
		300
		153 0 <sup>0</sup> 35°
OSRAM Opto Semiconductors		90* 90*
LED	OSCONIQ P 3737 (2W version)	
FWHM / FWTM	87.0° / 115.0°	12.
Efficiency	94 %	60 <sup>2</sup> 700
Peak intensity	0.6 cd/lm	
LEDs/each optic	1	
Light colour	White	gr de
Required components:		440
		304 00 34
0000444		139 <sup>0</sup> 0 <sup>0</sup> 35°
OSRAM Opto Semiconductors		90* 90*
LED	OSCONIQ P 3737 Flat	
FWHM / FWTM	90.0° / 110.0°	
Efficiency	95 %	60.0
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	ar
Required components:		
		460
		300
OSRAM		1 <u>201</u> <u>0</u> <u>35</u> .
Opto Semiconductors		90* 90'
LED	OSLON Square CSSRM2/CSSRM3	75' 75'
FWHM / FWTM	90.0° / 111.0°	
Efficiency	94 %	60* 60*
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	₫5° €5
Required components:		
		304



SAMSUN	IG	90* 90*
LED	LH351B	
FWHM / FWTM	93.0° / 112.0°	<u>Ma</u>
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60 <sup></sup> 200
LEDs/each optic	1	
Light colour	White	45°
Required components:		- 46
		30 <sup>4</sup> 15 <sup>5</sup> 0 <sup>4</sup> 15 <sup>5</sup>
SAMSUN	IG	90* 90*
LED	LH502C	75°
FWHM / FWTM	90.0° / 112.0°	
Efficiency	94 %	600 600
Peak intensity	0.5 cd/lm	
LEDs/each optic	1	
Light colour	White	a.
Required components:		
		30° 15° 0° 15° 30°
SAMSUN	IG	90* 99*
LED	LH508B	
FWHM / FWTM	90.0° / 113.0°	75'
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60°
LEDs/each optic	1	
Light colour	White	gr
Required components:		
		36° 35° 35°
		90° 90°
LED	SEOUL DC 5050 6V	
		75' 75'
FWHM / FWTM	94.0° / 114.0°	$\lambda$
Efficiency	94.0° / 114.0° 94 % 0.5 cd/lm	200
Efficiency Peak intensity	94 %	er
Efficiency Peak intensity LEDs/each optic	94 % 0.5 cd/lm	0 <sup>4</sup> 200
Efficiency Peak intensity	94 % 0.5 cd/lm 1	gy
Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.5 cd/lm 1	90*
Efficiency Peak intensity LEDs/each optic Light colour	94 % 0.5 cd/lm 1	90 <sup>4</sup>



SEOUL SEOUL SEMICONDUCTOR		10°
LED	Z8Y22T	
FWHM / FWTM	89.0° / 109.0°	Rt Rt
Efficiency	94 %	
Peak intensity	0.5 cd/lm	60 <sup>4</sup>
LEDs/each optic	1	
Light colour	White	45°
Required component	s:	20° 20° 20° 20°



#### **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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