



# Bridgelux® Vero® SE 13 Array

Product Data Sheet DS121



# Introduction

Vero SE



Vero® SE Series is a revolutionary light source system that integrates Bridgelux's seventh generation COB technology with poke-in connectivity enabling solder-free installation. Vero SE LED light sources streamline assembly processes, lower manufacturing cost, simplify luminaire design, 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.

Bridgelux Décor Series is our state of the art color line designed specifically for premium applications, producing unmatched LED light quality with brilliant color-rendering options and offer pleasing and inspiring lighting palettes. Bridgelux Décor Series color points are available on Vero® SE Series, Vero® Series, V Series™ and V Series™ HD.

**Décor Series Class A** is based on human response testing, providing color points with a combined GAI and CRI metric.

**Décor Series™ Ultra** products provide a high CRI of 97 and a minimum R<sub>g</sub> value of 93, which emphasizes the reds and color tones to which the human eye is most receptive - perfect for the most luxurious retail shops and world renowned museums. Décor Series Ultra is also a good replacement for halogen lamps.

**Décor Series™ Showcase** is the optimal solution for replacing ceramic metal halide lamps, incorporating the same pure white light with enhanced spectrum coverage and higher efficacy.

## Features

- Poke-in connectivity
- Efficacy of 167 lm/W typical
- Lumen output performance ranges from 511 to 6,931 lumens
- Broad range of CCT options from 2700K to 6500K
- CRI options: minimum 70, 80, and 90
- Color control: 2 and 3 SDCM for 2700K-4000K CCT
- Reliable operation at up to 2X nominal drive current
- Radial die pattern and improved lumen density
- Top side part number markings
- No exposed solder pads or electrical connections
- V<sub>f</sub> bin code backside marking

## Benefits

- Poke-in connectivity enables solderless, connector free installation
- Broad application coverage for interior and exterior lighting
- Flexibility for application driven lighting design requirements
- High quality, true color reproduction
- Uniform consistent white light
- Flexibility in design optimization
- Enhanced ease of use and assembly
- Ability to configure multiple Vero SE arrays in series and parallel reduces customer driver cost
- Improved inventory management and quality control



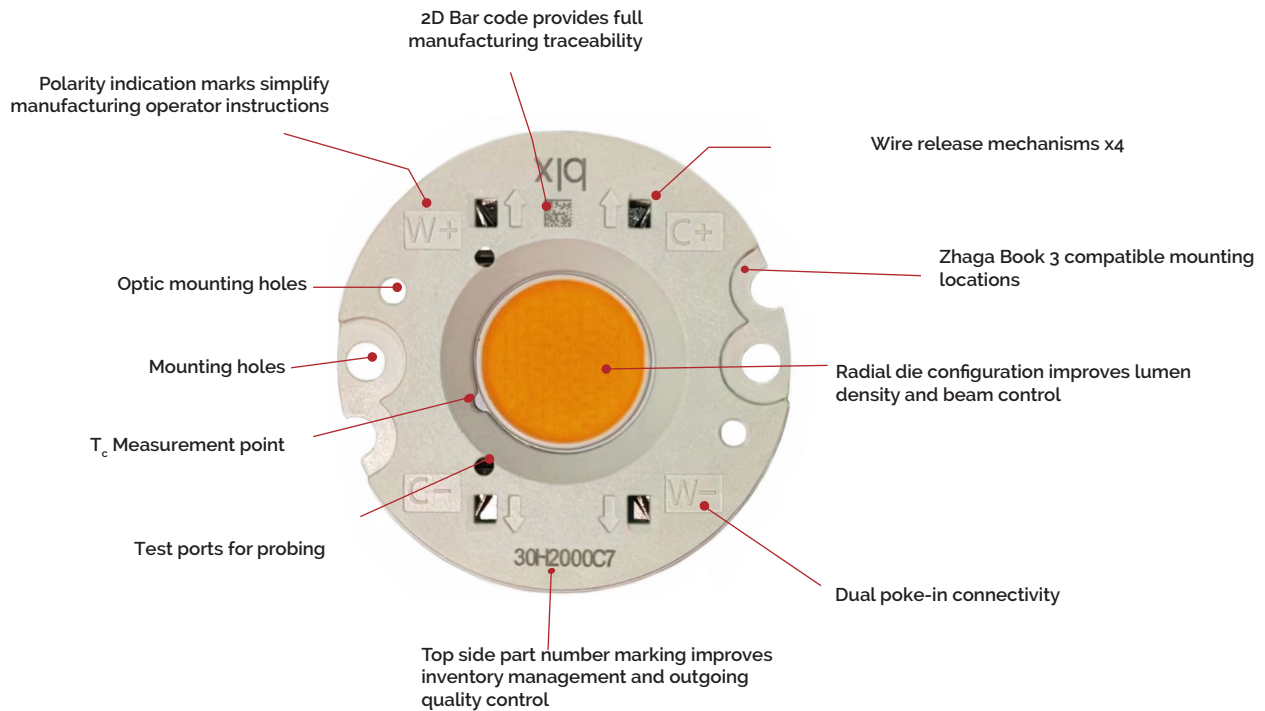
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# Product Feature Map

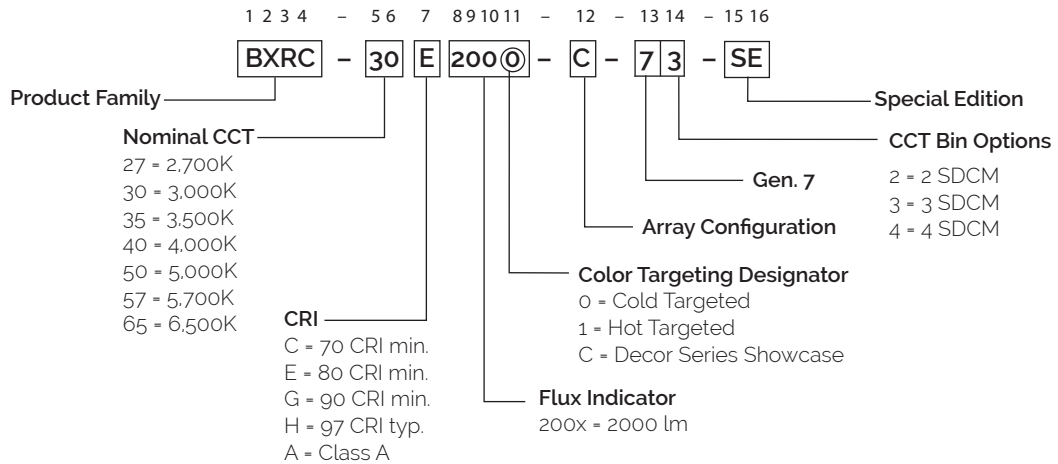
Vero SE 13 is the second smallest form factor in the product family of the next generation solid state light sources. In addition to delivering the performance and light quality required for many lighting applications,

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](http://www.bridgelux.com) for more information on the Vero SE 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 <sup>1</sup> (K)	CRI <sup>2</sup>	Nominal Drive Current <sup>3</sup> (mA)	Typical Pulsed Flux <sup>4,5,6</sup> $T_c = 25^\circ\text{C}$ (lm)	Minimum Pulsed Flux <sup>6,7</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-27E2000-B-7x-SE	2700	80	450	2455	2210	34.8	15.7	157
BXRC-27E2000-C-7x-SE	2700	80	630	3438	3094	34.8	21.9	157
BXRC-27E2000-D-7x-SE	2700	80	500	2493	2244	31.8	15.9	157
BXRC-27G20H0-B-7x-SE	2700	90	450	2103	1892	34.8	15.7	134
BXRC-27G20H0-C-7x-SE	2700	90	630	2944	2649	34.8	21.9	134
BXRC-27G20H0-D-7x-SE	2700	90	500	2135	1921	31.8	15.9	134
BXRC-27G2000-B-7x-SE	2700	90	450	2026	1823	34.8	15.7	129
BXRC-27G2000-C-7x-SE	2700	90	630	2836	2552	34.8	21.9	129
BXRC-27G2000-D-7x-SE	2700	90	500	2057	1851	31.8	15.9	129
BXRC-27H2000-B-7x-SE	2700	97	450	1796	1616	34.8	15.7	115
BXRC-27H2000-C-7x-SE	2700	97	630	2514	2262	34.8	21.9	115
BXRC-27H2000-D-7x-SE	2700	97	500	1823	1641	31.8	15.9	115
BXRC-30C2001-B-7x-SE	3000	70	450	2732	2459	34.8	15.7	174
BXRC-30C2001-C-7x-SE	3000	70	630	3824	3442	34.8	21.9	174
BXRC-30C2001-D-7x-SE	3000	70	500	2774	2496	31.8	15.9	174
BXRC-30E2000-B-7x-SE	3000	80	450	2609	2348	34.8	15.7	167
BXRC-30E2000-C-7x-SE	3000	80	630	3653	3287	34.8	21.9	167
BXRC-30E2000-D-7x-SE	3000	80	500	2649	2384	31.8	15.9	167
BXRC-30G20H0-B-7x-SE	3000	90	450	2210	1989	34.8	15.7	141
BXRC-30G20H0-C-7x-SE	3000	90	630	3094	2785	34.8	21.9	141
BXRC-30G20H0-D-7x-SE	3000	90	500	2244	2019	31.8	15.9	141
BXRC-30G2000-B-7x-SE	3000	90	450	2118	1906	34.8	15.7	135
BXRC-30G2000-C-7x-SE	3000	90	630	2965	2669	34.8	21.9	135
BXRC-30G2000-D-7x-SE	3000	90	500	2150	1935	31.8	15.9	135
BXRC-30G200C-B-7x-SE	3000	90	450	2053	1848	34.8	15.8	130
BXRC-30G200C-D-7x-SE	3000	90	500	2072	1865	31.8	15.9	130
BXRC-30H2000-B-7x-SE	3000	97	450	1918	1727	34.8	15.7	123
BXRC-30H2000-C-7x-SE	3000	97	630	2686	2417	34.8	21.9	123
BXRC-30H2000-D-7x-SE	3000	97	500	1948	1753	31.8	15.9	123
BXRC-30A2001-B-7x-SE <sup>8,9</sup>	3000	93	450	1903	1713	34.8	15.7	122
BXRC-30A2001-C-7x-SE <sup>8,9</sup>	3000	93	630	2664	2398	34.8	21.9	122
BXRC-30A2001-D-7x-SE <sup>8,9</sup>	3000	93	500	1932	1739	31.8	15.9	122

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 typical for Decor Series Ultra, Decor Series Street and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum Rg value for 80 CRI products is 0, the minimum Rg value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. Bridgelux maintains a  $\pm 3$  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) =  $25^\circ\text{C}$ .
- 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.
- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- GAI value is 80. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.

# Product Selection Guide

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

Part Number	Nominal CCT <sup>1</sup> (K)	CRI <sup>2</sup>	Nominal Drive Current <sup>3</sup> (mA)	Typical Pulsed Flux <sup>4,5,6</sup> $T_c = 25^\circ\text{C}$ (lm)	Minimum Pulsed Flux <sup>6,7</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-35E2000-B-7x-SE	3500	80	450	2670	2403	34.8	15.7	171
BXRC-35E2000-C-7x-SE	3500	80	630	3738	3365	34.8	21.9	171
BXRC-35E2000-D-7x-SE	3500	80	500	2711	2440	31.8	15.9	171
BXRC-35G2000-B-7x-SE	3500	90	450	2195	1975	34.8	15.7	140
BXRC-35G2000-C-7x-SE	3500	90	630	3072	2765	34.8	21.9	140
BXRC-35G2000-D-7x-SE	3500	90	500	2228	2005	31.8	15.9	140
BXRC-35A2001-B-7x-SE <sup>8,9</sup>	3500	93	450	2026	1823	34.8	15.7	129
BXRC-35A2001-C-7x-SE <sup>8,9</sup>	3500	93	630	2836	2552	34.8	21.9	129
BXRC-35A2001-D-7x-SE <sup>8,9</sup>	3500	93	500	2057	1851	31.8	15.9	129
BXRC-40C2001-B-7x-SE	4000	70	450	2808	2528	34.8	15.7	179
BXRC-40C2001-C-7x-SE	4000	70	630	3932	3539	34.8	21.9	179
BXRC-40C2001-D-7x-SE	4000	70	500	2852	2566	31.8	15.9	179
BXRC-40E2000-B-7x-SE	4000	80	450	2686	2417	34.8	15.7	172
BXRC-40E2000-C-7x-SE	4000	80	630	3760	3384	34.8	21.9	172
BXRC-40E2000-D-7x-SE	4000	80	500	2727	2454	31.8	15.9	172
BXRC-40G2000-B-7x-SE	4000	90	450	2241	2017	34.8	15.7	143
BXRC-40G2000-C-7x-SE	4000	90	630	3137	2823	34.8	21.9	143
BXRC-40G2000-D-7x-SE	4000	90	500	2275	2047	31.8	15.9	143
BXRC-40H2000-B-7x-SE	4000	97	450	2026	1823	34.8	15.7	129
BXRC-40H2000-C-7x-SE	4000	97	630	2836	2552	34.8	21.9	129
BXRC-40H2000-D-7x-SE	4000	97	500	2057	1851	31.8	15.9	129
BXRC-40A2001-B-7x-SE <sup>8,9</sup>	4000	93	450	2195	1975	34.8	15.7	140
BXRC-40A2001-C-7x-SE <sup>8,9</sup>	4000	93	630	3072	2765	34.8	21.9	140
BXRC-40A2001-D-7x-SE <sup>8,9</sup>	4000	93	500	2228	2005	31.8	15.9	140
BXRC-50C2001-B-7x-SE	5000	70	450	2824	2541	34.8	15.7	180
BXRC-50C2001-C-7x-SE	5000	70	630	3953	3558	34.8	21.9	180
BXRC-50C2001-D-7x-SE	5000	70	500	2867	2580	31.8	15.9	180
BXRC-50E2001-B-7x-SE	5000	80	450	2716	2445	34.8	15.7	173
BXRC-50E2001-C-7x-SE	5000	80	630	3803	3423	34.8	21.9	173
BXRC-50E2001-D-7x-SE	5000	80	500	2758	2482	31.8	15.9	173
BXRC-50G2001-B-7x-SE	5000	90	450	2348	2113	34.8	15.7	150
BXRC-50G2001-C-7x-SE	5000	90	630	3287	2959	34.8	21.9	150
BXRC-50G2001-D-7x-SE	5000	90	500	2384	2146	31.8	15.9	150

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 typical for Decor Series Ultra, Decor Series Street and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum Rg value for 80 CRI products is 0, the minimum Rg value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. Bridgelux maintains a  $\pm 3$  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) =  $25^\circ\text{C}$ .
- 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.
- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- GAI value is 80. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.

# Product Selection Guide

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

Part Number	Nominal CCT <sup>1</sup> (K)	CRI <sup>2</sup>	Nominal Drive Current <sup>3</sup> (mA)	Typical Pulsed Flux <sup>4,5,6</sup> $T_c = 25^\circ\text{C}$ (lm)	Minimum Pulsed Flux <sup>6,7</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-57C2001-B-7x-SE	5700	70	450	2747	2472	34.8	15.7	175
BXRC-57C2001-C-7x-SE	5700	70	630	3846	3461	34.8	21.9	175
BXRC-57C2001-D-7x-SE	5700	70	500	2789	2510	31.8	15.9	175
BXRC-57E2001-B-7x-SE	5700	80	450	2609	2348	34.8	15.7	167
BXRC-57E2001-C-7x-SE	5700	80	630	3653	3287	34.8	21.9	167
BXRC-57E2001-D-7x-SE	5700	80	500	2649	2384	31.8	15.9	167
BXRC-65C2001-B-7x-SE	6500	70	450	2747	2472	34.8	15.7	175
BXRC-65C2001-C-7x-SE	6500	70	630	3846	3461	34.8	21.9	175
BXRC-65C2001-D-7x-SE	6500	70	500	2789	2510	31.8	15.9	175
BXRC-65E2001-B-7x-SE	6500	80	450	2640	2376	34.8	15.7	169
BXRC-65E2001-C-7x-SE	6500	80	630	3696	3326	34.8	21.9	169
BXRC-65E2001-D-7x-SE	6500	80	500	2680	2412	31.8	15.9	169

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 typical for Decor Series Ultra, Decor Series Street and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum Rg value for 80 CRI products is 0, the minimum Rg value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. Bridgelux maintains a  $\pm 3$  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) =  $25^\circ\text{C}$ .
- 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.
- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- GAI value is 80. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.

# Product Selection Guide

**Table 2:** Selection Guide, Stabilized DC Performance ( $T_c = 70^\circ\text{C}$ ) <sup>7,8</sup>

Part Number	Nominal CCT <sup>1</sup> (K)	GAI <sup>2</sup>	CRI <sup>3</sup>	Nominal Drive Current <sup>4</sup> (mA)	Typical DC Flux <sup>5,6</sup> $T_c = 70^\circ\text{C}$ (lm)	Minimum DC Flux <sup>6,9</sup> $T_c = 70^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-30A2001-B-7x-SE	3000	80	93	450	1770	1557	34.4	15.5	115
BXRC-30A2001-C-7x-SE	3000	80	93	630	2478	2180	34.4	21.6	115
BXRC-30A2001-D-7x-SE	3000	80	93	500	1797	1581	31.2	15.6	115
BXRC-35A2001-B-7x-SE	3500	80	93	450	1884	1658	34.4	15.5	122
BXRC-35A2001-C-7x-SE	3500	80	93	630	2638	2321	34.4	21.6	122
BXRC-35A2001-D-7x-SE	3500	80	93	500	1913	1683	31.2	15.6	123
BXRC-40A2001-B-7x-SE	4000	80	93	450	2041	1796	34.4	15.5	132
BXRC-40A2001-C-7x-SE	4000	80	93	630	2857	2514	34.4	21.6	132
BXRC-40A2001-D-7x-SE	4000	80	93	500	2072	1824	31.2	15.6	133

Notes for Table 2:

- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.
- CRI Values are specified as typical.
- Drive current is referred to as nominal drive current.
- 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.
- 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 specified temperature. 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 3:** Selection Guide, Stabilized DC Performance ( $T_c = 85^\circ\text{C}$ )<sup>4,5</sup>

Part Number	Nominal CCT <sup>1</sup> (K)	CRI <sup>2</sup>	Nominal Drive Current <sup>3</sup> (mA)	Typical DC Flux <sup>4,5</sup> $T_c = 85^\circ\text{C}$ (lm)	Minimum DC Flux <sup>6</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-27E2000-B-7x-SE	2700	80	450	2210	1989	33.9	15.3	145
BXRC-27E2000-C-7x-SE	2700	80	630	3094	2785	33.9	21.4	145
BXRC-27E2000-D-7x-SE	2700	80	500	2244	2019	30.9	15.5	145
BXRC-27G20H0-B-7x-SE	2700	90	450	1892	1703	33.9	15.3	124
BXRC-27G20H0-C-7x-SE	2700	90	630	2649	2384	33.9	21.4	124
BXRC-27G20H0-D-7x-SE	2700	90	500	1921	1729	30.9	15.5	124
BXRC-27G2000-B-7x-SE	2700	90	450	1823	1641	33.9	15.3	119
BXRC-27G2000-C-7x-SE	2700	90	630	2552	2297	33.9	21.4	119
BXRC-27G2000-D-7x-SE	2700	90	500	1851	1666	30.9	15.5	120
BXRC-27H2000-B-7x-SE	2700	97	450	1616	1454	33.9	15.3	106
BXRC-27H2000-C-7x-SE	2700	97	630	2262	2036	33.9	21.4	106
BXRC-27H2000-D-7x-SE	2700	97	500	1641	1477	30.9	15.5	106
BXRC-30C2001-B-7x-SE	3000	70	450	2459	2213	33.9	15.3	161
BXRC-30C2001-C-7x-SE	3000	70	630	3442	3098	33.9	21.4	161
BXRC-30C2001-D-7x-SE	3000	70	500	2496	2247	30.9	15.5	161
BXRC-30E2000-B-7x-SE	3000	80	450	2348	2113	33.9	15.3	154
BXRC-30E2000-C-7x-SE	3000	80	630	3287	2959	33.9	21.4	154
BXRC-30E2000-D-7x-SE	3000	80	500	2384	2146	30.9	15.5	154
BXRC-30G20H0-B-7x-SE	3000	90	450	1989	1790	33.9	15.3	130
BXRC-30G20H0-C-7x-SE	3000	90	630	2785	2506	33.9	21.4	130
BXRC-30G20H0-D-7x-SE	3000	90	500	2019	1817	30.9	15.5	131
BXRC-30G2000-B-7x-SE	3000	90	450	1906	1715	33.9	15.3	125
BXRC-30G2000-C-7x-SE	3000	90	630	2669	2402	33.9	21.4	125
BXRC-30G2000-D-7x-SE	3000	90	500	1935	1742	30.9	15.5	125
BXRC-30G200C-B-7x-SE	3000	90	450	1848	1663	33.9	15.3	121
BXRC-30G200C-D-7x-SE	3000	90	500	1865	1679	30.9	15.5	121
BXRC-30H2000-B-7x-SE	3000	97	450	1727	1554	33.9	15.3	113
BXRC-30H2000-C-7x-SE	3000	97	630	2417	2175	33.9	21.4	113
BXRC-30H2000-D-7x-SE	3000	97	500	1753	1578	30.9	15.5	113
BXRC-30A2001-B-7x-SE <sup>7,8</sup>	3000	93	450	1713	1541	33.9	15.3	112
BXRC-30A2001-C-7x-SE <sup>7,8</sup>	3000	93	630	2398	2158	33.9	21.4	112
BXRC-30A2001-D-7x-SE <sup>7,8</sup>	3000	93	500	1739	1565	30.9	15.5	112

Notes for Table 3:

- 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 typical for Decor Series Ultra, Decor Series Street and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum Rg value for 80 CRI products is 0, the minimum Rg value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. Bridgelux maintains a  $\pm 3$  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  $85^\circ\text{C}$ . 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.
- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- GAI value is 80. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.

# Product Selection Guide

**Table 3:** Selection Guide, Stabilized DC Performance ( $T_c = 85^\circ\text{C}$ )<sup>4,5</sup> (continued)

Part Number	Nominal CCT <sup>1</sup> (K)	CRI <sup>2</sup>	Nominal Drive Current <sup>3</sup> (mA)	Typical DC Flux <sup>4,5</sup> $T_c = 85^\circ\text{C}$ (lm)	Minimum DC Flux <sup>6</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-35E2000-B-7x-SE	3500	80	450	2403	2163	33.9	15.3	158
BXRC-35E2000-C-7x-SE	3500	80	630	3365	3028	33.9	21.4	158
BXRC-35E2000-D-7x-SE	3500	80	500	2440	2196	30.9	15.5	158
BXRC-35G2000-B-7x-SE	3500	90	450	1975	1778	33.9	15.3	129
BXRC-35G2000-C-7x-SE	3500	90	630	2765	2489	33.9	21.4	129
BXRC-35G2000-D-7x-SE	3500	90	500	2005	1805	30.9	15.5	130
BXRC-35A2001-B-7x-SE <sup>7,8</sup>	3500	93	450	1823	1641	33.9	15.3	119
BXRC-35A2001-C-7x-SE <sup>7,8</sup>	3500	93	630	2552	2297	33.9	21.4	119
BXRC-35A2001-D-7x-SE <sup>7,8</sup>	3500	93	500	1851	1666	30.9	15.5	120
BXRC-40C2001-B-7x-SE	4000	70	450	2528	2275	33.9	15.3	166
BXRC-40C2001-C-7x-SE	4000	70	630	3539	3185	33.9	21.4	166
BXRC-40C2001-D-7x-SE	4000	70	500	2566	2310	30.9	15.5	166
BXRC-40E2000-B-7x-SE	4000	80	450	2417	2175	33.9	15.3	158
BXRC-40E2000-C-7x-SE	4000	80	630	3384	3046	33.9	21.4	158
BXRC-40E2000-D-7x-SE	4000	80	500	2454	2209	30.9	15.5	159
BXRC-40G2000-B-7x-SE	4000	90	450	2017	1815	33.9	15.3	132
BXRC-40G2000-C-7x-SE	4000	90	630	2823	2541	33.9	21.4	132
BXRC-40G2000-D-7x-SE	4000	90	500	2047	1843	30.9	15.5	132
BXRC-40H2000-B-7x-SE	4000	97	450	1823	1641	33.9	15.3	119
BXRC-40H2000-C-7x-SE	4000	97	630	2552	2297	33.9	21.4	119
BXRC-40H2000-D-7x-SE	4000	97	500	1851	1666	30.9	15.5	120
BXRC-40A2001-B-7x-SE <sup>7,8</sup>	4000	93	450	1975	1778	33.9	15.3	129
BXRC-40A2001-C-7x-SE <sup>7,8</sup>	4000	93	630	2765	2489	33.9	21.4	129
BXRC-40A2001-D-7x-SE <sup>7,8</sup>	4000	93	500	2005	1805	30.9	15.5	130
BXRC-50C2001-B-7x-SE	5000	70	450	2541	2287	33.9	15.3	167
BXRC-50C2001-C-7x-SE	5000	70	630	3558	3202	33.9	21.4	167
BXRC-50C2001-D-7x-SE	5000	70	500	2580	2322	30.9	15.5	167
BXRC-50E2001-B-7x-SE	5000	80	450	2445	2200	33.9	15.3	160
BXRC-50E2001-C-7x-SE	5000	80	630	3423	3080	33.9	21.4	160
BXRC-50E2001-D-7x-SE	5000	80	500	2482	2234	30.9	15.5	161
BXRC-50G2001-B-7x-SE	5000	90	450	2113	1902	33.9	15.3	139
BXRC-50G2001-C-7x-SE	5000	90	630	2959	2663	33.9	21.4	139
BXRC-50G2001-D-7x-SE	5000	90	500	2146	1931	30.9	15.5	139

Notes for Table 3:

- 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  $T_c = 25^\circ\text{C}$ . CRI values are typical for Decor Series Ultra, Decor Series Street and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum Rg value for 80 CRI products is 0, the minimum Rg value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. Bridgelux maintains a  $\pm 3$  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  $85^\circ\text{C}$ . 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.
- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- GAI value is 80. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.

# Product Selection Guide

**Table 3:** Selection Guide, Stabilized DC Performance ( $T_c = 85^\circ\text{C}$ )<sup>4,5</sup> (continued)

Part Number	Nominal CCT <sup>1</sup> (K)	CRI <sup>2</sup>	Nominal Drive Current <sup>3</sup> (mA)	Typical DC Flux <sup>4,5</sup> $T_c = 85^\circ\text{C}$ (lm)	Minimum DC Flux <sup>6</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical $V_f$ (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-57C2001-B-7x-SE	5700	70	450	2472	2225	33.9	15.3	162
BXRC-57C2001-C-7x-SE	5700	70	630	3461	3115	33.9	21.4	162
BXRC-57C2001-D-7x-SE	5700	70	500	2510	2259	30.9	15.5	162
BXRC-57E2001-B-7x-SE	5700	80	450	2348	2113	33.9	15.3	154
BXRC-57E2001-C-7x-SE	5700	80	630	3287	2959	33.9	21.4	154
BXRC-57E2001-D-7x-SE	5700	80	500	2384	2146	30.9	15.5	154
BXRC-65C2001-B-7x-SE	6500	70	450	2472	2225	33.9	15.3	162
BXRC-65C2001-C-7x-SE	6500	70	630	3461	3115	33.9	21.4	162
BXRC-65C2001-D-7x-SE	6500	70	500	2510	2259	30.9	15.5	162
BXRC-65E2001-B-7x-SE	6500	80	450	2376	2138	33.9	15.3	156
BXRC-65E2001-C-7x-SE	6500	80	630	3326	2993	33.9	21.4	156
BXRC-65E2001-D-7x-SE	6500	80	500	2412	2171	30.9	15.5	156

Notes for Table 3:

- 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  $T_1 - T_c = 25^\circ\text{C}$ . CRI values are typical for Decor Series Ultra, Decor Series Street and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum Rg value for 80 CRI products is 0, the minimum Rg value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. Bridgelux maintains a  $\pm 3$  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  $85^\circ\text{C}$ . 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.
- Nominal CCT is defined by the Lighting Research Center's Class A definition. The center of the Class A color bin is on the corresponding isothermal line.
- GAI value is 80. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of  $70^\circ\text{C}$ . GAI may vary depending on fixture design and performance.

# European Product Registry for Energy Labeling

The European Product Registry for Energy Labeling (EPREL) is defined in the EU Regulation 2017/1369 to provide important energy efficiency information to consumers. Together with Energy Labeling Regulation ELR (EU) 2019/2015 which was amended by regulation (EU) 2021/340 for energy labelling of light sources, manufacturers are required to declare an energy class based on key technical specifications from each of their product and register it in an open data base managed by EPREL. It is now a legal requirement for a vendor of light sources to upload information about their products into the EPREL database before placing these products on the market in the EU.

Table 4 below provides a list of part numbers that are in compliance with ELR and are currently listed in the EPREL database.

At Bridgelux, we are fully committed to supplying products that are compliant with pertinent laws, rules, and obligation imposed by relevant government bodies including the European Energy Labeling regulation. Customers can use these products with full confidence for any projects that fall under the ELR.

**Table 4:** Part numbers registered in European Product Registry for Energy Labeling

PART NUMBER <sup>1</sup>	CCT (K)	CRI	Current <sup>2</sup> (mA)	Vf (V)	Useful flux <sup>3</sup> ( $\Phi_{use}$ ) at 85C (lm)	Power (W)	Efficacy (lm/W)	Energy efficiency class <sup>4</sup>	Registration No	URL to Product Information Sheet in EPREL Database
BXRC-27E2000-B-73-SE	2700	80	900	35.2	3477	31.7	110	E	872491	<a href="https://eprelec.europa.eu/qr/872491">https://eprelec.europa.eu/qr/872491</a>
BXRC-27E2000-C-73-SE	2700	80	1260	35.2	4868	44.4	110	E	872496	<a href="https://eprelec.europa.eu/qr/872496">https://eprelec.europa.eu/qr/872496</a>
BXRC-27E2000-D-73-SE	2700	80	1000	33.6	3568	33.6	106	E	872501	<a href="https://eprelec.europa.eu/qr/872501">https://eprelec.europa.eu/qr/872501</a>
BXRC-27G20H0-B-73-SE	2700	90	900	35.2	2977	31.7	94	F	872591	<a href="https://eprelec.europa.eu/qr/872591">https://eprelec.europa.eu/qr/872591</a>
BXRC-27G20H0-C-73-SE	2700	90	1260	35.2	4168	44.4	94	F	872595	<a href="https://eprelec.europa.eu/qr/872595">https://eprelec.europa.eu/qr/872595</a>
BXRC-27G20H0-D-73-SE	2700	90	1000	33.6	3055	33.6	91	F	872599	<a href="https://eprelec.europa.eu/qr/872599">https://eprelec.europa.eu/qr/872599</a>
BXRC-27G2000-B-73-SE	2700	90	900	35.2	2869	31.7	90	F	872577	<a href="https://eprelec.europa.eu/qr/872577">https://eprelec.europa.eu/qr/872577</a>
BXRC-27G2000-C-73-SE	2700	90	1260	35.2	4016	44.4	90	F	872582	<a href="https://eprelec.europa.eu/qr/872582">https://eprelec.europa.eu/qr/872582</a>
BXRC-27G2000-D-73-SE	2700	90	1000	33.6	2944	33.6	88	F	872587	<a href="https://eprelec.europa.eu/qr/872587">https://eprelec.europa.eu/qr/872587</a>
BXRC-27H2000-B-73-SE	2700	95	900	35.2	2543	31.7	80	F	872650	<a href="https://eprelec.europa.eu/qr/872650">https://eprelec.europa.eu/qr/872650</a>
BXRC-27H2000-C-73-SE	2700	95	1260	35.2	3560	44.4	80	F	872654	<a href="https://eprelec.europa.eu/qr/872654">https://eprelec.europa.eu/qr/872654</a>
BXRC-27H2000-D-73-SE	2700	95	1000	33.6	2609	33.6	78	G	872658	<a href="https://eprelec.europa.eu/qr/872658">https://eprelec.europa.eu/qr/872658</a>
BXRC-30C2001-B-73-SE	3000	70	900	35.2	3868	31.7	122	E	872728	<a href="https://eprelec.europa.eu/qr/872728">https://eprelec.europa.eu/qr/872728</a>
BXRC-30C2001-C-73-SE	3000	70	1260	35.2	5416	44.4	122	E	872734	<a href="https://eprelec.europa.eu/qr/872734">https://eprelec.europa.eu/qr/872734</a>
BXRC-30C2001-D-73-SE	3000	70	1000	33.6	3969	33.6	118	E	872740	<a href="https://eprelec.europa.eu/qr/872740">https://eprelec.europa.eu/qr/872740</a>
BXRC-30E2000-B-73-SE	3000	80	900	35.2	3694	31.7	116	E	872797	<a href="https://eprelec.europa.eu/qr/872797">https://eprelec.europa.eu/qr/872797</a>
BXRC-30E2000-C-73-SE	3000	80	1260	35.2	5172	44.4	116	E	872802	<a href="https://eprelec.europa.eu/qr/872802">https://eprelec.europa.eu/qr/872802</a>
BXRC-30E2000-D-73-SE	3000	80	1000	33.6	3791	33.6	113	E	872807	<a href="https://eprelec.europa.eu/qr/872807">https://eprelec.europa.eu/qr/872807</a>

Notes for Table 4:

1. All device listed here must be disposed as e-waste upon its end of life according to local country guideline in each country.
2. For information on performance values at alternative drive conditions, please refer to the Product Selection Guide, Absolute Maximum Rating Table and Performance Curves in this data sheet.
3. For a definition of useful luminous flux ( $\Phi_{use}$ ), please see the ELR regulations at <https://tinyurl.com/4b6zvt4m>.
4. EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed, on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

# European Product Registry for Energy Labeling

**Table 4:** Part numbers registered in European Product Registry for Energy Labeling (Continued)

PART NUMBER <sup>1</sup>	CCT (K)	CRI	Current <sup>2</sup> (mA)	Vf (V)	Useful flux <sup>3</sup> ( $\Phi_{use}$ ) at 85°C (lm)	Power (W)	Efficacy (lm/W)	Energy efficiency class <sup>4</sup>	Registration No	URL to Product Information Sheet in EPREL Database
BXRC-30G20H0-B-73-SE	3000	90	900	35.2	3129	31.7	99	F	872908	<a href="https://epreLec.europa.eu/qr/872908">https://epreLec.europa.eu/qr/872908</a>
BXRC-30G20H0-C-73-SE	3000	90	1260	35.2	4381	44.4	99	F	872912	<a href="https://epreLec.europa.eu/qr/872912">https://epreLec.europa.eu/qr/872912</a>
BXRC-30G20H0-D-73-SE	3000	90	1000	33.6	3211	33.6	96	F	872916	<a href="https://epreLec.europa.eu/qr/872916">https://epreLec.europa.eu/qr/872916</a>
BXRC-30G2000-B-73-SE	3000	90	900	35.2	2999	31.7	95	F	872887	<a href="https://epreLec.europa.eu/qr/872887">https://epreLec.europa.eu/qr/872887</a>
BXRC-30G2000-C-73-SE	3000	90	1260	35.2	4199	44.4	95	F	872892	<a href="https://epreLec.europa.eu/qr/872892">https://epreLec.europa.eu/qr/872892</a>
BXRC-30G2000-D-73-SE	3000	90	1000	33.6	3077	33.6	92	F	872897	<a href="https://epreLec.europa.eu/qr/872897">https://epreLec.europa.eu/qr/872897</a>
BXRC-30G200C-B-73-SE	3000	90	900	35.2	2999	31.7	95	F	872901	<a href="https://epreLec.europa.eu/qr/872901">https://epreLec.europa.eu/qr/872901</a>
BXRC-30G200C-D-73-SE	3000	90	1000	33.6	3077	33.6	92	F	872903	<a href="https://epreLec.europa.eu/qr/872903">https://epreLec.europa.eu/qr/872903</a>
BXRC-30H2000-B-73-SE	3000	95	900	35.2	2717	31.7	86	F	872973	<a href="https://epreLec.europa.eu/qr/872973">https://epreLec.europa.eu/qr/872973</a>
BXRC-30H2000-C-73-SE	3000	95	1260	35.2	3803	44.4	86	F	872977	<a href="https://epreLec.europa.eu/qr/872977">https://epreLec.europa.eu/qr/872977</a>
BXRC-30H2000-D-73-SE	3000	95	1000	33.6	2787	33.6	83	F	872981	<a href="https://epreLec.europa.eu/qr/872981">https://epreLec.europa.eu/qr/872981</a>
BXRC-30A2001-B-73-SE	3000	90	900	35.2	2695	31.7	85	F	872685	<a href="https://epreLec.europa.eu/qr/872685">https://epreLec.europa.eu/qr/872685</a>
BXRC-30A2001-C-73-SE	3000	90	1260	35.2	3773	44.4	85	F	872686	<a href="https://epreLec.europa.eu/qr/872686">https://epreLec.europa.eu/qr/872686</a>
BXRC-30A2001-D-73-SE	3000	90	1000	33.6	2765	33.6	82	F	872687	<a href="https://epreLec.europa.eu/qr/872687">https://epreLec.europa.eu/qr/872687</a>
BXRC-35E2000-B-73-SE	3500	80	900	35.2	3781	31.7	119	E	873044	<a href="https://epreLec.europa.eu/qr/873044">https://epreLec.europa.eu/qr/873044</a>
BXRC-35E2000-C-73-SE	3500	80	1260	35.2	5294	44.4	119	E	873049	<a href="https://epreLec.europa.eu/qr/873049">https://epreLec.europa.eu/qr/873049</a>
BXRC-35E2000-D-73-SE	3500	80	1000	33.6	3880	33.6	115	E	873054	<a href="https://epreLec.europa.eu/qr/873054">https://epreLec.europa.eu/qr/873054</a>
BXRC-35G2000-B-73-SE	3500	90	900	35.2	3108	31.7	98	F	873106	<a href="https://epreLec.europa.eu/qr/873106">https://epreLec.europa.eu/qr/873106</a>
BXRC-35G2000-C-73-SE	3500	90	1260	35.2	4351	44.4	98	F	873111	<a href="https://epreLec.europa.eu/qr/873111">https://epreLec.europa.eu/qr/873111</a>
BXRC-35G2000-D-73-SE	3500	90	1000	33.6	3189	33.6	95	F	873116	<a href="https://epreLec.europa.eu/qr/873116">https://epreLec.europa.eu/qr/873116</a>
BXRC-35A2001-B-73-SE	3500	90	900	35.2	2869	31.7	90	F	873004	<a href="https://epreLec.europa.eu/qr/873004">https://epreLec.europa.eu/qr/873004</a>
BXRC-35A2001-C-73-SE	3500	90	1260	35.2	4016	44.4	90	F	873005	<a href="https://epreLec.europa.eu/qr/873005">https://epreLec.europa.eu/qr/873005</a>
BXRC-35A2001-D-73-SE	3500	90	1000	33.6	2944	33.6	88	F	873006	<a href="https://epreLec.europa.eu/qr/873006">https://epreLec.europa.eu/qr/873006</a>
BXRC-40C2001-B-73-SE	4000	70	900	35.2	3977	31.7	125	D	873191	<a href="https://epreLec.europa.eu/qr/873191">https://epreLec.europa.eu/qr/873191</a>
BXRC-40C2001-C-73-SE	4000	70	1260	35.2	5568	44.4	125	D	873197	<a href="https://epreLec.europa.eu/qr/873197">https://epreLec.europa.eu/qr/873197</a>
BXRC-40C2001-D-73-SE	4000	70	1000	33.6	4081	33.6	121	E	873203	<a href="https://epreLec.europa.eu/qr/873203">https://epreLec.europa.eu/qr/873203</a>
BXRC-40E2000-B-73-SE	4000	80	900	35.2	3803	31.7	120	E	873260	<a href="https://epreLec.europa.eu/qr/873260">https://epreLec.europa.eu/qr/873260</a>
BXRC-40E2000-C-73-SE	4000	80	1260	35.2	5324	44.4	120	E	873265	<a href="https://epreLec.europa.eu/qr/873265">https://epreLec.europa.eu/qr/873265</a>
BXRC-40E2000-D-73-SE	4000	80	1000	33.6	3902	33.6	116	E	873270	<a href="https://epreLec.europa.eu/qr/873270">https://epreLec.europa.eu/qr/873270</a>
BXRC-40G2000-B-73-SE	4000	90	900	35.2	3173	31.7	100	F	873322	<a href="https://epreLec.europa.eu/qr/873322">https://epreLec.europa.eu/qr/873322</a>
BXRC-40G2000-C-73-SE	4000	90	1260	35.2	4442	44.4	100	F	873327	<a href="https://epreLec.europa.eu/qr/873327">https://epreLec.europa.eu/qr/873327</a>
BXRC-40G2000-D-73-SE	4000	90	1000	33.6	3256	33.6	97	F	873332	<a href="https://epreLec.europa.eu/qr/873332">https://epreLec.europa.eu/qr/873332</a>
BXRC-40H2000-B-73-SE	4000	95	900	35.2	2869	31.7	90	F	873359	<a href="https://epreLec.europa.eu/qr/873359">https://epreLec.europa.eu/qr/873359</a>
BXRC-40H2000-C-73-SE	4000	95	1260	35.2	4016	44.4	90	F	873361	<a href="https://epreLec.europa.eu/qr/873361">https://epreLec.europa.eu/qr/873361</a>
BXRC-40H2000-D-73-SE	4000	95	1000	33.6	2944	33.6	88	F	873363	<a href="https://epreLec.europa.eu/qr/873363">https://epreLec.europa.eu/qr/873363</a>

Notes for Table 4:

- All device listed here must be disposed as e-waste upon its end of life according to local country guideline in each country.
- For information on performance values at alternative drive conditions, please refer to the Product Selection Guide, Absolute Maximum Rating Table and Performance Curves in this data sheet.
- For a definition of useful luminous flux ( $\Phi_{use}$ ), please see the ELR regulations at <https://tinyurl.com/4b6zvt4m>.
- EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed, on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

# European Product Registry for Energy Labeling

**Table 4:** Part numbers registered in European Product Registry for Energy Labeling (Continued)

PART NUMBER <sup>1</sup>	CCT (K)	CRI	Current <sup>2</sup> (mA)	Vf (V)	Useful flux <sup>3</sup> ( $\Phi_{use}$ ) at 85°C (lm)	Power (W)	Efficacy (lm/W)	Energy efficiency class <sup>4</sup>	Registration No	URL to Product Information Sheet in EPREL Database
BXRC-40A2001-B-73-SE	4000	90	900	35.2	3108	31.7	98	F	873148	<a href="https://eprelec.europa.eu/qr/873148">https://eprelec.europa.eu/qr/873148</a>
BXRC-40A2001-C-73-SE	4000	90	1260	35.2	4351	44.4	98	F	873149	<a href="https://eprelec.europa.eu/qr/873149">https://eprelec.europa.eu/qr/873149</a>
BXRC-40A2001-D-73-SE	4000	90	1000	33.6	3189	33.6	95	F	873150	<a href="https://eprelec.europa.eu/qr/873150">https://eprelec.europa.eu/qr/873150</a>
BXRC-50C2001-B-74-SE	5000	70	900	35.2	3999	31.7	126	D	873397	<a href="https://eprelec.europa.eu/qr/873397">https://eprelec.europa.eu/qr/873397</a>
BXRC-50C2001-C-74-SE	5000	70	1260	35.2	5598	44.4	126	D	873401	<a href="https://eprelec.europa.eu/qr/873401">https://eprelec.europa.eu/qr/873401</a>
BXRC-50C2001-D-74-SE	5000	70	1000	33.6	4103	33.6	122	E	873405	<a href="https://eprelec.europa.eu/qr/873405">https://eprelec.europa.eu/qr/873405</a>
BXRC-50E2001-B-74-SE	5000	80	900	35.2	3847	31.7	121	E	873445	<a href="https://eprelec.europa.eu/qr/873445">https://eprelec.europa.eu/qr/873445</a>
BXRC-50E2001-C-74-SE	5000	80	1260	35.2	5385	44.4	121	E	873449	<a href="https://eprelec.europa.eu/qr/873449">https://eprelec.europa.eu/qr/873449</a>
BXRC-50E2001-D-74-SE	5000	80	1000	33.6	3947	33.6	117	E	873453	<a href="https://eprelec.europa.eu/qr/873453">https://eprelec.europa.eu/qr/873453</a>
BXRC-50G2001-B-74-SE	5000	90	900	35.2	3325	31.7	105	E	873493	<a href="https://eprelec.europa.eu/qr/873493">https://eprelec.europa.eu/qr/873493</a>
BXRC-50G2001-C-74-SE	5000	90	1260	35.2	4655	44.4	105	E	873497	<a href="https://eprelec.europa.eu/qr/873497">https://eprelec.europa.eu/qr/873497</a>
BXRC-50G2001-D-74-SE	5000	90	1000	33.6	3412	33.6	102	E	873501	<a href="https://eprelec.europa.eu/qr/873501">https://eprelec.europa.eu/qr/873501</a>
BXRC-57C2001-B-74-SE	5700	70	900	35.2	3890	31.7	123	E	873579	<a href="https://eprelec.europa.eu/qr/873579">https://eprelec.europa.eu/qr/873579</a>
BXRC-57C2001-C-74-SE	5700	70	1260	35.2	5446	44.4	123	E	873583	<a href="https://eprelec.europa.eu/qr/873583">https://eprelec.europa.eu/qr/873583</a>
BXRC-57C2001-D-74-SE	5700	70	1000	33.6	3992	33.6	119	E	873587	<a href="https://eprelec.europa.eu/qr/873587">https://eprelec.europa.eu/qr/873587</a>
BXRC-57E2001-B-74-SE	5700	80	900	35.2	3694	31.7	116	E	873627	<a href="https://eprelec.europa.eu/qr/873627">https://eprelec.europa.eu/qr/873627</a>
BXRC-57E2001-C-74-SE	5700	80	1260	35.2	5172	44.4	116	E	873631	<a href="https://eprelec.europa.eu/qr/873631">https://eprelec.europa.eu/qr/873631</a>
BXRC-57E2001-D-74-SE	5700	80	1000	33.6	3791	33.6	113	E	873635	<a href="https://eprelec.europa.eu/qr/873635">https://eprelec.europa.eu/qr/873635</a>
BXRC-65C2001-B-74-SE	6500	70	900	35.2	3890	31.7	123	E	873675	<a href="https://eprelec.europa.eu/qr/873675">https://eprelec.europa.eu/qr/873675</a>
BXRC-65C2001-C-74-SE	6500	70	1260	35.2	5446	44.4	123	E	873679	<a href="https://eprelec.europa.eu/qr/873679">https://eprelec.europa.eu/qr/873679</a>
BXRC-65C2001-D-74-SE	6500	70	1000	33.6	3992	33.6	119	E	873683	<a href="https://eprelec.europa.eu/qr/873683">https://eprelec.europa.eu/qr/873683</a>
BXRC-65E2001-B-74-SE	6500	80	900	35.2	3738	31.7	118	E	873723	<a href="https://eprelec.europa.eu/qr/873723">https://eprelec.europa.eu/qr/873723</a>
BXRC-65E2001-C-74-SE	6500	80	1260	35.2	5233	44.4	118	E	873727	<a href="https://eprelec.europa.eu/qr/873727">https://eprelec.europa.eu/qr/873727</a>
BXRC-65E2001-D-74-SE	6500	80	1000	33.6	3836	33.6	114	E	873731	<a href="https://eprelec.europa.eu/qr/873731">https://eprelec.europa.eu/qr/873731</a>

Notes for Table 4:

1. All device listed here must be disposed as e-waste upon its end of life according to local country guideline in each country.
2. For information on performance values at alternative drive conditions, please refer to the Product Selection Guide, Absolute Maximum Rating Table and Performance Curves in this data sheet.
3. For a definition of useful luminous flux ( $\Phi_{use}$ ), please see the ELR regulations at <https://tinyurl.com/4b6zvt4m>.
4. EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed, on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

# Performance at Commonly Used Drive Currents

Vero SE 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 5.

**Table 5:** Product Performance at Commonly Used Drive Currents

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical V <sub>f</sub> T <sub>c</sub> = 25°C (V)	Typical Power T <sub>c</sub> = 25°C (W)	Typical Flux <sup>2</sup> T <sub>c</sub> = 25°C (lm)	Typical DC Flux <sup>3</sup> T <sub>c</sub> = 85°C (lm)	Typical Efficacy T <sub>c</sub> = 25°C (lm/W)
BXRC-27E2000-B-7x-SE	80	113	32.1	3.6	651	592	180
		225	33.0	7.4	1267	1148	170
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2455</b>	<b>2210</b>	<b>157</b>
		675	36.1	24.3	3541	3157	145
		900	37.3	33.6	4547	4009	136
BXRC-27E2000-C-7x-SE	80	158	32.1	5.1	911	829	180
		315	33.0	10.4	1773	1608	170
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3438</b>	<b>3094</b>	<b>157</b>
		945	36.1	34.1	4958	4420	145
		1260	37.3	47.0	6366	5612	136
BXRC-27E2000-D-7x-SE	80	125	29.6	3.7	665	605	180
		250	30.3	7.6	1293	1172	170
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2493</b>	<b>2244</b>	<b>157</b>
		750	33.2	24.9	3622	3228	145
		1000	34.4	34.4	4666	4114	136
BXRC-27G20H0-B-7x-SE	90	113	32.1	3.6	557	507	154
		225	33.0	7.4	1084	983	146
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2103</b>	<b>1892</b>	<b>134</b>
		675	36.1	24.3	3032	2703	125
		900	37.3	33.6	3893	3433	116
BXRC-27G20H0-C-7x-SE	90	158	32.1	5.1	780	710	154
		315	33.0	10.4	1518	1376	146
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2944</b>	<b>2649</b>	<b>134</b>
		945	36.1	34.1	4245	3784	125
		1260	37.3	47.0	5451	4806	116
BXRC-27G20H0-D-7x-SE	90	125	29.6	3.7	570	518	154
		250	30.3	7.6	1107	1004	146
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2135</b>	<b>1921</b>	<b>134</b>
		750	33.2	24.9	3101	2764	125
		1000	34.4	34.4	3995	3522	116
BXRC-27G2000-B-7x-SE	90	113	32.1	3.6	537	488	149
		225	33.0	7.4	1045	947	141
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2026</b>	<b>1823</b>	<b>129</b>
		675	36.1	24.3	2921	2604	120
		900	37.3	33.6	3751	3307	112
BXRC-27G2000-C-7x-SE	90	158	32.1	5.1	752	684	149
		315	33.0	10.4	1463	1326	141
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2836</b>	<b>2552</b>	<b>129</b>
		945	36.1	34.1	4090	3646	120
		1260	37.3	47.0	5252	4630	112

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical V <sub>f</sub> T <sub>c</sub> = 25°C (V)	Typical Power T <sub>c</sub> = 25°C (W)	Typical Flux <sup>2</sup> T <sub>c</sub> = 25°C (lm)	Typical DC Flux <sup>3</sup> T <sub>c</sub> = 85°C (lm)	Typical Efficacy T <sub>c</sub> = 25°C (lm/W)
BXRC-27G2000-D-7x-SE	90	125	29.6	3.7	549	499	149
		250	30.3	7.6	1067	967	141
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2057</b>	<b>1851</b>	<b>129</b>
		750	33.2	24.9	2988	2663	120
		1000	34.4	34.4	3849	3394	112
BXRC-27H2000-B-7x-SE	80	113	32.1	3.6	476	433	132
		225	33.0	7.4	926	840	125
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>1796</b>	<b>1616</b>	<b>115</b>
		675	36.1	24.3	2590	2308	106
		900	37.3	33.6	3325	2932	99
BXRC-27H2000-C-7x-SE	80	158	32.1	5.1	666	606	132
		315	33.0	10.4	1297	1176	125
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2514</b>	<b>2262</b>	<b>115</b>
		945	36.1	34.1	3625	3232	106
		1260	37.3	47.0	4655	4104	99
BXRC-27H2000-D-7x-SE	80	125	29.6	3.7	486	442	132
		250	30.3	7.6	946	857	125
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>1823</b>	<b>1641</b>	<b>115</b>
		750	33.2	24.9	2648	2361	106
		1000	34.4	34.4	3412	3008	99
BXRC-30C2001-B-7x-SE	70	113	32.1	3.6	724	659	200
		225	33.0	7.4	1409	1277	190
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2732</b>	<b>2459</b>	<b>174</b>
		675	36.1	24.3	3940	3512	162
		900	37.3	33.6	5058	4460	151
BXRC-30C2001-C-7x-SE	70	158	32.1	5.1	1014	922	200
		315	33.0	10.4	1973	1788	190
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3824</b>	<b>3442</b>	<b>174</b>
		945	36.1	34.1	5515	4917	162
		1260	37.3	47.0	7082	6244	151
BXRC-30C2001-D-7x-SE	70	125	29.6	3.7	740	673	200
		250	30.3	7.6	1439	1304	190
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2774</b>	<b>2496</b>	<b>174</b>
		750	33.2	24.9	4029	3592	162
		1000	34.4	34.4	5191	4576	151
BXRC-30E2000-B-7x-SE	80	113	32.1	3.6	692	629	191
		225	33.0	7.4	1346	1220	181
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2609</b>	<b>2348</b>	<b>167</b>
		675	36.1	24.3	3763	3354	155
		900	37.3	33.6	4831	4259	144
BXRC-30E2000-C-7x-SE	80	158	32.1	5.1	968	881	191
		315	33.0	10.4	1884	1708	181
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3653</b>	<b>3287</b>	<b>167</b>
		945	36.1	34.1	5268	4696	155
		1260	37.3	47.0	6763	5963	144

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ $T_c = 25^\circ\text{C}$ (V)	Typical Power $T_c = 25^\circ\text{C}$ (W)	Typical Flux <sup>2</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical DC Flux <sup>3</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W)
BXRC-30E2000-D-7x-SE	80	125	29.6	3.7	707	643	191
		250	30.3	7.6	1374	1246	181
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2649</b>	<b>2384</b>	<b>167</b>
		750	33.2	24.9	3848	3430	155
		1000	34.4	34.4	4957	4371	144
BXRC-30G20H0-B-7x-SE	90	113	32.1	3.6	586	533	162
		225	33.0	7.4	1140	1033	153
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2210</b>	<b>1989</b>	<b>141</b>
		675	36.1	24.3	3187	2841	131
		900	37.3	33.6	4092	3608	122
BXRC-30G20H0-C-7x-SE	90	158	32.1	5.1	820	746	162
		315	33.0	10.4	1596	1447	153
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3094</b>	<b>2785</b>	<b>141</b>
		945	36.1	34.1	4462	3978	131
		1260	37.3	47.0	5729	5051	122
BXRC-30G20H0-D-7x-SE	90	125	29.6	3.7	599	544	162
		250	30.3	7.6	1164	1055	153
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2244</b>	<b>2019</b>	<b>141</b>
		750	33.2	24.9	3259	2906	131
		1000	34.4	34.4	4199	3702	122
BXRC-30G2000-B-7x-SE	90	113	32.1	3.6	561	511	155
		225	33.0	7.4	1092	990	147
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2118</b>	<b>1906</b>	<b>135</b>
		675	36.1	24.3	3054	2723	125
		900	37.3	33.6	3922	3458	117
BXRC-30G2000-C-7x-SE	90	158	32.1	5.1	786	715	155
		315	33.0	10.4	1529	1387	147
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2965</b>	<b>2669</b>	<b>135</b>
		945	36.1	34.1	4276	3812	125
		1260	37.3	47.0	5490	4841	117
BXRC-30G2000-D-7x-SE	90	125	29.6	3.7	574	522	155
		250	30.3	7.6	1115	1011	147
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2150</b>	<b>1935</b>	<b>135</b>
		750	33.2	24.9	3124	2785	125
		1000	34.4	34.4	4024	3548	117
BXRC-30G200C-B-7x-SE	90	113	32.1	3.6	544	495	151
		225	33.0	7.4	1059	960	143
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2053</b>	<b>1848</b>	<b>131</b>
		675	36.1	24.3	2961	2639	122
		900	37.3	33.6	3801	3352	113
BXRC-30G200C-D-7x-SE	90	125	29.6	3.7	553	503	150
		250	30.3	7.6	1075	975	142
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2072</b>	<b>1865</b>	<b>130</b>
		750	33.2	24.9	3010	2684	121
		1000	34.4	34.4	3878	3419	113

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ $T_c = 25^\circ\text{C}$ (V)	Typical Power $T_c = 25^\circ\text{C}$ (W)	Typical Flux <sup>2</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical DC Flux <sup>3</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W)
BXRC-30H2000-B-7x-SE	80	113	32.1	3.6	509	463	141
		225	33.0	7.4	989	897	133
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>1918</b>	<b>1727</b>	<b>123</b>
		675	36.1	24.3	2767	2466	114
		900	37.3	33.6	3552	3132	106
BXRC-30H2000-C-7x-SE	80	158	32.1	5.1	712	648	141
		315	33.0	10.4	1385	1256	133
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2686</b>	<b>2417</b>	<b>123</b>
		945	36.1	34.1	3873	3453	114
		1260	37.3	47.0	4973	4385	106
BXRC-30H2000-D-7x-SE	80	125	29.6	3.7	520	473	141
		250	30.3	7.6	1010	916	133
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>1948</b>	<b>1753</b>	<b>123</b>
		750	33.2	24.9	2829	2522	114
		1000	34.4	34.4	3645	3214	106
BXRC-30A2001-B-7x-SE	93	113	32.1	3.6	504	459	140
		225	33.0	7.4	982	890	132
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>1903</b>	<b>1713</b>	<b>122</b>
		675	36.1	24.3	2744	2447	113
		900	37.3	33.6	3524	3107	105
BXRC-30A2001-C-7x-SE	93	158	32.1	5.1	706	642	140
		315	33.0	10.4	1374	1246	132
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2664</b>	<b>2398</b>	<b>122</b>
		945	36.1	34.1	3842	3425	113
		1260	37.3	47.0	4933	4350	105
BXRC-30A2001-D-7x-SE	93	125	29.6	3.7	516	469	140
		250	30.3	7.6	1002	909	132
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>1932</b>	<b>1739</b>	<b>122</b>
		750	33.2	24.9	2807	2502	113
		1000	34.4	34.4	3616	3188	105
BXRC-35E2000-B-7x-SE	80	113	32.1	3.6	708	644	196
		225	33.0	7.4	1377	1249	185
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2670</b>	<b>2403</b>	<b>171</b>
		675	36.1	24.3	3851	3433	158
		900	37.3	33.6	4945	4360	147
BXRC-35E2000-C-7x-SE	80	158	32.1	5.1	991	901	196
		315	33.0	10.4	1928	1748	185
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3738</b>	<b>3365</b>	<b>171</b>
		945	36.1	34.1	5391	4806	158
		1260	37.3	47.0	6923	6104	147
BXRC-35E2000-D-7x-SE	80	125	29.6	3.7	723	658	196
		250	30.3	7.6	1406	1275	185
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2711</b>	<b>2440</b>	<b>171</b>
		750	33.2	24.9	3938	3511	158
		1000	34.4	34.4	5074	4474	147

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ $T_c = 25^\circ\text{C}$ (V)	Typical Power $T_c = 25^\circ\text{C}$ (W)	Typical Flux <sup>2</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical DC Flux <sup>3</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W)
BXRC-35G2000-B-7x-SE	90	113	32.1	3.6	582	529	161
		225	33.0	7.4	1132	1026	152
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2195</b>	<b>1975</b>	<b>140</b>
		675	36.1	24.3	3165	2821	130
		900	37.3	33.6	4064	3583	121
BXRC-35G2000-C-7x-SE	90	158	32.1	5.1	815	741	161
		315	33.0	10.4	1585	1437	152
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3072</b>	<b>2765</b>	<b>140</b>
		945	36.1	34.1	4431	3950	130
		1260	37.3	47.0	5689	5016	121
BXRC-35G2000-D-7x-SE	90	125	29.6	3.7	595	541	161
		250	30.3	7.6	1156	1048	152
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2228</b>	<b>2005</b>	<b>140</b>
		750	33.2	24.9	3237	2885	130
		1000	34.4	34.4	4170	3677	121
BXRC-35A2001-B-7x-SE	93	113	32.1	3.6	537	488	149
		225	33.0	7.4	1045	947	141
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2026</b>	<b>1823</b>	<b>129</b>
		675	36.1	24.3	2921	2604	120
		900	37.3	33.6	3751	3307	112
BXRC-35A2001-C-7x-SE	93	158	32.1	5.1	752	684	149
		315	33.0	10.4	1463	1326	141
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2836</b>	<b>2552</b>	<b>129</b>
		945	36.1	34.1	4090	3646	120
		1260	37.3	47.0	5252	4630	112
BXRC-35A2001-D-7x-SE	93	125	29.6	3.7	549	499	149
		250	30.3	7.6	1067	967	141
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2057</b>	<b>1851</b>	<b>129</b>
		750	33.2	24.9	2988	2663	120
		1000	34.4	34.4	3849	3394	112
BXRC-40C2001-B-7x-SE	70	113	32.1	3.6	745	677	206
		225	33.0	7.4	1449	1313	195
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2808</b>	<b>2528</b>	<b>179</b>
		675	36.1	24.3	4050	3611	166
		900	37.3	33.6	5200	4585	155
BXRC-40C2001-C-7x-SE	70	158	32.1	5.1	1042	948	206
		315	33.0	10.4	2028	1839	195
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3932</b>	<b>3539</b>	<b>179</b>
		945	36.1	34.1	5670	5055	166
		1260	37.3	47.0	7281	6419	155
BXRC-40C2001-D-7x-SE	70	125	29.6	3.7	761	692	206
		250	30.3	7.6	1479	1341	195
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2852</b>	<b>2566</b>	<b>179</b>
		750	33.2	24.9	4142	3693	166
		1000	34.4	34.4	5336	4705	155

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical V <sub>f</sub> T <sub>c</sub> = 25°C (V)	Typical Power T <sub>c</sub> = 25°C (W)	Typical Flux <sup>2</sup> T <sub>c</sub> = 25°C (lm)	Typical DC Flux <sup>3</sup> T <sub>c</sub> = 85°C (lm)	Typical Efficacy T <sub>c</sub> = 25°C (lm/W)
BXRC-40E2000-B-7x-SE	80	113	32.1	3.6	712	648	197
		225	33.0	7.4	1385	1256	186
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2686</b>	<b>2417</b>	<b>172</b>
		675	36.1	24.3	3873	3453	159
		900	37.3	33.6	4973	4385	148
BXRC-40E2000-C-7x-SE	80	158	32.1	5.1	997	907	197
		315	33.0	10.4	1939	1758	186
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3760</b>	<b>3384</b>	<b>172</b>
		945	36.1	34.1	5422	4834	159
		1260	37.3	47.0	6962	6139	148
BXRC-40E2000-D-7x-SE	80	125	29.6	3.7	728	662	197
		250	30.3	7.6	1414	1282	186
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2727</b>	<b>2454</b>	<b>172</b>
		750	33.2	24.9	3961	3531	159
		1000	34.4	34.4	5103	4499	148
BXRC-40G2000-B-7x-SE	90	113	32.1	3.6	594	540	164
		225	33.0	7.4	1156	1048	156
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2241</b>	<b>2017</b>	<b>143</b>
		675	36.1	24.3	3231	2881	133
		900	37.3	33.6	4149	3658	124
BXRC-40G2000-C-7x-SE	90	158	32.1	5.1	832	756	164
		315	33.0	10.4	1618	1467	156
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3137</b>	<b>2823</b>	<b>143</b>
		945	36.1	34.1	4524	4033	133
		1260	37.3	47.0	5809	5121	124
BXRC-40G2000-D-7x-SE	90	125	29.6	3.7	607	552	164
		250	30.3	7.6	1180	1070	156
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2275</b>	<b>2047</b>	<b>143</b>
		750	33.2	24.9	3305	2946	133
		1000	34.4	34.4	4257	3754	124
BXRC-40H2000-B-7x-SE	97	113	32.1	3.6	537	488	149
		225	33.0	7.4	1045	947	141
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2026</b>	<b>1823</b>	<b>129</b>
		675	36.1	24.3	2921	2604	120
		900	37.3	33.6	3751	3307	112
BXRC-40H2000-C-7x-SE	97	158	32.1	5.1	752	684	149
		315	33.0	10.4	1463	1326	141
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>2836</b>	<b>2552</b>	<b>129</b>
		945	36.1	34.1	4090	3646	120
		1260	37.3	47.0	5252	4630	112
BXRC-40H2000-D-7x-SE	97	125	29.6	3.7	549	499	149
		250	30.3	7.6	1067	967	141
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2057</b>	<b>1851</b>	<b>129</b>
		750	33.2	24.9	2988	2663	120
		1000	34.4	34.4	3849	3394	112

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ $T_c = 25^\circ\text{C}$ (V)	Typical Power $T_c = 25^\circ\text{C}$ (W)	Typical Flux <sup>2</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical DC Flux <sup>3</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W)
BXRC-40A2001-B-7x-SE	93	113	32.1	3.6	582	529	161
		225	33.0	7.4	1132	1026	152
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2195</b>	<b>1975</b>	<b>140</b>
		675	36.1	24.3	3165	2821	130
		900	37.3	33.6	4064	3583	121
BXRC-40A2001-C-7x-SE	93	158	32.1	5.1	815	741	161
		315	33.0	10.4	1585	1437	152
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3072</b>	<b>2765</b>	<b>140</b>
		945	36.1	34.1	4431	3950	130
		1260	37.3	47.0	5689	5016	121
BXRC-40A2001-D-7x-SE	93	125	29.6	3.7	595	541	161
		250	30.3	7.6	1156	1048	152
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2228</b>	<b>2005</b>	<b>140</b>
		750	33.2	24.9	3237	2885	130
		1000	34.4	34.4	4170	3677	121
BXRC-50C2001-B-7x-SE	70	113	32.1	3.6	749	681	207
		225	33.0	7.4	1456	1320	196
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2824</b>	<b>2541</b>	<b>180</b>
		675	36.1	24.3	4072	3630	167
		900	37.3	33.6	5229	4610	156
BXRC-50C2001-C-7x-SE	70	158	32.1	5.1	1048	953	207
		315	33.0	10.4	2039	1849	196
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3953</b>	<b>3558</b>	<b>180</b>
		945	36.1	34.1	5701	5082	167
		1260	37.3	47.0	7320	6454	156
BXRC-50C2001-D-7x-SE	70	125	29.6	3.7	765	696	207
		250	30.3	7.6	1487	1348	196
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2867</b>	<b>2580</b>	<b>180</b>
		750	33.2	24.9	4165	3713	167
		1000	34.4	34.4	5365	4731	156
BXRC-50E2001-B-7x-SE	80	113	32.1	3.6	720	655	199
		225	33.0	7.4	1401	1270	189
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2716</b>	<b>2445</b>	<b>173</b>
		675	36.1	24.3	3917	3492	161
		900	37.3	33.6	5030	4435	150
BXRC-50E2001-C-7x-SE	80	158	32.1	5.1	1008	917	199
		315	33.0	10.4	1962	1778	189
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3803</b>	<b>3423</b>	<b>173</b>
		945	36.1	34.1	5484	4889	161
		1260	37.3	47.0	7042	6209	150
BXRC-50E2001-D-7x-SE	80	125	29.6	3.7	736	669	199
		250	30.3	7.6	1431	1297	189
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2758</b>	<b>2482</b>	<b>173</b>
		750	33.2	24.9	4006	3571	161
		1000	34.4	34.4	5161	4551	150

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ $T_c = 25^\circ\text{C}$ (V)	Typical Power $T_c = 25^\circ\text{C}$ (W)	Typical Flux <sup>2</sup> $T_c = 25^\circ\text{C}$ (lm)	Typical DC Flux <sup>3</sup> $T_c = 85^\circ\text{C}$ (lm)	Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W)
BXRC-50G2001-B-7x-SE	90	113	32.1	3.6	622	566	172
		225	33.0	7.4	1211	1098	163
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2348</b>	<b>2113</b>	<b>150</b>
		675	36.1	24.3	3386	3019	139
		900	37.3	33.6	4348	3834	130
BXRC-50G2001-C-74-SE	90	158	32.1	5.1	871	793	172
		315	33.0	10.4	1696	1537	163
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3287</b>	<b>2959</b>	<b>150</b>
		945	36.1	34.1	4741	4226	139
		1260	37.3	47.0	6087	5367	130
BXRC-50G2001-D-7x-SE	90	125	29.6	3.7	636	579	172
		250	30.3	7.6	1237	1121	163
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2384</b>	<b>2146</b>	<b>150</b>
		750	33.2	24.9	3463	3087	139
		1000	34.4	34.4	4462	3934	130
BXRC-57C2001-B-7x-SE	70	113	32.1	3.6	728	662	201
		225	33.0	7.4	1417	1285	191
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2747</b>	<b>2472</b>	<b>175</b>
		675	36.1	24.3	3962	3532	163
		900	37.3	33.6	5087	4485	152
BXRC-57C2001-C-7x-SE	70	158	32.1	5.1	1020	927	201
		315	33.0	10.4	1984	1798	191
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3846</b>	<b>3461</b>	<b>175</b>
		945	36.1	34.1	5546	4944	163
		1260	37.3	47.0	7122	6279	152
BXRC-57C2001-D-7x-SE	70	125	29.6	3.7	744	677	201
		250	30.3	7.6	1447	1312	191
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2789</b>	<b>2510</b>	<b>175</b>
		750	33.2	24.9	4052	3612	163
		1000	34.4	34.4	5220	4602	152
BXRC-57E2001-B-7x-SE	80	113	32.1	3.6	692	629	191
		225	33.0	7.4	1346	1220	181
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2609</b>	<b>2348</b>	<b>167</b>
		675	36.1	24.3	3763	3354	155
		900	37.3	33.6	4831	4259	144
BXRC-57E2001-C-7x-SE	80	158	32.1	5.1	968	881	191
		315	33.0	10.4	1884	1708	181
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3653</b>	<b>3287</b>	<b>167</b>
		945	36.1	34.1	5268	4696	155
		1260	37.3	47.0	6763	5963	144
BXRC-57E2001-D-7x-SE	80	125	29.6	3.7	707	643	191
		250	30.3	7.6	1374	1246	181
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2649</b>	<b>2384</b>	<b>167</b>
		750	33.2	24.9	3848	3430	155
		1000	34.4	34.4	4957	4371	144

Notes for Table 5:

1. Alternate drive currents 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 5:** Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical V <sub>f</sub> T <sub>c</sub> = 25°C (V)	Typical Power T <sub>c</sub> = 25°C (W)	Typical Flux <sup>2</sup> T <sub>c</sub> = 25°C (lm)	Typical DC Flux <sup>3</sup> T <sub>c</sub> = 85°C (lm)	Typical Efficacy T <sub>c</sub> = 25°C (lm/W)
BXRC-65C2001-B-7x-SE	70	113	32.1	3.6	728	662	201
		225	33.0	7.4	1417	1285	191
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2747</b>	<b>2472</b>	<b>175</b>
		675	36.1	24.3	3962	3532	163
		900	37.3	33.6	5087	4485	152
BXRC-65C2001-C-7x-SE	70	158	32.1	5.1	1020	927	201
		315	33.0	10.4	1984	1798	191
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3846</b>	<b>3461</b>	<b>175</b>
		945	36.1	34.1	5546	4944	163
		1260	37.3	47.0	7122	6279	152
BXRC-65C2001-D-7x-SE	70	125	29.6	3.7	744	677	201
		250	30.3	7.6	1447	1312	191
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2789</b>	<b>2510</b>	<b>175</b>
		750	33.2	24.9	4052	3612	163
		1000	34.4	34.4	5220	4602	152
BXRC-65E2001-B-7x-SE	80	113	32.1	3.6	700	636	194
		225	33.0	7.4	1361	1234	183
		<b>450</b>	<b>34.8</b>	<b>15.7</b>	<b>2640</b>	<b>2376</b>	<b>169</b>
		675	36.1	24.3	3807	3394	156
		900	37.3	33.6	4888	4310	146
BXRC-65E2001-C-7x-SE	80	158	32.1	5.1	980	891	194
		315	33.0	10.4	1906	1728	183
		<b>630</b>	<b>34.8</b>	<b>21.9</b>	<b>3696</b>	<b>3326</b>	<b>169</b>
		945	36.1	34.1	5330	4751	156
		1260	37.3	47.0	6843	6033	146
BXRC-65E2001-D-7x-SE	80	125	29.6	3.7	715	650	194
		250	30.3	7.6	1390	1260	183
		<b>500</b>	<b>31.8</b>	<b>15.9</b>	<b>2680</b>	<b>2412</b>	<b>169</b>
		750	33.2	24.9	3893	3471	156
		1000	34.4	34.4	5016	4422	146

Notes for Table 5:

1. Alternate drive currents 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.

# Electrical Characteristics

**Table 6:** Electrical Characteristics

Part Number	Drive Current (mA)	Forward Voltage Pulsed, $T_c = 25^\circ\text{C}$ (V) <sup>1, 2, 3, 8</sup>			Typical Coefficient of Forward Voltage <sup>4</sup> $\Delta V_f / \Delta T_c$ (mV/ $^\circ\text{C}$ )	Typical Thermal Resistance Junction to Case <sup>5,6</sup> $R_{j-c}$ ( $^\circ\text{C}/\text{W}$ )	Driver Selection Voltages <sup>7</sup> (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-xxx200x-B-7x-SE	450	32.2	34.8	37.4	-14.3	0.28	31.0	38.3
	900	34.5	37.3	40.1	-14.3	0.35	33.4	41.0
BXRC-xxx200x-C-7x-SE	630	32.2	34.8	37.4	-14.3	0.20	31.0	38.3
	1260	34.5	37.3	40.1	-14.3	0.24	33.4	41.0
BXRC-xxx200x-D-7x-SE	500	29.4	31.8	34.2	-13.3	0.34	28.4	35.0
	1000	31.8	34.4	37.0	-13.3	0.41	30.8	37.9

Notes for Table 6:

- 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 1160 V. The working voltage designated for the insulation is 80V d.c. The maximum allowable voltage across the array must be determined in the end product application.



# Eye Safety

**Table 7:** Eye Safety Risk Group (RG) Classifications

Part Number	Drive Current <sup>5</sup> (mA)	CCT <sup>1-5</sup>			
		2700K/3000K	4000K <sup>2</sup>	5000K <sup>3</sup>	6500K <sup>4</sup>
BXRC-xxx200x-B-7x-SE	450	RG1	RG1	RG1	RG1
	675	RG1	RG1	RG1	RG2
	900	RG1	RG1	RG2	RG2
BXRC-xxx200x-C-7x-SE	630	RG1	RG1	RG1	RG1
	945	RG1	RG1	RG2	RG2
	1260	RG1	RG2	RG2	RG2
BXRC-xxx200x-D-7x-SE	500	RG1	RG1	RG1	RG1
	750	RG1	RG1	RG1	RG2
	1000	RG1	RG1	RG2	RG2

Notes for Table 7:

1. Eye safety classification for the use of Bridgelux Vero SE 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,  $E_{thr} = 1847.5$  lx.
3. For products classified as RG2 at 5000K  $E_{thr} = 1315.8$  lx.
4. For products classified as RG2 at 6500K,  $E_{thr} = 1124.5$  lx.
5. Please contact your Bridgelux sales representative for  $E_{thr}$  values at specific drive currents and CCTs not listed.

# Absolute Maximum Ratings

**Table 8:** Maximum Ratings

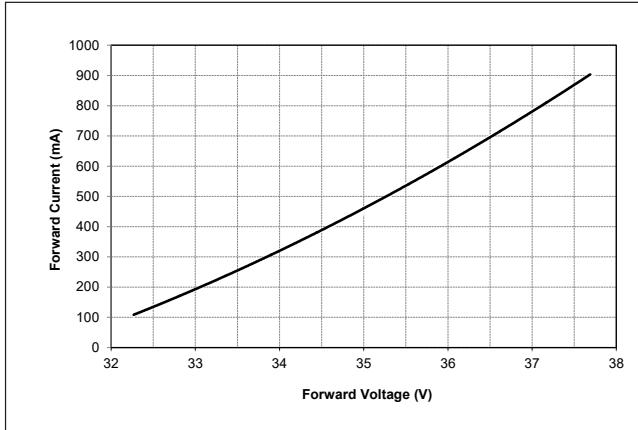
Parameter	Maximum Rating		
LED Junction Temperature ( $T_j$ )	150°C		
Storage Temperature	-40°C to +105°C		
Operating Case Temperature <sup>1</sup> ( $T_c$ )	105°C		
	BXRC-xxx200x-B-7x-SE	BXRC-xxx200x-C-7x-SE	BXRC-xxx200x-D-7x-SE
Maximum Drive Current <sup>3</sup>	900mA	1260mA	1000mA
Maximum Peak Pulsed Drive Current <sup>4</sup>	1290mA	1800mA	1430mA
Maximum Reverse Voltage <sup>5</sup>	-60V	-60V	-55V

Notes for Table 8:

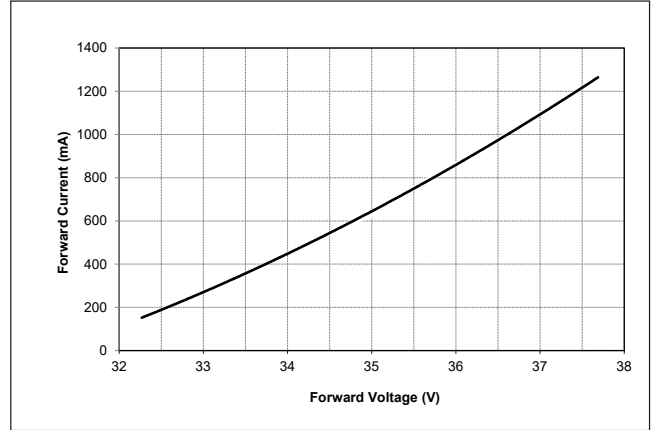
1. For IEC 62717 requirement, please consult your Bridgelux sales representative.
2. Refer to Bridgelux Application Note AN120: Assembly Considerations for Bridgelux Vero SE LED Arrays.
3. Arrays may be driven at higher currents however lumen maintenance may be reduced.
4. Bridgelux recommends a maximum 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

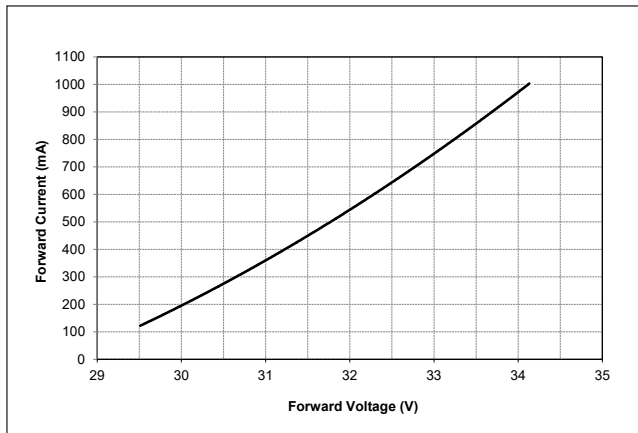
**Figure 1: Vero SE 13B Drive Current vs. Voltage**



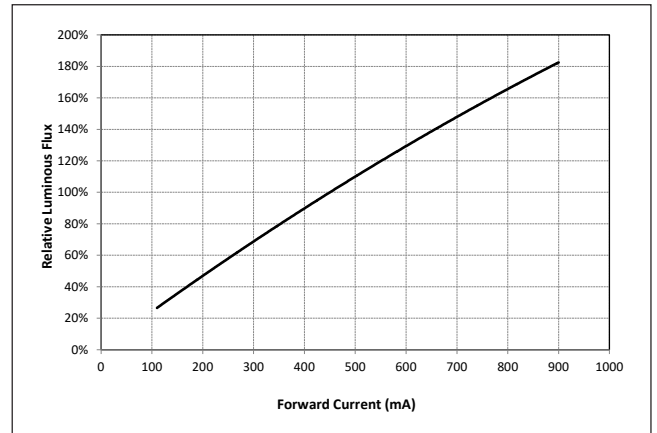
**Figure 2: Vero SE 13C Drive Current vs. Voltage**



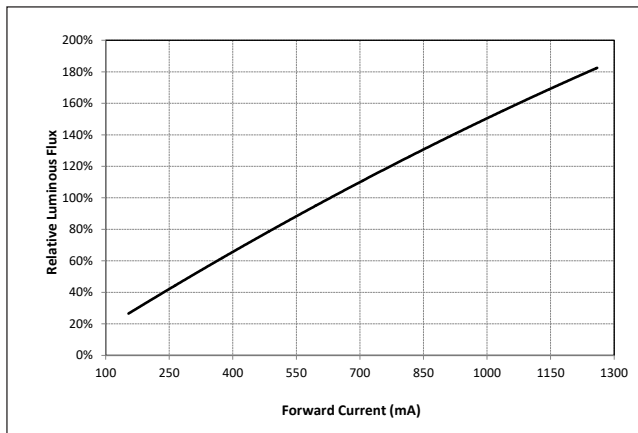
**Figure 3: Vero SE 13D Drive Current vs. Voltage**



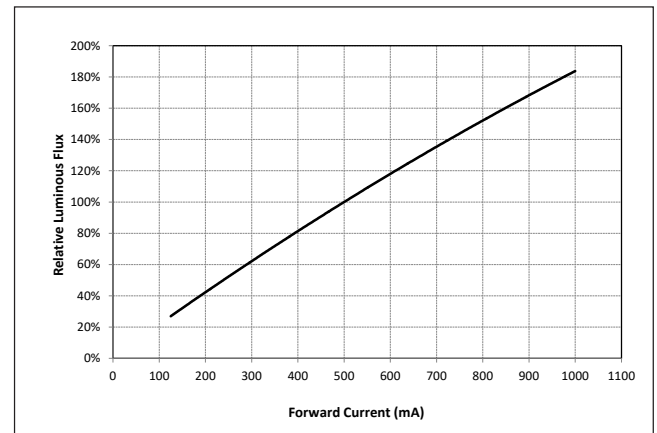
**Figure 4: Vero SE 13B Typical Relative Flux vs. Current**



**Figure 5: Vero SE 13C Typical Relative Flux vs. Current**



**Figure 6: Vero SE 13D Typical Relative Flux vs. Current**

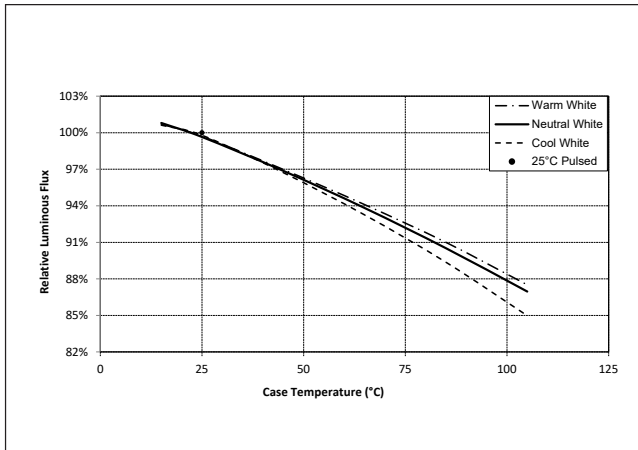


Notes for Figures 1-6:

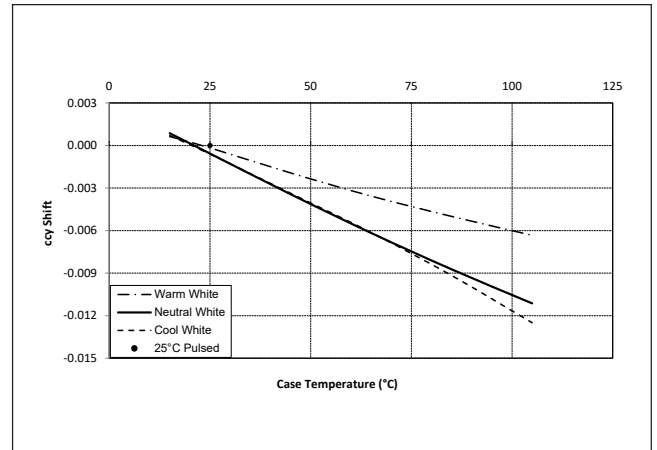
1. Bridgelux does not recommend driving high power LEDs at low currents. Doing so may produce unpredictable results. Pulse width modulation (PWM) is recommended for dimming effects.
2. Products tested under pulsed condition (10ms pulse width) at nominal test current where  $T_j$  (junction temperature)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

# Performance Curves

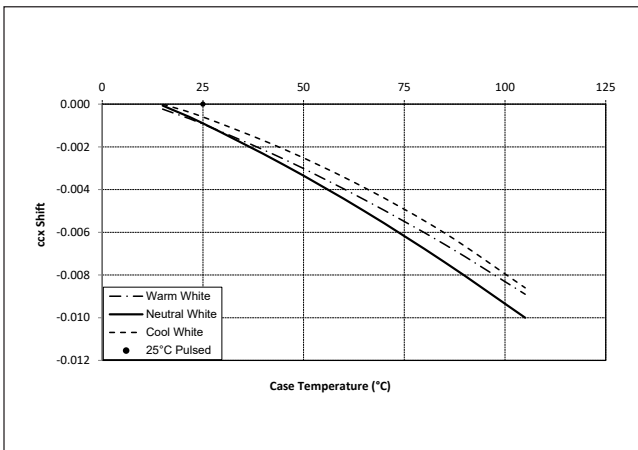
**Figure 7: Typical DC Flux vs. Case Temperature**



**Figure 8: Typical DC ccy Shift vs. Case Temperature**



**Figure 9: Typical DC ccx Shift vs. Case Temperature**

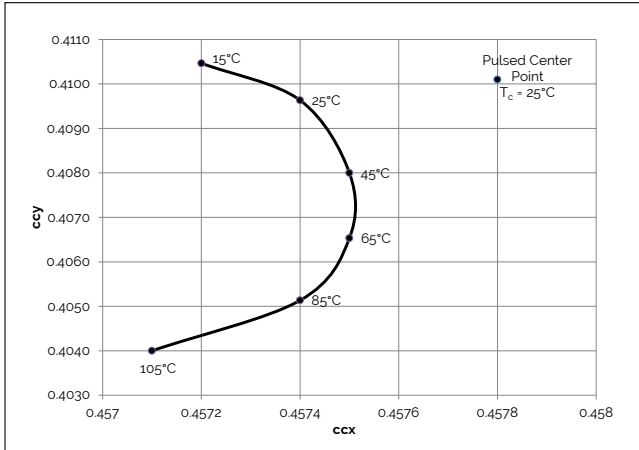


Notes for Figures 7 - 9:

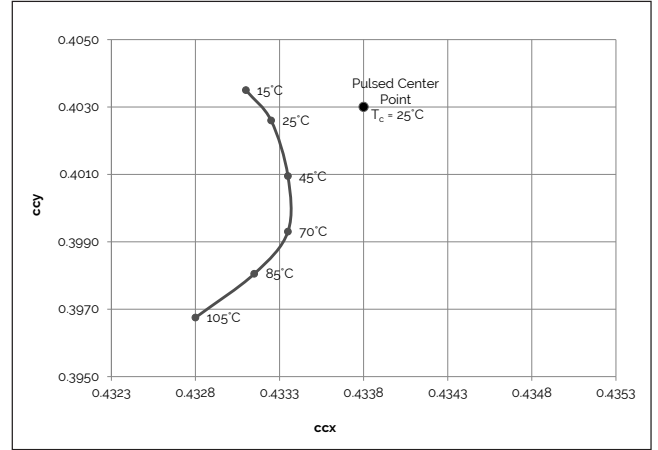
1. Characteristics shown for warm white based on 3000K and 80 CRI.
2. Characteristics shown for neutral white based on 4000K and 80 CRI.
3. Characteristics shown for cool white based on 5000K and 70 CRI.
4. For other color SKUs, the shift in color will vary. Please contact your Bridgelux Sales Representative for more information.

# Performance Curves

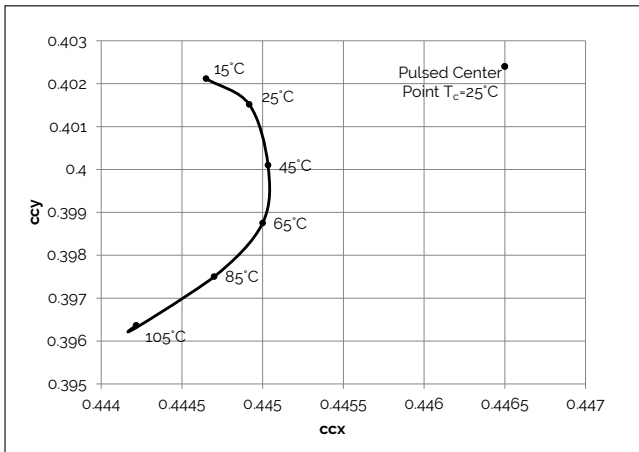
**Figure 10: 2700K, 97 CRI Color Shift vs. Case Temperature<sup>1</sup>**



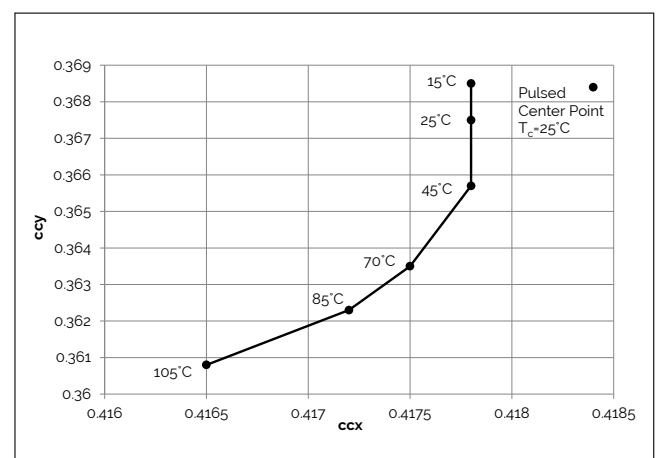
**Figure 11: 3000K, 97 CRI Color Shift vs. Case Temperature<sup>1</sup>**



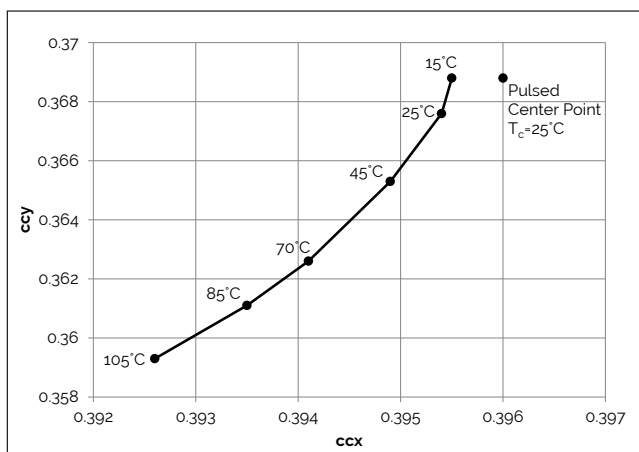
**Figure 12: 3000K, 90 CRI Color Shift vs. Case Temperature<sup>1,3</sup>**



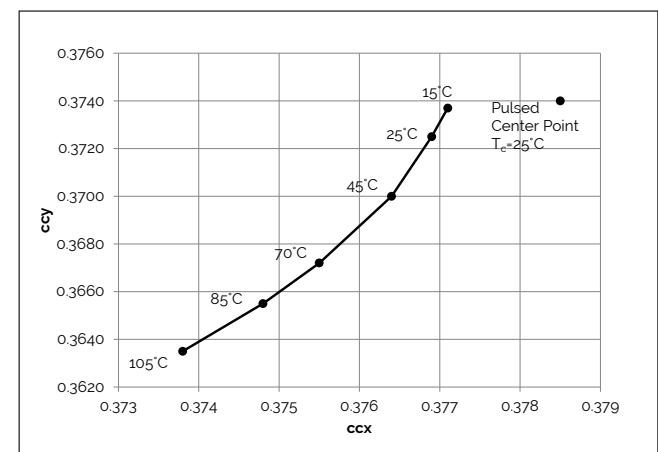
**Figure 13: 3000K Class A Color Shift vs. Case Temperature<sup>1</sup>**



**Figure 14: 3500K Class A Color Shift vs. Case Temperature<sup>1</sup>**



**Figure 15: 4000K Class A Color Shift vs. Case Temperature<sup>1</sup>**

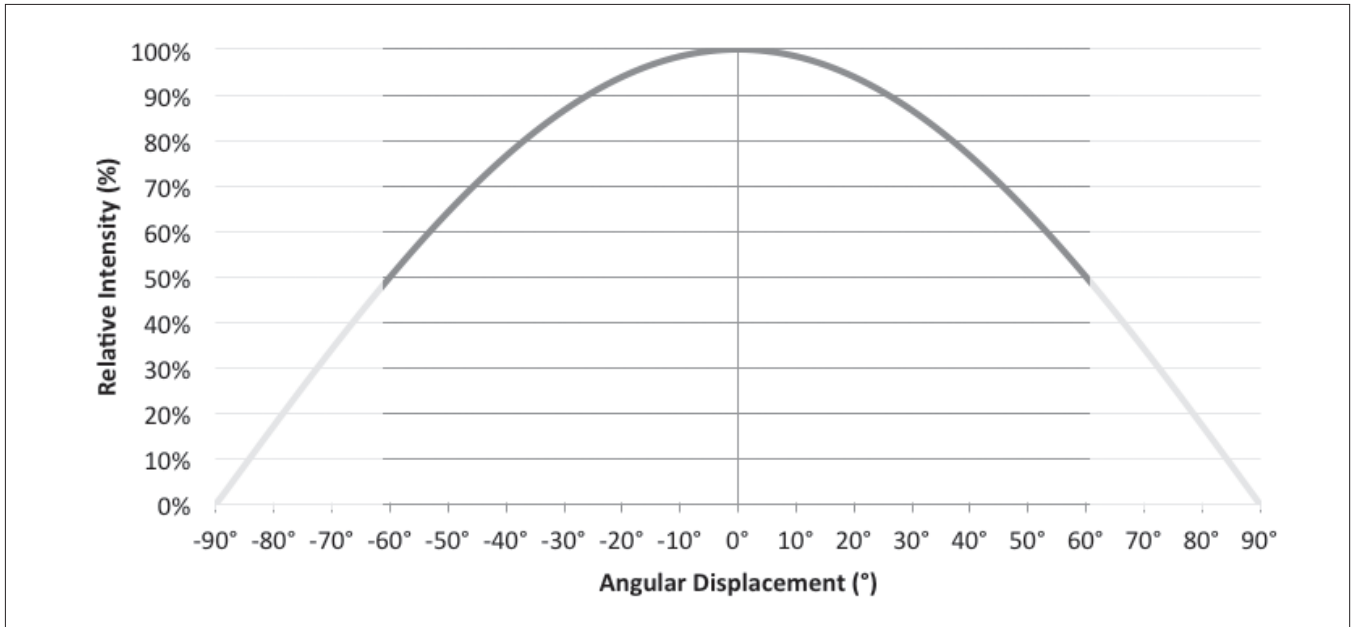


Notes for Figures 10-15:

1. Measurements made under DC test conditions at the nominal drive current.
2. Typical color shift is shown with a tolerance of  $\pm 0.002$ .
3. Characteristics shown for Decor Series Showcase products, BXRC-30G400C-x-73-SE

# Typical Radiation Pattern

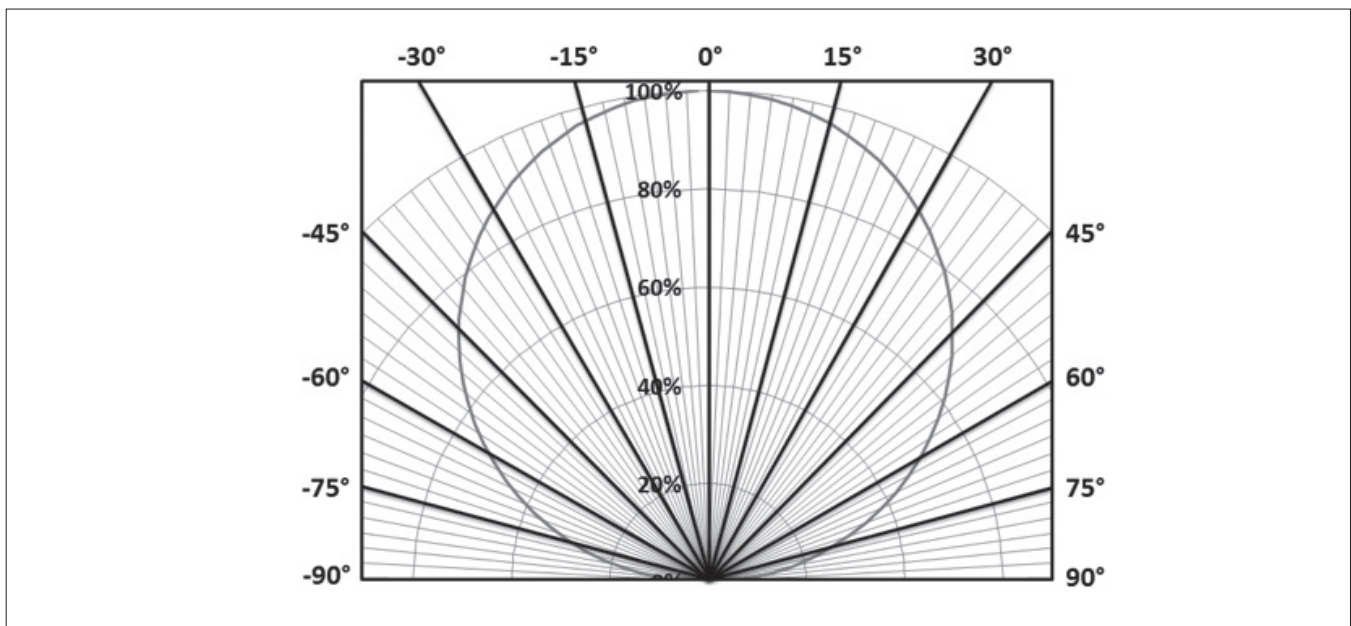
Figure 16: Typical Spatial Radiation Pattern



Notes for Figure 16:

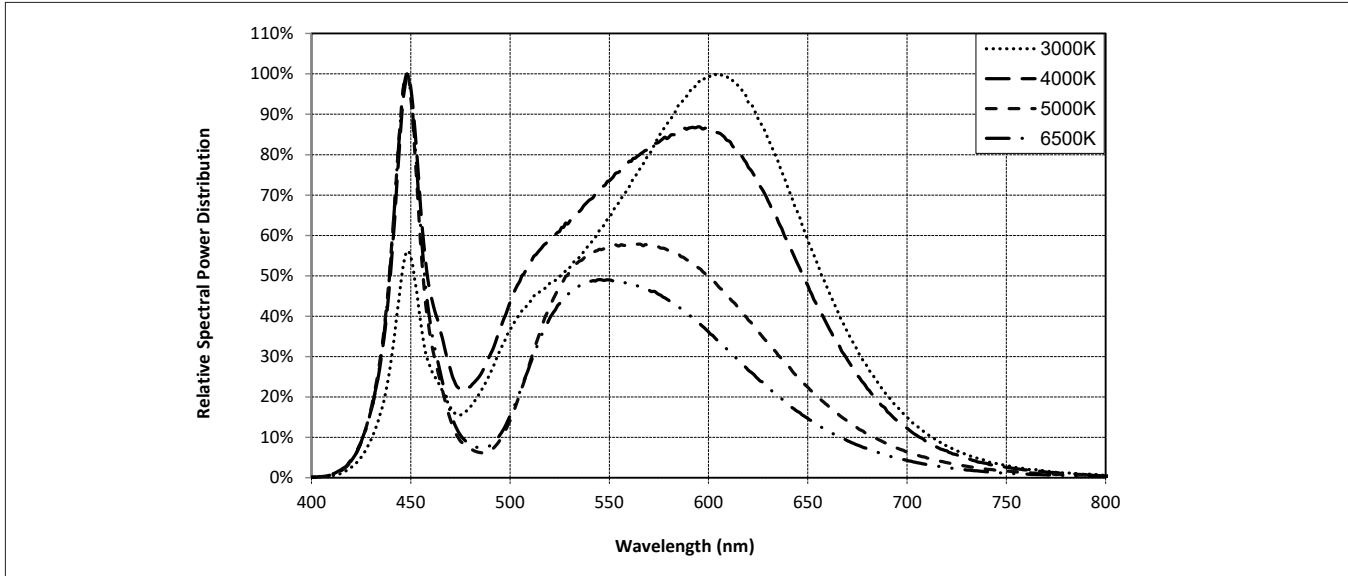
1. Typical viewing angle is 120°.
2. The viewing angle is defined as the off axis angle from the centerline where intensity is ½ of the peak value.

Figure 17: Typical Polar Radiation Pattern



# Typical Color Spectrum

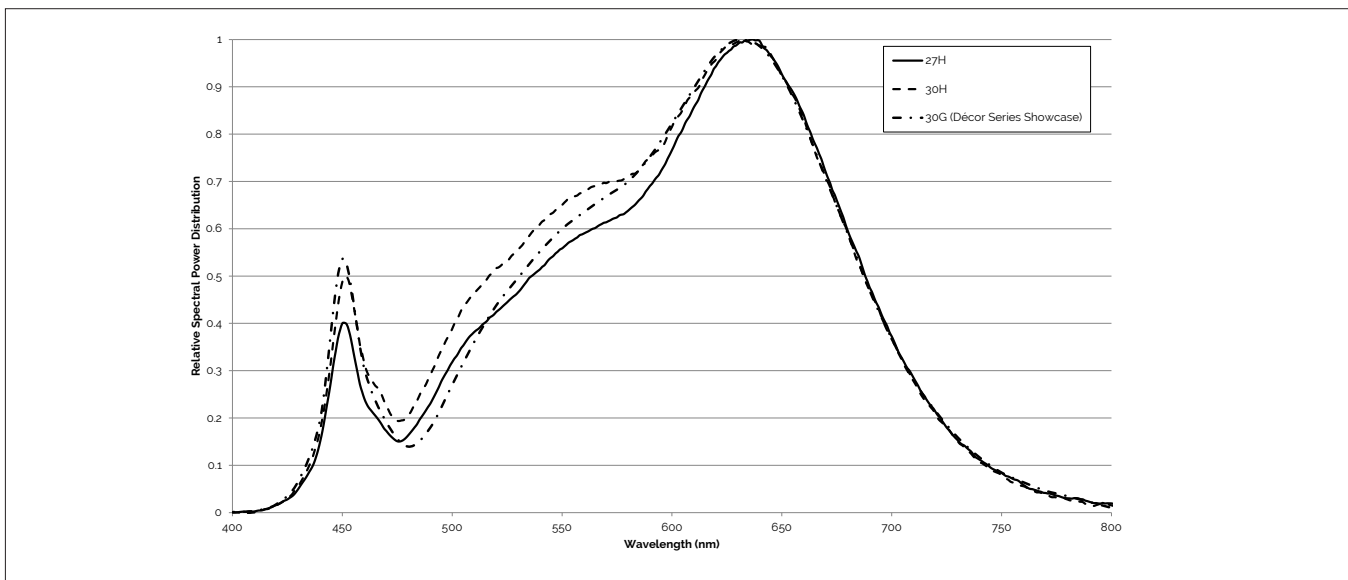
Figure 18: Typical Color Spectrum



Notes for Figure 18:

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.

Figure 19: Typical Color Spectrum for Vero SE 13 with Décor Series

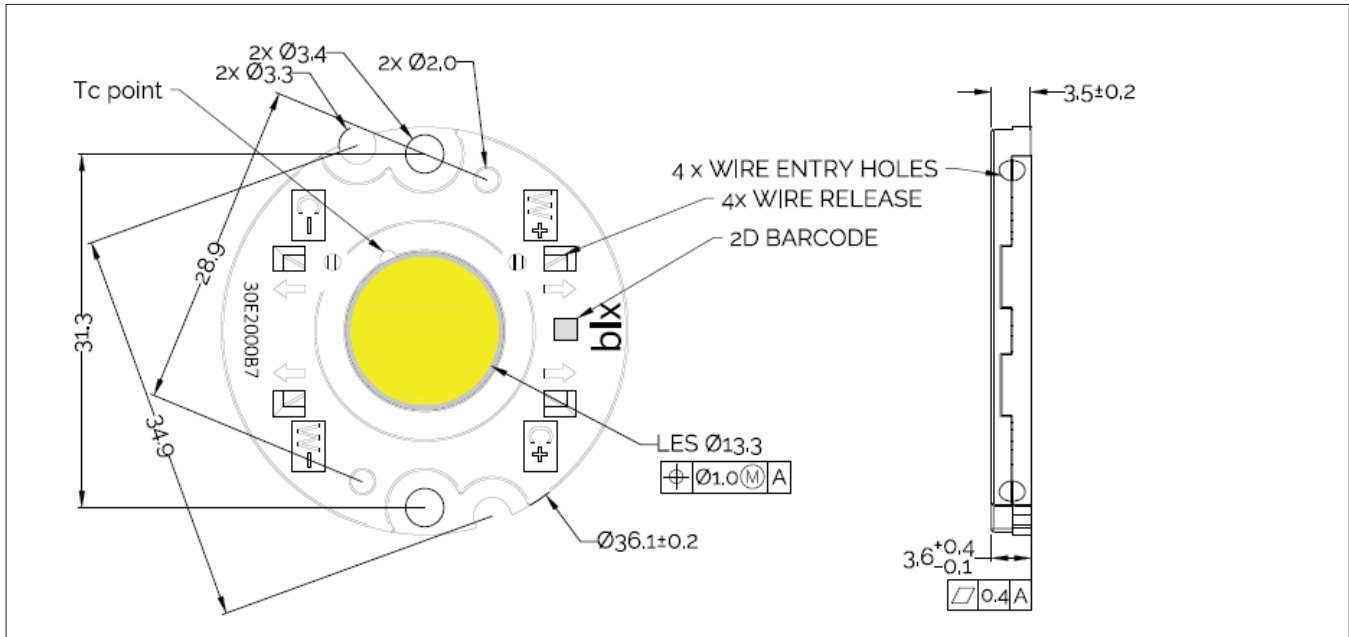


Note for Figure 19:

1. Color spectra measured at nominal current for  $T_j = T_c = 25^\circ\text{C}$ .

# Mechanical Dimensions

**Figure 20: Drawing for Vero SE 13 LED Array**



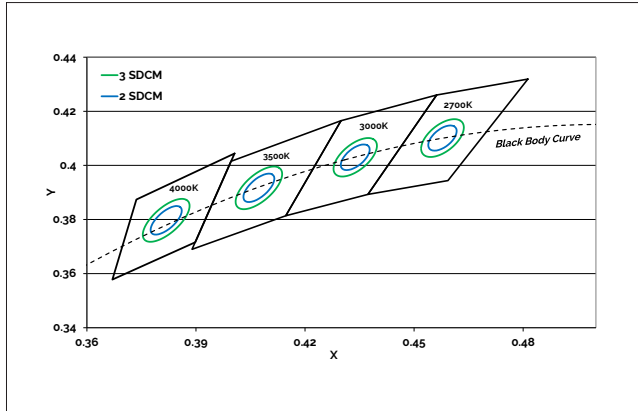
Notes for Figure 20:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are  $\pm 0.15\text{mm}$ .
4. Mounting holes (2X) are for M3 screws.
5. Bridgelux recommends two tapped holes for mounting screws with  $31.3 \pm 0.10\text{mm}$  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  $\pm 0.2\text{mm}$ .
8. Bridgelux maintains a flatness of  $0.10\text{mm}$  across the mounting surface of the array.



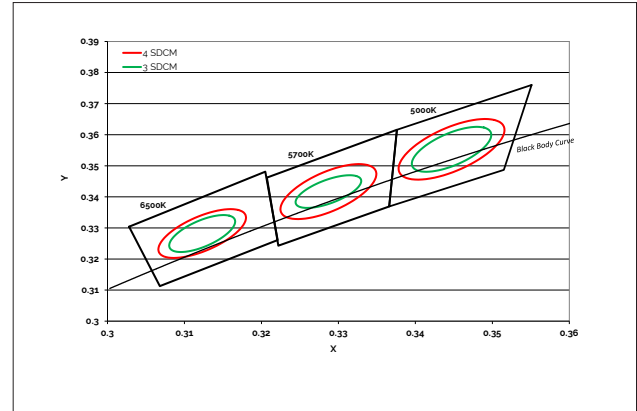
# Color Binning Information

**Figure 21: Warm and Neutral White Test Bins in xy Color Space**



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

**Figure 22: Cool White Test Bins in xy Color Space**



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

**Table 9: Warm and Neutral White xy Bin Coordinates and Associated Typical CCT**

Bin Code	2700K	3000K <sup>1</sup>	3500K <sup>1</sup>	4000K <sup>1</sup>
ANSI Bin (for reference only)	(2580K - 2870K)	(2870K - 3220K)	(3220K - 3710K)	(3710K - 4260K)
73 (3 SDCM)	(2651K - 2794K)	(2968K - 3136K)	(3369K - 3586K)	(3851K - 4130K)
72 (2 SDCM)	(2674K - 2769K)	(2995K - 3107K)	(3404K - 3548K)	(3895K - 4081K)
Center Point (x,y)	(0.4578, 0.4101)	(0.4338, 0.403) (0.4465, 0.4024) <sup>2</sup>	(0.4073, 0.3917)	(0.3818, 0.3797)

Notes for Table 9:

- Color Binning information excludes Decor Series Class A products. Please contact your Bridgelux Sales Representative for more information.
- Bridgelux maintains a tolerance of +/- 0.007 on x and y color coordinates in the CIE 1931 color Space.
- Center Point for Decor Series Showcase.

**Table 10: Cool White xy Bin Coordinates and Associated Typical CCT (product is hot targeted to  $T_c = 85^\circ\text{C}$ )**

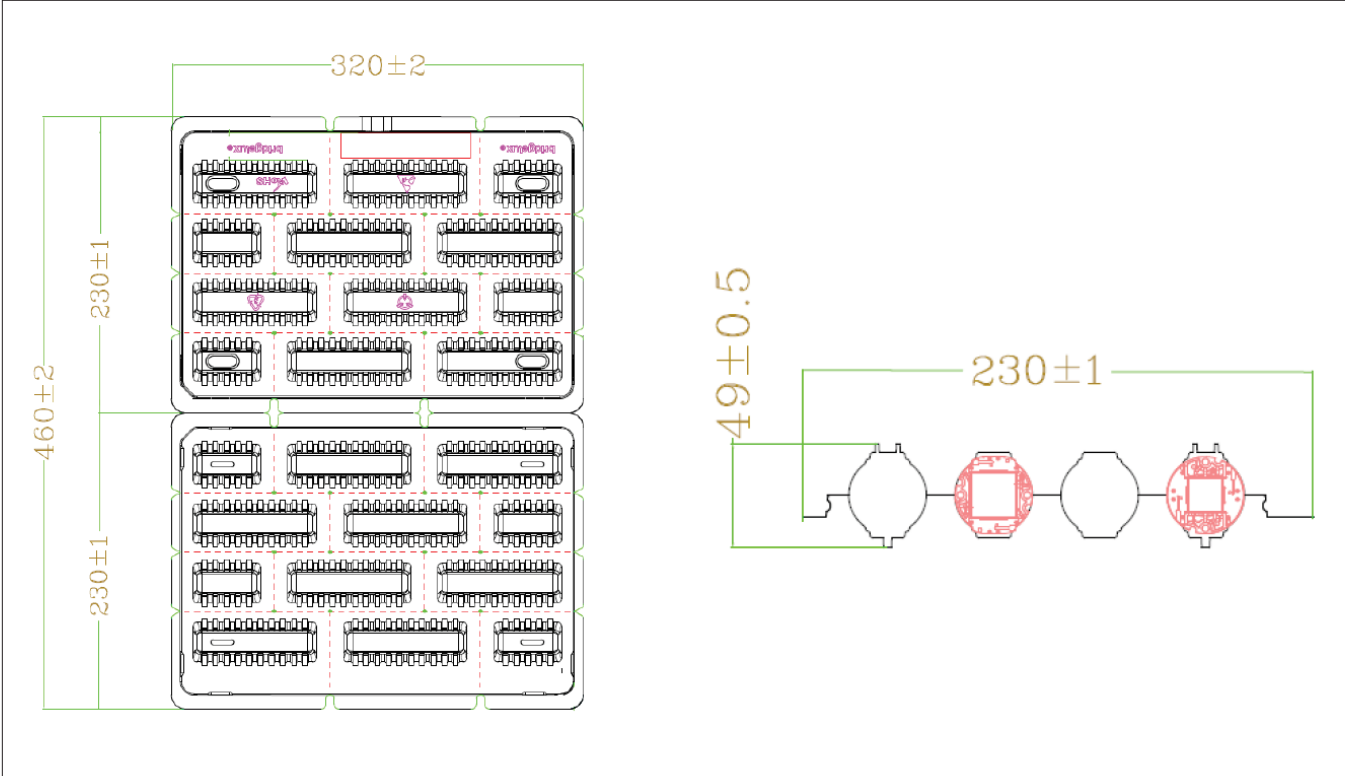
Bin Code	5000K	5700K	6500K
ANSI Bin (for reference only)	(4745K - 5311K)	(5312K - 6022K)	(6022K - 7042K)
74 (4 SDCM)	(4801K - 5282K)	(5395K - 5970K)	(6200K - 6910K)
73 (3 SDCM)	(4835K - 5215K)	(5460K - 5891K)	(6279K - 6811K)
Center Point (x,y)	(0.3447, 0.3553)	(0.3287, 0.3417)	(0.3123, 0.3282)

Notes for Table 10:

- Select configurations with a CCT of 5600K are available with center point targets at  $T_c = 85^\circ\text{C}$  or  $T_c = 25^\circ\text{C}$ .
- Bridgelux maintains a tolerance of +/- 0.007 on x and y color coordinates in the CIE 1931 color Space.

# Packaging and Labeling

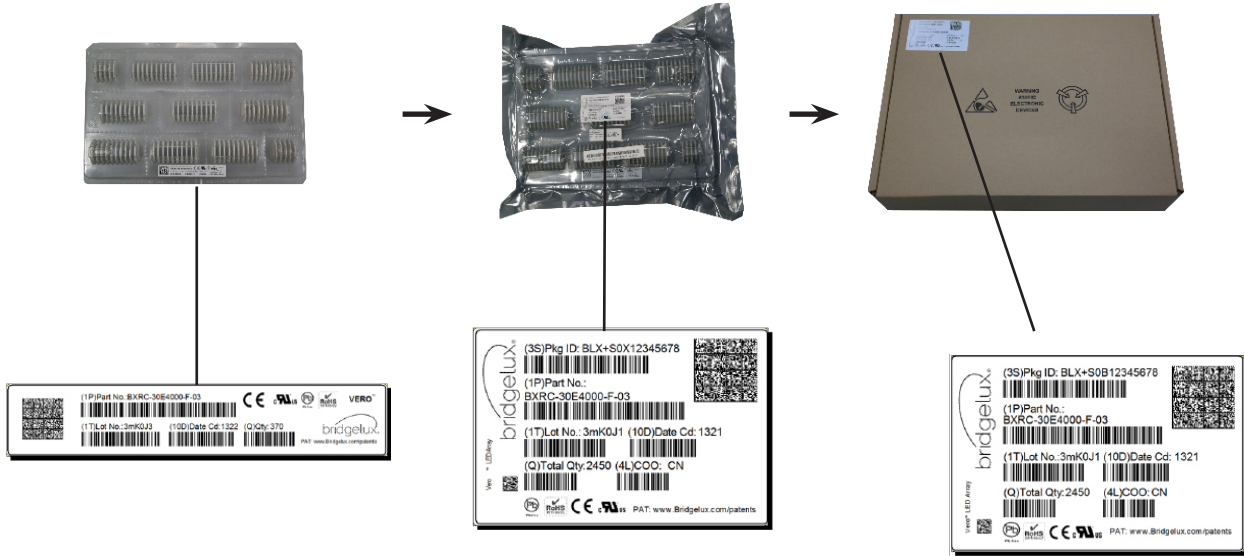
Figure 23: Drawing for Vero SE 13 Packaging Tray



- Notes for Figure 23:
- 1. Dimensions are in millimeters.
  - 2. Drawings are not to scale.

# Packaging and Labeling

**Figure 24: Vero SE Series Packaging and Labeling**



Notes for Figure 24:

1. Each tray holds 100 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 25: 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

**30E2000C 73 2F**

Customer Use- V<sub>f</sub> Bin Code  
included to enable greater luminaire design flexibility. Refer to ANg2 for bin code 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](http://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](http://www.bridgelux.com).

## 3D CAD Models

Three dimensional CAD models depicting the product outline of all Bridgelux Vero 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 AN121 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**  
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**[facebook.com/Bridgelux](https://facebook.com/Bridgelux)**  
**[youtube.com/user/Bridgelux](https://youtube.com/user/Bridgelux)**  
**[linkedin.com/company/bridgelux-inc-\\_2](https://linkedin.com/company/bridgelux-inc-_2)**  
**WeChat ID: BridgeluxInChina**



46410 Fremont Boulevard  
Fremont, CA 94538 U.S.A.  
Tel (925) 583-8400  
**[www.bridgelux.com](http://www.bridgelux.com)**

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**Bridgelux Vero SE 13 Array Series Product Data Sheet DS121 Rev. Q (07/2023)**