

# PRODUCT DATASHEET CA12056\_TINA2-W

# TINA2-W

 ${\sim}45^\circ$  wide beam. Assembly with holder and installation tape.

### **SPECIFICATION:**

Dimensions	Ø 16.1 mm
Height	9.7 mm
Fastening	tape
ROHS compliant	yes 🛈



### MATERIALS:

**Component** TINA2-W-XP TINA2-XP-HLD-TAPE-BLK TINA-TAPE3

Туре	
Single lens	
Holder	
Tape	

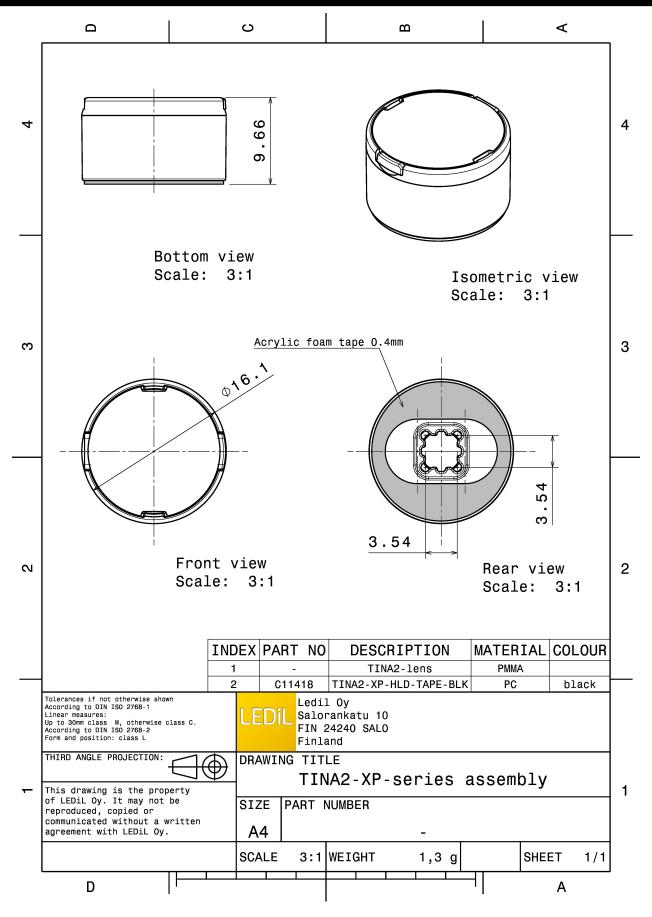
Material	Colour	Finish
PMMA	clear	
PC	black	
Acrylic foam	black	
	PMMA PC	PMMA clear PC black

### **ORDERING INFORMATION:**

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA12056_TINA2-W	Single lens	4140	230	230	8.7
» Box size: 451 x 241 x 298 mm					



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



# **OPTICAL RESULTS (MEASURED):**

		90* 90*
LED	XP-E	
FWHM / FWTM	50.0° / 68.0°	7
Efficiency	88 %	400
Peak intensity	1.5 cd/lm	60°-
LEDs/each optic	1	
Light colour	White	45° 660 45°
Required componer		$K / \Lambda = \Lambda \times 2$
Required componer		
		1220
		30°
		90* 90*
LED	XP-E2	
FWHM / FWTM	52.0° / 70.0°	75
Efficiency	89 %	400
Peak intensity	1.2 cd/lm	60°
LEDs/each optic	1	
Light colour	White	gy 000 050
Required componer		
	no.	
		30. 30.
Į.		15° 0° 15°
		90+ 90+ 90+
LEDS	XP-G	92 <sup>4</sup> 92 <sup>4</sup>
LED	XP-G 57.0° / 81.0°	No. No. No. No. No. No.
LED FWHM / FWTM	57.0° / 81.0°	32. 32.   36. 52.
LED FWHM / FWTM Efficiency	57.0° / 81.0° 88 %	22 <sup>5</sup> 6 <sup>4</sup> 25 <sup>4</sup>
LEDs LED FWHM / FWTM Efficiency Peak intensity	57.0° / 81.0°	64 66 67 97 97 97 97 97 97 97 97 97 97 97 97 97
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic	57.0° / 81.0° 88 % 1 cd/lm 1	6, 6, 80 80 80 80 80 80 80 80 80 80 80 80 80
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White	77 77 61 60 61
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic	57.0° / 81.0° 88 % 1 cd/lm 1 White	77
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White	77
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White	77 77 61 60 61
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	57.0° / 81.0° 88 % 1 cd/lm 1 White	77
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White	77
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	57.0° / 81.0° 88 % 1 cd/lm 1 White	27
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	57.0° / 81.0° 88 % 1 cd/lm 1 White nts:	27
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	57.0° / 81.0° 88 % 1 cd/lm 1 White nts: XP-G2	27
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	57.0° / 81.0° 88 % 1 cd/lm 1 White nts: XP-G2 54.0° / 74.0°	27
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity	57.0° / 81.0° 88 % 1 cd/lm 1 White nts: XP-G2 54.0° / 74.0° 88 %	27
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	57.0° / 81.0° 88 % 1 cd/lm 1 White hts: XP-G2 54.0° / 74.0° 88 % 1 cd/lm 1	27
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White hts: XP-G2 54.0° / 74.0° 88 % 1 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	57.0° / 81.0° 88 % 1 cd/lm 1 White hts: XP-G2 54.0° / 74.0° 88 % 1 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White hts: XP-G2 54.0° / 74.0° 88 % 1 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	57.0° / 81.0° 88 % 1 cd/lm 1 White hts: XP-G2 54.0° / 74.0° 88 % 1 cd/lm 1 White	



# **OPTICAL RESULTS (MEASURED):**

			90* 90
LED	XP-G3		
FWHM / FWTM	47.0° / 68.0°		
Efficiency	87 %		
Peak intensity	1.4 cd/lm		60 <sup>6</sup>
LEDs/each optic	1		
Light colour	White		age / /
Required componer			
			1200
			15° 0° 15°
			90 <sup>4</sup> 90
LED	XQ-E HD		
FWHM / FWTM	39.0° / 68.0°		
Efficiency	72 %		60-
Peak intensity	1.4 cd/lm		
LEDs/each optic	1		
Light colour	White		9 <sup>1</sup> 80 63
Required componer	nts:		
			-1200
			36*
			90* 90
LED	XT-E		78*
FWHM / FWTM	46.0° / 70.0°	1000	77
FWHM / FWTM Efficiency	46.0° / 70.0° 87 %		23 <sup>-</sup>
FWHM / FWTM Efficiency Peak intensity	46.0° / 70.0° 87 % 1.4 cd/lm		57
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	46.0° / 70.0° 87 % 1.4 cd/lm 1		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White		57
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	46.0° / 70.0° 87 % 1.4 cd/lm 1 White		23 61 <sup>4</sup> 60 97 97 60 60 60 60 60 60 60 60
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White		27 69 67 67 129
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White		27 6) <sup>1</sup> 6) <sup>1</sup> 6) 7 7 7 80 80 80 80 80 80 80 80 80 80 80 80 80
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White		201 201 201 201 201 201 201 201
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts:		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts:		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts:		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts:		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Mequired component LED FWHM / FWTM	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0°		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Component ELUMIL LED FWHM / FWTM Efficiency	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0° 89 %		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Mequired component Equired component Component Required component FWHM / FWTM Efficiency Peak intensity	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0° 89 % 1.4 cd/lm		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component EleD FWHM / FWTM Efficiency Peak intensity LEDs/each optic	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0° 89 % 1.4 cd/lm 1 White		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component Colour ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0° 89 % 1.4 cd/lm 1 White		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Equired component Colour ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0° 89 % 1.4 cd/lm 1 White		15 1690 15'
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Composition Required component Composition Required component Composition Required component Composition Required component Composition Required component Composition Required component Composition Required component Composition Com	46.0° / 70.0° 87 % 1.4 cd/lm 1 White nts: EDS LUXEON V2 49.0° / 70.0° 89 % 1.4 cd/lm 1 White		15 1690 15'



# **OPTICAL RESULTS (MEASURED):**

SEOUL SEMICONDUCTOR			50°
LED	Z5		75
FWHM / FWTM	40.0° / 75.0°		400
Efficiency	89 %		60° 60°
Peak intensity	1.5 cd/lm		
LEDs/each optic	1		
Light colour	White		97°
Required compone	ents:		
			1200
			30° 1000 30°
			15° 0° 15°
			90°
SEOUL SEMICONDUCTOR	Z5M3		50°
seoul semiconductor LED	Z5M3 49.0° / 71.0°		25- 25- 25-
seoul semiconductor LED FWHM / FWTM	49.0° / 71.0°		90 <sup>4</sup>
seoul semiconductor LED FWHM / FWTM Efficiency	49.0° / 71.0° 86 %		
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity	49.0° / 71.0°		
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	49.0° / 71.0° 86 % 1.3 cd/lm		
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	49.0° / 71.0° 86 % 1.3 cd/lm 1 White		272 272 293 294 294 294 294 295 295 295 295 295 295 295 295 295 295
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	49.0° / 71.0° 86 % 1.3 cd/lm 1 White		272 272 293 294 294 294 294 295 295 295 295 295 295 295 295 295 295
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	49.0° / 71.0° 86 % 1.3 cd/lm 1 White		272 272 293 294 294 294 294 295 295 295 295 295 295 295 295 295 295
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	49.0° / 71.0° 86 % 1.3 cd/lm 1 White		272 272 293 294 294 294 294 295 295 295 295 295 295 295 295 295 295



# **OPTICAL RESULTS (SIMULATED):**

[		
CREE ≑		90* 90*
LEDS	XP-G2 HE	
FWHM / FWTM	58.0° / 73.0°	75°
Efficiency	81 %	
Peak intensity	1 cd/lm	60 <sup>1</sup> 60 <sup>0</sup>
LEDs/each optic	1	
Light colour	' White	65× 65×
Required components:	white	
		30° 50° 15° 50°
		90° 90°
LED	XP-G3	
FWHM / FWTM	54.0° / 70.0°	75*
Efficiency	84 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	$  \times / /   \times   \times  $
Light colour	Royal Blue	g*
Required components:		
		30* 1200 3**
		30° 1226 30°
ΜΝΙCΗΙΛ		90° 90°
	NVSxE21A	90°
	NVSxE21A 34.6° / 57.8°	25. 26. 26.
LED FWHM / FWTM		20 00 00 00 00 00 00 00 00 00 00 00 00 0
LED FWHM / FWTM Efficiency	34.6° / 57.8°	60 64 25. 26. 26. 26. 26. 26.
LED FWHM / FWTM	34.6° / 57.8° 90 %	00 00° 33. 36. 36. 37. 36. 36. 37. 36. 36.
LED FWHM / FWTM Efficiency Peak intensity	34.6° / 57.8° 90 % 2.5 cd/lm	41. 61. 62. 62. 63. 64. 65. 65. 65. 65. 65. 65. 65. 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	34.6° / 57.8° 90 % 2.5 cd/lm 1	5°. 5°. 300 300 300 300 300 300 300 300 300 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	34.6° / 57.8° 90 % 2.5 cd/lm 1	99 <sup>5</sup> 99 <sup>5</sup> 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	34.6° / 57.8° 90 % 2.5 cd/lm 1	91 <sup>5</sup> 91 <sup>5</sup> 91 <sup>7</sup> 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	34.6° / 57.8° 90 % 2.5 cd/lm 1	30°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1 White	99 <sup>4</sup> 99 <sup>4</sup> 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OPTO Semiconductors LED FWHM / FWTM	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0°	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 %	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm 1	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm 1	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm 1	209 20 <sup>4</sup> 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm 1	94 94 95 95 95 95 95 95 95 95 95 95 95 95 95
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	34.6° / 57.8° 90 % 2.5 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 54.0° / 68.0° 91 % 1.3 cd/lm 1	54 54 55 56 57 57 57 57 57 57 57 57 57 57



# **OPTICAL RESULTS (SIMULATED):**

SAMSU	NG	90°
LED	LH351B	79
FWHM / FWTM	56.0° / 71.0°	
Efficiency	88 %	80°
Peak intensity	1.2 cd/lm	60°
LEDs/each optic	1	
Light colour	White	9°
Required componen	IS:	



#### **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:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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