

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 🛈



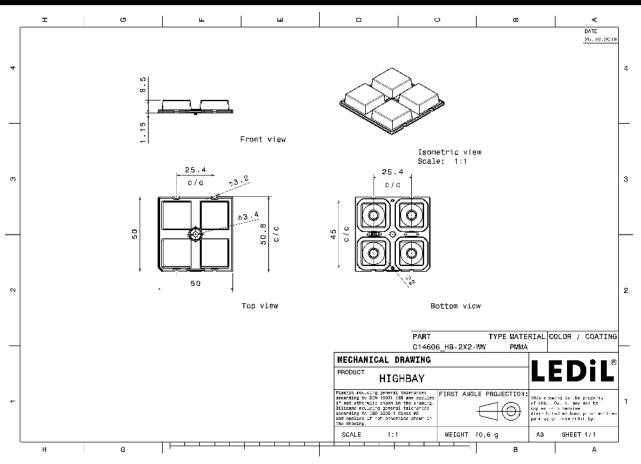
MATERIALS:

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				

PRODUCT DATASHEET C14606_HB-2X2-WW



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



LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone		
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	J Series 5050C 6V E Class 54.0° / 85.0° 94 % 1 cd/lm 1 White	
CREE 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 LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XD16 63.0° / 92.0° 93 % 0.8 cd/lm 1 White	



LED	XHP35 HD	_	
FWHM / FWTM	67.0° / 100.0°	_	
Efficiency	84 %		
Peak intensity	0.7 cd/lm		
LEDs/each optic	1		
Light colour	White		a the second is a
Required compone			$ \land \land$
			s.v
LED	XM-L		
FWHM / FWTM	66.0° / 99.0°		
Efficiency	93 %		
Peak intensity	0.8 cd/lm		
LEDs/each optic	1		V Annu V
Light colour	White		
Required compone	nts:		
			3 ²² 329 40 40
CREE 🖨 LEI		and the second s	× *
LED	XM-L2		
FWHM / FWTM	62.0° / 96.0°		
Efficiency	92 %		
Peak intensity	0.8 cd/lm		
LEDs/each optic	1		
Light colour	White		
Required compone	nts:		A the second of
			*
		-	<u></u>
LED	XM-L3		
FWHM / FWTM	70.0° / 98.0°		15
Efficiency	94 %		
Peak intensity	0.7 cd/lm		
LEDs/each optic	1		
Light colour	White		*** / **
Required compone			
1			



	D	
LED	XP-G2	
FWHM / FWTM	63.0° / 93.0°	
Efficiency	91 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er / / / / / / / / / / / / / / / / / / /
Required compone		- X <mark>s/ LAs</mark> K
		*
	0	
	XP-G3	n
FWHM / FWTM	63.0° / 95.0° 90 %	
Efficiency Peak intensity	90 % 0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone		
Required compone	nito.	
Protective	e plate, glass	
	_	
	D	
LED	XP-G3	
FWHM / FWTM	64.0° / 94.0°	
Efficiency	86 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
		\times
	D	
LED	XP-L HD	
LED FWHM / FWTM	XP-L HD 66.0° / 102.0°	
LED FWHM / FWTM Efficiency	XP-L HD 66.0° / 102.0° 93 %	
LED FWHM / FWTM Efficiency Peak intensity	XP-L HD 66.0° / 102.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XP-L HD 66.0° / 102.0° 93 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HD 66.0° / 102.0° 93 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XP-L HD 66.0° / 102.0° 93 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HD 66.0° / 102.0° 93 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HD 66.0° / 102.0° 93 % 0.7 cd/lm 1 White	



CREE CLE	XP-L2 62.0° / 101.0° 93 % 0.8 cd/lm 1 White	
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	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON V 63.0° / 97.0° 93 % 0.8 cd/lm 1 White	
WHM / FWTM 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	

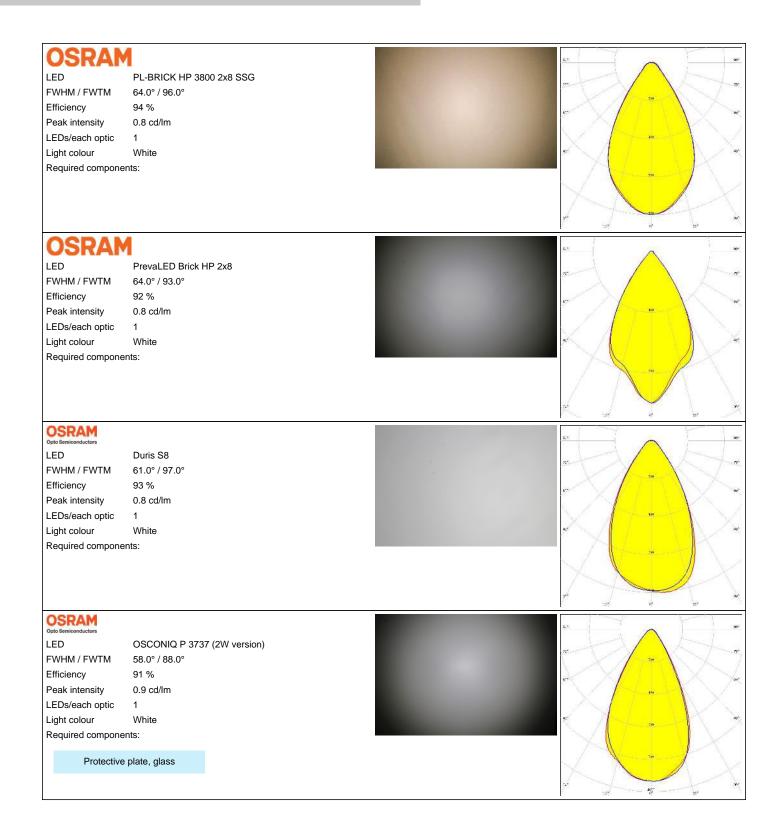


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LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	SST-10-B130 69.0° / 94.0° 95 % 0.8 cd/lm 1 Deep Red	
WEAT Sold LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RecLED 122x50mm 1900lm 730 2x4 Opt G1 61.0° / 94.0° 95 % 0.8 cd/lm 1 White	
EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219D 64.0° / 95.0° 94 % 0.8 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219F 66.0° / 96.0° 94 % 0.8 cd/lm 1 White	



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LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219F 69.0° / 96.0° 95 % 0.8 cd/lm 1 White	
ED 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	

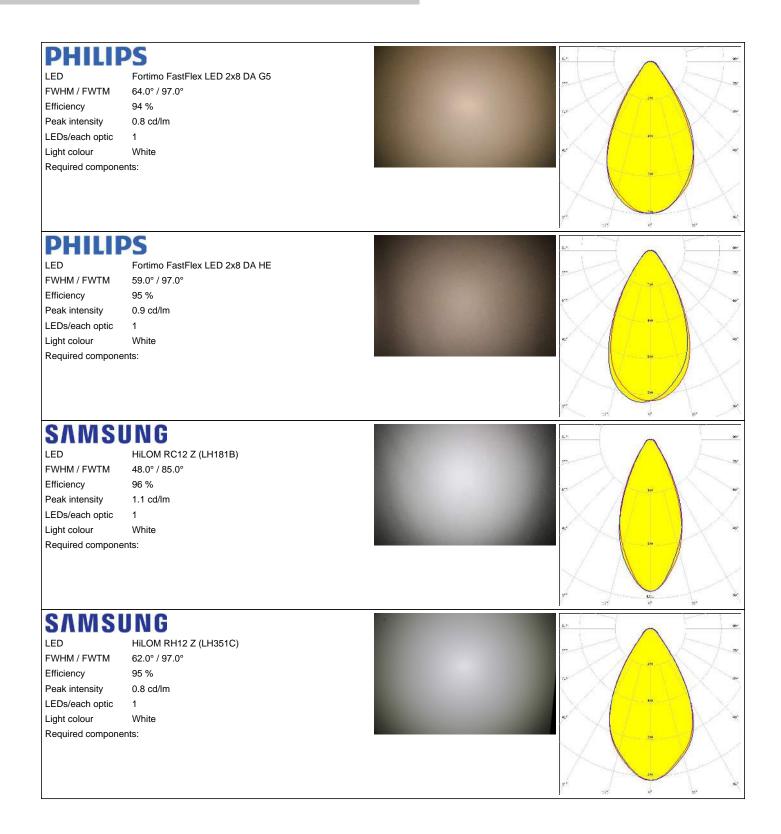






OSRAM	
Opto Semiconductors	
LED OSCONIQ P 3737 (3W version)	
FWHM / FWTM 56.0° / 93.0°	Star N X I
Efficiency 93 %	X
Peak intensity 0.9 cd/lm	
LEDs/each optic 1	
Light colour White	
Required components:	THE A
	-*-/\\\
OCDAM	W ² : 30 ²
OSRAM Opto Semiconductors	
LED OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM 64.0° / 93.0°	
Efficiency 92 %	
Peak intensity 0.8 cd/lm	$(1 \land 1)$
LEDs/each optic 1	
Light colour White	× ×
Required components:	- m - J
PHILIPS	
PHILIPS LED Fortimo FastFlex LED 2x8 DA G4	
PHILIPS LED Fortimo FastFlex LED 2x8 DA G4 FWHM / FWTM 64.0° / 96.0°	\wedge
PHILIPS LED Fortimo FastFlex LED 2x8 DA G4 FWHM / FWTM 64.0° / 96.0° Efficiency 93 %	$\bigwedge { } $
PHILIPS LED Fortimo FastFlex LED 2x8 DA G4 FWHM / FWTM 64.0° / 96.0° Efficiency 93 % Peak intensity 0.8 cd/lm	$\bigwedge { } $
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	20 10
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	$\bigwedge { } $
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	20 10
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	20 10
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	20 10
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	20 10
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: Image: Component state	20 10
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: ••••••••••••••••••••••••••••••••••••	
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: ••••••••••••••••••••••••••••••••••••	
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: ** PHILIPS LED LED Fortimo FastFlex LED 2x8 DA G4+ FWHM / FWTM 64.0° / 101.0°	
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: ************************************	
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: ************************************	
PHILIPS LED Fortimo FastFlex LED 2x8 DA G4 FWHM / FWTM 64.0° / 96.0° Efficiency 93 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components: Image: Component State Component	
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: # PHILIPS # 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	
PHILIPS LED Fortimo FastFlex LED 2x8 DA G4 FWHM / FWTM 64.0° / 96.0° Efficiency 93 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White Required components: Image: Component State Component	
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: ************************************	
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: # PHILIPS # 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	







ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	HiLOM RH16 (LH351C) 61.0° / 96.0° 94 % 0.9 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	HiLOM RM12 Z (LH502C) 57.0° / 98.0° 94 % 0.9 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	HiLOM RM16 Z (LH502C) 57.0° / 97.0° 95 % 0.9 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	HiLOM RM8 Z (LH502C) 57.0° / 98.0° 95 % 0.9 cd/lm 1 White	



SAMS	ING			
LED	LH351B			
FWHM / FWTM	62.0° / 92.0°			
Efficiency	86 %			
Peak intensity	0.8 cd/lm			
LEDs/each optic	1			
Light colour	White			
Required compone				
SAMS	UNG		_	
LED	LH351C			
FWHM / FWTM	62.0° / 94.0°			
Efficiency	93 %			
Peak intensity	0.8 cd/lm			
LEDs/each optic	1			
Light colour	White	_		
Required compone	ents:			
<u> </u>				
SAMS	JNG			
LED	LH351D			
FWHM / FWTM	62.0° / 99.0°			
Efficiency	91 %			
Peak intensity	0.8 cd/lm			
LEDs/each optic	1			
Light colour	White	_		
Required compone	ents:	_		
SAMS	UNG			
LED	LH508A			
FWHM / FWTM	60.0° / 97.0°			
Efficiency	93 %			
Peak intensity	0.8 cd/lm			
LEDs/each optic	1			
Light colour	White			
Eight obloar				
Required compone				
		_		- 10 - 10 - 10



SEITEC		
LED	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	
Required compone		
rtequired compone		
		20
		2°
LED	2x2 Y22 module - SMJQ-D48W16AA-XX	
FWHM / FWTM	55.0° / 98.0°	
Efficiency	92 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone		
LED	Z5M3	
FWHM / FWTM	62.0° / 96.0°	
Efficiency	94 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	
		3"
		an e ar
	Z5M4	
	64.0° / 92.0°	
FWHM / FWTM		
	95 %	
Efficiency		
Efficiency Peak intensity	95 % 0.8 cd/lm 1	
Efficiency Peak intensity LEDs/each optic	0.8 cd/lm 1	
Efficiency Peak intensity LEDs/each optic Light colour	0.8 cd/lm 1 White	
Efficiency Peak intensity LEDs/each optic	0.8 cd/lm 1 White	
Efficiency Peak intensity LEDs/each optic Light colour	0.8 cd/lm 1 White	
Efficiency Peak intensity LEDs/each optic Light colour	0.8 cd/lm 1 White	



stout stanconductor 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 nts:	
stout struction 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 nts:	
ALCON A		5.×
stout stemconductor 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 nts:	
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	



TRIDON		
LED	RLE 2x4 2000lm HP EXC2 OTD	
FWHM / FWTM	61.0° / 95.0°	
Efficiency	89 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required component		
required compone		
Protective	plate, glass	
		1 TOTAN
TRIDON		
LED	RLE 2x8 4000lm HP EXC2 OTD	
FWHM / FWTM	61.0° / 96.0°	
	94 %	
Efficiency	94 % 0.9 cd/lm	
Peak intensity		
LEDs/each optic	1	
Light colour	White	
Required component	nts:	
		\times
TDIDON		
TRIDON		
LED	RLE G1 49x121mm 2000lm xxx EXC OTD	
LED FWHM / FWTM	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0°	
LED FWHM / FWTM Efficiency	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component TRIDON LED FWHM / FWTM	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White Ints: RLE G1 49x133mm 2000lm xxx EXC OTD 61.0° / 96.0°	
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 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component ELED FWHM / FWTM Efficiency Peak intensity	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts: RLE G1 49x133mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm	
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 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component Required component Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component Required component Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component Required component Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x121mm 2000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White nts:	



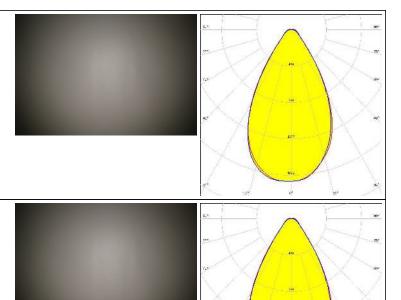
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OPTICAL RESULTS (MEASURED):

TRIDONIC

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

RLE G1 49x223mm 4000lm xxx EXC OTD 61.0° / 96.0° 94 % 0.8 cd/lm 1 White



TRIDONIC

1

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

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



LED	XP-G2 HE	
FWHM / FWTM	73.0° / 97.0°	#
Efficiency	95 %	
Peak intensity	0.7 cd/lm	
LEDs/each optic	1	
Light colour	White	e/ /
Required components:	Wille	
Required components.		
LED	XP-G4	
FWHM / FWTM	72.0° / 86.0°	
Efficiency	96 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
LED	XP-G4	
FWHM / FWTM	72.0° / 86.0°	
Efficiency	88 %	e ////////////////////////////////////
Peak intensity	0.7 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
Protective plate	, glass	
	, 9	
LED	XP-L HD	
FWHM / FWTM	72.0° / 94.0°	35
Efficiency	90 %	
Peak intensity	0.7 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
Protective plate	, glass	



		£7	
LED	XP-L HI		Lange I
FWHM / FWTM	70.0° / 90.0°	22	
Efficiency	91 %		
Peak intensity	0.8 cd/lm		\sim
LEDs/each optic	1		V No
Light colour	White		$\langle \rangle >$
Required components:	WINC		
Required components.			A
Protective plate	e, glass		X
			w
		R.7	- 1.
LED	XP-L HI		
FWHM / FWTM	70.0° / 90.0°		1-1
Efficiency	96 %		V/V
Peak intensity	0.8 cd/lm		VX .
LEDs/each optic	1		$\langle \rangle \sim$
Light colour	White		1/~
Required components:			
			T
			10'
		1.5	
LED	XP-L2		
FWHM / FWTM	74.0° / 98.0°	28	~ 7
Efficiency	89 %	··· / / /	
Peak intensity	0.7 cd/lm		
LEDs/each optic	1		1 C
Light colour	White	47 (· · · · · · · · · · · · · · · · · ·) >
Required components:			1 2
Protective plate	e, glass		
			* /
LED FWHM / FWTM	XP-P 66.0° / 86.0°	<u>n:</u>	
	91 %		
Efficiency			X
Peak intensity	0.8 cd/lm		
LEDs/each optic	1 W/bito		N X
Light colour Required components:	White		V.
Required components:			
Protective plat	e, glass		X
			*
L			1



		8.7
LED	XT-E	
FWHM / FWTM	69.0° / 90.0°	# ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Efficiency	94 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	45
Required components:		
		1 There are the first the second seco
		147 - 147 - 147 - 147
	DS	
LED	LUXEON 3535L	
FWHM / FWTM	66.0° / 89.0°	25
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
UMILE	DS	•.•.
	LUXEON 5050 Square LES	
LED	LUXEON 5050 Square LES	2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7
LED FWHM / FWTM	LUXEON 5050 Square LES 70.0° / 96.0°	2.7 27 29 29
LED FWHM / FWTM Efficiency	LUXEON 5050 Square LES 70.0° / 96.0° 86 %	2. 2. 2. 2. 2.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm	5. 5. 5. 5. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White	2. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White	2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White a, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CONTINUE LED FWHM / FWTM Efficiency	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White a, glass LUXEON HL2X 72.0° / 94.0° 90 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0° 90 % 0.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0° 90 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate White components: Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0° 90 % 0.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0° 90 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate White components: Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0° 90 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate WHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Square LES 70.0° / 96.0° 86 % 0.7 cd/lm 1 White e, glass LUXEON HL2X 72.0° / 94.0° 90 % 0.7 cd/lm 1 White	



)S	17 A
LED	LUXEON MZ	
FWHM / FWTM	66.0° / 90.0°	
Efficiency	94 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	× 1/
Light colour	White	
Required components:		
)S	
LED	LUXEON XR-HL2X (L2H2-xxxxxxMLU010)	
FWHM / FWTM	72.0° / 90.0°	at
Efficiency	96 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	e a
Required components:		
		\times \sim \sim \times
		\times / \mathbf{Y} \searrow
	15	
LED	LUXEON XR-HL2X (L2H2-xxxxxxMLU010)	n
FWHM / FWTM	72.0° / 90.0°	
Efficiency Peak intensity	87 % 0.8 cd/lm	57 V W
LEDs/each optic	1	
Light colour	' White	
Required components:	white	
required components.		
Protective plate	, glass	
WNICHIA		
LED	NV4WB35AM	
FWHM / FWTM	69.0° / 90.0°	11
Efficiency	95 %	er
Peak intensity	0.8 cd/lm	$\Lambda / \Lambda / \Lambda / \Lambda$
LEDs/each optic	1	
Light colour	White	e V v
Required components:		
		1.5° 4° 30°



ØNICHIA		1.7 W
LED	NVSxx19B/NVSxx19C	
FWHM / FWTM	70.0° / 90.0°	15
Efficiency	95 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
OSRAM Opto Semiconductors		12 ×
LED	OSCONIQ C 2424	
FWHM / FWTM	66.0 + 68.0° / 82.0°	25
Efficiency	96 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
		N A P
OCDAM		
OSRAM Opto Semiconductors		
LED	OSCONIQ P 3030	
FWHM / FWTM	66.0° / 88.0°	
Efficiency	96 %	er / / / / / / / / / / / / / / / / / / /
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	#* #*
Required components:		
OSRAM		
Opto Semiconductors		
	OSCONIQ P 3737 Flat	#
FWHM / FWTM	64.0° / 88.0°	XIMAN
Efficiency	95 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1 White	
Light colour	White	
Required components:		
		24°



OSRAM Opto Semiconductors	
LED OSLON Square CSSRM2/CSSRM3	
FWHM / FWTM 70.0° / 92.0°	
Efficiency 86 %	
Peak intensity 0.7 cd/lm	
LEDs/each optic 1	
Light colour White	1 ² 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Required components:	
Protective plate, glass	
OSRAM Opti Semiconductors	
LED OSLON Square Flat	
FWHM / FWTM 68.0° / 86.0°	
Efficiency 95 %	
Peak intensity 0.9 cd/lm	
LEDs/each optic 1	V / tomat V
Light colour White	er 🖉 🖉 🖉
Required components:	1 - A - A - A - A - A - A - A - A - A -
OSRAM	State of the second sec
Opto Semiconductors	
LED OSLON SSL 80	11
FWHM / FWTM 55.6° / 81.2°	
Efficiency 94 %	5 ⁻² 400
Peak intensity 1.1 cd/lm	
LEDs/each optic 1	
Light colour White Required components:	
OSRAM	
OSRAM Opto Semiconductors	
OSRAM Optio Semiconductors LED OSTAR Projection Compact (KW.CSLNM1.TG)	
OSRAM Optio Semiconductors View of the semiconductors LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0°	
OSRAM Vote Semiconductors LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 %	
OSRAM Opto Semiconductors OSTAR Projection Compact (KW.CSLNM1.TG) EED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 % Peak intensity 0.8 cd/lm	
OSRAM Opto Semiconductors LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 % Peak intensity 0.8 cd/lm LEDs/each optic 1	
OSRAM LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White	
OSRAM Opto Semiconductors LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 % Peak intensity 0.8 cd/lm LEDs/each optic 1	
OSRAM LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White	
Version Version Version Version LED OSTAR Projection Compact (KW.CSLNM1.TG) FWHM / FWTM 68.0° / 88.0° Efficiency 96 % Peak intensity 0.8 cd/m LEDs/each optic 1 Light colour White	



PHILIPS		
LED	Fortimo FastFlex LED 2x8 DAX G4	
FWHM / FWTM	71.0° / 94.0°	#
Efficiency	94 %	
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:	White	
Required components.		A
		The second secon
SAMSUN	IG	
LED	HILOM RM16 Z (LH502C)	
FWHM / FWTM	56.0° / 98.0°	ar de la constance de la const
Efficiency	88 %	
Peak intensity	0.8 cd/lm	
	1	
LEDs/each optic	ı White	
Light colour Required components:	White	
Required components.		
Protective plate	e, glass	
SAMSUN	IG	
LED	LH231B	
FWHM / FWTM	60.0° / 87.0°	a:
Efficiency	94 %	
Peak intensity	1 cd/lm	· · · · · · · · · · · · · · · · · · ·
LEDs/each optic	4	
Light colour	White	
Required components:		
SEQUE SEMICONDUCTOR		67
LED	SEOUL DC 5050 6V	
FWHM / FWTM	64.0° / 93.0°	n de la companya de l
Efficiency	94 %	X
Peak intensity	0.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		



		£.*
LED	Z8Y22T	
FWHM / FWTM	55.0° / 83.0°	
Efficiency	94 %	
Peak intensity	1.1 cd/lm	5 ²² - 101 - 101
LEDs/each optic	1	
Light colour	White	
Required component	S:	



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.

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