

# PRODUCT DATASHEET CS14143\_STRADA-IP-2X6-T3

# STRADA-IP-2X6-T3

IESNA Type III (medium) beam for roads that are equal to or wider than mounting height

## **TECHNICAL SPECIFICATIONS:**

| Dimensions                 | 71.4 x 173.0 mm |
|----------------------------|-----------------|
| Height                     | 8.5 mm          |
| Fastening                  | screw           |
| Ingress protection classes | IP67            |
| ROHS compliant             | yes 🛈           |



# MATERIAL SPECIFICATIONS:

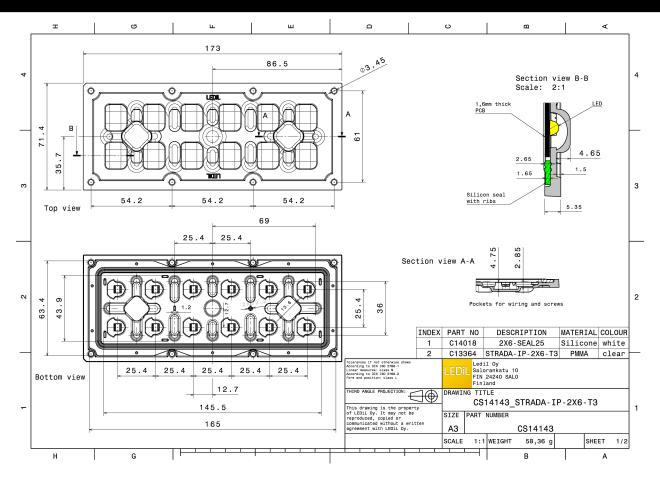
| Component        | Туре       | Material | Colour | Finish |
|------------------|------------|----------|--------|--------|
| STRADA-IP-2X6-T3 | Multi-lens | PMMA     | clear  |        |
| 2X6-SEAL25       | Seal       | Silicone | white  |        |

#### **ORDERING INFORMATION:**

| Component                      |            | Qty in box | MOQ | MPQ | Box weight (kg) |
|--------------------------------|------------|------------|-----|-----|-----------------|
| CS14143_STRADA-IP-2X6-T3       | Multi-lens | 120        | 40  | 40  | 7.4             |
| » Box size: 476 x 273 x 247 mm |            |            |     |     |                 |

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# PRODUCT DATASHEET CS14143\_STRADA-IP-2X6-T3



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



| bridgelux.   |   | 80°  |
|--|---|--|
| LED  | Bridgelux SMD 5050  |  |
| FWHM / FWTM  | Asymmetric  | 730 770  |
| Efficiency   | 94 %  |  |
| Peak intensity   | 0.5 cd/lm   | 504 504  |
| LEDs/each optic  | 1   |  |
| Light colour   | '<br>White  |  |
|  |   | 6°. 400 6°.  |
| Required compone   | ins.  |  |
|  |   |  |
|  |   |  |
|  |   | 30° 700 30° 30°  |
|  |   |  |
|  |   | 90* 90*  |
| LED  | QUICK FLUX 2x6 LED XG xxx G7+   | 200 - 200  |
| FWHM / FWTM  | Asymmetric  |  |
| Efficiency   | 94 %  | 504 604  |
| Peak intensity   | 0.6 cd/lm   | 30   |
| LEDs/each optic  | 1   | 400  |
| Light colour   | White   | 45° 500 43°  |
| Required compone   | nts:  |  |
|  |   |  |
|  |   | 710  |
|  |   |  |
|  |   | 30° 45 <sup>5</sup> 0° 15° 30°   |
|  |   |  |
|  |   | 90* 90*  |
|  | QUICK FLUX 2x6 LED XT xxx G5  | 50° 50°  |
| LED  | QUICK FLUX 2x6 LED XT xxx G5<br>Asymmetric  | 80°  |
| LED<br>FWHM / FWTM   | QUICK FLUX 2x6 LED XT xxx G5<br>Asymmetric<br>94 %  | 97<br>   |
| LED<br>FWHM / FWTM<br>Efficiency   | Asymmetric<br>94 %  | 90° 90°<br>75° 000 75°<br>60° 60°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | Asymmetric<br>94 %<br>0.6 cd/lm   | 90° 90°<br>73° 000 79°<br>64° 60°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 6 <sup>1</sup><br>6 <sup>1</sup> |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 97<br>38<br>61<br>63<br>63<br>64<br>7<br>80<br>7<br>80<br>7<br>80<br>7<br>80<br>7<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 9/*<br>9/*<br>9/*<br>9/*<br>9/*<br>9/*<br>9/*<br>9/*   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>Ints:<br>XP-G2<br>Asymmetric                                   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>94 %<br>0.6 cd/m<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %                             |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                                    | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm               |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1          |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-G2<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White |  |



|  |  | 90* 90*  |
|--|--|--|
| LED  | XP-G3  |  |
| FWHM / FWTM  | Asymmetric   | 750 750  |
| Efficiency   | 94 %   | po f   |
| Peak intensity   | 0.6 cd/lm  | 60 60.   |
| LEDs/each optic  | 1  | $\times \times / \times \times$  |
| Light colour   | White  | 40   |
| Required compone   |  | 43° 500  |
|  |  | 600  |
|  |  |  |
|  |  | 710  |
|  |  | 30° 800 50° 50°  |
|  |  | TTA KHT  |
|  |  | 90* 90*  |
|  | XP-G3  | 750 200 750  |
| FWHM / FWTM  | Asymmetric   |  |
| Efficiency   | 94 %   | 50* 50*  |
| Peak intensity   | 0.6 cd/lm  |  |
| LEDs/each optic  | 1  | 40   |
| Light colour   | White  | 45* 500 45*  |
| Required compone   | nts:   |  |
|  |  | 000  |
|  |  | 700  |
|  |  | 30* 810 30*  |
|  |  | 15 <sup>3</sup> 0 <sup>6</sup> 15 <sup>4</sup>   |
|  |  |  |
|  |  | 50° 50°  |
| LED  | XP-L HD  | 99 <sup>3</sup>  |
| LED<br>FWHM / FWTM   | XP-L HD<br>Asymmetric  | 91 <sup>2</sup><br>351<br>100<br>92<br>92  |
| LED<br>FWHM / FWTM<br>Efficiency   | XP-L HD<br>Asymmetric<br>94 %  | 50° 50° 50°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm   | 99 <sup>+</sup><br>97 <sup>+</sup><br>100<br>57 <sup>0</sup><br>60 <sup>+</sup><br>60 <sup>+</sup><br>60 <sup>+</sup>  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1  | 99 <sup>4</sup><br>73 <sup>5</sup><br>44 <sup>4</sup><br>20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 99 <sup>1</sup><br>75<br>60 <sup>1</sup><br>60 <sup>2</sup><br>60 <sup></sup> |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 997<br>73<br>60<br>60<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70<br>70  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:   | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>Ints:<br>XP-L2   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<br>Asymmetric                                    |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<br>Asymmetric<br>94 %                            |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<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 compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<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 compone<br>CREE CLED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<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 compone  | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<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 compone<br>CREE CLED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<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 compone<br>CREE CLED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<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 compone<br>CREE (LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | XP-L HD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:<br>XP-L2<br>Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White |  |



| LED  | XT-E   | 90* 91*  |
|--|--|--|
| FWHM / FWTM  | Asymmetric   | 734 00 774   |
| Efficiency   | 94 %   |  |
| Peak intensity   | 0.6 cd/lm  | 60° 60°.   |
| LEDs/each optic  | 1  |  |
| Light colour   | White  | 45° 400 65°  |
| Required compone   |  |  |
|  |  |  |
|  |  | 500  |
|  |  | 760  |
|  |  | 30° 15° 30°  |
|  |  | 90* 90*  |
| LED  | XT-E HE  |  |
| FWHM / FWTM  | Asymmetric   | 75° 200 200 75°  |
| Efficiency   | 94 %   | 10   |
| Peak intensity   | 0.6 cd/lm  | 50 <sup>4</sup> 50 <sup>4</sup>  |
| LEDs/each optic  | 1  |  |
| Light colour   | White  | 400 400 gr*  |
| Required compone   | ints:  |  |
|  |  |  |
|  |  |  |
|  |  | 700  |
|  |  | 15 <sup>4</sup> 15 <sup>4</sup> 0  |
|  |  |  |
|  |  | 90* 90*  |
|  | EHP-2x6-IP-3535  | <u>8</u> ,*  |
| LED  | EHP-2x6-IP-3535<br>Asymmetric  | gr   |
| LED<br>FWHM / FWTM   | EHP-2x6-IP-3535<br>Asymmetric<br>95 %  | gi gi  |
| LED<br>FWHM / FWTM<br>Efficiency   | Asymmetric   | 91 92 92 92 92 92 92 92 92 92 92 92 92 92  |
| LED<br>FWHM / FWTM   | Asymmetric<br>95 %   | 8°   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | Asymmetric<br>95 %<br>0.6 cd/lm  | gr<br>71<br>60<br>61<br>61<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:   | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White  | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050  | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric                                    | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric<br>97 %                            | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric<br>97 %<br>0.5 cd/lm               | 21 20 20 20 20 20 20 20 20 20 20 20 20 20  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>Required compone<br>ELED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic        | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric<br>97 %<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 compone<br>ELECTRID<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric<br>97 %<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 compone<br>ELECTRID<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric<br>97 %<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 compone<br>ELED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour            | Asymmetric<br>95 %<br>0.6 cd/lm<br>1<br>White<br>ints:<br>EHP-2x6-IP-5050<br>Asymmetric<br>97 %<br>0.5 cd/lm<br>1<br>White |  |



| 🥙 LUMIL   | .EDS   |  |
|---|--|--|
| LED   | LUXEON 5050 Round LES  |  |
| FWHM / FWTM   | Asymmetric   | 25   |
| Efficiency  | 96 %   | SUT TO A CONTRACT OF A CONTRAC |
| Peak intensity  | 0.6 cd/lm  |  |
| LEDs/each optic   | 1  |  |
| Light colour  | White  | 451 440  |
| Required compone  | ents:  | 200  |
|   |  |  |
|   |  |  |
|   |  | 30° 700 10°  |
|   | FDS  |  |
|   |  | 90*  |
|   |  | 750 200  |
| FWHM / FWTM   | Asymmetric   |  |
| Efficiency<br>Book intensity  | 93 %<br>0.6 cd/lm  | 50   |
| Peak intensity  |  |  |
| LEDs/each optic<br>Light colour   | 1<br>White   | 400  |
| Required compone  |  | -d5* - 500   |
| Required compone  | ans.   |  |
|   |  |  |
|   |  | 700  |
|   |  | 30° 13° 000 15°  |
|   | .EDS   |  |
| LED   | LUXEON XR-TX (L2T0-xxyy012M)   |  |
|   |  |  |
| FWHM / FWTM   | Asymmetric   | 780  |
| FWHM / FWTM<br>Efficiency   | Asymmetric<br>94 %   | .75 E  |
| Efficiency  |  | 50°  |
|   | 94 %   | 55° 500 500 500 500 500 500 500 500 500  |
| Efficiency<br>Peak intensity  | 94 %<br>0.7 cd/lm  | 45°  |
| Efficiency<br>Peak intensity<br>LEDs/each optic   | 94 %<br>0.7 cd/lm<br>1<br>White  | 92   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 94 %<br>0.7 cd/lm<br>1<br>White  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 94 %<br>0.7 cd/lm<br>1<br>White  | 5° 60  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 94 %<br>0.7 cd/lm<br>1<br>White  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:   | 60   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>LUMIL</b><br>LED<br>FWHM / FWTM<br>Efficiency   | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br>EDS<br>LUXEON Z ES   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>LUMIL</b><br>Efficiency<br>Peak intensity   | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br>EDS<br>LUXEON Z ES<br>Asymmetric   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b> | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br>EDS<br>LUXEON Z ES<br>Asymmetric<br>94 %<br>0.8 cd/lm<br>1                 |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>Composition</b><br><b>ED</b><br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br><b>EDS</b><br>LUXEON Z ES<br>Asymmetric<br>94 %<br>0.8 cd/lm<br>1<br>White |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b><br><b>Composition</b> | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br><b>EDS</b><br>LUXEON Z ES<br>Asymmetric<br>94 %<br>0.8 cd/lm<br>1<br>White |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>LUMIL</b><br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br><b>EDS</b><br>LUXEON Z ES<br>Asymmetric<br>94 %<br>0.8 cd/lm<br>1<br>White |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>Composition</b><br><b>LUMIL</b><br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 94 %<br>0.7 cd/lm<br>1<br>White<br>ents:<br><b>EDS</b><br>LUXEON Z ES<br>Asymmetric<br>94 %<br>0.8 cd/lm<br>1<br>White |  |



| MST Your solu  | itions   |   |
|--|--|---|
| LED  | RecLED 146x45mm 2900lm 730 STRADA-IP-2x6 G1  | Ĩ   |
| FWHM / FWTM  | Asymmetric   | 75°   |
| Efficiency   | 96 %   |   |
| Peak intensity   | 0.7 cd/lm  | 504 564   |
| LEDs/each optic  | 1  | ***   |
|  | ı<br>White   | 40  |
| Light colour<br>Required compone   |  | d'  |
| Required compone   | ents.  |   |
|  |  | 600   |
|  |  | 760   |
|  |  | 30° 15° 0° 15° 30'  |
| ØNICHI/  |  |   |
|  |  | 90°   |
|  | NVSW219F   | 73  |
| FWHM / FWTM  | Asymmetric   |   |
| Efficiency   | 94 %   | 50° 60°   |
| Peak intensity   | 0.6 cd/lm  |   |
| LEDs/each optic  | 1  |   |
| Light colour   | White  | e, <u>e</u> ,   |
| Required compone   | ents:  | 500   |
|  |  | 600   |
|  |  |   |
|  |  | 30° 15° 0° 15° 30°  |
|  |  |   |
| <b>WNICHI</b>  | N Contraction of the second seco |   |
|  |  | 50° 50°   |
| LED  | NVSW319B   |   |
| LED<br>FWHM / FWTM   | NVSW319B<br>Asymmetric   | 2°  |
| LED<br>FWHM / FWTM<br>Efficiency   | NVSW319B<br>Asymmetric<br>%  | 9° - 99<br>72° - 000<br>52° - 000<br>60° - 75<br>60° - 60°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | NVSW319B<br>Asymmetric<br>%<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  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White   | 5°<br>6°<br>6°<br>60°<br>60°<br>60°<br>60°<br>60°<br>60°<br>60°<br>60°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White   | 90°<br>90°<br>60°<br>900<br>900<br>900<br>900<br>900<br>900<br>900<br>900<br>900  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White   | 50 <sup>+</sup> |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>MICHIA<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                                    | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>MICHI/<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>MICHI/<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>MICHI/<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone  | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>MICHI/<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>MICHIV<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | NVSW319B<br>Asymmetric<br>%<br>0.5 cd/lm<br>1<br>White<br>ents:<br>NVSW3x9A<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |   |



| Г  |   |   |
|--|---|---|
| <b>ØNICHIA</b>   |   | 3 <sup>4</sup>  |
| LED  | NVSW519A  |   |
| FWHM / FWTM  | Asymmetric  | 130 100 730   |
| Efficiency   | 96 %  |   |
| Peak intensity   | 0.5 cd/lm   | 60* 60*   |
| LEDs/each optic  | 1   |   |
| Light colour   | White   | .45* 460 437  |
| Required componer  |   | 500   |
|  |   |   |
|  |   | 600   |
|  |   | X Too X   |
|  |   | 36* <u>15*</u> 0 <sup>*</sup> <u>15*</u> 36*  |
| <b>ØNICHI</b> A  |   | 90* 90*   |
| LED  | NVSxx19B/NVSxx19C   |   |
| FWHM / FWTM  | Asymmetric  | 73°   |
| Efficiency   | 94 %  |   |
| Peak intensity   | 0.6 cd/lm   | ×**   |
| LEDs/each optic  | 1   | $X \rightarrow W \rightarrow X$   |
| Light colour   | White   | 45'   |
| Required componer  | nts:  |   |
|  |   | X X   |
|  |   | 700   |
|  |   | 200   |
|  |   | 30.   |
| OSRAM  |   | 10 <sup>1</sup> 15 <sup>5</sup> 0 <sup>4</sup> 15 <sup>5</sup> 0 <sup>1</sup>   |
| OSRAM<br>Opto Semiconductors   |   | 90° 0°  |
| Opto Semiconductors  | Duris S8  | 200 - |
| opto Semiconductors<br>LED<br>FWHM / FWTM  | Asymmetric  | 200 00<br>200 00<br>200 00  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>94 %  | 200 200 200 200 200 200 200 200 200 200   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>94 %<br>0.5 cd/lm   | 20  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>94 %<br>0.5 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>94 %<br>0.5 cd/lm<br>1<br>White   | 20 <u>125</u> <u>01</u> <u>125</u> <u>01</u>  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   | 20 <u>125</u> <u>01</u> <u>125</u> <u>01</u>  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>94 %<br>0.5 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   | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componen  | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   | 20 <sup>1</sup> 12 <sup>5</sup> 0 <sup>1</sup> 12 <sup>5</sup> 0 <sup>2</sup>   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componen  | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required componen  | Asymmetric<br>94 %<br>0.5 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 componen  | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>PHILLOP<br>LED<br>FWHM / FWTM  | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric                                  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>ED<br>FWHM / FWTM<br>Efficiency                                      | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric<br>94 %                           |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>ED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                    | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric                                  |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>ED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric<br>94 %<br>0.6 cd/m<br>1          |   |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                        | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric<br>94 %<br>0.6 cd/m<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>ED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric<br>94 %<br>0.6 cd/m<br>1<br>White |   |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                        | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric<br>94 %<br>0.6 cd/m<br>1<br>White |   |
| opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour                        | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>hts:<br>S<br>Fortimo FastFlex LED 2x6 DP G4<br>Asymmetric<br>94 %<br>0.6 cd/m<br>1<br>White |   |



| PHILIP  | S  | 90° 90°  |
|---|--|--|
| LED   | Fortimo FastFlex LED 2x6 DP G5   |  |
| FWHM / FWTM   | Asymmetric   | 100 75*  |
| Efficiency  | 96 %   |  |
| Peak intensity  | 0.6 cd/lm  | 60°  |
| LEDs/each optic   | 1  |  |
| Light colour  | White  | 45* 400 457  |
| Required compone  | nts:   |  |
|   |  | 500  |
|   |  | 600  |
|   |  | 30° 30°  |
| PHILIF  | 20   | 13' 0" 13'   |
|   |  | 90* 90*  |
|   | Fortimo FastFlex LED 2x6 DP HE   | 730 500 780  |
| FWHM / FWTM   | Asymmetric   |  |
| Efficiency  | 97 %   | 50* 20   |
| Peak intensity  | 0.5 cd/lm  | 30   |
| LEDs/each optic<br>Light colour   | 1<br>White   |  |
| Required compone  |  | 45° 400 65°  |
| Required compone  | 115.   | 500  |
|   |  | X/T/X  |
|   |  | 640  |
|   |  | 30* <u>15*</u> 80° 13* 30*   |
|   |  |  |
| PHILIP  | <b>S</b>   | 90* 90*  |
|   |  | 50°  |
| LED   | Fortimo FastFlex LED 2x6 DPX G4  | 20-<br>20-<br>20-<br>20-<br>20-<br>20-<br>20-<br>20-<br>20-<br>20-             |
| LED<br>FWHM / FWTM  |  | 50°<br>30°<br>80°<br>80°<br>80°<br>80°<br>80°<br>80°<br>80°<br>80°<br>80°<br>8 |
| LED<br>FWHM / FWTM<br>Efficiency  | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm   | 50° 50° 50° 50° 50° 50° 50° 50° 50° 50°  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 50 50 50 50 50 50 50 50 50 50 50 50 50 5                                       |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   | 97*<br>78*<br>79*<br>79*<br>79*<br>79*<br>79*<br>79*<br>79*<br>79              |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>60<br>70<br>70   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>00<br>70<br>70<br>20   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>Its:                                       | 50<br>60<br>70<br>70   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>Its:                                       | 50<br>60<br>70<br>70   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>Ints:<br>HiLOM RH12 (LH351C)<br>Asymmetric | 50<br>60<br>70<br>70   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>SANSU<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>60<br>70<br>70   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>SANSU<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                         | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>60<br>70<br>70   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone   | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50                       |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>SANNSU</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50                       |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br><b>SANNSU</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50                       |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone<br>SAMSU<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour         | Fortimo FastFlex LED 2x6 DPX G4<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>nts:                                       | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50                       |



| CUNUCI   | ING   | THY KHO  |
|--|---|--|
| <u>S</u> ΛΜSΙ  |   | 90* 90   |
| LED  | HiLOM RM12 ZP (LH502C)  | 750 770 770  |
| FWHM / FWTM  | Asymmetric  |  |
| Efficiency   | 96 %  | 50 <sup>4</sup> 60                                     |
| Peak intensity   | 0.5 cd/lm   | 30   |
| LEDs/each optic  | 1   |  |
| Light colour   | White   | 45° 400 45   |
| Required compone   | nts.  | 200  |
|  |   | 600  |
|  |   |  |
|  |   | 30* 23 <sup>5</sup> 0 <sup>6</sup> 15 <sup>6</sup> 30' |
| SAMSI  | ING   | 90*  |
| LED  | LH351Z  | 30. 30   |
| FWHM / FWTM  | Asymmetric  | 25* 00. 75   |
| Efficiency   | 94 %  |  |
| Peak intensity   | 0.6 cd/lm   | 605 60   |
| LEDs/each optic  | 1   |  |
| Light colour   | White   | 45* 400 45   |
| Required compone   |   |  |
|  |   | 500  |
|  |   | 800  |
|  |   |  |
|  |   | 130° 133 <sup>5</sup> 0° 15° 30°                       |
| SCIO   | LUX   | 90* 90°  |
| LED  |   |  |
| LED  | ROY-S26XPL2 (XP-L2)   |  |
|  | Asymmetric  | 20 200 70  |
| LED<br>FWHM / FWTM<br>Efficiency   |   |  |
| FWHM / FWTM  | Asymmetric  |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>94 %  |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                     | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   |  |
| FWHM / FWTM<br>Efficiency  | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                     | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                     | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                     | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour                     | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:<br>LUX<br>XLE-S22C4XTEHE (XT-E HE)                                    |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:<br>LUX<br>XLE-S22C4XTEHE (XT-E HE)<br>Asymmetric                      |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/m<br>1<br>White<br>nts:<br>LUX<br>XLE-S22C4XTEHE (XT-E HE)<br>Asymmetric<br>94 %               |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:<br>LUX<br>XLE-S22C4XTEHE (XT-E HE)<br>Asymmetric<br>94 %<br>0.6 cd/lm |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required compone | Asymmetric<br>94 %<br>0.5 cd/lm<br>1<br>White<br>nts:   |  |



| SCIO                             | LUX                                | THY KHI  |
|----------------------------------|------------------------------------|--|
| LED                              | XLE-S26XHP35 (XHP35 HD)            | 90* 90   |
| EED<br>FWHM / FWTM               | Asymmetric                         | 750 100 75   |
| Efficiency                       | 94 %                               |  |
| Peak intensity                   | 94 %<br>0.5 cd/lm                  | 60* 60   |
| LEDs/each optic                  | 1                                  |  |
| LEDS/each optic                  | v<br>White                         | 400  |
| Required compone                 |                                    | 457 500 45   |
| Required compone                 |                                    |  |
|                                  |                                    | 600  |
|                                  |                                    | 710  |
|                                  |                                    | 30° 15 <sup>3</sup> 0 <sup>6</sup> 15 <sup>4</sup> 30              |
| SEOUL                            |                                    | THY YAT  |
| SEOUL SEMICONDUCTOR              |                                    | 90* 90   |
| LED                              | 2x6 5050 module - SMJD-3625012F-XX | 75%  |
| FWHM / FWTM                      | Asymmetric                         |  |
| Efficiency                       | 94 %                               | 604 60   |
| Peak intensity                   | 0.5 cd/lm                          |  |
| LEDs/each optic                  | 1                                  |  |
| Light colour                     | White                              | d5* d5   |
| Required compone                 | nts:                               |  |
|                                  |                                    | 800  |
|                                  |                                    |  |
|                                  |                                    | 30° 15° 0° 15° 30  |
| SEOUL                            |                                    |  |
| SEOUL SEMICONDUCTOR              |                                    | 90* 90   |
| LED                              | SMJQ-D36W12Mx                      | 750 750  |
| FWHM / FWTM                      | Asymmetric                         |  |
| Efficiency                       | 94 %                               | 60*  |
| Peak intensity                   | 0.7 cd/lm                          |  |
| LEDs/each optic                  | 1<br>White                         |  |
| Light colour<br>Required compone |                                    | 45* 600 65   |
|                                  | 1.5.                               | 800  |
|                                  |                                    | $\times$ / $\times$ /  |
|                                  |                                    | 1000   |
|                                  |                                    | /30° 15 <sup>5</sup> 0° 15* 30                                     |
| SEOUL                            |                                    | THAT YATT  |
| SEOUL SEMICONDUCTOR              |                                    | 90* 90   |
|                                  | SMJQ-D36W12Px                      | 751 200 75   |
| FWHM / FWTM                      | Asymmetric                         |  |
| Efficiency                       | 94 %                               | 604 300 60   |
| Peak intensity                   | 0.6 cd/lm                          |  |
| LEDs/each optic                  | 1<br>White                         | XXXX   |
| Light colour<br>Required compone | White                              | 45° 500 45   |
| Required compone                 | IIS.                               | 000  |
|                                  |                                    | 710  |
|                                  |                                    |  |
|                                  |                                    |  |
|                                  |                                    | 30 <sup>14</sup> 22 <sup>3</sup> 0 <sup>4</sup> 22 <sup>4</sup> 30 |



| SEOUL  |  |  |
|--|--|--|
| SEOUL SEMICONDUCTOR  | Z5M3   | 90° 90°  |
| FWHM / FWTM  | Asymmetric   | 75* 00 75*   |
| Efficiency   | 94 %   |  |
| Peak intensity   | 0.6 cd/lm  | 53 <sup>4</sup> 59 <sup>4</sup>  |
| LEDs/each optic  | 1  |  |
| Light colour   | White  |  |
| Required compone   |  | 50   |
| rioquilou compone  |  |  |
|  |  |  |
|  |  | 700  |
|  |  | 30° 15' 00 15° 30'   |
| SEOUL  |  | TT FT  |
| SEOUL SEMICONDUCTOR  |  | 90* 90*  |
| LED  | Z8Y22  | 700 770  |
| FWHM / FWTM  | Asymmetric   |  |
| Efficiency   | 94 %   | 50° 60°  |
| Peak intensity   | 0.7 cd/lm  | × / 140  |
| LEDs/each optic  | 1<br>White   |  |
| Light colour<br>Required component   |  | 45* 000 45*  |
| Required component   |  |  |
|  |  | $\times$ $\wedge$ $\times$   |
|  |  | 1000   |
|  |  | 30° 13° 0° 15° 30°   |
| SEOUL  |  | THAT ALL   |
| SEOUL SEMICONDUCTOR  |  | 90* 90*  |
| LED  | Z8Y22P   |  |
|  |  | 25* 200 75*  |
| FWHM / FWTM  | Asymmetric   | 25 00 75   |
| Efficiency   | Asymmetric<br>94 %   |  |
| Efficiency<br>Peak intensity   | Asymmetric<br>94 %<br>0.6 cd/lm  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1   |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White  | 60<br>60<br>73<br>73<br>75<br>75<br>75<br>75<br>75<br>75<br>75<br>75<br>75<br>75 |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White  |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:  | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:  | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD  | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>TRIDON<br>LED<br>FWHM / FWTM  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric                                    | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>TRIDON<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000Im HP EXC2 OTD<br>Asymmetric<br>94 %                            | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>TRIDON<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric<br>94 %<br>0.6 cd/lm               | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>TRIDON<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1          | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Equired component<br>Composition<br>Required component<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Equired component<br>Composition<br>Required component<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>TRIDON<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White | 200<br>200<br>700  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required component<br>Equired component<br>Composition<br>Required component<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White<br>hts:<br>RLE 2x6 3000lm HP EXC2 OTD<br>Asymmetric<br>94 %<br>0.6 cd/lm<br>1<br>White | 200<br>200<br>700  |



|                      |                             | 90 <sup>+</sup>  |
|----------------------|-----------------------------|--|
| LED                  | J Series 5050 Square LES 6V |  |
| FWHM / FWTM          | Asymmetric                  | 75° 100 75°  |
| Efficiency           | 94 %                        |  |
| Peak intensity       | 0.5 cd/lm                   | 60* 60*  |
| LEDs/each optic      | 1                           | 30   |
| Light colour         | White                       | 45* 400 45*  |
| Required components: |                             | X/IX   |
|                      |                             | 500  |
|                      |                             | 60   |
|                      |                             |  |
|                      |                             | 30° 30° 30°  |
|                      |                             | 90* 90*  |
| LED                  | XHP35 HD                    |  |
| FWHM / FWTM          | Asymmetric                  | 75°  |
| Efficiency           | 88 %                        |  |
| Peak intensity       | 0.5 cd/lm                   |  |
| LEDs/each optic      | 1                           | 30   |
| Light colour         | White                       | 45* 400 45*  |
| Required components: |                             |  |
|                      |                             | 200  |
|                      |                             | 600  |
|                      |                             | 30* 700 30*  |
|                      |                             |  |
|                      |                             | 90* 90*  |
| LED                  | XHP35 HI                    |  |
| FWHM / FWTM          | Asymmetric                  |  |
| Efficiency           | 90 %                        | 50* 60*  |
| Peak intensity       | 0.5 cd/lm                   | 30   |
| LEDs/each optic      | 1                           |  |
| Light colour         | White                       | 45*  |
| Required components: |                             | 200  |
|                      |                             |  |
|                      |                             |  |
|                      |                             | 30 <sup>4</sup> 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>4</sup> 30 <sup>4</sup> |
|                      |                             |  |
| LED                  | XP-G2 HE                    | "  |
| FWHM / FWTM          | Asymmetric                  | 750 100 75   |
| Efficiency           | 92 %                        |  |
| Peak intensity       | 0.5 cd/lm                   | 50° 50°  |
| LEDs/each optic      | 1                           |  |
| Light colour         | White                       | 45* 440 45*  |
| Required components: |                             | X  X   |
|                      |                             |  |
|                      |                             | 600  |
|                      |                             |  |
|                      |                             |  |



|  | 5   | THA VHIT                                |
|--|---|---|
|  |   | 90* 90                                  |
| LED  | LUXEON 3030 2D (Square LES)   | 736                                     |
| FWHM / FWTM  | Asymmetric  |   |
| Efficiency   | 94 %  |   |
| Peak intensity   | 0.6 cd/lm   |   |
| LEDs/each optic  | 1   | 40                                      |
| Light colour   | White   | 45*                                     |
| Required components:   |   |   |
|  |   |   |
|  |   | 710                                     |
|  |   | 30° 15° 300 30° 30°                     |
|  | )S  | 90°                                     |
| LED  | LUXEON 5050 Square LES  |   |
| FWHM / FWTM  | Asymmetric  | 73.0 100 72                             |
| Efficiency   | 94 %  |   |
| Peak intensity   | 0.5 cd/lm   | 60*                                     |
| LEDs/each optic  | 1   |   |
| Light colour   | White   | 45*                                     |
| Required components:   |   | XITX                                    |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   | 30° 15 <sup>2</sup> 10° 30              |
|  | DS  | 90*92                                   |
| LED  | LUXEON 5050 Square LES  |   |
|  |   |   |
| FWHM / FWTM  | Asymmetric  | 73%                                     |
|  | Asymmetric<br>95 %  | 73                                      |
| FWHM / FWTM<br>Efficiency<br>Peak intensity  |   |   |
| Efficiency   | 95 %  |   |
| Efficiency<br>Peak intensity   | 95 %<br>0.5 cd/lm   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic  | 95 %<br>0.5 cd/lm<br>1  |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 95 %<br>0.5 cd/lm<br>1  | 50° 500 500 500 500 500 500 500 500 500 |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 95 %<br>0.5 cd/lm<br>1  |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 95 %<br>0.5 cd/lm<br>1  |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | 95 %<br>0.5 cd/lm<br>1<br>White   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric                           |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %                   |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric                           |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>CONTINUES</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %<br>0.6 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %<br>0.6 cd/lm      |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>CONTINUES</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %<br>0.6 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %<br>0.6 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %<br>0.6 cd/lm<br>1 |   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>CONTINUES</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 95 %<br>0.5 cd/lm<br>1<br>White<br>S<br>LUXEON V2<br>Asymmetric<br>92 %<br>0.6 cd/lm<br>1 |   |



| <b>ΜΝΙCΗΙΛ</b>   |   |  |
|--|---|--|
| LED  | NV4WB35AM   | 20°  |
| FWHM / FWTM  | Asymmetric  | 73%  |
| Efficiency   | 94 %  |  |
| Peak intensity   | 94 /o<br>0.6 cd/lm  | 50*  |
| LEDs/each optic  | 1   | 300  |
| Light colour   | ı<br>White  | 400  |
| Required components:   | Wilde   | 451 500  |
| Required components.   |   |  |
|  |   | 60   |
|  |   | 700  |
|  |   | 30* 15 <sup>5</sup> 66 <sup>0</sup> 15* 30*  |
| <b>Μ</b> ΝΙCΗΙΛ  |   | 90* 90*  |
| LED  | NVSxE21A  | a a a a a a a a a a a a a a a a a a a  |
| FWHM / FWTM  | Asymmetric  | 73%  |
| Efficiency   | 92 %  | XXXX   |
| Peak intensity   | 0.7 cd/lm   | 50° 50°.   |
| LEDs/each optic  | 1   | 400  |
| Light colour   | White   | -5°  |
| Required components:   |   |  |
|  |   | 00   |
|  |   | 710  |
|  |   | 20   |
|  |   | 30* <u>15</u> 0° <u>15</u> 30*   |
| <b>ΜΝΙCΗΙΛ</b>   |   |  |
|  |   | 90°  |
|  | NVSxE21A  | 50°  |
| LED  | NVSxE21A<br>Asymmetric  | 50° 50°<br>78° 200 79°   |
| LED<br>FWHM / FWTM   | NVSxE21A<br>Asymmetric<br>94 %  | 50° 50° 50° 50° 50° 50° 50° 50° 50° 50°  |
| LED<br>FWHM / FWTM<br>Efficiency   | Asymmetric  | 50<br>50<br>60<br>60<br>60   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity   | Asymmetric<br>94 %  | 97<br>75<br>60<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90                   |
| LED<br>FWHM / FWTM<br>Efficiency   | Asymmetric<br>94 %<br>0.5 cd/lm   | 97<br>79<br>00<br>00<br>00<br>79<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00 |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  | 97<br>79<br>60<br>60<br>67<br>67<br>60<br>67<br>67   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  | 97<br>90<br>100<br>100<br>100<br>100<br>100<br>100<br>100  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  | 5°<br>6°<br>10°<br>10°<br>10°<br>10°<br>10°<br>10°<br>10°<br>10  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  | 97<br>99<br>100<br>100<br>100<br>100<br>100<br>100<br>100  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4  | 97<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90<br>90   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric                           |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric<br>93 %                   |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity                                    | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric<br>93 %<br>0.5 cd/lm      |  |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic                 | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric<br>93 %<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 components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric<br>93 %<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 components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric<br>93 %<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 components:<br><b>OSRAM</b><br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>94 %<br>0.5 cd/lm<br>4<br>White<br>PrevaLED Brick HP IP 2x6<br>Asymmetric<br>93 %<br>0.5 cd/lm<br>1 |  |



| ſ  |   |   |
|--|---|---|
| OSRAM  |   |   |
| Opto Semiconductors  | OSCONIQ P 3737 (2W version)   | 90* 90*   |
| FWHM / FWTM  |   | 75° 75°   |
|  | Asymmetric<br>90 %  |   |
| Efficiency   |   | 60°   |
| Peak intensity   | 0.6 cd/lm   |   |
| LEDs/each optic  | 1   | 400   |
| Light colour   | White   | 45* 500 45*   |
| Required components:   |   |   |
|  |   |   |
|  |   | 700   |
|  |   | 30* 00 0° 10* 30*   |
| OSRAM  |   |   |
| Opto Semiconductors  |   | 90* 90*   |
| LED  | OSCONIQ P 3737 (3W version)   |   |
| FWHM / FWTM  | Asymmetric  |   |
| Efficiency   | 93 %  |   |
| Peak intensity   | 0.5 cd/lm   |   |
| LEDs/each optic  | 1   | $\times \times / \land \times \times$   |
| Light colour   | White   | 45* 400 45*   |
| Required components:   |   | 500   |
|  |   |   |
|  |   | 600   |
|  |   | 200 200   |
|  |   | 12 <sup>0</sup> 0 <sup>0</sup> 15 <sup>0</sup>  |
|  |   |   |
| OSRAM<br>Opto Semiconductors   |   | 50°   |
| Opto Semiconductors  | OSCONIO P 3737 (3W version)   | 9°' 9°  |
| Opto Semiconductors  | OSCONIQ P 3737 (3W version)<br>Asymmetric   | 90° 90° 90°   |
| Opto Semiconductors<br>LED<br>FWHM / FWTM  | Asymmetric  | 97<br>794<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00 |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency  | Asymmetric<br>93 %  | 90°<br>70°<br>60°   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity  | Asymmetric<br>93 %<br>0.5 cd/lm   | 20°   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1  | 30  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>93 %<br>0.5 cd/lm   |   |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1  | 30  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1  | 30  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1  | 30  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1  | 30  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1  | 30  |
| opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDS/each optic<br>Light colour<br>Required components:   | Asymmetric<br>93 %<br>0.5 cd/lm<br>1<br>White   | 30  |
| 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>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3   | 30  |
| 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>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric                           | 30  |
| 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>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %                   | 30  |
| 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>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 cd/lm      | 30  |
| 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>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 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:<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 cd/lm      | 30  |
| 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>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 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:<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 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:<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 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:<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | Asymmetric<br>93 %<br>0.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>Asymmetric<br>93 %<br>0.5 cd/lm<br>1 |   |



| SAMSUN  | IG                     | THAT Y Y H H T                  |
|---|------------------------|---------------------------------|
|   |                        | 90. 90                          |
| LED   | LH181B                 | 75°                             |
| FWHM / FWTM   | Asymmetric             |                                 |
| Efficiency  | 94 %                   | 504 504 504                     |
| Peak intensity  | 0.7 cd/lm              |                                 |
| LEDs/each optic   | 1<br>White             |                                 |
| Light colour<br>Required components:                            | White                  | 6, 200 6,                       |
| Required components.  |                        | 000                             |
|   |                        | 700                             |
|   |                        | 200                             |
|   |                        | 30° 12° 0° 13° 30°              |
| SAMSUN  | IG                     | 90° 90'                         |
| LED   | LH351B                 | Y                               |
| FWHM / FWTM   | Asymmetric             | 730 000 775                     |
| Efficiency  | 93 %                   |                                 |
| Peak intensity  | 0.5 cd/lm              | 60 <sup>4</sup> 60 <sup>4</sup> |
| LEDs/each optic   | 1                      | 300                             |
| Light colour  | White                  | 45* 400 45*                     |
| Required components:  |                        |                                 |
|   |                        |                                 |
|   |                        | X / m                           |
|   |                        | 50° 700 30°                     |
|   |                        | 153 00 154                      |
| SAMSUN  | IG                     | 90° 90'                         |
| LED   | LH351D                 | - My                            |
| FWHM / FWTM   | Asymmetric             | 75°                             |
| Efficiency  | 93 %                   |                                 |
| Peak intensity  | 0.5 cd/lm              |                                 |
| LEDs/each optic   | 1                      | ***                             |
| Light colour  | White                  | 5° 400 5°                       |
| Required components:  |                        |                                 |
|   |                        | 500                             |
|   |                        | 000                             |
|   |                        | 30° 15° 0° 15° 30°              |
| сллени  |                        |                                 |
| SVWSUN  |                        | 90* 90*                         |
| LED   | LM302D                 | 720 00 720                      |
|   | Asymmetric             |                                 |
| FWHM / FWTM   |                        |                                 |
| Efficiency  | 94 %                   | 50° 60                          |
| Efficiency<br>Peak intensity                                    | 94 %<br>0.6 cd/lm      | 61 <sup>4</sup> 60              |
| Efficiency<br>Peak intensity<br>LEDs/each optic                 | 94 %<br>0.6 cd/lm<br>1 | 30                              |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 94 %<br>0.6 cd/lm      |                                 |
| Efficiency<br>Peak intensity<br>LEDs/each optic                 | 94 %<br>0.6 cd/lm<br>1 | 30                              |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 94 %<br>0.6 cd/lm<br>1 | 30                              |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour | 94 %<br>0.6 cd/lm<br>1 | 30                              |



| SEOUL                |                 | THAT  |
|----------------------|-----------------|---|
| SEOUL SEMICONDUCTOR  |                 | 90* 90  |
|                      | Acrich MJT 4040 | 750 78  |
| FWHM / FWTM          | Asymmetric      | Comments.   |
| Efficiency           | 90 %            | 504   |
| Peak intensity       | 0.7 cd/lm       |   |
| LEDs/each optic      | 1               | XXXX  |
| Light colour         | White           | 45* 500 45  |
| Required components: |                 | 60  |
|                      |                 | 700   |
|                      |                 | 000   |
|                      |                 | 30° 15° 30  |
| SEOUL                |                 |   |
| SEOUL SEMICONDUCTOR  |                 | 90* 90  |
| LED                  | Z5M1/Z5M2       |   |
| FWHM / FWTM          | Asymmetric      | The second  |
| Efficiency           | 91 %            |   |
| Peak intensity       | 0.8 cd/lm       |   |
| LEDs/each optic      | 1               | $X / T \land X$   |
| Light colour         | White           | 61 6  |
| Required components: |                 | 60  |
|                      |                 | X   X   |
|                      |                 | 800   |
|                      |                 | 30* 30  |
| SEOUL                |                 | 33 <sup>2</sup> 4 <sup>2</sup> 13 <sup>2</sup>  |
| SEOUL SEMICONDUCTOR  |                 | 30* 90  |
| LED                  | Z5M4            | ay and a second s |
| FWHM / FWTM          | Asymmetric      | 750 770   |
| Efficiency           | 94 %            | XX  |
| Peak intensity       | 0.6 cd/lm       |   |
| LEDs/each optic      | 1               |   |
| Light colour         | White           | 45*   |
| Required components: |                 |   |
|                      |                 | 200   |
|                      |                 | 700   |
|                      |                 | 30 00 36  |
| SEOUL                |                 | 23 <sup>5</sup> 0 <sup>6</sup> 15 <sup>9</sup>  |
| SEOUL SEMICONDUCTOR  |                 |   |
| LED                  | Z8Y22T          |   |
| FWHM / FWTM          | Asymmetric      |   |
| Efficiency           | 93 %            |   |
| Peak intensity       | 0.7 cd/lm       |   |
| LEDs/each optic      | 1               |   |
| Light colour         | White           |   |
| Required components: |                 |   |
|                      |                 |   |
|                      |                 |   |
|                      |                 |   |
|                      |                 |   |



#### **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:

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