



Bridgelux[®] Vero[®] SE 29 Array

Product Data Sheet DS123





Introduction

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_f 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

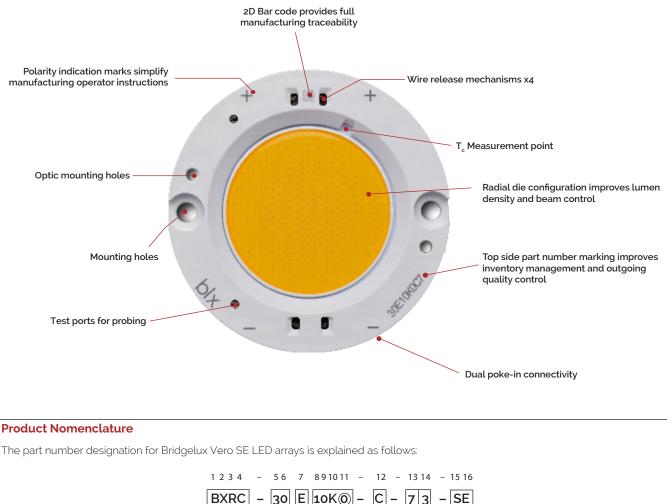


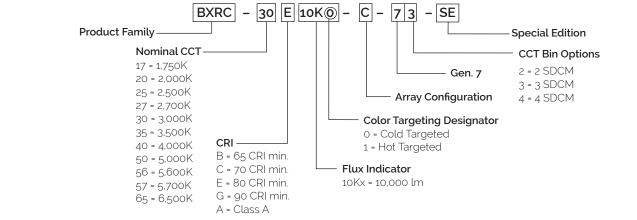
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Product Feature Map

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.





The following product configurations are available:

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

Part Number	Nominal CCT ¹ (K)	CRI ²	Nominal Drive Current ³ (mA)	Typical Pulsed Flux ^{4.5.6} T _c = 25°C (lm)	Minimum Pulsed Flux ^{6,7} T _c = 25°C (lm)	Typical V _f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-17E10K0-B-7x-SE	1750	80	1800	8590	7731	52.0	93.6	92
BXRC-17E10K0-C-7x-SE	1750	80	1710	10891	9802	69.4	118.7	92
BXRC-17E10K0-D-7x-SE	1750	80	2100	7246	6522	37.6	79.0	92
BXRC-20B10K1-C-7x-SE	2000	65	1710	18585	16727	69.4	118.7	157
BXRC-20B10K1-D-7x-SE	2000	65	2100	12366	11129	37.6	79.0	157
BXRC-25E10K0-B-7x-SE	2500	80	1800	14285	12856	52.0	93.6	153
BXRC-25E10K0-C-7x-SE	2500	80	1710	18112	16301	69.4	118.7	153
BXRC-25E10K0-D-7x-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-7x-SE	2700	97	2100	9215	8294	37.6	79.0	117
BXRC-30C10K1-B-7x-SE	3000	70	1800	16619	14957	52.0	93.6	178
BXRC-30C10K1-C-7x-SE	3000	70	1710	21071	18964	69.4	118.7	178
BXRC-30C10K1-D-7x-SE	3000	70	2100	14020	12618	37.6	79.0	178
BXRC-30E10K0-B-7x-SE10	3000	80	1800	15872	14285	52.0	93.6	170
BXRC-30E10K0-C-7x-SE10	3000	80	1710	20124	18112	69.4	118.7	170
BXRC-30E10K0-D-7x-SE10	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-7x-SE ^{8.9}	3000	93	1800	11577	10420	52.0	93.6	124
BXRC-30A10K1-C-7x-SE ^{8.9}	3000	93	1710	14679	13211	69.4	118.7	124
BXRC-30A10K1-D-7x-SE ^{8,9}	3000	93	2100	9767	8790	37.6	79.0	124

Notes for Table 1:

1. Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to T_c = 85°C.

All CRI values are measured at T₁ = T₂ = 25°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 R9 value for 80 CRI products is 0, the minimum R9 values for 90 CRI products is 50, the minimum R9 values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R9 values.

3. Drive current is referred to as nominal drive current.

4. Products tested under pulsed condition (10ms pulse width) at nominal test current where T_i (junction temperature) = T_c (case temperature) = 25°C.

5. Typical performance values are provided as a reference only and are not a guarantee of performance.

6. Bridgelux maintains a ±7% tolerance on flux measurements.

7. 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.

10. SKUs meet DLC premium (Outdoor Mid Output) requirements under certain system level conditions.

Part Number	Nominal CCT ¹ (K)	CRI²	Nominal Drive Current ³ (mA)	Typical Pulsed Flux ^{4:5.6} T _c = 25°C (lm)	Minimum Pulsed Flux ^{6,7} T _c = 25°C (lm)	Typical V _f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-35E10K0-B-7x-SE10	3500	80	1800	16246	14621	52.0	93.6	174
BXRC-35E10K0-C-7x-SE10	3500	80	1710	20598	18538	69.4	118.7	174
BXRC-35E10K0-D-7x-SE10	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-7x-SE ⁸⁹	3500	93	1800	12324	11092	52.0	93.6	132
BXRC-35A10K1-C-7x-SE ^{8,9}	3500	93	1710	15626	14063	69.4	118.7	132
BXRC-35A10K1-D-7x-SE ^{8,9}	3500	93	2100	10397	9357	37.6	79.0	132
BXRC-40C10K1-B-7x-SE	4000	70	1800	17086	15377	52.0	93.6	183
BXRC-40C10K1-C-7x-SE	4000	70	1710	21663	19497	69.4	118.7	183
BXRC-40C10K1-D-7x-SE	4000	70	2100	14414	12972	37.6	79.0	183
BXRC-40E10K0-B-7x-SE10	4000	80	1800	16339	14705	52.0	93.6	175
BXRC-40E10K0-C-7x-SE10	4000	80	1710	20716	18644	69.4	118.7	175
BXRC-40E10K0-D-7x-SE10	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-7x-SE ^{8,9}	4000	93	1800	13351	12016	52.0	93.6	143
BXRC-40A10K1-C-7x-SE ^{8,9}	4000	93	1710	16928	15235	69.4	118.7	143
BXRC-40A10K1-D-7x-SE ^{8.9}	4000	93	2100	11263	10137	37.6	79.0	143
BXRC-50C10K1-B-7x-SE10	5000	70	1800	17179	15461	52.0	93.6	184
BXRC-50C10K1-C-7x-SE10	5000	70	1710	21781	19603	69.4	118.7	184
BXRC-50C10K1-D-7x-SE10	5000	70	2100	14492	13043	37.6	79.0	184
BXRC-50E10K1-B-7x-SE10	5000	80	1800	16526	14873	52.0	93.6	177
BXRC-50E10K1-C-7x-SE10	5000	80	1710	20953	18858	69.4	118.7	177
BXRC-50E10K1-D-7x-SE10	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-7x-SE	5000	90	1710	18112	16301	69.4	118.7	153
BXRC-50G10K1-D-7x-SE	5000	90	2100	12051	10846	37.6	79.0	153
BXRC-56G10K0-B-7x-SE	5600	80	1800	14378	12941	52.0	93.6	154

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

Notes for Table 1:

1. Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to T_c = 85°C.

All CRI values are measured at T₁ = T₂ = 25°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 R9 value for 80 CRI products is 0, the minimum R9 values for 90 CRI products is 50, the minimum R9 values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R9 values.

3. Drive current is referred to as nominal drive current.

4. Products tested under pulsed condition (10ms pulse width) at nominal test current where T₁ (junction temperature) - T_c (case temperature) - 25°C.

5. Typical performance values are provided as a reference only and are not a guarantee of performance.

6. Bridgelux maintains a ±7% tolerance on flux measurements.

7. Minimum flux values at the nominal test current are guaranteed by 100% test.

8. 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.

9. 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.

10. SKUs meet DLC premium (Outdoor Mid Output) requirements under certain system level conditions.

Part Number	Nominal CCT ¹ (K)	CRI²	Nominal Drive Current ³ (mA)	Typical Pulsed Flux ^{45,6} T _c = 25°C (lm)	Minimum Pulsed Flux ^{6,7} T _c = 25°C (lm)	Typical V _r (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-56G10K0-C-7x-SE	5600	80	1710	18230	16407	69.4	118.7	154
BXRC-56G10Kx-D-7x-SE	5600	80	2100	12129	10916	37.6	79.0	154
BXRC-56H10K0-D-7x-SE	5600	97	2100	10948	9853	37.6	79.0	139
BXRC-57C10K1-B-7x-SE	5700	70	1800	16713	15041	52.0	93.6	179
BXRC-57C10K1-C-7x-SE	5700	70	1710	21190	19071	69.4	118.7	179
BXRC-57C10K1-D-7x-SE	5700	70	2100	14099	12689	37.6	79.0	179
BXRC-57E10K1-B-7x-SE	5700	80	1800	15872	14285	52.0	93.6	170
BXRC-57E10K1-C-7x-SE	5700	80	1710	20124	18112	69.4	118.7	170
BXRC-57E10K1-D-7x-SE	5700	80	2100	13390	12051	37.6	79.0	170
BXRC-65C10K1-B-7x-SE	6500	70	1800	16713	15041	52.0	93.6	179
BXRC-65C10K1-C-7x-SE	6500	70	1710	21190	19071	69.4	118.7	179
BXRC-65C10K1-D-7x-SE	6500	70	2100	14099	12689	37.6	79.0	179
BXRC-65E10K1-B-7x-SE	6500	80	1800	16059	14453	52.0	93.6	172
BXRC-65E10K1-C-7x-SE	6500	80	1710	20361	18325	69.4	118.7	172
BXRC-65E10K1-D-7x-SE	6500	80	2100	13547	12192	37.6	79.0	172

Table 1: Selection Guide, Pulsed Measurement Data (T_i = T_c = 25°C) (continued)

Notes for Table 1:

1. Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to T_ = 85°C.

All CRI values are measured at T₁ = T₂ = 25°C. CRI values are typical for Decor Series Ultra. Decor Series Strees Strees and Landmark and Decor Series Class A products. CRI values are minimums for all other products. Minimum R9 value for 80 CRI products is 0, the minimum R9 values for 90 CRI products is 50, the minimum R9 values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R9 values.

3. Drive current is referred to as nominal drive current.

4. Products tested under pulsed condition (10ms pulse width) at nominal test current where T, (junction temperature) = T, (case temperature) = 25°C.

5. Typical performance values are provided as a reference only and are not a guarantee of performance.

6. Bridgelux maintains a ±7% tolerance on flux measurements.

7. Minimum flux values at the nominal test current are guaranteed by 100% test.

8. 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.

9. 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.

10. SKUs meet DLC premium (Outdoor Mid Output) requirements under certain system level conditions.

Table 2: Selection Guide, Stabilized DC Performance ($T_c = 70^{\circ}$ C)^{7.8}

Part Number	Nominal CCT ¹ (K)	GAI²	CRI ³	Nominal Drive Current⁴ (mA)	Typical DC Flux ^{5.6} T _c = 70°C (lm)	Minimum DC Flux ^{6.9} T _c = 70°C (lm)	Typical V _r (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-30A10K1-B-7x-SE	3000	80	93	1800	10767	9690	50.9	91.6	118
BXRC-30A10K1-C-7x-SE	3000	80	93	1710	13651	12286	67.9	116.1	118
BXRC-30A10K1-D-7x-SE	3000	80	93	2100	9083	8175	36.8	77.3	118
BXRC-35A10K1-B-7x-SE	3500	80	93	1800	11462	10315	50.9	91.6	125
BXRC-35A10K1-C-7x-SE	3500	80	93	1710	14532	13079	67.9	116.1	125
BXRC-35A10K1-D-7x-SE	3500	80	93	2100	9669	8702	36.8	77.3	125
BXRC-40A10K1-B-7x-SE	4000	80	93	1800	12417	11175	50.9	91.6	136
BXRC-40A10K1-C-7x-SE	4000	80	93	1710	15743	14169	67.9	116.1	136
BXRC-40A10K1-D-7x-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 ±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.

Table 3: Selection Guide, Stabilized DC Performance (T = 85°C) 45

Part Number	Nominal CCTª (K)	CRI ²	Nominal Drive Current³ (mA)	Typical DC Flux⁴⁵ T _c = 85°C (lm)	Minimum DC Flux ⁶ T _c = 85°C (lm)	Typical V _f (V)	Typical Power (W)	Typical Efficacy (lm/W)
BXRC-17E10K0-B-7x-SE	1750	80	1800	7731	6958	50.7	91.2	85
BXRC-17E10K0-C-7x-SE	1750	80	1710	9802	8821	68.1	116.4	84
BXRC-17E10K0-D-7x-SE	1750	80	2100	6522	5869	36.6	76.8	85
BXRC-20B10K1-C-7x-SE	2000	65	1710	16727	15054	68.1	116.4	144
BXRC-20B10K1-D-7x-SE	2000	65	2100	11129	10016	36.6	76.8	145
BXRC-25E10K0-B-7x-SE	2500	80	1800	12856	11571	50.7	91.2	141
BXRC-25E10K0-C-7x-SE	2500	80	1710	16301	14671	68.1	116.4	140
BXRC-25E10K0-D-7x-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-7x-SE	2700	97	2100	8294	7464	36.6	76.9	108
BXRC-30C10K1-B-7x-SE	3000	70	1800	14957	13462	50.7	91.2	164
BXRC-30C10K1-C-7x-SE	3000	70	1710	18964	17068	68.1	116.4	163
BXRC-30C10K1-D-7x-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-7x-SE ^{7.8}	3000	93	1800	10420	9378	50.7	91.2	114
BXRC-30A10K1-C-7x-SE ^{7,8}	3000	93	1710	13211	11890	68.1	116.4	113
BXRC-30A10K1-D-7x-SE ^{7,8}	3000	93	2100	8790	7911	36.6	76.8	114

Notes for Table 3:

1. Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to T_c = 85°C.

2. All CRI values are measured at T₁ = T₂ = 25°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 R9 value for 80 CRI products is 0, the minimum R9 values for 90 CRI products is 50, the minimum R9 values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R9 values.

3. Drive current is referred to as nominal drive current.

4. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

5. 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.

6. 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.

7. 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.

8. 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.

Part Number	Nominal CCTº (K)	CRI²	Nominal Drive Current³ (mA)	Typical DC Flux⁴⁵ T _c = 85°C (lm)	Minimum DC Flux ⁶ T _c = 85°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-7x-SE ^{7,8}	3500	93	1800	11092	9983	50.7	91.2	122
BXRC-35A10K1-C-7x-SE ^{7.8}	3500	93	1710	14063	12657	68.1	116.4	121
BXRC-35A10K1-D-7x-SE ^{7.8}	3500	93	2100	9357	8421	36.6	76.8	122
BXRC-40C10K1-B-7x-SE	4000	70	1800	15377	13840	50.7	91.2	169
BXRC-40C10K1-C-7x-SE	4000	70	1710	19497	17547	68.1	116.4	167
BXRC-40C10K1-D-7x-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-7x-SE ^{7.8}	4000	93	1800	12016	10815	50.7	91.2	132
BXRC-40A10K1-C-7x-SE ^{7,8}	4000	93	1710	15235	13712	68.1	116.4	131
BXRC-40A10K1-D-7x-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-7x-SE	5600	80	1800	12941	11646	50.7	91.2	142
BXRC-56G10K1-C-7x-SE	5600	80	1710	16407	14766	68.1	116.4	141
BXRC-56G10Kx-D-7x-SE	5600	80	2100	10916	9825	36.6	76.8	142
BXRC-56H10K0-D-7x-SE	5600	97	2100	9853	8868	36.6	76.8	128

Table 3: Selection Guide, Stabilized DC Performance (T_c = 85°C) ^{4.5} (continued)

Notes for Table 3:

1. Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to T_c = 85°C.

2. All CRI values are measured at T₁ = T₁ = 25°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 R9 value for 80 CRI products is 0, the minimum R9 values for 90 CRI products is 50, the minimum R9 values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R9 values.

3. Drive current is referred to as nominal drive current.

4. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

5. 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.

6. 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.

7. 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.

8. 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.

Part Number	Nominal CCT¹ (K)	CRI²	Nominal Drive Current³ (mA)	Typical DC Flux ^{4.5} T _c = 85°C (lm)	Minimum DC Flux ⁶ T _c = 85°C (lm)	Typical V _r (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

Table 3: Selection Guide, Stabilized DC Performance ($T_c = 85^{\circ}$ C) ^{4.5} (continued)

Notes for Table 3:

1. Nominal CCT as defined by ANSI C78.377-2011. Products with a CCT of 5000K-6500K are hot targeted to T_a = 85°C.

2. All CRI values are measured at T₁ = T₁ = 25°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 R9 value for 80 CRI products is 0, the minimum R9 values for 90 CRI products is 50, the minimum R9 values for 97 CRI products is 93. Bridgelux maintains a ± 3 tolerance on CRI and R9 values.

3. Drive current is referred to as nominal drive current.

4. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.

5. 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.

6. 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.

7. 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.

8. 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.

European Product Registry for Energy Labeling

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

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

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

PART NUMBER ¹	сст (К)	CRI	Current² (mA)	Vf (V)	Useful flux ³ (Фuse) at 85C (lm)	Pow- er (W)	Efficacy (lm/W)	Energy efficiency class ⁴	Regis- tration No	URL to Product Information Sheet in EPREL Database
BXRC-20B10K1-C-7x-SE	2000	65	3420	72.4	25799	247.6	104	F	872444	https://eprel.ec.europa.eu/qr/872444
BXRC-20B10K1-D-7x-SE	2000	65	4200	40.2	17477	168.7	104	F	872446	https://eprel.ec.europa.eu/qr/872446
BXRC-25E10K0-B-7x-SE	2500	80	3600	54.3	19968	195.5	102	F	872451	https://eprel.ec.europa.eu/qr/872451
BXRC-25E10K0-C-7x-SE	2500	80	3420	72.4	25141	247.6	102	F	872452	https://eprel.ec.europa.eu/qr/872452
BXRC-25E10K0-D-7x-SE	2500	80	4200	40.2	17032	168.7	101	F	872453	https://eprel.ec.europa.eu/qr/872453
BXRC-27E10K0-B-7x-SE	2700	80	3600	54.3	20881	195.5	107	F	872476	https://eprel.ec.europa.eu/qr/872476
BXRC-27E10K0-C-7x-SE	2700	80	3420	72.4	26292	247.6	106	F	872481	https://eprel.ec.europa.eu/qr/872481
BXRC-27E10K0-D-7x-SE	2700	80	4200	40.2	17811	168.7	106	F	872486	https://eprel.ec.europa.eu/qr/872486
BXRC-27G1KH0-B-7x-SE	2700	90	3600	54.3	17718	195.5	91	G	872564	https://eprel.ec.europa.eu/qr/872564
BXRC-27G1KH0-C-7x-SE	2700	90	3420	72.4	21748	247.6	88	G	872568	https://eprel.ec.europa.eu/qr/872568
BXRC-27G1KH0-D-7x-SE	2700	90	4200	40.2	15075	168.7	89	G	872572	https://eprel.ec.europa.eu/qr/872572
BXRC-27G10K0-B-7x-SE	2700	90	3600	54.3	17227	195.5	88	G	872550	https://eprel.ec.europa.eu/qr/872550
BXRC-27G10K0-C-7x-SE	2700	90	3420	72.4	21691	247.6	88	G	872555	https://eprel.ec.europa.eu/qr/872555
BXRC-27G10K0-D-7x-SE	2700	90	4200	40.2	14694	168.7	87	G	872560	https://eprel.ec.europa.eu/qr/872560
BXRC-30C10K1-B-7x-SE	3000	70	3600	54.3	23231	195.5	119	E	872711	https://eprel.ec.europa.eu/qr/872711
BXRC-30C10K1-C-7x-SE	3000	70	3420	72.4	29249	247.6	118	F	872717	https://eprel.ec.europa.eu/qr/872717
BXRC-30C10K1-D-7x-SE	3000	70	4200	40.2	19815	168.7	117	F	872723	https://eprel.ec.europa.eu/qr/872723

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

Notes for Table 4:

1. All device listed here must be disposed as e-waste upon its end of life according to local country guideline in each country.

2. For information on performance values at alternative drive conditions. please refer to the Product Selection Guide, Absolute Maximum Rating Table and Performance Curves in this data sheet.

3. For a definition of useful luminous flux (Ouse), please see the ELR regulations at https://tinyurl.com/4b6zvt4m.

4. EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed. on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

European Product Registry for Energy Labeling

PART NUMBER ¹	сст (К)	CRI	Current² (mA)	Vf (V)	Useful flux ³ (Фuse) at 85C (lm)	Pow- er (W)	Efficacy (lm/W)	Energy efficiency class ⁴	Regis- tration No	URL to Product Information Sheet in EPREL Database
BXRC-30E10K0-B-7x-SE	3000	80	3600	54.3	22187	195.5	113	F	872782	https://eprel.ec.europa.eu/qr/872782
BXRC-30E10K0-C-7x-SE	3000	80	3420	72.4	27935	247.6	113	F	872787	https://eprel.ec.europa.eu/qr/872787
BXRC-30E10K0-D-7x-SE	3000	80	4200	40.2	18924	168.7	112	F	872792	https://eprel.ec.europa.eu/qr/872792
BXRC-30G1KH0-B-7x-SE	3000	90	3600	54.3	18623	195.5	95	F	872874	https://eprel.ec.europa.eu/qr/872874
BXRC-30G1KH0-C-7x-SE	3000	90	3420	72.4	22859	247.6	92	F	872878	https://eprel.ec.europa.eu/qr/872878
BXRC-30G1KH0-D-7x-SE	3000	90	4200	40.2	15845	168.7	94	F	872882	https://epreLec.europa.eu/qr/872882
BXRC-30G10K0-B-7x-SE	3000	90	3600	54.3	18010	195.5	92	F	872860	https://eprel.ec.europa.eu/qr/872860
BXRC-30G10K0-C-7x-SE	3000	90	3420	72.4	22677	247.6	92	G	872865	https://eprel.ec.europa.eu/qr/872865
BXRC-30G10K0-D-7x-SE	3000	90	4200	40.2	15362	168.7	91	G	872870	https://eprel.ec.europa.eu/qr/872870
BXRC-30H10K0-D-7x-SE	3000	95	4200	40.2	13915	168.7	83	G	872969	https://eprel.ec.europa.eu/qr/872969
BXRC-30A10K1-B-7x-SE	3000	90	3560	54.2	16014	193.0	83	G	872682	https://eprel.ec.europa.eu/qr/872682
BXRC-30A10K1-C-7x-SE	3000	90	3300	72.0	19773	237.7	83	G	872683	https://epreLec.europa.eu/qr/872683
BXRC-30A10K1-D-7x-SE	3000	90	4040	39.9	13361	161.3	83	G	872684	https://eprel.ec.europa.eu/qr/872684
BXRC-35E10K0-B-7x-SE	3500	80	3600	54.3	22709	195.5	116	F	873029	https://eprel.ec.europa.eu/qr/873029
BXRC-35E10K0-C-7x-SE	3500	80	3420	72.4	28592	247.6	115	F	873034	https://eprel.ec.europa.eu/qr/873034
BXRC-35E10K0-D-7x-SE	3500	80	4200	40.2	19369	168.7	115	F	873039	https://eprel.ec.europa.eu/qr/873039
BXRC-35G10K0-B-7x-SE	3500	90	3600	54.3	18663	195.5	95	F	873091	https://eprel.ec.europa.eu/qr/873091
BXRC-35G10K0-C-7x-SE	3500	90	3420	72.4	23498	247.6	95	F	873096	https://eprel.ec.europa.eu/qr/873096
BXRC-35G10K0-D-7x-SE	3500	90	4200	40.2	15918	168.7	94	F	873101	https://eprel.ec.europa.eu/qr/873101
BXRC-35A10K1-B-7x-SE	3500	90	3600	54.3	17227	195.5	88	G	873001	https://eprel.ec.europa.eu/qr/873001
BXRC-35A10K1-C-7x-SE	3500	90	3420	72.4	21691	247.6	88	G	873002	https://eprel.ec.europa.eu/qr/873002
BXRC-35A10K1-D-7x-SE	3500	90	4200	40.2	14694	168.7	87	G	873003	https://eprel.ec.europa.eu/qr/873003
BXRC-40C10K1-B-7x-SE	4000	70	3600	54.3	23883	195.5	122	E	873174	https://eprel.ec.europa.eu/qr/873174
BXRC-40C10K1-C-7x-SE	4000	70	3420	72.4	30071	247.6	121	E	873180	https://eprel.ec.europa.eu/qr/873180
BXRC-40C10K1-D-7x-SE	4000	70	4200	40.2	20371	168.7	121	E	873186	https://eprel.ec.europa.eu/qr/873186
BXRC-40E10K0-B-7x-SE	4000	80	3600	54.3	22839	195.5	117	F	873245	https://eprel.ec.europa.eu/qr/873245
BXRC-40E10K0-C-7x-SE	4000	80	3420	72.4	28757	247.6	116	F	873250	https://eprel.ec.europa.eu/qr/873250
BXRC-40E10K0-D-7x-SE	4000	80	4200	40.2	19481	168.7	116	F	873255	https://eprel.ec.europa.eu/qr/873255
BXRC-40G10K0-B-7x-SE	4000	90	3600	54.3	19054	195.5	97	F	873307	https://eprel.ec.europa.eu/qr/873307
BXRC-40G10K0-C-7x-SE	4000	90	3420	72.4	23991	247.6	97	F	873312	https://eprel.ec.europa.eu/qr/873312
BXRC-40G10K0-D-7x-SE	4000	90	4200	40.2	16252	168.7	96	F	873317	https://eprel.ec.europa.eu/qr/873317
BXRC-40H10K0-D-7x-SE	4000	95	4200	40.2	14694	168.7	87	G	873357	https://eprel.ec.europa.eu/qr/873357
BXRC-40A10K1-B-7x-SE	4000	90	3600	54.3	18663	195.5	95	F	873145	https://eprel.ec.europa.eu/qr/873145
BXRC-40A10K1-C-7x-SE	4000	90	3420	72.4	23498	247.6	95	F	873146	https://eprel.ec.europa.eu/qr/873146
BXRC-40A10K1-D-7x-SE	4000	90	4200	40.2	15918	168.7	94	F	873147	https://eprel.ec.europa.eu/qr/873147

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

Notes for Table 4:

1. All device listed here must be disposed as e-waste upon its end of life according to local country guideline in each country.

2. For information on performance values at alternative drive conditions. please refer to the Product Selection Guide, Absolute Maximum Rating Table and Performance Curves in this data sheet.

3. For a definition of useful luminous flux (ouse), please see the ELR regulations at https://tinyurl.com/4b6zvt4m.

4. EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed. on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

European Product Registry for Energy Labeling

PART NUMBER ¹	сст (К)	CRI	Current² (mA)	Vf (V)	Useful flux ³ (Фuse) at 85C (lm)	Pow- er (W)	Efficacy (lm/W)	Energy efficiency class ⁴	Regis- tration No	URL to Product Information Sheet in EPREL Database
BXRC-50C10K1-B-7x-SE	5000	70	3600	54.3	24014	195.5	123	E	873384	https://eprel.ec.europa.eu/qr/873384
BXRC-50C10K1-C-7x-SE	5000	70	3420	72.4	30235	247.6	122	E	873388	https://epreLec.europa.eu/qr/873388
BXRC-50C10K1-D-7x-SE	5000	70	4200	40.2	20483	168.7	121	E	873392	https://eprel.ec.europa.eu/qr/873392
BXRC-50E10K1-B-7x-SE	5000	80	3600	54.3	23100	195.5	118	F	873432	https://eprel.ec.europa.eu/qr/873432
BXRC-50E10K1-C-7x-SE	5000	80	3420	72.4	29085	247.6	117	F	873436	https://eprel.ec.europa.eu/qr/873436
BXRC-50E10K1-D-7x-SE	5000	80	4200	40.2	19703	168.7	117	F	873440	https://epreLec.europa.eu/qr/873440
BXRC-50G10K1-B-7x-SE	5000	90	3600	54.3	19968	195.5	102	F	873480	https://eprel.ec.europa.eu/qr/873480
BXRC-50G10K1-C-7x-SE	5000	90	3420	72.4	25141	247.6	102	F	873485	https://eprel.ec.europa.eu/qr/873485
BXRC-50G10K1-D-7x-SE	5000	90	4200	40.2	17032	168.7	101	F	873489	https://epreLec.europa.eu/qr/873489
BXRC-56H10K0-D-7x-SE	5600	95	4200	40.2	15473	168.7	92	G	873537	https://eprel.ec.europa.eu/qr/873537
BXRC-57C10K1-B-7x-SE	5700	70	3600	54.3	23361	195.5	119	E	873567	https://eprel.ec.europa.eu/qr/873567
BXRC-57C10K1-C-7x-SE	5700	70	3420	72.4	29414	247.6	119	F	873571	https://eprel.ec.europa.eu/qr/873571
BXRC-57C10K1-D-7x-SE	5700	70	4200	40.2	19926	168.7	118	F	873575	https://eprel.ec.europa.eu/qr/873575
BXRC-57E10K1-B-7x-SE	5700	80	3600	54.3	22187	195.5	113	F	873615	https://eprel.ec.europa.eu/qr/873615
BXRC-57E10K1-C-7x-SE	5700	80	3420	72.4	27935	247.6	113	F	873619	https://eprel.ec.europa.eu/qr/873619
BXRC-57E10K1-D-7x-SE	5700	80	4200	40.2	18924	168.7	112	F	873623	https://eprel.ec.europa.eu/qr/873623
BXRC-65C10K1-B-7x-SE	6500	70	3600	54.3	23361	195.5	119	E	873663	https://eprel.ec.europa.eu/qr/873663
BXRC-65C10K1-C-7x-SE	6500	70	3420	72.4	29414	247.6	119	F	873667	https://eprel.ec.europa.eu/qr/873667
BXRC-65C10K1-D-7x-SE	6500	70	4200	40.2	19926	168.7	118	F	873671	https://eprel.ec.europa.eu/qr/873671
BXRC-65E10K1-B-7x-SE	6500	80	3600	54.3	22448	195.5	115	F	873711	https://eprel.ec.europa.eu/qr/873711
BXRC-65E10K1-C-7x-SE	6500	80	3420	72.4	28264	247.6	114	F	873715	https://eprel.ec.europa.eu/qr/873715
BXRC-65E10K1-D-7x-SE	6500	80	4200	40.2	19147	168.7	114	F	873719	https://eprel.ec.europa.eu/qr/873719

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

Notes for Table 4:

1. All device listed here must be disposed as e-waste upon its end of life according to local country guideline in each country.

2. For information on performance values at alternative drive conditions. please refer to the Product Selection Guide, Absolute Maximum Rating Table and Performance Curves in this data sheet.

3. For a definition of useful luminous flux (ouse), please see the ELR regulations at https://tinyurl.com/4b6zvt4m.

4. EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed. on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

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

Part Number	CRI	Drive Current¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T _c = 25°C (lm/W)
		900	49.6	44.7	4459	4070	100
		1200	50.5	60.6	5871	5337	97
BXRC-17E10K0-B-7x-SE	80	1800	52.0	93.6	8590	7731	92
	[2700	54.1	146.1	12382	11042	85
		3600	55.8	201.0	15847	13963	79
		855	66.2	56.6	5651	4646	100
	[1140	67.3	76.7	7454	6099	97
BXRC-17E10K0-C-7x-SE	80	1710	69.4	118.7	10891	9802	92
	[2565	72.1	185.0	15678	12430	85
		3420	74.4	254.6	20063	15514	79
		1050	35.4	37.2	3661	3010	98
		1400	36.2	50.6	4841	3962	96
BXRC-17E10K0-D-7x-SE	80	2100	37.6	79.0	7246	6522	92
		3150	39.5	124.4	10581	8389	85
	[4200	41.2	172.9	13826	10692	80
		855	66.2	56.6	9643	7929	170
		1140	67.3	76.7	12720	10408	166
BXRC-20B10K1-C-7x-SE	65	1710	69.4	118.7	18585	16727	157
		2565	72.1	185.0	26755	21212	145
		3420	74.4	254.6	34237	26475	134
		1050	35.4	37.2	6247	5137	168
		1400	36.2	50.6	8262	6760	163
BXRC-20B10K1-D-7x-SE	65	2100	37.6	79.0	12366	11129	157
		3150	39.5	124.4	18057	14316	145
		4200	41.2	172.9	23595	18246	136
		900	49.6	44.7	7416	6769	166
		1200	50.5	60.6	9764	8876	161
BXRC-25E10K0-B-7x-SE	80	1800	52.0	93.6	14285	12856	153
		2700	54.1	146.1	20592	18364	141
		3600	55.8	201.0	26355	23221	131
		855	66.2	56.6	9397	7727	166
		1140	67.3	76.7	12396	10143	162
BXRC-25E10K0-C-7x-SE	80	1710	69.4	118.7	18112	16301	153
		2565	72.1	185.0	26073	20672	141
		3420	74.4	254.6	33365	25801	131
		1050	35.4	37.2	6088	5006	164
		1400	36.2	50.6	8052	6588	159
BXRC-25E10K0-D-7x-SE	80	2100	37.6	79.0	12051	10846	153
		3150	39.5	124.4	17597	13951	142
		4200	41.2	172.9	22994	17781	133

Table 5: Product Performance at Commonly Used Drive Currents

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Typical Typical Typical Typical Typical V, Drive Flux² DC Flux³ Efficacy Power T_c = 25°C Part Number CRI **Current**¹ Т_с = 85°С T_c = 25°C T_c = 25°C T_ = 25°C (V) (mA) (ľm/W) (W) (lm) (lm) 900 49.6 44.7 7755 7079 174 60.6 169 1200 50.5 10211 9282 BXRC-27E10K0-B-7x-SE 80 1800 160 52.0 93.6 14939 13445 2700 54.1 146.1 21534 19204 147 24283 3600 55.8 201.0 27561 137 855 66.2 56.6 8081 9827 174 10607 12963 76.7 169 1140 67.3 BXRC-27E10K0-C-7x-SE 80 118.7 160 1710 69.4 18940 17046 185.0 2565 72.1 27266 21617 147 34891 26981 3420 74.4 254.6 137 1050 35.4 37.2 6366 5235 171 1400 36.2 50.6 8420 6890 166 BXRC-27E10K0-D-7x-SE 80 2100 37.6 79.0 12602 11342 160 3150 39.5 124.4 18402 14590 148 4200 41.2 172.9 24046 18595 139 6640 6061 900 49.6 44.7 149 1200 60.6 8743 7948 50.5 144 BXRC-27G1KH0-B-7x-SE 90 1800 52.0 93.6 12791 11512 137 2700 54.1 146.1 18438 16444 126 3600 55.8 201.0 23599 20792 117 855 66.2 56.6 8415 6919 149 1140 67.3 76.7 11100 9082 145 BXRC-27G1KH0-C-7x-SE 90 1710 69.4 118.7 16218 14596 137 2565 72.1 185.0 23346 18510 126 74.4 254.6 29876 117 3420 23103 1050 35.4 37.2 5451 4482 146 1400 36.2 50.6 7210 5899 142 BXRC-27G1KH0-D-7x-SE 10790 90 2100 37.6 79.0 9711 137 3150 39.5 124.4 15757 12492 127 4200 41.2 172.9 20589 15922 119 900 49.6 6398 5840 143 44.7 1200 50.5 60.6 8424 7658 139 BXRC-27G10K0-B-7x-SE 90 1800 52.0 93.6 12324 11092 132 17765 2700 146.1 15843 54.1 122 55.8 22738 3600 201.0 20033 113 66.2 56.6 855 8108 6667 143 76.7 10695 8751 1140 67.3 139 BXRC-27G10K0-C-7x-SE 90 1710 69.4 118.7 15626 14063 132 2565 72.1 185.0 22494 17834 122 254.6 28785 22260 3420 74.4 113 1050 5252 4319 141 35.4 37.2 1400 36.2 50.6 6946 5684 137 BXRC-27G10K0-D-7x-SE 37.6 2100 10397 90 79.0 9357 132 3150 39.5 124.4 15181 12036 122 4200 19838 41.2 172.9 15340 115

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Typical Typical Typical Typical Drive Typical V, Flux² DC Flux³ Efficacy Power Part Number CRI **Current**¹ T_c = 85°C T_c = 25°C (W) T_c = 25°C T_ = 25°C (V) (mA) (ľm/W) (lm) (lm) 35.4 37.2 50.6 36.2 BXRC-27H10K0-D-7x-SE 37.6 79.0 39.5 124.4 41.2 172.9 49.6 44.7 60.6 50.5 BXRC-30C10K1-B-7x-SE 52.0 93.6 54.1 146.1 55.8 201.0 66.2 56.6 67.3 76.7 BXRC-30C10K1-C-7x-SE 69.4 118.7 72.1 185.0 74.4 254.6 35.4 37.2 50.6 BXRC-30C10K1-D-7x-SE 37.6 79.0 39.5 124.4 41.2 172.9 49.6 44.7 50.5 60.6 BXRC-30E10K0-B-7x-SE 52.0 93.6 54.1 146.1 55.8 201.0 66.2 56.6 67.3 76.7 BXRC-30E10K0-C-7x-SE 118.7 69.4 72.1 185.0 74.4 254.6 35.4 37.2 36.2 50.6 BXRC-30E10K0-D-7x-SE 37.6 79.0 39.5 124.4 172.0 41.2 49.6 44.7 60.6 50.5 BXRC-30G1KH0-B-7x-SE 52.0 93.6 146.1 54.1 55.8 201.0 66.2 56.6 67.3 76.7 BXRC-30G1KH0-C-7x-SE 69.4 118.7 185.0 72.1 74.4 254.6

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Typical Typical Typical Typical Typical V, Drive Efficacy Flux² DC Flux³ Power T_c = 25°C Part Number CRI Current¹ T_c = 85°C T_c = 25°C T_c = 25°C T_ = 25°C (V) (mA) (W) (ľm/W) . (lm) (lm) 1050 35.4 37.2 5730 4711 154 1400 36.2 50.6 7578 6201 150 BXRC-30G1KH0-D-7x-SE 10208 90 2100 37.6 79.0 11342 144 3150 124.4 16562 13131 39.5 133 21641 4200 41.2 172.9 16735 125 6689 6106 900 49.6 150 44.7 8807 8006 1200 60.6 50.5 145 BXRC-30G10K0-B-7x-SE 12885 1800 138 90 52.0 93.6 11596 2700 54.1 146.1 18573 16564 127 3600 55.8 201.0 23771 20944 118 855 66.2 56.6 8476 6970 150 67.3 76.7 11181 146 1140 9149 BXRC-30G10K0-C-7x-SE 90 1710 69.4 118.7 16336 14702 138 2565 72.1 185.0 23517 18645 127 3420 74.4 254.6 30094 23271 118 1050 148 35.4 37.2 5491 4515 1400 362 50.6 7262 5942 143 BXRC-30G10K0-D-7x-SE 9782 90 2100 37.6 10869 138 79.0 3150 39.5 124.4 15872 12584 128 4200 41.2 172.9 20740 16038 120 1050 37.2 4974 4090 134 35.4 1400 36.2 50.6 6578 5382 130 BXRC-30H10K0-D-7x-SE 97 2100 37.6 79.0 9845 8861 125 3150 39.5 124.4 14376 11398 116 4200 172.9 18786 109 41.2 14527 6010 5486 900 49.6 44.7 135 1200 50.5 60.6 7914 7193 131 BXRC-30A10K1-B-7x-SE 93.6 1800 93 52.0 11577 10420 124 2700 54.1 146.1 16689 14883 114 3600 55.8 201.0 21360 18819 106 855 66.2 56.6 7616 6262 135 1140 67.3 76.7 10046 8220 131 BXRC-30A10K1-C-7x-SE 93 1710 69.4 118.7 14679 13211 124 2565 185.0 16754 72.1 21131 114 3420 254.6 27041 20910 106 74.4 1050 35.4 37.2 4934 4057 133 36.2 1400 50.6 6525 5339 129 BXRC-30A10K1-D-7x-SE 93 2100 37.6 79.0 9767 8790 124 3150 124.4 14261 11307 115 39.5 4200 172.9 18636 108 41.2 14411 900 49.6 8434 7698 189 44.7 1200 50.5 60.6 11105 10094 183 BXRC-35E10K0-B-7x-SE 93.6 80 1800 52.0 16246 14621 174 20884 2700 146.1 23418 160 54.1 3600 55.8 201.0 26408 29972 149

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Part Number	CRI	Drive Current¹ (mA)	Typical V, T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy Tू = 25°C (lm/W)
		855	66.2	56.6	10687	8788	189
		1140	67.3	76.7	14097	11535	184
BXRC-35E10K0-C-7x-SE	80	1710	69.4	118.7	20598	18538	174
		2565	72.1	185.0	29652	23509	160
		3420	74.4	254.6	37944	29342	149
		1050	35.4	37.2	6923	5693	186
		1400	36.2	50.6	9157	7492	181
BXRC-35E10K0-D-7x-SE	80	2100	37.6	79.0	13705	12334	174
		3150	39.5	124.4	20012	15866	161
		4200	41.2	172.9	T_c=25°C (W)T_c=85°C (Im)T_c=85°C (Im)56.610687878876.71409711535118.72059818538185.02965223509254.6379442934237.26923569350.69157749279.01370512334124.42001215866172.9261502022244.76931632760.69126829693.61335112016146.11924617164201.0246322170356.68783722276.7115869480118.71692815235185.02436919321254.6311842411437.25690467950.67525615879.01126310137124.41644713039172.9214911661944.76338584060.68424765893.61232411092146.11776515843201.0227382003356.68108666776.7106958751118.71562614063185.02249417834254.6287852226037.25252431950.66946568479.0103979357124.41518112036172.	20222	151
		900	49.6	44.7	6931	6327	155
		1200	50.5	60.6	9126	8296	151
BXRC-35G10K0-B-7x-SE	90	1800	52.0	93.6	13351	12016	143
		2700	54.1	146.1	19246	17164	132
		3600	55.8	201.0	24632	21703	123
		855	66.2	56.6	8783	7222	155
		1140	67.3	76.7	11586	9480	151
BXRC-35G10K0-C-7x-SE	90	1710	69.4	118.7	16928	15235	143
		2565	72.1	185.0	24369	19321	132
		3420	74.4	254.6	31184	(Im) 8788 11535 18538 23509 29342 5693 7492 12334 15866 20222 6327 8296 12016 17164 21703 7222 9480 15235 19321 24114 4679 6158 10137 13039 16619 5840 7658 11092 15843 20033 6667 8751 14063 17834 22260 4319 5684 9357 12036 15340 8096 10616 15377	123
		1050	35.4	37.2	5690	4679	153
	90	1400	36.2	50.6	7525	6158	149
BXRC-35G10K0-D-7x-SE		2100	37.6	79.0	11263	10137	143
		3150	39.5	124.4	16447	13039	132
		4200	41.2	172.9	21491	16619	124
		900	49.6	44.7	6398	5840	143
		1200	50.5	60.6	8424	7658	139
BXRC-35A10K1-B-7x-SE	93	1800	52.0	93.6	12324	11092	132
		2700	54.1	146.1	17765	15843	122
		3600	55.8	201.0	22738	20033	113
		855	66.2	56.6	8108	6667	143
		1140	67.3	76.7	10695	8751	139
BXRC-35A10K1-C-7x-SE	93	1710	69.4	118.7	15626	14063	132
		2565	72.1	185.0	22494	17834	122
		3420	74.4	254.6	28785	22260	113
		1050	35.4	37.2	5252	4319	141
		1400	36.2	50.6			137
BXRC-35A10K1-D-7x-SE	93	2100	37.6	79.0	10397	9357	132
		3150	39.5				122
		4200	41.2	172.9	19838		115
		900	49.6		8870	1	199
		1200	50.5		11679	-	193
BXRC-40C10K1-B-7x-SE	70	1800	52.0	93.6	17086		183
		2700	54.1	146.1	24629		169
		3600	55.8	201.0	31523	27774	157

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Typical Typical Typical Typical Drive Typical V, Efficacy Flux² DC Flux³ Power Part Number CRI **Current**¹ T_ = 25°C T_c = 85°C (lm) T_c = 25°C (lm) T_ = 25°C T_c = 25°C (V) (mA) (ľm/Ŵ) (W) 66.2 56.6 67.3 76.7 BXRC-40C10K1-C-7x-SE 69.4 118.7 72.1 185.0 74.4 254.6 35.4 37.2 50.6 36.2 BXRC-40C10K1-D-7x-SE 37.6 79.0 39.5 124.4 41.2 172.9 49.6 44.7 60.6 50.5 BXRC-40E10K0-B-7x-SE 52.0 93.6 54.1 146.1 55.8 201.0 66.2 56.6 67.3 76.7 BXRC-40E10K0-C-7x-SE 69.4 118.7 185.0 72.1 74.4 254.6 37.2 35.4 36.2 50.6 BXRC-40E10K0-D-7x-SE 37.6 79.0 39.5 124.4 41.2 172.9 49.6 44.7 50.5 60.6 BXRC-40G10K0-B-7x-SE 52.0 93.6 54.1 146.1 55.8 66.2 56.6 67.3 76.7 BXRC-40G10K0-C-7x-SE 69.4 118.7 72.1 185.0 74.4 254.6 35.4 37.2 36.2 50.6 37.6 BXRC-40G10K0-D-7x-SE 79.0 39.5 124.4 172.9 41.2 35.4 37.2 36.2 50.6 BXRC-40H10K0-D-7x-SE 37.6 79.0 39.5 124.4 41.2 172.9

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Typical Typical Typical Typical Typical V, Drive Efficacy Flux² DC Flux³ Power T_ = 25°C Part Number CRI Current¹ T_c = 85°C T_c = 25°C T_c = 25°C T_ = 25°C (mA) (V) (W) (ľm/W) (lm) (lm) 900 49.6 44.7 6931 6327 155 60.6 8296 1200 50.5 9126 151 BXRC-40A10K1-B-7x-SE 1800 12016 93 52.0 93.6 13351 143 2700 54.1 146.1 19246 17164 132 3600 24632 55.8 201.0 21703 123 855 66.2 56.6 8783 7222 155 9480 76.7 11586 1140 67.3 151 BXRC-40A10K1-C-7x-SE 118.7 1710 69.4 16928 15235 93 143 185.0 2565 72.1 24369 19321 132 3420 74.4 254.6 31184 24114 123 1050 35.4 37.2 5690 4679 153 1400 36.2 50.6 6158 7525 149 x-SE BXRC-40A10K1-D-73-SE 93 2100 37.6 79.0 11263 10137 143 3150 39.5 124.4 16447 13039 132 4200 41.2 172.9 21491 16619 124 8918 8141 200 900 49.6 44.7 1200 60.6 10674 194 50.5 11743 BXRC-50C10K1-B-7x-SE 70 1800 184 93.6 15461 52.0 17179 2700 54.1 146.1 24764 22085 170 3600 55.8 201.0 31695 27925 158 66.2 855 56.6 11301 200 9293 67.3 76.7 14908 194 1140 12198 BXRC-50C10K1-C-7x-SE 70 184 1710 69.4 118.7 21781 19603 2565 72.1 185.0 31356 24860 170 3420 74.4 254.6 40125 31028 158 1050 35.4 37.2 7321 6020 197 1400 36.2 50.6 9683 7923 191 BXRC-50C10K1-D-7x-SE 70 2100 37.6 79.0 14492 184 13043 3150 39.5 124.4 21162 16778 170 4200 41.2 172.9 27653 21384 160 900 49.6 44.7 8579 7831 192 1200 50.5 60.6 11296 10268 187 BXRC-50E10K1-B-7x-SE 80 1800 52.0 93.6 16526 14873 177 2700 54.1 146.1 23822 21245 163 3600 26863 55.8 201.0 30489 152 855 66.2 56.6 10872 8939 192 1140 67.3 76.7 14341 11734 187 BXRC-50E10K1-C-7x-SE 80 1710 118.7 2095<u>3</u> 18858 69.4 177 2565 185.0 30163 163 72.1 23914 29848 254.6 38599 3420 152 74.4 189 1050 35.4 37.2 7043 5791 1400 36.2 50.6 9315 7622 184 BXRC-50E10K1-D-7x-SE 80 2100 37.6 79.0 13941 12547 177 3150 20357 16140 164 39.5 124.4 4200 41.2 172.9 26601 20570 154

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Typical Typical Typical Typical Typical V, Drive Efficacy Flux² DC Flux³ Power T_ = 25°C Part Number CRI Current¹ T_c = 85°C T_c = 25°C T_c = 25°C T_ = 25°C (mA) (V) (W) (ľm/W) (lm) (lm) 166 900 49.6 44.7 7416 6769 60.6 9764 8876 161 1200 50.5 BXRC-50G10K1-B-7x-SE 1800 14285 12856 90 52.0 93.6 153 2700 54.1 146.1 20592 18364 141 3600 55.8 201.0 26355 23221 131 855 66.2 56.6 166 7727 9397 76.7 162 1140 67.3 12396 10143 BXRC-50G10K1-C-7x-SE 118.7 18112 16301 90 1710 69.4 153 20672 185.0 26073 2565 72.1 141 3420 74.4 254.6 33365 25801 131 1050 35.4 37.2 6088 5006 164 1400 36.2 50.6 8052 6588 159 BXRC-50G10K1-D-7x-SE 90 2100 37.6 79.0 12051 10846 153 3150 39.5 124.4 17597 13951 142 4200 41.2 172.9 22994 17781 133 6813 167 900 49.6 44.7 7464 9828 1200 60.6 8934 162 50.5 BXRC-56G10K0-B-7x-SE 80 1800 93.6 14378 12941 154 52.0 2700 54.1 146.1 20726 18484 142 3600 55.8 201.0 26527 23372 132 66.2 855 56.6 7778 167 9459 163 67.3 76.7 1140 12477 10209 BXRC-56G10K0-C-7x-SE 80 1710 69.4 118.7 18230 16407 154 2565 72.1 185.0 26243 20807 142 3420 74.4 254.6 33583 25969 132 1050 35.4 37.2 6128 5038 165 1400 36.2 50.6 8104 6631 160 BXRC-56G10K0-D-7x-SE 80 2100 37.6 79.0 12129 10916 154 3150 39.5 124.4 17712 14043 142 23144 4200 41.2 172.9 17897 134 35.4 1050 37.2 5531 4548 149 1400 36.2 50.6 7315 5985 144 BXRC-56H10K0-D-7x-SE 80 2100 37.6 79.0 10948 9853 139 3150 39.5 124.4 15987 12675 129 20890 16154 4200 41.2 172.9 121 900 49.6 44.7 8676 7920 194 50.5 1200 60.6 11424 10384 189 BXRC-57C10K1-B-7x-SE 16713 70 1800 52.0 93.6 15041 179 165 2700 146.1 24091 21485 54.1 201.0 3600 55.8 30834 27167 153 66.2 56.6 855 10994 9040 194 1140 67.3 76.7 14503 11867 189 BXRC-57C10K1-C-7x-SE 70 1710 69.4 118.7 21190 19071 179 2565 185.0 24184 165 72.1 30504 3420 74.4 254.6 39035 30185 153

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Part Number	CRI	Drive Current¹ (mA)	Typical V, T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T = 25°C (lm/W)
		1050	35.4	37.2	7122	5856	191
		1400	36.2	50.6	9420	7708	186
BXRC-57C10K1-D-7x-SE	70	2100	37.6	79.0	14099	12689	179
		3150	39.5	124.4	20587	16322	166
		4200	41.2	172.9	26901	20803	156
		900	49.6	44.7	8240	7521	184
		1200	50.5	60.6	10849	9862	179
BXRC-57E10K1-B-7x-SE	80	1800	52.0	93.6	15872	14285	170
		2700	54.1	146.1	22879	20404	157
		3600	55.8	Power Flux² DC Flux³ T _c = 25°C (W) T _c = 25°C (Im) T _c = 85°C (Im) 37.2 7122 5856 50.6 9420 7708 79.0 14099 12689 124.4 20587 16322 172.9 26901 20803 44.7 8240 7521 60.6 10849 9862 93.6 15872 14285	146		
		855	66.2	56.6	10442	8586	185
	[1140	67.3	76.7	13773	11270	180
BXRC-57E10K1-C-7x-SE	80	1710	69.4	118.7	20124	18112	170
	[2565	72.1	185.0	28970	22969	157
		RICurrent* (mA)105014001400210031504200900120036008551140256534201400210036008002565342014002565342014002565342012003600270036002565342011407001200701120070211407031140704114070531504200900120036003150420036003600270036003600270036003600270036001400	74.4	254.6	37072	28668	146
		1050	35.4	37.2	6764	5562	182
	[1400	36.2	50.6	8946	7320	177
BXRC-57E10K1-D-7x-SE	80	2100	37.6	79.0	13390	12051	170
		3150	39.5	124.4	19552	15501	157
		4200	41.2	172.9	25549	(Im) 5856 7708 12689 16322 20803 7521 9862 14285 20404 25801 8586 11270 18112 22969 28668 5562 7320 12051 15501 19757 7920 10384 15041 21485 27167 9040 11867 19071 24185 27167 9040 11867 19071 24184 30185 5856 7708 16322 20803 7610 9978 14453 20644 26104 8687 14403 18325 23239 </td <td>148</td>	148
		900	49.6	44.7	8676	7920	194
		1200	50.5	60.6	11424	10384	189
BXRC-65C10K1-B-7x-SE	70	1800	52.0	93.6	16713	15041	179
	80	2700	54.1	146.1	24091	21485	165
		3600	55.8	201.0	30834	27167	153
		855	66.2	56.6	10994	9040	194
		1140	67.3	76.7	14503	11867	189
BXRC-65C10K1-C-7x-SE	70	1710	69.4	118.7	21190	19071	179
		2565	72.1	185.0	30504	24184	165
		3420	74.4	No. Power T, = 25°C (W) Flux ² T, = 25°C (W) DC Flux T, = 85°((Im) DC Flux T, = 85°((Im) 35.4 37.2 7122 5856 362 50.6 9420 7708 37.6 79.0 14099 12689 39.5 124.4 20587 16322 41.2 172.9 26901 20803 39.6 44.7 8240 7521 50.5 60.6 10849 9862 52.0 93.6 15872 14285 54.1 146.1 22879 20404 55.8 201.0 29283 25801 56.2 56.6 10442 8586 57.3 76.7 13773 11270 59.4 118.7 20124 18112 72.1 185.0 28970 22969 74.4 254.6 37072 28668 35.4 37.2 6764 5562 36.2 50.6 8946 7320	30185	153	
		1050	35.4	37.2	7122	5856	191
	[1400	36.2	50.6	9420	7708	186
BXRC-65C10K1-D-7x-SE	70	2100	37.6	79.0	14099	12689	179
	[3150	39.5	124.4	20587	16322	166
	<u> </u>	4200	41.2	172.9	6764 5562 8946 7320 13390 12051 19552 15501 25549 19757 8676 7920 11424 10384 16713 15041 24091 21485 30834 27167 10994 9040 14503 11867 21190 19071 30504 24184 39035 30185 7122 5856 9420 7708 14099 12689 20587 16322 26901 20803 8337 7610	20803	156
		900	49.6	44.7	8337	7610	187
	[1200	50.5	60.6	10977	9978	181
BXRC-65E10K1-B-7x-SE	80	1800	52.0	93.6	î .	14453	172
	[2700	54.1			20644	158
	<u> </u>	3600	55.8	201.0	29628	26104	147
		855	66.2	56.6	10564	8687	187
	[67.3	76.7	13935	11403	182
BXRC-65E10K1-C-7x-SE	80	1710	69.4	118.7	20361	18325	172
		2565	72.1	185.0	29311	23239	158
			1		37508	Í .	147

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Notes for Table 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a ± 7% tolerance on flux measurements.

Table 5: Product Performance at Commonly Used Drive Currents (Continued)

Part Number	CRI	Drive Current¹ (mA)	Typical V _f T _c = 25°C (V)	Typical Power T _c = 25°C (W)	Typical Flux² T _c = 25°C (lm)	Typical DC Flux ³ T _c = 85°C (lm)	Typical Efficacy T = 25°C (lm/W)
	80	1050	35.4	37.2	6844	5627	184
		1400	36.2	50.6	9051	7406	179
BXRC-65E10K1-D-7x-SE		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 5:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.

2. Bridgelux maintains a \pm 7% tolerance on flux measurements.

Table 6: Electrical Characteristics

Part Number		Forward Voltage Pulsed, T _c = 25°C (V) ^{1,2,3,8}			Typical Coefficient of Forward	Typical Thermal Resistance	Driver Selection Voltages ⁷ (V)	
	Drive Current (mA)	Minimum	Typical	Maximum	of Forward Voltage⁴ ∆Vr∕∆T (mV∕°C)	Junction to Case ^{5,6} R _{j-c} (°C/W)	V _f Min. Hot T _c = 105°C (V)	V _r Max. Cold T _c = -40°C (V)
	1800	48.1	52.0	55.9	-24.9	0.06	46.1	57.5
BXRC-xxx10Kx-B-7x-SE	3600	51.7	55.8	60.0	-24.9	0.07	49.7	61.6
	1710	64.2	69.4	74.6	-33.2	0.04	61.5	76.8
BXRC-xxx10Kx-C-7x-SE	3420	68.8	74.4	80.0	-33.2	0.05	66.2	82.2
	2100	34.8	37.6	40.4	-17.4	0.06	33.4	41.6
BXRC-xxx10Kx-D-7x-SE	4200	38.1	41.2	44.3	-17.4	0.07	36.7	45.4

Notes for Table 6:

1. Parts are tested in pulsed conditions, $T_c = 25^{\circ}$ C. Pulse width is 10ms.

2. Voltage minimum and maximum are provided for reference only and are not a guarantee of performance.

3. Bridgelux maintains a tester tolerance of ± 0.10V on forward voltage measurements.

4. Typical coefficient of forward voltage tolerance is ± 0.1mV for nominal current.

5. Thermal resistance values are based from test data of a 3000K 80 CRI product.

6. 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.

7. V_r 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.

8. This product has been designed and manufactured per IEC 62031:2014. This product has passed dielectric withstand voltage testing at 1160 V. The working voltage designated for the insulation is 80V d.c. The maximum allowable voltage across the array must be determined in the end product application.

Eye Safety

Table 7: Eye Safety Risk Group (RG) Classifications

Part Number	Drive	CCT ^{1.5}						
	Current⁵ (mA)	2700K/3000K	4000K ²	5000K3	6500K⁴			
	1800	RG1	RG1	RG1	RG1			
BXRC-xxx10Kx-B-7x-SE	2700	RG1	RG1	RG2	RG2			
	3600	RG1	RG1	RG2	RG2			
	1710	RG1	RG1	RG1	RG2			
BXRC-xxx10Kx-C-7x-SE	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 7:

1. Eye safety classification for the use of Bridgelux Vero SE Series LED arrays is in accordance with specification IEC/TR 62778: Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires.

2. For products classified as RG2 at 4000K, E_{thr} = 1847.5 k.

3. For products classified as RG2 at 5000K E_{thr} = 1315.8 kx.

4. For products classified as RG2 at 6500K, E_{thr} = 1124.5 kx.

5. Please contact your Bridgelux sales representative for E_{thr} values at specific drive currents and CCTs not listed.

Absolute Maximum Ratings

Table 8: Maximum Ratings

Parameter	Maximum Rating				
LED Junction Temperature (T _j)	150°C				
Storage Temperature	-40°C to +105°C				
Operating Case Temperature 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 Voltage⁵	-90V	-120V	-65V		

Notes for Table 8:

1. For IEC 62717 requirement, please consult your Bridgelux sales representative.

2. Refer to Bridgelux Application Note AN120: Assembly Considerations for Bridgelux Vero SE LED Arrays.

3. Arrays may be driven at higher currents however lumen maintenance may be reduced.

4. Bridgelux recommends a maximum duty cycle of 10% and pulse width of 20 ms when operating LED Arrays at maximum peak pulsed current specified. Maximum peak pulsed currents indicate values where LED Arrays can be driven without catastrophic failures.

5. Light emitting diodes are not designed to be driven in reverse voltage and will not produce light under this condition. Maximum rating provided for reference only.

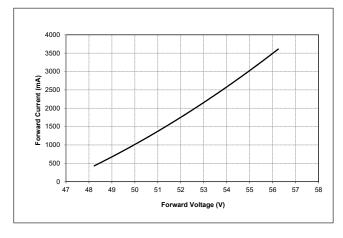


Figure 1: Vero SE 29B Drive Current vs. Voltage

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

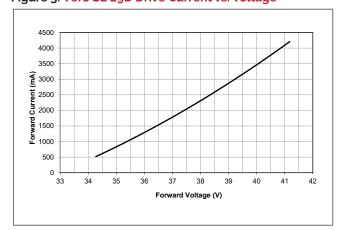
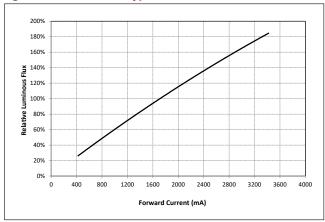


Figure 5: Vero SE 29C Typical Relative Flux vs. Current



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 Tj (junction temperature) = Tc (case temperature) = 25°C.

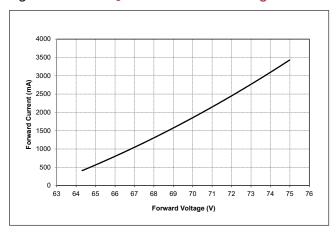
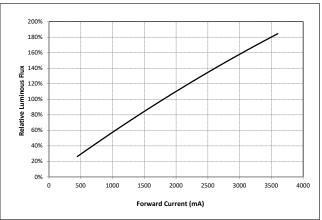
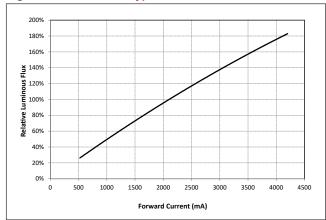


Figure 2: Vero SE 29C Drive Current vs. Voltage









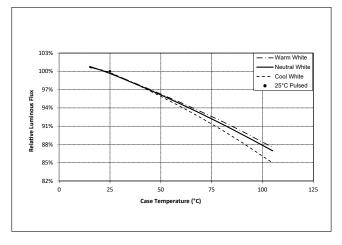


Figure 7: Typical DC Flux vs. Case Temperature

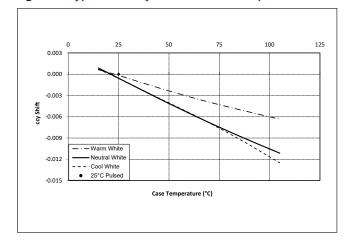
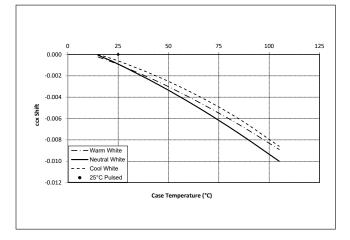


Figure 8: Typical DC ccy Shift vs. Case Temperature

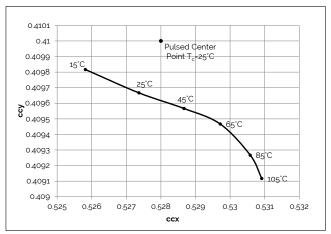
Figure 9: Typical DC ccx Shift vs. Case Temperature



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.





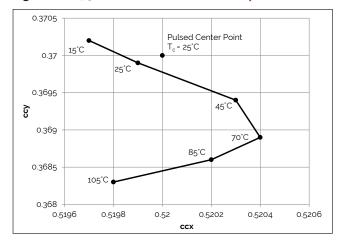


Figure 11: 1750K Color Shift vs. Case Temperature¹



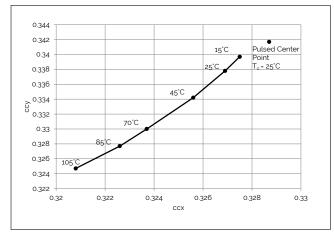
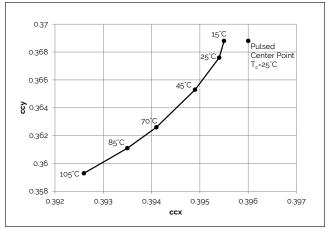


Figure 15: 3500K Class A Color Shift vs. Case Temperature¹



Notes for Figures 10-16:

2. Typical color shift is shown with a tolerance of ± 0.002 .

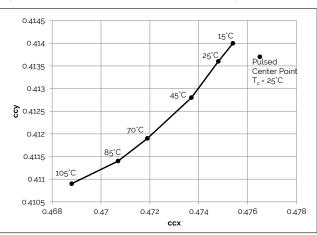
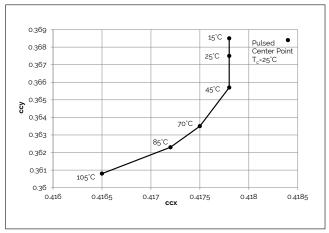
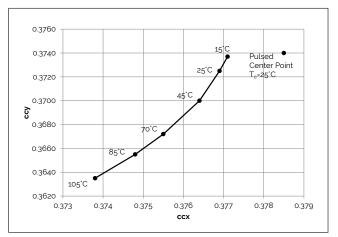


Figure 12: 2500K Color Shift vs. Case Temperature¹









^{1.} Measurements made under DC test conditions at the nominal drive current.

^{3.} Color shift shown for product hot targeted at $T_{\rm s}{=}85^{\circ}{\rm C}$

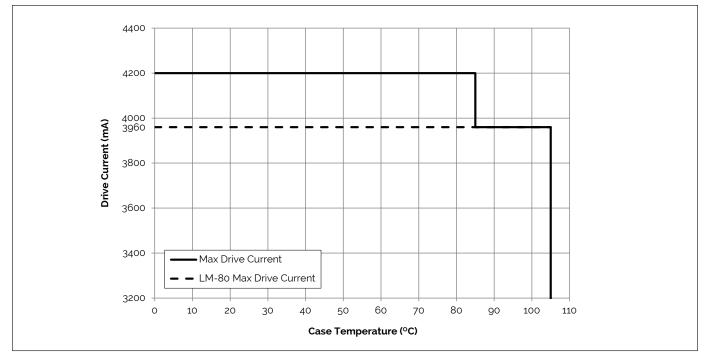


Figure 17: Vero SE 29D Drive Current Derating Curve

Notes for Figure 17:

1. The maximum allowable drive current for the Vero 2gD 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

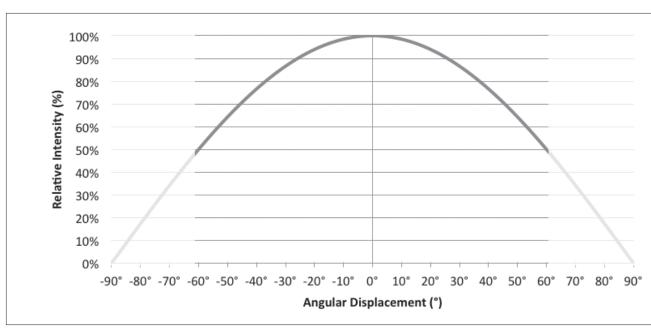


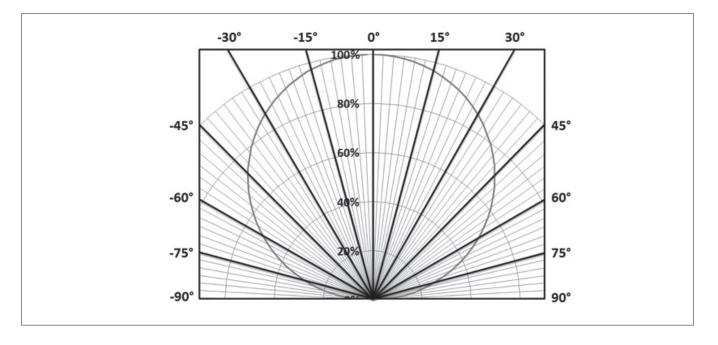
Figure 18: Typical Spatial Radiation Pattern

Notes for Figure 18:

1. Typical viewing angle is 120°.

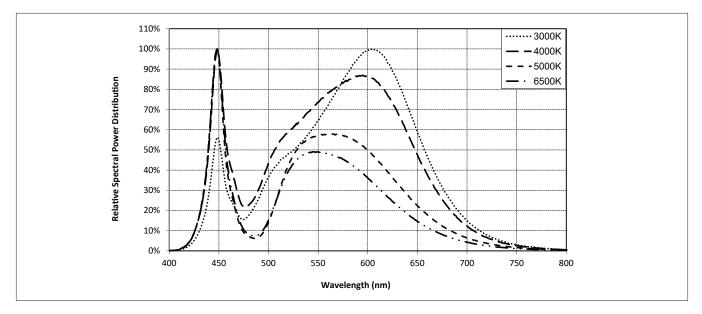
2. The viewing angle is defined as the off axis angle from the centerline where intensity is ½ of the peak value.

Figure 19: Typical Polar Radiation Pattern



Typical Color Spectrum

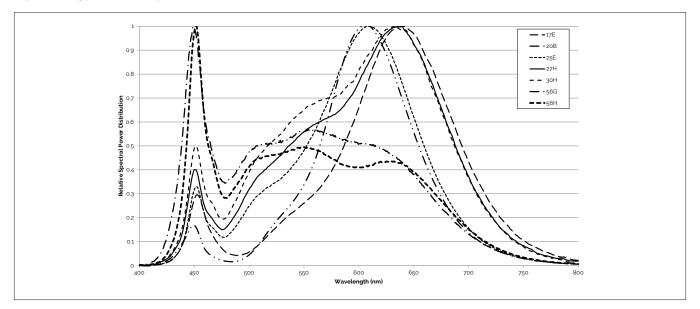
Figure 20: Typical Color Spectrum



Notes for Figure 20:

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

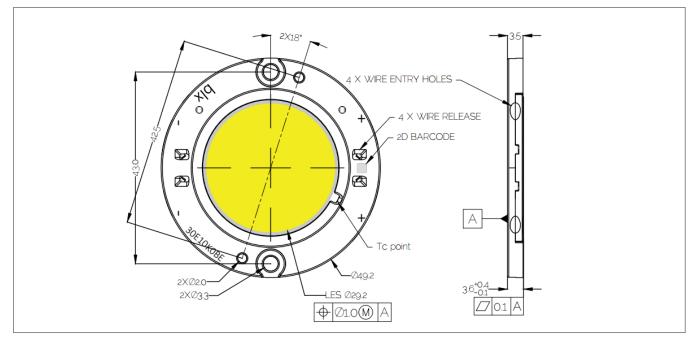


Note for Figure 21:

1. Color spectra measured at nominal current for $T_i = T_c = 25$ °C.

Mechanical Dimensions

Figure 22: Drawing for Vero SE 29 LED Array

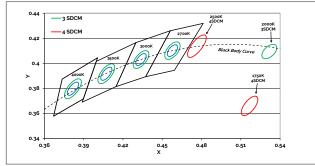


Notes for Figure 22:

- 1. Drawings are not to scale.
- 2. Drawing dimensions are in millimeters.
- 3. Unless otherwise specified, tolerances are ± 0.10mm.
- 4. Mounting holes (2X) are for M3 screws.
- 5. Bridgelux recommends two tapped holes for mounting screws with 43.0 ± 0.10mm 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 ± 0.2mm.
- 8. Bridgelux maintains a flatness of 0.10mm 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, $T_c = 25^{\circ}C$

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

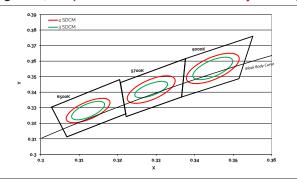
Bin Code	1750K	2500K	2700K	3000K1	3500K1	4000K1
ANSI Bin (for reference only)	_	-	(2580K - 2870K)	(2870K - 3220K)	(3220K - 3710K)	(3710K - 4260K)
73 (3 SDCM)	_	_	(2651K - 2794K)	(2968K - 3136K)	(3369K - 3586K)	(3851K - 4130K)
72 (2 SDCM)	-	-	(2674K - 2769K)	(2995K - 3107K)	(3404K - 3548K)	(3895K - 4081K)
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)

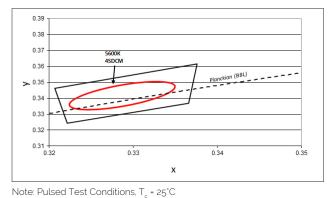
Notes for Table 9:

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

2. Bridgelux maintains a tolerance of +/- 0.007 on x and y color coordinates in the CIE 1931 color Space.

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





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

Table 10: Cool White xy Bin Coordinates and Associated Typical CCT (product is hot targeted to T_ = 85°C)

Bin Code	5000K	5600K1	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)

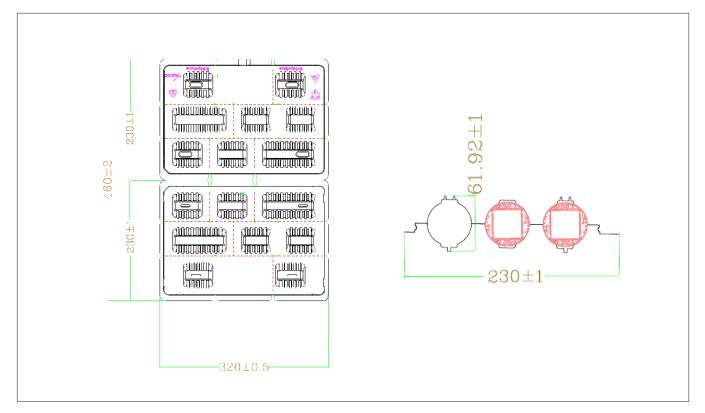
Notes for Table 10:

1. Select configurations with a CCT of 5600K are available with center point targets at T_c = 85°C or T_c = 25°C.

2. Bridgelux maintains a tolerance of +/- 0.007 on x and y color coordinates in the CIE 1931 color Space.

Packaging and Labeling

Figure 25: Drawing for Vero SE 29 Packaging Tray

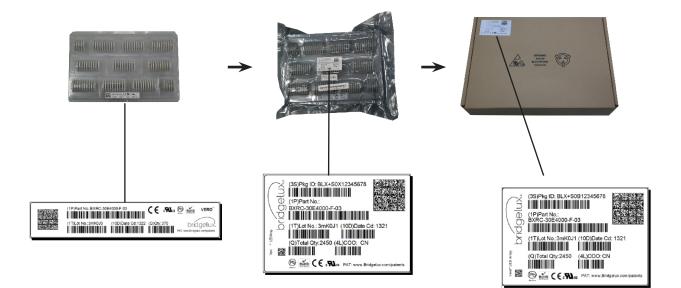


Notes for Figure 25:

- 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- V_f Bin Code included to enable greater luminaire design flexibility. Refer to AN92 for bin definitions.

Customer Use- Product part number

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.

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.

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.

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.

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