

## HB-2X2-RS

~10° spot beam

#### **TECHNICAL SPECIFICATIONS:**

Dimensions	50.0 x 50.0 mm
Height	10 mm
Fastening	screw
ROHS compliant	yes 🛈



#### MATERIAL SPECIFICATIONS:

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

Material	Colour	Finish
PMMA	clear	

#### **ORDERING INFORMATION:**

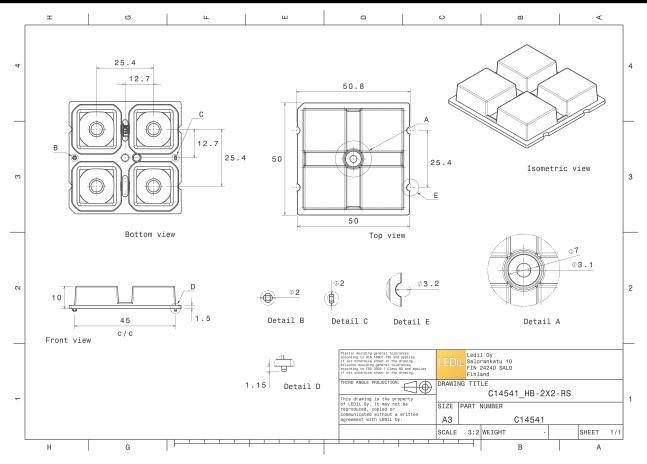
Component C14541\_HB-2X2-RS » Box size: 480 x 280 x 300 mm

Qty in box	MOQ	MPQ	Box weight (kg)
800	160	160	10.2

# PRODUCT DATASHEET C14541\_HB-2X2-RS

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



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EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	QUICK FLUX XTP 2x6 xxx LS G5 14.0° / 29.0° 94 % 9.5 cd/lm 1 White ents:	
CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XD16 11.0° / 23.0° 93 % 13.5 cd/lm 1 White	9 <sup>1</sup> 9 <sup>1</sup> 9 <sup>1</sup> 9 <sup>1</sup> 9 <sup>1</sup> 9 <sup>1</sup> 9 <sup>1</sup> 9 <sup>1</sup>
CREE CLEU LED FWHM / FWTM Efficiency Dack intensity	XHP35 HD 24.0° / 42.0° 89 %	
Peak intensity LEDs/each optic Light colour Required compone		
CREE CLEI LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L3 20.0° / 36.0° 96 % 6 cd/lm 1 White	



	D	50 <sup>6</sup>
LED	XP-E2	
FWHM / FWTM	10.0° / 18.0°	37
Efficiency	94 %	
Peak intensity	22.1 cd/lm	
LEDs/each optic	1	
Light colour	White	or. 1300
Required compone	ents:	
		30
	5	207 6 <sup>4</sup> 35 <sup>5</sup>
LED	XP-G2	
LED FWHM / FWTM	14.0° / 25.0°	27
Efficiency	94 %	
Peak intensity	94 % 11.8 cd/lm	
LEDs/each optic	1	
Light colour	White	97
Required compone		
		900
		30° 1300 15°
		×0°
	XP-L HI	
		37 36
LED	XP-L HI	90 <sup>4</sup> 27 91
LED FWHM / FWTM Efficiency Peak intensity	XP-L HI 13.0° / 25.0°	90 37 60 <sup>1</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1	90 97 97 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White	8 <sup>-</sup> 8 <sup>-</sup> 8 <sup>-</sup> 8 <sup>-</sup> 8 <sup>-</sup> 8 <sup>-</sup> 8 <sup>-</sup> 8 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White	90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0° 94 % 4.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0° 94 % 4.5 cd/lm 1 White	
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	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0° 94 % 4.5 cd/lm 1 White	
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	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0° 94 % 4.5 cd/lm 1 White	
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	XP-L HI 13.0° / 25.0° 94 % 11.6 cd/lm 1 White ents: XP-L2 21.0° / 43.0° 94 % 4.5 cd/lm 1 White	



	EDC	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON V2 15.0° / 28.0° 94 % 9.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	SST-10-B130 12.0° / 21.0° 96 % 15.9 cd/lm 1 Deep Red	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219D 17.0° / 29.0° 94 % 8.6 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219F 17.0° / 29.0° 94 % 8.7 cd/lm 1 White	



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<b>MNICHIA</b>		50° A 50°
LED	NVSW319B	
FWHM / FWTM	18.0° / 32.0°	75
Efficiency	94 %	
Peak intensity	7.3 cd/lm	
LEDs/each optic	1	
Light colour	White	g
Required compone	nts:	
		600
		304 346
		22 <sup>4</sup> #80
		90* 90*
LED	NVSW3x9A	73.
FWHM / FWTM	19.0° / 33.0°	
Efficiency	94 %	ex* / //////////////////////////////////
Peak intensity	6.6 cd/lm	
LEDs/each optic	1 White	
Light colour	White	
Required compone	nts:	 400
		(613)
		30" 30" 30"
		30 <sup>4</sup> 50 <sup>5</sup>
$\sim$		Δ.
	NVSxE21A	
LED FWHM / FWTM		70
LED	NVSxE21A	
LED FWHM / FWTM	NVSxE21A 11.0° / 28.0°	
LED FWHM / FWTM Efficiency	NVSxE21A 11.0° / 28.0° 89 %	
LED FWHM / FWTM Efficiency Peak intensity	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm	85 652 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White	20 01 07 01 01 01 01 01 01 01 01 01 01 01 01 01
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White	72 64 67 67 65 65 65 65 65 65 65 65 65 65 65 65 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 % 8 cd/lm	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity LEDs/each optic	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 % 8 cd/lm 1	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity LEDs/each optic Light colour	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 % 8 cd/lm 1 White	97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity LEDs/each optic	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 % 8 cd/lm 1 White	97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity LEDs/each optic Light colour	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 % 8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer MICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSxE21A 11.0° / 28.0° 89 % 11.1 cd/lm 1 White nts: NVSxx19B/NVSxx19C 17.0° / 30.0° 93 % 8 cd/lm 1 White	



ØNICHI/		<u>90*</u> <b>A</b> 90*
LED	NWSx229A	
FWHM / FWTM	23.0° / 41.0°	
Efficiency	94 %	
Peak intensity	4.5 cd/lm	
LEDs/each optic	1	
Light colour	White	gi a
Required compone		
		30
OSRAN		339 354
		90°
LED	PL-BRICK HP 3800 2x8 SSG	7
FWHM / FWTM	16.0° / 28.0°	
Efficiency	95 %	60 <sup>1</sup> 500
Peak intensity	8.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	600
		20 <sup>10</sup> 20 <sup>10</sup> 0 <sup>1</sup> 20 <sup>1</sup>
OSRAN	1	and the second sec
LED	PrevaLED Core Z3 LES9	
FWHM / FWTM	13.5° / 26.0°	
Efficiency	95 %	
Peak intensity	11 cd/lm	
LEDs/each optic	1	
Light colour	White	g. <u>600</u>
Required compone	ents:	
OSRAM		1000 T
Opto Semiconductors		100 -
	OSLON Square CSSRM2/CSSRM3	1999
FWHM / FWTM	15.0° / 27.0°	<b>1907 -</b> The Control of Control o
Efficiency	90 %	
Peak intensity	11 cd/lm	709 -
LEDs/each optic Light colour	1 White	500 -
Required compone	ano.	200
		200
		1007
		- 100 100 10



PHILIP	S	92*	90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	Fortimo FastFlex LED 2x8 DA G4 13.0° / 23.0° 93 % 12.5 cd/lm 1 White	27 27 27 20 20 20 20 20 20 20 20 20 20	
	Fortimo FastFlex LED 2x8 DA G4+	99*	90
FWHM / FWTM Efficiency Peak intensity	17.0° / 32.0° 96 % 7.8 cd/m	90 90 90 90 90	
LEDs/each optic Light colour Required compone	1 White hts:		
		30° 00° 13°	35
PHILIP	S	90*	90
LED	Fortimo FastFlex LED 2x8 DA G5	7	
FWHM / FWTM Efficiency	14.0° / 27.0° 96 %		
Peak intensity	90 % 10.5 cd/lm	5%*	- Fe
LEDs/each optic	1		
Light colour	White	5** 600	6
Required compone	nts:	24	
<u> </u>	ING	20, 0, 20 (9)*	90
LED	HiLOM RC12 Z (LH181B)		
FWHM / FWTM	12.0° / 33.0°	27	
Efficiency	97 %	00 Jacob	6
Peak intensity	9.1 cd/lm		
LEDs/each optic Light colour	1 White	ę.	
Required compone		2010 2010 2010 2010 2010 2010 2010 2010	



SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	HiLOM RH12 Z (LH351C) 17.0° / 29.0° 96 % 8 cd/lm 1 White	99° 120 0° 125 27 10° 120 0° 12
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	HiLOM RH16 (LH351C) 17.0° / 30.0° 94 % 8.1 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351B 17.0° / 29.0° 89 % 8 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351C 18.0° / 30.0° 94 % 7.9 cd/lm 1 White	



SAMSI	JNG	30 <sup>4</sup> 30 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351D 22.0° / 38.0° 94 % 4.9 cd/lm 1 White	
Electronic South LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LED-Pa-L15c2W11c2-xxx-C050-01 14.0° / 27.0° 96 % 10.7 cd/lm 1 White ents:	
seour semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z5M3 16.0° / 31.0° 94 % 7.8 cd/lm 1 White ents:	
SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z5M4 17.0° / 32.0° 96 % 7.4 cd/lm 1 White ents:	



seout semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22 14.0° / 35.0° 94 % 6.6 cd/lm 1 White ents:	
		200 <sup>-</sup> 100 <sup>-</sup> 100 <sup>-</sup>
SEOUL SEMICONDUCTOR		50° A 50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z8Y22P 16.0° / 33.0° 93 % 6.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE 2x4 2000lm HP EXC2 OTD 13.0° / 25.0° 94 % 12.5 cd/lm 1 White	20 <sup>2</sup> - <sup>2</sup> 00
Required compone		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE 2x8 4000lm HP EXC2 OTD 13.0° / 25.0° 94 % 12.5 cd/lm 1 White	



TRIDO		2000 T
		22000
	RLE G1 49x121mm 2000lm xxx EXC OTD	2009
FWHM / FWTM	13.0° / 27.0°	1000 -
Efficiency	94 %	16000
Peak intensity	10.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	6999
		4000
		2007
		-1864° -111.6° -36.4° -49.3° -46.4° -22.4° -6.4° -22.4° -6.5° -9.5° -9.5° -10.4° -10.3° -10.5
TRIDO	NIC	90° A
LED	RLE G1 49x133mm 2000lm xxx EXC OTD	
FWHM / FWTM	13.0° / 27.0°	75
Efficiency	94 %	6400
Peak intensity	10.9 cd/lm	
LEDs/each optic	1	
Light colour	White	gy <sup>y</sup> 12000 1 635
Required compone		
		X   X
		19200
		 2 <sup>00</sup> 15 <sup>0</sup> 0 <sup>0</sup> 15 <sup>0</sup>
TRIDO	NIC	24000
	RLE G1 49x223mm 4000lm xxx EXC OTD	2009
LED	RLE G1 49x223mm 4000lm xxx EXC OTD	2000
LED FWHM / FWTM	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0°	1399
LED FWHM / FWTM Efficiency Peak intensity	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 %	1399
LED FWHM / FWTM Efficiency	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone TRIDON LED FWHM / FWTM	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: NICC RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone TRIDON LED FWHM / FWTM Efficiency	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: NICC RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: SICC RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone TRIDON LED FWHM / FWTM Efficiency Peak intensity	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: <b>NICC</b> RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>TRIDON</b> Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: <b>NICC</b> RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>TRIDON</b> Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: <b>NICC</b> RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone <b>TRIDON</b> Efficiency Peak intensity LEDs/each optic Light colour	RLE G1 49x223mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White ents: <b>NICC</b> RLE G1 49x245mm 4000lm xxx EXC OTD 13.0° / 27.0° 94 % 10.9 cd/lm 1 White	



	YUD25 UI	90°
LED	XHP35 HI	73.
FWHM / FWTM	14.0° / 29.0°	
Efficiency	93 %	50 <sup>4</sup> 50 <sup>4</sup> 50 <sup>4</sup>
Peak intensity	9.9 cd/lm	
LEDs/each optic	1	5°
Light colour	White	6430
Required components:		
		$\times$ $\land$ $\times$
		36° 36° 35°
		90* 90*
LED	XHP35.2	
FWHM / FWTM	24.0° / 46.0°	75°
Efficiency	93 %	605 674
Peak intensity	3.6 cd/lm	
LEDs/each optic	1	
Light colour	White	95* 43*
Required components:		
		200
		30* 31*
		90 <sup>4</sup> 90 <sup>4</sup>
	XM-L	
	XM-L 19.0° / 38.0°	
LED		
LED FWHM / FWTM	19.0° / 38.0°	
LED FWHM / FWTM Efficiency	19.0° / 38.0° 92 %	64
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm	20. 0° 10° 20. 0° 20. 0° 20. 0° 20. 0° 20. 0° 20. 0° 20. 0°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	19.0° / 38.0° 92 % 5.6 cd/lm 1	64
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm 1	64
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm 1	eg. 328. et.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm 1	gr.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1	Eex-
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White	Eex-
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0° 94 % 6.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0° 94 % 6.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0° 94 % 6.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0° 94 % 6.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	19.0° / 38.0° 92 % 5.6 cd/lm 1 White XM-L2 18.0° / 34.0° 94 % 6.9 cd/lm 1	



CREES LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G 13.0° / 27.0° 93 % 12.1 cd/lm 1 White	30*         30*           30*         30*           30*         30*           30*         30*
CREES LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G2 14.0° / 26.0° 89 % 11 cd/lm 1 White	6, 6, 6, 9, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,
	e, glass	20 20 20 20 0 <sup>1</sup> 30 <sup>2</sup> 20 0 <sup>1</sup> 30 <sup>2</sup> 30 <sup>2</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G2 HE 16.0° / 34.0° 94 % 7.3 cd/lm 1 White	25° 660 23° 25°
CREES LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G3 16.0° / 33.0° 94 % 7.9 cd/lm 1 White	3 <sup>1</sup> , <sup>1</sup> , <sup>6</sup> , <sup>12</sup> , <sup>6</sup> , <sup>12</sup> , <sup>10</sup>



		90* 90*
LED	XP-L HD	
FWHM / FWTM	19.0° / 35.0°	70
Efficiency	94 %	1500
Peak intensity	6.1 cd/lm	501- X 30°
LEDs/each optic	1	
Light colour	White	524
Required components:		$\times$
		4800
		30° 6450 30° 30° 30°
		90* <u>90</u> *
LED	XP-L HI	
FWHM / FWTM	13.0° / 25.0°	
Efficiency	89 %	60° 3200 60°
Peak intensity	10.9 cd/lm	$\Gamma \times / / \square \setminus \times \square$
LEDs/each optic	1	
Light colour	White	45° 6430 65°
Required components:		
Protective plate		900
FIDIECTIVE Plate	a, glass	
		364 366
		15° 0° 15°
		90°
	XP-L2	90 <sup>4</sup> 95 <sup>4</sup> 95 <sup>4</sup>
LED	XP-L2 20.0° / 40.0°	25. 26. 26. 27. 26. 26. 26. 26. 26.
LED FWHM / FWTM		77
LED FWHM / FWTM Efficiency	20.0° / 40.0°	
LED FWHM / FWTM	20.0° / 40.0° 89 %	77
LED FWHM / FWTM Efficiency Peak intensity	20.0° / 40.0° 89 % 4.7 cd/lm	77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	20.0° / 40.0° 89 % 4.7 cd/lm 1	73° - 72° -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	20.0° / 40.0° 89 % 4.7 cd/lm 1 White	5°.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 40.0° 89 % 4.7 cd/lm 1 White	5°.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	20.0° / 40.0° 89 % 4.7 cd/lm 1 White	75 64 67 220 30 67 200 40 57 67 67 67 67 67 67 67 67 67 67 67 67 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	20.0° / 40.0° 89 % 4.7 cd/lm 1 White	gr 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	20.0° / 40.0° 89 % 4.7 cd/lm 1 White	75 64 67 75 75 75 75 75 75 75 75 75 75 75 75 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	20.0° / 40.0° 89 % 4.7 cd/lm 1 White a, glass	75 64 67 75 75 75 75 75 75 75 75 75 75 75 75 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0°	25 26 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency	20.0° / 40.0° 89 % 4.7 cd/lm 1 White 2, glass XP-P 8.0° / 18.0° 95 %	30.         30.         30.         30.           60.         30.0         50.         60.           60.         30.0         60.         60.           60.         30.0         60.         60.           70.         90.         90.         90.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0° 95 % 25.5 cd/lm	25 26 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0° 95 % 25.5 cd/lm 1	25 26 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0° 95 % 25.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0° 95 % 25.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0° 95 % 25.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 40.0° 89 % 4.7 cd/lm 1 White e, glass XP-P 8.0° / 18.0° 95 % 25.5 cd/lm 1	



LED	XQ-E HI	
FWHM / FWTM	8.0° / 18.0°	
Efficiency	94 %	
	28.3 cd/lm	
Peak intensity		
LEDs/each optic	1	
Light colour	White	
Required components:		
	)S	90° 90°
LED	LUXEON C	
FWHM / FWTM	11.0° / 24.0°	75*
Efficiency	94 %	
Peak intensity	94 % 16.2 cd/lm	60°
LEDs/each optic	1	
	ı White	47°
Light colour	White	
Required components:		
		30° 35° 30°
	5	90° 90°
		30. 30.
LED	LUXEON CZ	75"
FWHM / FWTM	8.0° / 16.0°	
Efficiency		
1	93 %	60°
Peak intensity	29.6 cd/lm	90°
LEDs/each optic	29.6 cd/lm 1	50°
LEDs/each optic Light colour	29.6 cd/lm	ga
LEDs/each optic	29.6 cd/lm 1	93
LEDs/each optic Light colour	29.6 cd/lm 1	95°
LEDs/each optic Light colour	29.6 cd/lm 1	95
LEDs/each optic Light colour	29.6 cd/lm 1	
LEDs/each optic Light colour Required components:	29.6 cd/lm 1 White	15' 3380 35'
LEDs/each optic Light colour Required components:	29.6 cd/lm 1 White	200 100 100 100 100 100 100 100 100 100
LEDS/each optic Light colour Required components:	29.6 cd/lm 1 White	15' 3380 35'
LEDs/each optic Light colour Required components:	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0°	95 <sup>3</sup> 3000 55 <sup>3</sup>
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency	29.6 cd/lm 1 White	95 <sup>3</sup> 3000 55 <sup>3</sup>
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm	95 <sup>3</sup> 3000 55 <sup>3</sup>
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm 1	90% 90% 90% 90% 90% 90% 90% 90% 90% 90%
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm	95 <sup>3</sup> 3000 55 <sup>3</sup>
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm 1	90% 90% 90% 90% 90%
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm 1	22. 00. 00. 00. 00. 00. 00. 00.
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm 1	22. 00. 00. 00. 00. 00. 00. 00.
LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	29.6 cd/lm 1 White S LUXEON HL2X 14.0° / 30.0° 95 % 9 cd/lm 1	25. 00. 00. 00. 00. 00. 00. 00. 0



	S S	90* A
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON IR Domed 150 11.0° / 21.0° 94 % 19.1 cd/lm 1 White	30 <sup>-</sup> 13 <sup>-</sup> 0 <sup>-</sup> 13 <sup>-</sup> 3 <sup>-</sup>
	95	95° 90'
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	LUXEON IR Domed 60 10.0° / 20.0° 93 % 1 White	
OSRAM		39 <sup>4</sup> 157 27 35
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSCONIQ C 2424 10.0° / 20.0 + 21.0° 96 % 18 cd/lm 1 White	
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSCONIQ P 3030 8.0° / 20.0° 95 % 22.7 cd/lm 1 White	



OSRAM Opto Semiconductors		90° 90°
LED	OSCONIQ P 3737 (2W version)	
FWHM / FWTM	12.0° / 24.0°	750
Efficiency	90 %	
Peak intensity	12.5 cd/lm	
LEDs/each optic	1	64300
Light colour	White	42.4
Required components:		300
Protective plate	e, glass	$\times$ / $\setminus$ $\times$
		30° 112800 30°
OSRAM Opto Semiconductors		50° A 90'
LED	OSCONIQ P 3737 (2W version)	
FWHM / FWTM	12.0° / 24.0°	73
Efficiency	95 %	60 <sup>6</sup>
Peak intensity	13.5 cd/lm	$X \longrightarrow A \longrightarrow 2$
LEDs/each optic	1	
Light colour	White	g.,
Required components:		9500
		300 300
		15' 0° 15'
OSRAM Opto Semiconductors		90° A 90'
Opto Semiconductors	OSLON Square CSSRM2/CSSRM3	50°
OSRAM Opto Semiconductors LED FWHM / FWTM	OSLON Square CSSRM2/CSSRM3 15.0° / 27.0°	99 <sup>3</sup> 23 <sup>5</sup> 25
opto Semiconductors LED FWHM / FWTM		90 <sup>4</sup> 90 75 72 75 72
<sup>opto Semiconductors</sup> LED FWHM / FWTM Efficiency	15.0° / 27.0° 81 %	94 <sup>4</sup> 75 66 <sup>4</sup> 700 60 6
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	15.0° / 27.0°	90* 73* 00* 2000 00 00 00 00
<sup>opto Semiconductors</sup> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 27.0° 81 % 9.7 cd/lm	9)* 97 97 97 97 90 90 90 90 90 90 90 90 90 90 90 90 90
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 27.0° 81 % 9.7 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	15.0° / 27.0° 81 % 9.7 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 27.0° 81 % 9.7 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	15.0° / 27.0° 81 % 9.7 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	15.0° / 27.0° 81 % 9.7 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSSRAM Opto Semiconductors	15.0° / 27.0° 81 % 9.7 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM Opto Semiconductors LED	15.0° / 27.0° 81 % 9.7 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	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0°	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0° 96 %	
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	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0° 96 % 19.7 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	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0° 96 % 19.7 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	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0° 96 % 19.7 cd/lm	ge 300 e
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	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0° 96 % 19.7 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	15.0° / 27.0° 81 % 9.7 cd/lm 1 White e, glass OSLON Square Flat 10.0° / 20.0° 96 % 19.7 cd/lm 1	



OSRAM Opto Semiconductors		90* 90*
Opto Semiconductors	OSLON SSL 80	
FWHM / FWTM	8.2° / 18.8°	75*
Efficiency	94 %	6400
Peak intensity	21 cd/lm	60°
LEDs/each optic	1	
Light colour	' White	45* A24
Required components:	wille	
required components.		
		129 0° 72° 32°
OSRAM		90° 90°
Opto Semiconductors	OSTAR Projection Compact (Kx.CSLNM1.xx)	Α
FWHM / FWTM	10.0° / 20.0°	75*
Efficiency	96 %	
Peak intensity	19.8 cd/lm	60° / 60°
LEDs/each optic	1	
Light colour	' White	42*
Required components:	White	12800
Required components.		
		36° 35° 35°
OSRAM		90° 90°
Opto Semiconductors		30°
		75°
	SFH 4715AS	
FWHM / FWTM	9.2° / 21.0°	60° 600°
Efficiency	%	
LEDs/each optic	1 IR	45° 45°
Light colour Required components:	IK	$r \times (1 \times 1)$
Required components:		12000
		$\times$ / $\vee$ $\times$
		30° 15° 0° 15°
SAMSUN	IG	
	LH231B	
FWHM / FWTM	16.0° / 34.0°	
Efficiency	94 %	
Peak intensity	8 cd/lm	
LEDs/each optic Light colour	4 White	
Required components:	White	
Required components:		



SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH231B 16.0° / 32.0° 95 % 8.3 cd/lm 1 White	30°
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH231B 16.0° / 32.0° 95 % 8.4 cd/lm 1 White	200
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	C LM301B 10.0° / 24.0° 94 % 14.8 cd/lm 1 White	257 0 <sup>3</sup> 12 <sup>3</sup> 90° 90° 90° 90° 90° 90° 90° 90°
SECOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Z5M1/Z5M2 13.0° / 26.0° 92 % 12.1 cd/lm 1 White	227 1000 237 1000 100 100 100 100 100 100 1



SEOUL SEMICONDUCTOR		90°
LED	Z8Y22T	77
FWHM / FWTM	15.0° / 32.0°	
Efficiency	94 %	61
Peak intensity	8.6 cd/lm	
LEDs/each optic	1	
Light colour	White	₫ <sup>2</sup> (0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
Required component	s:	6420



#### **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.

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