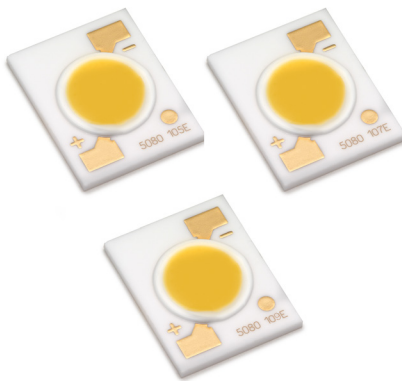




# LUXEON CoB Compact Range

Unsurpassed light quality and CBCP due to small LES



LUXEON CoB Compact Range offers the industry's smallest Light Emitting Surface (LES) that enables more cost effective designs and provides good Center Beam Candle Power (CBCP) for crisp light beams with the best luminance and color uniformity. LUXEON CoB Compact Range parts are available in 3-step (80CRI and 90CRI) MacAdam ellipse, ensuring uniform optical performance in retrofit lamps and spotlight applications. LUXEON CoB Compact Range LEDs are all hot-tested at 85°C—real world operating conditions—which means that luminaire design is simplified and testing can be minimized.

## FEATURES AND BENEFITS

- Highest flux densities with industry's smallest LES, 6.5mm
- Industry leading thermal resistance allows for smaller heat sinks
- Ceramic substrate that offers better protection in Hi Pot testing
- Supported by a comprehensive optical, mechanical and electrical ecosystem
- 3-step MacAdam ellipse color definition: *Freedom from Binning* for color consistency from luminaire to luminaire
- Tested at  $T_j=85^{\circ}\text{C}$  for accurate color in application

## PRIMARY APPLICATIONS

- Downlights
- High Bay & Low Bay
- Lamps
  - Directional
- Spotlights

LUXEON CoB Compact Range product performance at test current, T<sub>j</sub>=85°C.

| PRODUCT        | FORWARD VOLTAGE (V <sub>f</sub> ) | NOMINAL CCT | MINIMUM CRI <sup>[1,2]</sup> | LUMINOUS FLUX <sup>[1]</sup> (lm) |         | TYPICAL LUMINOUS EFFICACY (lm/W) | TEST CURRENT (mA) | LES (mm) | PART NUMBER        |
|----------------|-----------------------------------|-------------|------------------------------|-----------------------------------|---------|----------------------------------|-------------------|----------|--------------------|
|                |                                   |             |                              | MINIMUM                           | TYPICAL |                                  |                   |          |                    |
| LUXEON CoB 105 | 12V                               | 2700K       | 80                           | 405                               | 450     | 112                              | 350               | 6.5      | L2C3-2780105B06000 |
|                |                                   | 3000K       | 80                           | 425                               | 472     | 117                              | 350               | 6.5      | L2C3-3080105B06000 |
|                |                                   | 3500K       | 80                           | 435                               | 493     | 122                              | 350               | 6.5      | L2C3-3580105B06000 |
|                |                                   | 4000K       | 80                           | 457                               | 507     | 126                              | 350               | 6.5      | L2C3-4080105B06000 |
|                |                                   | 2700K       | 90                           | 347                               | 385     | 96                               | 350               | 6.5      | L2C3-2790105B06000 |
|                |                                   | 3000K       | 90                           | 369                               | 410     | 102                              | 350               | 6.5      | L2C3-3090105B06000 |
|                |                                   | 3500K       | 90                           | 378                               | 419     | 104                              | 350               | 6.5      | L2C3-3590105B06000 |
|                |                                   | 4000K       | 90                           | 395                               | 439     | 109                              | 350               | 6.5      | L2C3-4090105B06000 |
|                | 36V                               | 2200K       | 80                           | 375                               | 425     | 79                               | 150               | 6.5      | L2C3-2280105E06000 |
|                |                                   | 2700K       | 80                           | 525                               | 575     | 106                              | 150               | 6.5      | L2C3-2780105E06000 |
|                |                                   | 3000K       | 80                           | 525                               | 600     | 111                              | 150               | 6.5      | L2C3-3080105E06000 |
|                |                                   | 3500K       | 80                           | 525                               | 600     | 111                              | 150               | 6.5      | L2C3-3580105E06000 |
|                |                                   | 4000K       | 80                           | 550                               | 625     | 116                              | 150               | 6.5      | L2C3-4080105E06000 |
|                |                                   | 5000K       | 80                           | 600                               | 650     | 120                              | 150               | 6.5      | L2C3-5080105E06000 |
|                |                                   | 5700K       | 80                           | 600                               | 650     | 120                              | 150               | 6.5      | L2C3-5780105E06000 |
|                |                                   | 2200K       | 90                           | 350                               | 400     | 74                               | 150               | 6.5      | L2C3-2290105E06000 |
|                |                                   | 2700K       | 90                           | 450                               | 500     | 93                               | 150               | 6.5      | L2C3-2790105E06000 |
|                |                                   | 3000K       | 90                           | 475                               | 500     | 93                               | 150               | 6.5      | L2C3-3090105E06000 |
|                |                                   | 3500K       | 90                           | 475                               | 525     | 97                               | 150               | 6.5      | L2C3-3590105E06000 |
|                |                                   | 4000K       | 90                           | 525                               | 575     | 106                              | 150               | 6.5      | L2C3-4090105E06000 |
| LUXEON CoB 107 | 36V                               | 2200K       | 80                           | 500                               | 550     | 77                               | 200               | 6.5      | L2C3-2280107E06000 |
|                |                                   | 2700K       | 80                           | 625                               | 725     | 102                              | 200               | 6.5      | L2C3-2780107E06000 |
|                |                                   | 3000K       | 80                           | 650                               | 750     | 106                              | 200               | 6.5      | L2C3-3080107E06000 |
|                |                                   | 3500K       | 80                           | 675                               | 750     | 106                              | 200               | 6.5      | L2C3-3580107E06000 |
|                |                                   | 4000K       | 80                           | 700                               | 775     | 109                              | 200               | 6.5      | L2C3-4080107E06000 |
|                |                                   | 5000K       | 80                           | 700                               | 800     | 113                              | 200               | 6.5      | L2C3-5080107E06000 |
|                |                                   | 5700K       | 80                           | 700                               | 800     | 113                              | 200               | 6.5      | L2C3-5780107E06000 |
|                |                                   | 2200K       | 90                           | 450                               | 500     | 70                               | 200               | 6.5      | L2C3-2290107E06000 |
|                |                                   | 2700K       | 90                           | 550                               | 625     | 88                               | 200               | 6.5      | L2C3-2790107E06000 |
|                |                                   | 3000K       | 90                           | 550                               | 650     | 92                               | 200               | 6.5      | L2C3-3090107E06000 |
|                |                                   | 3500K       | 90                           | 575                               | 675     | 95                               | 200               | 6.5      | L2C3-3590107E06000 |
|                |                                   | 4000K       | 90                           | 600                               | 675     | 95                               | 200               | 6.5      | L2C3-4090107E06000 |

Table continued on next page:

1. Lumileds maintains a tolerance of ±2 on CRI and ±6.5% on luminous flux measurements.
2. Typical CRI is approximately 2 points more than the CRI minimum, but not guaranteed.

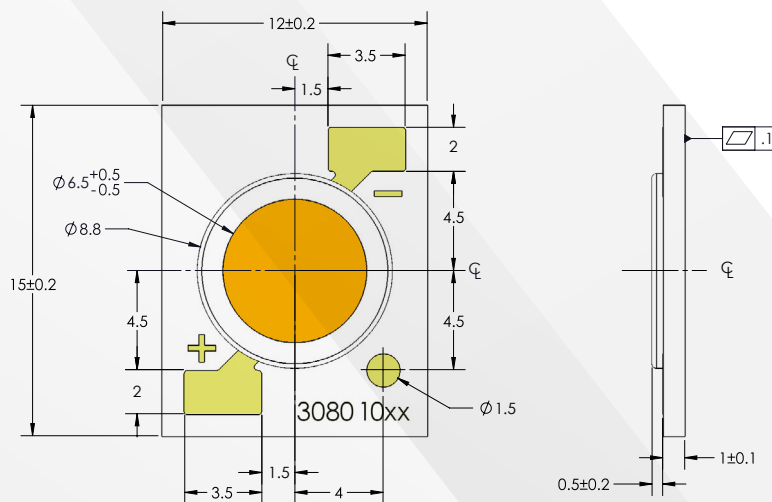
LUXEON CoB Compact Range product performance at test current,  $T_j=85^{\circ}\text{C}$  (continued).

| PRODUCT        | FORWARD VOLTAGE (V <sub>f</sub> ) | NOMINAL CCT | MINIMUM CRI <sup>[1,2]</sup> | LUMINOUS FLUX <sup>[1]</sup> (lm) |         | TYPICAL LUMINOUS EFFICACY (lm/W) | TEST CURRENT (mA) | LES (mm)           | PART NUMBER        |                    |
|----------------|-----------------------------------|-------------|------------------------------|-----------------------------------|---------|----------------------------------|-------------------|--------------------|--------------------|--------------------|
|                |                                   |             |                              | MINIMUM                           | TYPICAL |                                  |                   |                    |                    |                    |
| LUXEON CoB 109 | 24V                               | 2700K       | 80                           | 792                               | 880     | 109                              | 350               | 6.5                | L2C3-2780109D06000 |                    |
|                |                                   | 3000K       | 80                           | 810                               | 900     | 112                              | 350               | 6.5                | L2C3-3080109D06000 |                    |
|                |                                   | 3500K       | 80                           | 842                               | 936     | 117                              | 350               | 6.5                | L2C3-3580109D06000 |                    |
|                |                                   | 4000K       | 80                           | 871                               | 968     | 120                              | 350               | 6.5                | L2C3-4080109D06000 |                    |
|                |                                   | 2700K       | 90                           | 680                               | 755     | 94                               | 350               | 6.5                | L2C3-2790109D06000 |                    |
|                |                                   | 3000K       | 90                           | 710                               | 789     | 98                               | 350               | 6.5                | L2C3-3090109D06000 |                    |
|                |                                   | 3500K       | 90                           | 720                               | 800     | 99                               | 350               | 6.5                | L2C3-3590109D06000 |                    |
|                |                                   | 4000K       | 90                           | 753                               | 837     | 104                              | 350               | 6.5                | L2C3-4090109D06000 |                    |
|                |                                   | 36V         | 2200K                        | 80                                | 700     | 775                              | 87                | 250                | 6.5                | L2C3-2280109E06000 |
|                |                                   |             | 2700K                        | 80                                | 875     | 975                              | 110               | 250                | 6.5                | L2C3-2780109E06000 |
|                | 3000K                             |             | 80                           | 900                               | 1025    | 115                              | 250               | 6.5                | L2C3-3080109E06000 |                    |
|                | 3500K                             |             | 80                           | 950                               | 1075    | 121                              | 250               | 6.5                | L2C3-3580109E06000 |                    |
|                | 4000K                             |             | 80                           | 950                               | 1075    | 121                              | 250               | 6.5                | L2C3-4080109E06000 |                    |
|                | 5000K                             |             | 80                           | 1000                              | 1100    | 124                              | 250               | 6.5                | L2C3-5080109E06000 |                    |
|                | 5700K                             |             | 80                           | 1000                              | 1100    | 124                              | 250               | 6.5                | L2C3-5780109E06000 |                    |
|                | 2200K                             |             | 90                           | 625                               | 700     | 79                               | 250               | 6.5                | L2C3-2290109E06000 |                    |
|                | 2700K                             |             | 90                           | 775                               | 850     | 96                               | 250               | 6.5                | L2C3-2790109E06000 |                    |
|                | 3000K                             |             | 90                           | 775                               | 875     | 99                               | 250               | 6.5                | L2C3-3090109E06000 |                    |
|                | 3500K                             | 90          | 800                          | 875                               | 99      | 250                              | 6.5               | L2C3-3590109E06000 |                    |                    |
|                | 4000K                             | 90          | 825                          | 925                               | 104     | 250                              | 6.5               | L2C3-4090109E06000 |                    |                    |

Notes:

1. Lumileds maintains a tolerance of  $\pm 2$  on CRI and  $\pm 6.5\%$  on luminous flux measurements.
2. Typical CRI is approximately 2 points more than the CRI minimum, but not guaranteed.

Mechanical Dimensions.



Notes:

1. Drawings are not scale.
2. All dimensions are in millimeters.

©2015 Lumileds Holding B.V. All rights reserved.  
LUXEON is a registered trademark of the Lumileds Holding B.V. in the United States and other countries.

[lumileds.com](http://lumileds.com)

Neither Lumileds Holding B.V. nor its affiliates shall be liable for any kind of loss of data or any other damages, direct, indirect or consequential, resulting from the use of the provided information and data. Although Lumileds Holding B.V. and/or its affiliates have attempted to provide the most accurate information and data, the materials and services information and data are provided "as is," and neither Lumileds Holding B.V. nor its affiliates warrants or guarantees the contents and correctness of the provided information and data. Lumileds Holding B.V. and its affiliates reserve the right to make changes without notice. You as user agree to this disclaimer and user agreement with the download or use of the provided materials, information and data.