

# PRODUCT DATASHEET C16751\_STRADELLA-16-T2

## STRADELLA-16-T2

IESNA Type II (medium) beam, applicable for European P-class standard pedestrian lighting and M-class roads

#### **TECHNICAL SPECIFICATIONS:**

Dimensions49.5 x 49.5 mmHeight4.7 mmROHS compliantyes <sup>①</sup>



#### MATERIAL SPECIFICATIONS:

Component STRADELLA-16-T2

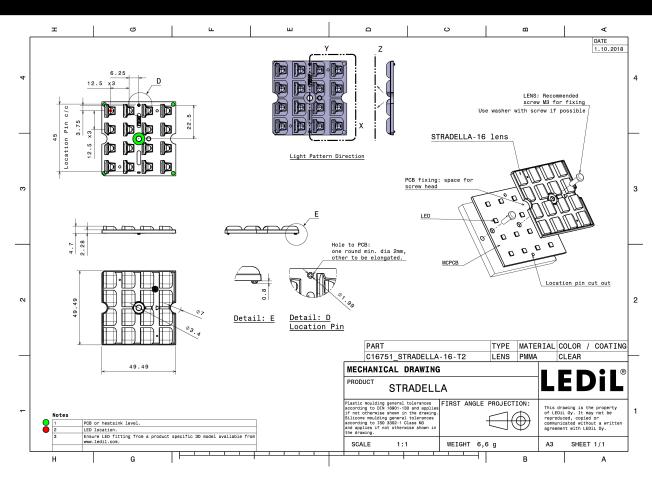
| Туре       |  |
|------------|--|
| Multi-lens |  |

| Mat | erial | Colour | Finish |
|-----|-------|--------|--------|
| PMN | ЛА    | clear  |        |

#### **ORDERING INFORMATION:**

| Component                      | Qty in box | MOQ | MPQ | Box weight (kg) |
|--------------------------------|------------|-----|-----|-----------------|
| C16751_STRADELLA-16-T2         | 800        | 160 | 160 | 6.5             |
| » Box size: 480 x 280 x 300 mm |            |     |     |                 |

# PRODUCT DATASHEET C16751\_STRADELLA-16-T2



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



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

|                   |                                     | 90* 90*   |
|-------------------|-------------------------------------|---|
| LED               | J Series 3030                       |   |
| FWHM / FWTM       | Asymmetric                          | 26 27   |
| Efficiency        | 95 %                                | 200   |
| Peak intensity    | 0.6 cd/lm                           | .60 <sup>4</sup> 60 <sup>4</sup>                  |
| LEDs/each optic   | 1                                   | 400   |
| Light colour      | White                               | .67   |
| Required componer | ts:                                 | $\times$  |
|                   |                                     | 600   |
|                   |                                     | $\times$ / $\times$                               |
|                   |                                     |   |
|                   |                                     | 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>6</sup> 50 |
|                   |                                     | 90*   |
| LED               | EHP-223.5x50-1604-xx-70-LS30-06-NTC |   |
| FWHM / FWTM       | Asymmetric                          | 75%   |
| Efficiency        | 97 %                                |   |
| Peak intensity    | 0.6 cd/lm                           | Sof Sof   |
| LEDs/each optic   | 1                                   | 400   |
| Light colour      | White                               | 45* 45*   |
| Required componer | its:                                | 640   |
|                   |                                     |   |
|                   |                                     |   |
|                   |                                     | 200   |
| 0.0.0.0.0         |                                     |   |
| SAMSU             | ING                                 | 90* 90*   |
| LED               | LM301B                              | 300   |
| FWHM / FWTM       | Asymmetric                          |   |
| Efficiency        | 94 %                                |   |
| Peak intensity    | 0.6 cd/lm                           | .80"  |
| LEDs/each optic   | 1                                   | 40  |
| Light colour      | White                               | ·6· / · · · · · · · · · · · · · · · · ·           |
| Required componer | its:                                |   |
|                   |                                     | 600   |
|                   |                                     | 700   |
|                   |                                     | 30° <u>110° 800</u> 11° 30°                       |
| сллсі             |                                     |   |
| SAMSU             |                                     | \$0* \$0*   |
| LED               | LM301B                              | 73* 200 77*                                       |
| FWHM / FWTM       | Asymmetric                          |   |
| Efficiency        | 84 %                                | . 60 <sup>+</sup>                                 |
| Peak intensity    | 0.5 cd/lm                           |   |
| LEDs/each optic   | 1                                   | 30  |
| Light colour      | White                               | 451 400 674                                       |
| Required componer | its:                                | $\times$ / $\times$                               |
|                   |                                     |   |
| Protectivo        | nlate class                         | 500   |
| Protective        | plate, glass                        | 00  |
| Protective        | plate, glass                        | 500   |



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

| SCIO   | LUX   | 90°                             |
|--|---|---------------------------------|
| LED  | XLE-S44XTEHE (XT-E HE)  |                                 |
| FWHM / FWTM  | Asymmetric  | 75*                             |
| Efficiency   | 94 %  |                                 |
| Peak intensity   | 0.5 cd/lm   | 60* 60*                         |
| LEDs/each optic  | 1   |                                 |
| Light colour   | White   | 45* 400 45*                     |
| Required componer  | nts:  | 540                             |
|  |   |                                 |
|  |   | 00                              |
|  |   | 30° 700 30° 15° 30°.            |
| SCIO   | IUX   |                                 |
| LED  | XLE-S48XPG3 (XP-G3)   | 90* 90*                         |
| EED<br>FWHM / FWTM   | Asymmetric  | 75° 78°                         |
| Efficiency   | 83 %  |                                 |
| Peak intensity   | 0.4 cd/lm   | 60 <sup>4</sup> 60 <sup>4</sup> |
| LEDs/each optic  | 1   | $\nabla \times   \mathbf{N}  $  |
| Light colour   | White   | 45* 300                         |
| Required componer  |   | 400                             |
|  |   | $\times$                        |
| Protective   | plate, glass  | 200                             |
|  |   |                                 |
|  |   | 15° 0° 15°                      |
|  |   |                                 |
| SCIO   | LUX   |                                 |
| SCIO<br>LED  | LUX<br>XLE-S48XPG3 (XP-G3)  |                                 |
|  |   |                                 |
| LED  | XLE-S48XPG3 (XP-G3)   | 90°                             |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | XLE-S48XPG3 (XP-G3)<br>Asymmetric   |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1   | 90°                             |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White  | 90°                             |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer   | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer   | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>tts:  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer   | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3  |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>secoul semiconductor<br>LED<br>FWHM / FWTM   | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:<br>Z5M3<br>Asymmetric                                    |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency  | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %                            |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                                    | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %<br>0.5 cd/lm               |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1          |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White |                                 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componer<br>seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XLE-S48XPG3 (XP-G3)<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>Z5M3<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White |                                 |



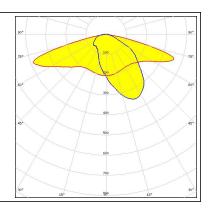
#### **PHOTOMETRIC DATA (MEASURED):**

## **TRIDONIC**

LED

FWHM / FWTMAsEfficiency94Peak intensity0.1LEDs/each optic1Light colourWRequired components:

RLE 4x16 4000lm MP ADV2 OTD Asymmetric 94 % 0.6 cd/lm 1 White





|                      |               | THY YHT   |
|----------------------|---------------|---|
| LED                  | J Series 2835 | 90* 90  |
|                      |               | 75 0 100 78   |
| FWHM / FWTM          | Asymmetric    |   |
| Efficiency           | 91 %          | 50°   |
| Peak intensity       | 0.5 cd/lm     |   |
| LEDs/each optic      | 1             | 40  |
| Light colour         | White         | 45° (5  |
| Required components: |               |   |
|                      |               | 600   |
|                      |               | 70 2  |
|                      |               | 30* <u>30</u> <sup>4</sup> <u>500</u> <u>15</u> * <u>30</u> |
|                      |               |   |
| LED                  | J Series 2835 | 90  |
| FWHM / FWTM          | Asymmetric    | 75°   |
| Efficiency           | 93 %          | X   |
| Peak intensity       | 0.5 cd/lm     | 604 60  |
| LEDs/each optic      | 1             |   |
| Light colour         | '<br>White    |   |
| Required components: | White         | 45'   |
|                      |               | 600   |
|                      |               |   |
|                      |               |   |
|                      |               | 30° 30° 30<br>15 <sup>5</sup> 0° 15°                        |
|                      |               | 90*   |
| LED                  | J Series 3030 |   |
| FWHM / FWTM          | Asymmetric    | 75° 100 75  |
| Efficiency           | 81 %          |   |
| Peak intensity       | 0.5 cd/lm     | 604 60  |
| LEDs/each optic      | 1             | 30  |
| Light colour         | White         | 45* 460 45  |
| Required components: |               |   |
|                      |               |   |
| Protective plate     | e, glass      |   |
|                      |               |   |
|                      |               | 130* 152 700 30<br>152 0 <sup>4</sup> 15* 30                |
|                      |               |   |
| LED                  | XP-G3         |   |
| FWHM / FWTM          | Asymmetric    |   |
| Efficiency           | 89 %          |   |
| Peak intensity       | 0.4 cd/lm     |   |
| LEDs/each optic      | 1             |   |
| Light colour         | White         |   |
| Required components: |               |   |
|                      |               |   |
|                      |               |   |
|                      |               |   |
|                      |               |   |



|                      | S S                         | 90 <sup>+</sup> 90 <sup>+</sup>                                 |
|----------------------|-----------------------------|---|
| LED                  | LUXEON 2835 Line            |   |
| FWHM / FWTM          | Asymmetric                  | 75°   |
| Efficiency           | 78 %                        |   |
| Peak intensity       | 0.4 cd/lm                   | 60 <sup>4</sup> 200   |
| LEDs/each optic      | 1                           |   |
| Light colour         | White                       | 45° 65°   |
| Required components: |                             | 400   |
| Protective plate     | , glass                     | 500   |
|                      |                             | $\times$  |
|                      |                             | 30* <u>15</u> ° <u>6</u> <sup>(p)</sup> <u>15</u> ° <u>30</u> ° |
| UMILEC               | DS                          | 90° 90°   |
| LED                  | LUXEON 2835 Line            |   |
| FWHM / FWTM          | Asymmetric                  | 36.   |
| Efficiency           | 91 %                        |   |
| Peak intensity       | 0.5 cd/lm                   |   |
| LEDs/each optic      | 1                           | 400   |
| Light colour         | White                       | -65°  |
| Required components: |                             |   |
|                      |                             |   |
|                      |                             | $\times$  |
|                      |                             | 30* 500<br>30* 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>°</sup>   |
|                      | S                           |   |
| LED                  | LUXEON 3030 2D (Square LES) | 19°   |
| FWHM / FWTM          | Asymmetric                  | 75*   |
| Efficiency           | 81 %                        |   |
| Peak intensity       | 0.4 cd/lm                   | 50 <sup>4</sup> 60 <sup>4</sup>                                 |
| LEDs/each optic      | 1                           |   |
| Light colour         | White                       | 6°  |
| Required components: |                             | 400   |
|                      |                             |   |
| Protective plate     | e, glass                    |   |
|                      |                             | 30* 30*   |
|                      | S                           |   |
| LED                  | LUXEON 3030 HE Plus         | 90" 90"   |
| FWHM / FWTM          | Asymmetric                  | 736 731   |
| Efficiency           | 92 %                        |   |
| Peak intensity       | 0.6 cd/lm                   | 50 <sup>4</sup> 50 <sup>4</sup>                                 |
| LEDs/each optic      | 1                           |   |
| Light colour         | White                       | 5°  |
| Required components: |                             | $\times/$   |
|                      |                             | 600   |
|                      |                             |   |
|                      |                             |   |
|                      |                             | 30° 30° 30° 30°   |



|                                      | )5   | THA KHT  |
|--------------------------------------|--|--|
| LED<br>FWHM / FWTM                   | LUXEON C<br>Asymmetric   | 8°   |
| Efficiency                           | 89 %   | 200  |
| Peak intensity                       | 0.7 cd/lm  | .50* 50*   |
| LEDs/each optic                      | 1  | 400  |
| Light colour                         | RGBW   | 6' 50  |
| Required components:                 |  | 00   |
|                                      |  | 770  |
|                                      | S  |  |
| LED                                  | LUXEON C   | 90" 90"  |
| FWHM / FWTM                          | Asymmetric   | 70   |
| Efficiency                           | 88 %   |  |
| Peak intensity                       | 0.6 cd/lm  | 300 X 300 X 300 X  |
| LEDs/each optic                      | 1  |  |
| Light colour                         | White  | 457 457  |
| Required components:                 |  | 200  |
|                                      |  | 600  |
|                                      |  | 700  |
|                                      |  | 30° 35° 30° 15° 30°  |
|                                      | )S   | THY HI   |
| LED                                  | LUXEON CZ  | 90*  |
| FWHM / FWTM                          | Asymmetric   | 230 Zangar La 23   |
| Efficiency                           | 92 %   |  |
| Peak intensity                       | 0.9 cd/lm  | 60* deo deo  |
| LEDs/each optic                      | 1  |  |
|                                      |  |  |
| Light colour                         | RGBW   | .er  |
| Light colour<br>Required components: |  | e, e, e,   |
|                                      |  | -0°  |
|                                      |  | 60° 600 600 80° 80° 80° 80° 80° 80° 80° 80° 80° 8  |
| Required components:                 | RGBW   | 102  |
| Required components:                 | RGBW   | 90°  |
| Required components:                 | RGBW   | 90°<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>90°   |
| Required components:                 | RGBW   | 90°  |
| Required components:                 | RGBW<br>DS<br>LUXEON TX<br>Asymmetric                          | 90°  |
| Required components:                 | RGBW<br>S<br>LUXEON TX<br>Asymmetric<br>90 %                   | 90°  |
| Required components:                 | RGBW<br>S<br>LUXEON TX<br>Asymmetric<br>90 %<br>0.5 cd/lm      | 90°  |
| Required components:                 | RGBW<br>S<br>LUXEON TX<br>Asymmetric<br>90 %<br>0.5 cd/lm<br>1 | 90°  |
| Required components:                 | RGBW<br>S<br>LUXEON TX<br>Asymmetric<br>90 %<br>0.5 cd/lm<br>1 | 90°  |
| Required components:                 | RGBW<br>S<br>LUXEON TX<br>Asymmetric<br>90 %<br>0.5 cd/lm<br>1 | 90°<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1 |



| <b>Μ</b> ΝΙCΗΙΛ      |            |  |  | 90*        | FT                        |
|----------------------|------------|--|--|------------|---------------------------|
| LED                  | NF2x757G   |  |  |            |                           |
| FWHM / FWTM          | Asymmetric |  |  | 750        | 100                       |
| Efficiency           | 83 %       |  |  |            |                           |
| Peak intensity       | 0.4 cd/lm  |  |  | .60%       |                           |
| LEDs/each optic      | 1          |  |  | X H        | ו•                        |
| Light colour         | White      |  |  |            |                           |
| Required components: | VIIIIO     |  |  |            |                           |
|                      |            |  |  |            | 20                        |
| Protective plate     | e, glass   |  |  |            |                           |
|                      |            |  |  | 30* 152    | 0° 15°                    |
|                      |            |  |  | 90*        | - F                       |
| LED                  | NF2x757G   |  |  |            |                           |
| FWHM / FWTM          | Asymmetric |  |  | 750        | $\sim$                    |
| Efficiency           | 92 %       |  |  | XAT        |                           |
| Peak intensity       | 0.5 cd/lm  |  |  | 50°        | $\sim$                    |
| LEDs/each optic      | 1          |  |  | K/ M       | 100                       |
| Light colour         | White      |  |  | 45*        |                           |
| Required components: |            |  |  |            |                           |
|                      |            |  |  | . / T      | **                        |
|                      |            |  |  | $\times$   |                           |
|                      |            |  |  |            | ***                       |
|                      |            |  |  | 153        | og 18.                    |
| MICHIΛ               |            |  |  | 90*        | FT                        |
| LED                  | NFSWE11A   |  |  |            |                           |
| FWHM / FWTM          | Asymmetric |  |  | 734        |                           |
| Efficiency           | 90 %       |  |  | X M        |                           |
| Peak intensity       | 0.9 cd/lm  |  |  | 60.        |                           |
| LEDs/each optic      | 1          |  |  | IX M       | **                        |
| Light colour         | White      |  |  | 45*        |                           |
| Required components: |            |  |  | $\sim$ $-$ | ***                       |
|                      |            |  |  | $\square$  |                           |
|                      |            |  |  | $\times$   |                           |
|                      |            |  |  |            | 200<br>9 <sup>9</sup> 15* |
| <b>Μ</b> ΝΙCΗΙΛ      |            |  |  |            |                           |
| LED                  | NVSxE21A   |  |  |            |                           |
| FWHM / FWTM          | Asymmetric |  |  |            |                           |
| Efficiency           | 91 %       |  |  |            |                           |
| Peak intensity       | 0.6 cd/lm  |  |  |            |                           |
| LEDs/each optic      | 1          |  |  |            |                           |
| Light colour         | White      |  |  |            |                           |
| Required components: |            |  |  |            |                           |
|                      |            |  |  |            |                           |
|                      |            |  |  |            |                           |
|                      |            |  |  |            |                           |
|                      |            |  |  |            |                           |



| 0000414   |   |  |
|---|---|--|
| OSRAM<br>Opto Semiconductors  |   | 90*  |
| LED   | Duris S5 (2 chip)   |  |
| FWHM / FWTM   | Asymmetric  | 75°  |
| Efficiency  | 80 %  |  |
| Peak intensity  | 0.4 cd/lm   | 60 <sup>6</sup>  |
| LEDs/each optic   | 1   |  |
| Light colour  | White   | ar A   |
| Required components:  |   |  |
| Protective plat   | e, glass  | 200  |
|   |   | 000  |
| OSPAM   |   |  |
| OSRAM<br>Opto Semiconductors  |   | 90* 9  |
| LED   | OSCONIQ C 2424  | 200  |
| FWHM / FWTM   | Asymmetric  |  |
| Efficiency  | 80 %  | 50* 200 Fil  |
| Peak intensity  | 0.5 cd/lm   |  |
| LEDs/each optic   | 1   |  |
| Light colour  | White   | 45*  |
| Required components:  |   |  |
| Protective plat   | e, glass  | 60   |
|   |   | 700  |
|   |   |  |
| 0000414   |   | 15 <sup>5</sup> 0 <sup>6</sup> 10 <sup>*</sup>           |
| OSRAM<br>Opto Semiconductors  |   | 23 <sup>3</sup> 0 <sup>4</sup> 10 <sup>5</sup>           |
| OSRAM<br>Opto Semiconductors<br>LED   | OSCONIQ C 2424  | 25 <sup>5</sup> 0 <sup>4</sup> 10 <sup>5</sup>           |
| Opto Semiconductors   | OSCONIQ C 2424<br>Asymmetric  | 22 <sup>k</sup> 0 <sup>k</sup> 10 <sup>k</sup>           |
| opto Semiconductors<br>LED<br>FWHM / FWTM   |   |  |
| Opto Semiconductors<br>LED<br>FWHM / FWTM   | Asymmetric  |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | Asymmetric<br>92 %  |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency   | Asymmetric<br>92 %<br>0.7 cd/lm   |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>92 %<br>0.7 cd/lm<br>1  |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>92 %<br>0.7 cd/lm<br>1  |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>92 %<br>0.7 cd/lm<br>1  |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>92 %<br>0.7 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 components:  | Asymmetric<br>92 %<br>0.7 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 components:  | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White   | <i>60</i><br><i>60</i>                                   |
| Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>OSRAM<br>Opto Semiconductors<br>LED   | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030   | <i>60</i><br><i>60</i>                                   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM  | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric                           | <i>60</i><br><i>60</i>                                   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency                                      | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %                   | 20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20 |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                    | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm      | 20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20 |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>OSRAM<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm<br>1 | 20° 10° 10° 10° 10° 10° 10° 10° 10° 10° 1                |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:  COSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                            | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm      |  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm<br>1 |  |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:  OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                            | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm<br>1 |  |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:  OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                             | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm<br>1 |  |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                              | Asymmetric<br>92 %<br>0.7 cd/lm<br>1<br>White<br>OSCONIQ P 3030<br>Asymmetric<br>90 %<br>0.6 cd/lm<br>1 |  |



| OSRAM<br>Opto Semiconductors   |   |  |
|--|---|--|
| LED  | OSLON Square CSSRM2/CSSRM3  |  |
| FWHM / FWTM  | Asymmetric  | 754 (100 /5*   |
| Efficiency   | 91 %  |  |
|  | 0.6 cd/lm   | 504 504  |
| Peak intensity   |   | $\times$ $\rightarrow$ $\rightarrow$ $\times$ $\wedge$   |
| LEDs/each optic  | 1   | 400  |
| Light colour   | White   | d3* d3*  |
| Required components:   |   | 200  |
|  |   | 500  |
|  |   |  |
|  |   | 30* 700<br>30* 98 98 90* 30*   |
| PHILIPS  |   |  |
|  |   | 90* 90*  |
| LED  | Fortimo FastFlex LED 4x16 DHE G4  |  |
| FWHM / FWTM  | Asymmetric  |  |
| Efficiency   | 93 %  | 50%  |
| Peak intensity   | 0.6 cd/lm   |  |
| LEDs/each optic  | 1   |  |
| Light colour   | White   | 45° 6°   |
| Required components:   |   | 640  |
|  |   |  |
|  |   |  |
|  |   | 30* 30*  |
|  |   |  |
| PHILIPS  |   | 90* 90*  |
| LED  | Fortimo FastFlex LED 4x16 DHE G4  |  |
| FWHM / FWTM  |   |  |
|  | Asymmetric  | 75°  |
| Efficiency   | Asymmetric<br>84 %  | 75°  |
|  |   | 60 <sup>4</sup> - 2 <sup>4</sup> - 60 <sup>4</sup>   |
| Efficiency   | 84 %  | 25. 000<br>-2620<br>-20<br>-20   |
| Efficiency<br>Peak intensity   | 84 %<br>0.5 cd/lm   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic  | 84 %<br>0.5 cd/lm<br>1  | 60 <sup>4</sup> 004  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 84 %<br>0.5 cd/lm<br>1<br>White   | 60 <sup>4</sup> 004  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 84 %<br>0.5 cd/lm<br>1<br>White   | 60 <sup>4</sup> 004  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 84 %<br>0.5 cd/lm<br>1<br>White   | 60 <sup>4</sup> 70<br>60 <sup>4</sup> 70<br>60 <sup>4</sup> 70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70 |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate  | 84 %<br>0.5 cd/lm<br>1<br>White   | 60 <sup>4</sup> 000  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 84 %<br>0.5 cd/lm<br>1<br>White   | 60 <sup>4</sup>  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate  | 84 %<br>0.5 cd/lm<br>1<br>White   | 60 <sup>4</sup>  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate  | 84 %<br>0.5 cd/lm<br>1<br>White<br>, glass  | 60 <sup>4</sup> 70<br>60 <sup>4</sup> 70<br>60 <sup>4</sup> 70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70 |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate  | 84 %<br>0.5 cd/lm<br>1<br>White<br>, glass<br>G<br>LH181B                                   | 60 <sup>4</sup>  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM  | 84 %<br>0.5 cd/lm<br>1<br>White<br>, glass<br>C<br>LH181B<br>Asymmetric                     | 60 <sup>4</sup>  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                                    | 84 %<br>0.5 cd/lm<br>1<br>White<br>, glass<br>LH181B<br>Asymmetric<br>93 %                  | 60 <sup>4</sup>  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | 84 %<br>0.5 cd/m<br>1<br>White<br>a, glass<br>LH181B<br>Asymmetric<br>93 %<br>0.6 cd/m      | 60 <sup>4</sup>  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 84 %<br>0.5 cd/m<br>1<br>White<br>a, glass<br>LH181B<br>Asymmetric<br>93 %<br>0.6 cd/m<br>1 |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | 84 %<br>0.5 cd/m<br>1<br>White<br>a, glass<br>LH181B<br>Asymmetric<br>93 %<br>0.6 cd/m<br>1 |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 84 %<br>0.5 cd/m<br>1<br>White<br>a, glass<br>LH181B<br>Asymmetric<br>93 %<br>0.6 cd/m<br>1 |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Protective plate<br>SAMSUN<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 84 %<br>0.5 cd/m<br>1<br>White<br>a, glass<br>LH181B<br>Asymmetric<br>93 %<br>0.6 cd/m<br>1 |  |



| SAMSUN  | IG   | 90* 90*   |
|---|--|---|
| LED   | LH181B   |   |
| FWHM / FWTM   | Asymmetric   | 754 750   |
| Efficiency  | 92 %   | XMAX  |
| Peak intensity  | 0.6 cd/lm  | 60*   |
| LEDs/each optic   | 1  | 400   |
| Light colour  | White  | 45°   |
| Required components:  |  | 000   |
|   |  |   |
|   |  |   |
|   |  | 800   |
|   |  | 15' 0' 15'  |
| SAMSUN  | IG   | 90. 90.   |
| LED   | LH181B   |   |
| FWHM / FWTM   | Asymmetric   | 750 (100 770  |
| Efficiency  | 85 %   |   |
| Peak intensity  | 0.5 cd/lm  | 60°   |
| LEDs/each optic   | 1  |   |
| Light colour  | White  | 45* 400 45*   |
| Required components:  |  | 200   |
|   |  |   |
| Protective plate  | e, glass   | 600   |
|   |  | 30° 700 00° 10° 00°   |
| SAMSUN  |  | 12, 0, 12,  |
|   | 10   | 90 <sup>+</sup> 90 <sup>+</sup>   |
| LED   | LH351B   |   |
|   |  | 100   |
| FWHM / FWTM   | Asymmetric   | 70 200 701  |
| Efficiency  | Asymmetric<br>91 %   | 20 500 700<br>20 60 700<br>20 60 700  |
| Efficiency<br>Peak intensity  | Asymmetric<br>91 %<br>0.5 cd/lm  | 20 100 PC   |
| Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1   | 20 00 70<br>60 <sup>4</sup> 00<br>700   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.5 cd/lm  | 45 <sup>-</sup> 400 40 <sup>+</sup>   |
| Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1   | 29<br>61 <sup>4</sup> 20<br>60 <sup>4</sup> 60 <sup>4</sup>   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White  |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White  |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>G<br>LM101B   | 6° 60 60<br>6° 60<br>6° 60<br>6° 6°<br>10° 6° |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM  | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>G<br>LM101B<br>Asymmetric                           |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>G<br>LM101B<br>Asymmetric<br>92 %                   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                                    | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>C<br>LM101B<br>Asymmetric<br>92 %<br>0.8 cd/lm      | 6° 60 60<br>6° 60<br>6° 60<br>6° 6°<br>10° 6° |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>C<br>LM101B<br>Asymmetric<br>92 %<br>0.8 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>C<br>LM101B<br>Asymmetric<br>92 %<br>0.8 cd/lm      |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>C<br>LM101B<br>Asymmetric<br>92 %<br>0.8 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>C<br>LM101B<br>Asymmetric<br>92 %<br>0.8 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>SAMSUN</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>91 %<br>0.5 cd/lm<br>1<br>White<br>C<br>LM101B<br>Asymmetric<br>92 %<br>0.8 cd/lm<br>1 |   |



| SAMSUN                               | 1G                 |  |
|--------------------------------------|--------------------|--|
|                                      |                    | 90*  |
| LED<br>FWHM / FWTM                   | LM28xB Series      | 734  |
| Efficiency                           | Asymmetric<br>92 % | X  |
| Peak intensity                       | 92 /8<br>0.6 cd/lm | 605  |
| LEDs/each optic                      | 1                  | 400  |
| Light colour                         | White              |  |
| Required components:                 | WING               | 60   |
|                                      |                    |  |
|                                      |                    | 800  |
|                                      |                    |  |
|                                      |                    | 36 <sup>4</sup> 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>4</sup> |
| SAMSUN                               | IG                 | 90*  |
| LED                                  | LM302D             |  |
| FWHM / FWTM                          | Asymmetric         |  |
| Efficiency                           | 93 %               |  |
| Peak intensity                       | 0.5 cd/lm          |  |
| LEDs/each optic                      | 1                  | 400  |
| Light colour                         | White              | 57   |
| Required components:                 |                    |  |
|                                      |                    |  |
|                                      |                    |  |
|                                      |                    | 30* 30 0* 11*  |
| SAMSUN                               | IG                 |  |
|                                      |                    | 90*  |
| LED                                  | LM302D             | 75 100   |
| FWHM / FWTM                          | Asymmetric         |  |
| Efficiency                           | 79 %               |  |
| Peak intensity                       | 0.4 cd/lm          |  |
| LEDs/each optic<br>Light colour      | 1<br>White         | 30   |
| Required components:                 | white              | 45* 460  |
| Required components.                 |                    |  |
| Protective plate                     | e, glass           | 200  |
|                                      |                    | 640  |
|                                      |                    | 1004 <u>10</u> 9 <u>10</u> 4                                   |
| SAMSUN                               | IG                 | 20 <sup>4</sup>  |
| LED                                  | LM302Z plus        |  |
| FWHM / FWTM                          | Asymmetric         | 751 100  |
| Efficiency                           | 79 %               |  |
| Peak intensity                       | 0.4 cd/lm          |  |
| LEDs/each optic                      | 1                  | $\times$   |
|                                      | White              | 45*  |
| Light colour                         |                    | 400  |
|                                      |                    | $\times / \top \times$   |
| Light colour<br>Required components: |                    | 20   |
| Light colour                         | », glass           | 00   |



| 0.0.0.0.0.0.0  |   |  |
|--|---|--|
| SAMSUN   | IG  | 90* 90*  |
| LED  | LM302Z plus   |  |
| FWHM / FWTM  | Asymmetric  | 736 785  |
| Efficiency   | 92 %  |  |
| Peak intensity   | 0.5 cd/lm   | 60° 60°  |
| LEDs/each optic  | 1   | 400  |
| Light colour   | White   | 67 et  |
| Required components:   |   |  |
|  |   | 000  |
|  |   | X    X   |
|  |   | 90°  |
|  |   | 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>4</sup>       |
| SEOUL<br>SEOUL SEMICONDUCTOR   |   | 90* 90*  |
| LED  | SEOUL DC 3030C  |  |
| FWHM / FWTM  | Asymmetric  | 75%  |
| Efficiency   | 80 %  |  |
| Peak intensity   | 0.4 cd/lm   | 50 <sup>4</sup> 200 60 <sup>4</sup>                  |
| LEDs/each optic  | 1   |  |
| Light colour   | White   | 6 <sup>,</sup>                                       |
| Required components:   |   |  |
|  |   |  |
| Protective plate   | e, glass  | ×  |
|  |   | 000  |
|  |   | 30 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>5</sup> 30 |
|  |   |  |
|  |   | 90* 90*  |
| SEOUL SEMICONDUCTOR  | SEOUL DC 3030C  | 92°  |
| SEOUL SEMICONDUCTOR  | SEOUL DC 3030C<br>Asymmetric  | 50*<br>72*   |
| seoul semiconductor<br>LED<br>FWHM / FWTM  | SEOUL DC 3030C<br>Asymmetric<br>92 %  | 97<br>725<br>24                                      |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric  | 90°<br>73°<br>66°                                    |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>92 %  |  |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>92 %<br>0.6 cd/lm   |  |
|  | Asymmetric<br>92 %<br>0.6 cd/lm<br>1  | 6 <sup>1</sup>                                       |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1  | 50°<br>73°<br>60°<br>60°<br>60°                      |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1  | 50°<br>73°<br>60°<br>60°<br>60°<br>60°               |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1  |  |
| stoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1  |  |
| stoul stemconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1  |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White   | 200  |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19  |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM  | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric                                    | 90°  |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric<br>79 %                            | 90° 50° 50° 50° 50° 50° 50° 50° 50° 50° 5            |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric                                    | 90° 50° 50° 50° 50° 50° 50° 50° 50° 50° 5            |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric<br>79 %<br>0.5 cd/lm               |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                         | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric<br>79 %<br>0.5 cd/lm<br>1          |  |
| seoul semiconoucror<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>seous semiconoucror<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric<br>79 %<br>0.5 cd/lm<br>1<br>White | 90°  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                         | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric<br>79 %<br>0.5 cd/lm<br>1<br>White |  |
| seoul semiconbuctor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | Asymmetric<br>92 %<br>0.6 cd/lm<br>1<br>White<br>Z8Y19<br>Asymmetric<br>79 %<br>0.5 cd/lm<br>1<br>White |  |



# PRODUCT DATASHEET C16751\_STRADELLA-16-T2

| SEOUL  |  |  |
|--|--|--|
| SEOUL SEMICONDUCTOR  |  | 90* 90*  |
| LED  | Z8Y22  | 75°  |
| FWHM / FWTM  | Asymmetric   |  |
| Efficiency   | 90 %   | 50 <sup>4</sup> 50 <sup>4</sup>  |
| Peak intensity   | 0.5 cd/lm  | X / 300 X /  |
| LEDs/each optic  | 1  | 400  |
| Light colour   | White  | 4°. dr   |
| Required components:   |  | 500  |
|  |  | 60   |
|  |  | 700  |
|  |  | 30* 30*  |
| SEOUL  |  |  |
| SEOUL SEMICONDUCTOR  |  | 90* 90*  |
| LED  | Z8Y22  | 5  |
| FWHM / FWTM  | Asymmetric   | .75°   |
| Efficiency   | 79 %   |  |
| Peak intensity   | 0.4 cd/lm  | 66* 66*  |
| LEDs/each optic  | 1  |  |
| Light colour   | White  | 45"  |
| Required components:   |  | 400  |
|  |  |  |
| Protective plate   | e, glass   | 200  |
|  |  |  |
|  |  | 30* 600 30*)   |
|  |  | 30° 200 30°  |
|  |  | 20 <sup>10</sup> 20 <sup>10</sup> 20 <sup>10</sup> 20 <sup>10</sup> 20 <sup>10</sup>   |
| SEOUL SEMICONDUCTOR  | Z8Y22P   | 50°<br>20°<br>20°<br>20°<br>20°<br>20°<br>20°<br>20°<br>20°<br>20°<br>2  |
| seoul semiconductor<br>LED   | Z8Y22P<br>Asymmetric   | 20 <sup>1</sup> 20<br>20 <sup>1</sup> 20<br>20 <sup>1</sup> 20<br>20 <sup>1</sup> 20<br>20 <sup>1</sup> 20<br>20 <sup>2</sup> 20 <sup>2</sup> 20<br>20 <sup>2</sup> 20<br>20 <sup>2</sup> 20<br>20 <sup>2</sup> 20<br>20 <sup>2</sup> 20<br>20 <sup>2</sup> 20 |
| seoul semiconductor<br>LED<br>FWHM / FWTM  | Z8Y22P<br>Asymmetric<br>91 %   | 30 <sup>1</sup> 90 <sup>2</sup>  |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric   | 30 <sup>1</sup> 90 <sup>2</sup>  |
| seoul semiconductor<br>LED<br>FWHM / FWTM  | Asymmetric<br>91 %   | 30 <sup>1</sup> 90 <sup>2</sup>  |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>91 %<br>0.4 cd/lm  | 30 <sup>1</sup> 90 <sup>1</sup>  |
| seoul semiconductor<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1   | 50° 50° 50° 60°.   |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1   | 50° 50° 50° 60°.   |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1   | 50° 50° 50° 60°.   |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1   |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1   | 50° 50° 50° 50° 50° 50° 50° 50° 50° 50°  |
| SECOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | Asymmetric<br>91 %<br>0.4 cd/lm<br>1   |  |
| SECOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SECOUL SEMICONDUCTOR  | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White  |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T  |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM  | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric                                    |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric<br>82 %                            |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric                                    |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONOUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric<br>82 %<br>0.4 cd/lm<br>1          |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                           | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric<br>82 %<br>0.4 cd/lm               |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONOUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric<br>82 %<br>0.4 cd/lm<br>1          |  |
| SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SEOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                           | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric<br>82 %<br>0.4 cd/lm<br>1<br>White |  |
| SECOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>SECOUL SEMICONDUCTOR<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | Asymmetric<br>91 %<br>0.4 cd/lm<br>1<br>White<br>Z8Y22T<br>Asymmetric<br>82 %<br>0.4 cd/lm<br>1<br>White |  |



| SEOUL<br>SEOUL SEMICONDUCTOR |            | 50° - 50°       |
|------------------------------|------------|-----------------|
| LED                          | Z8Y22T     |                 |
| FWHM / FWTM                  | Asymmetric |                 |
| Efficiency                   | 93 %       |                 |
| Peak intensity               | 0.5 cd/lm  |                 |
| LEDs/each optic              | 1          |                 |
| Light colour                 | White      | er              |
| Required component           | s:         | 200             |
|                              |            | 60              |
|                              |            | 76              |
|                              |            | 70              |
|                              |            | 30" 30" 30" 30" |