



Bridgelux® Gen 8 Vero® SE 29 Array

Product Data Sheet DS433



Introduction

Vero SE



The Vero[®] SE Series is a revolutionary light source system that integrates Bridgelux's eighth generation COB technology with poke-in connectivity, enabling solder-free installation. Vero SE LED light sources streamline assembly processes, lower manufacturing costs, simplify the luminaire design process, improve light quality, and increase design flexibility.

Vero SE is available in four different light emitting surface (LES) configurations that operate reliably over a broad current range. With Vero SE, secondary connector and holder components are not required, allowing for rapid integration of arrays into fixtures, and an efficient field replaceable solution. Vero SE arrays deliver increased lumen density for improved beam control and precision lighting, with 2 and 3 SDCM color control standards for clean and consistent uniform lighting.

Features

- Poke-in electrical connectivity
- Top side part number markings
- Efficacy of 185 lm/W typical, 3000K 80 CRI
- Reliable operation at up to 3x nominal current, 30% increase in maximum lumens per LES size
- Wide selection of CCT options (2700K-6500K) with minimum 70, 80 and 90 CRI options
- Uniform high-quality illumination
- 2 and 3 SDCM binning options (2700K – 4000K)
- Forward voltage bin codes (backside marking)
- 10-Year warranty

Benefits

- Low cost, solderless, connector free installation and field upgradability
- Improved inventory management and quality control
- Enables high efficiency lighting systems and lower operating costs
- Supports the trend toward luminaire miniaturization and delivers enhanced optical control
- Design flexibility for a broad range of lighting applications
- Clean white light without pixelation
- Uniform consistent white light
- Design flexibility for multi-source applications
- Design with confidence

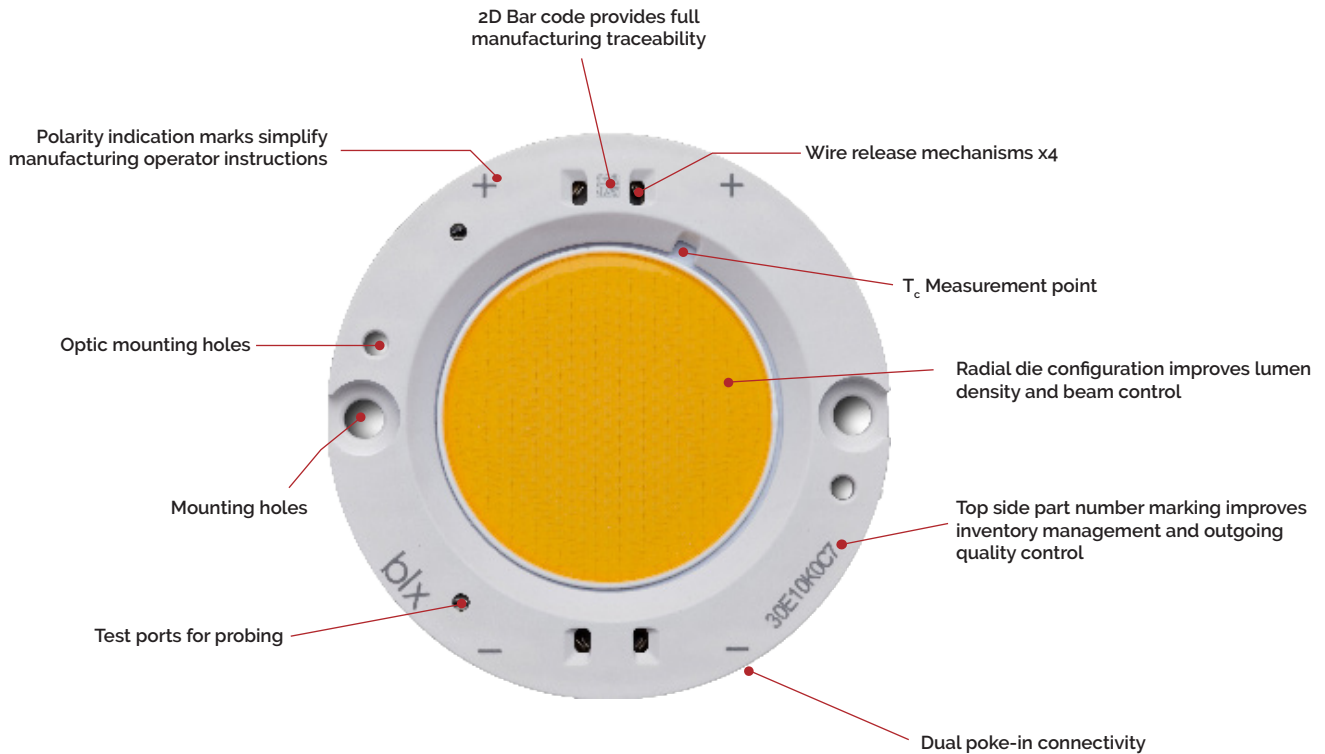
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Product Feature Map

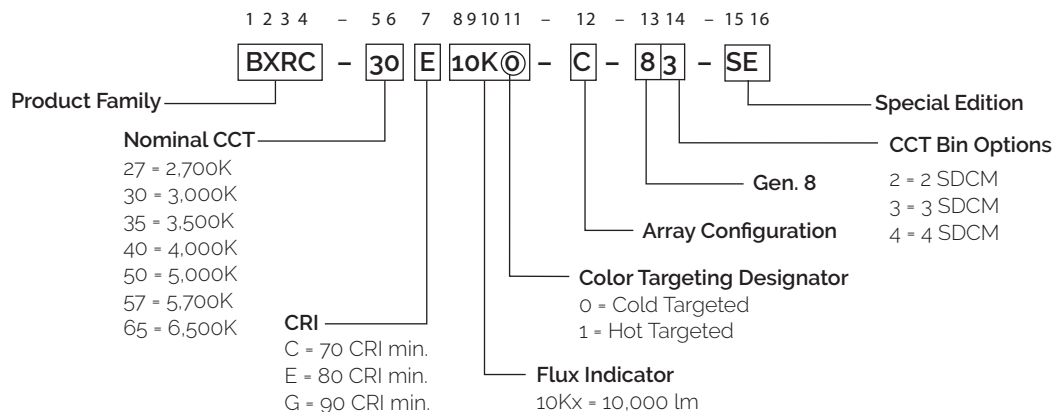
Vero SE 29 is the largest form factor in the product family of next generation solid state light sources. In addition to delivering the performance and light quality required for many lighting applications, Vero SE incorporates several

features to simplify the design integration and manufacturing process, accelerate time to market and reduce system costs. Please visit www.bridgelux.com for more information on the Vero SE Series family of products.



Product Nomenclature

The part number designation for Bridgelux Vero SE LED arrays is explained as follows:



Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide, Pulsed Measurement Data ($T_j = T_c = 25^\circ\text{C}$)

| Part Number | Nominal CCT ¹ (K) | CRI ² | Nominal Drive Current ³ (mA) | Typical Pulsed Flux ^{4,5,6} $T_c = 25^\circ\text{C}$ (lm) | Minimum Pulsed Flux ^{6,7} $T_c = 25^\circ\text{C}$ (lm) | Typical V_f (V) | Typical Power (W) | Typical Efficacy (lm/W) |
|----------------------|------------------------------|------------------|---|--|--|-------------------|-------------------|-------------------------|
| BXRC-27E10K0-B-8x-SE | 2700 | 80 | 1400 | 12216 | 10994 | 50.2 | 70.3 | 174 |
| BXRC-27E10K0-C-8x-SE | 2700 | 80 | 1300 | 15062 | 13555 | 66.7 | 86.7 | 174 |
| BXRC-27E10K0-D-8x-SE | 2700 | 80 | 1700 | 10744 | 9670 | 36.4 | 61.9 | 174 |
| BXRC-27G10K0-B-8x-SE | 2700 | 90 | 1400 | 10078 | 9070 | 50.2 | 70.3 | 143 |
| BXRC-27G10K0-C-8x-SE | 2700 | 90 | 1300 | 12426 | 11183 | 66.7 | 86.7 | 143 |
| BXRC-27G10K0-D-8x-SE | 2700 | 90 | 1700 | 8864 | 7977 | 36.4 | 61.9 | 143 |
| BXRC-27G1KH0-B-8x-SE | 2700 | 90 | 1400 | 10513 | 9462 | 50.2 | 70.3 | 150 |
| BXRC-27G1KH0-C-8x-SE | 2700 | 90 | 1300 | 12962 | 11666 | 66.7 | 86.7 | 149 |
| BXRC-27G1KH0-D-8x-SE | 2700 | 90 | 1700 | 9246 | 8322 | 36.4 | 61.9 | 149 |
| BXRC-30C10K1-B-8x-SE | 3000 | 70 | 1400 | 13590 | 12231 | 50.2 | 70.3 | 193 |
| BXRC-30C10K1-C-8x-SE | 3000 | 70 | 1300 | 16756 | 15080 | 66.7 | 86.7 | 193 |
| BXRC-30C10K1-D-8x-SE | 3000 | 70 | 1700 | 11953 | 10757 | 36.4 | 61.9 | 193 |
| BXRC-30E10K0-B-8x-SE | 3000 | 80 | 1400 | 12979 | 11682 | 50.2 | 70.3 | 185 |
| BXRC-30E10K0-C-8x-SE | 3000 | 80 | 1300 | 16003 | 14403 | 66.7 | 86.7 | 185 |
| BXRC-30E10K0-D-8x-SE | 3000 | 80 | 1700 | 11415 | 10274 | 36.4 | 61.9 | 184 |
| BXRC-30G10K0-B-8x-SE | 3000 | 90 | 1400 | 10536 | 9483 | 50.2 | 70.3 | 150 |
| BXRC-30G10K0-C-8x-SE | 3000 | 90 | 1300 | 12991 | 11692 | 66.7 | 86.7 | 150 |
| BXRC-30G10K0-D-8x-SE | 3000 | 90 | 1700 | 9267 | 8340 | 36.4 | 61.9 | 150 |
| BXRC-30G1KH0-B-8x-SE | 3000 | 90 | 1400 | 11033 | 9929 | 50.2 | 70.3 | 157 |
| BXRC-30G1KH0-C-8x-SE | 3000 | 90 | 1300 | 13602 | 12242 | 66.7 | 86.7 | 157 |
| BXRC-30G1KH0-D-8x-SE | 3000 | 90 | 1700 | 9703 | 8733 | 36.4 | 61.9 | 157 |
| BXRC-35E10K0-B-8x-SE | 3500 | 80 | 1400 | 13285 | 11956 | 50.2 | 70.3 | 189 |
| BXRC-35E10K0-C-8x-SE | 3500 | 80 | 1300 | 16379 | 14741 | 66.7 | 86.7 | 189 |
| BXRC-35E10K0-D-8x-SE | 3500 | 80 | 1700 | 11684 | 10516 | 36.4 | 61.9 | 189 |
| BXRC-35G10K0-B-8x-SE | 3500 | 90 | 1400 | 10918 | 9826 | 50.2 | 70.3 | 155 |
| BXRC-35G10K0-C-8x-SE | 3500 | 90 | 1300 | 13461 | 12115 | 66.7 | 86.7 | 155 |
| BXRC-35G10K0-D-8x-SE | 3500 | 90 | 1700 | 9602 | 8642 | 36.4 | 61.9 | 155 |
| BXRC-40C10K1-B-8x-SE | 4000 | 70 | 1400 | 13972 | 12575 | 50.2 | 70.3 | 199 |
| BXRC-40C10K1-C-8x-SE | 4000 | 70 | 1300 | 17227 | 15504 | 66.7 | 86.7 | 199 |
| BXRC-40C10K1-D-8x-SE | 4000 | 70 | 1700 | 12288 | 11059 | 36.4 | 61.9 | 199 |
| BXRC-40E10K0-B-8x-SE | 4000 | 80 | 1400 | 13361 | 12025 | 50.2 | 70.3 | 190 |
| BXRC-40E10K0-C-8x-SE | 4000 | 80 | 1300 | 16474 | 14826 | 66.7 | 86.7 | 190 |
| BXRC-40E10K0-D-8x-SE | 4000 | 80 | 1700 | 11751 | 10576 | 36.4 | 61.9 | 190 |
| BXRC-40G10K0-B-8x-SE | 4000 | 90 | 1400 | 11147 | 10032 | 50.2 | 70.3 | 159 |
| BXRC-40G10K0-C-8x-SE | 4000 | 90 | 1300 | 13744 | 12369 | 66.7 | 86.7 | 159 |
| BXRC-40G10K0-D-8x-SE | 4000 | 90 | 1700 | 9804 | 8823 | 36.4 | 61.9 | 158 |

Notes for Table 1:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- CRI values are minimums for all products. Minimum Rg value for 80 CRI products is 0, the minimum Rg values for 90 CRI products is 50. Bridgelux maintains a ± 3 tolerance on CRI and Rg values.
- Drive current is referred to as nominal drive current.
- Products tested under pulsed condition (10ms pulse width) at nominal test current where T_j (junction temperature) = T_c (case temperature) = 25°C .
- Typical performance values are provided as a reference only and are not a guarantee of performance.
- Bridgelux maintains a $\pm 7\%$ tolerance on flux measurements.
- Minimum flux values at the nominal test current are guaranteed by 100% test.

Product Selection Guide

Table 1: Selection Guide, Pulsed Measurement Data ($T_j = T_c = 25^\circ\text{C}$) (continued)

| Part Number | Nominal CCT ¹ (K) | CRI ² | Nominal Drive Current ³ (mA) | Typical Pulsed Flux ^{4,5,6} $T_c = 25^\circ\text{C}$ (lm) | Minimum Pulsed Flux ^{6,7} $T_c = 25^\circ\text{C}$ (lm) | Typical V_f (V) | Typical Power (W) | Typical Efficacy (lm/W) |
|----------------------|------------------------------|------------------|---|--|--|-------------------|-------------------|-------------------------|
| BXRC-50C10K1-B-8x-SE | 5000 | 70 | 1400 | 14048 | 12644 | 50.2 | 70.3 | 200 |
| BXRC-50C10K1-C-8x-SE | 5000 | 70 | 1300 | 17321 | 15589 | 66.7 | 86.7 | 200 |
| BXRC-50C10K1-D-8x-SE | 5000 | 70 | 1700 | 12355 | 11120 | 36.4 | 61.9 | 200 |
| BXRC-50E10K1-B-8x-SE | 5000 | 80 | 1400 | 13514 | 12163 | 50.2 | 70.3 | 192 |
| BXRC-50E10K1-C-8x-SE | 5000 | 80 | 1300 | 16662 | 14996 | 66.7 | 86.7 | 192 |
| BXRC-50E10K1-D-8x-SE | 5000 | 80 | 1700 | 11885 | 10697 | 36.4 | 61.9 | 192 |
| BXRC-50G10K1-B-8x-SE | 5000 | 90 | 1400 | 11682 | 10513 | 50.2 | 70.3 | 166 |
| BXRC-50G10K1-C-8x-SE | 5000 | 90 | 1300 | 14403 | 12962 | 66.7 | 86.7 | 166 |
| BXRC-50G10K1-D-8x-SE | 5000 | 90 | 1700 | 10274 | 9246 | 36.4 | 61.9 | 166 |
| BXRC-57C10K1-B-8x-SE | 5700 | 70 | 1400 | 13667 | 12300 | 50.2 | 70.3 | 194 |
| BXRC-57C10K1-C-8x-SE | 5700 | 70 | 1300 | 16850 | 15165 | 66.7 | 86.7 | 194 |
| BXRC-57C10K1-D-8x-SE | 5700 | 70 | 1700 | 12020 | 10818 | 36.4 | 61.9 | 194 |
| BXRC-57E10K1-B-8x-SE | 5700 | 80 | 1400 | 12979 | 11682 | 50.2 | 70.3 | 185 |
| BXRC-57E10K1-C-8x-SE | 5700 | 80 | 1300 | 16003 | 14403 | 66.7 | 86.7 | 185 |
| BXRC-57E10K1-D-8x-SE | 5700 | 80 | 1700 | 11415 | 10274 | 36.4 | 61.9 | 184 |
| BXRC-65C10K1-B-8x-SE | 6500 | 70 | 1400 | 13667 | 12300 | 50.2 | 70.3 | 194 |
| BXRC-65C10K1-C-8x-SE | 6500 | 70 | 1300 | 16850 | 15165 | 66.7 | 86.7 | 194 |
| BXRC-65C10K1-D-8x-SE | 6500 | 70 | 1700 | 12020 | 10818 | 36.4 | 61.9 | 194 |
| BXRC-65E10K1-B-8x-SE | 6500 | 80 | 1400 | 13132 | 11819 | 50.2 | 70.3 | 187 |
| BXRC-65E10K1-C-8x-SE | 6500 | 80 | 1300 | 16191 | 14572 | 66.7 | 86.7 | 187 |
| BXRC-65E10K1-D-8x-SE | 6500 | 80 | 1700 | 11550 | 10395 | 36.4 | 61.9 | 187 |

Notes for Table 1:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- CRI values are minimums for all products. Minimum Rg value for 80 CRI products is 0, the minimum Rg values for 90 CRI products is 50. Bridgelux maintains a ± 3 tolerance on CRI and Rg values.
- Drive current is referred to as nominal drive current.
- Products tested under pulsed condition (10ms pulse width) at nominal test current where T_j (junction temperature) - T_c (case temperature) = 25°C .
- Typical performance values are provided as a reference only and are not a guarantee of performance.
- Bridgelux maintains a $\pm 7\%$ tolerance on flux measurements.
- Minimum flux values at the nominal test current are guaranteed by 100% test.

Product Selection Guide

Table 2: Selection Guide, Stabilized DC Performance ($T_c = 85^\circ\text{C}$)^{4,5}

| Part Number | Nominal CCT ¹ (K) | CRI ² | Nominal Drive Current ³ (mA) | Typical DC Flux ^{4,5} $T_c = 85^\circ\text{C}$ (lm) | Minimum DC Flux ⁶ $T_c = 85^\circ\text{C}$ (lm) | Typical V_f (V) | Typical Power (W) | Typical Efficacy (lm/W) |
|----------------------|---------------------------------|------------------|---|---|---|----------------------|-------------------------|-------------------------------|
| BXRC-27E10K0-B-8x-SE | 2700 | 80 | 1400 | 10994 | 9895 | 49.2 | 68.9 | 160 |
| BXRC-27E10K0-C-8x-SE | 2700 | 80 | 1300 | 13555 | 12200 | 65.4 | 85.0 | 159 |
| BXRC-27E10K0-D-8x-SE | 2700 | 80 | 1700 | 9670 | 8703 | 35.7 | 60.7 | 159 |
| BXRC-27G10K0-B-8x-SE | 2700 | 90 | 1400 | 9070 | 8163 | 49.2 | 68.9 | 132 |
| BXRC-27G10K0-C-8x-SE | 2700 | 90 | 1300 | 11183 | 10065 | 65.4 | 85.0 | 132 |
| BXRC-27G10K0-D-8x-SE | 2700 | 90 | 1700 | 7977 | 7180 | 35.7 | 60.7 | 132 |
| BXRC-27G1KH0-B-8x-SE | 2700 | 90 | 1400 | 9462 | 8516 | 49.2 | 68.9 | 137 |
| BXRC-27G1KH0-C-8x-SE | 2700 | 90 | 1300 | 11666 | 10499 | 65.4 | 85.0 | 137 |
| BXRC-27G1KH0-D-8x-SE | 2700 | 90 | 1700 | 8322 | 7490 | 35.7 | 60.7 | 137 |
| BXRC-30C10K1-B-8x-SE | 3000 | 70 | 1400 | 12231 | 11008 | 49.2 | 68.9 | 178 |
| BXRC-30C10K1-C-8x-SE | 3000 | 70 | 1300 | 15080 | 13572 | 65.4 | 85.0 | 177 |
| BXRC-30C10K1-D-8x-SE | 3000 | 70 | 1700 | 10757 | 9682 | 35.7 | 60.7 | 177 |
| BXRC-30E10K0-B-8x-SE | 3000 | 80 | 1400 | 11682 | 10513 | 49.2 | 68.9 | 170 |
| BXRC-30E10K0-C-8x-SE | 3000 | 80 | 1300 | 14403 | 12962 | 65.4 | 85.0 | 169 |
| BXRC-30E10K0-D-8x-SE | 3000 | 80 | 1700 | 10274 | 9246 | 35.7 | 60.7 | 169 |
| BXRC-30G10K0-B-8x-SE | 3000 | 90 | 1400 | 9483 | 8534 | 49.2 | 68.9 | 138 |
| BXRC-30G10K0-C-8x-SE | 3000 | 90 | 1300 | 11692 | 10522 | 65.4 | 85.0 | 138 |
| BXRC-30G10K0-D-8x-SE | 3000 | 90 | 1700 | 8340 | 7506 | 35.7 | 60.7 | 137 |
| BXRC-30G1KH0-B-8x-SE | 3000 | 90 | 1400 | 9929 | 8936 | 49.2 | 68.9 | 144 |
| BXRC-30G1KH0-C-8x-SE | 3000 | 90 | 1300 | 12242 | 11018 | 65.4 | 85.0 | 144 |
| BXRC-30G1KH0-D-8x-SE | 3000 | 90 | 1700 | 8733 | 7859 | 35.7 | 60.7 | 144 |
| BXRC-35E10K0-B-8x-SE | 3500 | 80 | 1400 | 11956 | 10761 | 49.2 | 68.9 | 174 |
| BXRC-35E10K0-C-8x-SE | 3500 | 80 | 1300 | 14741 | 13267 | 65.4 | 85.0 | 173 |
| BXRC-35E10K0-D-8x-SE | 3500 | 80 | 1700 | 10516 | 9464 | 35.7 | 60.7 | 173 |
| BXRC-35G10K0-B-8x-SE | 3500 | 90 | 1400 | 9826 | 8844 | 49.2 | 68.9 | 143 |
| BXRC-35G10K0-C-8x-SE | 3500 | 90 | 1300 | 12115 | 10904 | 65.4 | 85.0 | 143 |
| BXRC-35G10K0-D-8x-SE | 3500 | 90 | 1700 | 8642 | 7778 | 35.7 | 60.7 | 142 |
| BXRC-40C10K1-B-8x-SE | 4000 | 70 | 1400 | 12575 | 11317 | 49.2 | 68.9 | 183 |
| BXRC-40C10K1-C-8x-SE | 4000 | 70 | 1300 | 15504 | 13954 | 65.4 | 85.0 | 182 |
| BXRC-40C10K1-D-8x-SE | 4000 | 70 | 1700 | 11059 | 9954 | 35.7 | 60.7 | 182 |
| BXRC-40E10K0-B-8x-SE | 4000 | 80 | 1400 | 12025 | 10823 | 49.2 | 68.9 | 175 |
| BXRC-40E10K0-C-8x-SE | 4000 | 80 | 1300 | 14826 | 13344 | 65.4 | 85.0 | 174 |
| BXRC-40E10K0-D-8x-SE | 4000 | 80 | 1700 | 10576 | 9518 | 35.7 | 60.7 | 174 |
| BXRC-40G10K0-B-8x-SE | 4000 | 90 | 1400 | 10032 | 9029 | 49.2 | 68.9 | 146 |
| BXRC-40G10K0-C-8x-SE | 4000 | 90 | 1300 | 12369 | 11132 | 65.4 | 85.0 | 146 |
| BXRC-40G10K0-D-8x-SE | 4000 | 90 | 1700 | 8823 | 7941 | 35.7 | 60.7 | 145 |

Notes for Table 2:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- All CRI values are measured at $T_j = T_c = 25^\circ\text{C}$. CRI values are minimums for all products. Minimum R_g value for 80 CRI products is 0, the minimum R_g values for 90 CRI products is 50. Bridgelux maintains a ± 3 tolerance on CRI and R_g values.
- Drive current is referred to as nominal drive current.
- Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
- Typical performance is estimated based on operation under DC (direct current) with LED array mounted onto a heat sink with thermal interface material and the case temperature maintained at 85°C . Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- Minimum flux values at elevated temperatures are provided for reference only and are not guaranteed by 100% production testing. Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.

Product Selection Guide

Table 2: Selection Guide, Stabilized DC Performance ($T_c = 85^\circ\text{C}$)^{4,5} (continued)

| Part Number | Nominal CCT ¹ (K) | CRI ² | Nominal Drive Current ³ (mA) | Typical DC Flux ^{4,5} $T_c = 85^\circ\text{C}$ (lm) | Minimum DC Flux ⁶ $T_c = 85^\circ\text{C}$ (lm) | Typical V_f (V) | Typical Power (W) | Typical Efficacy (lm/W) |
|----------------------|------------------------------|------------------|---|--|--|-------------------|-------------------|-------------------------|
| BXRC-50C10K1-B-8x-SE | 5000 | 70 | 1400 | 12644 | 11379 | 49.2 | 68.9 | 184 |
| BXRC-50C10K1-C-8x-SE | 5000 | 70 | 1300 | 15589 | 14030 | 65.4 | 85.0 | 183 |
| BXRC-50C10K1-D-8x-SE | 5000 | 70 | 1700 | 11120 | 10008 | 35.7 | 60.7 | 183 |
| BXRC-50E10K1-B-8x-SE | 5000 | 80 | 1400 | 12163 | 10946 | 49.2 | 68.9 | 177 |
| BXRC-50E10K1-C-8x-SE | 5000 | 80 | 1300 | 14996 | 13496 | 65.4 | 85.0 | 176 |
| BXRC-50E10K1-D-8x-SE | 5000 | 80 | 1700 | 10697 | 9627 | 35.7 | 60.7 | 176 |
| BXRC-50G10K1-B-8x-SE | 5000 | 90 | 1400 | 10513 | 9462 | 49.2 | 68.9 | 153 |
| BXRC-50G10K1-C-8x-SE | 5000 | 90 | 1300 | 12962 | 11666 | 65.4 | 85.0 | 153 |
| BXRC-50G10K1-D-8x-SE | 5000 | 90 | 1700 | 9246 | 8322 | 35.7 | 60.7 | 152 |
| BXRC-57C10K1-B-8x-SE | 5700 | 70 | 1400 | 12300 | 11070 | 49.2 | 68.9 | 179 |
| BXRC-57C10K1-C-8x-SE | 5700 | 70 | 1300 | 15165 | 13649 | 65.4 | 85.0 | 178 |
| BXRC-57C10K1-D-8x-SE | 5700 | 70 | 1700 | 10818 | 9736 | 35.7 | 60.7 | 178 |
| BXRC-57E10K1-B-8x-SE | 5700 | 80 | 1400 | 11682 | 10513 | 49.2 | 68.9 | 170 |
| BXRC-57E10K1-C-8x-SE | 5700 | 80 | 1300 | 14403 | 12962 | 65.4 | 85.0 | 169 |
| BXRC-57E10K1-D-8x-SE | 5700 | 80 | 1700 | 10274 | 9246 | 35.7 | 60.7 | 169 |
| BXRC-65C10K1-B-8x-SE | 6500 | 70 | 1400 | 12300 | 11070 | 49.2 | 68.9 | 179 |
| BXRC-65C10K1-C-8x-SE | 6500 | 70 | 1300 | 15165 | 13649 | 65.4 | 85.0 | 178 |
| BXRC-65C10K1-D-8x-SE | 6500 | 70 | 1700 | 10818 | 9736 | 35.7 | 60.7 | 178 |
| BXRC-65E10K1-B-8x-SE | 6500 | 80 | 1400 | 11819 | 10637 | 49.2 | 68.9 | 172 |
| BXRC-65E10K1-C-8x-SE | 6500 | 80 | 1300 | 14572 | 13115 | 65.4 | 85.0 | 171 |
| BXRC-65E10K1-D-8x-SE | 6500 | 80 | 1700 | 10395 | 9355 | 35.7 | 60.7 | 171 |

Notes for Table 2:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- All CRI values are measured at $T_c = T_a = 25^\circ\text{C}$. CRI values are minimums for all products. Minimum Rg value for 80 CRI products is 0, the minimum Rg values for 90 CRI products is 50. Bridgelux maintains a ± 3 tolerance on CRI and Rg values.
- Drive current is referred to as nominal drive current.
- Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
- Typical performance is estimated based on operation under DC (direct current) with LED array mounted onto a heat sink with thermal interface material and the case temperature maintained at 85°C . Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- Minimum flux values at elevated temperatures are provided for reference only and are not guaranteed by 100% production testing. Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.

Performance at Commonly Used Drive Currents

Vero LED arrays are tested to the specifications shown using the nominal drive currents in Table 1. Vero SE may also be driven at other drive currents dependent on specific application design requirements. The performance at any drive current can be derived from the current vs. voltage characteristics shown in Figures 1, 2 & 3 and the flux vs. current characteristics shown in Figures 4, 5 & 6. The performance at commonly used drive currents is summarized in Table 3.

Table 3: Product Performance at Commonly Used Drive Currents

| Part Number | CRI | Drive Current ¹ (mA) | Typical V_f $T_c = 25^\circ\text{C}$ (V) | Typical Power $T_c = 25^\circ\text{C}$ (W) | Typical Flux ² $T_c = 25^\circ\text{C}$ (lm) | Typical DC Flux ³ $T_c = 85^\circ\text{C}$ (lm) | Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W) |
|----------------------|-----|---------------------------------|---|---|--|---|---|
| BXRC-27E10K0-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6160 | 5544 | 181 |
| | | 1050 | 49.4 | 51.9 | 9200 | 8280 | 177 |
| | | 1400 | 50.2 | 70.3 | 12216 | 10994 | 174 |
| | | 1800 | 51.2 | 92.1 | 15457 | 13911 | 168 |
| | | 2800 | 53.3 | 149.1 | 23251 | 20926 | 156 |
| | | 4750 | 56.6 | 268.8 | 36646 | 32981 | 136 |
| BXRC-27E10K0-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 7595 | 6835 | 181 |
| | | 975 | 65.6 | 64.0 | 11344 | 10209 | 177 |
| | | 1300 | 66.7 | 86.7 | 15062 | 13555 | 174 |
| | | 1710 | 68.0 | 116.4 | 19472 | 17525 | 167 |
| | | 2600 | 70.7 | 183.9 | 28667 | 25800 | 156 |
| | | 4750 | 75.8 | 360.1 | 47950 | 43155 | 133 |
| BXRC-27E10K0-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5418 | 4876 | 181 |
| | | 1275 | 35.8 | 45.6 | 8092 | 7283 | 177 |
| | | 1700 | 36.4 | 61.9 | 10744 | 9670 | 174 |
| | | 2100 | 36.9 | 77.6 | 13090 | 11781 | 169 |
| | | 3400 | 38.6 | 131.1 | 20449 | 18404 | 156 |
| | | 5500 | 40.7 | 224.1 | 31002 | 27902 | 138 |
| BXRC-27G10K0-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5082 | 4574 | 150 |
| | | 1050 | 49.4 | 51.9 | 7590 | 6831 | 146 |
| | | 1400 | 50.2 | 70.3 | 10078 | 9070 | 143 |
| | | 1800 | 51.2 | 92.1 | 12752 | 11477 | 138 |
| | | 2800 | 53.3 | 149.1 | 19182 | 17264 | 129 |
| | | 4750 | 56.6 | 268.8 | 30233 | 27209 | 112 |
| BXRC-27G10K0-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 6266 | 5639 | 150 |
| | | 975 | 65.6 | 64.0 | 9358 | 8423 | 146 |
| | | 1300 | 66.7 | 86.7 | 12426 | 11183 | 143 |
| | | 1710 | 68.0 | 116.4 | 16064 | 14458 | 138 |
| | | 2600 | 70.7 | 183.9 | 23650 | 21285 | 129 |
| | | 4750 | 75.8 | 360.1 | 39558 | 35603 | 110 |
| BXRC-27G10K0-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 4470 | 4023 | 150 |
| | | 1275 | 35.8 | 45.6 | 6676 | 6008 | 146 |
| | | 1700 | 36.4 | 61.9 | 8864 | 7977 | 143 |
| | | 2100 | 36.9 | 77.6 | 10799 | 9719 | 139 |
| | | 3400 | 38.6 | 131.1 | 16870 | 15183 | 129 |
| | | 5500 | 40.7 | 224.1 | 25577 | 23019 | 114 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a $\pm 7\%$ tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V _f T _c = 25°C (V) | Typical Power T _c = 25°C (W) | Typical Flux ² T _c = 25°C (lm) | Typical DC Flux ³ T _c = 85°C (lm) | Typical Efficacy T _c = 25°C (lm/W) |
|----------------------|-----|---------------------------------|---|--|---|--|--|
| BXRC-27G1KH0-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5301 | 4771 | 156 |
| | | 1050 | 49.4 | 51.9 | 7918 | 7126 | 153 |
| | | 1400 | 50.2 | 70.3 | 10513 | 9462 | 149 |
| | | 1800 | 51.2 | 92.1 | 13303 | 11972 | 144 |
| | | 2800 | 53.3 | 149.1 | 20010 | 18009 | 134 |
| | | 4750 | 56.6 | 268.8 | 31538 | 28384 | 117 |
| BXRC-27G1KH0-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 6536 | 5883 | 156 |
| | | 975 | 65.6 | 64.0 | 9762 | 8786 | 153 |
| | | 1300 | 66.7 | 86.7 | 12962 | 11666 | 149 |
| | | 1710 | 68.0 | 116.4 | 16758 | 15082 | 144 |
| | | 2600 | 70.7 | 183.9 | 24671 | 22204 | 134 |
| | | 4750 | 75.8 | 360.1 | 41267 | 37140 | 115 |
| BXRC-27G1KH0-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 4663 | 4196 | 156 |
| | | 1275 | 35.8 | 45.6 | 6964 | 6268 | 153 |
| | | 1700 | 36.4 | 61.9 | 9246 | 8322 | 149 |
| | | 2100 | 36.9 | 77.6 | 11265 | 10139 | 145 |
| | | 3400 | 38.6 | 131.1 | 17599 | 15839 | 134 |
| | | 5500 | 40.7 | 224.1 | 26681 | 24013 | 119 |
| BXRC-30C10K1-B-8x-SE | 70 | 700 | 48.5 | 34.0 | 6853 | 6168 | 202 |
| | | 1050 | 49.4 | 51.9 | 10235 | 9212 | 197 |
| | | 1400 | 50.2 | 70.3 | 13590 | 12231 | 193 |
| | | 1800 | 51.2 | 92.1 | 17196 | 15476 | 187 |
| | | 2800 | 53.3 | 149.1 | 25866 | 23280 | 173 |
| | | 4750 | 56.6 | 268.8 | 40768 | 36692 | 152 |
| BXRC-30C10K1-C-8x-SE | 70 | 650 | 64.4 | 41.9 | 8449 | 7604 | 202 |
| | | 975 | 65.6 | 64.0 | 12620 | 11358 | 197 |
| | | 1300 | 66.7 | 86.7 | 16756 | 15080 | 193 |
| | | 1710 | 68.0 | 116.4 | 21663 | 19496 | 186 |
| | | 2600 | 70.7 | 183.9 | 31892 | 28703 | 173 |
| | | 4750 | 75.8 | 360.1 | 53344 | 48010 | 148 |
| BXRC-30C10K1-D-8x-SE | 70 | 850 | 35.1 | 29.9 | 6027 | 5424 | 202 |
| | | 1275 | 35.8 | 45.6 | 9002 | 8102 | 197 |
| | | 1700 | 36.4 | 61.9 | 11953 | 10757 | 193 |
| | | 2100 | 36.9 | 77.6 | 14562 | 13106 | 188 |
| | | 3400 | 38.6 | 131.1 | 22749 | 20474 | 173 |
| | | 5500 | 40.7 | 224.1 | 34490 | 31041 | 154 |
| BXRC-30E10K0-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6545 | 5890 | 193 |
| | | 1050 | 49.4 | 51.9 | 9775 | 8798 | 188 |
| | | 1400 | 50.2 | 70.3 | 12979 | 11682 | 185 |
| | | 1800 | 51.2 | 92.1 | 16423 | 14781 | 178 |
| | | 2800 | 53.3 | 149.1 | 24704 | 22234 | 166 |
| | | 4750 | 56.6 | 268.8 | 38936 | 35042 | 145 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a ± 7% tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V _f T _c = 25°C (V) | Typical Power T _c = 25°C (W) | Typical Flux ² T _c = 25°C (lm) | Typical DC Flux ³ T _c = 85°C (lm) | Typical Efficacy T _c = 25°C (lm/W) |
|----------------------|-----|---------------------------------|--|---|--|---|---|
| BXRC-30E10K0-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 8070 | 7263 | 193 |
| | | 975 | 65.6 | 64.0 | 12052 | 10847 | 188 |
| | | 1300 | 66.7 | 86.7 | 16003 | 14403 | 185 |
| | | 1710 | 68.0 | 116.4 | 20689 | 18620 | 178 |
| | | 2600 | 70.7 | 183.9 | 30458 | 27413 | 166 |
| | | 4750 | 75.8 | 360.1 | 50946 | 45852 | 141 |
| BXRC-30E10K0-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5756 | 5181 | 193 |
| | | 1275 | 35.8 | 45.6 | 8597 | 7738 | 188 |
| | | 1700 | 36.4 | 61.9 | 11415 | 10274 | 185 |
| | | 2100 | 36.9 | 77.6 | 13908 | 12517 | 179 |
| | | 3400 | 38.6 | 131.1 | 21727 | 19554 | 166 |
| | | 5500 | 40.7 | 224.1 | 32940 | 29646 | 147 |
| BXRC-30G10K0-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5313 | 4782 | 156 |
| | | 1050 | 49.4 | 51.9 | 7935 | 7142 | 153 |
| | | 1400 | 50.2 | 70.3 | 10536 | 9483 | 150 |
| | | 1800 | 51.2 | 92.1 | 13332 | 11999 | 145 |
| | | 2800 | 53.3 | 149.1 | 20054 | 18048 | 134 |
| | | 4750 | 56.6 | 268.8 | 31607 | 28446 | 118 |
| BXRC-30G10K0-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 6551 | 5896 | 156 |
| | | 975 | 65.6 | 64.0 | 9784 | 8805 | 153 |
| | | 1300 | 66.7 | 86.7 | 12991 | 11692 | 150 |
| | | 1710 | 68.0 | 116.4 | 16795 | 15115 | 144 |
| | | 2600 | 70.7 | 183.9 | 24725 | 22253 | 134 |
| | | 4750 | 75.8 | 360.1 | 41357 | 37221 | 115 |
| BXRC-30G10K0-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 4673 | 4205 | 156 |
| | | 1275 | 35.8 | 45.6 | 6979 | 6281 | 153 |
| | | 1700 | 36.4 | 61.9 | 9267 | 8340 | 150 |
| | | 2100 | 36.9 | 77.6 | 11290 | 10161 | 146 |
| | | 3400 | 38.6 | 131.1 | 17637 | 15873 | 134 |
| | | 5500 | 40.7 | 224.1 | 26739 | 24065 | 119 |
| BXRC-30G1KH0-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5563 | 5007 | 164 |
| | | 1050 | 49.4 | 51.9 | 8309 | 7478 | 160 |
| | | 1400 | 50.2 | 70.3 | 11033 | 9929 | 157 |
| | | 1800 | 51.2 | 92.1 | 13960 | 12564 | 152 |
| | | 2800 | 53.3 | 149.1 | 20998 | 18898 | 141 |
| | | 4750 | 56.6 | 268.8 | 33096 | 29786 | 123 |
| BXRC-30G1KH0-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 6859 | 6173 | 164 |
| | | 975 | 65.6 | 64.0 | 10245 | 9220 | 160 |
| | | 1300 | 66.7 | 86.7 | 13602 | 12242 | 157 |
| | | 1710 | 68.0 | 116.4 | 17586 | 15827 | 151 |
| | | 2600 | 70.7 | 183.9 | 25890 | 23301 | 141 |
| | | 4750 | 75.8 | 360.1 | 43304 | 38974 | 120 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a ± 7% tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V _f T _c = 25°C (V) | Typical Power T _c = 25°C (W) | Typical Flux ² T _c = 25°C (lm) | Typical DC Flux ³ T _c = 85°C (lm) | Typical Efficacy T _c = 25°C (lm/W) |
|----------------------|-----|---------------------------------|---|--|---|--|--|
| BXRC-30G1KH0-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 4893 | 4404 | 164 |
| | | 1275 | 35.8 | 45.6 | 7308 | 6577 | 160 |
| | | 1700 | 36.4 | 61.9 | 9703 | 8733 | 157 |
| | | 2100 | 36.9 | 77.6 | 11822 | 10639 | 152 |
| | | 3400 | 38.6 | 131.1 | 18468 | 16621 | 141 |
| | | 5500 | 40.7 | 224.1 | 27999 | 25199 | 125 |
| BXRC-35E10K0-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6699 | 6029 | 197 |
| | | 1050 | 49.4 | 51.9 | 10005 | 9005 | 193 |
| | | 1400 | 50.2 | 70.3 | 13285 | 11956 | 189 |
| | | 1800 | 51.2 | 92.1 | 16809 | 15129 | 183 |
| | | 2800 | 53.3 | 149.1 | 25285 | 22757 | 170 |
| | | 4750 | 56.6 | 268.8 | 39852 | 35867 | 148 |
| BXRC-35E10K0-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 8259 | 7433 | 197 |
| | | 975 | 65.6 | 64.0 | 12336 | 11102 | 193 |
| | | 1300 | 66.7 | 86.7 | 16379 | 14741 | 189 |
| | | 1710 | 68.0 | 116.4 | 21176 | 19058 | 182 |
| | | 2600 | 70.7 | 183.9 | 31175 | 28058 | 170 |
| | | 4750 | 75.8 | 360.1 | 52145 | 46931 | 145 |
| BXRC-35E10K0-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5892 | 5303 | 197 |
| | | 1275 | 35.8 | 45.6 | 8800 | 7920 | 193 |
| | | 1700 | 36.4 | 61.9 | 11684 | 10516 | 189 |
| | | 2100 | 36.9 | 77.6 | 14235 | 12812 | 184 |
| | | 3400 | 38.6 | 131.1 | 22238 | 20014 | 170 |
| | | 5500 | 40.7 | 224.1 | 33715 | 30343 | 150 |
| BXRC-35G10K0-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5505 | 4955 | 162 |
| | | 1050 | 49.4 | 51.9 | 8223 | 7401 | 159 |
| | | 1400 | 50.2 | 70.3 | 10918 | 9826 | 155 |
| | | 1800 | 51.2 | 92.1 | 13815 | 12433 | 150 |
| | | 2800 | 53.3 | 149.1 | 20780 | 18702 | 139 |
| | | 4750 | 56.6 | 268.8 | 32752 | 29477 | 122 |
| BXRC-35G10K0-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 6788 | 6109 | 162 |
| | | 975 | 65.6 | 64.0 | 10138 | 9124 | 159 |
| | | 1300 | 66.7 | 86.7 | 13461 | 12115 | 155 |
| | | 1710 | 68.0 | 116.4 | 17403 | 15663 | 150 |
| | | 2600 | 70.7 | 183.9 | 25621 | 23059 | 139 |
| | | 4750 | 75.8 | 360.1 | 42855 | 38569 | 119 |
| BXRC-35G10K0-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 4842 | 4358 | 162 |
| | | 1275 | 35.8 | 45.6 | 7232 | 6509 | 159 |
| | | 1700 | 36.4 | 61.9 | 9602 | 8642 | 155 |
| | | 2100 | 36.9 | 77.6 | 11699 | 10529 | 151 |
| | | 3400 | 38.6 | 131.1 | 18276 | 16449 | 139 |
| | | 5500 | 40.7 | 224.1 | 27708 | 24937 | 124 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a ± 7% tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V _f T _c = 25°C (V) | Typical Power T _c = 25°C (W) | Typical Flux ² T _c = 25°C (lm) | Typical DC Flux ³ T _c = 85°C (lm) | Typical Efficacy T _c = 25°C (lm/W) |
|----------------------|-----|---------------------------------|---|--|---|--|--|
| BXRC-40C10K1-B-8x-SE | 70 | 700 | 48.5 | 34.0 | 7045 | 6341 | 207 |
| | | 1050 | 49.4 | 51.9 | 10523 | 9471 | 203 |
| | | 1400 | 50.2 | 70.3 | 13972 | 12575 | 199 |
| | | 1800 | 51.2 | 92.1 | 17679 | 15911 | 192 |
| | | 2800 | 53.3 | 149.1 | 26593 | 23934 | 178 |
| | | 4750 | 56.6 | 268.8 | 41914 | 37722 | 156 |
| BXRC-40C10K1-C-8x-SE | 70 | 650 | 64.4 | 41.9 | 8687 | 7818 | 207 |
| | | 975 | 65.6 | 64.0 | 12974 | 11677 | 203 |
| | | 1300 | 66.7 | 86.7 | 17227 | 15504 | 199 |
| | | 1710 | 68.0 | 116.4 | 22271 | 20044 | 191 |
| | | 2600 | 70.7 | 183.9 | 32788 | 29509 | 178 |
| | | 4750 | 75.8 | 360.1 | 54842 | 49358 | 152 |
| BXRC-40C10K1-D-8x-SE | 70 | 850 | 35.1 | 29.9 | 6196 | 5577 | 207 |
| | | 1275 | 35.8 | 45.6 | 9255 | 8329 | 203 |
| | | 1700 | 36.4 | 61.9 | 12288 | 11059 | 199 |
| | | 2100 | 36.9 | 77.6 | 14971 | 13474 | 193 |
| | | 3400 | 38.6 | 131.1 | 23388 | 21050 | 178 |
| | | 5500 | 40.7 | 224.1 | 35459 | 31913 | 158 |
| BXRC-40E10K0-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6737 | 6064 | 198 |
| | | 1050 | 49.4 | 51.9 | 10063 | 9057 | 194 |
| | | 1400 | 50.2 | 70.3 | 13361 | 12025 | 190 |
| | | 1800 | 51.2 | 92.1 | 16906 | 15215 | 184 |
| | | 2800 | 53.3 | 149.1 | 25430 | 22887 | 171 |
| | | 4750 | 56.6 | 268.8 | 40081 | 36073 | 149 |
| BXRC-40E10K0-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 8307 | 7476 | 198 |
| | | 975 | 65.6 | 64.0 | 12407 | 11166 | 194 |
| | | 1300 | 66.7 | 86.7 | 16474 | 14826 | 190 |
| | | 1710 | 68.0 | 116.4 | 21298 | 19168 | 183 |
| | | 2600 | 70.7 | 183.9 | 31354 | 28219 | 171 |
| | | 4750 | 75.8 | 360.1 | 52445 | 47200 | 146 |
| BXRC-40E10K0-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5926 | 5333 | 198 |
| | | 1275 | 35.8 | 45.6 | 8850 | 7965 | 194 |
| | | 1700 | 36.4 | 61.9 | 11751 | 10576 | 190 |
| | | 2100 | 36.9 | 77.6 | 14317 | 12885 | 185 |
| | | 3400 | 38.6 | 131.1 | 22366 | 20129 | 171 |
| | | 5500 | 40.7 | 224.1 | 33909 | 30518 | 151 |
| BXRC-40G10K0-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5621 | 5059 | 165 |
| | | 1050 | 49.4 | 51.9 | 8395 | 7556 | 162 |
| | | 1400 | 50.2 | 70.3 | 11147 | 10032 | 158 |
| | | 1800 | 51.2 | 92.1 | 14105 | 12694 | 153 |
| | | 2800 | 53.3 | 149.1 | 21216 | 19095 | 142 |
| | | 4750 | 56.6 | 268.8 | 33439 | 30095 | 124 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a ± 7% tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V _f T _c = 25°C (V) | Typical Power T _c = 25°C (W) | Typical Flux ² T _c = 25°C (lm) | Typical DC Flux ³ T _c = 85°C (lm) | Typical Efficacy T _c = 25°C (lm/W) |
|----------------------|-----|---------------------------------|---|--|---|--|--|
| BXRC-40G10K0-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 6930 | 6237 | 165 |
| | | 975 | 65.6 | 64.0 | 10351 | 9316 | 162 |
| | | 1300 | 66.7 | 86.7 | 13744 | 12369 | 158 |
| | | 1710 | 68.0 | 116.4 | 17768 | 15991 | 153 |
| | | 2600 | 70.7 | 183.9 | 26158 | 23543 | 142 |
| | | 4750 | 75.8 | 360.1 | 43754 | 39379 | 122 |
| BXRC-40G10K0-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 4944 | 4449 | 165 |
| | | 1275 | 35.8 | 45.6 | 7384 | 6645 | 162 |
| | | 1700 | 36.4 | 61.9 | 9804 | 8823 | 158 |
| | | 2100 | 36.9 | 77.6 | 11944 | 10750 | 154 |
| | | 3400 | 38.6 | 131.1 | 18660 | 16794 | 142 |
| | | 5500 | 40.7 | 224.1 | 28290 | 25461 | 126 |
| BXRC-50C10K1-B-8x-SE | 70 | 700 | 48.5 | 34.0 | 7084 | 6376 | 209 |
| | | 1050 | 49.4 | 51.9 | 10580 | 9522 | 204 |
| | | 1400 | 50.2 | 70.3 | 14048 | 12644 | 200 |
| | | 1800 | 51.2 | 92.1 | 17776 | 15998 | 193 |
| | | 2800 | 53.3 | 149.1 | 26738 | 24065 | 179 |
| | | 4750 | 56.6 | 268.8 | 42143 | 37928 | 157 |
| BXRC-50C10K1-C-8x-SE | 70 | 650 | 64.4 | 41.9 | 8734 | 7861 | 209 |
| | | 975 | 65.6 | 64.0 | 13045 | 11741 | 204 |
| | | 1300 | 66.7 | 86.7 | 17321 | 15589 | 200 |
| | | 1710 | 68.0 | 116.4 | 22393 | 20154 | 192 |
| | | 2600 | 70.7 | 183.9 | 32967 | 29670 | 179 |
| | | 4750 | 75.8 | 360.1 | 55142 | 49628 | 153 |
| BXRC-50C10K1-D-8x-SE | 70 | 850 | 35.1 | 29.9 | 6230 | 5607 | 209 |
| | | 1275 | 35.8 | 45.6 | 9305 | 8375 | 204 |
| | | 1700 | 36.4 | 61.9 | 12355 | 11120 | 200 |
| | | 2100 | 36.9 | 77.6 | 15053 | 13548 | 194 |
| | | 3400 | 38.6 | 131.1 | 23516 | 21165 | 179 |
| | | 5500 | 40.7 | 224.1 | 35653 | 32087 | 159 |
| BXRC-50E10K1-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6814 | 6133 | 201 |
| | | 1050 | 49.4 | 51.9 | 10178 | 9160 | 196 |
| | | 1400 | 50.2 | 70.3 | 13514 | 12163 | 192 |
| | | 1800 | 51.2 | 92.1 | 17099 | 15389 | 186 |
| | | 2800 | 53.3 | 149.1 | 25721 | 23149 | 172 |
| | | 4750 | 56.6 | 268.8 | 40539 | 36485 | 151 |
| BXRC-50E10K1-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 8402 | 7562 | 201 |
| | | 975 | 65.6 | 64.0 | 12549 | 11294 | 196 |
| | | 1300 | 66.7 | 86.7 | 16662 | 14996 | 192 |
| | | 1710 | 68.0 | 116.4 | 21541 | 19387 | 185 |
| | | 2600 | 70.7 | 183.9 | 31713 | 28541 | 172 |
| | | 4750 | 75.8 | 360.1 | 53044 | 47740 | 147 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a ± 7% tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V_f $T_c = 25^\circ\text{C}$ (V) | Typical Power $T_c = 25^\circ\text{C}$ (W) | Typical Flux ² $T_c = 25^\circ\text{C}$ (lm) | Typical DC Flux ³ $T_c = 85^\circ\text{C}$ (lm) | Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W) |
|----------------------|-----|---------------------------------|---|---|--|---|---|
| BXRC-50E10K1-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5993 | 5394 | 201 |
| | | 1275 | 35.8 | 45.6 | 8951 | 8056 | 196 |
| | | 1700 | 36.4 | 61.9 | 11885 | 10697 | 192 |
| | | 2100 | 36.9 | 77.6 | 14480 | 13032 | 187 |
| | | 3400 | 38.6 | 131.1 | 22622 | 20359 | 172 |
| | | 5500 | 40.7 | 224.1 | 34296 | 30867 | 153 |
| BXRC-50G10K1-B-8x-SE | 90 | 700 | 48.5 | 34.0 | 5890 | 5301 | 173 |
| | | 1050 | 49.4 | 51.9 | 8798 | 7918 | 170 |
| | | 1400 | 50.2 | 70.3 | 11682 | 10513 | 166 |
| | | 1800 | 51.2 | 92.1 | 14781 | 13303 | 161 |
| | | 2800 | 53.3 | 149.1 | 22234 | 20010 | 149 |
| | | 4750 | 56.6 | 268.8 | 35042 | 31538 | 130 |
| BXRC-50G10K1-C-8x-SE | 90 | 650 | 64.4 | 41.9 | 7263 | 6536 | 173 |
| | | 975 | 65.6 | 64.0 | 10847 | 9762 | 170 |
| | | 1300 | 66.7 | 86.7 | 14403 | 12962 | 166 |
| | | 1710 | 68.0 | 116.4 | 18620 | 16758 | 160 |
| | | 2600 | 70.7 | 183.9 | 27413 | 24671 | 149 |
| | | 4750 | 75.8 | 360.1 | 45852 | 41267 | 127 |
| BXRC-50G10K1-D-8x-SE | 90 | 850 | 35.1 | 29.9 | 5181 | 4663 | 173 |
| | | 1275 | 35.8 | 45.6 | 7738 | 6964 | 170 |
| | | 1700 | 36.4 | 61.9 | 10274 | 9246 | 166 |
| | | 2100 | 36.9 | 77.6 | 12517 | 11265 | 161 |
| | | 3400 | 38.6 | 131.1 | 19554 | 17599 | 149 |
| | | 5500 | 40.7 | 224.1 | 29646 | 26681 | 132 |
| BXRC-57C10K1-B-8x-SE | 70 | 700 | 48.5 | 34.0 | 6891 | 6202 | 203 |
| | | 1050 | 49.4 | 51.9 | 10293 | 9264 | 198 |
| | | 1400 | 50.2 | 70.3 | 13667 | 12300 | 194 |
| | | 1800 | 51.2 | 92.1 | 17293 | 15563 | 188 |
| | | 2800 | 53.3 | 149.1 | 26012 | 23411 | 174 |
| | | 4750 | 56.6 | 268.8 | 40997 | 36898 | 153 |
| BXRC-57C10K1-C-8x-SE | 70 | 650 | 64.4 | 41.9 | 8497 | 7647 | 203 |
| | | 975 | 65.6 | 64.0 | 12691 | 11421 | 198 |
| | | 1300 | 66.7 | 86.7 | 16850 | 15165 | 194 |
| | | 1710 | 68.0 | 116.4 | 21784 | 19606 | 187 |
| | | 2600 | 70.7 | 183.9 | 32071 | 28864 | 174 |
| | | 4750 | 75.8 | 360.1 | 53644 | 48279 | 149 |
| BXRC-57C10K1-D-8x-SE | 70 | 850 | 35.1 | 29.9 | 6061 | 5455 | 203 |
| | | 1275 | 35.8 | 45.6 | 9053 | 8147 | 198 |
| | | 1700 | 36.4 | 61.9 | 12020 | 10818 | 194 |
| | | 2100 | 36.9 | 77.6 | 14644 | 13180 | 189 |
| | | 3400 | 38.6 | 131.1 | 22877 | 20590 | 174 |
| | | 5500 | 40.7 | 224.1 | 34684 | 31215 | 155 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a $\pm 7\%$ tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V _f T _c = 25°C (V) | Typical Power T _c = 25°C (W) | Typical Flux ² T _c = 25°C (lm) | Typical DC Flux ³ T _c = 85°C (lm) | Typical Efficacy T _c = 25°C (lm/W) |
|----------------------|-----|---------------------------------|--|---|--|---|---|
| BXRC-57E10K1-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6545 | 5890 | 193 |
| | | 1050 | 49.4 | 51.9 | 9775 | 8798 | 188 |
| | | 1400 | 50.2 | 70.3 | 12979 | 11682 | 185 |
| | | 1800 | 51.2 | 92.1 | 16423 | 14781 | 178 |
| | | 2800 | 53.3 | 149.1 | 24704 | 22234 | 166 |
| | | 4750 | 56.6 | 268.8 | 38936 | 35042 | 145 |
| BXRC-57E10K1-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 8070 | 7263 | 193 |
| | | 975 | 65.6 | 64.0 | 12052 | 10847 | 188 |
| | | 1300 | 66.7 | 86.7 | 16003 | 14403 | 185 |
| | | 1710 | 68.0 | 116.4 | 20689 | 18620 | 178 |
| | | 2600 | 70.7 | 183.9 | 30458 | 27413 | 166 |
| | | 4750 | 75.8 | 360.1 | 50946 | 45852 | 141 |
| BXRC-57E10K1-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5756 | 5181 | 193 |
| | | 1275 | 35.8 | 45.6 | 8597 | 7738 | 188 |
| | | 1700 | 36.4 | 61.9 | 11415 | 10274 | 185 |
| | | 2100 | 36.9 | 77.6 | 13908 | 12517 | 179 |
| | | 3400 | 38.6 | 131.1 | 21727 | 19554 | 166 |
| | | 5500 | 40.7 | 224.1 | 32940 | 29646 | 147 |
| BXRC-65C10K1-B-8x-SE | 70 | 700 | 48.5 | 34.0 | 6891 | 6202 | 203 |
| | | 1050 | 49.4 | 51.9 | 10293 | 9264 | 198 |
| | | 1400 | 50.2 | 70.3 | 13667 | 12300 | 194 |
| | | 1800 | 51.2 | 92.1 | 17293 | 15563 | 188 |
| | | 2800 | 53.3 | 149.1 | 26012 | 23411 | 174 |
| | | 4750 | 56.6 | 268.8 | 40997 | 36898 | 153 |
| BXRC-65C10K1-C-8x-SE | 70 | 650 | 64.4 | 41.9 | 8497 | 7647 | 203 |
| | | 975 | 65.6 | 64.0 | 12691 | 11421 | 198 |
| | | 1300 | 66.7 | 86.7 | 16850 | 15165 | 194 |
| | | 1710 | 68.0 | 116.4 | 21784 | 19606 | 187 |
| | | 2600 | 70.7 | 183.9 | 32071 | 28864 | 174 |
| | | 4750 | 75.8 | 360.1 | 53644 | 48279 | 149 |
| BXRC-65C10K1-D-8x-SE | 70 | 850 | 35.1 | 29.9 | 6061 | 5455 | 203 |
| | | 1275 | 35.8 | 45.6 | 9053 | 8147 | 198 |
| | | 1700 | 36.4 | 61.9 | 12020 | 10818 | 194 |
| | | 2100 | 36.9 | 77.6 | 14644 | 13180 | 189 |
| | | 3400 | 38.6 | 131.1 | 22877 | 20590 | 174 |
| | | 5500 | 40.7 | 224.1 | 34684 | 31215 | 155 |
| BXRC-65E10K1-B-8x-SE | 80 | 700 | 48.5 | 34.0 | 6622 | 5960 | 195 |
| | | 1050 | 49.4 | 51.9 | 9890 | 8901 | 191 |
| | | 1400 | 50.2 | 70.3 | 13132 | 11819 | 187 |
| | | 1800 | 51.2 | 92.1 | 16616 | 14955 | 180 |
| | | 2800 | 53.3 | 149.1 | 24995 | 22495 | 168 |
| | | 4750 | 56.6 | 268.8 | 39394 | 35455 | 147 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a ± 7% tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Performance at Commonly Used Drive Currents

Table 3: Product Performance at Commonly Used Drive Currents (Continued)

| Part Number | CRI | Drive Current ¹ (mA) | Typical V_f $T_c = 25^\circ\text{C}$ (V) | Typical Power $T_c = 25^\circ\text{C}$ (W) | Typical Flux ² $T_c = 25^\circ\text{C}$ (lm) | Typical DC Flux ³ $T_c = 85^\circ\text{C}$ (lm) | Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W) |
|----------------------|-----|---------------------------------|---|---|--|---|---|
| BXRC-65E10K1-C-8x-SE | 80 | 650 | 64.4 | 41.9 | 8164 | 7348 | 195 |
| | | 975 | 65.6 | 64.0 | 12194 | 10975 | 191 |
| | | 1300 | 66.7 | 86.7 | 16191 | 14572 | 187 |
| | | 1710 | 68.0 | 116.4 | 20932 | 18839 | 180 |
| | | 2600 | 70.7 | 183.9 | 30817 | 27735 | 168 |
| | | 4750 | 75.8 | 360.1 | 51546 | 46391 | 143 |
| BXRC-65E10K1-D-8x-SE | 80 | 850 | 35.1 | 29.9 | 5824 | 5242 | 195 |
| | | 1275 | 35.8 | 45.6 | 8699 | 7829 | 191 |
| | | 1700 | 36.4 | 61.9 | 11550 | 10395 | 187 |
| | | 2100 | 36.9 | 77.6 | 14071 | 12664 | 181 |
| | | 3400 | 38.6 | 131.1 | 21983 | 19784 | 168 |
| | | 5500 | 40.7 | 224.1 | 33327 | 29995 | 149 |

Notes for Table 3:

1. Alternate drive currents in Table 3 are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a $\pm 7\%$ tolerance on flux measurements.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

Electrical Characteristics

Table 4: Electrical Characteristics

| Part Number | Drive Current (mA) | Forward Voltage Pulsed, $T_c = 25^\circ\text{C}$ (V) ^{1, 2, 3, 8} | | | Typical Coefficient of Forward Voltage ⁴ $\Delta V_f / \Delta T_c$ (mV/ $^\circ\text{C}$) | Typical Thermal Resistance Junction to Case ^{5,6} R_{j-c} ($^\circ\text{C}/\text{W}$) | Driver Selection Voltages ⁷ (V) | |
|----------------------|--------------------|--|---------|---------|--|---|---|--|
| | | Minimum | Typical | Maximum | | | V_f Min. Hot $T_c = 105^\circ\text{C}$ (V) | V_f Max. Cold $T_c = -40^\circ\text{C}$ (V) |
| BXRC-xxx10Kx-B-8x-SE | 1400 | 46.4 | 50.2 | 54.0 | -16.19 | 0.05 | 45.1 | 55.0 |
| | 4750 | 52.4 | 56.6 | 60.8 | -18.26 | 0.10 | 50.9 | 62.0 |
| BXRC-xxx10Kx-C-8x-SE | 1300 | 61.7 | 66.7 | 71.7 | -21.51 | 0.05 | 60.0 | 73.1 |
| | 4750 | 70.1 | 75.8 | 81.5 | -24.45 | 0.11 | 68.2 | 83.1 |
| BXRC-xxx10Kx-D-8x-SE | 1700 | 33.7 | 36.4 | 39.1 | -11.74 | 0.06 | 32.7 | 39.9 |
| | 5500 | 37.6 | 40.7 | 43.8 | -13.13 | 0.11 | 36.6 | 44.6 |

Notes for Table 4:

- Parts are tested in pulsed conditions, $T_c = 25^\circ\text{C}$. Pulse width is 10ms.
- Voltage minimum and maximum are provided for reference only and are not a guarantee of performance.
- Bridgelux maintains a tester tolerance of $\pm 0.10\text{V}$ on forward voltage measurements.
- Typical coefficient of forward voltage tolerance is $\pm 0.1\text{mV}$ for nominal current.
- Thermal resistance values are based from test data of a 3000K 80 CRI product.
- Thermal resistance value was calculated using total electrical input power; optical power was not subtracted from input power. The thermal interface material used during testing is not included in the thermal resistance value.
- V_f min hot and max cold values are provided as reference only and are not guaranteed by test. These values are provided to aid in driver design and selection over the operating range of the product.
- This product has been designed and manufactured per IEC 62031:2014. This product has passed dielectric withstand voltage testing at 1140 V. The working voltage designated for the insulation is 70V d.c. The maximum allowable voltage across the array must be determined in the end product application.

Eye Safety

Table 5: Eye Safety Risk Group (RG) Classifications

| Part Number | Drive Current (mA) | CCT | | | |
|----------------------|--------------------|-------------|--------------------|--------------------|--------------------|
| | | 2700K/3000K | 4000K ² | 5000K ³ | 6500K ⁴ |
| BXRC-xxx10Kx-B-8x-SE | 2145 | RG1 | RG1 | RG1 | RG1 |
| | 2970 | RG1 | RG1 | RG1 | RG2 |
| | 3945 | RG1 | RG1 | RG2 | RG2 |
| | 4750 | RG1 | RG2 | RG2 | RG2 |
| BXRC-xxx10Kx-C-8x-SE | 1615 | RG1 | RG1 | RG1 | RG1 |
| | 2235 | RG1 | RG1 | RG1 | RG2 |
| | 2970 | RG1 | RG1 | RG2 | RG2 |
| | 4750 | RG1 | RG2 | RG2 | RG2 |
| BXRC-xxx10Kx-D-8x-SE | 2960 | RG1 | RG1 | RG1 | RG1 |
| | 4100 | RG1 | RG1 | RG1 | RG2 |
| | 5500 | RG1 | RG1 | RG2 | RG2 |

Notes for Table 5:

1. Eye safety classification for the use of Bridgelux V Series LED arrays is in accordance with specification IEC/TR 62778: Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires.
2. For products classified as RG2 at 4000K, Ethr= 1980 lx.
3. For products classified as RG2 at 5000K Ethr= 1530 lx.
4. For products classified as RG2 at 6500K, Ethr= 1170 lx.
5. Please contact your Bridgelux sales representative for Ethr values at specific drive currents and CCTs not listed.

Absolute Maximum Ratings

Table 6: Maximum Ratings

| Parameter | Maximum Rating | | |
|---|---|----------------------|----------------------|
| LED Junction Temperature (T_j) | 150°C | | |
| Storage Temperature | -40°C to +105°C | | |
| Operating Case Temperature ¹ (T_c) | 105°C | | |
| Soldering Temperature ² | 300°C or lower for a maximum of 6 seconds | | |
| | BXRC-xxx10Kx-B-8x-SE | BXRC-xxx10Kx-C-8x-SE | BXRC-xxx10Kx-D-8x-SE |
| Maximum Drive Current ³ | 4750 mA | 4750 mA | 5500 mA |
| Maximum Peak Pulsed Drive Current ^{4,5} | 5320 mA | 5320 mA | 6160 mA |
| Maximum Reverse Voltage ⁶ | -90V | -120V | -65V |

Notes for Table 6:

1. For IEC 62717 requirement, please consult your Bridgelux sales representative.
2. Refer to Bridgelux Application Note AN121: Assembly Considerations for Bridgelux Vero SE LED Arrays.
3. Arrays may be driven at higher currents however lumen maintenance may be reduced and warranty will not apply.
4. Bridgelux recommends a maximum duty cycle of 10% and pulse width of 20 ms when operating LED Arrays at maximum peak pulsed current specified. Maximum peak pulsed currents indicate values where LED Arrays can be driven without catastrophic failures.
5. Light emitting diodes are not designed to be driven in reverse voltage and will not produce light under this condition. Maximum rating provided for reference only.

Performance Curves

Figure 1: Vero SE 29B Drive Current vs. Voltage

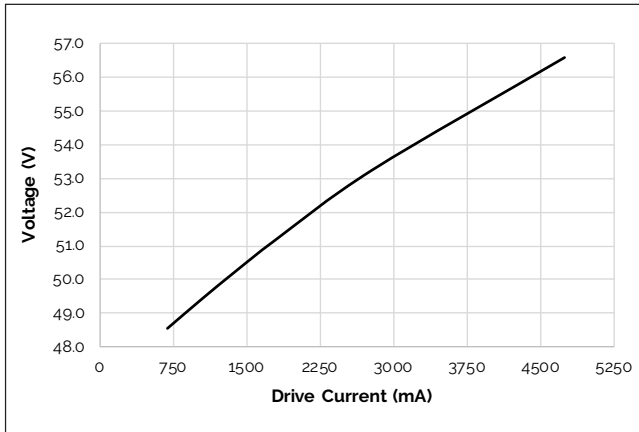


Figure 2: Vero SE 29C Drive Current vs. Voltage

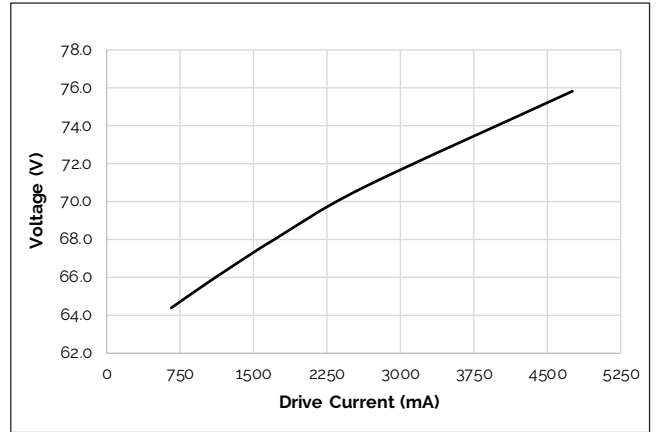


Figure 3: Vero SE 29D Drive Current vs. Voltage

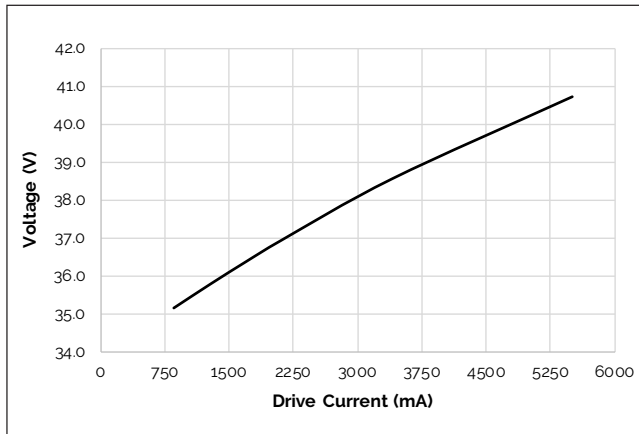


Figure 4: Vero SE 29B Typical Relative Flux vs. Current

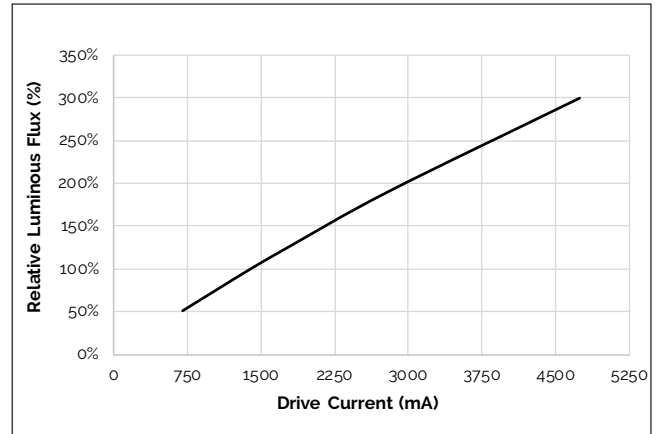


Figure 5: Vero SE 29C Typical Relative Flux vs. Current

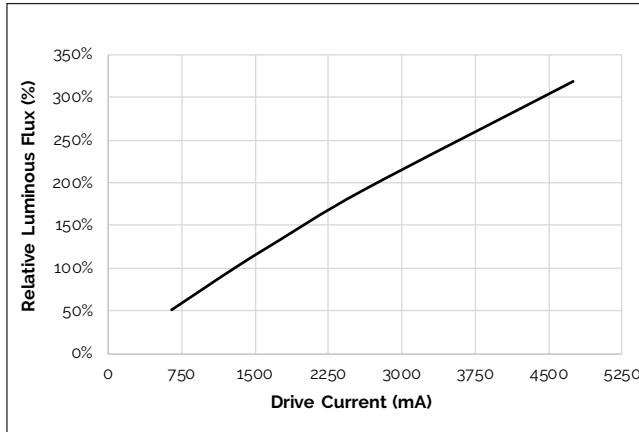
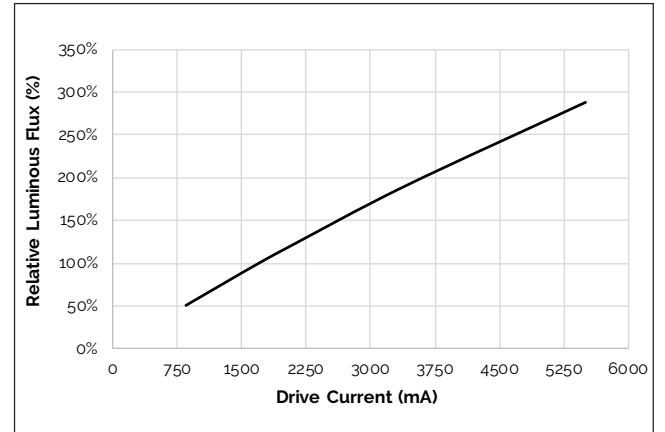


Figure 6: Vero SE 29D Typical Relative Flux vs. Current



Notes for Figures 1-6:

1. Bridgelux does not recommend driving high power LEDs at low currents. Doing so may produce unpredictable results. Pulse width modulation (PWM) is recommended for dimming effects.
2. Products tested under pulsed condition (10ms pulse width) at nominal test current where T_J (junction temperature) - T_C (case temperature) = 25°C.

Performance Curves

Figure 7: Typical DC Flux vs. Case Temperature

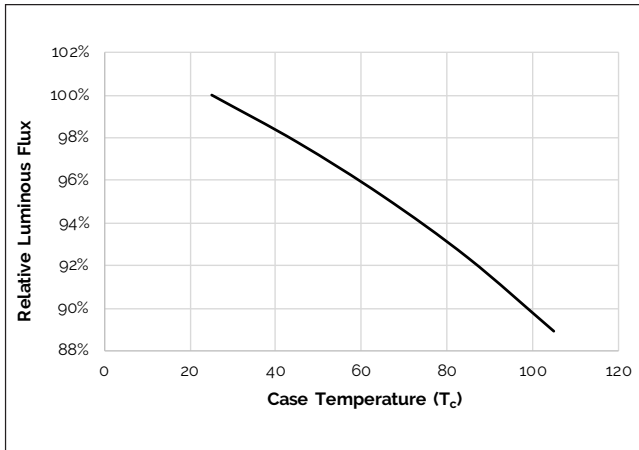


Figure 8: Typical DC ccy Shift vs. Case Temperature

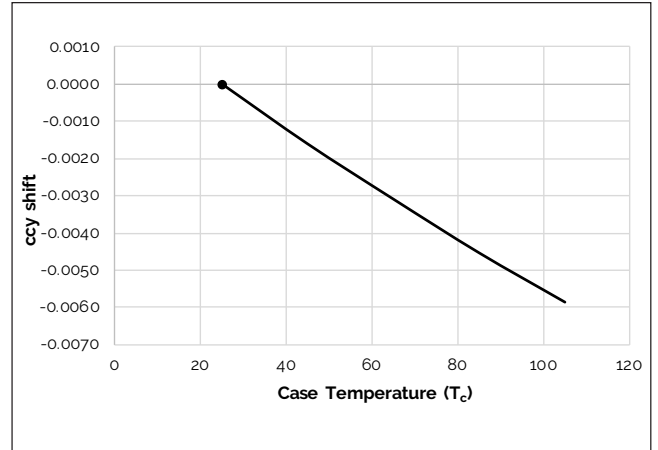


Figure 9: Typical DC ccx Shift vs. Case Temperature

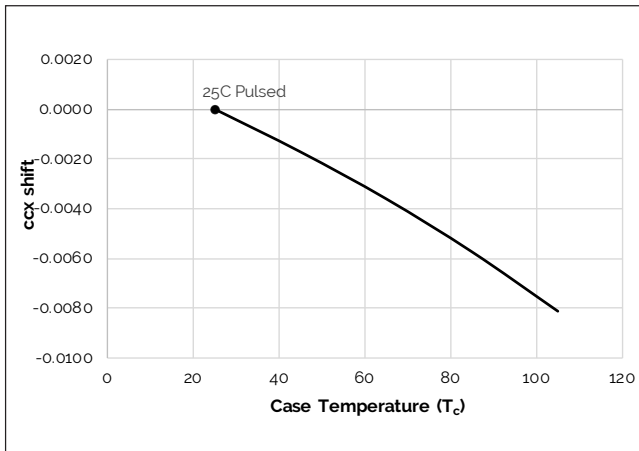
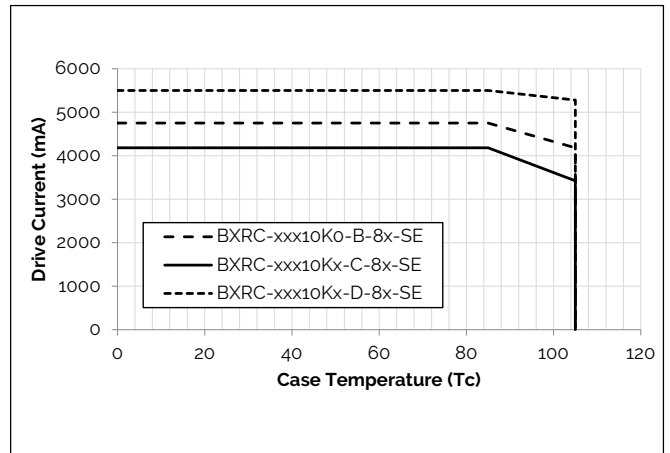
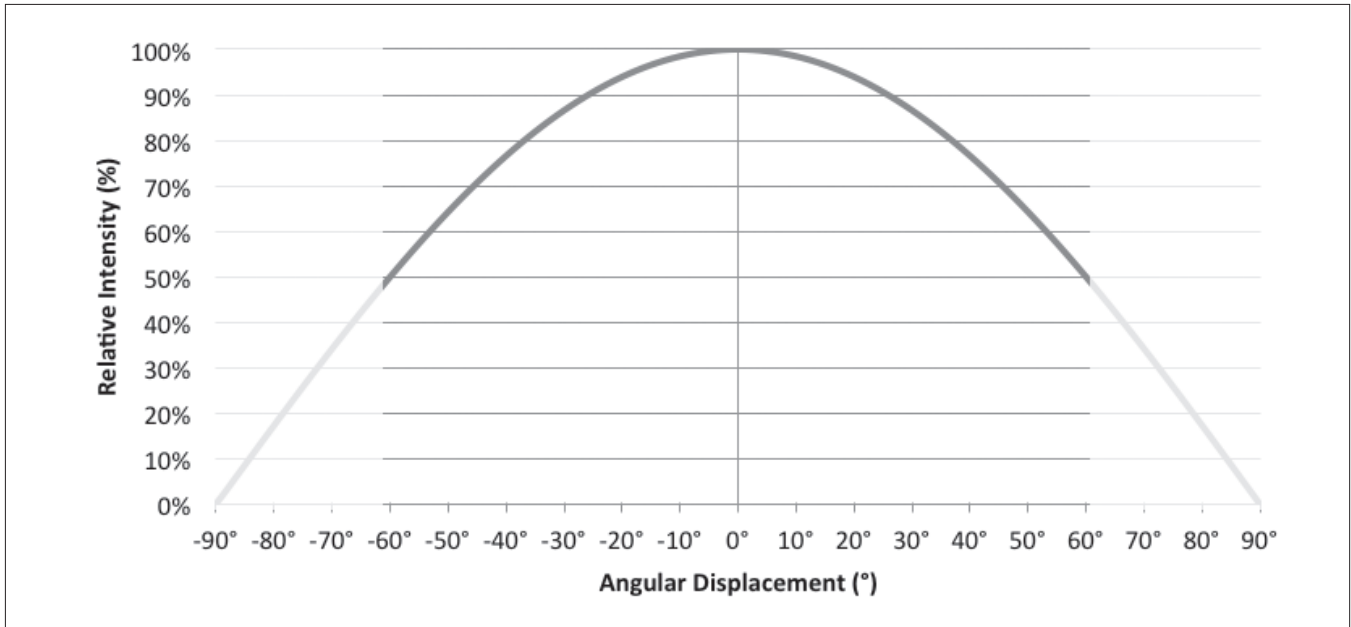


Figure 10: Derating Curve



Typical Radiation Pattern

Figure 11: Typical Spatial Radiation Pattern

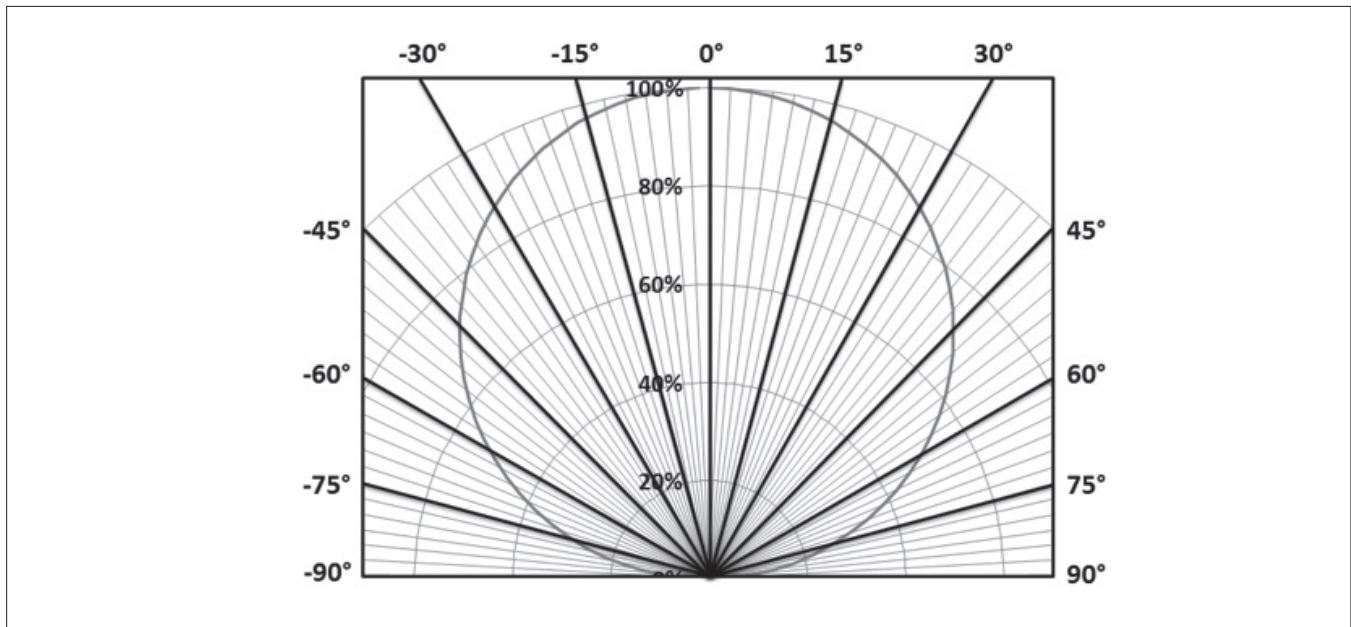


Note for Figure 11:

1. Typical viewing angle is 120°.
2. The viewing angle is defined as the off axis angle from the centerline where intensity is ½ of the peak value.

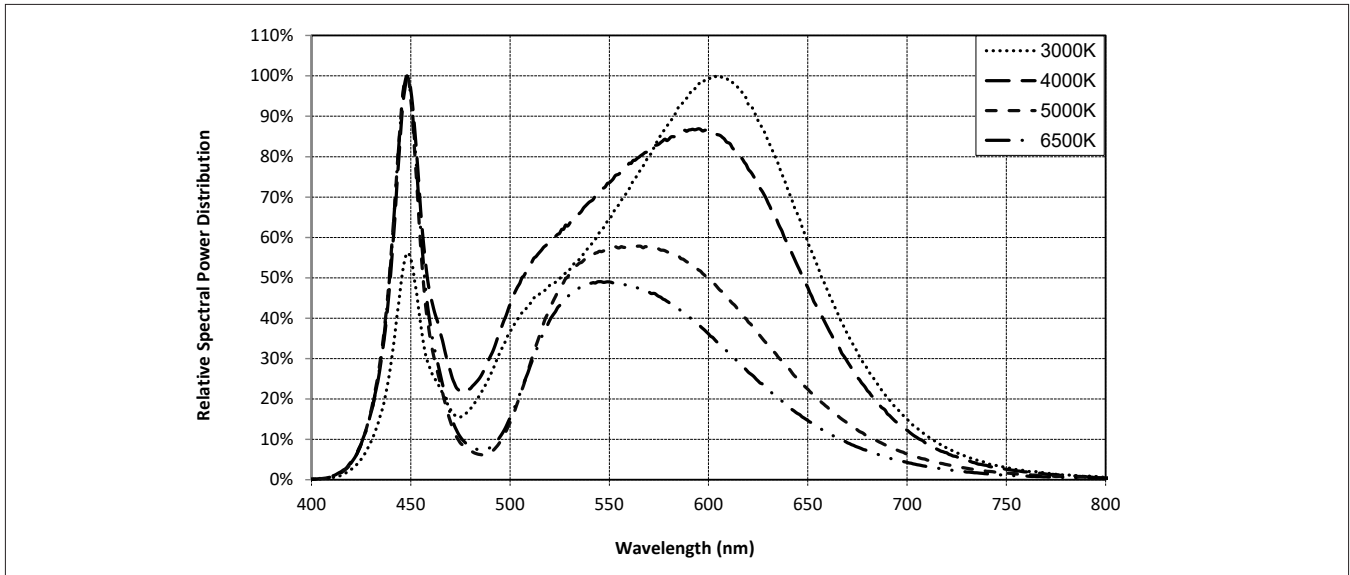
Typical Radiation Pattern

Figure 12: Typical Polar Radiation Pattern



Typical Color Spectrum

Figure 13: Typical Color Spectrum

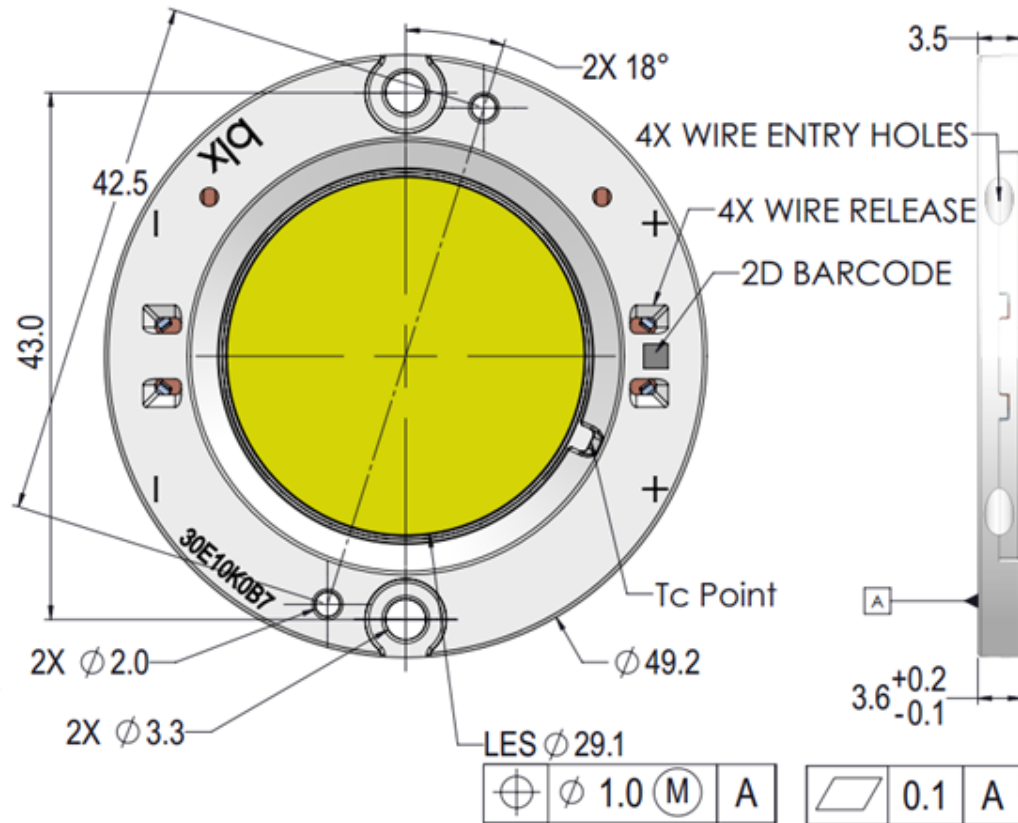


Note for Figure 13:

1. Color spectra measured at nominal current for $T_j = T_c = 25^\circ\text{C}$.
2. Color spectra shown is 3000K and 80 CRI.
3. Color spectra shown is 4000K and 80 CRI.
4. Color spectra shown is 5000K and 70 CRI.
4. Color spectra shown is 6500K and 70 CRI.

Mechanical Dimensions

Figure 14: Drawing for Vero SE 29 LED Array

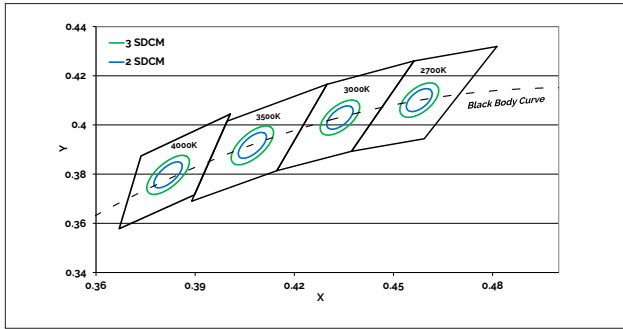


Notes for Figure 14:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ± 0.1 mm.
4. Mounting holes (2X) are for M3 screws.
5. Bridgelux recommends two tapped holes for mounting screws with 31.4 ± 0.10 mm center-to-center spacing.
6. Screws with flat shoulders (pan, dome, button, round, truss, mushroom) provide optimal torque control. Do NOT use flat, countersink, or raised head screws.
7. The optical center of the LED Array is nominally defined by the mechanical center of the array to a tolerance of ± 0.2 mm.
8. Bridgelux maintains a flatness of 0.10mm across the mounting surface of the array

Color Binning Information

Figure 15: Graph of Warm and Neutral White Test Bins in xy Color Space

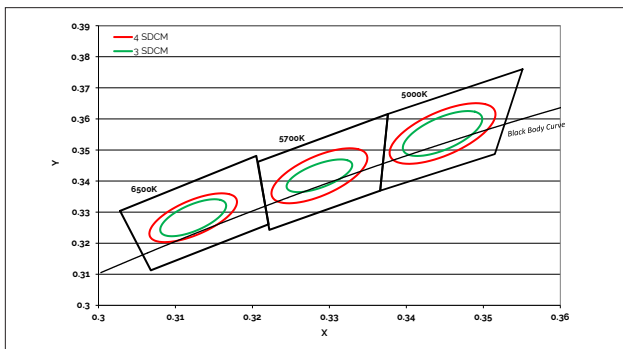


Note: Pulsed Test Conditions, $T_c = 25^\circ\text{C}$

Table 7: Warm and Neutral White xy Bin Coordinates and Associated Typical CCT

| Bin Code | 2700K | 3000K | 3500K | 4000K |
|-------------------------------|------------------|-----------------|------------------|------------------|
| ANSI Bin (for reference only) | (2580K - 2870K) | (2870K - 3220K) | (3220K - 3710K) | (3710K - 4260K) |
| 83 (3 SDCM) | (2651K - 2794K) | (2968K - 3136K) | (3369K - 3586K) | (3851K - 4130K) |
| 82 (2 SDCM) | (2674K - 2769K) | (2995K - 3107K) | (3404K - 3548K) | (3895K - 4081K) |
| Center Point (x,y) | (0.4578, 0.4101) | (0.4338, 0.403) | (0.4073, 0.3917) | (0.3818, 0.3797) |

Figure 16: Graph of Cool White Test Bins in xy Color Space



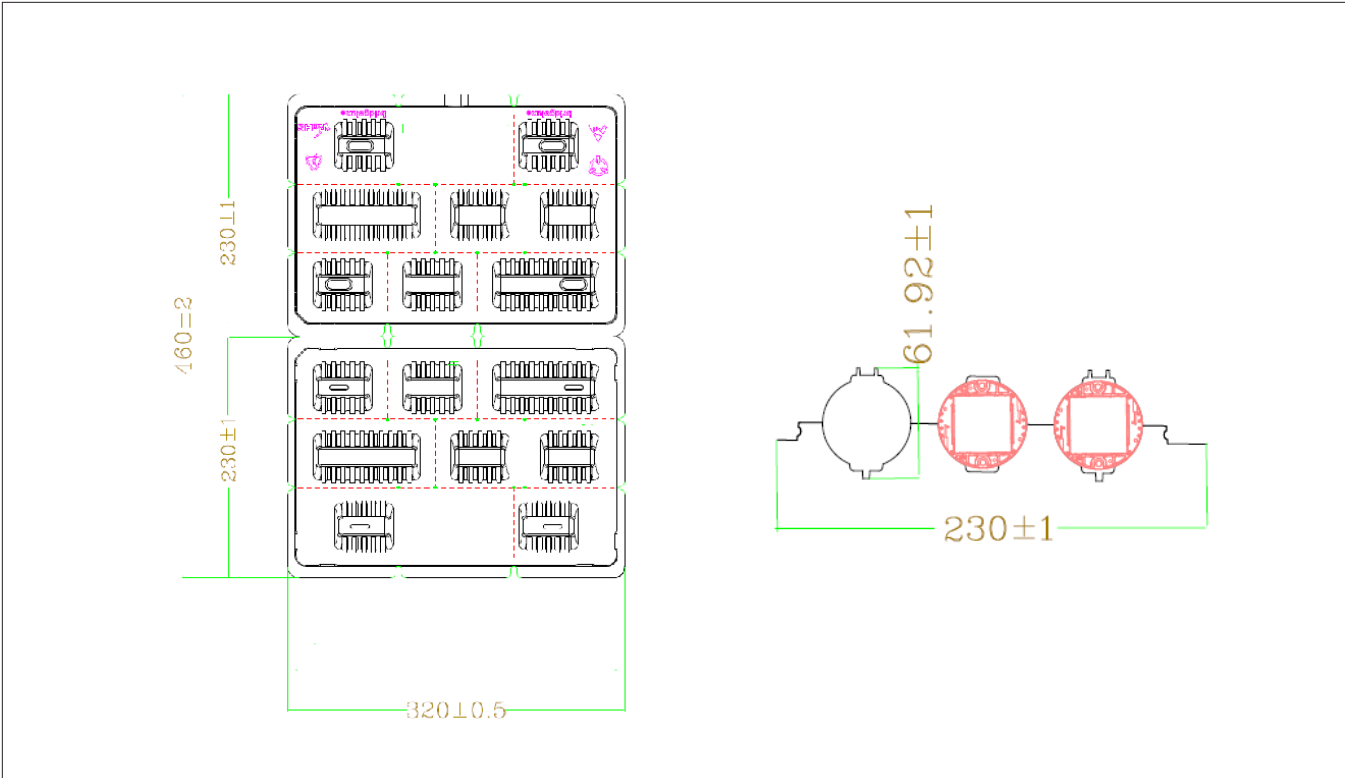
Note: Pulsed Test Conditions, $T_c = 25^\circ\text{C}$

Table 8: Cool White xy Bin Coordinates and Associated Typical CCT (product is hot targeted to $T_c = 85^\circ\text{C}$)

| Bin Code | 5000K | 5700K | 6500K |
|-------------------------------|------------------|------------------|------------------|
| ANSI Bin (for reference only) | (4745K - 5311K) | (5312K - 6022K) | (6022K - 7042K) |
| 84 (4 SDCM) | (4801K - 5282K) | (5829K - 5481K) | (6270K - 6765K) |
| 83 (3 SDCM) | (4835K - 5215K) | (5490K - 5820K) | (6250K - 6745K) |
| Center Point (x,y) | (0.3447, 0.3553) | (0.3287, 0.3417) | (0.3123, 0.3282) |

Packaging and Labeling

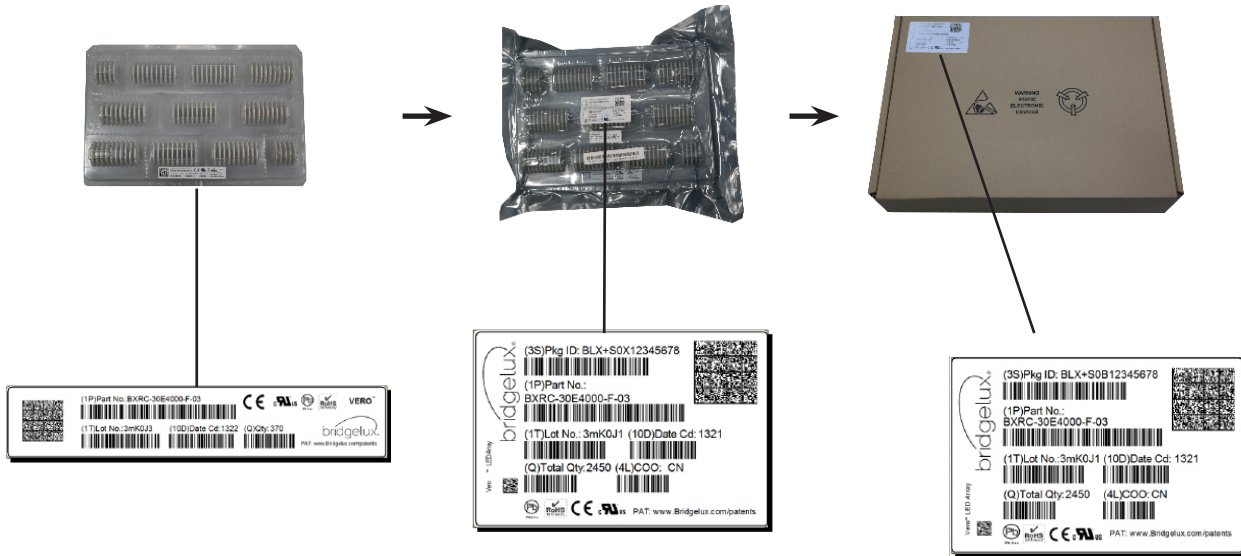
Figure 17: Drawing for Vero SE 29 Packaging Tray



- Notes for Figure 17:
- 1. Dimensions are in millimeters.
 - 2. Drawings are not to scale.

Packaging and Labeling

Figure 18: Vero SE Series Packaging and Labeling



Notes for Figure 18:

1. Each tray holds 50 COBs.
2. Each tray is vacuum sealed in an anti-static bag and placed in its own box.
3. Each tray, bag and box is to be labeled as shown above.

Figure 19: Vero SE Product Labeling

Bridgelux COB arrays have laser markings on the back side of the substrate to help with product identification. In addition to the product identification markings, Bridgelux COB arrays also contain markings for internal Bridgelux manufacturing use only. The image below shows which markings are for customer use and which ones are for Bridgelux internal use only. The Bridgelux internal manufacturing markings are subject to change without notice, however these will not impact the form, function or performance of the COB array.



Customer Use- 2D Barcode
Scannable barcode provides product part number and other Bridgelux internal production information.

Customer Use- Product part number

30E10K0C 83 2F

Customer Use- V, Bin Code included to enable greater luminaire design flexibility. Refer to ANg2 for bin definitions.

Design Resources

Application Notes

Bridgelux has developed a comprehensive set of application notes and design resources to assist customers in successfully designing with the Vero product family of LED array products. For all available application notes visit www.bridgelux.com.

Optical Source Models

Optical source models and ray set files are available for all Bridgelux products. For a list of available formats, visit www.bridgelux.com.

3D CAD Models

Three dimensional CAD models depicting the product outline of all Bridgelux Vero SE LED arrays are available in both IGS and STEP formats. Please contact your Bridgelux sales representative for assistance.

LM80

LM80 testing has been completed and the LM80 report is now available. Please contact your Bridgelux sales representative for LM-80 report.

Precautions

CAUTION: CHEMICAL EXPOSURE HAZARD

Exposure to some chemicals commonly used in luminaire manufacturing and assembly can cause damage to the LED array. Please consult Bridgelux Application Note AN120 for additional information.

CAUTION: RISK OF BURN

Do not touch the Vero LED array during operation. Allow the array to cool for a sufficient period of time before handling. The Vero LED array may reach elevated temperatures such that could burn skin when touched.

CAUTION

CONTACT WITH LIGHT EMITTING SURFACE (LES)

Avoid any contact with the LES. Do not touch the LES of the LED array or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the LED array.

Optics and reflectors must not be mounted in contact with the LES (yellow phosphor resin area). Optical devices may be mounted on the top surface of the plastic housing of the Vero LED array. Use the mechanical features of the LED array housing, edges and/or mounting holes to locate and secure optical devices as needed.

Disclaimers

MINOR PRODUCT CHANGE POLICY

The rigorous qualification testing on products offered by Bridgelux provides performance assurance. Slight cosmetic changes that do not affect form, fit, or function may occur as Bridgelux continues product optimization.

STANDARD TEST CONDITIONS

Unless otherwise stated, array testing is performed at the nominal drive current.

About Bridgelux: Bridging Light and Life™

At Bridgelux, we help companies, industries and people experience the power and possibility of light. Since 2002, we've designed LED solutions that are high performing, energy efficient, cost effective and easy to integrate. Our focus is on light's impact on human behavior, delivering products that create better environments, experiences and returns—both experiential and financial. And our patented technology drives new platforms for commercial and industrial luminaires.

For more information about the company, please visit
bridgelux.com
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facebook.com/Bridgelux
youtube.com/user/Bridgelux
linkedin.com/company/bridgelux-inc-_2
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Bridgelux Gen 8 Vero SE 29 Array Series Product Data Sheet DS433 Rev. A (06/2020)