



Bridgelux® Vero® SE 18 Array

Product Data Sheet DS122



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 R9 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™ 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.

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 168 lm/W typical
- Lumen output performance ranges from 1,372 to 13,060 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 Vero SE arrays in series and parallel reduces customer driver cost
- Improved inventory management and quality control

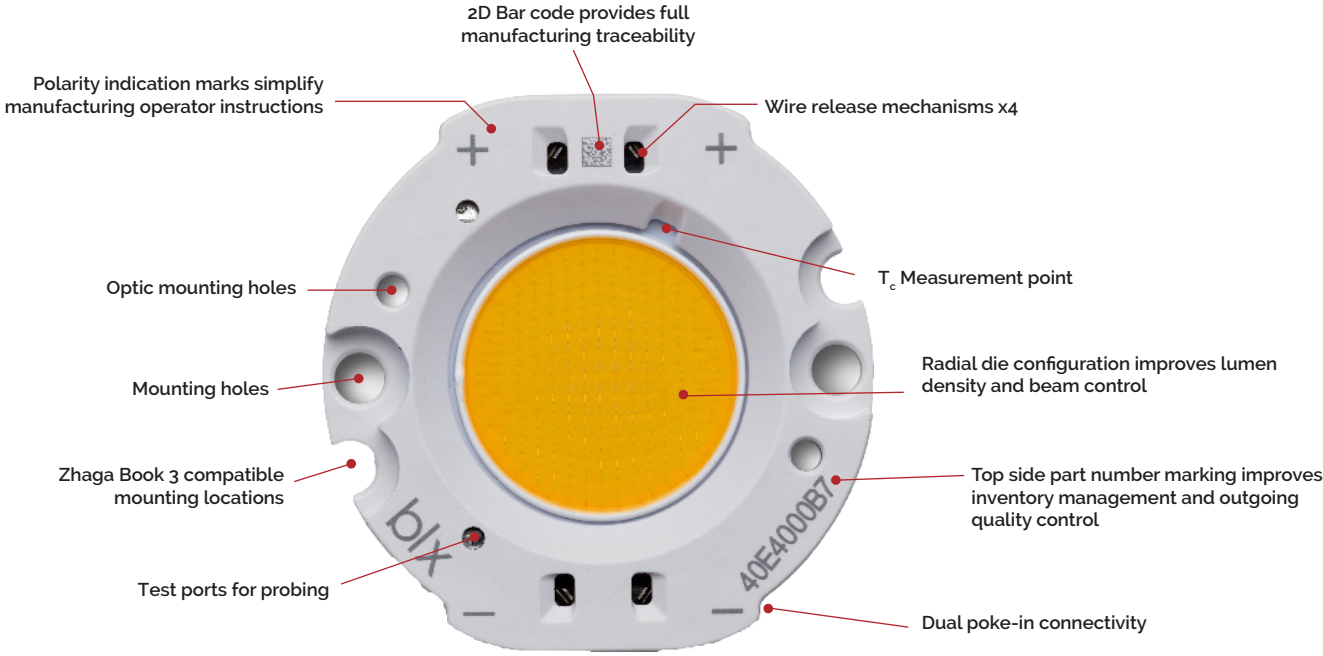
Contents

Product Feature Map	2
Product Nomenclature	2
Product Selection Guide	3
Performance at Commonly Used Drive Currents	10
Electrical Characteristics	20
Eye Safety	21
Absolute Maximum Ratings	22
Performance Curves	23
Typical Radiation Pattern	27
Typical Color Spectrum	28
Mechanical Dimensions	29
Color Binning Information	30
Packaging and Labeling	31
Design Resources	33
Precautions	33
Disclaimers	33
About Bridgelux	34

Product Feature Map

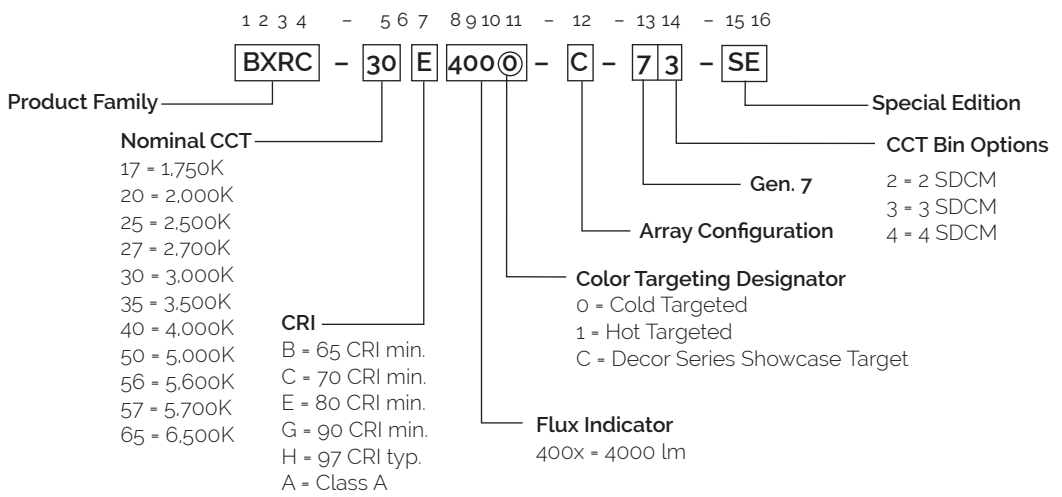
Vero SE 18 is the second largest form factor in the product family of next generation solid state light sources. In addition to delivering the performance and light quality required for many lighting applications,

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 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-17E4000-B-74-SE	1750	80	900	2844	2560	34.8	31.3	91
BXRC-17E4000-C-74-SE	1750	80	1170	3697	3327	34.8	40.7	91
BXRC-17E4000-D-74-SE	1750	80	1050	2765	2488	29.0	30.5	91
BXRC-20B4001-C-73-SE	2000	65	1170	6309	5678	34.8	40.7	155
BXRC-20B4001-D-73-SE	2000	65	1050	4719	4247	29.0	30.5	155
BXRC-25E4000-B-74-SE	2500	80	900	4730	4257	34.8	31.3	151
BXRC-25E4000-C-74-SE	2500	80	1170	6149	5534	34.8	40.7	151
BXRC-25E4000-D-74-SE	2500	80	1050	4598	4138	29.0	30.5	151
BXRC-27E4000-B-7x-SE	2700	80	900	4946	4451	34.8	31.3	158
BXRC-27E4000-C-7x-SE	2700	80	1170	6430	5787	34.8	40.7	158
BXRC-27E4000-D-7x-SE	2700	80	1050	4809	4328	29.0	30.5	158
BXRC-27G40H0-B-7x-SE	2700	90	900	4235	3812	34.8	31.3	135
BXRC-27G40H0-C-7x-SE	2700	90	1170	5506	4955	34.8	40.7	135
BXRC-27G40H0-D-7x-SE	2700	90	1050	4117	3706	29.0	30.5	135
BXRC-27G4000-B-7x-SE	2700	90	900	4080	3672	34.8	31.3	130
BXRC-27G4000-C-7x-SE	2700	90	1170	5305	4774	34.8	40.7	130
BXRC-27G4000-D-7x-SE	2700	90	1050	3967	3570	29.0	30.5	130
BXRC-27H4000-B-7x-SE	2700	97	900	3617	3255	34.8	31.3	115
BXRC-27H4000-C-7x-SE	2700	97	1170	4702	4232	34.8	40.7	115
BXRC-27H4000-D-7x-SE	2700	97	1050	3516	3165	29.0	30.5	115
BXRC-30C4001-B-74-SE	3000	70	900	5502	4952	34.8	31.3	176
BXRC-30C4001-C-74-SE	3000	70	1170	7153	6438	34.8	40.7	176
BXRC-30C4001-D-74-SE	3000	70	1050	5350	4815	29.0	30.5	176
BXRC-30E4000-B-7x-SE	3000	80	900	5255	4730	34.8	31.3	168
BXRC-30E4000-C-7x-SE	3000	80	1170	6832	6149	34.8	40.7	168
BXRC-30E4000-D-7x-SE	3000	80	1050	5109	4598	29.0	30.5	168
BXRC-30G40H0-B-7x-SE	3000	90	900	4451	4006	34.8	31.3	142
BXRC-30G40H0-C-7x-SE	3000	90	1170	5787	5208	34.8	40.7	142
BXRC-30G40H0-D-7x-SE	3000	90	1050	4328	3895	29.0	30.5	142
BXRC-30G4000-B-7x-SE	3000	90	900	4266	3839	34.8	31.3	136
BXRC-30G4000-C-7x-SE	3000	90	1170	5546	4991	34.8	40.7	136
BXRC-30G4000-D-7x-SE	3000	90	1050	4147	3733	29.0	30.5	136
BXRC-30G400C-B-73-SE	3000	90	900	4111	3700	34.8	31.3	131
BXRC-30G400C-D-73-SE	3000	90	1050	3997	3597	29.0	30.5	131

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 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.

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-30H4000-B-7x-SE	3000	97	900	3864	3478	34.8	31.3	123
BXRC-30H4000-C-7x-SE	3000	97	1170	5023	4521	34.8	40.7	123
BXRC-30H4000-D-7x-SE	3000	97	1050	3757	3381	29.0	30.5	123
BXRC-30A4001-B-73-SE ^{8,9}	3000	93	900	3833	3450	34.8	31.3	122
BXRC-30A4001-C-73-SE ^{8,9}	3000	93	1170	4983	4485	34.8	40.7	122
BXRC-30A4001-D-73-SE ^{8,9}	3000	93	1050	3727	3354	29.0	30.5	122
BXRC-35E4000-B-7x-SE	3500	80	900	5379	4841	34.8	31.3	172
BXRC-35E4000-C-7x-SE	3500	80	1170	6992	6293	34.8	40.7	172
BXRC-35E4000-D-7x-SE	3500	80	1050	5229	4706	29.0	30.5	172
BXRC-35G4000-B-7x-SE	3500	90	900	4421	3978	34.8	31.3	141
BXRC-35G4000-C-7x-SE	3500	90	1170	5747	5172	34.8	40.7	141
BXRC-35G4000-D-7x-SE	3500	90	1050	4298	3868	29.0	30.5	141
BXRC-35A4001-B-73-SE ^{8,9}	3500	93	900	4080	3672	34.8	31.3	130
BXRC-35A4001-C-73-SE ^{8,9}	3500	93	1170	5305	4774	34.8	40.7	130
BXRC-35A4001-D-73-SE ^{8,9}	3500	93	1050	3967	3570	29.0	30.5	130
BXRC-40C4001-B-74-SE	4000	90	900	5657	5091	34.8	31.3	181
BXRC-40C4001-C-74-SE	4000	90	1170	7354	6619	34.8	40.7	181
BXRC-40C4001-D-74-SE	4000	90	1050	5500	4950	29.0	30.5	181
BXRC-40E4000-B-7x-SE	4000	80	900	5410	4869	34.8	31.3	173
BXRC-40E4000-C-7x-SE	4000	80	1170	7033	6329	34.8	40.7	173
BXRC-40E4000-D-7x-SE	4000	80	1050	5259	4734	29.0	30.5	173
BXRC-40G4000-B-7x-SE	4000	90	900	4513	4062	34.8	31.3	144
BXRC-40G4000-C-7x-SE	4000	90	1170	5867	5281	34.8	40.7	144
BXRC-40G4000-D-7x-SE	4000	90	1050	4388	3949	29.0	30.5	144
BXRC-40H4000-B-7x-SE	4000	97	900	4080	3672	34.8	31.3	130
BXRC-40H4000-C-7x-SE	4000	97	1170	5305	4774	34.8	40.7	130
BXRC-40H4000-D-7x-SE	4000	97	1050	3967	3570	29.0	30.5	130
BXRC-40A4001-B-73-SE ^{8,9}	4000	93	900	4421	3978	34.8	31.3	141
BXRC-40A4001-C-73-SE ^{8,9}	4000	93	1170	5747	5172	34.8	40.7	141
BXRC-40A4001-D-73-SE ^{8,9}	4000	93	1050	4298	3868	29.0	30.5	141
BXRC-50C4001-B-7x-SE	5000	70	900	5688	5119	34.8	31.3	182
BXRC-50C4001-C-7x-SE	5000	70	1170	7394	6655	34.8	40.7	182
BXRC-50C4001-D-7x-SE	5000	70	1050	5530	4977	29.0	30.5	182
BXRC-50E4001-B-7x-SE	5000	80	900	5472	4924	34.8	31.3	175
BXRC-50E4001-C-7x-SE	5000	80	1170	7113	6402	34.8	40.7	175
BXRC-50E4001-D-7x-SE	5000	80	1050	5320	4788	29.0	30.5	175

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 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.

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-50G4001-B-7x-SE	5000	90	900	4730	4257	34.8	31.3	151
BXRC-50G4001-C-7x-SE	5000	90	1170	6149	5534	34.8	40.7	151
BXRC-50G4001-D-7x-SE	5000	90	1050	4598	4138	29.0	30.5	151
BXRC-56G4000-B-74-SE	5600	90	900	4761	4285	34.8	31.3	152
BXRC-56G4000-C-74-SE	5600	90	1170	6189	5570	34.8	40.7	152
BXRC-56G4000-D-74-SE	5600	90	1050	4628	4166	29.0	30.5	152
BXRC-56H4000-D-74-SE	5600	97	1050	4178	3760	29.0	30.5	137
BXRC-57C4001-B-7x-SE	5700	70	900	5533	4980	34.8	31.3	177
BXRC-57C4001-C-7x-SE	5700	70	1170	7193	6474	34.8	40.7	177
BXRC-57C4001-D-7x-SE	5700	70	1050	5380	4842	29.0	30.5	177
BXRC-57E4001-B-7x-SE	5700	80	900	5255	4730	34.8	31.3	168
BXRC-57E4001-C-7x-SE	5700	80	1170	6832	6149	34.8	40.7	168
BXRC-57E4001-D-7x-SE	5700	80	1050	5109	4598	29.0	30.5	168
BXRC-65C4001-B-7x-SE	6500	70	900	5533	4980	34.8	31.3	177
BXRC-65C4001-C-7x-SE	6500	70	1170	7193	6474	34.8	40.7	177
BXRC-65C4001-D-7x-SE	6500	70	1050	5380	4842	29.0	30.5	177
BXRC-65E4001-B-7x-SE	6500	80	900	5317	4785	34.8	31.3	170
BXRC-65E4001-C-7x-SE	6500	80	1170	6912	6221	34.8	40.7	170
BXRC-65E4001-D-7x-SE	6500	80	1050	5169	4652	29.0	30.5	170

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 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.

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-30A4001-B-73-SE	3000	80	93	900	3565	3208	34.3	30.9	115
BXRC-30A4001-C-73-SE	3000	80	93	1170	4634	4171	34.3	40.2	115
BXRC-30A4001-D-73-SE	3000	80	93	1050	3466	3119	28.5	29.9	116
BXRC-35A4001-B-73-SE	3500	80	93	900	3795	3415	34.3	30.9	123
BXRC-35A4001-C-73-SE	3500	80	93	1170	4933	4440	34.3	40.2	123
BXRC-35A4001-D-73-SE	3500	80	93	1050	3689	3321	28.5	29.9	123
BXRC-40A4001-B-73-SE	4000	80	93	900	4111	3700	34.3	30.9	133
BXRC-40A4001-C-73-SE	4000	80	93	1170	5344	4810	34.3	40.2	133
BXRC-40A4001-D-73-SE	4000	80	93	1050	3997	3597	28.5	29.9	134

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°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 ($T_c = 85^\circ\text{C}$)^{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-17E4000-B-74-SE	1750	80	900	2560	2304	33.9	30.5	84
BXRC-17E4000-C-74-SE	1750	80	1170	3327	2995	33.9	39.7	84
BXRC-17E4000-D-74-SE	1750	80	1050	2488	2240	28.3	29.7	84
BXRC-20B4001-C-73-SE	2000	65	1170	5678	5111	34.1	39.9	142
BXRC-20B4001-D-73-SE	2000	65	1050	4247	3822	28.3	29.7	143
BXRC-25E4000-B-74-SE	2500	80	900	4257	3831	33.9	30.5	139
BXRC-25E4000-C-74-SE	2500	80	1170	5534	4980	33.9	39.7	139
BXRC-25E4000-D-74-SE	2500	80	1050	4138	3725	28.3	29.7	139
BXRC-27E4000-B-7x-SE	2700	80	900	4451	4006	33.9	30.5	146
BXRC-27E4000-C-7x-SE	2700	80	1170	5787	5208	33.9	39.7	146
BXRC-27E4000-D-7x-SE	2700	80	1050	4328	3895	28.3	29.7	146
BXRC-27G40H0-B-7x-SE	2700	90	900	3812	3430	33.9	30.5	125
BXRC-27G40H0-C-7x-SE	2700	90	1170	4955	4460	33.9	39.7	125
BXRC-27G40H0-D-7x-SE	2700	90	1050	3706	3335	28.3	29.7	125
BXRC-27G4000-B-7x-SE	2700	90	900	3672	3305	33.9	30.5	120
BXRC-27G4000-C-7x-SE	2700	90	1170	4774	4297	33.9	39.7	120
BXRC-27G4000-D-7x-SE	2700	90	1050	3570	3213	28.3	29.7	120
BXRC-27H4000-B-7x-SE	2700	97	900	3255	2930	33.9	30.5	107
BXRC-27H4000-C-7x-SE	2700	97	1170	4232	3808	33.9	39.7	107
BXRC-27H4000-D-7x-SE	2700	97	1050	3165	2848	28.3	29.7	107
BXRC-30C4001-B-74-SE	3000	70	900	4952	4457	33.9	30.5	162
BXRC-30C4001-C-74-SE	3000	70	1170	6438	5794	33.9	39.7	162
BXRC-30C4001-D-74-SE	3000	70	1050	4815	4333	28.3	29.7	162
BXRC-30E4000-B-7x-SE	3000	80	900	4730	4257	33.9	30.5	155
BXRC-30E4000-C-7x-SE	3000	80	1170	6149	5534	33.9	39.7	155
BXRC-30E4000-D-7x-SE	3000	80	1050	4598	4138	28.3	29.7	155
BXRC-30G40H0-B-7x-SE	3000	90	900	4006	3606	33.9	30.5	131
BXRC-30G40H0-C-7x-SE	3000	90	1170	5208	4687	33.9	39.7	131
BXRC-30G40H0-D-7x-SE	3000	90	1050	3895	3506	28.3	29.7	131
BXRC-30G4000-B-7x-SE	3000	90	900	3839	3455	33.9	30.5	126
BXRC-30G4000-C-7x-SE	3000	90	1170	4991	4492	33.9	39.7	126
BXRC-30G4000-D-7x-SE	3000	90	1050	3733	3359	28.3	29.7	126
BXRC-30G400C-B-73-SE	3000	90	900	3700	3330	33.9	30.5	121
BXRC-30G400C-D-73-SE	3000	90	1050	3597	3238	28.3	29.7	121
BXRC-30H4000-B-7x-SE	3000	97	900	3478	3130	33.9	30.5	114

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 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-30H4000-C-7x-SE	3000	97	1170	4521	4069	33.9	39.7	114
BXRC-30H4000-D-7x-SE	3000	97	1050	3381	3043	28.3	29.7	114
BXRC-30A4001-B-73-SE ^{7,8}	3000	93	900	3450	3105	33.9	30.5	113
BXRC-30A4001-C-73-SE ^{7,8}	3000	93	1170	4485	4036	33.9	39.7	113
BXRC-30A4001-D-73-SE ^{7,8}	3000	93	1050	3354	3019	28.3	29.7	113
BXRC-35E4000-B-7x-SE	3500	80	900	4841	4357	33.9	30.5	159
BXRC-35E4000-C-7x-SE	3500	80	1170	6293	5664	33.9	39.7	159
BXRC-35E4000-D-7x-SE	3500	80	1050	4706	4236	28.3	29.7	159
BXRC-35G4000-B-7x-SE	3500	90	900	3978	3581	33.9	30.5	130
BXRC-35G4000-C-7x-SE	3500	90	1170	5172	4655	33.9	39.7	130
BXRC-35G4000-D-7x-SE	3500	90	1050	3868	3481	28.3	29.7	130
BXRC-35A4001-B-73-SE ^{7,8}	3500	93	900	3672	3305	33.9	30.5	120
BXRC-35A4001-C-73-SE ^{7,8}	3500	93	1170	4774	4297	33.9	39.7	120
BXRC-35A4001-D-73-SE ^{7,8}	3500	93	1050	3570	3213	28.3	29.7	120
BXRC-40C4001-B-74-SE	4000	70	900	5091	4582	33.9	30.5	167
BXRC-40C4001-C-74-SE	4000	70	1170	6619	5957	33.9	39.7	167
BXRC-40C4001-D-74-SE	4000	70	1050	4950	4455	28.3	29.7	167
BXRC-40E4000-B-7x-SE	4000	80	900	4869	4382	33.9	30.5	160
BXRC-40E4000-C-7x-SE	4000	80	1170	6329	5696	33.9	39.7	160
BXRC-40E4000-D-7x-SE	4000	80	1050	4734	4260	28.3	29.7	159
BXRC-40G4000-B-7x-SE	4000	90	900	4062	3656	33.9	30.5	133
BXRC-40G4000-C-7x-SE	4000	90	1170	5281	4752	33.9	39.7	133
BXRC-40G4000-D-7x-SE	4000	90	1050	3949	3554	28.3	29.7	133
BXRC-40H4000-B-7x-SE	4000	97	900	3672	3305	33.9	30.5	120
BXRC-40H4000-C-7x-SE	4000	97	1170	4774	4297	33.9	39.7	120
BXRC-40H4000-D-7x-SE	4000	97	1050	3570	3213	28.3	29.7	120
BXRC-40A4001-B-73-SE ^{7,8}	4000	93	900	3978	3581	34.1	30.7	130
BXRC-40A4001-C-73-SE ^{7,8}	4000	93	1170	5172	4655	34.1	39.9	130
BXRC-40A4001-D-73-SE ^{7,8}	4000	93	1050	3868	3481	28.3	29.7	130
BXRC-50C4001-B-7x-SE	5000	70	900	5119	4607	34.1	30.7	167
BXRC-50C4001-C-7x-SE	5000	70	1170	6655	5989	34.1	39.9	167
BXRC-50C4001-D-7x-SE	5000	70	1050	4977	4479	28.3	29.7	168
BXRC-50E4001-B-7x-SE	5000	80	900	4924	4432	34.1	30.7	161
BXRC-50E4001-C-7x-SE	5000	80	1170	6402	5762	34.1	39.9	161
BXRC-50E4001-D-7x-SE	5000	80	1050	4788	4309	28.3	29.7	161

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 $T_s = T_c = 25^\circ\text{C}$. 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-50G4001-B-7x-SE	5000	90	900	4257	3831	34.1	30.7	139
BXRC-50G4001-C-7x-SE	5000	90	1170	5534	4980	34.1	39.9	139
BXRC-50G4001-D-7x-SE	5000	90	1050	4138	3725	28.3	29.7	139
BXRC-56G4000-B-74-SE	5600	90	900	4285	3856	34.1	30.7	140
BXRC-56G4000-C-74-SE	5600	90	1170	5570	5013	34.1	39.9	140
BXRC-56G4000-D-74-SE	5600	90	1050	4166	3749	28.3	29.7	140
BXRC-56H4000-D-74-SE	5600	97	1050	3760	3384	28.3	29.7	127
BXRC-57C4001-B-7x-SE	5700	80	900	4980	4482	34.1	30.7	162
BXRC-57C4001-C-7x-SE	5700	80	1170	6474	5827	34.1	39.9	162
BXRC-57C4001-D-7x-SE	5700	80	1050	4842	4358	28.3	29.7	163
BXRC-57E4001-B-7x-SE	5700	80	900	4730	4257	34.1	30.7	154
BXRC-57E4001-C-7x-SE	5700	80	1170	6149	5534	34.1	39.9	154
BXRC-57E4001-D-7x-SE	5700	80	1050	4598	4138	28.3	29.7	155
BXRC-65C4001-B-7x-SE	6500	70	900	4980	4482	34.1	30.7	162
BXRC-65C4001-C-7x-SE	6500	70	1170	6474	5827	34.1	39.9	162
BXRC-65C4001-D-7x-SE	6500	70	1050	4842	4358	28.3	29.7	163
BXRC-65E4001-B-7x-SE	6500	80	900	4785	4307	34.1	30.7	156
BXRC-65E4001-C-7x-SE	6500	80	1170	6221	5599	34.1	39.9	156
BXRC-65E4001-D-7x-SE	6500	80	1050	4652	4187	28.3	29.7	157

Notes for Table 3:

- Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to $T_c = 85^\circ\text{C}$.
- 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 98. 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.

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 $T_c = 25^\circ\text{C}$ (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-17E4000-B-74-SE	80	450	33.1	14.9	1527	1372	102
		600	33.8	20.3	2003	1797	99
		900	34.8	31.3	2844	2560	91
		1350	36.5	49.2	4230	3727	86
		1800	37.8	68.1	5443	4732	80
BXRC-17E4000-C-74-SE	80	585	33.2	19.4	1932	1828	100
		780	33.8	26.4	2531	2346	96
		1170	34.8	40.7	3697	3327	91
		1755	36.5	64.1	5319	4681	83
		2340	37.9	88.8	6822	5880	77
BXRC-17E4000-D-74-SE	80	525	27.7	14.6	1473	1367	101
		700	28.2	19.8	1915	1755	97
		1050	29.0	30.5	2765	2488	91
		1575	30.4	47.9	3949	3492	82
		2100	31.5	66.2	5028	4372	76
BXRC-20B4001-C-73-SE	65	585	33.2	19.4	3297	3120	170
		780	33.8	26.4	4320	4003	164
		1170	34.8	40.7	6309	5678	155
		1755	36.5	64.1	9077	7989	142
		2340	37.9	88.8	11643	10035	131
BXRC-20B4001-D-73-SE	65	525	27.7	14.6	2514	2333	173
		700	28.2	19.8	3269	2995	165
		1050	29.0	30.5	4719	4247	155
		1575	30.4	47.9	6740	5960	141
		2100	31.5	66.2	8580	7461	130
BXRC-25E4000-B-74-SE	80	450	33.1	14.9	2539	2282	170
		600	33.8	20.3	3331	2988	164
		900	34.8	31.3	4730	4257	151
		1350	36.5	49.2	7034	6198	143
		1800	37.8	68.1	9052	7869	133
BXRC-25E4000-C-74-SE	80	585	33.2	19.4	3213	3040	166
		780	33.8	26.4	4210	3901	160
		1170	34.8	40.7	6149	5534	151
		1755	36.5	64.1	8845	7785	138
		2340	37.9	88.8	11346	9779	128
BXRC-25E4000-D-74-SE	80	525	27.7	14.6	2450	2274	168
		700	28.2	19.8	3185	2919	161
		1050	29.0	30.5	4598	4138	151
		1575	30.4	47.9	6568	5808	137
		2100	31.5	66.2	8361	7271	126

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-27E4000-B-7x-SE	80	450	33.1	14.9	2656	2386	178
		600	33.8	20.3	3484	3124	172
		900	34.8	31.3	4946	4451	158
		1350	36.5	49.2	7356	6482	149
		1800	37.8	68.1	9466	8229	139
BXRC-27E4000-C-7x-SE	80	585	33.2	19.4	3360	3179	173
		780	33.8	26.4	4402	4080	167
		1170	34.8	40.7	6430	5787	158
		1755	36.5	64.1	9250	8141	144
		2340	37.9	88.8	11865	10226	134
BXRC-27E4000-D-7x-SE	80	525	27.7	14.6	2562	2378	176
		700	28.2	19.8	3331	3053	169
		1050	29.0	30.5	4809	4328	158
		1575	30.4	47.9	6868	6074	143
		2100	31.5	66.2	8744	7603	132
BXRC-27G40H0-B-7x-SE	90	450	33.1	14.9	2274	2043	152
		600	33.8	20.3	2983	2675	147
		900	34.8	31.3	4235	3812	135
		1350	36.5	49.2	6299	5550	128
		1800	37.8	68.1	8105	7046	119
BXRC-27G40H0-C-7x-SE	90	585	33.2	19.4	2877	2722	148
		780	33.8	26.4	3770	3493	143
		1170	34.8	40.7	5506	4955	135
		1755	36.5	64.1	7920	6971	123
		2340	37.9	88.8	10160	8756	114
BXRC-27G40H0-D-7x-SE	90	525	27.7	14.6	2193	2036	151
		700	28.2	19.8	2852	2614	144
		1050	29.0	30.5	4117	3706	135
		1575	30.4	47.9	5881	5201	123
		2100	31.5	66.2	7487	6510	113
BXRC-27G4000-B-7x-SE	90	450	33.1	14.9	2191	1969	147
		600	33.8	20.3	2874	2578	142
		900	34.8	31.3	4080	3672	130
		1350	36.5	49.2	6069	5347	123
		1800	37.8	68.1	7810	6789	115
BXRC-27G4000-C-7x-SE	90	585	33.2	19.4	2772	2623	143
		780	33.8	26.4	3632	3366	138
		1170	34.8	40.7	5305	4774	130
		1755	36.5	64.1	7631	6717	119
		2340	37.9	88.8	9789	8437	110
BXRC-27G4000-D-7x-SE	90	525	27.7	14.6	2113	1962	145
		700	28.2	19.8	2748	2518	139
		1050	29.0	30.5	3967	3570	130
		1575	30.4	47.9	5667	5011	118
		2100	31.5	66.2	7213	6273	109

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-27H4000-B-7x-SE	80	450	33.1	14.9	1942	1745	130
		600	33.8	20.3	2547	2285	126
		900	34.8	31.3	3617	3255	115
		1350	36.5	49.2	5379	4740	109
		1800	37.8	68.1	6922	6017	102
BXRC-27H4000-C-7x-SE	80	585	33.2	19.4	2457	2325	127
		780	33.8	26.4	3219	2983	122
		1170	34.8	40.7	4702	4232	115
		1755	36.5	64.1	6764	5953	105
		2340	37.9	88.8	8676	7478	98
BXRC-27H4000-D-7x-SE	80	525	27.7	14.6	1873	1739	129
		700	28.2	19.8	2436	2232	123
		1050	29.0	30.5	3516	3165	115
		1575	30.4	47.9	5023	4441	105
		2100	31.5	66.2	6394	5560	97
BXRC-30C4001-B-74-SE	70	450	33.1	14.9	2954	2655	198
		600	33.8	20.3	3875	3476	191
		900	34.8	31.3	5502	4952	176
		1350	36.5	49.2	8184	7211	166
		1800	37.8	68.1	10531	9154	155
BXRC-30C4001-C-74-SE	70	585	33.2	19.4	3737	3537	193
		780	33.8	26.4	4898	4539	186
		1170	34.8	40.7	7153	6438	176
		1755	36.5	64.1	10291	9057	160
		2340	37.9	88.8	13200	11377	149
BXRC-30C4001-D-74-SE	70	525	27.7	14.6	2850	2645	196
		700	28.2	19.8	3706	3396	188
		1050	29.0	30.5	5350	4815	176
		1575	30.4	47.9	7641	6757	159
		2100	31.5	66.2	9727	8459	147
BXRC-30E4000-B-7x-SE	80	450	33.1	14.9	2822	2535	189
		600	33.8	20.3	3701	3320	183
		900	34.8	31.3	5255	4730	168
		1350	36.5	49.2	7816	6887	159
		1800	37.8	68.1	10058	8743	148
BXRC-30E4000-C-7x-SE	80	585	33.2	19.4	3570	3378	184
		780	33.8	26.4	4678	4335	177
		1170	34.8	40.7	6832	6149	168
		1755	36.5	64.1	9828	8650	153
		2340	37.9	88.8	12607	10866	142
BXRC-30E4000-D-7x-SE	80	525	27.7	14.6	2722	2526	187
		700	28.2	19.8	3539	3243	179
		1050	29.0	30.5	5109	4598	168
		1575	30.4	47.9	7298	6453	152
		2100	31.5	66.2	9290	8079	140

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-30G40H0-B-7x-SE	90	450	33.1	14.9	2390	2148	160
		600	33.8	20.3	3135	2812	155
		900	34.8	31.3	4451	4006	142
		1350	36.5	49.2	6621	5833	135
		1800	37.8	68.1	8520	7406	125
BXRC-30G40H0-C-7x-SE	90	585	33.2	19.4	3024	2861	156
		780	33.8	26.4	3962	3672	150
		1170	34.8	40.7	5787	5208	142
		1755	36.5	64.1	8325	7327	130
		2340	37.9	88.8	10679	9204	120
BXRC-30G40H0-D-7x-SE	90	525	27.7	14.6	2305	2140	158
		700	28.2	19.8	2998	2747	152
		1050	29.0	30.5	4328	3895	142
		1575	30.4	47.9	6182	5466	129
		2100	31.5	66.2	7869	6843	119
BXRC-30G4000-B-7x-SE	90	450	33.1	14.9	2290	2058	154
		600	33.8	20.3	3005	2695	148
		900	34.8	31.3	4266	3839	136
		1350	36.5	49.2	6345	5590	129
		1800	37.8	68.1	8165	7097	120
BXRC-30G4000-C-7x-SE	90	585	33.2	19.4	2898	2742	149
		780	33.8	26.4	3797	3519	144
		1170	34.8	40.7	5546	4991	136
		1755	36.5	64.1	7978	7022	124
		2340	37.9	88.8	10234	8820	115
BXRC-30G4000-D-7x-SE	90	525	27.7	14.6	2209	2051	152
		700	28.2	19.8	2873	2633	145
		1050	29.0	30.5	4147	3733	136
		1575	30.4	47.9	5924	5238	124
		2100	31.5	66.2	7541	6558	114
BXRC-30G400C-B-73-SE	90	450	33.1	14.9	2207	1984	148
		600	33.8	20.3	2896	2597	143
		900	34.8	31.3	4111	3700	131
		1350	36.5	49.2	6115	5388	124
		1800	37.8	68.1	7869	6840	116
BXRC-30G400C-D-73-SE	90	525	27.7	14.6	2129	1976	146
		700	28.2	19.8	2769	2537	140
		1050	29.0	30.5	3997	3597	131
		1575	30.4	47.9	5709	5049	119
		2100	31.5	66.2	7268	6320	110
BXRC-30H4000-B-7x-SE	80	450	33.1	14.9	2075	1864	139
		600	33.8	20.3	2721	2441	134
		900	34.8	31.3	3864	3478	123
		1350	36.5	49.2	5747	5064	117
		1800	37.8	68.1	7396	6429	109

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-30H4000-C-7x-SE	80	585	33.2	19.4	2625	2484	135
		780	33.8	26.4	3439	3187	130
		1170	34.8	40.7	5023	4521	123
		1755	36.5	64.1	7227	6361	113
		2340	37.9	88.8	9270	7989	104
BXRC-30H4000-D-7x-SE	80	525	27.7	14.6	2001	1858	137
		700	28.2	19.8	2602	2385	132
		1050	29.0	30.5	3757	3381	123
		1575	30.4	47.9	5366	4745	112
		2100	31.5	66.2	6831	5940	103
BXRC-30A4001-B-73-SE	93	450	33.1	14.9	2058	1849	138
		600	33.8	20.3	2700	2421	133
		900	34.8	31.3	3833	3450	122
		1350	36.5	49.2	5701	5023	116
		1800	37.8	68.1	7336	6377	108
BXRC-30A4001-C-73-SE	93	585	33.2	19.4	2604	2464	134
		780	33.8	26.4	3412	3162	129
		1170	34.8	40.7	4983	4485	122
		1755	36.5	64.1	7169	6310	112
		2340	37.9	88.8	9196	7926	104
BXRC-30A4001-D-73-SE	93	525	27.7	14.6	1985	1843	136
		700	28.2	19.8	2581	2366	131
		1050	29.0	30.5	3727	3354	122
		1575	30.4	47.9	5323	4707	111
		2100	31.5	66.2	6776	5893	102
BXRC-35E4000-B-7x-SE	80	450	33.1	14.9	2888	2595	194
		600	33.8	20.3	3788	3398	187
		900	34.8	31.3	5379	4841	172
		1350	36.5	49.2	8000	7049	163
		1800	37.8	68.1	10295	8949	151
BXRC-35E4000-C-7x-SE	80	585	33.2	19.4	3653	3458	188
		780	33.8	26.4	4788	4437	182
		1170	34.8	40.7	6992	6293	172
		1755	36.5	64.1	10059	8854	157
		2340	37.9	88.8	12903	11121	145
BXRC-35E4000-D-7x-SE	80	525	27.7	14.6	2786	2586	191
		700	28.2	19.8	3622	3320	183
		1050	29.0	30.5	5229	4706	172
		1575	30.4	47.9	7469	6605	156
		2100	31.5	66.2	9509	8269	144
BXRC-35G4000-B-7x-SE	90	450	33.1	14.9	2373	2133	159
		600	33.8	20.3	3113	2792	154
		900	34.8	31.3	4421	3978	141
		1350	36.5	49.2	6575	5793	134
		1800	37.8	68.1	8460	7354	124

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-35G4000-C-7x-SE	90	585	33.2	19.4	3003	2842	155
		780	33.8	26.4	3935	3646	149
		1170	34.8	40.7	5747	5172	141
		1755	36.5	64.1	8267	7276	129
		2340	37.9	88.8	10604	9140	119
BXRC-35G4000-D-7x-SE	90	525	27.7	14.6	2289	2125	157
		700	28.2	19.8	2977	2728	151
		1050	29.0	30.5	4298	3868	141
		1575	30.4	47.9	6139	5428	128
		2100	31.5	66.2	7815	6796	118
BXRC-35A4001-B-73-SE	93	450	33.1	14.9	2191	1969	147
		600	33.8	20.3	2874	2578	142
		900	34.8	31.3	4080	3672	130
		1350	36.5	49.2	6069	5347	123
		1800	37.8	68.1	7810	6789	115
BXRC-35A4001-C-73-SE	93	585	33.2	19.4	2772	2623	143
		780	33.8	26.4	3632	3366	138
		1170	34.8	40.7	5305	4774	130
		1755	36.5	64.1	7631	6717	119
		2340	37.9	88.8	9789	8437	110
BXRC-35A4001-D-73-SE	93	525	27.7	14.6	2113	1962	145
		700	28.2	19.8	2748	2518	139
		1050	29.0	30.5	3967	3570	130
		1575	30.4	47.9	5667	5011	118
		2100	31.5	66.2	7213	6273	109
BXRC-40C4001-B-74-SE	70	450	33.1	14.9	3037	2729	204
		600	33.8	20.3	3984	3574	197
		900	34.8	31.3	5657	5091	181
		1350	36.5	49.2	8414	7413	171
		1800	37.8	68.1	10827	9412	159
BXRC-40C4001-C-74-SE	70	585	33.2	19.4	3842	3636	198
		780	33.8	26.4	5035	4666	191
		1170	34.8	40.7	7354	6619	181
		1755	36.5	64.1	10580	9312	165
		2340	37.9	88.8	13571	11697	153
BXRC-40C4001-D-74-SE	70	525	27.7	14.6	2930	2719	201
		700	28.2	19.8	3810	3491	193
		1050	29.0	30.5	5500	4950	181
		1575	30.4	47.9	7856	6947	164
		2100	31.5	66.2	10000	8696	151
BXRC-40E4000-B-7x-SE	80	450	33.1	14.9	2904	2610	195
		600	33.8	20.3	3810	3417	188
		900	34.8	31.3	5410	4869	173
		1350	36.5	49.2	8046	7089	163
		1800	37.8	68.1	10354	9000	152

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-40E4000-C-7x-SE	80	585	33.2	19.4	3674	3477	189
		780	33.8	26.4	4815	4462	183
		1170	34.8	40.7	7033	6329	173
		1755	36.5	64.1	10117	8905	158
		2340	37.9	88.8	12978	11185	146
BXRC-40E4000-D-7x-SE	80	525	27.7	14.6	2802	2601	192
		700	28.2	19.8	3643	3339	184
		1050	29.0	30.5	5259	4734	173
		1575	30.4	47.9	7512	6643	157
		2100	31.5	66.2	9563	8316	144
BXRC-40G4000-B-7x-SE	90	450	33.1	14.9	2423	2177	162
		600	33.8	20.3	3179	2851	157
		900	34.8	31.3	4513	4062	144
		1350	36.5	49.2	6713	5914	136
		1800	37.8	68.1	8638	7509	127
BXRC-40G4000-C-7x-SE	90	585	33.2	19.4	3066	2901	158
		780	33.8	26.4	4017	3723	152
		1170	34.8	40.7	5867	5281	144
		1755	36.5	64.1	8441	7429	132
		2340	37.9	88.8	10827	9332	122
BXRC-40G4000-D-7x-SE	90	525	27.7	14.6	2337	2170	161
		700	28.2	19.8	3040	2785	154
		1050	29.0	30.5	4388	3949	144
		1575	30.4	47.9	6267	5542	131
		2100	31.5	66.2	7979	6938	120
BXRC-40H4000-B-7x-SE	97	450	33.1	14.9	2191	1969	147
		600	33.8	20.3	2874	2578	142
		900	34.8	31.3	4080	3672	130
		1350	36.5	49.2	6069	5347	123
		1800	37.8	68.1	7810	6789	115
BXRC-40H4000-C-7x-SE	97	585	33.2	19.4	2772	2623	143
		780	33.8	26.4	3632	3366	138
		1170	34.8	40.7	5305	4774	130
		1755	36.5	64.1	7631	6717	119
		2340	37.9	88.8	9789	8437	110
BXRC-40H4000-D-7x-SE	97	525	27.7	14.6	2113	1962	145
		700	28.2	19.8	2748	2518	139
		1050	29.0	30.5	3967	3570	130
		1575	30.4	47.9	5667	5011	118
		2100	31.5	66.2	7213	6273	109
BXRC-40A4001-B-73-SE	93	450	33.1	14.9	2373	2133	159
		600	33.8	20.3	3113	2792	154
		900	34.8	31.3	4421	3978	141
		1350	36.5	49.2	6575	5793	134
		1800	37.8	68.1	8460	7354	124

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-40A4001-C-73-SE	93	585	33.2	19.4	3003	2842	155
		780	33.8	26.4	3935	3646	149
		1170	34.8	40.7	5747	5172	141
		1755	36.5	64.1	8267	7276	129
		2340	37.9	88.8	10604	9140	119
BXRC-40A4001-D-73-SE	93	525	27.7	14.6	2289	2125	157
		700	28.2	19.8	2977	2728	151
		1050	29.0	30.5	4298	3868	141
		1575	30.4	47.9	6139	5428	128
		2100	31.5	66.2	7815	6796	118
BXRC-50C4001-B-7x-SE	70	450	33.1	14.9	3054	2744	205
		600	33.8	20.3	4006	3593	198
		900	34.8	31.3	5688	5119	182
		1350	36.5	49.2	8460	7454	172
		1800	37.8	68.1	10886	9463	160
BXRC-50C4001-C-7x-SE	70	585	33.2	19.4	3863	3656	199
		780	33.8	26.4	5063	4692	192
		1170	34.8	40.7	7394	6655	182
		1755	36.5	64.1	10638	9363	166
		2340	37.9	88.8	13645	11760	154
BXRC-50C4001-D-7x-SE	70	525	27.7	14.6	2946	2734	202
		700	28.2	19.8	3831	3510	194
		1050	29.0	30.5	5530	4977	182
		1575	30.4	47.9	7899	6985	165
		2100	31.5	66.2	10055	8744	152
BXRC-50E4001-B-7x-SE	80	450	33.1	14.9	2938	2640	197
		600	33.8	20.3	3854	3456	190
		900	34.8	31.3	5472	4924	175
		1350	36.5	49.2	8138	7170	165
		1800	37.8	68.1	10472	9103	154
BXRC-50E4001-C-7x-SE	80	585	33.2	19.4	3716	3517	191
		780	33.8	26.4	4870	4513	185
		1170	34.8	40.7	7113	6402	175
		1755	36.5	64.1	10233	9007	160
		2340	37.9	88.8	13126	11313	148
BXRC-50E4001-D-7x-SE	80	525	27.7	14.6	2834	2630	195
		700	28.2	19.8	3685	3377	186
		1050	29.0	30.5	5320	4788	175
		1575	30.4	47.9	7598	6719	159
		2100	31.5	66.2	9673	8411	146
BXRC-50G4001-B-7x-SE	90	450	33.1	14.9	2539	2282	170
		600	33.8	20.3	3331	2988	164
		900	34.8	31.3	4730	4257	151
		1350	36.5	49.2	7034	6198	143
		1800	37.8	68.1	9052	7869	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-50G4001-C-7x-SE	90	585	33.2	19.4	3213	3040	166
		780	33.8	26.4	4210	3901	160
		1170	34.8	40.7	6149	5534	151
		1755	36.5	64.1	8845	7785	138
		2340	37.9	88.8	11346	9779	128
BXRC-50G4001-D-7x-SE	90	525	27.7	14.6	2450	2274	168
		700	28.2	19.8	3185	2919	161
		1050	29.0	30.5	4598	4138	151
		1575	30.4	47.9	6568	5808	137
		2100	31.5	66.2	8361	7271	126
BXRC-56G4000-B-74-SE	80	450	33.1	14.9	2556	2297	171
		600	33.8	20.3	3353	3007	166
		900	34.8	31.3	4761	4285	152
		1350	36.5	49.2	7080	6238	144
		1800	37.8	68.1	9111	7920	134
BXRC-56G4000-C-74-SE	80	585	33.2	19.4	3234	3060	167
		780	33.8	26.4	4237	3927	161
		1170	34.8	40.7	6189	5570	152
		1755	36.5	64.1	8903	7836	139
		2340	37.9	88.8	11420	9843	129
BXRC-56G400x-D-74-SE	80	525	27.7	14.6	2466	2288	169
		700	28.2	19.8	3206	2938	162
		1050	29.0	30.5	4628	4166	152
		1575	30.4	47.9	6611	5846	138
		2100	31.5	66.2	8416	7318	127
BXRC-56H4000-D-74-SE	97	525	27.7	14.6	2225	2066	153
		700	28.2	19.8	2894	2652	146
		1050	29.0	30.5	4178	3760	137
		1575	30.4	47.9	5967	5276	125
		2100	31.5	66.2	7596	6606	115
BXRC-57C4001-B-7x-SE	70	450	33.1	14.9	2971	2670	199
		600	33.8	20.3	3897	3495	192
		900	34.8	31.3	5533	4980	177
		1350	36.5	49.2	8230	7251	167
		1800	37.8	68.1	10590	9206	156
BXRC-57C4001-C-7x-SE	70	585	33.2	19.4	3758	3557	194
		780	33.8	26.4	4925	4564	187
		1170	34.8	40.7	7193	6474	177
		1755	36.5	64.1	10348	9108	161
		2340	37.9	88.8	13274	11441	150
BXRC-57C4001-D-7x-SE	70	525	27.7	14.6	2866	2660	197
		700	28.2	19.8	3727	3415	189
		1050	29.0	30.5	5380	4842	177
		1575	30.4	47.9	7684	6795	160
		2100	31.5	66.2	9782	8506	148

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-57E4001-B-7x-SE	80	450	33.1	14.9	2822	2535	189
		600	33.8	20.3	3701	3320	183
		900	34.8	31.3	5255	4730	168
		1350	36.5	49.2	7816	6887	159
		1800	37.8	68.1	10058	8743	148
BXRC-57E4001-C-7x-SE	80	585	33.2	19.4	3570	3378	184
		780	33.8	26.4	4678	4335	177
		1170	34.8	40.7	6832	6149	168
		1755	36.5	64.1	9828	8650	153
		2340	37.9	88.8	12607	10866	142
BXRC-57E4001-D-7x-SE	80	525	27.7	14.6	2722	2526	187
		700	28.2	19.8	3539	3243	179
		1050	29.0	30.5	5109	4598	168
		1575	30.4	47.9	7298	6453	152
		2100	31.5	66.2	9290	8079	140
BXRC-65C4001-B-7x-SE	70	450	33.1	14.9	2971	2670	199
		600	33.8	20.3	3897	3495	192
		900	34.8	31.3	5533	4980	177
		1350	36.5	49.2	8230	7251	167
		1800	37.8	68.1	10590	9206	156
BXRC-65C4001-C-7x-SE	70	585	33.2	19.4	3758	3557	194
		780	33.8	26.4	4925	4564	187
		1170	34.8	40.7	7193	6474	177
		1755	36.5	64.1	10348	9108	161
		2340	37.9	88.8	13274	11441	150
BXRC-65C4001-D-7x-SE	70	525	27.7	14.6	2866	2660	197
		700	28.2	19.8	3727	3415	189
		1050	29.0	30.5	5380	4842	177
		1575	30.4	47.9	7684	6795	160
		2100	31.5	66.2	9782	8506	148
BXRC-65E4001-B-7x-SE	80	450	33.1	14.9	2855	2565	191
		600	33.8	20.3	3745	3359	185
		900	34.8	31.3	5317	4785	170
		1350	36.5	49.2	7908	6968	161
		1800	37.8	68.1	10176	8846	150
BXRC-65E4001-C-7x-SE	80	585	33.2	19.4	3612	3418	186
		780	33.8	26.4	4733	4386	180
		1170	34.8	40.7	6912	6221	170
		1755	36.5	64.1	9944	8752	155
		2340	37.9	88.8	12755	10993	144
BXRC-65E4001-D-7x-SE	80	525	27.7	14.6	2754	2556	189
		700	28.2	19.8	3581	3281	181
		1050	29.0	30.5	5169	4652	170
		1575	30.4	47.9	7384	6529	154
		2100	31.5	66.2	9399	8174	142

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-xxx400x-B-7x-SE	900	32.2	34.8	37.4	-14.9	0.15	31.0	38.4
	1800	35.0	37.8	40.6	-14.9	0.19	33.8	41.6
BXRC-xxx400x-C-7x-SE	1170	32.2	34.8	37.4	-14.9	0.11	31.0	38.4
	2340	35.0	37.8	40.6	-14.9	0.13	33.8	41.6
BXRC-xxx400x-D-7x-SE	1050	26.8	29.0	31.2	-12.2	0.16	25.8	32.0
	2100	29.2	31.5	33.9	-12.2	0.19	28.2	34.7

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 ⁵			
		2700K/3000K	4000K ²	5000K ³	6500K ⁴
BXRC-xxx400x-B-7x-SE	900	RG1	RG1	RG1	RG1
	1350	RG1	RG1	RG1	RG2
	1800	RG1	RG1	RG2	RG2
BXRC-xxx400x-C-7x-SE	1170	RG1	RG1	RG1	RG1
	1755	RG1	RG1	RG2	RG2
	2340	RG1	RG1	RG2	RG2
BXRC-xxx400x-D-7x-SE	1050	RG1	RG1	RG1	RG1
	1575	RG1	RG1	RG1	RG2
	2100	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-xxx400x-B-7x-SE	BXRC-xxx400x-C-7x-SE	BXRC-xxx400x-D-7x-SE
Maximum Drive Current ³	1800mA	2340mA	2100mA
Maximum Peak Pulsed Drive Current ⁴	2570mA	3340mA	3000mA
Maximum Reverse Voltage ⁵	-60V	-60V	-50V

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 18B Drive Current vs. Voltage

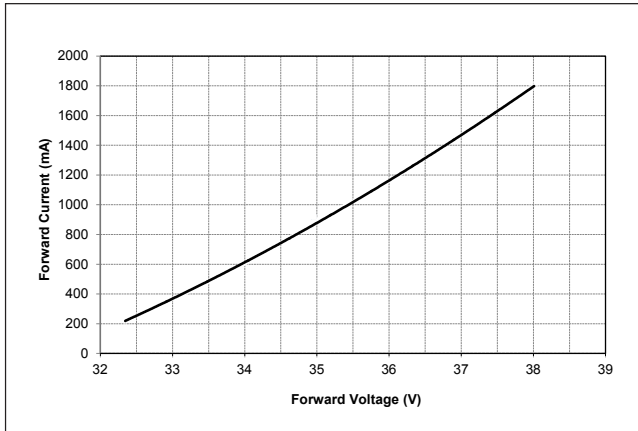


Figure 2: Vero SE 18C Drive Current vs. Voltage

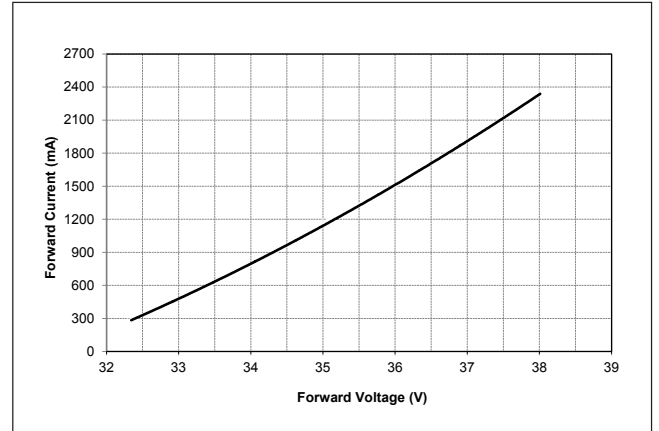


Figure 3: Vero SE 18D Drive Current vs. Voltage

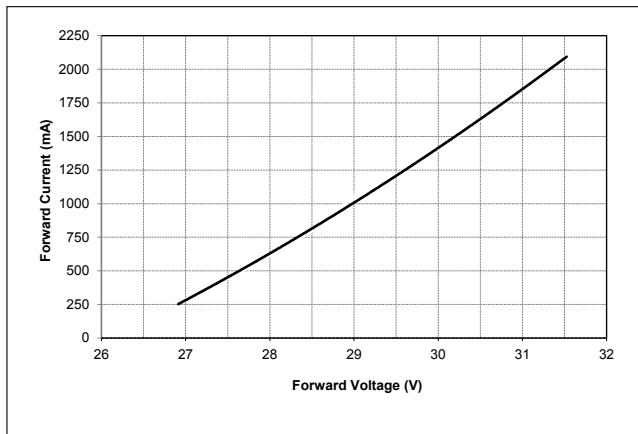


Figure 4: Vero SE 18B Typical Relative Flux vs. Current

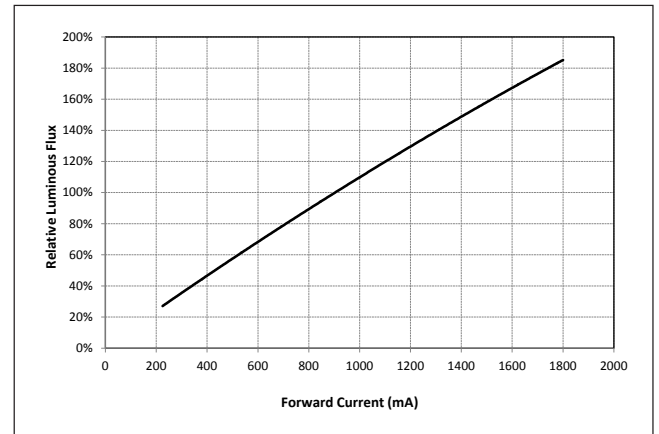


Figure 5: Vero SE 18C Typical Relative Flux vs. Current

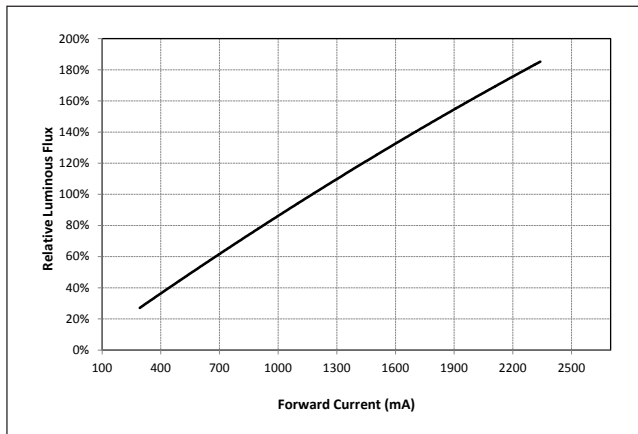
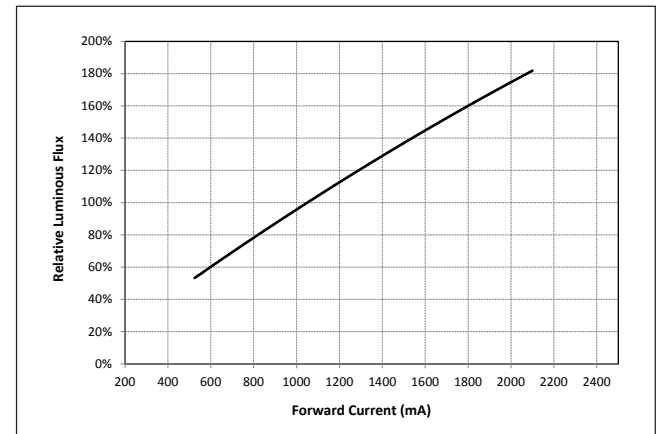


Figure 6: Vero SE 18D Typical Relative Flux vs. Current



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

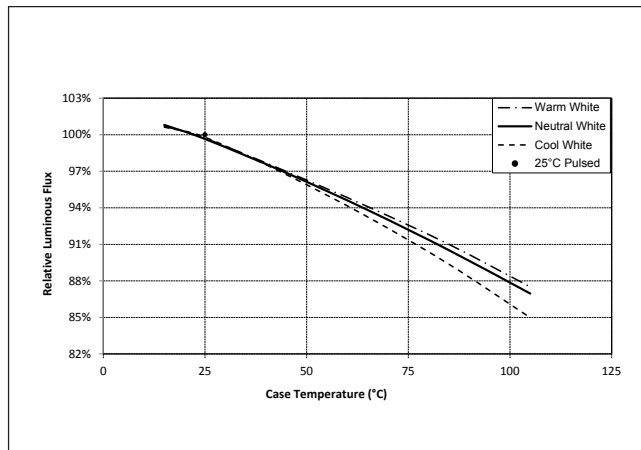


Figure 8: Typical DC ccy Shift vs. Case Temperature

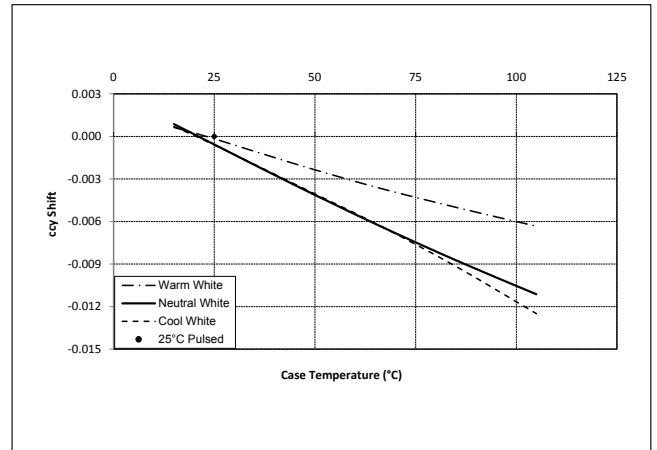
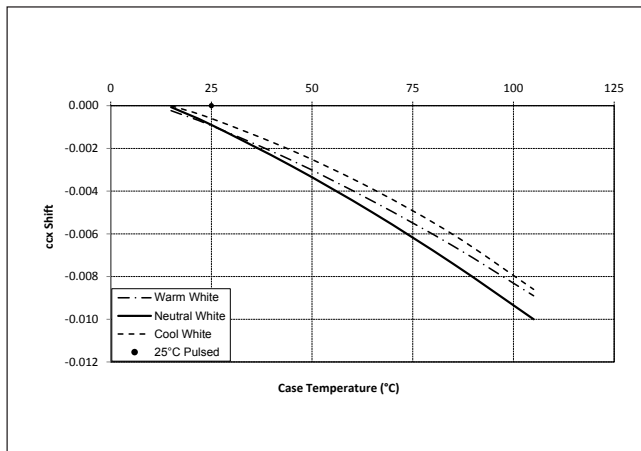


Figure 9: Typical DC ccx Shift vs. Case Temperature



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: 1750K Color Shift vs. Case Temperature¹

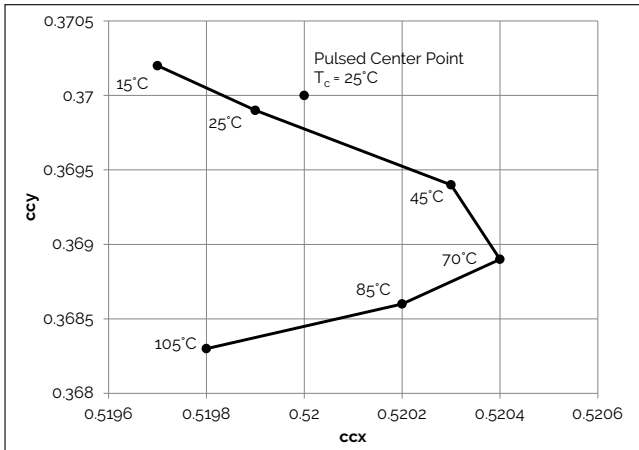


Figure 11: 2000K, 65 CRI Color Shift vs. Case Temperature¹

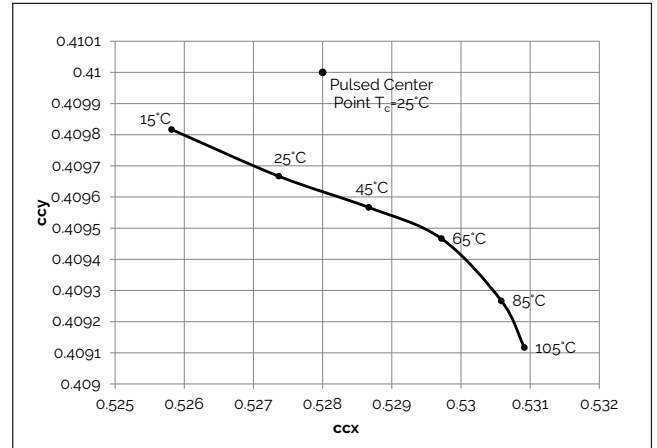


Figure 12: 2500K Color Shift vs. Case Temperature¹

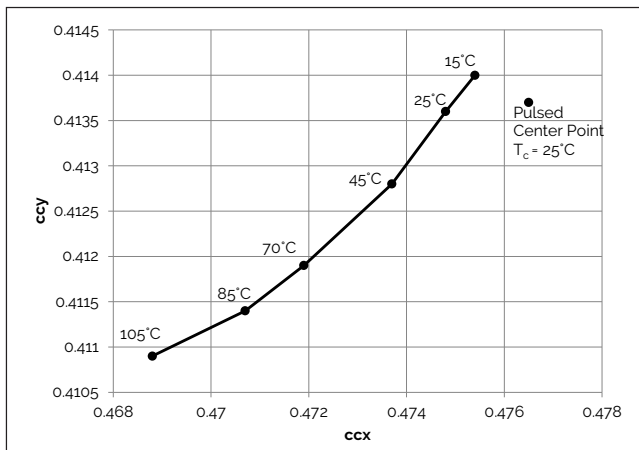


Figure 13: 3000K, 90 CRI Color Shift vs. Case Temperature^{1,3,4}

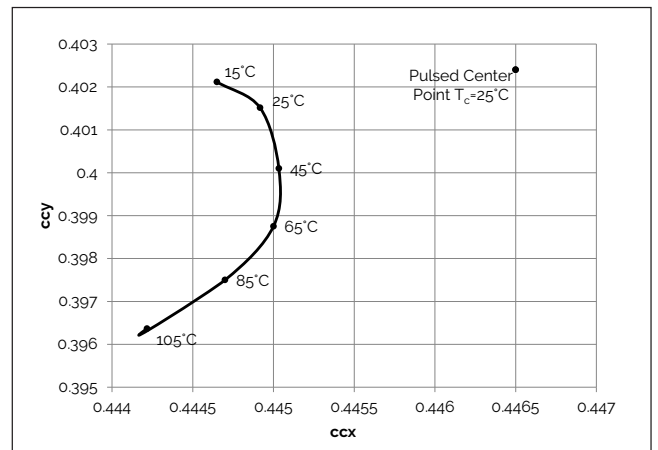


Figure 14: 2700K, 97 CRI Color Shift vs. Case Temperature¹

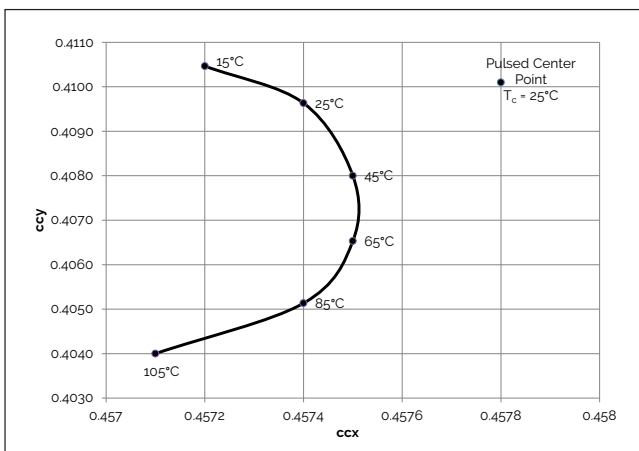
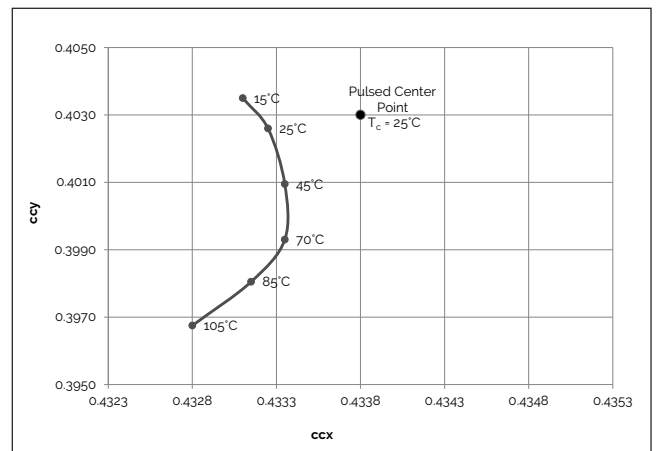


Figure 15: 3000K, 97 CRI Color Shift vs. Case Temperature¹



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 ± 0.002 .
3. Characteristics shown for Decor Series Showcase products, BXRC-30G400C-x-73-SE
4. Color shift shown for product hot targeted at $T_c = 85^\circ\text{C}$

Performance Curves

Figure 16: 5600K Color Shift vs. Case Temperature¹

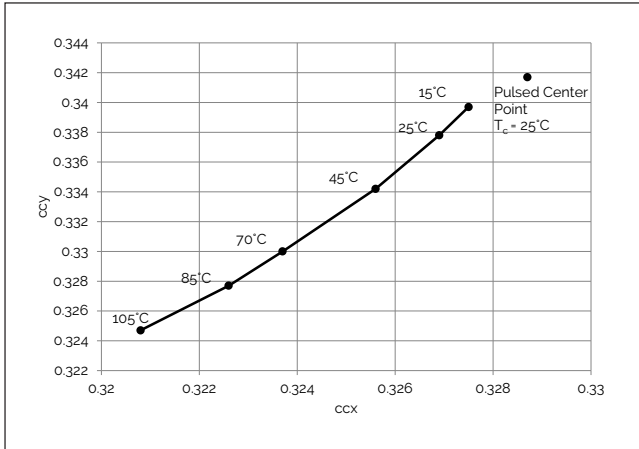


Figure 17: 3000K Class A Color Shift vs. Case Temperature¹

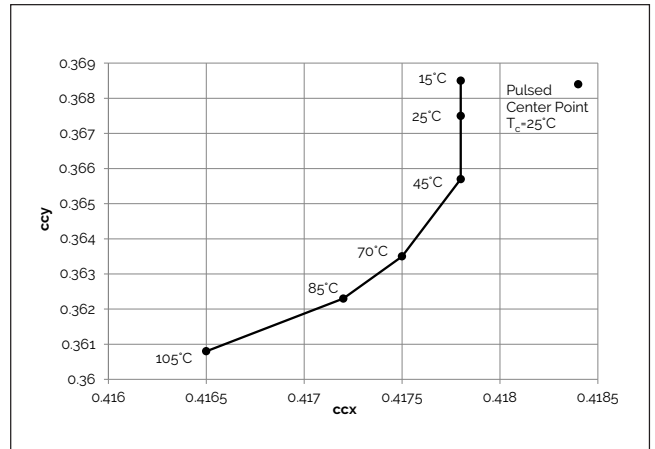


Figure 18: 3500K Class A Color Shift vs. Case Temperature¹

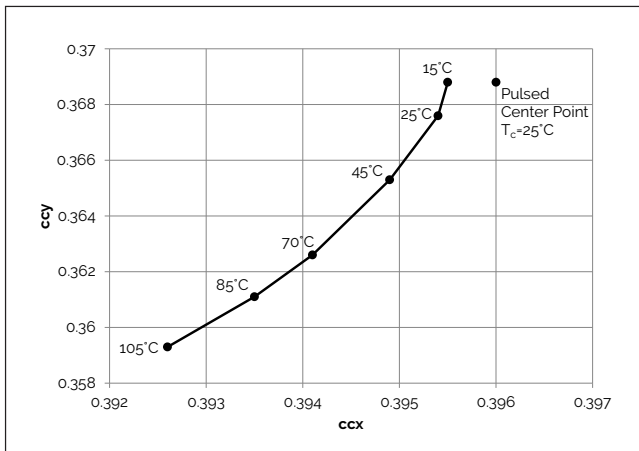
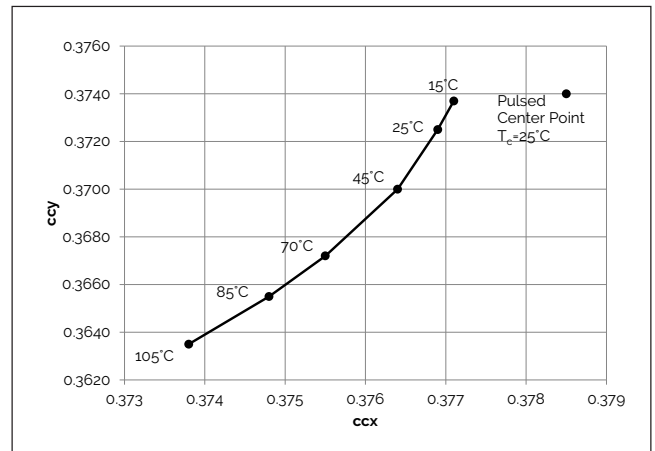


Figure 19: 4000K Class A Color Shift vs. Case Temperature¹

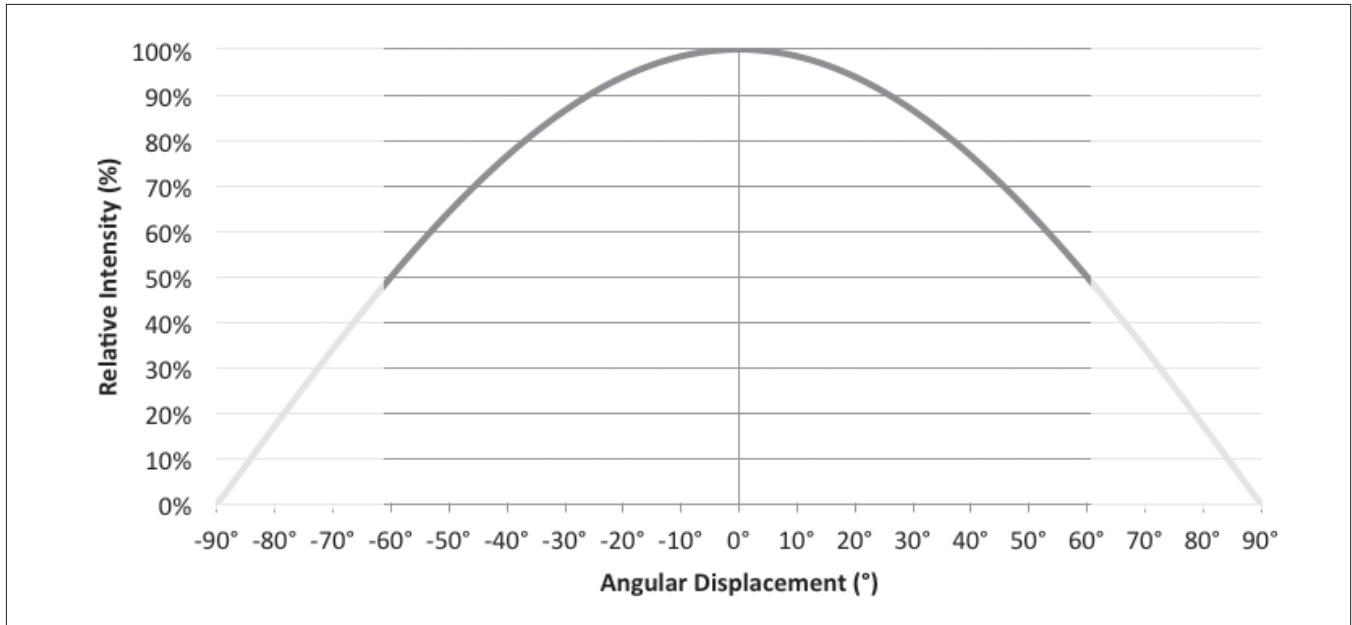


Notes for Figures 16-19:

1. Measurements made under DC test conditions at the nominal drive current.
2. Typical color shift is shown with a tolerance of ± 0.002 .

Typical Radiation Pattern

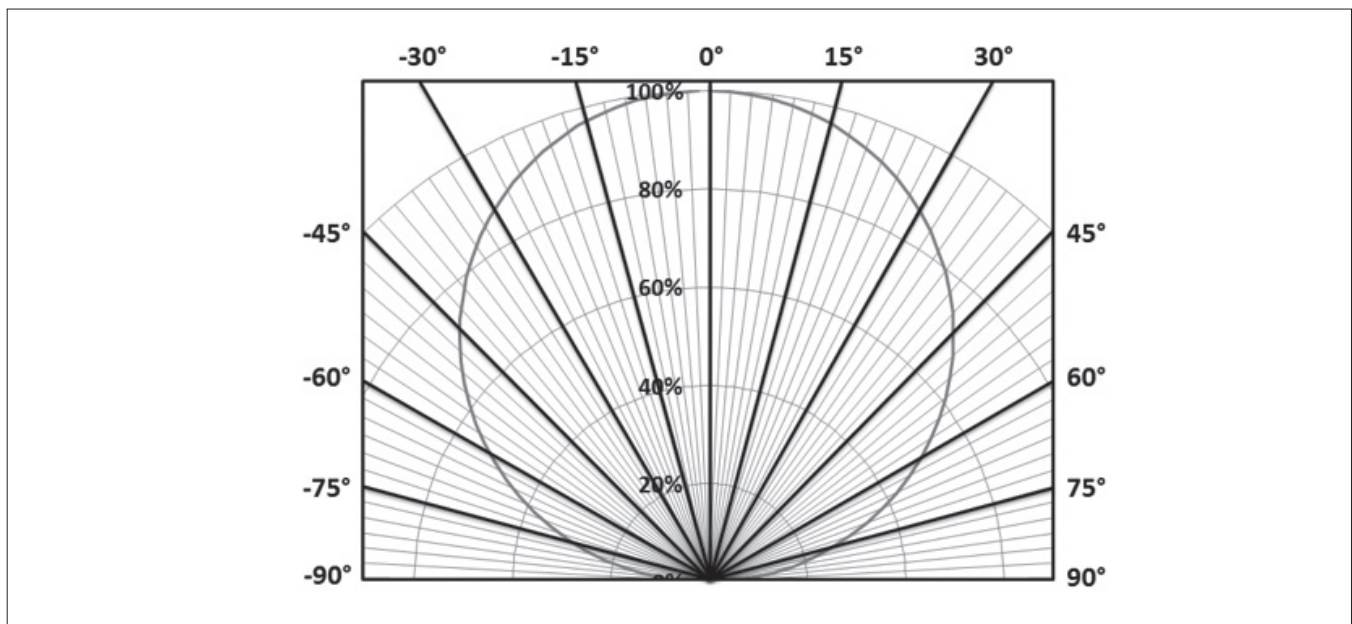
Figure 20: Typical Spatial Radiation Pattern



Notes for Figure 20:

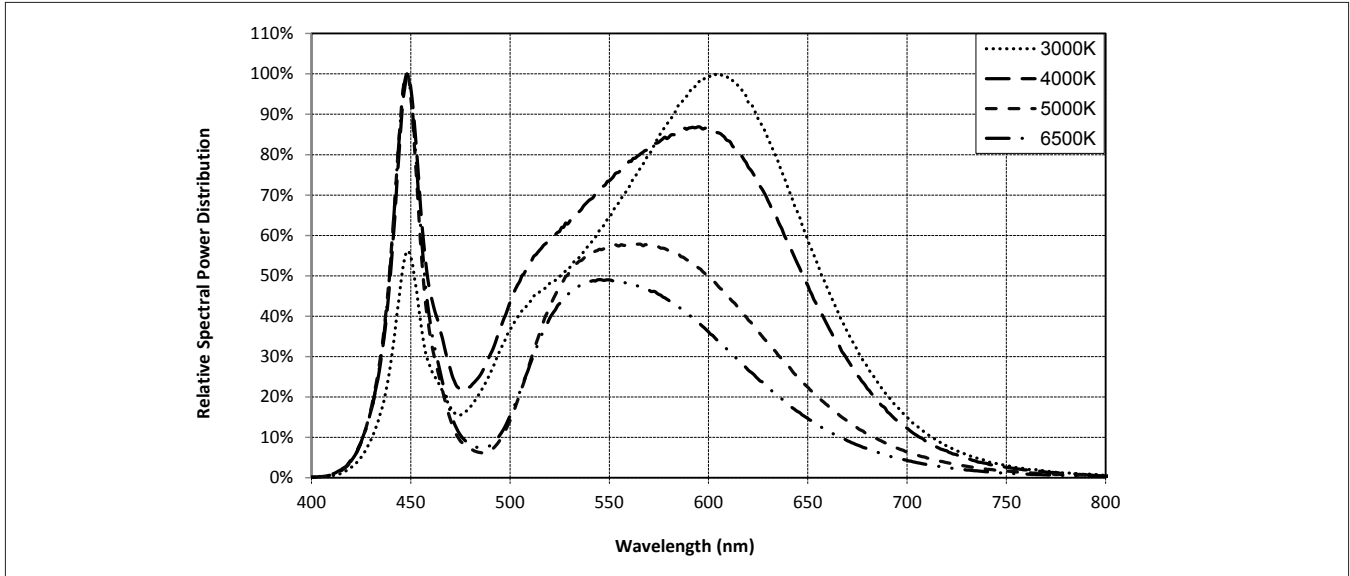
1. Typical viewing angle is 120°.
2. The viewing angle is defined as the off axis angle from the centerline where intensity is ½ of the peak value.

Figure 21: Typical Polar Radiation Pattern



Typical Color Spectrum

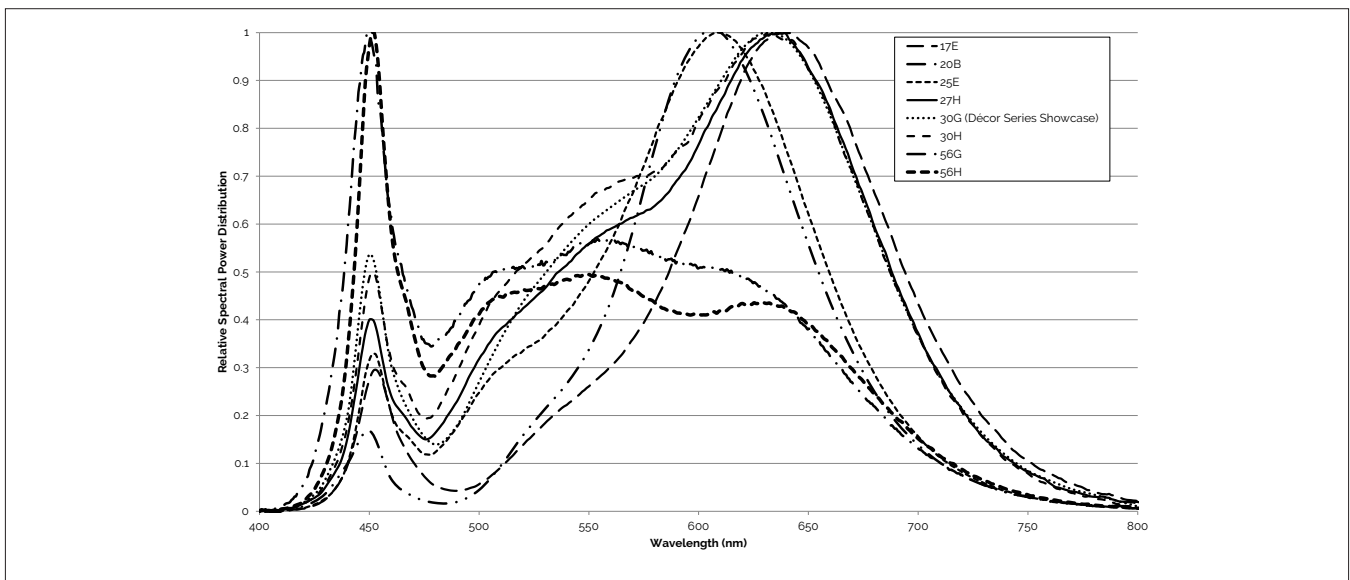
Figure 22: Typical Color Spectrum



Note for Figure 22:

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 23: Typical Color Spectrum for Vero SE 18 with Décor Series

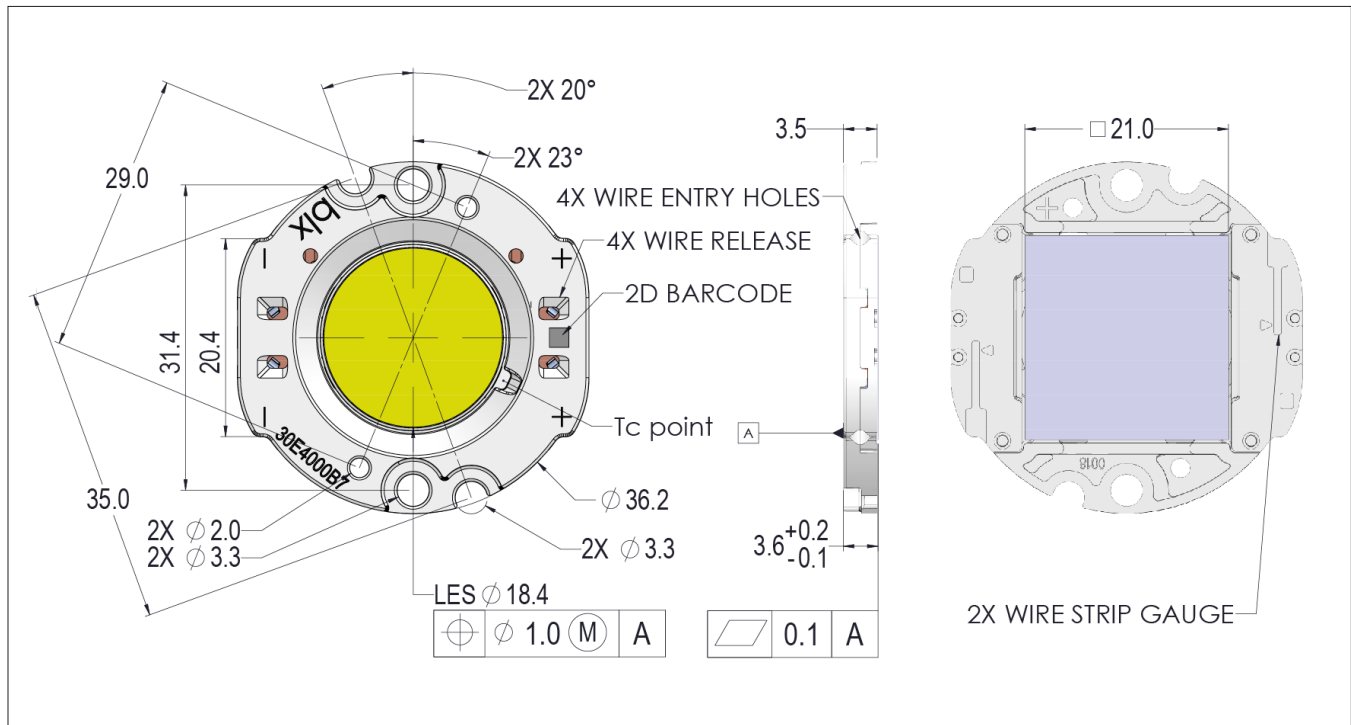


Note for Figure 23:

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

Mechanical Dimensions

Figure 24: Drawing for Vero SE 18 LED Array

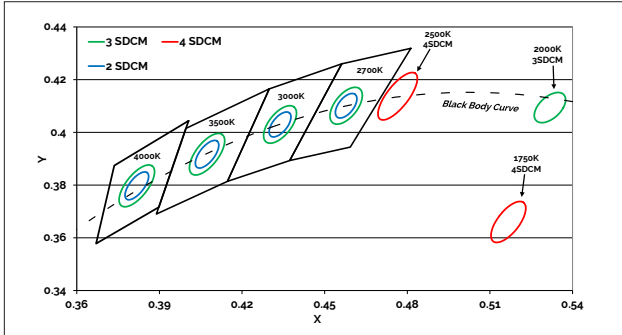


Notes for Figure 24:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are $\pm 0.1\text{mm}$.
4. Mounting holes (2X) are for M3 screws.
5. Bridgelux recommends two tapped holes for mounting screws with $31.4 \pm 0.10\text{mm}$ 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 0.10mm across the mounting surface of the array.

Color Binning Information

Figure 25: Warm and Neutral White Test Bins in xy Color Space



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

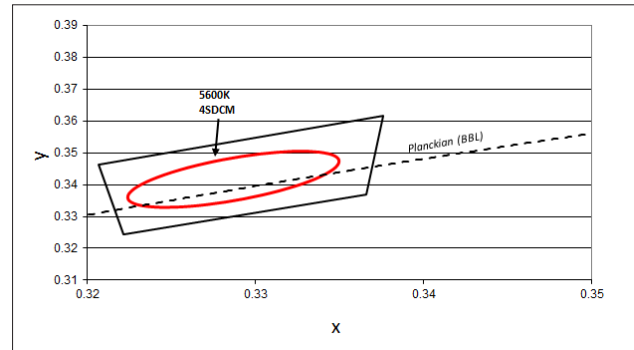
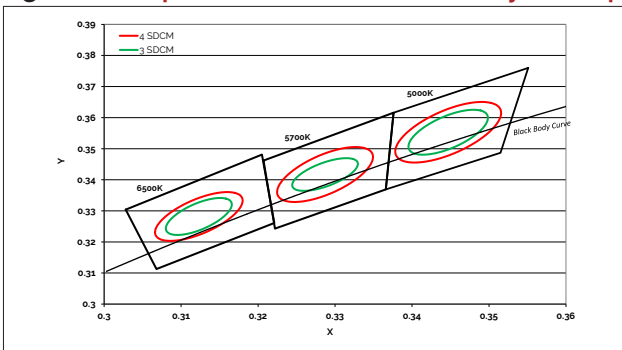
Table 8: Warm and Neutral White xy Bin Coordinates and Associated Typical CCT

Bin Code	1750K	2000K	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, 0.336)	(0.5280, 0.4100)	(0.4765, 0.4137)	(0.4578, 0.4101)	(0.4338, 0.403) (0.4465, 0.4024) ²	(0.4073, 0.3917)	(0.3818, 0.3797)

Note for Table 8:

- Color Binning information excludes Decor Series Class A products. Please contact your Bridgelux Sales Representative for more information.
- Center Point for Decor Series Showcase.

Figure 26: Graph of Cool White Test Bins in xy Color Space



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 $T_c = 85^\circ\text{C}$)

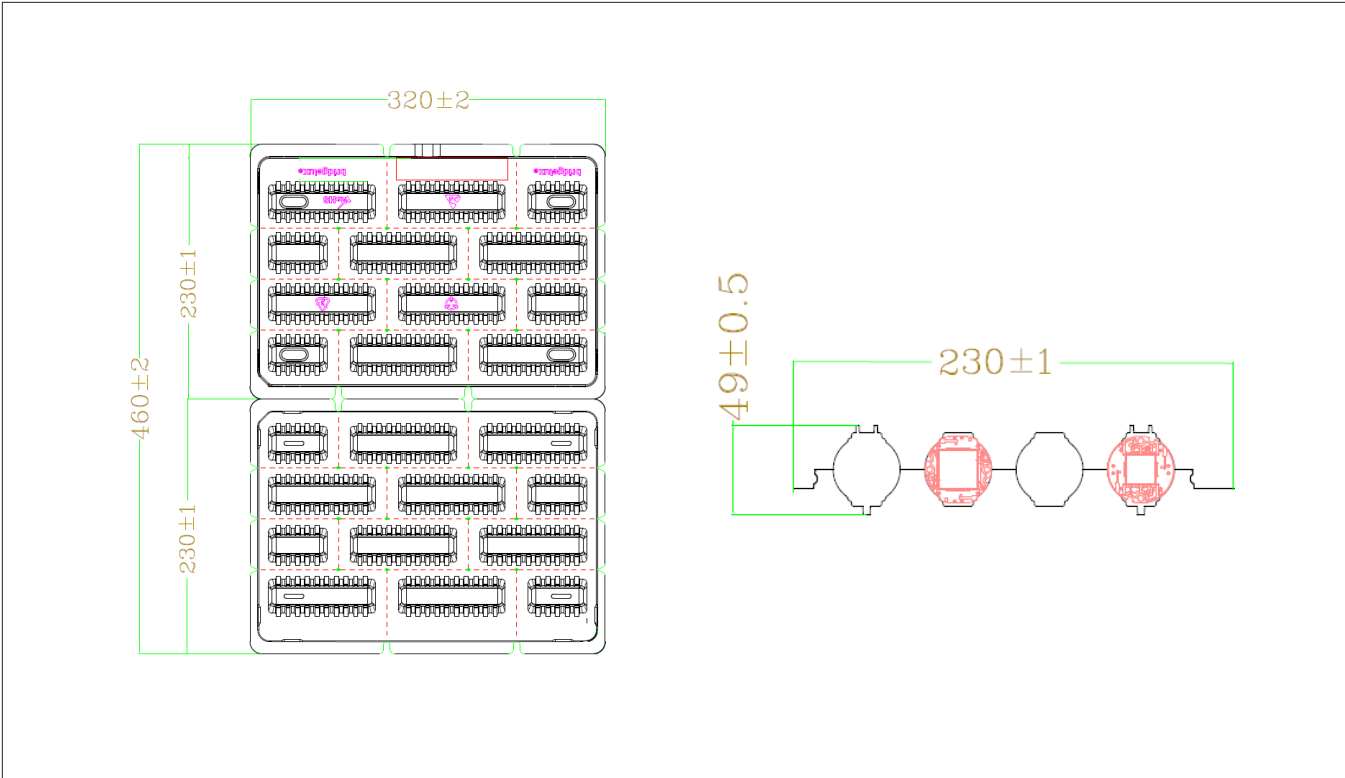
Bin Code	5000K	5600K ¹	5700K	6500K
ANSI Bin (for reference only)	(4745K - 5311K)	(5310K - 6020K)	(5312K - 6022K)	(6022K - 7042K)
74 (4 SDCM)	(4801K - 5282K)	(5475K - 5830K)	(5829K - 5481K)	(6270K - 6765K)
73 (3 SDCM)	(4835K - 5215K)	(5490K - 5820K)	(5490K - 5820K)	(6250K - 6745K)
Center Point (x,y)	(0.3447,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

Note for Table 9:

- 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

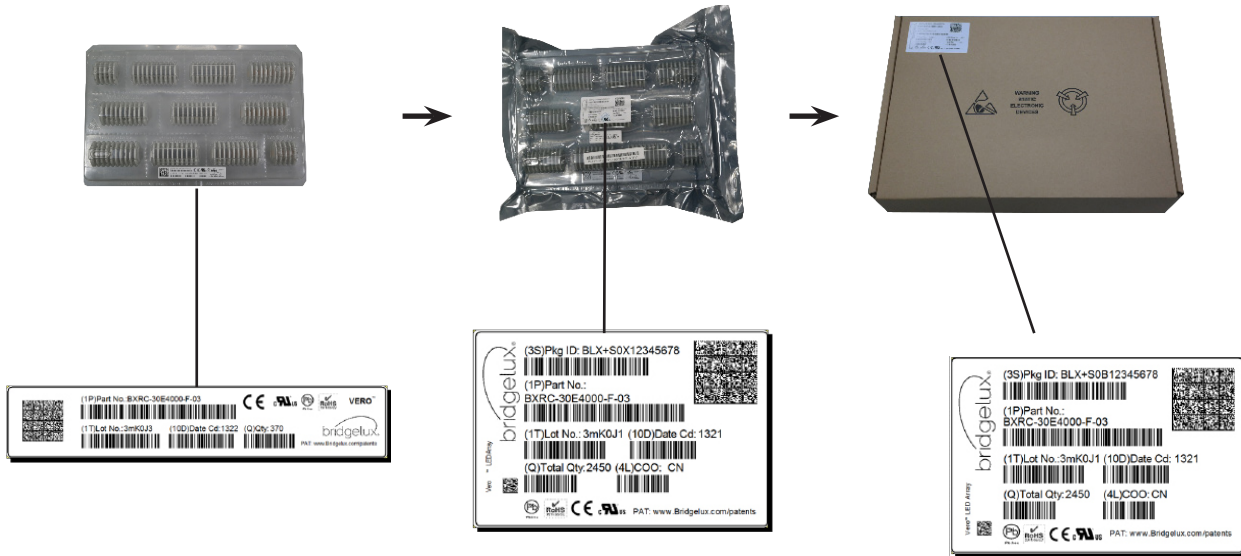
Figure 27: Drawing for Vero SE 18 Packaging Tray



- Notes for Figure 27:
- 1. Dimensions are in millimeters.
 - 2. Drawings are not to scale.

Packaging and Labeling

Figure 28: Vero SE Series Packaging and Labeling



Notes for Figure 28:

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 29: 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

30E4000C 73 2F

Customer Use- V_f 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 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
bridgelux.com
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youtube.com/user/Bridgelux
linkedin.com/company/bridgelux-inc-_2
WeChat ID: BridgeluxInChina



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