

# Cree® XLamp® CXA1507 LED



## PRODUCT DESCRIPTION

The XLamp CXA1507 LED array expands Cree's family of high-flux, multi-die arrays in a smaller, easy-to-use platform. With XLamp lighting-class reliability, the CXA1507's small, uniform emitting surface enables both directional and non-directional lighting applications including lamp retrofit and luminaire designs. Available in 2-step and 4-step color consistency, and featuring a 9-mm optical source, the CXA1507 brings new levels of flux and efficacy to this form factor.

## FEATURES

- Available in ANSI white bins as well as 4-step and 2-step EasyWhite bins at 2700K, 3000K, 3500K, 4000K and 5000K CCT
- 80 and 90 minimum CRI options
- Forward voltage: 37 V
- 85 °C binning and characterization
- Maximum drive current: 375 mA
- 115° viewing angle, uniform chromaticity profile
- Top-side solder connections
- Thermocouple attach point
- NEMA SSL-3 2011 standard flux bins
- UL-recognized component (E349212)



## TABLE OF CONTENTS

|                                                                  |    |
|------------------------------------------------------------------|----|
| Characteristics .....                                            | 2  |
| Flux Characteristics, Standard Order Codes and Bins .....        | 2  |
| Flux Characteristics, Standard Order Codes and Bins, 90 CRI..... | 4  |
| Flux Characteristics, Standard Order Codes and Bins, 80 CRI..... | 5  |
| Relative Spectral Power Distribution .                           | 6  |
| Relative Luminous Flux vs. Junction Temperature .....            | 6  |
| Electrical Characteristics.....                                  | 7  |
| Relative Luminous Flux vs. Current ..                            | 7  |
| Relative Chromaticity vs. Current and Temperature .....          | 8  |
| Typical Spatial Distribution.....                                | 9  |
| Performance Groups - Brightness ....                             | 9  |
| Performance Groups - Chromaticity.10                             |    |
| Cree EasyWhite Bins Plotted on the 1931 CIE Color Space .....    | 11 |
| Cree ANSI White Bins Plotted on the 1931 CIE Color Space .....   | 12 |
| Bin and Order Code Formats .....                                 | 13 |
| Mechanical Dimensions.....                                       | 13 |
| Notes.....                                                       | 14 |
| Packaging.....                                                   | 15 |

## CHARACTERISTICS

| Characteristics                                | Unit    | Minimum | Typical | Maximum |
|------------------------------------------------|---------|---------|---------|---------|
| Effective thermal resistance, junction to case | °C/W    |         | 2.5     |         |
| Viewing angle (FWHM)                           | degrees |         | 115     |         |
| ESD classification (HBM per Mil-Std-883D)      |         |         | Class 2 |         |
| DC forward current                             | mA      |         | 200     | 375     |
| Reverse current                                | mA      |         |         | 0.1     |
| Forward voltage (@ 200 mA, 85 °C)              | V       |         | 37      |         |
| Forward voltage (@ 200 mA, 25 °C)              | V       |         | 38.4    | 42      |
| LED junction temperature                       | °C      |         |         | 150     |
| Temperature coefficient of voltage             | mV/°C   |         | -21     |         |

## FLUX CHARACTERISTICS, STANDARD ORDER CODES AND BINS ( $I_f = 200 \text{ mA}$ , $T_j = 85 \text{ °C}$ )

The following tables provide order codes for XLamp CXA1507 LEDs. For a complete description of the order code nomenclature, please reference Bin and Order Code Formats (page 13).

| Color     | CCT Range | Base Order Codes<br>Min. Luminous Flux<br>@ 200 mA |                   |                    | 2-Step Order Code   |                          | 4-Step Order Code   |                          |
|-----------|-----------|----------------------------------------------------|-------------------|--------------------|---------------------|--------------------------|---------------------|--------------------------|
|           |           | Group                                              | Flux (lm) @ 85 °C | Flux (lm) @ 25 °C* | Chromaticity Region |                          | Chromaticity Region |                          |
| EasyWhite | 5000K     | G2                                                 | 780               | 871                | 50H                 | CXA1507-0000-000N00G250H | 50F                 | CXA1507-0000-000N00G250F |
|           |           | G4                                                 | 840               | 938                |                     | CXA1507-0000-000N00G450H |                     | CXA1507-0000-000N00G450F |
|           | 4000K     | F4                                                 | 730               | 815                | 40H                 | CXA1507-0000-000N00F440H | 40F                 | CXA1507-0000-000N00F440F |
|           |           | G2                                                 | 780               | 871                |                     | CXA1507-0000-000N00G240H |                     | CXA1507-0000-000N00G240F |
|           |           | G4                                                 | 840               | 938                |                     | CXA1507-0000-000N00G440H |                     | CXA1507-0000-000N00G440F |
|           | 3500K     | F2                                                 | 680               | 759                | 35H                 | CXA1507-0000-000N00F235H | 35F                 | CXA1507-0000-000N00F235F |
|           |           | F4                                                 | 730               | 815                |                     | CXA1507-0000-000N00F435H |                     | CXA1507-0000-000N00F435F |
|           |           | G2                                                 | 780               | 871                |                     | CXA1507-0000-000N00G235H |                     | CXA1507-0000-000N00G235F |
|           | 3000K     | F2                                                 | 680               | 759                | 30H                 | CXA1507-0000-000N00F230H | 30F                 | CXA1507-0000-000N00F230F |
|           |           | F4                                                 | 730               | 815                |                     | CXA1507-0000-000N00F430H |                     | CXA1507-0000-000N00F430F |
|           | 2700K     | E4                                                 | 635               | 709                | 27H                 | CXA1507-0000-000N00E427H | 27F                 | CXA1507-0000-000N00E427F |
|           |           | F2                                                 | 680               | 759                |                     | CXA1507-0000-000N00F227H |                     | CXA1507-0000-000N00F227F |
|           |           | F4                                                 | 730               | 815                |                     | CXA1507-0000-000N00F427H |                     | CXA1507-0000-000N00F427F |

### Notes:

- Cree maintains a tolerance of  $\pm 7\%$  on flux and power measurements,  $\pm 0.005$  on chromaticity (CCx, CCy) measurements and a tolerance of  $\pm 2$  on CRI measurements.
- Minimum CRI for standard color temperatures 0E8, 27F, 27H, 0E7, 30F, 30H, 0E6, 35F, 35H is 80.
- Minimum CRI for standard color temperatures 0E5, 40F, 40H, 0E3, 50F, 50H is 70.
- Typical CRI for standard color temperatures 0E5, 40F, 40H, 0E3, 50F, 50H is 75.
- \* Flux values @ 25 °C are calculated and for reference only.

| Color      | CCT Range | Base Order Codes<br>Min. Luminous Flux<br>@ 200 mA |                      |                       | Chromaticity Regions | Order Code               |
|------------|-----------|----------------------------------------------------|----------------------|-----------------------|----------------------|--------------------------|
|            |           | Group                                              | Flux (lm)<br>@ 85 °C | Flux (lm)<br>@ 25 °C* |                      |                          |
| ANSI White | 5000K     | G2                                                 | 780                  | 871                   | 3A0, 3B0, 3C0, 3D0   | CXA1507-0000-000N00G20E3 |
|            |           | G4                                                 | 840                  | 938                   |                      | CXA1507-0000-000N00G40E3 |
|            | 4000K     | F4                                                 | 730                  | 815                   | 5A0, 5B0, 5C0, 5D0   | CXA1507-0000-000N00F40E5 |
|            |           | G2                                                 | 780                  | 871                   |                      | CXA1507-0000-000N00G20E5 |
|            |           | G4                                                 | 840                  | 938                   |                      | CXA1507-0000-000N00G40E5 |
|            | 3500K     | F2                                                 | 680                  | 759                   | 6A0, 6B0, 6C0, 6D0   | CXA1507-0000-000N00F20E6 |
|            |           | F4                                                 | 730                  | 815                   |                      | CXA1507-0000-000N00F40E6 |
|            |           | G2                                                 | 780                  | 871                   |                      | CXA1507-0000-000N00G20E6 |
|            | 3000K     | F2                                                 | 680                  | 759                   | 7A0, 7B0, 7C0, 7D0   | CXA1507-0000-000N00F20E7 |
|            |           | F4                                                 | 730                  | 815                   |                      | CXA1507-0000-000N00F40E7 |
|            | 2700K     | E4                                                 | 635                  | 709                   | 8A0, 8B0, 8C0, 8D0   | CXA1507-0000-000N00E40E8 |
|            |           | F2                                                 | 680                  | 759                   |                      | CXA1507-0000-000N00F20E8 |
|            |           | F4                                                 | 730                  | 815                   |                      | CXA1507-0000-000N00F40E8 |

**Notes:**

- Cree maintains a tolerance of  $\pm 7\%$  on flux and power measurements,  $\pm 0.005$  on chromaticity (CCx, CCy) measurements and a tolerance of  $\pm 2$  on CRI measurements.
- Minimum CRI for standard color temperatures 0E8, 27F, 27H, 0E7, 30F, 30H, 0E6, 35F, 35H is 80.
- Minimum CRI for standard color temperatures 0E5, 40F, 40H, 0E3, 50F, 50H is 70.
- Typical CRI for standard color temperatures 0E5, 40F, 40H, 0E3, 50F, 50H is 75.
- \* Flux values @ 25 °C are calculated and for reference only.

## FLUX CHARACTERISTICS, STANDARD ORDER CODES AND BINS, 90 CRI ( $I_F = 200 \text{ mA}$ , $T_J = 85^\circ\text{C}$ )

The following tables provide order codes for XLamp CXA1507 90 CRI minimum LEDs. For a complete description of the order code nomenclature, please reference Bin and Order Code Formats (page 13).

| Color     | CCT Range | Base Order Codes<br>Min. Luminous Flux<br>@ 200 mA |                   |                    | 2-Step Order Code   |                          | 4-Step Order Code   |                          |  |  |
|-----------|-----------|----------------------------------------------------|-------------------|--------------------|---------------------|--------------------------|---------------------|--------------------------|--|--|
|           |           | Group                                              | Flux (lm) @ 85 °C | Flux (lm) @ 25 °C* | Chromaticity Region |                          | Chromaticity Region |                          |  |  |
| EasyWhite | 3000K     | D4                                                 | 550               | 614                | 30H                 | CXA1507-0000-000N0UD430H | 30F                 | CXA1507-0000-000N0UD430F |  |  |
|           |           | E2                                                 | 590               | 659                |                     | CXA1507-0000-000N0UE230H |                     | CXA1507-0000-000N0UE230F |  |  |
|           | 2700K     | C4                                                 | 475               | 530                | 27H                 | CXA1507-0000-000N0UC427H | 27F                 | CXA1507-0000-000N0UC427F |  |  |
|           |           | D2                                                 | 510               | 569                |                     | CXA1507-0000-000N0UD227H |                     | CXA1507-0000-000N0UD227F |  |  |
|           |           | D4                                                 | 550               | 614                |                     | CXA1507-0000-000N0UD427H |                     | CXA1507-0000-000N0UD427F |  |  |
|           |           |                                                    |                   |                    |                     |                          |                     |                          |  |  |

| Color      | CCT Range | Base Order Codes<br>Min Luminous Flux<br>@ 200 mA |                      |                       | Chromaticity Regions | Order Code               |  |
|------------|-----------|---------------------------------------------------|----------------------|-----------------------|----------------------|--------------------------|--|
|            |           | Group                                             | Flux (lm)<br>@ 85 °C | Flux (lm)<br>@ 25 °C* |                      |                          |  |
| ANSI White | 3000K     | D4                                                | 550                  | 614                   | 7A0, 7B0, 7C0, 7D0   | CXA1507-0000-000N0UD40E7 |  |
|            |           | E2                                                | 590                  | 659                   |                      | CXA1507-0000-000N0UE20E7 |  |
|            | 2700K     | C4                                                | 475                  | 530                   | 8A0, 8B0, 8C0, 8D0   | CXA1507-0000-000N0UC40E8 |  |
|            |           | D2                                                | 510                  | 569                   |                      | CXA1507-0000-000N0UD20E8 |  |
|            |           | D4                                                | 550                  | 614                   |                      | CXA1507-0000-000N0UD40E8 |  |
|            |           |                                                   |                      |                       |                      |                          |  |

### Notes:

- Cree maintains a tolerance of  $\pm 7\%$  on flux and power measurements,  $\pm 0.005$  on chromaticity (CCx, CCy) measurements and a tolerance of  $\pm 2$  on CRI measurements.
- Minimum CRI for high CRI color temperatures 0E8, 27F, 27H, 0E7, 30F, 30H is 90.
- \* Flux values @ 25 °C are calculated and for reference only.

## FLUX CHARACTERISTICS, STANDARD ORDER CODES AND BINS, 80 CRI ( $I_F = 200 \text{ mA}$ , $T_J = 85^\circ\text{C}$ )

The following tables provide order codes for XLamp CXA1507 80 CRI minimum LEDs. For a complete description of the order code nomenclature, please reference Bin and Order Code Formats (page 13).

| Color     | CCT Range | Base Order Codes<br>Min. Luminous Flux<br>@ 200 mA |                   |                    | 2-Step Order Code   |                          | 4-Step Order Code   |                          |
|-----------|-----------|----------------------------------------------------|-------------------|--------------------|---------------------|--------------------------|---------------------|--------------------------|
|           |           | Group                                              | Flux (lm) @ 85 °C | Flux (lm) @ 25 °C* | Chromaticity Region |                          | Chromaticity Region |                          |
| EasyWhite | 5000K     | E4                                                 | 635               | 709                | 50H                 | CXA1507-0000-000N0HE450H | 50F                 | CXA1507-0000-000N0HE450F |
|           |           | F2                                                 | 680               | 759                |                     | CXA1507-0000-000N0HF250H |                     | CXA1507-0000-000N0HF250F |
|           |           | F4                                                 | 730               | 815                |                     | CXA1507-0000-000N0HF450H |                     | CXA1507-0000-000N0HF450F |
|           | 4000K     | F2                                                 | 680               | 759                | 40H                 | CXA1507-0000-000N0HF240H | 40F                 | CXA1507-0000-000N0HF240F |
|           |           | F4                                                 | 730               | 815                |                     | CXA1507-0000-000N0HF440H |                     | CXA1507-0000-000N0HF440F |
|           |           |                                                    |                   |                    |                     |                          |                     |                          |

| Color      | CCT Range | Base Order Codes<br>Min Luminous Flux<br>@ 200 mA |                   |                    | Chromaticity Regions | Order Code               |
|------------|-----------|---------------------------------------------------|-------------------|--------------------|----------------------|--------------------------|
|            |           | Group                                             | Flux (lm) @ 85 °C | Flux (lm) @ 25 °C* |                      |                          |
| ANSI White | 5000K     | E4                                                | 635               | 709                | 3A0, 3B0, 3C0, 3D0   | CXA1507-0000-000N0HE40E3 |
|            |           | F2                                                | 680               | 759                |                      | CXA1507-0000-000N0HF20E3 |
|            |           | F4                                                | 730               | 815                |                      | CXA1507-0000-000N0HF40E3 |
|            | 4000K     | F2                                                | 680               | 759                | 5A0, 5B0, 5C0, 5D0   | CXA1507-0000-000N0HF20E5 |
|            |           | F4                                                | 730               | 815                |                      | CXA1507-0000-000N0HF40E5 |
|            |           |                                                   |                   |                    |                      |                          |

### Notes:

- Cree maintains a tolerance of  $\pm 7\%$  on flux and power measurements,  $\pm 0.005$  on chromaticity (CCx, CCy) measurements and a tolerance of  $\pm 2$  on CRI measurements.
- Minimum CRI for high CRI color temperatures 0E5, 40F, 40H, 0E3, 50F, 50H is 80.
- \* Flux values @ 25 °C are calculated and for reference only.

### RELATIVE SPECTRAL POWER DISTRIBUTION ( $I_F = 200 \text{ mA}$ , $T_J = 85^\circ\text{C}$ )



### RELATIVE LUMINOUS FLUX VS. JUNCTION TEMPERATURE ( $I_F = 200 \text{ mA}$ )



## ELECTRICAL CHARACTERISTICS ( $T_j = 85\text{ }^{\circ}\text{C}$ )



## RELATIVE LUMINOUS FLUX VS. CURRENT ( $T_j = 85\text{ }^{\circ}\text{C}$ )



# **RELATIVE CHROMATICITY VS. CURRENT AND TEMPERATURE (3000K, 80 CRI)**



## TYPICAL SPATIAL DISTRIBUTION



## PERFORMANCE GROUPS - BRIGHTNESS ( $I_f = 200\text{ mA}$ , $T_j = 85\text{ °C}$ )

XLamp CXA1507 LEDs are tested for luminous flux and placed into one of the following bins.

| Group Code | Min. Luminous Flux<br>@ 200 mA | Max. Luminous Flux<br>@ 200 mA |
|------------|--------------------------------|--------------------------------|
| C4         | 475                            | 510                            |
| D2         | 510                            | 550                            |
| D4         | 550                            | 590                            |
| E2         | 590                            | 635                            |
| E4         | 635                            | 680                            |
| F2         | 680                            | 730                            |
| F4         | 730                            | 780                            |
| G2         | 780                            | 840                            |
| G4         | 840                            | 900                            |

## PERFORMANCE GROUPS - CHROMATICITY ( $T_j = 85^\circ\text{C}$ )

XLamp CXA1507 LEDs are tested for chromaticity and placed into one of the regions defined by the following bounding coordinates.

| EasyWhite Color Temperatures – 4-Step |       |        |        |
|---------------------------------------|-------|--------|--------|
| Code                                  | CCT   | x      | y      |
| 50F                                   | 5000K | 0.3407 | 0.3459 |
|                                       |       | 0.3415 | 0.3586 |
|                                       |       | 0.3499 | 0.3654 |
|                                       |       | 0.3484 | 0.3521 |
| 40F                                   | 4000K | 0.3744 | 0.3685 |
|                                       |       | 0.3782 | 0.3837 |
|                                       |       | 0.3912 | 0.3917 |
|                                       |       | 0.3863 | 0.3758 |
| 35F                                   | 3500K | 0.3981 | 0.3800 |
|                                       |       | 0.4040 | 0.3966 |
|                                       |       | 0.4186 | 0.4037 |
|                                       |       | 0.4116 | 0.3865 |
| 30F                                   | 3000K | 0.4242 | 0.3919 |
|                                       |       | 0.4322 | 0.4096 |
|                                       |       | 0.4449 | 0.4141 |
|                                       |       | 0.4359 | 0.3960 |
| 27F                                   | 2700K | 0.4475 | 0.3994 |
|                                       |       | 0.4573 | 0.4178 |
|                                       |       | 0.4695 | 0.4207 |
|                                       |       | 0.4589 | 0.4021 |

| EasyWhite Color Temperatures – 2-Step |       |        |        |
|---------------------------------------|-------|--------|--------|
| Code                                  | CCT   | x      | y      |
| 50H                                   | 5000K | 0.3429 | 0.3507 |
|                                       |       | 0.3434 | 0.3571 |
|                                       |       | 0.3475 | 0.3604 |
|                                       |       | 0.3469 | 0.3539 |
| 40H                                   | 4000K | 0.3784 | 0.3741 |
|                                       |       | 0.3804 | 0.3818 |
|                                       |       | 0.3867 | 0.3857 |
|                                       |       | 0.3844 | 0.3778 |
| 35H                                   | 3500K | 0.4030 | 0.3857 |
|                                       |       | 0.4061 | 0.3941 |
|                                       |       | 0.4132 | 0.3976 |
|                                       |       | 0.4099 | 0.3890 |
| 30H                                   | 3000K | 0.4291 | 0.3973 |
|                                       |       | 0.4333 | 0.4062 |
|                                       |       | 0.4395 | 0.4084 |
|                                       |       | 0.4351 | 0.3994 |
| 27H                                   | 2700K | 0.4528 | 0.4046 |
|                                       |       | 0.4578 | 0.4138 |
|                                       |       | 0.4638 | 0.4152 |
|                                       |       | 0.4586 | 0.4060 |

| ANSI White Bins |       |          |       |       |
|-----------------|-------|----------|-------|-------|
| Code            | CCT   | Bin Code | x     | y     |
| 0E3             | 5000K | 3A0      | .3371 | .3490 |
|                 |       |          | .3451 | .3554 |
|                 |       |          | .3440 | .3427 |
|                 |       |          | .3366 | .3369 |
|                 |       | 3B0      | .3376 | .3616 |
|                 |       |          | .3463 | .3687 |
|                 |       |          | .3451 | .3554 |
|                 |       |          | .3371 | .3490 |
|                 |       | 3C0      | .3463 | .3687 |
|                 |       |          | .3551 | .3760 |
|                 |       |          | .3533 | .3620 |
|                 |       |          | .3451 | .3554 |
|                 |       | 3D0      | .3451 | .3554 |
|                 |       |          | .3533 | .3620 |
|                 |       |          | .3515 | .3487 |
|                 |       |          | .3440 | .3427 |

| ANSI White Bins |       |          |       |       |
|-----------------|-------|----------|-------|-------|
| Code            | CCT   | Bin Code | x     | y     |
| 0E5             | 4000K | 5A0      | .3670 | .3578 |
|                 |       |          | .3702 | .3722 |
|                 |       |          | .3825 | .3798 |
|                 |       |          | .3783 | .3646 |
|                 |       | 5B0      | .3702 | .3722 |
|                 |       |          | .3736 | .3874 |
|                 |       |          | .3869 | .3958 |
|                 |       |          | .3825 | .3798 |
|                 |       | 5C0      | .3825 | .3798 |
|                 |       |          | .3869 | .3958 |
|                 |       |          | .4006 | .4044 |
|                 |       |          | .3950 | .3875 |
|                 |       | 5D0      | .3783 | .3646 |
|                 |       |          | .3825 | .3798 |
|                 |       |          | .3950 | .3875 |
|                 |       |          | .3898 | .3716 |

| ANSI White Bins |       |          |       |       |
|-----------------|-------|----------|-------|-------|
| Code            | CCT   | Bin Code | x     | y     |
| 0E6             | 3500K | 6A0      | .3889 | .3690 |
|                 |       |          | .3941 | .3848 |
|                 |       |          | .4080 | .3916 |
|                 |       |          | .4017 | .3751 |
|                 |       | 6B0      | .3941 | .3848 |
|                 |       |          | .3996 | .4015 |
|                 |       |          | .4146 | .4089 |
|                 |       |          | .4080 | .3916 |
|                 |       | 6C0      | .4080 | .3916 |
|                 |       |          | .4146 | .4089 |
|                 |       |          | .4299 | .4165 |
|                 |       |          | .4221 | .3984 |
|                 |       | 6D0      | .4017 | .3751 |
|                 |       |          | .4080 | .3916 |
|                 |       |          | .4221 | .3984 |
|                 |       |          | .4147 | .3814 |

| ANSI White Bins |       |          |       |       | ANSI White Bins |       |          |       |       |
|-----------------|-------|----------|-------|-------|-----------------|-------|----------|-------|-------|
| Code            | CCT   | Bin Code | x     | y     | Code            | CCT   | Bin Code | x     | y     |
| 0E7             | 3000K | 7A0      | .4147 | .3814 | 0E8             | 2700K | 8A0      | .4373 | .3893 |
|                 |       |          | .4221 | .3984 |                 |       |          | .4465 | .4071 |
|                 |       |          | .4342 | .4028 |                 |       |          | .4582 | .4099 |
|                 |       |          | .4259 | .3853 |                 |       |          | .4483 | .3919 |
|                 |       | 7B0      | .4221 | .3984 |                 |       | 8B0      | .4465 | .4071 |
|                 |       |          | .4299 | .4165 |                 |       |          | .4562 | .4260 |
|                 |       |          | .4430 | .4212 |                 |       |          | .4687 | .4289 |
|                 |       |          | .4342 | .4028 |                 |       |          | .4582 | .4099 |
|                 |       | 7C0      | .4342 | .4028 |                 |       | 8C0      | .4582 | .4099 |
|                 |       |          | .4430 | .4212 |                 |       |          | .4687 | .4289 |
|                 |       |          | .4562 | .4260 |                 |       |          | .4813 | .4319 |
|                 |       |          | .4465 | .4071 |                 |       |          | .4700 | .4126 |
|                 |       | 7D0      | .4259 | .3853 |                 |       | 8D0      | .4483 | .3919 |
|                 |       |          | .4342 | .4028 |                 |       |          | .4582 | .4099 |
|                 |       |          | .4465 | .4071 |                 |       |          | .4700 | .4126 |
|                 |       |          | .4373 | .3893 |                 |       |          | .4593 | .3944 |

## CREE EASYWHITE BINS PLOTTED ON THE 1931 CIE COLOR SPACE ( $T_j = 85^\circ\text{C}$ )



**CREE ANSI WHITE BINS PLOTTED ON THE 1931 CIE COLOR SPACE ( $T_j = 85^\circ\text{C}$ )**



## BIN AND ORDER CODE FORMATS

Bin codes and order codes are configured as follows:



## MECHANICAL DIMENSIONS

Dimensions are in mm.

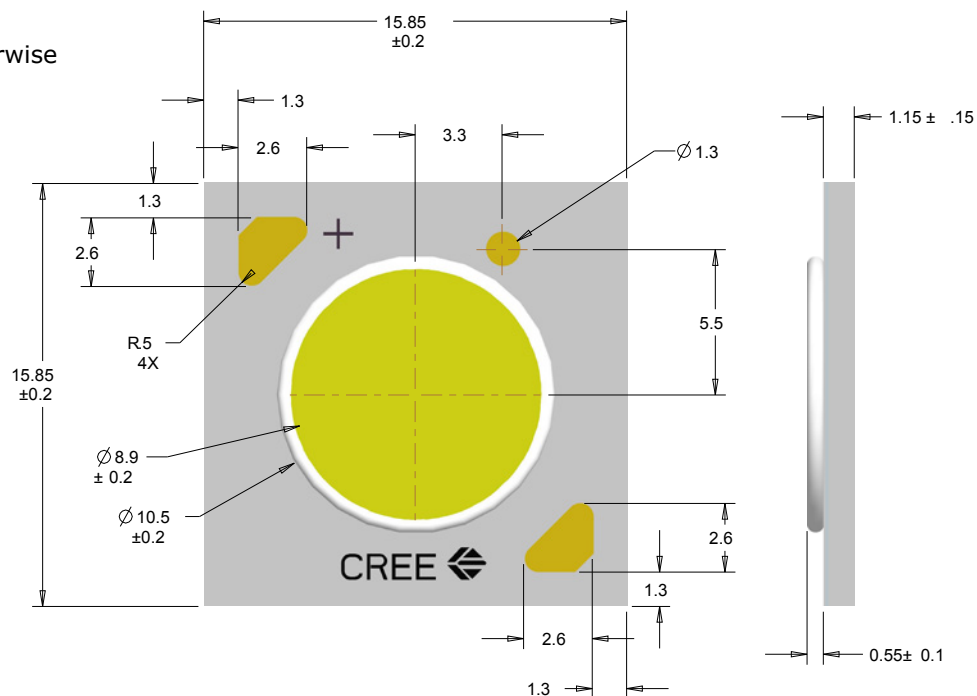
Tolerances unless otherwise specified:

.x ± .10

.xx ± .03

.xxx ± .010

x° ± 1°



## NOTES

---

### **Lumen Maintenance Projections**

Cree now uses standardized IES LM-80-08 and TM-21-11 methods for collecting long-term data and extrapolating LED lumen maintenance. For information on the specific LM-80 data sets available for this LED, refer to the public LM-80 results document at [www.cree.com/xlamp\\_app\\_notes/LM80\\_results](http://www.cree.com/xlamp_app_notes/LM80_results).

Please read the XLamp Long-Term Lumen Maintenance application note at [www.cree.com/xlamp\\_app\\_notes/lumen\\_maintenance](http://www.cree.com/xlamp_app_notes/lumen_maintenance) for more details on Cree's lumen maintenance testing and forecasting. Please read the XLamp Thermal Management application note at [www.cree.com/xlamp\\_app\\_notes/thermal\\_management](http://www.cree.com/xlamp_app_notes/thermal_management) for details on how thermal design, ambient temperature, and drive current affect the LED junction temperature.

### **UL Recognized Component**

Level 4 enclosure consideration. The LED package or a portion thereof has been investigated as a fire and electrical enclosure per ANSI/UL 8750.

### **Vision Advisory Claim**

Users should be cautioned not to stare at the light of this LED product. The bright light can damage the eye.

### PACKAGING

Cree CXA1507 LEDs are packaged in tubes of 20, which are then combined in boxes of 5 tubes, or 100 LEDs. Boxes of 100 LEDs are of the same performance bin.

Dimensions are in mm.

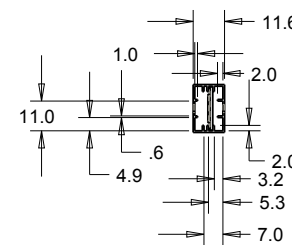
Tolerances unless otherwise specified:

.x  $\pm .10$

.xx  $\pm .03$

.xxx  $\pm .010$

x°  $\pm 1^\circ$



BAG

PATENT LABEL  
IS LOCATED ON UNDERSIDE  
OF COVER

LABEL WITH CREE BIN  
CODE, QTY, LOT #

LABEL WITH CREE BIN CODE,  
QTY, LOT #



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331