



Bridgelux® Vero® SE 29 Array

Product Data Sheet DS123



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 typical R9 value of 98, 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 designed as a replacement for halogen lamps

Décor Series™ Food products offer color points developed to address the unique requirements of the food, grocery, and restaurant industries. Highlighting the distinctive colors and nuanced patterns found in meats and breads, the Décor Series Food products are a must have for any butcher counter or bakery.

Décor Series™ Entertainment products provide color points developed specifically for the healthcare and entertainment industries. The 5600K cool white color point combined with a CRI of 90 or 97 provides the bright white required by these industries.

Décor Series™ Street and Landmark is designed to be a direct replacement for high pressure sodium lamps.

Features

- Poke-in connectivity
- Efficacy of 170 lm/W typical
- Lumen output performance ranges from 5,368 to 37,173 lumens
- Broad range of CCT options from 1750K to 6500K
- CRI options: minimum 65, 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_r 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 arrays in series and parallel reduces customer driver cost
- Improved inventory management and quality control



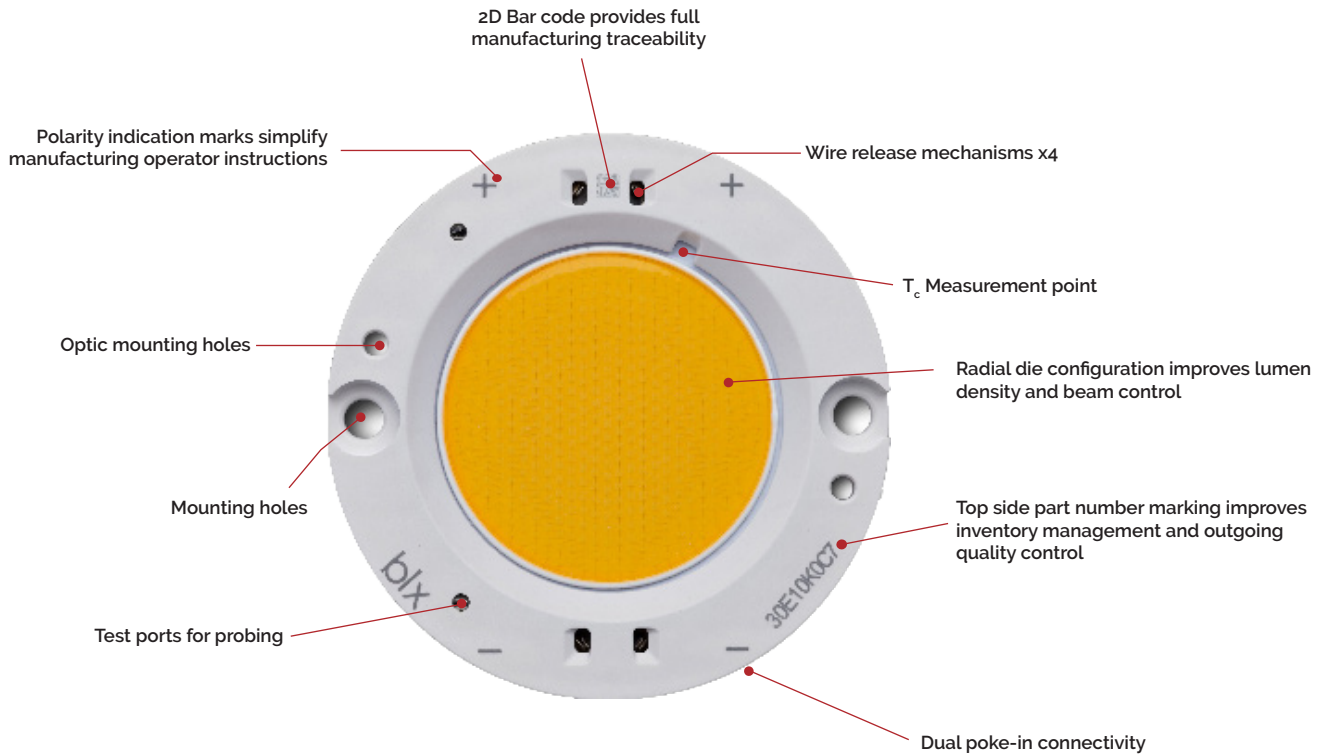
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Product Feature Map

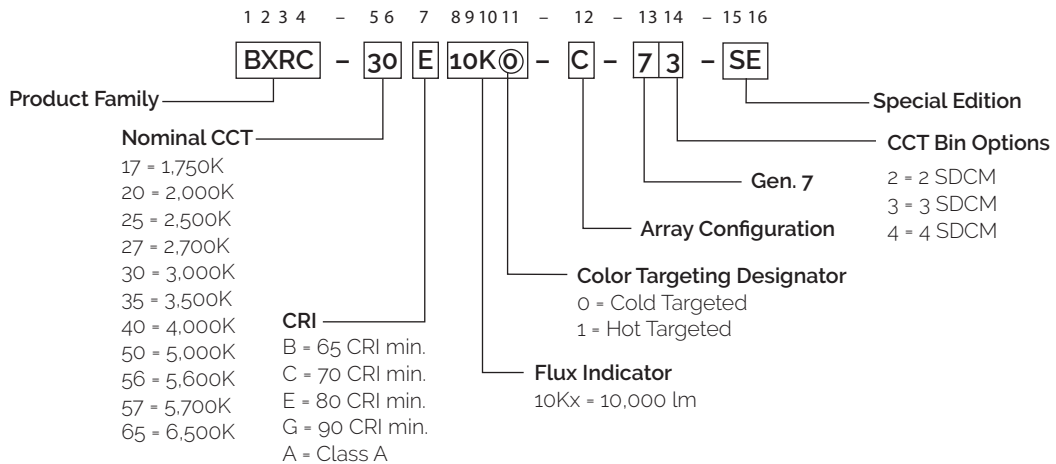
Vero SE 29 is the largest form factor in the product family of next generation solid state light sources. In addition to delivering the performance and light quality required for many lighting applications, Vero SE incorporates several

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



Product Nomenclature

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



Product Selection Guide

The following product configurations are available:

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

Part Number	Nominal CCT ¹ (K)	CRI ²	Nominal Drive Current ³ (mA)	Typical Pulsed Flux ^{4,5,6} $T_c = 25^\circ\text{C}$ (lm)	Minimum Pulsed Flux ^{6,7} $T_c = 25^\circ\text{C}$ (lm)	Typical V_f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-17E10K0-B-74-SE	1750	80	1800	8590	7731	52.0	93.6	92
BXRC-17E10K0-C-74-SE	1750	80	1710	10891	9802	69.4	118.7	92
BXRC-17E10K0-D-74-SE	1750	80	2100	7246	6522	37.6	79.0	92
BXRC-20B10K1-C-73-SE	2000	65	1710	18585	16727	69.4	118.7	157
BXRC-20B10K1-D-73-SE	2000	65	2100	12366	11129	37.6	79.0	157
BXRC-25E10K0-B-74-SE	2500	80	1800	14285	12856	52.0	93.6	153
BXRC-25E10K0-C-74-SE	2500	80	1710	18112	16301	69.4	118.7	153
BXRC-25E10K0-D-74-SE	2500	80	2100	12051	10846	37.6	79.0	153
BXRC-27E10K0-B-7x-SE	2700	80	1800	14939	13445	52.0	93.6	160
BXRC-27E10K0-C-7x-SE	2700	80	1710	18940	17046	69.4	118.7	160
BXRC-27E10K0-D-7x-SE	2700	80	2100	12602	11342	37.6	79.0	160
BXRC-27G1KH0-B-7x-SE	2700	90	1800	12791	11512	52.0	93.6	137
BXRC-27G1KH0-C-7x-SE	2700	90	1710	16218	14596	69.4	118.7	137
BXRC-27G1KH0-D-7x-SE	2700	90	2100	10790	9711	37.6	79.0	137
BXRC-27G10K0-B-7x-SE	2700	90	1800	12324	11092	52.0	93.6	132
BXRC-27G10K0-C-7x-SE	2700	90	1710	15626	14063	69.4	118.7	132
BXRC-27G10K0-D-7x-SE	2700	90	2100	10397	9357	37.6	79.0	132
BXRC-27H10K0-D-74-SE	2700	97	2100	9215	8294	37.6	79.0	117
BXRC-30C10K1-B-74-SE	3000	70	1800	16619	14957	52.0	93.6	178
BXRC-30C10K1-C-74-SE	3000	70	1710	21071	18964	69.4	118.7	178
BXRC-30C10K1-D-74-SE	3000	70	2100	14020	12618	37.6	79.0	178
BXRC-30E10K0-B-7x-SE ¹⁰	3000	80	1800	15872	14285	52.0	93.6	170
BXRC-30E10K0-C-7x-SE ¹⁰	3000	80	1710	20124	18112	69.4	118.7	170
BXRC-30E10K0-D-7x-SE ¹⁰	3000	80	2100	13390	12051	37.6	79.0	170
BXRC-30G1KH0-B-7x-SE	3000	90	1800	13445	12100	52.0	93.6	144
BXRC-30G1KH0-C-7x-SE	3000	90	1710	17046	15342	69.4	118.7	144
BXRC-30G1KH0-D-7x-SE	3000	90	2100	11342	10208	37.6	79.0	144
BXRC-30G10K0-B-7x-SE	3000	90	1800	12885	11596	52.0	93.6	138
BXRC-30G10K0-C-7x-SE	3000	90	1710	16336	14702	69.4	118.7	138
BXRC-30G10K0-D-7x-SE	3000	90	2100	10869	9782	37.6	79.0	138
BXRC-30H10K0-D-7x-SE	3000	97	2100	9845	8861	37.6	79.0	125
BXRC-30A10K1-B-73-SE ^{8,9}	3000	93	1800	11577	10420	52.0	93.6	124
BXRC-30A10K1-C-73-SE ^{8,9}	3000	93	1710	14679	13211	69.4	118.7	124
BXRC-30A10K1-D-73-SE ^{8,9}	3000	93	2100	9767	8790	37.6	79.0	124

Notes for Table 1:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- All CRI values are measured at $T_j - T_c = 25^\circ\text{C}$. 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 values for 90 CRI products is 50, the minimum Rg values 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.
- 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°C . GAI may vary depending on fixture design and performance.
- SKUs meet DLC premium (Outdoor Mid Output) requirements under certain system level conditions.

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-35E10K0-B-7x-SE ¹⁰	3500	80	1800	16246	14621	52.0	93.6	174
BXRC-35E10K0-C-7x-SE ¹⁰	3500	80	1710	20598	18538	69.4	118.7	174
BXRC-35E10K0-D-7x-SE ¹⁰	3500	80	2100	13705	12334	37.6	79.0	174
BXRC-35G10K0-B-7x-SE	3500	90	1800	13351	12016	52.0	93.6	143
BXRC-35G10K0-C-7x-SE	3500	90	1710	16928	15235	69.4	118.7	143
BXRC-35G10K0-D-7x-SE	3500	90	2100	11263	10137	37.6	79.0	143
BXRC-35A10K1-B-73-SE ^{8,9}	3500	93	1800	12324	11092	52.0	93.6	132
BXRC-35A10K1-C-73-SE ^{8,9}	3500	93	1710	15626	14063	69.4	118.7	132
BXRC-35A10K1-D-73-SE ^{8,9}	3500	93	2100	10397	9357	37.6	79.0	132
BXRC-40C10K1-B-74-SE	4000	70	1800	17086	15377	52.0	93.6	183
BXRC-40C10K1-C-74-SE	4000	70	1710	21663	19497	69.4	118.7	183
BXRC-40C10K1-D-74-SE	4000	70	2100	14414	12972	37.6	79.0	183
BXRC-40E10K0-B-7x-SE ¹⁰	4000	80	1800	16339	14705	52.0	93.6	175
BXRC-40E10K0-C-7x-SE ¹⁰	4000	80	1710	20716	18644	69.4	118.7	175
BXRC-40E10K0-D-7x-SE ¹⁰	4000	80	2100	13783	12405	37.6	79.0	175
BXRC-40G10K0-B-7x-SE	4000	90	1800	13631	12268	52.0	93.6	146
BXRC-40G10K0-C-7x-SE	4000	90	1710	17283	15555	69.4	118.7	146
BXRC-40G10K0-D-7x-SE	4000	90	2100	11499	10349	37.6	79.0	146
BXRC-40H10K0-D-7x-SE	4000	97	2100	10397	9357	37.6	79.0	132
BXRC-40A10K1-B-73-SE ^{8,9}	4000	93	1800	13351	12016	52.0	93.6	143
BXRC-40A10K1-C-73-SE ^{8,9}	4000	93	1710	16928	15235	69.4	118.7	143
BXRC-40A10K1-D-73-SE ^{8,9}	4000	93	2100	11263	10137	37.6	79.0	143
BXRC-50C10K1-B-7x-SE ¹⁰	5000	70	1800	17179	15461	52.0	93.6	184
BXRC-50C10K1-C-7x-SE ¹⁰	5000	70	1710	21781	19603	69.4	118.7	184
BXRC-50C10K1-D-7x-SE ¹⁰	5000	70	2100	14492	13043	37.6	79.0	184
BXRC-50E10K1-B-7x-SE ¹⁰	5000	80	1800	16526	14873	52.0	93.6	177
BXRC-50E10K1-C-7x-SE ¹⁰	5000	80	1710	20953	18858	69.4	118.7	177
BXRC-50E10K1-D-7x-SE ¹⁰	5000	80	2100	13941	12547	37.6	79.0	177
BXRC-50G10K1-B-7x-SE	5000	90	1800	14285	12856	52.0	93.6	153
BXRC-50G10K1-C-74-SE	5000	90	1710	18112	16301	69.4	118.7	153
BXRC-50G10K1-D-74-SE	5000	90	2100	12051	10846	37.6	79.0	153
BXRC-56G10K0-B-74-SE	5600	80	1800	14378	12941	52.0	93.6	154

Notes for Table 1:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- All CRI values are measured at $T_j = T_c = 25^\circ\text{C}$. 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 R_g value for 80 CRI products is 0, the minimum R_g values for 90 CRI products is 50, the minimum R_g values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R_g 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.
- 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°C . GAI may vary depending on fixture design and performance.
- SKUs meet DLC premium (Outdoor Mid Output) requirements under certain system level conditions.

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-56G10K0-C-74-SE	5600	80	1710	18230	16407	69.4	118.7	154
BXRC-56G10Kx-D-74-SE	5600	80	2100	12129	10916	37.6	79.0	154
BXRC-56H10K0-D-74-SE	5600	97	2100	10948	9853	37.6	79.0	139
BXRC-57C10K1-B-74-SE	5700	70	1800	16713	15041	52.0	93.6	179
BXRC-57C10K1-C-74-SE	5700	70	1710	21190	19071	69.4	118.7	179
BXRC-57C10K1-D-74-SE	5700	70	2100	14099	12689	37.6	79.0	179
BXRC-57E10K1-B-74-SE	5700	80	1800	15872	14285	52.0	93.6	170
BXRC-57E10K1-C-74-SE	5700	80	1710	20124	18112	69.4	118.7	170
BXRC-57E10K1-D-74-SE	5700	80	2100	13390	12051	37.6	79.0	170
BXRC-65C10K1-B-74-SE	6500	70	1800	16713	15041	52.0	93.6	179
BXRC-65C10K1-C-74-SE	6500	70	1710	21190	19071	69.4	118.7	179
BXRC-65C10K1-D-74-SE	6500	70	2100	14099	12689	37.6	79.0	179
BXRC-65E10K1-B-74-SE	6500	80	1800	16059	14453	52.0	93.6	172
BXRC-65E10K1-C-74-SE	6500	80	1710	20361	18325	69.4	118.7	172
BXRC-65E10K1-D-74-SE	6500	80	2100	13547	12192	37.6	79.0	172

Notes for Table 1:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- All CRI values are measured at $T_j = T_c = 25^\circ\text{C}$. 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 R_g value for 80 CRI products is 0, the minimum R_g values for 90 CRI products is 50, the minimum R_g values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R_g 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.
- 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°C . GAI may vary depending on fixture design and performance.
- SKUs meet DLC premium (Outdoor Mid Output) requirements under certain system level conditions.

Product Selection Guide

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

Part Number	Nominal CCT ¹ (K)	GAI ²	CRI ³	Nominal Drive Current ⁴ (mA)	Typical DC Flux ^{5,6} $T_c = 70^\circ\text{C}$ (lm)	Minimum DC Flux ^{6,9} $T_c = 70^\circ\text{C}$ (lm)	Typical V_f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-30A10K1-B-73-SE	3000	80	93	1800	10767	9690	50.9	91.6	118
BXRC-30A10K1-C-73-SE	3000	80	93	1710	13651	12286	67.9	116.1	118
BXRC-30A10K1-D-73-SE	3000	80	93	2100	9083	8175	36.8	77.3	118
BXRC-35A10K1-B-73-SE	3500	80	93	1800	11462	10315	50.9	91.6	125
BXRC-35A10K1-C-73-SE	3500	80	93	1710	14532	13079	67.9	116.1	125
BXRC-35A10K1-D-73-SE	3500	80	93	2100	9669	8702	36.8	77.3	125
BXRC-40A10K1-B-73-SE	4000	80	93	1800	12417	11175	50.9	91.6	136
BXRC-40A10K1-C-73-SE	4000	80	93	1710	15743	14169	67.9	116.1	136
BXRC-40A10K1-D-73-SE	4000	80	93	2100	10475	9427	36.8	77.3	136

Notes for Table 2:

1. 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.
2. To help ensure optimal fixture level performance, GAI is measured at the fixture level, on axis, at a case temperature of 70°C . GAI may vary depending on fixture design and performance.
3. CRI Values are specified as typical.
4. Drive current is referred to as nominal drive current.
5. Typical performance values are provided as a reference only and are not a guarantee of performance.
6. Bridgelux maintains a $\pm 7\%$ tolerance on flux measurements.
7. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
8. 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.
9. 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 ($T_c = 85^\circ\text{C}$)^{4,5}

Part Number	Nominal CCT ¹ (K)	CRI ²	Nominal Drive Current ³ (mA)	Typical DC Flux ^{4,5} $T_c = 85^\circ\text{C}$ (lm)	Minimum DC Flux ⁶ $T_c = 85^\circ\text{C}$ (lm)	Typical V_f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-17E10K0-B-74-SE	1750	80	1800	7731	6958	50.7	91.2	85
BXRC-17E10K0-C-74-SE	1750	80	1710	9802	8821	68.1	116.4	84
BXRC-17E10K0-D-74-SE	1750	80	2100	6522	5869	36.6	76.8	85
BXRC-20B10K1-C-73-SE	2000	65	1710	16727	15054	68.1	116.4	144
BXRC-20B10K1-D-73-SE	2000	65	2100	11129	10016	36.6	76.8	145
BXRC-25E10K0-B-74-SE	2500	80	1800	12856	11571	50.7	91.2	141
BXRC-25E10K0-C-74-SE	2500	80	1710	16301	14671	68.1	116.4	140
BXRC-25E10K0-D-74-SE	2500	80	2100	10846	9761	36.6	76.8	141
BXRC-27E10K0-B-7X-SE	2700	80	1800	13445	12100	50.7	91.2	147
BXRC-27E10K0-C-7X-SE	2700	80	1710	17046	15342	68.1	116.4	146
BXRC-27E10K0-D-7X-SE	2700	80	2100	11342	10208	36.6	76.8	148
BXRC-27G1KH0-B-7X-SE	2700	90	1800	11512	10361	50.7	91.2	126
BXRC-27G1KH0-C-7X-SE	2700	90	1710	14596	13136	68.1	116.4	125
BXRC-27G1KH0-D-7X-SE	2700	90	2100	9711	8740	36.6	76.8	127
BXRC-27G10K0-B-7X-SE	2700	90	1800	11092	9983	50.7	91.2	122
BXRC-27G10K0-C-7X-SE	2700	90	1710	14063	12657	68.1	116.4	121
BXRC-27G10K0-D-7X-SE	2700	90	2100	9357	8421	36.6	76.8	122
BXRC-27H10K0-D-74-SE	2700	97	2100	8294	7464	36.6	76.9	108
BXRC-30C10K1-B-74-SE	3000	70	1800	14957	13462	50.7	91.2	164
BXRC-30C10K1-C-74-SE	3000	70	1710	18964	17068	68.1	116.4	163
BXRC-30C10K1-D-74-SE	3000	70	2100	12618	11356	36.6	76.8	164
BXRC-30E10K0-B-7X-SE	3000	80	1800	14285	12856	50.7	91.2	157
BXRC-30E10K0-C-7X-SE	3000	80	1710	18112	16301	68.1	116.4	156
BXRC-30E10K0-D-7X-SE	3000	80	2100	12051	10846	36.6	76.8	157
BXRC-30G1KH0-B-7X-SE	3000	90	1800	12100	10890	50.7	91.2	133
BXRC-30G1KH0-C-7X-SE	3000	90	1710	15342	13808	68.1	116.4	132
BXRC-30G1KH0-D-7X-SE	3000	90	2100	10208	9187	36.6	76.8	133
BXRC-30G10K0-B-7X-SE	3000	90	1800	11596	10436	50.7	91.2	127
BXRC-30G10K0-C-7X-SE	3000	90	1710	14702	13232	68.1	116.4	126
BXRC-30G10K0-D-7X-SE	3000	90	2100	9782	8804	36.6	76.8	127
BXRC-30H10K0-D-7X-SE	3000	97	2100	8861	7975	36.6	76.8	115
BXRC-30A10K1-B-73-SE ^{7,8}	3000	93	1800	10420	9378	50.7	91.2	114
BXRC-30A10K1-C-73-SE ^{7,8}	3000	93	1710	13211	11890	68.1	116.4	113
BXRC-30A10K1-D-73-SE ^{7,8}	3000	93	2100	8790	7911	36.6	76.8	114

Notes for Table 3:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are not 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 R_g value for 80 CRI products is 0, the minimum R_g values for 90 CRI products is 50, the minimum R_g values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R_g values.
- Drive current is referred to as nominal drive current.
- Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
- Typical performance is estimated based on operation under DC (direct current) with LED array mounted onto a heat sink with thermal interface material and the case temperature maintained at 85°C . Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- Minimum flux values at elevated temperatures are provided for reference only and are not guaranteed by 100% production testing. Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- 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°C . GAI may vary depending on fixture design and performance.

Product Selection Guide

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

Part Number	Nominal CCT ⁸ (K)	CRI ²	Nominal Drive Current ³ (mA)	Typical DC Flux ^{4,5} $T_c = 85^\circ\text{C}$ (lm)	Minimum DC Flux ⁶ $T_c = 85^\circ\text{C}$ (lm)	Typical V_f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-35E10K0-B-7x-SE	3500	80	1800	14621	13159	50.7	91.2	160
BXRC-35E10K0-C-7x-SE	3500	80	1710	18538	16684	68.1	116.4	159
BXRC-35E10K0-D-7x-SE	3500	80	2100	12334	11101	36.6	76.8	161
BXRC-35G10K0-B-7x-SE	3500	90	1800	12016	10815	50.7	91.2	132
BXRC-35G10K0-C-7x-SE	3500	90	1710	15235	13712	68.1	116.4	131
BXRC-35G10K0-D-7x-SE	3500	90	2100	10137	9123	36.6	76.8	132
BXRC-35A10K1-B-73-SE ^{7,8}	3500	93	1800	11092	9983	50.7	91.2	122
BXRC-35A10K1-C-73-SE ^{7,8}	3500	93	1710	14063	12657	68.1	116.4	121
BXRC-35A10K1-D-73-SE ^{7,8}	3500	93	2100	9357	8421	36.6	76.8	122
BXRC-40C10K1-B-74-SE	4000	70	1800	15377	13840	50.7	91.2	169
BXRC-40C10K1-C-74-SE	4000	70	1710	19497	17547	68.1	116.4	167
BXRC-40C10K1-D-74-SE	4000	70	2100	12972	11675	36.6	76.8	169
BXRC-40E10K0-B-7x-SE	4000	80	1800	14705	13235	50.7	91.2	161
BXRC-40E10K0-C-7x-SE	4000	80	1710	18644	16780	68.1	116.4	160
BXRC-40E10K0-D-7x-SE	4000	80	2100	12405	11165	36.6	76.8	162
BXRC-40G10K0-B-7x-SE	4000	90	1800	12268	11041	50.7	91.2	135
BXRC-40G10K0-C-7x-SE	4000	90	1710	15555	13999	68.1	116.4	134
BXRC-40G10K0-D-7x-SE	4000	90	2100	10349	9314	36.6	76.8	135
BXRC-40H10K0-D-7x-SE	4000	97	2100	9357	8421	36.6	76.8	122
BXRC-40A10K1-B-73-SE ^{7,8}	4000	93	1800	12016	10815	50.7	91.2	132
BXRC-40A10K1-C-73-SE ^{7,8}	4000	93	1710	15235	13712	68.1	116.4	131
BXRC-40A10K1-D-73-SE ^{7,8}	4000	93	2100	10137	9123	36.6	76.8	132
BXRC-50C10K1-B-7x-SE	5000	70	1800	15461	13915	50.7	91.2	170
BXRC-50C10K1-C-7x-SE	5000	70	1710	19603	17643	68.1	116.4	168
BXRC-50C10K1-D-7x-SE	5000	70	2100	13043	11739	36.6	76.8	170
BXRC-50E10K1-B-7x-SE	5000	80	1800	14873	13386	50.7	91.2	163
BXRC-50E10K1-C-7x-SE	5000	80	1710	18858	16972	68.1	116.4	162
BXRC-50E10K1-D-7x-SE	5000	80	2100	12547	11292	36.6	76.8	163
BXRC-50G10K1-B-7x-SE	5000	90	1800	12856	11571	50.7	91.2	141
BXRC-50G10K1-C-7x-SE	5000	90	1710	16301	14671	68.1	116.4	140
BXRC-50G10K1-D-7x-SE	5000	90	2100	10846	9761	36.6	76.8	141
BXRC-56G10K1-B-74-SE	5600	80	1800	12941	11646	50.7	91.2	142
BXRC-56G10K1-C-74-SE	5600	80	1710	16407	14766	68.1	116.4	141
BXRC-56G10Kx-D-74-SE	5600	80	2100	10916	9825	36.6	76.8	142
BXRC-56H10K0-D-74-SE	5600	97	2100	9853	8868	36.6	76.8	128

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 $T_j - T_c = 25^\circ\text{C}$. 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 values for 90 CRI products is 50, the minimum Rg values 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.
- Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
- Typical performance is estimated based on operation under DC (direct current) with LED array mounted onto a heat sink with thermal interface material and the case temperature maintained at 85°C . Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- Minimum flux values at elevated temperatures are provided for reference only and are not guaranteed by 100% production testing. Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- 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°C . GAI may vary depending on fixture design and performance.

Product Selection Guide

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

Part Number	Nominal CCT ¹ (K)	CRI ²	Nominal Drive Current ³ (mA)	Typical DC Flux ^{4,5} $T_c = 85^\circ\text{C}$ (lm)	Minimum DC Flux ⁶ $T_c = 85^\circ\text{C}$ (lm)	Typical V_f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-57C10K1-B-7x-SE	5700	70	1800	15041	13537	50.7	91.2	165
BXRC-57C10K1-C-7x-SE	5700	70	1710	19071	17164	68.1	116.4	164
BXRC-57C10K1-D-7x-SE	5700	70	2100	12689	11420	36.6	76.8	165
BXRC-57E10K1-B-7x-SE	5700	80	1800	14285	12856	50.7	91.2	157
BXRC-57E10K1-C-7x-SE	5700	80	1710	18112	16301	68.1	116.4	156
BXRC-57E10K1-D-7x-SE	5700	80	2100	12051	10846	36.6	76.8	157
BXRC-65C10K1-B-7x-SE	6500	70	1800	15041	13537	50.7	91.2	165
BXRC-65C10K1-C-7x-SE	6500	70	1710	19071	17164	68.1	116.4	164
BXRC-65C10K1-D-7x-SE	6500	70	2100	12689	11420	36.6	76.8	165
BXRC-65E10K1-B-7x-SE	6500	80	1800	14453	13008	50.7	91.2	158
BXRC-65E10K1-C-7x-SE	6500	80	1710	18325	16492	68.1	116.4	157
BXRC-65E10K1-D-7x-SE	6500	80	2100	12192	10973	36.6	76.8	159

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 R_g value for 80 CRI products is 0, the minimum R_g values for 90 CRI products is 50, the minimum R_g values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R_g values.
- Drive current is referred to as nominal drive current.
- Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
- Typical performance is estimated based on operation under DC (direct current) with LED array mounted onto a heat sink with thermal interface material and the case temperature maintained at 85°C . Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- Minimum flux values at elevated temperatures are provided for reference only and are not guaranteed by 100% production testing. Based on Bridgelux test setup, values may vary depending on the thermal design of the luminaire and/or the exposed environment to which the product is subjected.
- 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°C . GAI may vary depending on fixture design and performance.

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 4.

Table 4: Product Performance at Commonly Used Drive Currents

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-17E10K0-B-74-SE	80	900	49.6	44.7	4459	4070	100
		1200	50.5	60.6	5871	5337	97
		1800	52.0	93.6	8590	7731	92
		2700	54.1	146.1	12382	11042	85
		3600	55.8	201.0	15847	13963	79
BXRC-17E10K0-C-74-SE	80	855	66.2	56.6	5651	4646	100
		1140	67.3	76.7	7454	6099	97
		1710	69.4	118.7	10891	9802	92
		2565	72.1	185.0	15678	12430	85
		3420	74.4	254.6	20063	15514	79
BXRC-17E10K0-D-74-SE	80	1050	35.4	37.2	3661	3010	98
		1400	36.2	50.6	4841	3962	96
		2100	37.6	79.0	7246	6522	92
		3150	39.5	124.4	10581	8389	85
		4200	41.2	172.9	13826	10692	80
BXRC-20B10K1-C-73-SE	65	855	66.2	56.6	9643	7929	170
		1140	67.3	76.7	12720	10408	166
		1710	69.4	118.7	18585	16727	157
		2565	72.1	185.0	26755	21212	145
		3420	74.4	254.6	34237	26475	134
BXRC-20B10K1-D-73-SE	65	1050	35.4	37.2	6247	5137	168
		1400	36.2	50.6	8262	6760	163
		2100	37.6	79.0	12366	11129	157
		3150	39.5	124.4	18057	14316	145
		4200	41.2	172.9	23595	18246	136
BXRC-25E10K0-B-74-SE	80	900	49.6	44.7	7416	6769	166
		1200	50.5	60.6	9764	8876	161
		1800	52.0	93.6	14285	12856	153
		2700	54.1	146.1	20592	18364	141
		3600	55.8	201.0	26355	23221	131
BXRC-25E10K0-C-74-SE	80	855	66.2	56.6	9397	7727	166
		1140	67.3	76.7	12396	10143	162
		1710	69.4	118.7	18112	16301	153
		2565	72.1	185.0	26073	20672	141
		3420	74.4	254.6	33365	25801	131
BXRC-25E10K0-D-74-SE	80	1050	35.4	37.2	6088	5006	164
		1400	36.2	50.6	8052	6588	159
		2100	37.6	79.0	12051	10846	153
		3150	39.5	124.4	17597	13951	142
		4200	41.2	172.9	22994	17781	133

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-27E10K0-B-7x-SE	80	900	49.6	44.7	7755	7079	174
		1200	50.5	60.6	10211	9282	169
		1800	52.0	93.6	14939	13445	160
		2700	54.1	146.1	21534	19204	147
		3600	55.8	201.0	27561	24283	137
BXRC-27E10K0-C-7x-SE	80	855	66.2	56.6	9827	8081	174
		1140	67.3	76.7	12963	10607	169
		1710	69.4	118.7	18940	17046	160
		2565	72.1	185.0	27266	21617	147
		3420	74.4	254.6	34891	26981	137
BXRC-27E10K0-D-7x-SE	80	1050	35.4	37.2	6366	5235	171
		1400	36.2	50.6	8420	6890	166
		2100	37.6	79.0	12602	11342	160
		3150	39.5	124.4	18402	14590	148
		4200	41.2	172.9	24046	18595	139
BXRC-27G1KH0-B-7x-SE	90	900	49.6	44.7	6640	6061	149
		1200	50.5	60.6	8743	7948	144
		1800	52.0	93.6	12791	11512	137
		2700	54.1	146.1	18438	16444	126
		3600	55.8	201.0	23599	20792	117
BXRC-27G1KH0-C-7x-SE	90	855	66.2	56.6	8415	6919	149
		1140	67.3	76.7	11100	9082	145
		1710	69.4	118.7	16218	14596	137
		2565	72.1	185.0	23346	18510	126
		3420	74.4	254.6	29876	23103	117
BXRC-27G1KH0-D-7x-SE	90	1050	35.4	37.2	5451	4482	146
		1400	36.2	50.6	7210	5899	142
		2100	37.6	79.0	10790	9711	137
		3150	39.5	124.4	15757	12492	127
		4200	41.2	172.9	20589	15922	119
BXRC-27G10K0-B-7x-SE	90	900	49.6	44.7	6398	5840	143
		1200	50.5	60.6	8424	7658	139
		1800	52.0	93.6	12324	11092	132
		2700	54.1	146.1	17765	15843	122
		3600	55.8	201.0	22738	20033	113
BXRC-27G10K0-C-7x-SE	90	855	66.2	56.6	8108	6667	143
		1140	67.3	76.7	10695	8751	139
		1710	69.4	118.7	15626	14063	132
		2565	72.1	185.0	22494	17834	122
		3420	74.4	254.6	28785	22260	113
BXRC-27G10K0-D-7x-SE	90	1050	35.4	37.2	5252	4319	141
		1400	36.2	50.6	6946	5684	137
		2100	37.6	79.0	10397	9357	132
		3150	39.5	124.4	15181	12036	122
		4200	41.2	172.9	19838	15340	115

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-27H10K0-D-74-SE	97	1050	35.4	37.2	4655	3828	125
		1400	36.2	50.6	6157	5038	122
		2100	37.6	79.0	9215	8294	117
		3150	39.5	124.4	13456	10669	108
		4200	41.2	172.9	17584	13597	102
BXRC-30C10K1-B-74-SE	70	900	49.6	44.7	9441	8984	211
		1200	50.5	60.6	11999	11069	198
		1800	52.0	93.6	16619	14957	178
		2700	54.1	146.1	23576	20277	161
		3600	55.8	201.0	29551	24831	147
BXRC-30C10K1-C-74-SE	70	855	66.2	56.6	10933	8990	193
		1140	67.3	76.7	14422	11800	188
		1710	69.4	118.7	21071	18964	178
		2565	72.1	185.0	30333	24049	164
		3420	74.4	254.6	38817	30017	152
BXRC-30C10K1-D-74-SE	70	1050	35.4	37.2	7083	5824	190
		1400	36.2	50.6	9367	7665	185
		2100	37.6	79.0	14020	12618	178
		3150	39.5	124.4	20472	16231	165
		4200	41.2	172.9	26751	20686	155
BXRC-30E10K0-B-7x-SE	80	900	49.6	44.7	8240	7521	184
		1200	50.5	60.6	10849	9862	179
		1800	52.0	93.6	15872	14285	170
		2700	54.1	146.1	22879	20404	157
		3600	55.8	201.0	29283	25801	146
BXRC-30E10K0-C-7x-SE	80	855	66.2	56.6	10442	8586	185
		1140	67.3	76.7	13773	11270	180
		1710	69.4	118.7	20124	18112	170
		2565	72.1	185.0	28970	22969	157
		3420	74.4	254.6	37072	28668	146
BXRC-30E10K0-D-7x-SE	80	1050	35.4	37.2	6764	5562	182
		1400	36.2	50.6	8946	7320	177
		2100	37.6	79.0	13390	12051	170
		3150	39.5	124.4	19552	15501	157
		4200	41.2	172.9	25549	19757	148
BXRC-30G1KH0-B-7x-SE	90	900	49.6	44.7	6979	6371	156
		1200	50.5	60.6	9190	8354	152
		1800	52.0	93.6	13445	12100	144
		2700	54.1	146.1	19380	17284	133
		3600	55.8	201.0	24805	21855	123
BXRC-30G1KH0-C-7x-SE	90	855	66.2	56.6	8845	7273	156
		1140	67.3	76.7	11667	9546	152
		1710	69.4	118.7	17046	15342	144
		2565	72.1	185.0	24539	19456	133
		3420	74.4	254.6	31402	24283	123

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-30G1KH0-D-7x-SE	90	1050	35.4	37.2	5730	4711	154
		1400	36.2	50.6	7578	6201	150
		2100	37.6	79.0	11342	10208	144
		3150	39.5	124.4	16562	13131	133
		4200	41.2	172.9	21641	16735	125
BXRC-30G10K0-B-7x-SE	90	900	49.6	44.7	6689	6106	150
		1200	50.5	60.6	8807	8006	145
		1800	52.0	93.6	12885	11596	138
		2700	54.1	146.1	18573	16564	127
		3600	55.8	201.0	23771	20944	118
BXRC-30G10K0-C-7x-SE	90	855	66.2	56.6	8476	6970	150
		1140	67.3	76.7	11181	9149	146
		1710	69.4	118.7	16336	14702	138
		2565	72.1	185.0	23517	18645	127
		3420	74.4	254.6	30094	23271	118
BXRC-30G10K0-D-7x-SE	90	1050	35.4	37.2	5491	4515	148
		1400	36.2	50.6	7262	5942	143
		2100	37.6	79.0	10869	9782	138
		3150	39.5	124.4	15872	12584	128
		4200	41.2	172.9	20740	16038	120
BXRC-30H10K0-D-7x-SE	97	1050	35.4	37.2	4974	4090	134
		1400	36.2	50.6	6578	5382	130
		2100	37.6	79.0	9845	8861	125
		3150	39.5	124.4	14376	11398	116
		4200	41.2	172.9	18786	14527	109
BXRC-30A10K1-B-73-SE	93	900	49.6	44.7	6010	5486	135
		1200	50.5	60.6	7914	7193	131
		1800	52.0	93.6	11577	10420	124
		2700	54.1	146.1	16689	14883	114
		3600	55.8	201.0	21360	18819	106
BXRC-30A10K1-C-73-SE	93	855	66.2	56.6	7616	6262	135
		1140	67.3	76.7	10046	8220	131
		1710	69.4	118.7	14679	13211	124
		2565	72.1	185.0	21131	16754	114
		3420	74.4	254.6	27041	20910	106
BXRC-30A10K1-D-73-SE	93	1050	35.4	37.2	4934	4057	133
		1400	36.2	50.6	6525	5339	129
		2100	37.6	79.0	9767	8790	124
		3150	39.5	124.4	14261	11307	115
		4200	41.2	172.9	18636	14411	108
BXRC-35E10K0-B-7x-SE	80	900	49.6	44.7	8434	7698	189
		1200	50.5	60.6	11105	10094	183
		1800	52.0	93.6	16246	14621	174
		2700	54.1	146.1	23418	20884	160
		3600	55.8	201.0	29972	26408	149

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-35E10K0-C-7x-SE	80	855	66.2	56.6	10687	8788	189
		1140	67.3	76.7	14097	11535	184
		1710	69.4	118.7	20598	18538	174
		2565	72.1	185.0	29652	23509	160
		3420	74.4	254.6	37944	29342	149
BXRC-35E10K0-D-7x-SE	80	1050	35.4	37.2	6923	5693	186
		1400	36.2	50.6	9157	7492	181
		2100	37.6	79.0	13705	12334	174
		3150	39.5	124.4	20012	15866	161
		4200	41.2	172.9	26150	20222	151
BXRC-35G10K0-B-7x-SE	90	900	49.6	44.7	6931	6327	155
		1200	50.5	60.6	9126	8296	151
		1800	52.0	93.6	13351	12016	143
		2700	54.1	146.1	19246	17164	132
		3600	55.8	201.0	24632	21703	123
BXRC-35G10K0-C-7x-SE	90	855	66.2	56.6	8783	7222	155
		1140	67.3	76.7	11586	9480	151
		1710	69.4	118.7	16928	15235	143
		2565	72.1	185.0	24369	19321	132
		3420	74.4	254.6	31184	24114	123
BXRC-35G10K0-D-7x-SE	90	1050	35.4	37.2	5690	4679	153
		1400	36.2	50.6	7525	6158	149
		2100	37.6	79.0	11263	10137	143
		3150	39.5	124.4	16447	13039	132
		4200	41.2	172.9	21491	16619	124
BXRC-35A10K1-B-73-SE	93	900	49.6	44.7	6398	5840	143
		1200	50.5	60.6	8424	7658	139
		1800	52.0	93.6	12324	11092	132
		2700	54.1	146.1	17765	15843	122
		3600	55.8	201.0	22738	20033	113
BXRC-35A10K1-C-73-SE	93	855	66.2	56.6	8108	6667	143
		1140	67.3	76.7	10695	8751	139
		1710	69.4	118.7	15626	14063	132
		2565	72.1	185.0	22494	17834	122
		3420	74.4	254.6	28785	22260	113
BXRC-35A10K1-D-73-SE	93	1050	35.4	37.2	5252	4319	141
		1400	36.2	50.6	6946	5684	137
		2100	37.6	79.0	10397	9357	132
		3150	39.5	124.4	15181	12036	122
		4200	41.2	172.9	19838	15340	115
BXRC-40C10K1-B-74-SE	70	900	49.6	44.7	8870	8096	199
		1200	50.5	60.6	11679	10616	193
		1800	52.0	93.6	17086	15377	183
		2700	54.1	146.1	24629	21965	169
		3600	55.8	201.0	31523	27774	157

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-40C10K1-C-74-SE	70	855	66.2	56.6	11240	9242	199
		1140	67.3	76.7	14827	12132	193
		1710	69.4	118.7	21663	19497	183
		2565	72.1	185.0	31185	24725	169
		3420	74.4	254.6	39907	30860	157
BXRC-40C10K1-D-74-SE	70	1050	35.4	37.2	7281	5987	196
		1400	36.2	50.6	9630	7880	190
		2100	37.6	79.0	14414	12972	183
		3150	39.5	124.4	21047	16687	169
		4200	41.2	172.9	27502	21267	159
BXRC-40E10K0-B-7x-SE	80	900	49.6	44.7	8482	7743	190
		1200	50.5	60.6	11168	10152	184
		1800	52.0	93.6	16339	14705	175
		2700	54.1	146.1	23552	21004	161
		3600	55.8	201.0	30145	26560	150
BXRC-40E10K0-C-7x-SE	80	855	66.2	56.6	10749	8838	190
		1140	67.3	76.7	14179	11601	185
		1710	69.4	118.7	20716	18644	175
		2565	72.1	185.0	29822	23644	161
		3420	74.4	254.6	38162	29511	150
BXRC-40E10K0-D-7x-SE	80	1050	35.4	37.2	6963	5725	187
		1400	36.2	50.6	9209	7535	182
		2100	37.6	79.0	13783	12405	175
		3150	39.5	124.4	20127	15957	162
		4200	41.2	172.9	26300	20338	152
BXRC-40G10K0-B-7x-SE	90	900	49.6	44.7	7076	6459	158
		1200	50.5	60.6	9318	8470	154
		1800	52.0	93.6	13631	12268	146
		2700	54.1	146.1	19649	17524	135
		3600	55.8	201.0	25149	22158	125
BXRC-40G10K0-C-7x-SE	90	855	66.2	56.6	8967	7374	158
		1140	67.3	76.7	11829	9679	154
		1710	69.4	118.7	17283	15555	146
		2565	72.1	185.0	24880	19726	134
		3420	74.4	254.6	31838	24620	125
BXRC-40G10K0-D-7x-SE	90	1050	35.4	37.2	5809	4777	156
		1400	36.2	50.6	7683	6287	152
		2100	37.6	79.0	11499	10349	146
		3150	39.5	124.4	16792	13313	135
		4200	41.2	172.9	21942	16967	127
BXRC-40H10K0-D-7x-SE	97	1050	35.4	37.2	5252	4319	141
		1400	36.2	50.6	6946	5684	137
		2100	37.6	79.0	10397	9357	132
		3150	39.5	124.4	15181	12036	122
		4200	41.2	172.9	19838	15340	115

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-40A10K1-B-73-SE	93	900	49.6	44.7	6931	6327	155
		1200	50.5	60.6	9126	8296	151
		1800	52.0	93.6	13351	12016	143
		2700	54.1	146.1	19246	17164	132
		3600	55.8	201.0	24632	21703	123
BXRC-40A10K1-C-73-SE	93	855	66.2	56.6	8783	7222	155
		1140	67.3	76.7	11586	9480	151
		1710	69.4	118.7	16928	15235	143
		2565	72.1	185.0	24369	19321	132
		3420	74.4	254.6	31184	24114	123
BXRC-40A10K1-D-73-SE	93	1050	35.4	37.2	5690	4679	153
		1400	36.2	50.6	7525	6158	149
		2100	37.6	79.0	11263	10137	143
		3150	39.5	124.4	16447	13039	132
		4200	41.2	172.9	21491	16619	124
BXRC-50C10K1-B-74-SE	70	900	49.6	44.7	8918	8141	200
		1200	50.5	60.6	11743	10674	194
		1800	52.0	93.6	17179	15461	184
		2700	54.1	146.1	24764	22085	170
		3600	55.8	201.0	31695	27925	158
BXRC-50C10K1-C-74-SE	70	855	66.2	56.6	11301	9293	200
		1140	67.3	76.7	14908	12198	194
		1710	69.4	118.7	21781	19603	184
		2565	72.1	185.0	31356	24860	170
		3420	74.4	254.6	40125	31028	158
BXRC-50C10K1-D-74-SE	70	1050	35.4	37.2	7321	6020	197
		1400	36.2	50.6	9683	7923	191
		2100	37.6	79.0	14492	13043	184
		3150	39.5	124.4	21162	16778	170
		4200	41.2	172.9	27653	21384	160
BXRC-50E10K1-B-74-SE	80	900	49.6	44.7	8579	7831	192
		1200	50.5	60.6	11296	10268	187
		1800	52.0	93.6	16526	14873	177
		2700	54.1	146.1	23822	21245	163
		3600	55.8	201.0	30489	26863	152
BXRC-50E10K1-C-74-SE	80	855	66.2	56.6	10872	8939	192
		1140	67.3	76.7	14341	11734	187
		1710	69.4	118.7	20953	18858	177
		2565	72.1	185.0	30163	23914	163
		3420	74.4	254.6	38599	29848	152
BXRC-50E10K1-D-74-SE	80	1050	35.4	37.2	7043	5791	189
		1400	36.2	50.6	9315	7622	184
		2100	37.6	79.0	13941	12547	177
		3150	39.5	124.4	20357	16140	164
		4200	41.2	172.9	26601	20570	154

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V_f $T_c = 25^\circ\text{C}$ (V)	Typical Power $T_c = 25^\circ\text{C}$ (W)	Typical Flux ² $T_c = 25^\circ\text{C}$ (lm)	Typical DC Flux ³ $T_c = 85^\circ\text{C}$ (lm)	Typical Efficacy $T_c = 25^\circ\text{C}$ (lm/W)
BXRC-50G10K1-B-74-SE	90	900	49.6	44.7	7416	6769	166
		1200	50.5	60.6	9764	8876	161
		1800	52.0	93.6	14285	12856	153
		2700	54.1	146.1	20592	18364	141
		3600	55.8	201.0	26355	23221	131
BXRC-50G10K1-C-74-SE	90	855	66.2	56.6	9397	7727	166
		1140	67.3	76.7	12396	10143	162
		1710	69.4	118.7	18112	16301	153
		2565	72.1	185.0	26073	20672	141
		3420	74.4	254.6	33365	25801	131
BXRC-50G10K1-D-74-SE	90	1050	35.4	37.2	6088	5006	164
		1400	36.2	50.6	8052	6588	159
		2100	37.6	79.0	12051	10846	153
		3150	39.5	124.4	17597	13951	142
		4200	41.2	172.9	22994	17781	133
BXRC-56G10K0-B-74-SE	80	900	49.6	44.7	7464	6813	167
		1200	50.5	60.6	9828	8934	162
		1800	52.0	93.6	14378	12941	154
		2700	54.1	146.1	20726	18484	142
		3600	55.8	201.0	26527	23372	132
BXRC-56G10K0-C-74-SE	80	855	66.2	56.6	9459	7778	167
		1140	67.3	76.7	12477	10209	163
		1710	69.4	118.7	18230	16407	154
		2565	72.1	185.0	26243	20807	142
		3420	74.4	254.6	33583	25969	132
BXRC-56G10K0-D-74-SE	80	1050	35.4	37.2	6128	5038	165
		1400	36.2	50.6	8104	6631	160
		2100	37.6	79.0	12129	10916	154
		3150	39.5	124.4	17712	14043	142
		4200	41.2	172.9	23144	17897	134
BXRC-56H10K0-D-74-SE	80	1050	35.4	37.2	5531	4548	149
		1400	36.2	50.6	7315	5985	144
		2100	37.6	79.0	10948	9853	139
		3150	39.5	124.4	15987	12675	129
		4200	41.2	172.9	20890	16154	121
BXRC-57C10K1-B-74-SE	70	900	49.6	44.7	8676	7920	194
		1200	50.5	60.6	11424	10384	189
		1800	52.0	93.6	16713	15041	179
		2700	54.1	146.1	24091	21485	165
		3600	55.8	201.0	30834	27167	153
BXRC-57C10K1-C-74-SE	70	855	66.2	56.6	10994	9040	194
		1140	67.3	76.7	14503	11867	189
		1710	69.4	118.7	21190	19071	179
		2565	72.1	185.0	30504	24184	165
		3420	74.4	254.6	39035	30185	153

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-57C10K1-D-74-SE	70	1050	35.4	37.2	7122	5856	191
		1400	36.2	50.6	9420	7708	186
		2100	37.6	79.0	14099	12689	179
		3150	39.5	124.4	20587	16322	166
		4200	41.2	172.9	26901	20803	156
BXRC-57E10K1-B-74-SE	80	900	49.6	44.7	8240	7521	184
		1200	50.5	60.6	10849	9862	179
		1800	52.0	93.6	15872	14285	170
		2700	54.1	146.1	22879	20404	157
		3600	55.8	201.0	29283	25801	146
BXRC-57E10K1-C-74-SE	80	855	66.2	56.6	10442	8586	185
		1140	67.3	76.7	13773	11270	180
		1710	69.4	118.7	20124	18112	170
		2565	72.1	185.0	28970	22969	157
		3420	74.4	254.6	37072	28668	146
BXRC-57E10K1-D-74-SE	80	1050	35.4	37.2	6764	5562	182
		1400	36.2	50.6	8946	7320	177
		2100	37.6	79.0	13390	12051	170
		3150	39.5	124.4	19552	15501	157
		4200	41.2	172.9	25549	19757	148
BXRC-65C10K1-B-74-SE	70	900	49.6	44.7	8676	7920	194
		1200	50.5	60.6	11424	10384	189
		1800	52.0	93.6	16713	15041	179
		2700	54.1	146.1	24091	21485	165
		3600	55.8	201.0	30834	27167	153
BXRC-65C10K1-C-74-SE	70	855	66.2	56.6	10994	9040	194
		1140	67.3	76.7	14503	11867	189
		1710	69.4	118.7	21190	19071	179
		2565	72.1	185.0	30504	24184	165
		3420	74.4	254.6	39035	30185	153
BXRC-65C10K1-D-74-SE	70	1050	35.4	37.2	7122	5856	191
		1400	36.2	50.6	9420	7708	186
		2100	37.6	79.0	14099	12689	179
		3150	39.5	124.4	20587	16322	166
		4200	41.2	172.9	26901	20803	156
BXRC-65E10K1-B-74-SE	80	900	49.6	44.7	8337	7610	187
		1200	50.5	60.6	10977	9978	181
		1800	52.0	93.6	16059	14453	172
		2700	54.1	146.1	23149	20644	158
		3600	55.8	201.0	29628	26104	147
BXRC-65E10K1-C-7x-SE	80	855	66.2	56.6	10564	8687	187
		1140	67.3	76.7	13935	11403	182
		1710	69.4	118.7	20361	18325	172
		2565	72.1	185.0	29311	23239	158
		3420	74.4	254.6	37508	29005	147

Notes for Table 4:

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 4: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current ¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux ² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
BXRC-65E10K1-D-7x-SE	80	1050	35.4	37.2	6844	5627	184
		1400	36.2	50.6	9051	7406	179
		2100	37.6	79.0	13547	12192	172
		3150	39.5	124.4	19782	15684	159
		4200	41.2	172.9	25849	19989	149

Notes for Table 4:

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 5: Electrical Characteristics

Part Number	Drive Current (mA)	Forward Voltage Pulsed, $T_c = 25^\circ\text{C}$ (V) ^{1, 2, 3, 8}			Typical Coefficient of Forward Voltage ⁴ $\Delta V_f / \Delta T_c$ (mV/ $^\circ\text{C}$)	Typical Thermal Resistance Junction to Case ^{5,6} R_{j-c} ($^\circ\text{C}/\text{W}$)	Driver Selection Voltages ⁷ (V)	
		Minimum	Typical	Maximum			V_f Min. Hot $T_c = 105^\circ\text{C}$ (V)	V_f Max. Cold $T_c = -40^\circ\text{C}$ (V)
BXRC-xxx10Kx-B-7x-SE	1800	48.1	52.0	55.9	-24.9	0.06	46.1	57.5
	3600	51.7	55.8	60.0	-24.9	0.07	49.7	61.6
BXRC-xxx10Kx-C-7x-SE	1710	64.2	69.4	74.6	-33.2	0.04	61.5	76.8
	3420	68.8	74.4	80.0	-33.2	0.05	66.2	82.2
BXRC-xxx10Kx-D-7x-SE	2100	34.8	37.6	40.4	-17.4	0.06	33.4	41.6
	4200	38.1	41.2	44.3	-17.4	0.07	36.7	45.4

Notes for Table 5:

- 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 6: Eye Safety Risk Group (RG) Classifications

Part Number	Drive Current ⁵ (mA)	CCT ¹⁻⁵			
		2700K/3000K	4000K ²	5000K ³	6500K ⁴
BXRC-xxx10Kx-B-7x-SE	1800	RG1	RG1	RG1	RG1
	2700	RG1	RG1	RG2	RG2
	3600	RG1	RG1	RG2	RG2
BXRC-xxx10Kx-C-7x-SE	1710	RG1	RG1	RG1	RG2
	2565	RG1	RG1	RG2	RG2
	3420	RG1	RG2	RG2	RG2
BXRC-xxx10Kx-D-7x-SE	2100	RG1	RG1	RG1	RG1
	3150	RG1	RG1	RG1	RG2
	4200	RG1	RG1	RG2	RG2

Notes for Table 6:

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 7: Maximum Ratings

Parameter	Maximum Rating		
LED Junction Temperature (T_j)	150°C		
Storage Temperature	-40°C to +105°C		
Operating Case Temperature ¹ (T_c)	105°C		
	BXRC-xxx10Kx-B-7x-SE	BXRC-xxx10Kx-C-7x-SE	BXRC-xxx10Kx-D-7x-SE
Maximum Drive Current ³	3600mA	3420mA	4200mA
Maximum Peak Pulsed Drive Current ⁴	5140mA	4890mA	6000mA
Maximum Reverse Voltage ⁵	-90V	-120V	-65V

Notes for Table 7:

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 29B Drive Current vs. Voltage

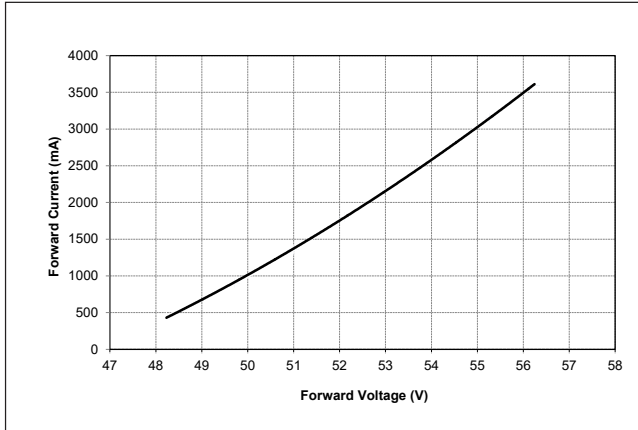


Figure 2: Vero SE 29C Drive Current vs. Voltage

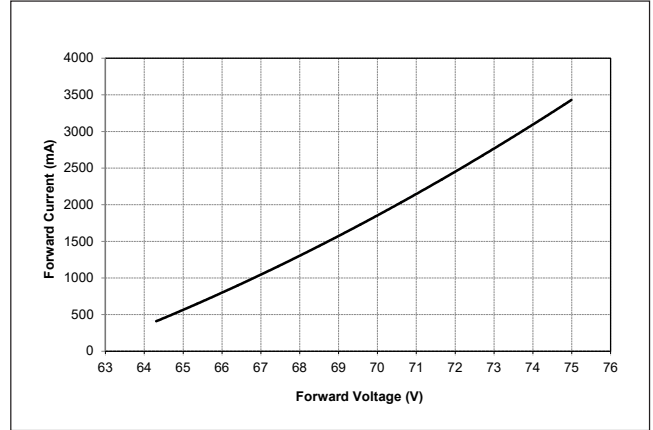


Figure 3: Vero SE 29D Drive Current vs. Voltage

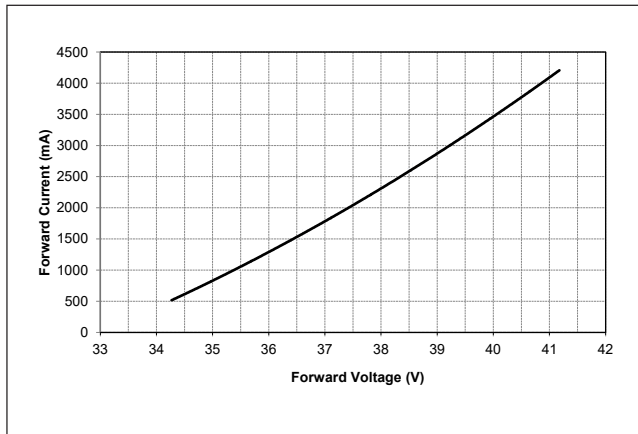


Figure 4: Vero SE 29B Typical Relative Flux vs. Current

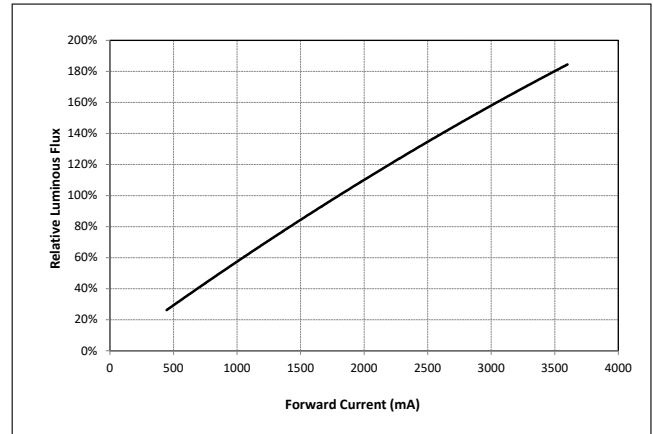


Figure 5: Vero SE 29C Typical Relative Flux vs. Current

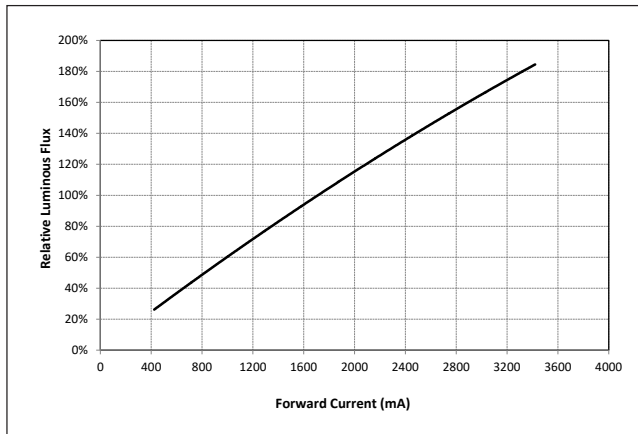
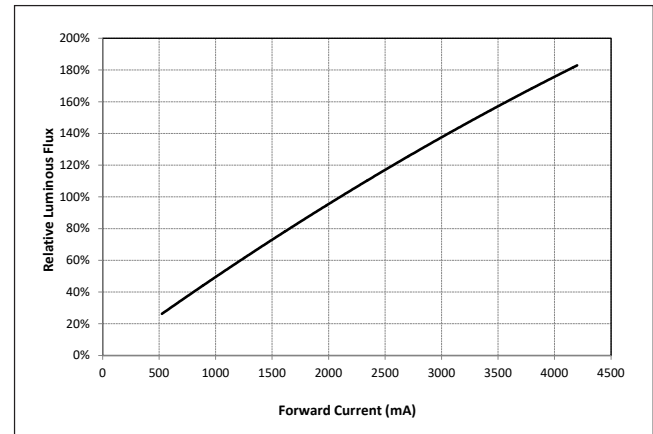


Figure 6 Vero SE 29D Typical Relative Flux vs. Current



Notes for Figures 1-6:

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

Performance Curves

Figure 7: Typical DC Flux vs. Case Temperature

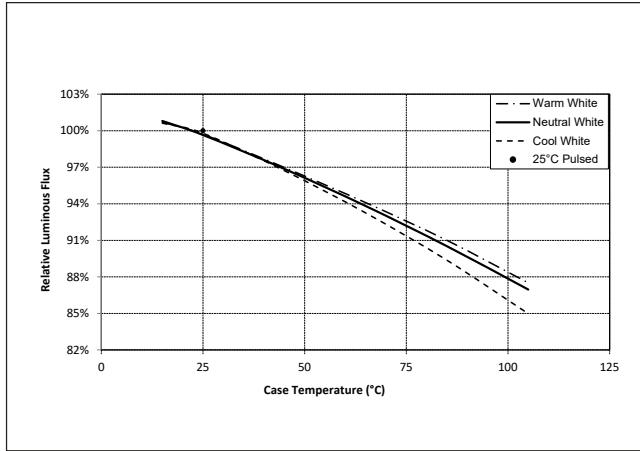


Figure 8: Typical DC ccy Shift vs. Case Temperature

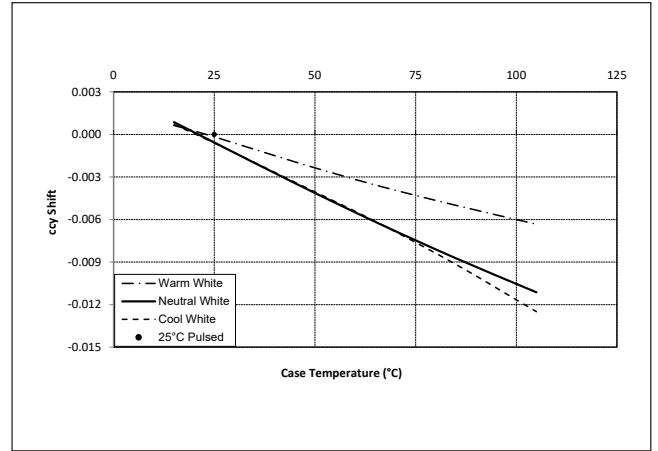


Figure 9: Typical DC ccx Shift vs. Case Temperature

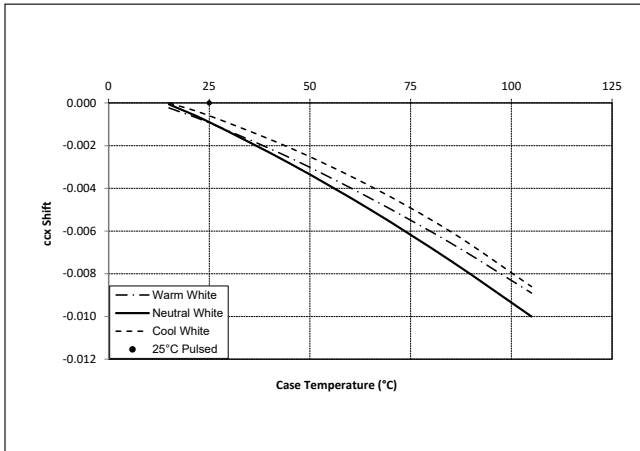
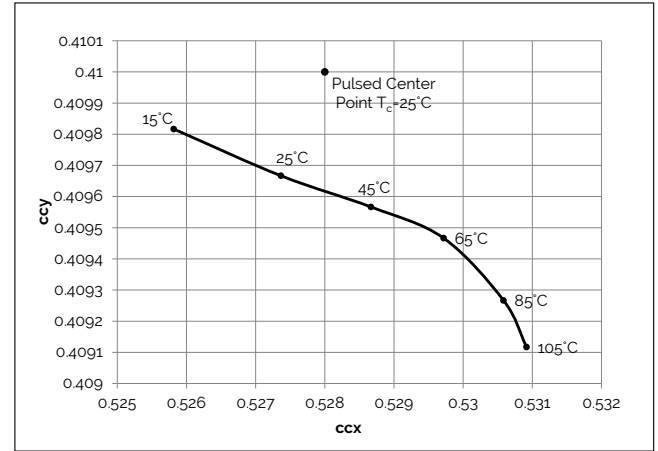


Figure 10: 2000K, 65 CRI Color Shift vs. Case Temperature



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 11: 1750K Color Shift vs. Case Temperature¹

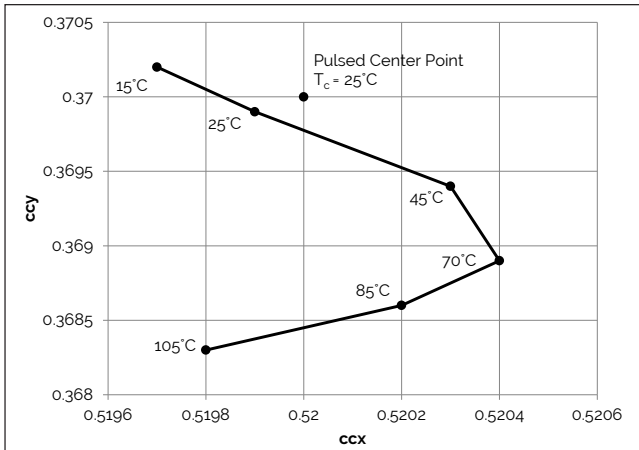


Figure 12: 2500K Color Shift vs. Case Temperature¹

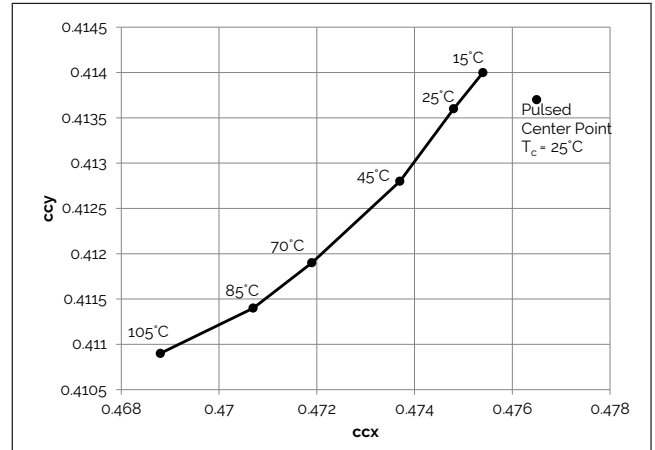


Figure 13: 5600K Color Shift vs. Case Temperature^{1,3}

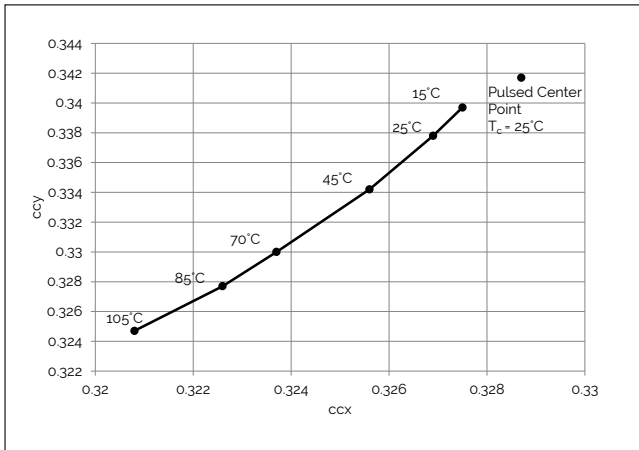


Figure 14: 3000K Class A Color Shift vs. Case Temperature¹

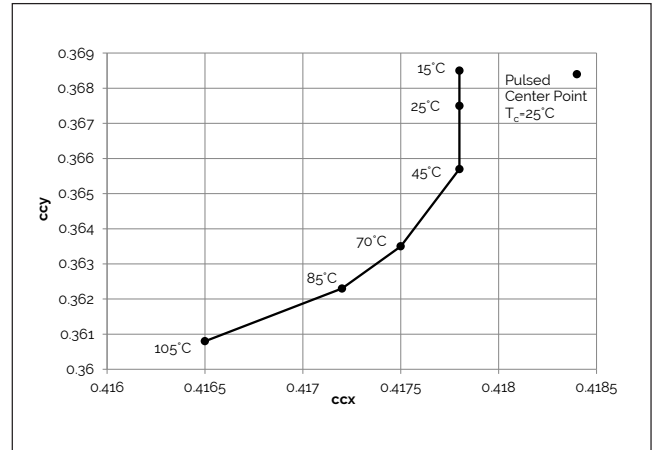


Figure 15: 3500K Class A Color Shift vs. Case Temperature¹

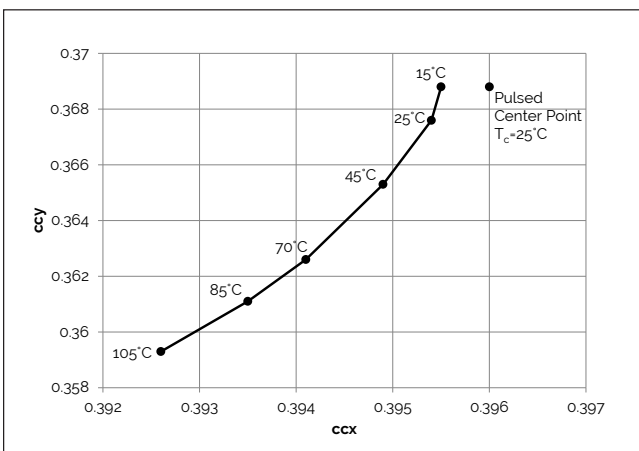
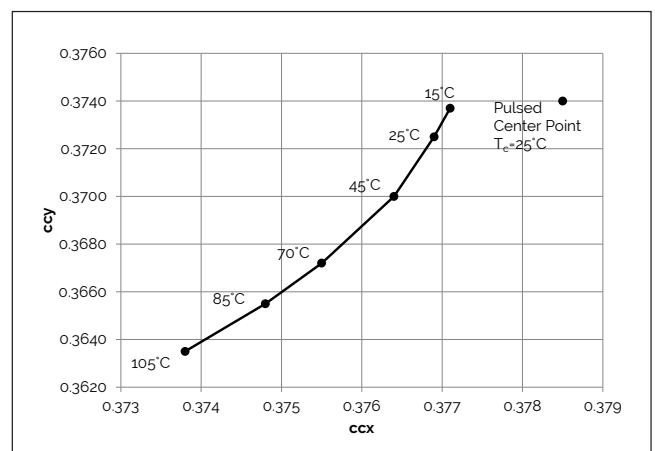


Figure 16: 4000K Class A Color Shift vs. Case Temperature¹

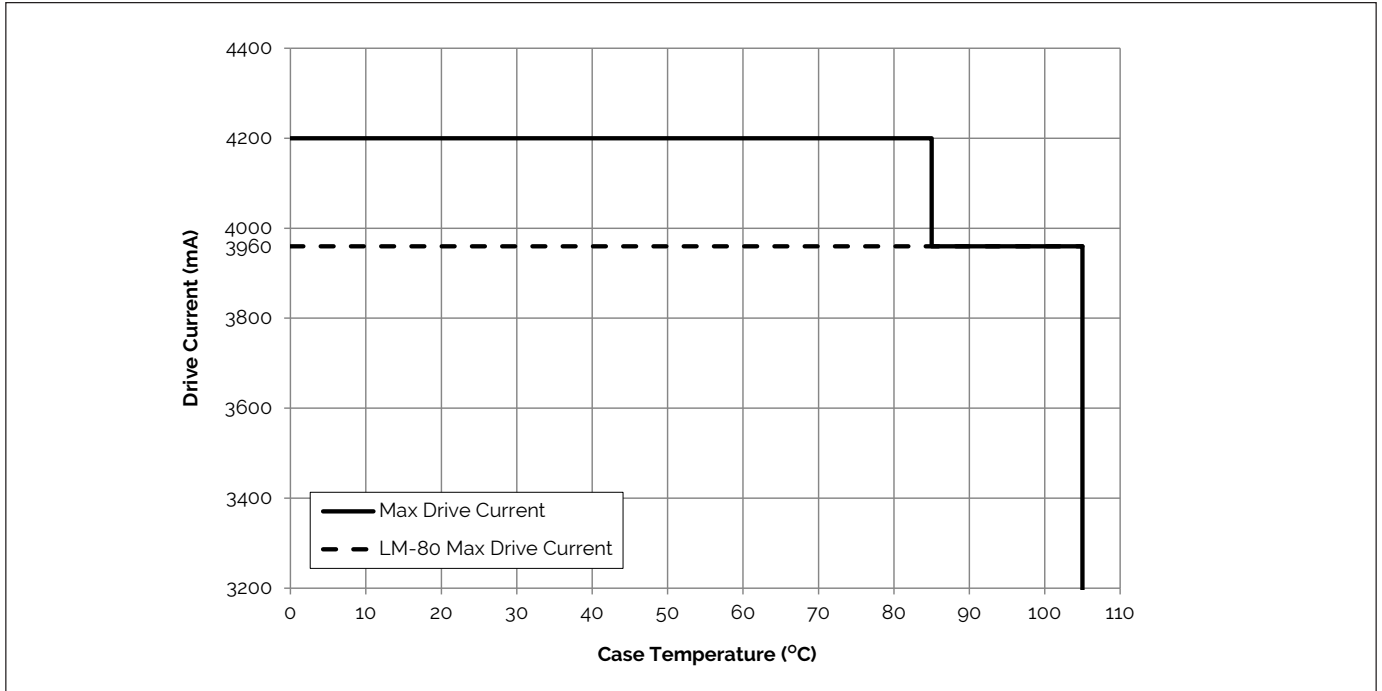


Note for Figures 10-16:

1. Measurements made under DC test conditions at the nominal drive current.
2. Typical color shift is shown with a tolerance of ± 0.002 .
3. Color shift shown for product hot targeted at $T_c = 85^\circ\text{C}$

Performance Curves

Figure 17: Vero SE 29D Drive Current Derating Curve

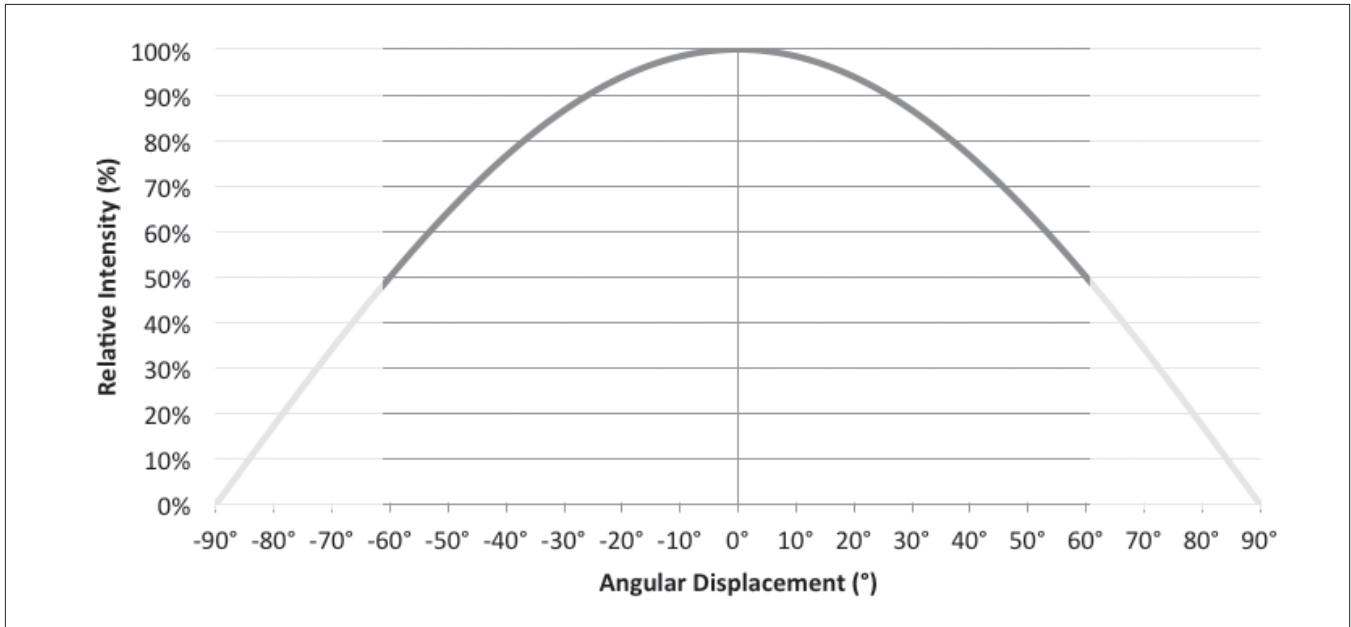


Notes for Figure 17:

1. The maximum allowable drive current for the Vero 29D product is dependent on the operating case temperature. Please refer to the Product Feature Map (page 2) for the location of the T_c Point
2. LM-80 Max Drive Current must not be exceeded in order to meet LM-80 lifetime projections.
3. Lumen maintenance (L70) and lifetime predictions are valid for drive current and case temperature conditions used for LM-80 testing as included in the applicable LM-80 test report for these products. Contact your Bridgelux sales representative for LM-80 report.

Typical Radiation Pattern

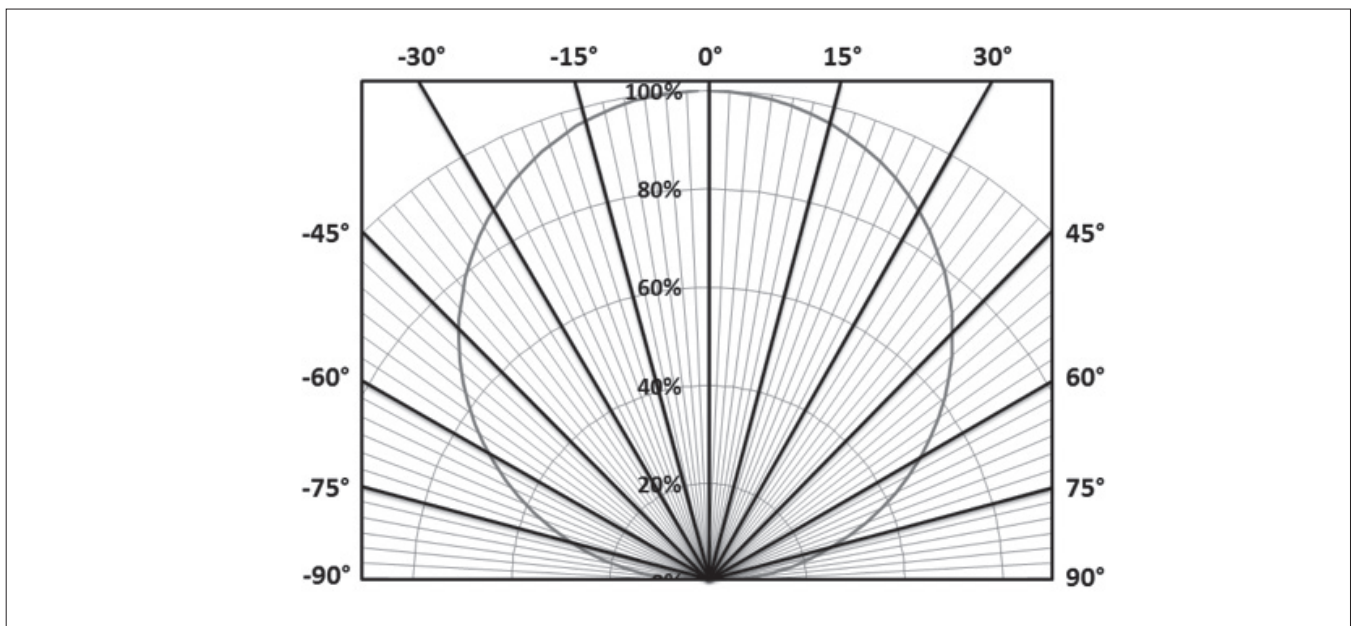
Figure 18: Typical Spatial Radiation Pattern



Note for Figure 18:

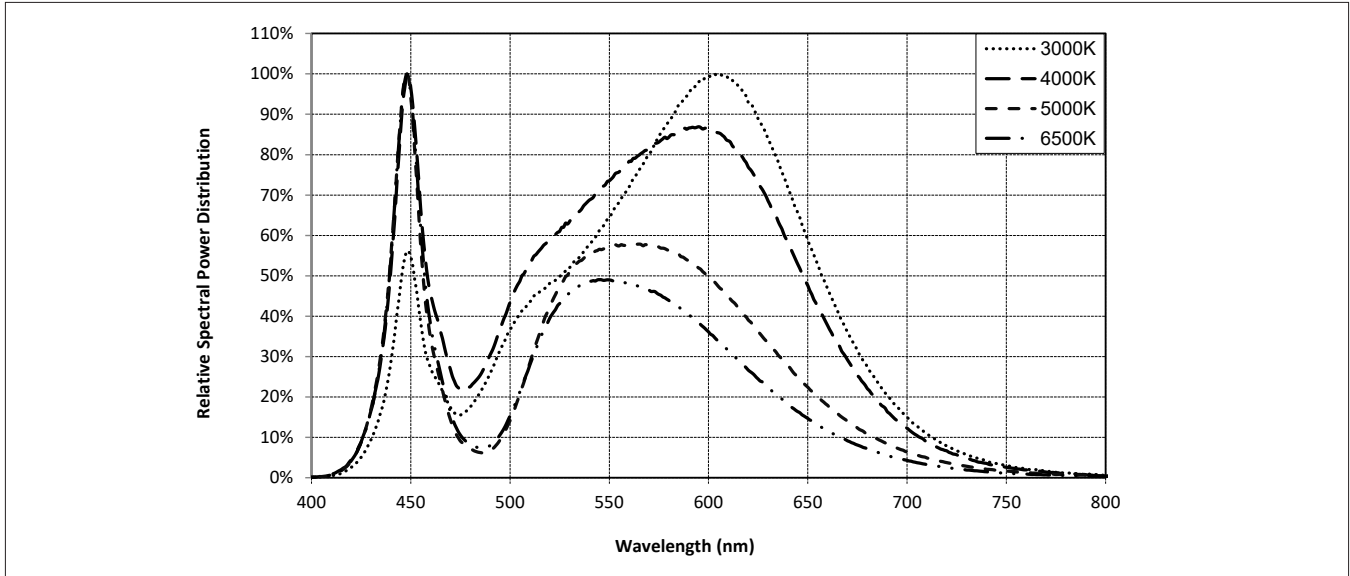
1. Typical viewing angle is 120°.
2. The viewing angle is defined as the off axis angle from the centerline where intensity is ½ of the peak value.

Figure 19: Typical Polar Radiation Pattern



Typical Color Spectrum

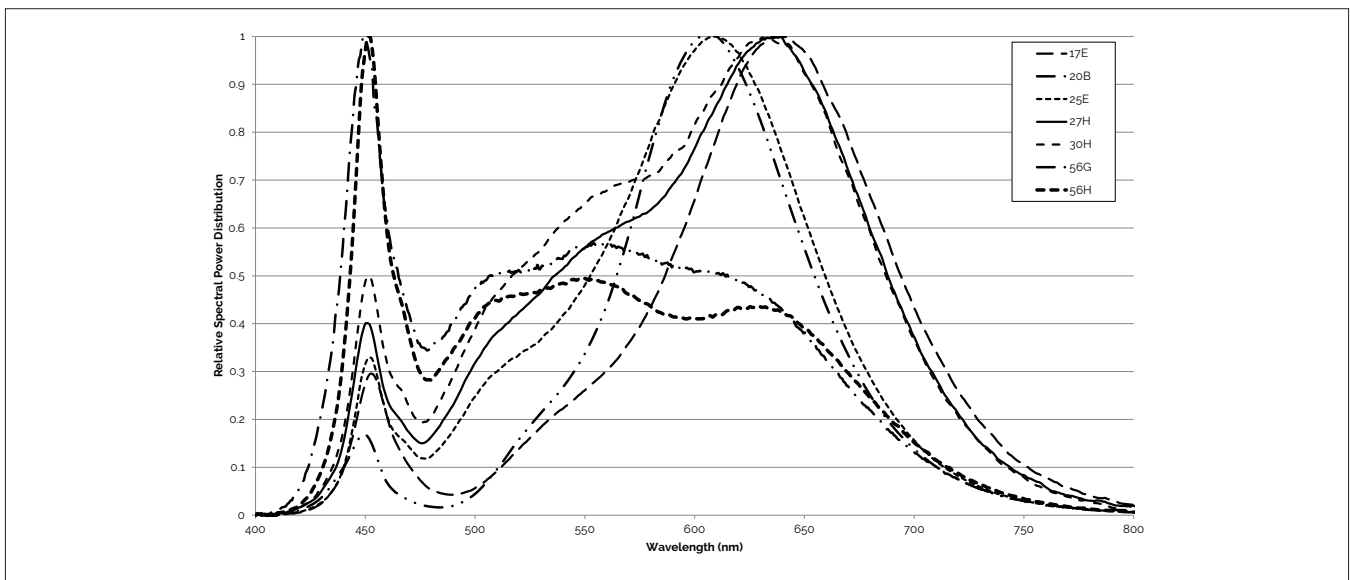
Figure 20: Typical Color Spectrum



Note for Figure 20:

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 21: Typical Color Spectrum for Vero SE 29 with Décor Series

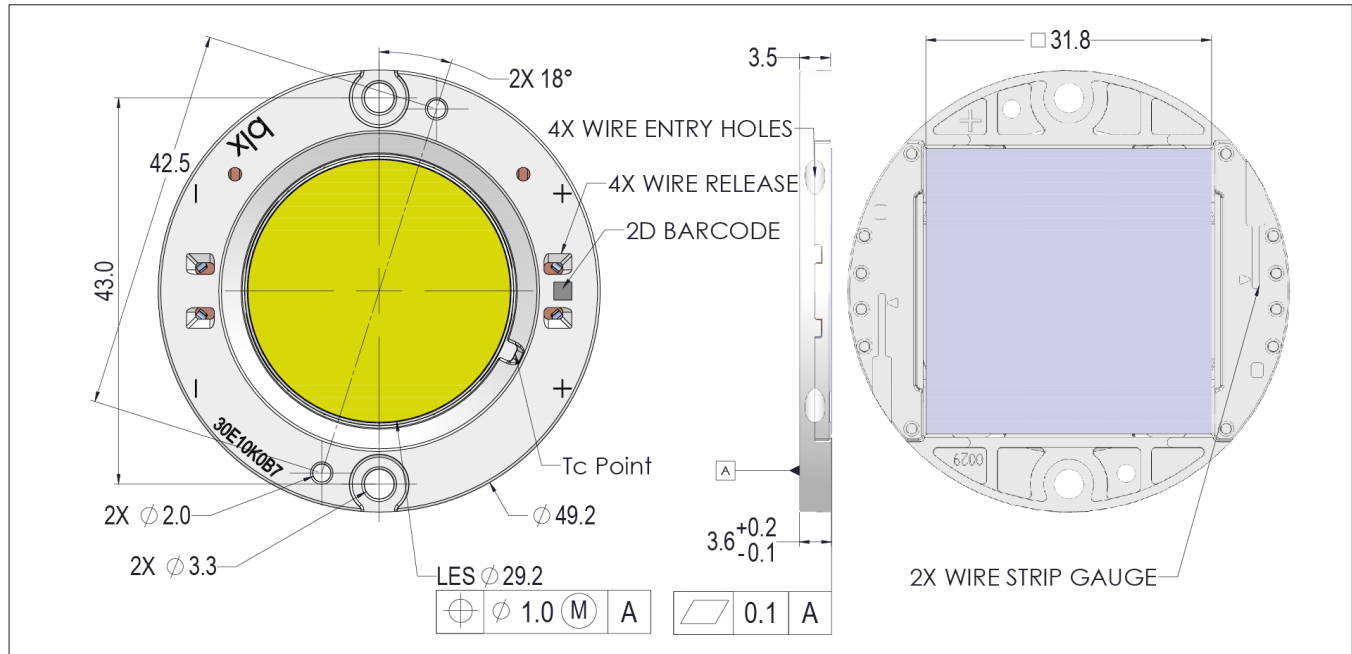


Note for Figure 21:

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

Mechanical Dimensions

Figure 22: Drawing for Vero SE 29 LED Array

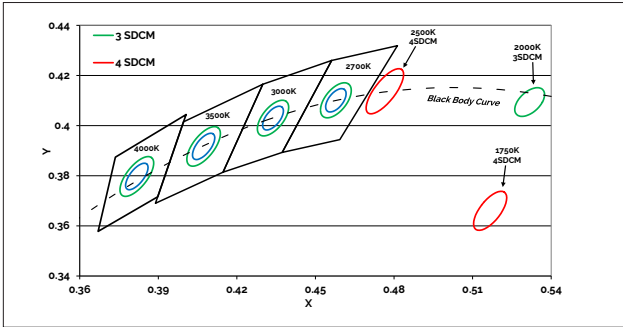


Notes for Figure 22:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ± 0.10 mm.
4. Mounting holes (2X) are for M3 screws.
5. Bridgelux recommends two tapped holes for mounting screws with 43.0 ± 0.10 mm center-to-center spacing.
6. Screws with flat shoulders (pan, dome, button, round, truss, mushroom) provide optimal torque control. Do NOT use flat, countersink, or raised head screws.
7. The optical center of the LED Array is nominally defined by the mechanical center of the array to a tolerance of ± 0.2 mm.
8. Bridgelux maintains a flatness of 0.10 mm across the mounting surface of the array.

Color Binning Information

Figure 23: Graph of Warm and Neutral White Test Bins in xy Color Space



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

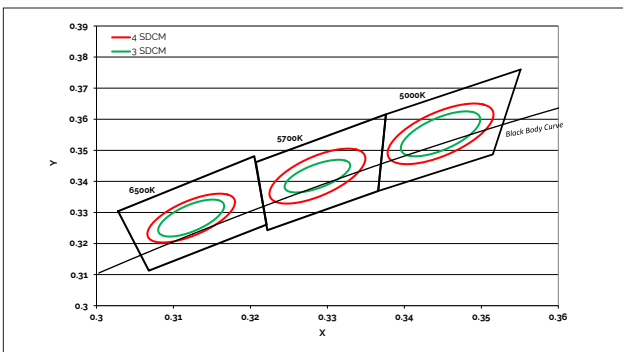
Table 8: Warm and Neutral White xy Bin Coordinates and Associated Typical CCT

Bin Code	1750K	2500K	2700K	3000K ¹	3500K ¹	4000K ¹
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)	(0.5167, 0.366)	(0.4765, 0.4137)	(0.4578, 0.4101)	(0.4338, 0.403)	(0.4073, 0.3917)	(0.3818, 0.3797)

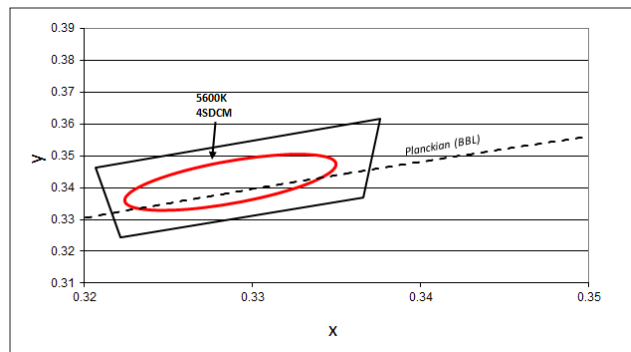
Note for Table 8:

1. Color Binning information excludes Class A products. Please contact your Bridgelux Sales Representative for more information.

Figure 24: Graph of Cool White Test Bins in xy Color Space



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



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

Table 9: Cool White xy Bin Coordinates and Associated Typical CCT (product is hot targeted to $T_c = 85^\circ\text{C}$)

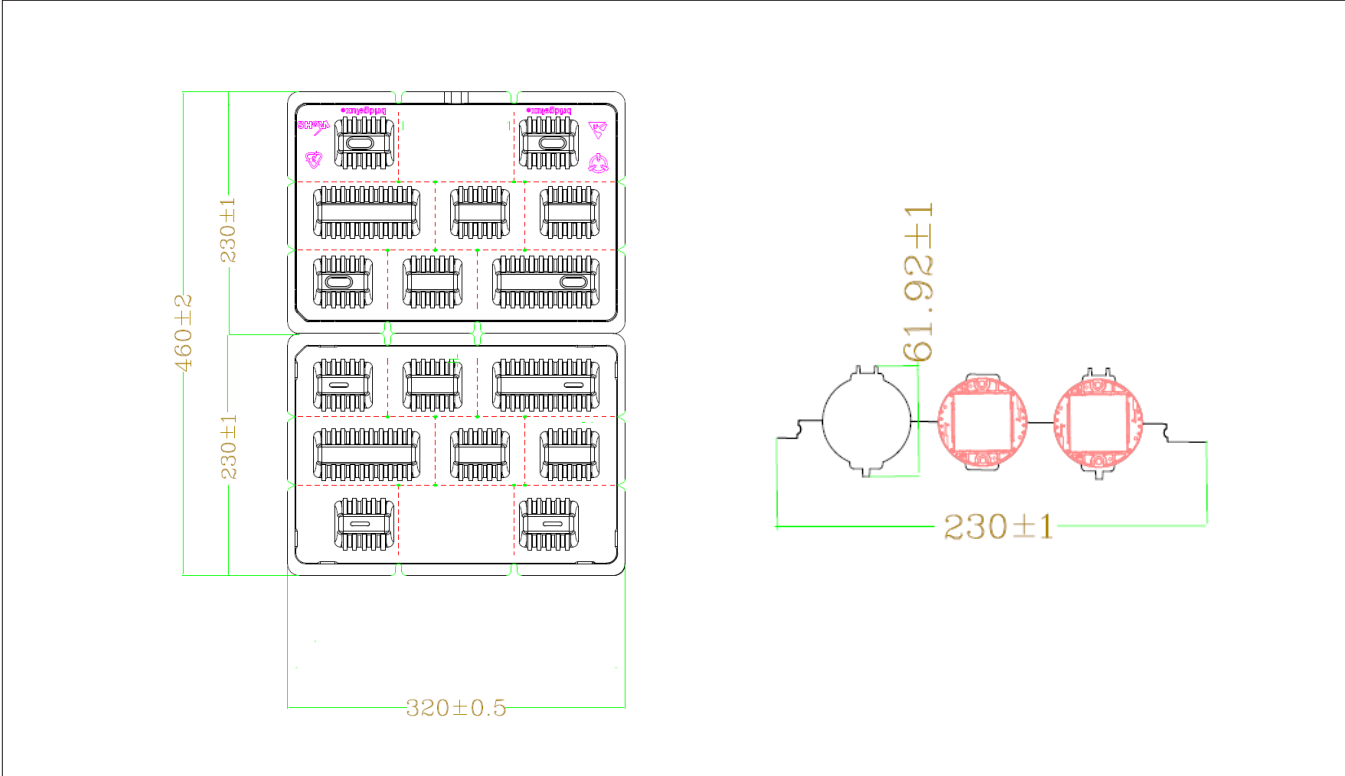
Bin Code	5000K	5600K ¹	5700K	6500K
ANSI Bin (for reference only)	(4745K - 5311K)	(5310K - 6020K)	(5312K - 6022K)	(6022K - 7042K)
74 (4 SDCM)	(4801K - 5282K)	(5475K - 5830K)	(5829K - 5481K)	(6270K - 6765K)
73 (3 SDCM)	(4835K - 5215K)	(5490K - 5820K)	(5490K - 5820K)	(6250K - 6745K)
Center Point (x,y)	(0.3447, 0.3553)	(0.3293, 0.3423)	(0.3287, 0.3417)	(0.3123, 0.3282)

Note for Table 9:

1. Select configurations with a CCT of 5600K are available with center point targets at $T_c = 85^\circ\text{C}$ or $T_c = 25^\circ\text{C}$.

Packaging and Labeling

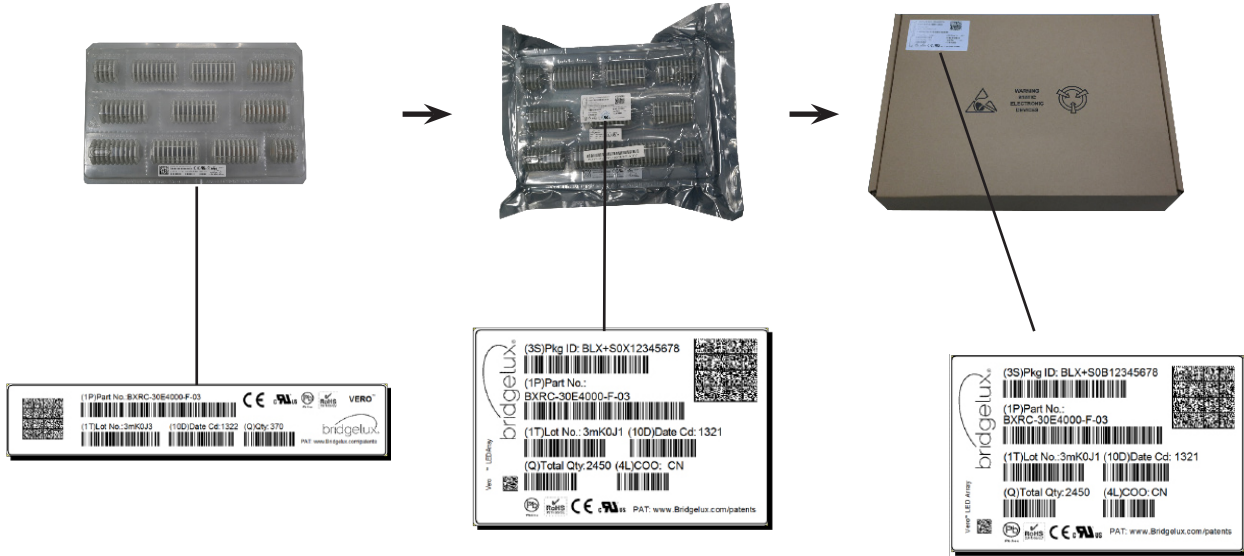
Figure 25: Drawing for Vero SE 29 Packaging Tray



- Notes for Figure 25:
- 1. Dimensions are in millimeters.
 - 2. Drawings are not to scale.

Packaging and Labeling

Figure 26: Vero SE Series Packaging and Labeling



Notes for Figure 26:

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

Figure 27: Vero SE Product Labeling

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



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

Customer Use- Product part number

30E10K0C 73 2F

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

Design Resources

Application Notes

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

Optical Source Models

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

3D CAD Models

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

LM80

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

Precautions

CAUTION: CHEMICAL EXPOSURE HAZARD

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

CAUTION: RISK OF BURN

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

CAUTION

CONTACT WITH LIGHT EMITTING SURFACE (LES)

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

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

Disclaimers

MINOR PRODUCT CHANGE POLICY

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

STANDARD TEST CONDITIONS

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

About Bridgelux: Bridging Light and Life™

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

For more information about the company, please visit
bridgelux.com
twitter.com/Bridgelux
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youtube.com/user/Bridgelux
linkedin.com/company/bridgelux-inc-_2
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46430 Fremont Boulevard
Fremont, CA 94538 U.S.A.
Tel (925) 583-8400
www.bridgelux.com

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Bridgelux Vero SE 29 Array Series Product Data Sheet DS123 Rev. M (09/2020)