

PRODUCT DATASHEET C14606_HB-2X2-WW

HB-2X2-WW

 ${\sim}65^\circ$ wide beam optimized for CREE XP-L and XM-L

SPECIFICATION:

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



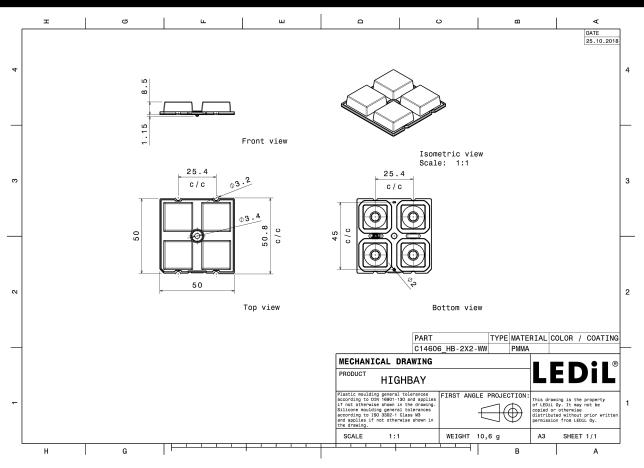
MATERIALS:

Component	Туре	Material	Colour	Finish
HB-2X2-WW	Multi-lens	PMMA	clear	

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C14606_HB-2X2-WW	800	160	160	9.2
» Box size: 480 x 280 x 300 mm				

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



bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Bridgelux SMD 5050 59.0° / 96.0° 94 % 0.8 cd/lm 1 White ints:	
CREE LEE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XD16 61.0° / 97.0° 92 % 0.8 cd/lm 4 White	
CREE LEO EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XD16 63.0° / 92.0° 93 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XHP35 HD 67.0° / 100.0° 84 % 0.7 cd/lm 1 White	



	D		90°	90*
LED	XM-L			
FWHM / FWTM	66.0° / 99.0°		75*	
Efficiency	93 %		X	200
Peak intensity	0.8 cd/lm		60*	60*
LEDs/each optic	1			
Light colour	White		93*	43*
Required compone				
				ero
			\sim	
			30*	
	3		15%	08 72°
			90*	90*
LED	XM-L2		75*	2
FWHM / FWTM	62.0° / 96.0°			200
Efficiency	92 %		60 ⁶	60*
Peak intensity	0.8 cd/lm			
LEDs/each optic	1			400
Light colour	White	and the second se	95*	45*
Required compone	ents:			en en
			36*	30, 30,
	D		90*	90*
LED	XM-L3			
LED FWHM / FWTM	XM-L3 70.0° / 98.0°		751	75
FWHM / FWTM	70.0° / 98.0°		75	200
FWHM / FWTM Efficiency	70.0° / 98.0° 94 %		75	200
FWHM / FWTM Efficiency Peak intensity	70.0° / 98.0°		75 Ge	200 - 27"
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 98.0° 94 % 0.7 cd/lm		77 97 97	200 22*
FWHM / FWTM Efficiency Peak intensity	70.0° / 98.0° 94 % 0.7 cd/lm 1 White		77. 50. 84	200
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 98.0° 94 % 0.7 cd/lm 1 White		77 60 67	200
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 98.0° 94 % 0.7 cd/lm 1 White		77	400
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 98.0° 94 % 0.7 cd/lm 1 White		71 92 97 97 97 97 97 97 97	200
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents:		72 05 05 05 05 05 05 05 05 05 05 05 05 05	200
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents:		77 - 19 - 19 - 19 - 19 -	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2		30° 30° 30° 30° 30° 30°	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0°			<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED EWHM / FWTM Efficiency	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0° 91 %			<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0°			<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0° 91 % 0.8 cd/lm 1			<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0° 91 % 0.8 cd/lm 1 White			200 400
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0° 91 % 0.8 cd/lm 1 White			200 400
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0° 91 % 0.8 cd/lm 1 White			200 400
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 98.0° 94 % 0.7 cd/lm 1 White ents: XP-G2 63.0° / 93.0° 91 % 0.8 cd/lm 1 White			200 400



	D
LED	XP-G3
FWHM / FWTM	63.0° / 95.0°
Efficiency	90 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White
Required compone	ents:
Protective	plate, glass
	_
LED	XP-G3
FWHM / FWTM	64.0° / 94.0°
Efficiency Book intensity	86 % 0.8 cd/m
Peak intensity LEDs/each optic	0.8 cd/lm 1
Light colour	White
Required compone	
LED	XP-L HD
FWHM / FWTM Efficiency	66.0° / 102.0° 93 %
Peak intensity	93 % 0.7 cd/lm
LEDs/each optic	1
Light colour	White
Required compone	ents:
	-
CREE 2 LED	0
LED	XP-L2
LED FWHM / FWTM	XP-L2 62.0° / 101.0°
LED FWHM / FWTM Efficiency	XP-L2 62.0° / 101.0° 93 %
LED FWHM / FWTM	XP-L2 62.0° / 101.0°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L2 62.0° / 101.0° 93 % 0.8 cd/lm 1 White
LED FWHM / FWTM Efficiency Peak intensity	XP-L2 62.0° / 101.0° 93 % 0.8 cd/lm 1 White
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L2 62.0° / 101.0° 93 % 0.8 cd/lm 1 White
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L2 62.0° / 101.0° 93 % 0.8 cd/lm 1 White



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ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON 5050 Round LES 61.0° / 96.0° 94 % 0.8 cd/lm 1 White	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
WHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON V 63.0° / 97.0° 93 % 0.8 cd/lm 1 White	200 - 201 200 - 201
W LUMIL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON V2 61.0° / 93.0° 94 % 0.9 cd/lm 1 White	200 - 200 -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	SST-10-B130 69.0° / 94.0° 95 % 0.8 cd/lm 1 Deep Red	99 ⁴ 99 ⁴ 9



MST Your solu	itions	50° 50°
LED	RecLED 122x50mm 1900lm 730 2x4 Opt G1	
FWHM / FWTM	61.0° / 94.0°	77
Efficiency	95 %	
Peak intensity	0.8 cd/lm	let.
LEDs/each optic	1	
Light colour	White	gr av
Required compone		
		20.
		90 ⁴
LED	NVSW219D	75
FWHM / FWTM	64.0° / 95.0°	
Efficiency	94 %	6)* (i)* (i)* (i)* (i)* (i)* (i)* (i)* (i
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
		00
		30° 40° 13°
ØNICHI/	۱	90°
LED	NVSW219F	
FWHM / FWTM	66.0° / 96.0°	77
Efficiency	94 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	gr at
Required compone	ents:	
		30* 00 30* 30*
ØNICHI/	1	20° 20°
LED	NVSW219F	
FWHM / FWTM	69.0° / 96.0°	
Efficiency	95 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	g a la l
Required compone	ents:	
		30" NO 347
		15° 0° 15°



ØNICHI		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW319B 68.0° / 100.0° 93 % 0.8 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 62.0° / 97.0° 93 % 0.8 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NWSx229A 63.0° / 97.0° 85 % 0.8 cd/lm 1 White	
OSRAN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	PL-BRICK HP 3800 2x8 SSG 64.0° / 96.0° 94 % 0.8 cd/lm 1 White	



OSRAN	Α	30*	90*
LED	PrevaLED Brick HP 2x8		
FWHM / FWTM	64.0° / 93.0°	73	75
Efficiency	92 %		
Peak intensity	0.8 cd/lm	50.	400
LEDs/each optic	1		
Light colour	' White	65	45*
Required compone			
Trequired compone	ano.		300
		. 36° 	00 120 360
OSRAM		90* (30*
Opto Semiconductors	Duris S8		
FWHM / FWTM	61.0° / 97.0°	78*	
Efficiency	93 %		
Peak intensity	93 % 0.8 cd/lm	691	60.
LEDs/each optic	1		
	' White		45°
Light colour Required compone			
Required compone	ans.		ero
		36° 13°	0° 15° 30°
OSRAM Opto Semiconductors		90°	90°
LED	OSCONIQ P 3737 (2W version)		$A \land A$
FWHM / FWTM	58.0° / 88.0°	73	200
Efficiency	91 %		
Peak intensity	0.9 cd/lm	50.4	60*
LEDs/each optic	1		400
Light colour	White	er V	45*
Required compone			600
rioquirou compone			
Protective	e plate, glass		
		34	3%*
OSRAM		2007 - 1997 	
Opto Semiconductors		50°	90*
LED	OSCONIQ P 3737 (3W version)		$\Delta / \Delta / \ldots$
FWHM / FWTM	56.0° / 93.0°	0	200
Efficiency	93 %	60	
Peak intensity	0.9 cd/lm		400
LEDs/each optic	1		
Light colour	White	S. X	500 AT
Required compone	ents:		
		30*	340



OSSRAM Opto Semiconductors LED OSLON Square CSSRM2/CSSRM3 FWHM / FWTM 64.0° / 93.0° Efficiency 92 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
FWHM / FWTM 64.0° / 93.0° Efficiency 92 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
FWHM / FWTM 64.0° / 93.0° Efficiency 92 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
LEDs/each optic 1 Light colour White Required components:
LEDs/each optic 1 Light colour White Required components:
Light colour White Required components:
Required components:
30° 0° 13°
31- 12 ⁻ 00- 12 ⁻
30° 15° 0° 15°
PHILIPS
LED Fortimo FastFlex LED 2x8 DA G4
FWHM / FWTM 64.0° / 96.0°
Efficiency 93 %
Peak intensity 0.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
30-
PHILIPS
LED Fortimo FastFlex LED 2x8 DA G4+
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0°
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 %
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1
LEDFortimo FastFlex LED 2x8 DA G4+FWHM / FWTM64.0° / 101.0°Efficiency95 %Peak intensity0.8 cd/lmLEDs/each optic1Light colourWhite
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White
LEDFortimo FastFlex LED 2x8 DA G4+FWHM / FWTM64.0° / 101.0°Efficiency95 %Peak intensity0.8 cd/lmLEDs/each optic1Light colourWhite
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components: Image: Component state sta
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components: PHILIPS LED Fortimo FastFlex LED 2x8 DA G5
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components FWHM / FWTM 64.0° / 97.0°
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components FWHM / FWTM 64.0° / 97.0° Efficiency 94 %
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components EFFICIENCS LED Fortimo FastFlex LED 2x8 DA G5 FWHM / FWTM 64.0° / 97.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components EFFICIENCS LED Fortimo FastFlex LED 2x8 DA G5 FWHM / FWTM 64.0° / 97.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White
LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0° Efficiency 95 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components EFFICIENCY LED Fortimo FastFlex LED 2x8 DA G5 FWHM / FWTM 64.0° / 97.0° Efficiency 94 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White



PHILIP		
LED FWHM / FWTM Efficiency	Fortimo FastFlex LED 2x8 DA HE 59.0° / 97.0° 95 %	29°
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	er er
Required compone		20° 000 000 000 000 000
SAMSI	JNG	90° 90°
LED	HiLOM RC12 Z (LH181B)	
FWHM / FWTM	48.0° / 85.0°	72,
Efficiency	96 %	
Peak intensity	1.1 cd/lm	\sim / / / / /
LEDs/each optic	1	\times /// \wedge \times
Light colour	White	a
Required compone	ents:	
		 30° 12° 0° 12° 30°
SAMSI	JNG	90* 90*
LED	HiLOM RH12 Z (LH351C)	
FWHM / FWTM	62.0° / 97.0°	75* 200
Efficiency	95 %	605 60*
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er i i i i i i i i i i i i i i i i i i i
Required compone	ents:	20° 10° 0° 10°
SAMS	JNG	90° 90°
LED	HiLOM RH16 (LH351C)	
FWHM / FWTM	61.0° / 96.0°	75° 72°
Efficiency	94 %	607 607
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	45° 43°
Required compone	ents:	50 50 50
		15° 0° 15°



LED HILOM RM12 Z (LH502C) FWHM / FWTM 57.0* / 98.0* Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMMSUNG LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0* / 97.0* Efficiency 95 % Peak intensity 0.9 cd/m LEDS/each optic 1 Light colour White Required components: SAMMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0* / 98.0* Peak intensity 0.9 cd/m LEDS/each optic 1 Light colour White Required components: SAMMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0* / 98.0* Peak intensity 0.9 cd/m LEDS/each optic 1 Light colour White Required components: SAMMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0* / 98.0* Efficiency 95 % Peak intensity 0.9 cd/m LEDS/each optic 1 Light colour White Required components: SAMMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0* / 98.0* Efficiency 95 % Peak intensity 0.9 cd/m LEDS/each optic 1 Light colour White Required components: SAMMSUNG LED LH351B	
Efficiency 94 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNC LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNC LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNC LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNC LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components:	
Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components:	
LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HLOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HLOM RM6 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 LED HLOM RM6 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HLOM RM6 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	
Light colour White Required components: SAMSUNG LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components:	
Required components: SAMSUNG LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMSUNG LED White Required components:	
SAMSUNG LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED White Required components:	
LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDS/each optic 1 Light colour White Required components: SAMSUNG LED HILOM SUNG LED LH351B	-200
LED HILOM RM16 Z (LH502C) FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDS/each optic 1 Light colour White Required components: SAMSUNG LED White Reserve the second	29
FWHM / FWTM 57.0° / 97.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMNSUNG LED HiLOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMNSUNG LED LH351B	20.
Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMNSUNG LED HiLOM RMB Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMNSUNG LED LH351B	80
Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	
LEDs/each optic 1 Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	400
Light colour White Required components: SAMSUNG LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	
SAMSUNG LED HiLOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/m LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	a de la companya de
LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSSUNG LED LH351B	
LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSSUNG LED LH351B	
LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	15' 0' 15' 36
LED HILOM RM8 Z (LH502C) FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSSUNG LED LH351B	90
FWHM / FWTM 57.0° / 98.0° Efficiency 95 % Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: *	
Peak intensity 0.9 cd/lm LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	200
LEDs/each optic 1 Light colour White Required components: SAMSUNG LED LH351B	
Light colour White Required components: SAMSUNG LED LH351B	
Required components:	
SAMSUNG LED LH351B	
LED LH351B	
75	50° 0° 50° %
	90 90 90
FWHM / FWTM 62.0° / 92.0°	
Efficiency 86 %	
Peak intensity 0.8 cd/lm	
LEDs/each optic 1	
Light colour White	200
Required components:	



		
SAMS	UNG	50' 50'
LED	LH351C	
FWHM / FWTM	62.0° / 94.0°	75
Efficiency	93 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er la
Required compone		
		125° 0° 25°
SAMS	UNG	50* 50
LED	LH351D	
FWHM / FWTM	62.0° / 99.0°	
Efficiency	91 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	or a
Required compone	ents:	
		30-
SAMS		94
LED	LH508A	
EED FWHM / FWTM	60.0° / 97.0°	77
Efficiency	93 %	200
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	gr a
Required compone		
		125 0 ⁶ 12 ⁵
		351 30
Elektronik GmbH	LED-Pa-L15c2W11c2-xxx-C050-01	
FWHM / FWTM	64.0° / 98.0°	
Efficiency	95 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er de
Required compone	ents:	
		30*



EVERYWARK State St
FWHM / FWTM 55.0° / 98.0° Efficiency 92 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
Efficiency 92 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components: SKULSKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK
Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
LEDs/each optic 1 Light colour White Required components: SOULSEACONDECTOR LED Z5M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components: SOULSEACONDECTOR
Light colour White Required components: STURE SEMECONF SUBJECTION SUBJECTI
Required components:
SOUL SIMICODUCTOR LED 25M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
SEQUI SEMICONDUCTOR LED Z5M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
SEQUI SEMICONDUCTOR LED Z5M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
SEQUI SEMICONDUCTOR LED Z5M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
SEQUI SEMICONDUCTOR LED Z5M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
LED 25M3 FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
FWHM / FWTM 62.0° / 96.0° Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components: ••••••••••••••••••••••••••••••••••••
Efficiency 94 % Peak intensity 0.8 cd/lm LEDs/each optic 1 Light colour White Required components:
Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components:
LEDs/each optic 1 Light colour White Required components:
Light colour White Required components:
Required components:
SEOUL SEMICONDUCTOR
LED Z5M4
FWHM / FWTM 64.0° / 92.0°
Efficiency 95 %
Peak intensity 0.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
340
325 07 125
LED Z8Y19
FWHM / FWTM 55.0° / 98.0°
Efficiency 92 %
Peak intensity 0.8 cd/lm
LEDs/each optic 4
LEDs/each optic 4 Light colour White
LEDs/each optic 4
LEDs/each optic 4 Light colour White
LEDs/each optic 4 Light colour White



SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y19 55.0° / 98.0° 92 % 0.8 cd/lm 4 White ents:	
seoul SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22P 59.0° / 94.0° 92 % 0.9 cd/lm 1 White ents:	
TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Protective	RLE 2x4 2000lm HP EXC2 OTD 61.0° / 95.0° 89 % 0.8 cd/lm 1 White	
TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE 2x4 2000lm HP EXC2 OTD 61.0° / 96.0° 94 % 0.9 cd/lm 1 White	



TRIDO	NIC	90° 90°
LED	RLE 2x8 4000lm HP EXC2 OTD	
FWHM / FWTM	61.0° / 96.0°	75 75
Efficiency	94 %	-200
Peak intensity	0.9 cd/lm	60. 60.
		400
LEDs/each optic	1	
Light colour	White	
Required compone	ans.	
		800
		30* 170 00 170 30*
TRIDO		
		90* 90*
LED	RLE G1 49x121mm 2000lm xxx EXC OTD	75*
FWHM / FWTM	61.0° / 96.0°	400
Efficiency	94 %	60* 66*
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er ez
Required compone	ents:	1200
		1600
		36* 36*
TDIDON		
TRIDON		90* 90*
LED	RLE G1 49x133mm 2000lm xxx EXC OTD	75*
FWHM / FWTM	61.0° / 96.0°	400
Efficiency	94 %	60* 60*
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	ar ar
Required compone	ents:	
		1630
		36* 34*
TRIDO		90* 90*
LED	RLE G1 49x223mm 4000lm xxx EXC OTD	75'
FWHM / FWTM	61.0° / 96.0°	400
Efficiency	94 %	60* 62*
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	43* 43*
Required compone	ents:	
		1000
		34"
		123 00 123

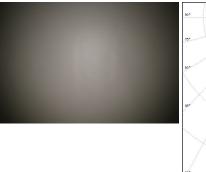


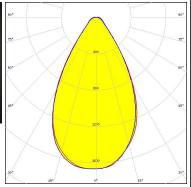
TRIDONIC

LED

FWHM / FWTM61Efficiency94Peak intensity0.4LEDs/each optic1Light colourWRequired components:

RLE G1 49x245mm 4000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White







		90*	90*
LED	XP-G2 HE		
FWHM / FWTM	73.0° / 97.0°	75*	
Efficiency	95 %	X	
Peak intensity	0.7 cd/lm	60.*	60*
LEDs/each optic	1		
Light colour	White	45	400
Required components:	white		
Required components.		7	
		\prec	
		36%	15° 36° 35°
		90*	90*
LED	XP-L HD		
FWHM / FWTM	72.0° / 94.0°	25*	73
Efficiency	90 %	\rightarrow	
Peak intensity	0.7 cd/lm	60*	60*
LEDs/each optic	1		
Light colour	White	95 ⁴	400
Required components:			
		1	600
Protective plat	, glass		
		200	34.
		Ž	15°
		90 ^e	90*
LED	XP-L HI		
FWHM / FWTM	70.0° / 90.0°	75*	
Efficiency	91 %		200
Peak intensity	0.8 cd/lm	54	
LEDs/each optic	1		400
Light colour	White	a.	65*
Required components:			$A \sim 1$
			600
Protective plat	, glass	\checkmark	
		300	800 36°
			15° 0° 15°
			Y PL
		90°	90*
LED	XP-L HI	35° 75	
LED FWHM / FWTM	70.0° / 90.0°	37. 26.	904 25
LED FWHM / FWTM Efficiency	70.0° / 90.0° 96 %	91* 735 91*	500 Bi
LED FWHM / FWTM Efficiency Peak intensity	70.0° / 90.0° 96 % 0.8 cd/lm	914 75 604	200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 90.0° 96 % 0.8 cd/lm 1	914 72 60 ⁵	20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 90.0° 96 % 0.8 cd/lm	594 752 602 757	00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 90.0° 96 % 0.8 cd/lm 1	97 97	20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 90.0° 96 % 0.8 cd/lm 1	93 93 93	200 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 90.0° 96 % 0.8 cd/lm 1	97 97 97	200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 90.0° 96 % 0.8 cd/lm 1	91 ⁴ 75 91 91 31 ⁶	200



		80* 90
LED	XP-L2	
FWHM / FWTM	74.0° / 98.0°	78'
Efficiency	89 %	200
Peak intensity	0.7 cd/lm	POLA POLA
LEDs/each optic	1	
Light colour	White	95° 400 es*
Required components:		
Protective plate	, glass	
		36° 31° 4° 31°
		90° 90°
LED	XP-P	
FWHM / FWTM	66.0° / 86.0°	13. 23.
Efficiency	91 %	200
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	954 67°
Required components:		
Protective plate	a, glass	
		300 00 300 300
		30 ⁴
LED	XT-E	
FWHM / FWTM	69.0° / 90.0°	75. 75.
Efficiency	94 %	200
Peak intensity	0.8 cd/lm	60 ⁵
LEDs/each optic	1	
		400
I Liaht colour		400
Light colour Required components:	White	90 ⁴
Light colour Required components:		e ⁺
		er 60
		97 000 000 34 ⁴ 000 34 ⁴ 000
Required components:	White	50 50 50 50 50 50 50 50 50 50 50 50 50 5
Required components:	White	20 ⁴ 200 20 ⁴ 200 20 ⁴ 20 20 ⁴ 20 ⁴ 20 20 ⁴ 20 20 ⁴ 20 20 ⁴ 20 20 ⁴ 20
Required components:	White S LUXEON 3535L	97 000 97 000 90 00 90 00
Required components:	White S LUXEON 3535L 66.0° / 89.0°	9 ¹ 9 ¹
Required components:	White S LUXEON 3535L 66.0° / 89.0° 94 %	50 ⁴ 50 ⁴
Required components:	White S LUXEON 3535L 66.0° / 89.0° 94 % 0.9 cd/lm	50 ⁴ 50 ⁴
Required components:	White S LUXEON 3535L 66.0° / 89.0° 94 % 0.9 cd/lm 1	50 ⁴ 50 ⁴
Required components:	White S LUXEON 3535L 66.0° / 89.0° 94 % 0.9 cd/lm	200 - 200 200 - 200 200 - 200
Required components:	White S LUXEON 3535L 66.0° / 89.0° 94 % 0.9 cd/lm 1	200 - 200 200 - 200 200 - 200
Required components:	White S LUXEON 3535L 66.0° / 89.0° 94 % 0.9 cd/lm 1	200 - 200 200 - 200 200 200 - 200 200 - 200 200 - 200 200 200 - 200 200 200 - 200 200 200 - 200 200 200 200 200 - 200 200 200 200 200 200 200 200 200 200
Required components: Components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White S LUXEON 3535L 66.0° / 89.0° 94 % 0.9 cd/lm 1	200 - 200 -



	DS	50* 50*
LED FWHM / FWTM Efficiency	LUXEON 5050 Square LES 70.0° / 96.0° 86 %	75 72
Peak intensity	0.7 cd/lm	600
LEDs/each optic	1	
Light colour	White	924 400 435
Required components:		
Protective plat	e, glass	
)S	90 ⁴ 90 ⁴
LED	LUXEON HL2X	
FWHM / FWTM	72.0° / 94.0°	75
Efficiency	90 %	200
Peak intensity	0.7 cd/lm	60° V 00'
LEDs/each optic	1	
Light colour	White	97
Required components:		
Protective plat	e, glass	
	05	94 127 96 127 36
LED	LUXEON MZ	
FWHM / FWTM	66.0° / 90.0°	75
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	43* 65'
Required components:		
Requirea components:		
Requirea components:		80
requirea components:		200 200 200 200 200 200 200 200 200 200
LUMILEI	DS	
	LUXEON XR-HL2X (L2H2-xxxxxMLU010)	
LUMILEI LED FWHM / FWTM Efficiency	LUXEON XR-HL2X (L2H2-xxxxxxMLU010)	
ED FWHM / FWTM Efficiency Peak intensity	LUXEON XR-HL2X (L2H2-xxxxxxMLU010) 72.0° / 90.0°	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON XR-HL2X (L2H2-xxxxxxMLU010) 72.0° / 90.0° 87 % 0.8 cd/lm 1	9 ²
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-HL2X (L2H2-xxxxxMLU010) 72.0° / 90.0° 87 % 0.8 cd/lm	10 ²
ED FWHM / FWTM Efficiency Peak intensity	LUXEON XR-HL2X (L2H2-xxxxxxMLU010) 72.0° / 90.0° 87 % 0.8 cd/lm 1	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON XR-HL2X (L2H2-xxxxxMLU010) 72.0° / 90.0° 87 % 0.8 cd/lm 1 White	gys



DS	30°
LUXEON XR-HL2X (L2H2-xxxxxMLU010) 72.0° / 90.0° 96 % 0.9 cd/lm 1 White	77 200 81 81 81 80 80 80 80 80 80 80 80 80 80 80 80 80
NV4WB35AM 69.0° / 90.0° 95 % 0.8 cd/lm 1 White	27 61 77 000 200 000
	255 ¹ 0 ¹ 135 ²
NVSxx19B/NVSxx19C 70.0° / 90.0° 95 % 0.8 cd/lm 1 White	91* 73 61* 60* 60* 200 00* 00* 00*
	25° 0° 15°
OSCONIQ C 2424 66.0 + 68.0° / 82.0° 96 % 0.9 cd/lm 1 White	95° 70 96° 400 400
	LUXEON XR-HL2X (L2H2-xxxxxxMLU010) 72.0° / 90.0° 96 % 0.9 cd/lm 1 White NV4WB35AM 69.0° / 90.0° 95 % 0.8 cd/lm 1 White NVSxx19B/NVSxx19C 70.0° / 90.0° 95 % 0.8 cd/lm 1 White OSCONIQ C 2424 66.0 + 68.0° / 82.0° 96 % 0.9 cd/lm 1



OSRAM		90*
Opto Semiconductors LED	OSCONIQ P 3030	
FWHM / FWTM	66.0° / 88.0°	75* 75*
Efficiency	96 %	
Peak intensity	0.8 cd/lm	60 [*] 60*
LEDs/each optic	1	400
Light colour	' White	e*
Required components:	Wine	
		30° 30° 30° 30°
OSRAM Opto Semiconductors		90° 90°
LED	OSCONIQ P 3737 Flat	
FWHM / FWTM	64.0° / 88.0°	25* 200
Efficiency	95 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	97 ² 87*
Required components:		
		30* <u>30</u> * <u>30</u> * <u>30</u> *
OSDAM		
OSRAM Opto Semiconductors		90* 90 [*]
OSRAM Opto Semiconductors LED	OSLON Square CSSRM2/CSSRM3	
opto Semiconductors LED FWHM / FWTM	70.0° / 92.0°	90°
opto Semiconductors LED FWHM / FWTM Efficiency	70.0° / 92.0° 86 %	90°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	70.0° / 92.0° 86 % 0.7 cd/lm	90°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 92.0° 86 % 0.7 cd/lm 1	90°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 92.0° 86 % 0.7 cd/lm	90 ⁻
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 92.0° 86 % 0.7 cd/lm 1	90°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	70.0° / 92.0° 86 % 0.7 cd/lm 1 White	90 ⁻
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 92.0° 86 % 0.7 cd/lm 1 White	90°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	70.0° / 92.0° 86 % 0.7 cd/lm 1 White	90°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM	70.0° / 92.0° 86 % 0.7 cd/lm 1 White	00 00 00 00 00 00 00 00 00 00 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM Opto Semiconductors	70.0° / 92.0° 86 % 0.7 cd/lm 1 White	00 00 00 00 00 00 00 00 00 00 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors LED	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM Opto Semiconductors LED FWHM / FWTM	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0°	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0° 95 %	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0°	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0° 95 % 0.9 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0° 95 % 0.9 cd/lm	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0° 95 % 0.9 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0° 95 % 0.9 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	70.0° / 92.0° 86 % 0.7 cd/lm 1 White e, glass OSLON Square Flat 68.0° / 86.0° 95 % 0.9 cd/lm 1	



OSRAM Opto Semiconductors		90° 90°
LED	OSLON SSL 80	
FWHM / FWTM	55.6° / 81.2°	73°
Efficiency	94 %	
Peak intensity	1.1 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	White	gr August Aug
Required components:		
		· · · · · · · · · · · · · · · · · · ·
		15° 0° 15°
OSRAM Opto Semiconductors		90° 90°
LED	OSTAR Projection Compact (Kx.CSLNM1.xx)	
FWHM / FWTM	68.0° / 88.0°	73.
Efficiency	96 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	45°
Required components:		
		30° 500 30°
		15 ⁵ 0 ⁶ 15 ⁵
PHILIPS		90* 90*
LED	Fortimo FastFlex LED 2x8 DAX G4	
FWHM / FWTM	71.0° / 94.0°	73.
Efficiency	94 %	200
Peak intensity	0.8 cd/lm	
LEDs/each optic		
	1	400
Light colour	1 White	gy 400 67.
Light colour Required components:		40
		e ^r . 60
		40
		g.
Required components:	White	153 0 ⁰ 154
	White	80 ⁴ 80
Required components:	White I G HiLOM RM16 Z (LH502C)	153 0 ⁰ 154
Required components:	White I G HiLOM RM16 Z (LH502C) 56.0° / 98.0°	30* 0* 30* 10* 0* 10*
Required components: SAMSUN LED FWHM / FWTM Efficiency	White G HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 %	30* 0* 30* 10* 0* 10*
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity	White G HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm	30* 0* 30* 10* 0* 10*
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	White G HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm 1	23 ⁰ (¢ 15° (¢ 15° (¢ 15° (¢ 15° (¢ 15°) (¢ 15° (¢ 15°) (¢ 15° (¢ 15°) (¢ 15° (¢ 15°) (¢ 1
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White G HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm	30* 0* 30* 10* 0* 10*
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	White G HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm 1	23 ⁰ (¢ 15° (¢ 15° (¢ 15° (¢ 15° (¢ 15°) (¢ 15° (¢ 15°) (¢ 15° (¢ 15°) (¢ 15° (¢ 15°) (¢ 1
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	White IC HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm 1 White	20 00 10 10 10 10 10 10 10 10 1
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White IC HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm 1 White	20 00 10 10 10 10 10 10 10 10 1
Required components: SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	White IC HiLOM RM16 Z (LH502C) 56.0° / 98.0° 88 % 0.8 cd/lm 1 White	20 00 10 10 10 10 10 10 10 10 1



SAMSUN	IG	90* 90*
LED	LH231B	90° 90°
EED FWHM / FWTM	60.0° / 87.0°	73*
Efficiency	94 %	
Peak intensity	1 cd/lm	60° 60°
LEDs/each optic	4	
Light colour	4 White	45°
Required components:	Wine	
Required components.		500
		30° 30° 30° 30°
SEOUL		90°
SEOUL SEMICONDUCTOR		30*
LED	SEOUL DC 5050 6V	75* 75*
FWHM / FWTM	64.0° / 93.0°	200
Efficiency	94 % 0.8 cd/lm	60°
Peak intensity		
LEDs/each optic	1 White	400
Light colour Required components:	white	
		36° 36° 36° 36°
SEOUL		
	70/007	
	Z8Y22T	75'
FWHM / FWTM	55.0° / 83.0°	
Efficiency	94 % 1.1 cd/lm	60° 400 60°
Peak intensity		
LEDs/each optic Light colour	1 White	45°
Required components:	White	$r \rightarrow V \rightarrow K$
Required components.		
		36° 1200 36° 36°



PRODUCT DATASHEET C14606_HB-2X2-WW

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:

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