

PRODUCT DATASHEET CA18105_TINA-Y-W

TINA-Y-W

~36° wide beam. Assembly with holder, installation tape and pins

SPECIFICATION:

Dimensions	Ø 16.1 mm
Height	10 mm
Fastening	tape, pin
ROHS compliant	yes 🛈



MATERIALS:

Component TINA-Y-W TINA-Y-HLD TINA-Y-TAPE

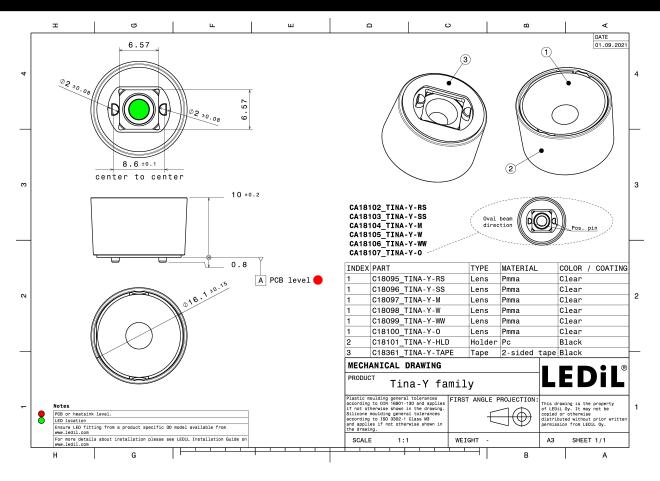
Туре	
Single lens	
Holder	
Tape	

Material	Colour	Finish
PMMA	clear	gloss
PC	black	gloss
Acrylic foam		

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CA18105_TINA-Y-W	3900	300	300	6.0
» Box size: 476 x 273 x 197 mm				

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



OPTICAL RESULTS (MEASURED):

				90*	90*
LED	XP-G3				
FWHM / FWTM	37.0° / 58.0°		-	400	
Efficiency	79 %			50° X	$X \rightarrow$
Peak intensity	2 cd/lm				$K \vee$
LEDs/each optic	1			\sim	
Light colour	White			e ⁵ 1230	43*
Required compone	ents:				N X
					AN
				\times	
				300 2000	36°
			<u>/</u>	15° 0°	15*
			-	90*	90*
LED	XP-G4			75*	1 1 10
FWHM / FWTM	43.0° / 61.0°			400	KX
Efficiency	85 %			80°	60*
Peak intensity	1.8 cd/lm				$\mathcal{K} \setminus \mathcal{A}$
LEDs/each optic	1			\times / / /	
Light colour	White			5°	
Required compone	ents:			1200	
					$\Lambda \times$
				1630	\mathcal{H}
				36° 18° 0°	150 360
$\overline{\mathbf{A}}$					2
ØNICHI∕			-	90°	90*
			-	90*	90*
LED	NVSW719AC	100	-	904	90*
LED FWHM / FWTM		5		50°	99 ⁴
LED FWHM / FWTM Efficiency	NVSW719AC 36.0° / 55.0° 86 %	1)	99° 750 400	99*
LED FWHM / FWTM Efficiency Peak intensity	NVSW719AC 36.0° / 55.0°		D	99° 75 60°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/Im)	9° 90 90	e e
LED FWHM / FWTM Efficiency Peak intensity	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White			9° 00 00 100	90 10 10 10 10 10 10 10 10 10 10 10 10 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White			97 64 00 67 200	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White			97 75 60 67 160	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White			9° 9° 9° 9° 9° 9° 9°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White			9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents:			50° 50° 50° 50° 50° 50° 50° 50° 50° 50°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents:			9° 9° 9° 9° 9° 9° 10° 10° 10° 10° 10° 10° 10° 10	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0°			767	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 %			9° 9° 9° 9° 9° 9° 9° 9° 9° 9°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm			767	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSERAM Optio Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm 1			75 60	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSERAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm 1 White			767	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSERAM Optio Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm 1 White			75 60	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSERAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm 1 White			75 60	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSERAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm 1 White			77 69 69 100	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW719AC 36.0° / 55.0° 86 % 2.4 cd/lm 1 White ents: OSCONIQ C 3030 31.0° / 50.0° 83 % 2.8 cd/lm 1 White			77 69 69 100	



CREE ≑		90° 90°
LEDS	XHP35.2 HD	
FWHM / FWTM	44.0° / 70.0°	75*
Efficiency	75 %	
Peak intensity	1.3 cd/lm	60°
LEDs/each optic	1	an
Light colour	White	
Required components:		
		1200
		30° 30° 30°
		90 ⁴ 90 ⁴
		30.
LED	XHP35.2 HI	75* 75*
FWHM / FWTM	37.0° / 58.0°	400
Efficiency	77 %	60* 60*
Peak intensity	1.9 cd/lm	
LEDs/each optic		
Light colour	White	
Required components:		
		1690
		30° 2000 30° 30°
		90* 90*
LED	XM-L RGBW (XMLDCL HI)	73* 75*
FWHM / FWTM	41.0° / 62.0°	
1		
Efficiency	86 %	400 60 ⁴
Peak intensity	86 % 1.9 cd/lm	grt 600
Peak intensity LEDs/each optic	86 % 1.9 cd/lm 1	90 ⁴
Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm	60 ⁴ 60 ⁴ 60 ⁴ 7 ⁴ 220
Peak intensity LEDs/each optic	86 % 1.9 cd/lm 1	400 (0) (0) (0) (0) (0) (0) (0) (0) (0) (
Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1	67 67 120 68 67 67 67
Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1	100 300
Peak intensity LEDs/each optic Light colour Required components:	86 % 1.9 cd/lm 1 RGBW	100 300
Peak intensity LEDs/each optic Light colour Required components:	86 % 1.9 cd/lm 1 RGBW XM-L3	100 300
Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0°	100 300
Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 %	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Peak intensity LEDs/each optic Light colour Required components:	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Peak intensity LEDs/each optic Light colour Required components:	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Peak intensity LEDs/each optic Light colour Required components: CREE ED ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm	200 200 200 200 200 200 200 200 200 200
Peak intensity LEDs/each optic Light colour Required components:	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Peak intensity LEDs/each optic Light colour Required components: CREE ED ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Peak intensity LEDs/each optic Light colour Required components: CREE ED ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	86 % 1.9 cd/lm 1 RGBW XM-L3 45.0° / 67.0° 80 % 1.4 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2



		90° 90°
	XP-E2	
LED FWHM / FWTM	42.0° / 57.0°	75*
Efficiency	88 %	60° 60°
Peak intensity	2 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
		30° 30° 30°
		50° 50°
LED	XP-G2	
FWHM / FWTM	42.0° / 59.0°	75* 400 73*
Efficiency	87 %	
Peak intensity	1.9 cd/lm	60°
LEDs/each optic	1	
Light colour	White	
Required components:	White	
required components.		
		30° 2000 30°
		15° 0° 35°
		90° 90° 33°
LED	XP-L HD 42.0° / 66.0°	
LED FWHM / FWTM	42.0° / 66.0°	9 ⁴
LED FWHM / FWTM Efficiency	42.0° / 66.0° 84 %	9 ⁴
LED FWHM / FWTM Efficiency Peak intensity	42.0° / 66.0° 84 % 1.6 cd/lm	9 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	42.0° / 66.0° 84 % 1.6 cd/lm 1	9 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	42.0° / 66.0° 84 % 1.6 cd/lm	60 64 60 72 72 72 72 72 72 72 72 72 72
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	42.0° / 66.0° 84 % 1.6 cd/lm 1	60 64 60 72 72 72 72 72 72 72 72 72 72
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	42.0° / 66.0° 84 % 1.6 cd/lm 1	60 64 64 64 64 64 64 64 64 64 64 64 64 64
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	42.0° / 66.0° 84 % 1.6 cd/lm 1	60 64 60 72 72 72 72 72 72 72 72 72 72
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	42.0° / 66.0° 84 % 1.6 cd/lm 1	60 64 64 64 64 64 64 64 64 64 64 64 64 64
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	42.0° / 66.0° 84 % 1.6 cd/lm 1	30° 50° 60° 60° 60° 60° 60° 60° 60° 60° 60° 6
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	42.0° / 66.0° 84 % 1.6 cd/lm 1 White	30. 100 100 100 100 100 100 100 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	42.0° / 66.0° 84 % 1.6 cd/lm 1 White	30. 100 100 100 100 100 100 100 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0° 87 %	51 51 51 51 52 52 52 52 52 52 52 52 52 52
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency Peak intensity	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0° 87 % 2 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0° 87 % 2 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0° 87 % 2 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0° 87 % 2 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	42.0° / 66.0° 84 % 1.6 cd/lm 1 White XQ-E HI 42.0° / 56.0° 87 % 2 cd/lm 1	



	DS	90 ⁺
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 38.0° / 65.0° 82 % 1.8 cd/lm 1 White	25
	DS	30*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 38.0° / 64.0° 82 % 1.8 cd/lm 1 White	75
CONTRACTOR OF CO	LUXEON 5050 Square LES 38.0° / 64.0° 81 % 1.7 cd/lm 1 White	
CONTRACT OF CONTRACT.	LUXEON C 42.0° / 58.0° 80 % 1.8 cd/lm 1 White	



)S	50° 50°
LED FWHM / FWTM	LUXEON HL2X 48.0° / 66.0°	73
Efficiency	86 %	60 ²
Peak intensity	1.5 cd/lm 1	
LEDs/each optic Light colour	ı White	45
Required components:	white	120 30 ³ 120 180 120 10 10 10 10 10
)S	90* <u>90</u> *
LED	LUXEON MZ	
FWHM / FWTM	37.0° / 60.0°	400
Efficiency	83 %	605
Peak intensity	2 cd/lm	
LEDs/each optic	1	
Light colour	White	57 1220 67
Required components:		
		1630
		304 2000 344
	5	90* 90*
LED		90° 90°
	LUXEON TX	73.
FWHM / FWTM	40.0° / 59.0° 85 %	
Efficiency	83 %	60 ⁶ 60 ⁴
Peak intensity	1.9 cd/lm	
LEDs/each optic	1	
LEDs/each optic Light colour		
LEDs/each optic	1	
LEDs/each optic Light colour	1	60 60 - 100
LEDs/each optic Light colour	1	00 07 - 160 - 160
LEDs/each optic Light colour	1	30° 0° 0° 0°
LEDs/each optic Light colour	1	207 0° 0°
LEDs/each optic Light colour Required components:	1	99 ⁵
LEDs/each optic Light colour Required components:	1 White	25 25 25 25 25 25 25 25 25 25
LEDs/each optic Light colour Required components:	1 White NVSW219F	99 ⁵
LEDs/each optic Light colour Required components:	1 White NVSW219F 46.0° / 65.0°	99 ⁵
LEDs/each optic Light colour Required components:	1 White NVSW219F 46.0° / 65.0° 86 %	99 ⁵
LEDs/each optic Light colour Required components:	1 White NVSW219F 46.0° / 65.0° 86 % 1.6 cd/lm	99 ⁵
LEDs/each optic Light colour Required components:	1 White NVSW219F 46.0° / 65.0° 86 % 1.6 cd/lm 1	99 ⁵
LEDs/each optic Light colour Required components:	1 White NVSW219F 46.0° / 65.0° 86 % 1.6 cd/lm 1	99 ⁵
LEDs/each optic Light colour Required components:	1 White NVSW219F 46.0° / 65.0° 86 % 1.6 cd/lm 1	99 ⁵



ΜΝΙCΗΙΛ		50* 50*
LED	NVSxE21A	
FWHM / FWTM	32.0° / 50.0°	75
Efficiency	81 %	
Peak intensity	2.7 cd/lm	60.
LEDs/each optic	1	
Light colour	' White	45* 1630 45*
Required components:	Wille	$K \neq A = A + A = 2$
Required components.		
		2430
		30 ⁴ 15 ⁵ 0 ⁶ 15 ⁵
OSRAM Opto Semiconductors		90* 90*
LED	Duris S8	
FWHM / FWTM	39.0° / 69.0°	75*
Efficiency	77 %	
Peak intensity	1.4 cd/im	80+
LEDs/each optic	1	
Light colour	White	97 - 800 - 97
Required components:		
		30°
		15° 15°
OSRAM Oto Semiconductors		30° 30° 90°
Opto Semiconductors	OSLON Square CSSRM2/CSSRM3	25° 25° 25°
Opto Semiconductors	OSLON Square CSSRM2/CSSRM3 36.0° / 58.0°	25° 25°
Opto Semiconductors LED FWHM / FWTM	36.0° / 58.0°	99° 99° 99°
opto Semiconductors LED FWHM / FWTM Efficiency	36.0° / 58.0° 86 %	9 ⁴ 800 84
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	36.0° / 58.0° 86 % 2.1 cd/lm	55° 5° 50° 50°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	36.0° / 58.0° 86 % 2.1 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	36.0° / 58.0° 86 % 2.1 cd/lm	6 ¹
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	36.0° / 58.0° 86 % 2.1 cd/lm 1	6 ¹
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	36.0° / 58.0° 86 % 2.1 cd/lm 1	6 ¹
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	36.0° / 58.0° 86 % 2.1 cd/lm 1	6 ¹
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	36.0° / 58.0° 86 % 2.1 cd/lm 1	200 200 200 200 200 200 200 200
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	36.0° / 58.0° 86 % 2.1 cd/lm 1 White	60° 6° 7° 100
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3	200 200 200 200 200 200 200 200
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0°	200 200 200 200 200 200 200 200
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 %	200 200 200 200 200 200 200 200
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm	200 200 200 200 200 200 200 200
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm 1	200 200 200 200 200 200 200 200
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm	200 200 200 200 200 200 200 200
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm 1	60° 60° 60° 60° 60° 60° 60° 60°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm 1	60° 60° 60° 60° 60° 60° 60° 60°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	36.0° / 58.0° 86 % 2.1 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 41.0° / 60.0° 86 % 2 cd/lm 1	



SAMSUN	IG	90° 90°
		90° 90°
	LH351B	75.
FWHM / FWTM	45.0° / 64.0°	400
Efficiency	87 %	60* 60*
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	5°
Light colour	White	
Required components:		1230
		30° 30° 30°
SAMSUN	IG	90° 90°
LED	LH351B	
FWHM / FWTM	44.0° / 64.0°	75* 75*
Efficiency	86 %	
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	
Light colour	White	gr at
Required components:		1239
		30° 30°
0.0.0.0.0.0.0		125 ⁴ 0 ⁶ 35 ⁵
SAMSUN	IG	90* 90*
LED	LH351C	
FWHM / FWTM		
	45.0° / 65.0°	75*
Efficiency	45.0° / 65.0° 87 %	
Efficiency	87 %	
Efficiency Peak intensity LEDs/each optic Light colour	87 % 1.6 cd/lm	
Efficiency Peak intensity LEDs/each optic	87 % 1.6 cd/lm 1	60 ⁵
Efficiency Peak intensity LEDs/each optic Light colour	87 % 1.6 cd/lm 1	60 ⁵
Efficiency Peak intensity LEDs/each optic Light colour	87 % 1.6 cd/lm 1	60 ⁵
Efficiency Peak intensity LEDs/each optic Light colour	87 % 1.6 cd/lm 1	909 - 900 - 900 -
Efficiency Peak intensity LEDs/each optic Light colour Required components:	87 % 1.6 cd/lm 1	60 ⁵
Efficiency Peak intensity LEDs/each optic Light colour Required components:	87 % 1.6 cd/lm 1 White	909 - 900 - 900 -
Efficiency Peak intensity LEDs/each optic Light colour Required components: seour semiconductor LED	87 % 1.6 cd/lm 1 White Z8Y22	20 ⁴ 100 004 004 004 004 004 004 004 004 004
Efficiency Peak intensity LEDs/each optic Light colour Required components: stout semiconductor LED FWHM / FWTM	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0°	90°
Efficiency Peak intensity LEDs/each optic Light colour Required components: seoul semiconductor LED FWHM / FWTM Efficiency	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 %	
Efficiency Peak intensity LEDs/each optic Light colour Required components: seoul_seuconductor LED FWHM / FWTM Efficiency Peak intensity	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 % 2.3 cd/lm	29°
Efficiency Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 % 2.3 cd/lm 1	
Efficiency Peak intensity LEDs/each optic Light colour Required components: SECOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 % 2.3 cd/lm	
Efficiency Peak intensity LEDs/each optic Light colour Required components: secure semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 % 2.3 cd/lm 1	29°
Efficiency Peak intensity LEDs/each optic Light colour Required components: secons se	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 % 2.3 cd/lm 1	
Efficiency Peak intensity LEDs/each optic Light colour Required components: stout semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	87 % 1.6 cd/lm 1 White Z8Y22 34.0° / 54.0° 74 % 2.3 cd/lm 1	