

# PRODUCT DATASHEET CA12378\_TINA2-W

# TINA2-W

~45° wide beam. Assembly with holder, installation tape and location pins.

### **TECHNICAL SPECIFICATIONS:**

| Dimensions     | Ø 16.0 mm |
|----------------|-----------|
| Height         | 9.5 mm    |
| Fastening      | tape, pin |
| ROHS compliant | yes 🛈     |



### MATERIAL SPECIFICATIONS:

| Component     |
|---------------|
| TINA2-W-XP    |
| TINA2-HLD-BLK |
| TINA-TAPE3    |

| Туре        |  |
|-------------|--|
| Single lens |  |
| Holder      |  |
| Таре        |  |

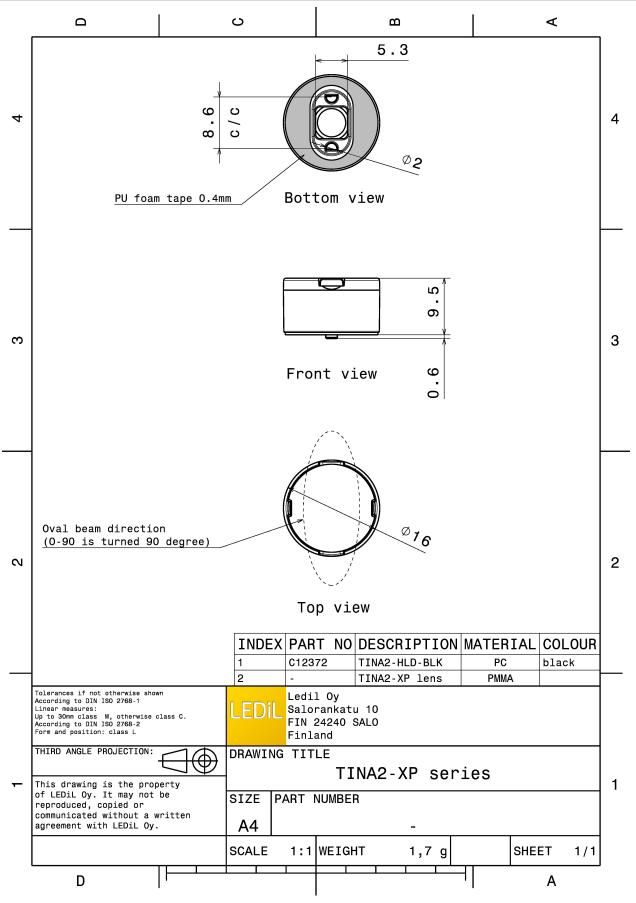
| Material     | Colour | Finish |
|--------------|--------|--------|
| PMMA         | clear  |        |
| PC           | black  |        |
| Acrylic foam | black  |        |

### **ORDERING INFORMATION:**

| Component       |             | Qty in box | MOQ | MPQ | Box weight (kg) |
|-----------------|-------------|------------|-----|-----|-----------------|
| CA12378_TINA2-W | Single lens | 4140       | 230 | 230 | 8.3             |
| » Box size:     |             |            |     |     |                 |



# PRODUCT DATASHEET CA12378\_TINA2-W



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



# PHOTOMETRIC DATA (MEASURED):

|  |  | 39,4 39,4                                 |
|--|--|---|
| LED  | XD16   |   |
| FWHM / FWTM  | 40.0° / 61.0°                                    | 77  |
| Efficiency   | 83 %   |   |
| Peak intensity   | 1.8 cd/lm  |   |
| LEDs/each optic  | 1  |   |
| Light colour   | White  | gr Co                                     |
| Required compone   |  |   |
|  |  |   |
|  |  | 100                                       |
|  |  |   |
|  |  | 157 04 157                                |
| UMIL   | EDS  | 50 <sup>,</sup> 30 <sup>,</sup>           |
| LED  | LUXEON CZ  |   |
| FWHM / FWTM  | 39.0° / 61.0°                                    |   |
| Efficiency   | 92 %   | 60*                                       |
| Peak intensity   | 2.2 cd/lm  |   |
| LEDs/each optic  | 1  |   |
| Light colour   | White  | a, a,                                     |
| Required compone   | nts:   | - 1600                                    |
|  |  |   |
|  |  |   |
|  |  |   |
|  | EDS  | 20 10 10 10 10 10 10 10 10 10 10 10 10 10 |
| LED  | LUXEON TX  |   |
| FWHM / FWTM  | 49.0° / 68.0°                                    | 75  |
| Efficiency   | 88 %   |   |
| Peak intensity   | 1.6 cd/lm  |   |
| LEDs/each optic  | 1  |   |
| Light colour   | White  |   |
| Required compone   | nts:   |   |
|  |  |   |
|  |  |   |
|  |  | 30'                                       |
| <b>ØNICHI</b>  |  | 201 40 TO                                 |
|  |  | 90* 90*                                   |
| LED  | NVSxx19B/NVSxx19C                                | 75  |
|  |  |   |
|  |  | 60*                                       |
|  |  |   |
|  |  |   |
|  |  |   |
| Requirea compone   | าเร:   |   |
|  |  |   |
|  |  |   |
|  |  | 34 309 30                                 |
| WHM / FWTM<br>(fficiency<br>eak intensity<br>EDs/each optic<br>ight colour<br>Required compone | 52.0° / 70.0°<br>87 %<br>1.4 cd/lm<br>1<br>White |   |



# PHOTOMETRIC DATA (MEASURED):

| - 1  |   |   |
|--|---|---|
| <b>ØNICHI</b>  |   | 30* 90*   |
| LED  | NWSx229A  |   |
| FWHM / FWTM  | 55.0° / 77.0°   |   |
| Efficiency   | 84 %  |   |
| Peak intensity   | 1 cd/lm   |   |
| LEDs/each optic  | 1   |   |
| Light colour   | White   | gr at a second  |
| Required component   |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   | 25 0, 25  |
| OSRAM<br>Opto Semiconductors   |   | 90 <sup>4</sup> 90 <sup>4</sup>   |
| LED  | OSLON Square EC   |   |
| FWHM / FWTM  | 52.0° / 72.0°   |   |
| Efficiency   | 85 %  |   |
| Peak intensity   | 1.2 cd/lm   |   |
| LEDs/each optic  | 1   |   |
| Light colour   | White   | a. at   |
| Required compone   | nts:  |   |
|  |   |   |
|  |   |   |
|  |   | 30* 1220 3*   |
|  |   | 15° 0° 15°  |
| OSRAM  |   |   |
| OSRAM<br>Opto Semiconductors   |   | 90 <sup>4</sup> 90 <sup>4</sup>   |
| Opto Semiconductors  | OSLON Square EC   | 32. 30,   |
| opto Semiconductors<br>LED<br>FWHM / FWTM  | 50.0° / 73.0°   | 32.<br>26.<br>26.   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency  | 50.0° / 73.0°<br>84 %   | 10 <sup>1</sup> 10 <sup>2</sup> 10 <sup>2</sup> 10 <sup>2</sup> 10 <sup>2</sup>   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1   | 90 <sup>4</sup> 00 90 <sup>4</sup>  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White  | 32         60         60         60           35         60         60         60   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED<br>FWHM / FWTM  | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°                                    | 20 <sup>-</sup> |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency  | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %                            | 20 <sup>-</sup> |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>ODE<br>SERAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                    | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %<br>1.2 cd/lm               |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %<br>1.2 cd/lm<br>1          |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %<br>1.2 cd/lm<br>1<br>White |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %<br>1.2 cd/lm<br>1<br>White |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %<br>1.2 cd/lm<br>1<br>White |   |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour   | 50.0° / 73.0°<br>84 %<br>1.1 cd/lm<br>1<br>White<br>hts:<br>OSLON SSL 150<br>53.0° / 70.0°<br>85 %<br>1.2 cd/lm<br>1<br>White |   |



# PHOTOMETRIC DATA (MEASURED):

| OSRAM<br>Opto Semiconductors |               |  |               |      |
|------------------------------|---------------|--|---------------|------|
| Opto demiconductors          |               |  |               |      |
| LED                          | SFH 4170S     |  |               |      |
| FWHM / FWTM                  | 38.0° / 61.0° |  |               |      |
| Efficiency                   | %             |  |               |      |
| LEDs/each optic              | 1             |  |               |      |
| Light colour                 | IR            |  |               |      |
| Required compone             |               |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
| OSRAM                        |               |  |               |      |
| Opto Semiconductors          |               |  |               |      |
| LED                          | SFH 4180S     |  |               |      |
| EED<br>FWHM / FWTM           | 34.0° / 60.0° |  |               |      |
| Efficiency                   | %             |  |               |      |
| LEDs/each optic              | 1             |  |               |      |
| LEDS/each optic              | IR            |  |               |      |
| Required compone             |               |  |               |      |
|                              | 51115.        |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
| OSRAM                        |               |  |               |      |
| Opto Semiconductors          |               |  |               |      |
|                              |               |  |               |      |
| LED                          | SFH 4715S     |  |               |      |
| FWHM / FWTM                  | 36.0° / 80.0° |  |               |      |
| Efficiency                   | %             |  |               |      |
| LEDs/each optic              | 1             |  |               |      |
| Light colour                 | White         |  |               |      |
| Required compone             | ents:         |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
|                              |               |  |               |      |
| SEOUL                        |               |  |               | F    |
| SEOUL SEMICONDUCTOR          |               |  | 90°           | 90*  |
| LED                          | Z5M3          |  | 75°           |      |
| FWHM / FWTM                  | 50.0° / 72.0° |  |               |      |
| Efficiency                   | 86 %          |  | 60°           | 400. |
| Peak intensity               | 1.3 cd/lm     |  |               | /    |
| LEDs/each optic              | 1             |  |               |      |
| Light colour                 | White         |  | 45°           | 600  |
|                              |               |  |               |      |
| Required compone             | ents:         |  |               |      |
| Required compone             | ents:         |  |               |      |
| Required compone             | ents:         |  | $\rightarrow$ |      |
| Required compone             | ents:         |  |               |      |



# PHOTOMETRIC DATA (SIMULATED):

| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | XB-D White<br>40.0° / 64.0°<br>89 %<br>1.9 cd/lm<br>1<br>White | 55°<br>25°<br>400<br>55°<br>400<br>60°<br>60°<br>60°<br>60°<br>60°<br>60° |
|---|--|---|
|   |  | 200<br>200<br>200   |
|   |  | 90* 90*   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                         | XQ-E HI<br>42.0° / 64.0°<br>92 %<br>1.9 cd/lm<br>1<br>White    | 27 120 Qr<br>19 10 10 10 10 10 10 10 10 10 10 10 10 10                    |
| Required components:  |  | 300<br>300<br>2009<br>35"<br>0"<br>35"                                    |
|   | LUXEON C   | 50° 50°   |
| FWHM / FWTM   | 44.0° / 65.0°  | 78* 700   |
| Efficiency  | 91 %   | 60°   |
| Peak intensity  | 1.8 cd/lm<br>1   |   |
| LEDs/each optic<br>Light colour   | ı<br>White   | g   |
| Required components:  |  | 200<br>200<br>200<br>200<br>200   |
|   | )S   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>LEDs/each optic<br>Light colour<br>Required components:                   | LUXEON IR Compact<br>51.0° / 64.0°<br>84 %<br>1<br>White       |   |
|   |  |   |



# PHOTOMETRIC DATA (SIMULATED):

|   | )S  | 50° 50°  |
|---|---|--|
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:                                 | LUXEON Z ES<br>43.0° / 62.0°<br>93 %<br>2 cd/lm<br>1<br>White         | 200 - 25°<br>200 - 25°   |
| <b>Ø</b> NICHIΛ   |   | 90°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:                                 | NCSxE17A<br>29.0° / 56.0°<br>90 %<br>3 cd/lm<br>1<br>White            | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200 |
| OSRAM<br>Opto Semiconductors  |   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>LEDs/each optic<br>Light colour<br>Required components:   | SFH 4770S<br>32.0° / 61.0°<br>88 %<br>1<br>White                      |  |
| OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | Synios P2720 1 mm<br>31.0° / 60.0°<br>92 %<br>2.7 cd/lm<br>1<br>White | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200               |



# PHOTOMETRIC DATA (SIMULATED):

| OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | Synios P2720 1/2 mm<br>30.0° / 58.0°<br>92 %<br>2.8 cd/lm<br>1<br>White | 20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20                        |
|---|---|---|
| OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | Synios P2720 1/4 mm<br>31.0° / 60.0°<br>92 %<br>2.6 cd/lm<br>1<br>White | 5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5°<br>5 |
| SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:                       | LH181B<br>43.0° / 61.0°<br>93 %<br>2 cd/lm<br>1<br>White                |   |



#### **GENERAL INFORMATION:**

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

#### MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

#### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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