# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## TINA2-D

 ${\sim}16^{\circ}$  diffused spot beam optimized for CREE XP-E. Assembly with holder and installation tape.

#### **TECHNICAL SPECIFICATIONS:**

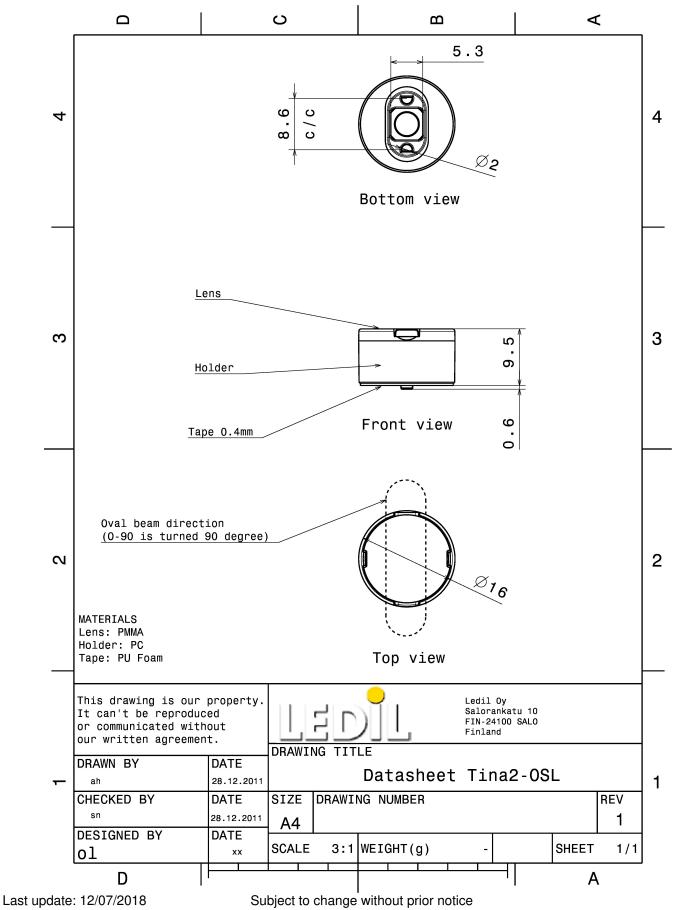
| Dimensions      | Ø 16.0 mm          |
|-----------------|--------------------|
| Height          | 9.5 mm             |
| Fastening       | tape, pin          |
| Colour          | black              |
| Box size        | 451 x 241 x 298 mm |
| Box weight      | 8.1 kg             |
| Quantity in Box | 4140 pcs           |
| ROHS compliant  | yes 🛈              |



#### **MATERIAL SPECIFICATIONS:**

Component TINA2-XP-D TINA2-HLD-BLK TINA-TAPE3 **Type** Lens Holder Tape Material PMMA PC PU tape Colour clear black black





LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.



#### PHOTOMETRIC DATA (MEASURED):

|  |   | <br> |                    |
|--|---|------|--------------------|
| CREE   | XB-H<br>16.0°<br>86 %<br>7.700 cd/lm                  |      |                    |
| CREE -   |   |      | 90° 90             |
| LED<br>FWHM<br>Efficiency<br>Peak intensity<br>Required comp | XD16<br>14.0°<br>82 %<br>9.000 cd/lm                  |      | 25                 |
|  | EDS   |      | 90 <sup>4</sup> 90 |
| LED<br>FWHM<br>Efficiency<br>Peak intensity<br>Required comp | LUXEON TX<br>15.0°<br>88 %<br>8.250 cd/lm<br>ponents: |      | 25°                |
|  |   |      |                    |
| LED<br>FWHM<br>Efficiency<br>Peak intensity<br>Required comp | LUXEON Z ES<br>12.0°<br>%<br>cd/lm<br>ponents:        |      |                    |



#### PHOTOMETRIC DATA (MEASURED):

| <b>WNCHIN</b><br>LED<br>FWHM<br>Efficiency<br>Peak intensity<br>Required comp | NVSxx19B/NVSxx19C<br>18.0°<br>87 %<br>6.100 cd/lm | 91<br>77<br>00<br>00<br>00<br>00<br>00<br>00   |
|---|---|--|
| <b>Ж</b> NICHIЛ   |   | 30 <sup>4</sup> 15 <sup>5</sup> 0 <sup>4</sup> 15 <sup>4</sup>   |
|   | NWSx229A  | 77   |
| FWHM<br>Efficiency  | 25.0°<br>85 %                                     |  |
| Peak intensity  |   |  |
| Required comp   |   | ge de la companya de |
|   |   | <br>30 10 10 10  |
| OSRAM<br>Opto Semiconductors  |   | 20 <sup>*</sup>  |
| LED   | Oslon Square EC                                   | 77   |
| FWHM  | 16.0°   |  |
| Efficiency  | 82 %  |  |
| Peak intensity<br>Required comp   |   | 3 <sup>4</sup><br>415<br>615   |
| OSRAM<br>Opto Semiconductors  |   |  |
| LED   | Oslon Square EC                                   |  |
| FWHM  | 16.0°   |  |
| Efficiency  | 87 %  |  |
| Peak intensity  |   |  |
| Required comp   | onents:   |  |





#### PHOTOMETRIC DATA (MEASURED):

| OSRAM<br>Opto Semiconductors |                 |                         |
|------------------------------|-----------------|-------------------------|
| LED                          | Oslon Square PC |                         |
| FWHM                         | 13.0°           |                         |
| Efficiency                   | 87 %            |                         |
| Peak intensity               | 6.300 cd/lm     |                         |
| Required comp                | onents:         |                         |
|                              |                 |                         |
| OSRAM<br>Opto Semiconductors |                 | 90 <sup>4</sup> 90      |
| LED                          | Oslon SSL 150   | 75                      |
| FWHM                         | 14.0°           |                         |
| Efficiency                   | 89 %            | <b>2</b> 200 <b>6</b> 9 |
| Peak intensity               | 9.300 cd/lm     |                         |
| Required comp                | onents:         | er                      |
|                              |                 |                         |
|                              |                 |                         |
|                              |                 | 30 <sup>4</sup> 8000 30 |
| OSRAM<br>Opto Semiconductors |                 | 94* 99                  |
| LED                          | Oslon SSL 80    |                         |
| FWHM                         | 12.0°           |                         |
| Efficiency                   | 87 %            |                         |
| Peak intensity               |                 |                         |
| Required comp                |                 | a                       |
|                              |                 |                         |
|                              |                 |                         |
|                              |                 | 31 <sup>10</sup> 300 30 |
| OSRAM<br>Opto Semiconductors |                 | 20% % 10*               |
| LED                          | SFH 4715S       |                         |
| FWHM                         | 17.0°           |                         |
| Efficiency                   | %               |                         |
| Peak intensity               | cd/Im           |                         |
| Required comp                | onents:         |                         |
|                              |                 |                         |
|                              |                 |                         |
|                              |                 |                         |





#### **PHOTOMETRIC DATA (MEASURED):**

#### OSRAM Opto Semiconductors

LEDSFH 4725SFWHM15.0°Efficiency%Peak intensitycd/lmRequired components:



### PHOTOMETRIC DATA (SIMULATED):

| CREE ≑                       |                   | 7 5   |
|------------------------------|-------------------|---|
|                              |                   | »**   |
| LED                          | XQ-E HI           | 2º  |
| FWHM                         | 11.0°             |   |
| Efficiency                   | 91 %              |   |
| Peak intensity               | 18.500 cd/lm      |   |
| Required compo               | nents:            |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   | 30 <sup>4</sup> 30000<br>25 <sup>4</sup> 0 <sup>4</sup> 15 <sup>4</sup> |
| OSRAM<br>Opto Semiconductors |                   | 5°  |
| LED                          | Duris S5 (2 chip) | 77.   |
| FWHM                         | 17.0°             |   |
| Efficiency                   | 92 %              | 50 J 200  |
| Peak intensity               | 8.030 cd/lm       |   |
| Required compo               | nents:            | <b>e</b> .  |
|                              |                   | 500   |
|                              |                   |   |
|                              |                   |   |
| OSRAM<br>Opto Semiconductors |                   | 90 <sup>4</sup>   |
| LED                          | Oslon Square Flat |   |
| FWHM                         | 12.0°             | 27  |
| Efficiency                   | 91 %              |   |
| Peak intensity               | 14.470 cd/lm      |   |
| Required compo               |                   |   |
|                              |                   |   |
|                              |                   |   |
|                              |                   | 30  |
| SAMSU                        | NG                | 250   |
| LED                          | LH181B            |   |
| FWHM                         | 16.0°             | 27  |
| Efficiency                   | 92 %              | 6) <sup>2</sup>   |
| Peak intensity               | 9.200 cd/lm       |   |
| Required compo               |                   | 9 <sup>9</sup>  |
|                              |                   | 400   |
|                              |                   |   |
|                              |                   | **  |
|                              |                   | 90 900<br>15° 0° 15°  |



#### **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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#### **LEDIL Oy**

Joensuunkatu 13 FI-24240 SALO Finland

#### LEDiL Inc.

228 West Page Street Suite D Sycamore IL 60178 USA

#### Local sales and technical support www.ledil.com/ where\_to\_buy

Shipping locations Salo, Finland Hong Kong, China

Distribution Partners www.ledil.com/ where to buy