

# PRODUCT DATASHEET CA11931\_LR2-M

## LR2-M

~25° medium beam optimized for LUXEON Rebel ES. 14.8 mm high assembly with installation tape.

#### **SPECIFICATION:**

| Dimensions     | Ø 21.6 mm |
|----------------|-----------|
| Height         | 14.8 mm   |
| Fastening      | tape, pin |
| ROHS compliant | yes 🛈     |



### MATERIALS:

| Component      |
|----------------|
| LXP2-M         |
| LR2-ES-LH1-HLD |
| HEIDI-TAPE     |

| Туре        | Ма  |
|-------------|-----|
| Single lens | PM  |
| Holder      | PC  |
| Таре        | Acr |
|             |     |

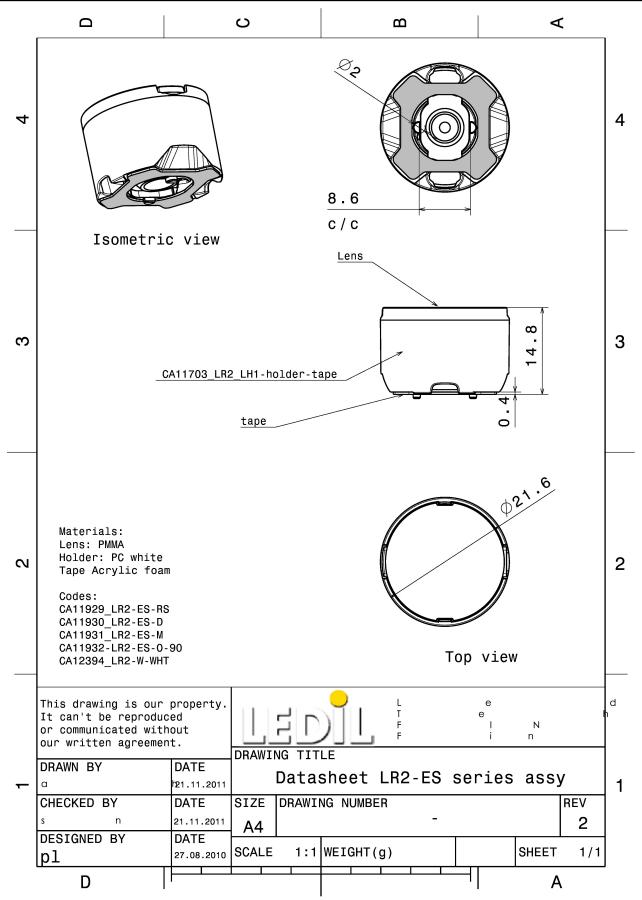
| Material     | Colour | Finish |
|--------------|--------|--------|
| PMMA         | clear  |        |
| PC           | white  |        |
| Acrylic foam | black  |        |

### **ORDERING INFORMATION:**

| Component                      |             | Qty in box | MOQ | MPQ | Box weight (kg) |
|--------------------------------|-------------|------------|-----|-----|-----------------|
| CA11931_LR2-M                  | Single lens | 1680       | 336 | 112 | 9.0             |
| » Box size: 480 x 280 x 300 mm |             |            |     |     |                 |



## PRODUCT DATASHEET CA11931\_LR2-M



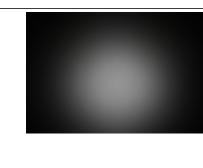
See also our general installation guide: <u>www.ledil.com/installation\_guide</u>

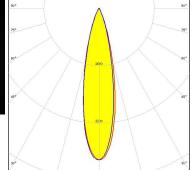


#### **OPTICAL RESULTS (MEASURED):**

## 

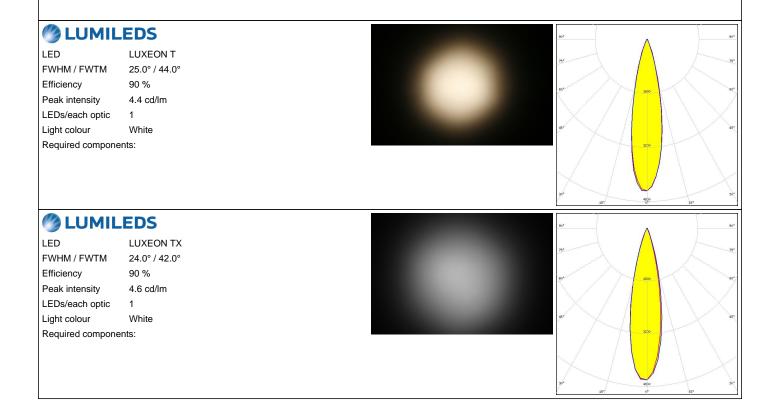
| LED              | XP-L HD       |
|------------------|---------------|
| FWHM / FWTM      | 24.0° / 46.0° |
| Efficiency       | 90 %          |
| Peak intensity   | 4.2 cd/lm     |
| LEDs/each optic  | 1             |
| Light colour     | White         |
| Required compone | ents:         |





## UMILEDS

| LED               | LUXEON Rebel ES |
|-------------------|-----------------|
| FWHM / FWTM       | 22.0°           |
| Efficiency        | 92 %            |
| LEDs/each optic   | 1               |
| Light colour      | White           |
| Required componen | its:            |





## **OPTICAL RESULTS (MEASURED):**

| 🥙 LUMIL                      | EDS                          |  |
|------------------------------|------------------------------|--|
| LED<br>FWHM / FWTM           | LUXEON Z ES<br>23.0° / 40.0° |  |
| Efficiency                   | 90 %                         |  |
| Peak intensity               | 5.2 cd/lm                    |  |
| LEDs/each optic              | 1                            |  |
| Light colour                 | White                        |  |
| Required compone             | ents:                        |  |
|                              |                              |  |
| ØNICHI∕                      | <b>N</b>                     | 90 <sup>*</sup>  |
| LED                          | NVSxx19B/NVSxx19C            |  |
| FWHM / FWTM                  | 22.0° / 42.0°                |  |
| Efficiency                   | 94 %                         |  |
| Peak intensity               | 5 cd/lm                      |  |
| LEDs/each optic              | 1                            |  |
| Light colour                 | White                        | g* 220   |
| Required compone             | ents:                        | 30 <sup>16</sup> 13 <sup>16</sup> 0 <sup>17</sup> 13 <sup>16</sup> 3 |
| OSRAM<br>Opto Semiconductors |                              | 90 <sup>4</sup>  |
| LED                          | OSLON Square EC              |  |
| FWHM / FWTM                  | 25.0° / 42.0°                |  |
| Efficiency                   | 89 %                         |  |
| Peak intensity               | 4.7 cd/lm                    |  |
| LEDs/each optic              | 1                            |  |
| Light colour                 | White                        | 9° (   |
| Required compone             | ents:                        |  |



## **OPTICAL RESULTS (SIMULATED):**

|  |   | 90* 90*   |
|--|---|---|
| LED  | J Series 5050 Round LES   |   |
| FWHM / FWTM  | 28.0° / 56.0°   | 75"   |
| Efficiency   | 94 %  |   |
| Peak intensity   | 2.8 cd/lm   | 60°   |
| LEDs/each optic  | 1   |   |
| Light colour   | White   | gy* 67*   |
| Required components:   |   |   |
|  |   |   |
|  |   | 2430  |
|  |   |   |
|  |   | 15° 0° 15°  |
|  |   | 90° 70 90°  |
| LED  | XD16  |   |
| FWHM / FWTM  | 26.0° / 45.0°   | 23. 23.   |
| Efficiency   | 91 %  |   |
| Peak intensity   | 3.9 cd/lm   | 1600  |
| LEDs/each optic  | 1   |   |
| Light colour   | White   | 2430 er   |
| Required components:   |   |   |
|  |   |   |
|  |   |   |
|  |   | 30° 4000 30°  |
|  |   | 13 <sup>3</sup> 0 <sup>6</sup> 13 <sup>5</sup>  |
|  |   | 90° 90°   |
| LED  | XQ-E HD   |   |
|  |   |   |
| FWHM / FWTM  | 26.0° / 42.0°   | 73.   |
|  |   |   |
| FWHM / FWTM  | 26.0° / 42.0°   | 75  |
| FWHM / FWTM<br>Efficiency  | 26.0° / 42.0°<br>94 %   |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity  | 26.0° / 42.0°<br>94 %<br>4.5 cd/m   |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1   | 61  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1   | 61  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1   | 61  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1   | 9° 100 9°<br>9° 200 0°<br>9°  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White  |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White  | 91° (100) (92°<br>97° (200) (92°) |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White  | 9° 100 9°<br>9° 200 0°<br>9°  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°                           | 50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50  |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br><b>COMPARENT</b><br>LED<br>FWHM / FWTM<br>Efficiency | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %                   |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %<br>2.9 cd/lm      |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %<br>2.9 cd/lm<br>1 |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %<br>2.9 cd/lm      |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %<br>2.9 cd/lm<br>1 |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %<br>2.9 cd/lm<br>1 |   |
| FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 26.0° / 42.0°<br>94 %<br>4.5 cd/lm<br>1<br>White<br>S<br>LUXEON 5050 Round LES<br>30.0° / 56.0°<br>94 %<br>2.9 cd/lm<br>1 |   |



## **OPTICAL RESULTS (SIMULATED):**

| UMILEC  | DS   | 801 9   |
|---|--|---|
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | LUXEON 5050 Square LES<br>29.0° / 57.0°<br>96 %<br>2.8 cd/lm<br>1<br>White | 27<br>66<br>67<br>560<br>280<br>280<br>280<br>280<br>280<br>280<br>280<br>280<br>280<br>28    |
|   | )S   | 90° 9   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | LUXEON H50-2<br>25.0° / 43.0°<br>92 %<br>4.2 cd/lm<br>1<br>White           |   |
|   | S  | 90*   |
| LED<br>FWHM / FWTM<br>Efficiency<br>LEDs/each optic<br>Light colour<br>Required components:                   | LUXEON IR Domed 60 (L1I0-0xxx06000000)<br>24.0° / 44.0°<br>93 %<br>1<br>IR | 5° 100 100 100 100 100 100 100 100 100 10   |
|   | 5  |   |
| LED<br>FWHM / FWTM<br>Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components: | LUXEON V2<br>26.0° / 45.0°<br>94 %<br>4.1 cd/lm<br>1<br>White              | 9 <sup>4</sup><br>19<br>9 <sup>4</sup><br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>10 |



## **OPTICAL RESULTS (SIMULATED):**

| 60  |   |                       |  |
|---|---|-----------------------|--|
|   | JS  | Polar intensity graph | 90* 90*  |
|   |   |                       |  |
| LED   | SST-10-IR-B90   |                       |  |
| FWHM / FWTM   | 26.0° / 42.0°   |                       | 60°  |
| Efficiency  | 94 %  | 20.0<br>30.0          |  |
| LEDs/each optic   | 1   |                       |  |
| Light colour  | IR  |                       | e.   |
| Required components:  |   |                       | 200  |
|   |   |                       |  |
|   |   |                       |  |
|   |   |                       | 34 <sup>4</sup> 15 <sup>3</sup> 0 <sup>6</sup> 35 <sup>4</sup>                 |
| ØΝΙCΗΙΛ   |   |                       | 50* 50*  |
| LED   | NV4WB35AM   |                       |  |
| FWHM / FWTM   | 28.0° / 50.0°   |                       | 75'  |
| Efficiency  | 95 %  |                       |  |
| Peak intensity  | 3.4 cd/lm   |                       |  |
| LEDs/each optic   | 1   |                       |  |
| Light colour  | White   |                       | gr   |
| Required components:  |   |                       | 200  |
|   |   |                       |  |
|   |   |                       | 300  |
|   |   |                       | 30. 30.  |
| OSRAM   |   |                       |  |
| Opto Semiconductors   |   |                       | 90* 90*  |
| LED   | Duris S8  |                       | 347  |
|   |   |                       |  |
| FWHM / FWTM   | 30.0° / 61.0°   |                       |  |
| Efficiency  | 30.0° / 61.0°<br>93 %   |                       |  |
| Efficiency<br>Peak intensity  | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm  |                       |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1   |                       |  |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm  |                       | ar<br>ar<br>ar   |
| Efficiency<br>Peak intensity<br>LEDs/each optic   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1   |                       | 6,   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1   |                       | gr   |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1   |                       | er<br>er<br>300<br>300<br>400<br>300<br>400<br>400<br>400<br>400<br>400<br>400 |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1   |                       | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200             |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:   | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White  |                       | 34. 32. 32. 32.   36. 30. 40. 40.   40. 40. 40. 40.                            |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>OSRAM<br>Opto Semiconductors<br>LED  | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3  |                       | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200             |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Opto Semiconductors<br>LED<br>FWHM / FWTM  | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°                           |                       | 394 357 354 354 354 354 354 354 354 354 354 354                                |
| Efficiency<br>Peak intensity<br>LEDs/each optic<br>Light colour<br>Required components:<br>Opto Semiconductors<br>LED<br>FWHM / FWTM<br>Efficiency  | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %                   |                       | 394 357 354 354 354 354 354 354 354 354 354 354                                |
| 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                                    | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %<br>4.3 cd/lm      |                       | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200             |
| 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                 | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %<br>4.3 cd/lm<br>1 |                       | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200             |
| 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 | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %<br>4.3 cd/lm      |                       | ar 300   304 307   304 307   |
| 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                 | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %<br>4.3 cd/lm<br>1 |                       | 50° 50° 50° 50° 50° 50° 50° 50° 50° 50°  |
| 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 | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %<br>4.3 cd/lm<br>1 |                       | ar 300   304 307   304 307   |
| 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 | 30.0° / 61.0°<br>93 %<br>2.5 cd/lm<br>1<br>White<br>OSLON Square CSSRM2/CSSRM3<br>26.0° / 43.0°<br>95 %<br>4.3 cd/lm<br>1 |                       | ar 300   304 307   304 307   |