



Bridgelux® Gen 8 Vero® 13 Array

Product Data Sheet DS421



Introduction

Vero® Series



The Vero® Series is a revolutionary advancement in chip on board (COB) light source technology and innovation, simplifying the luminaire design and manufacturing processes. Vero Chip on Board (COB) LED arrays are available in four LES configurations, engineered to enable new degrees of flexibility and reliability over a broad range of electrical currents. Vero arrays deliver increased lumen density to enable improved beam control and precision lighting with 2 and 3 SDCM color control standard for clean and consistent uniform lighting.

Vero products include an onboard connector port that enables a solder-free electrical interconnect, and simple mounting features for plug-and-play installation.

Features

- On board connector port
- Top side part number markings
- Efficacy of 178 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)
- Thermally isolated solder pads
- 10-Year warranty

Benefits

- Solder 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
- Enhanced ease of use and installation
- Design with confidence



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-27E2000-B-8x	2700	80	350	1963	1767	33.4	11.7	168
BXRC-27E2000-C-8x	2700	80	500	2805	2524	33.4	16.7	168
BXRC-27E2000-D-8x	2700	80	400	2068	1861	30.9	12.4	167
BXRC-27G2000-B-8x	2700	90	350	1620	1458	33.4	11.7	139
BXRC-27G2000-C-8x	2700	90	500	2314	2082	33.4	16.7	139
BXRC-27G2000-D-8x	2700	90	400	1706	1535	30.9	12.4	138
BXRC-27G20Ho-B-8x	2700	90	350	1690	1521	33.4	11.7	145
BXRC-27G20Ho-C-8x	2700	90	500	2414	2172	33.4	16.7	145
BXRC-27G20Ho-D-8x	2700	90	400	1780	1602	30.9	12.4	144
BXRC-30C2001-B-8x	3000	70	350	2184	1966	33.4	11.7	187
BXRC-30C2001-C-8x	3000	70	500	3120	2808	33.4	16.7	187
BXRC-30C2001-D-8x	3000	70	400	2300	2070	30.9	12.4	186
BXRC-30E2000-B-8x	3000	80	350	2086	1877	33.4	11.7	178
BXRC-30E2000-C-8x	3000	80	500	2980	2682	33.4	16.7	178
BXRC-30E2000-D-8x	3000	80	400	2197	1977	30.9	12.4	178
BXRC-30G2000-B-8x	3000	90	350	1693	1524	33.4	11.7	145
BXRC-30G2000-C-8x	3000	90	500	2419	2177	33.4	16.7	145
BXRC-30G2000-D-8x	3000	90	400	1783	1605	30.9	12.4	144
BXRC-30G20Ho-B-8x	3000	90	350	1773	1596	33.4	11.7	152
BXRC-30G20Ho-C-8x	3000	90	500	2533	2280	33.4	16.7	152
BXRC-30G20Ho-D-8x	3000	90	400	1867	1681	30.9	12.4	151
BXRC-35E2000-B-8x	3500	80	350	2135	1922	33.4	11.7	183
BXRC-35E2000-C-8x	3500	80	500	3050	2745	33.4	16.7	183
BXRC-35E2000-D-8x	3500	80	400	2249	2024	30.9	12.4	182
BXRC-35G2000-B-8x	3500	90	350	1755	1579	33.4	11.7	150
BXRC-35G2000-C-8x	3500	90	500	2507	2256	33.4	16.7	150
BXRC-35G2000-D-8x	3500	90	400	1848	1663	30.9	12.4	150
BXRC-40C2001-B-8x	4000	70	350	2246	2021	33.4	11.7	192
BXRC-40C2001-C-8x	4000	70	500	3208	2887	33.4	16.7	192
BXRC-40C2001-D-8x	4000	70	400	2365	2129	30.9	12.4	191
BXRC-40E2000-B-8x	4000	80	350	2147	1933	33.4	11.7	184
BXRC-40E2000-C-8x	4000	80	500	3068	2761	33.4	16.7	184
BXRC-40E2000-D-8x	4000	80	400	2262	2035	30.9	12.4	183

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 value for 90 CRI products is 50, the minimum Rg value for 97 CRI products is 93. 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-40G2000-B-8x	4000	90	350	1792	1612	33.4	11.7	153
BXRC-40G2000-C-8x	4000	90	500	2559	2303	33.4	16.7	153
BXRC-40G2000-D-8x	4000	90	400	1887	1698	30.9	12.4	153
BXRC-50C2001-B-8x	5000	70	350	2258	2032	33.4	11.7	193
BXRC-50C2001-C-8x	5000	70	500	3225	2903	33.4	16.7	193
BXRC-50C2001-D-8x	5000	70	400	2378	2140	30.9	12.4	192
BXRC-50E2001-B-8x	5000	80	350	2172	1955	33.4	11.7	186
BXRC-50E2001-C-8x	5000	80	500	3103	2792	33.4	16.7	186
BXRC-50E2001-D-8x	5000	80	400	2287	2059	30.9	12.4	185
BXRC-50G2001-B-8x	5000	90	350	1877	1690	33.4	11.7	161
BXRC-50G2001-C-8x	5000	90	500	2682	2414	33.4	16.7	161
BXRC-50G2001-D-8x	5000	90	400	1977	1780	30.9	12.4	160
BXRC-57C2001-B-8x	5700	70	350	2196	1977	33.4	11.7	188
BXRC-57C2001-C-8x	5700	70	500	3138	2824	33.4	16.7	188
BXRC-57C2001-D-8x	5700	70	400	2313	2082	30.9	12.4	187
BXRC-57E2001-B-8x	5700	80	350	2086	1877	33.4	11.7	178
BXRC-57E2001-C-8x	5700	80	500	2980	2682	33.4	16.7	178
BXRC-57E2001-D-8x	5700	80	400	2197	1977	30.9	12.4	178
BXRC-65C2001-B-8x	6500	70	350	2196	1977	33.4	11.7	188
BXRC-65C2001-C-8x	6500	70	500	3138	2824	33.4	16.7	188
BXRC-65C2001-D-8x	6500	70	400	2313	2082	30.9	12.4	187
BXRC-65E2001-B-8x	6500	80	350	2111	1899	33.4	11.7	181
BXRC-65E2001-C-8x	6500	80	500	3015	2714	33.4	16.7	181
BXRC-65E2001-D-8x	6500	80	400	2223	2001	30.9	12.4	180

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- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
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- 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.