Bridgelux® GEN9 Vero® 10 Array

Product Data Sheet DS1311

TEN YEAR Warranty™

BXRC-27E | 30E | 35E | 40E | 50E

Introduction

Vero® GEN9

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

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

The Gen 9 Vero Series COB is a high efficacy product that uses narrow band red phosphor to significantly improve the spectrum efficacy. The improved spectrum efficacy results in the 80 CRI product of the Gen 9 Series delivering better or equivalent efficacy as that of our previous generation Vero Series product.

Features

- Efficacy of 196 lm/W typical, 3000K 80 CRI
- Wide selection of CCT options (2700K-5000K) with minimum 80 CRI options
- Uniform high-quality illumination
- 2 and 3 SDCM binning options (2700K – 4000K)
- 3 and 4 SDCM binning options (5000K)
- Forward voltage bin codes and backside marking
- Instant light with unlimited dimming
- Thermally isolated solder pads
- 10-Year warranty

Benefits

- Solder free installation and field upgradability
- Improved inventory management and quality control
- Enables high efficiency lighting systems and lower operating costs
- Supports the trend toward luminaire miniaturization and delivers enhanced optical control
- Design flexibility for a broad range of lighting applications
- Clean white light without pixelation
- Uniform consistent white light
- Design flexibility for multi-source applications
- Enhanced ease of use and installation
- Design with confidence

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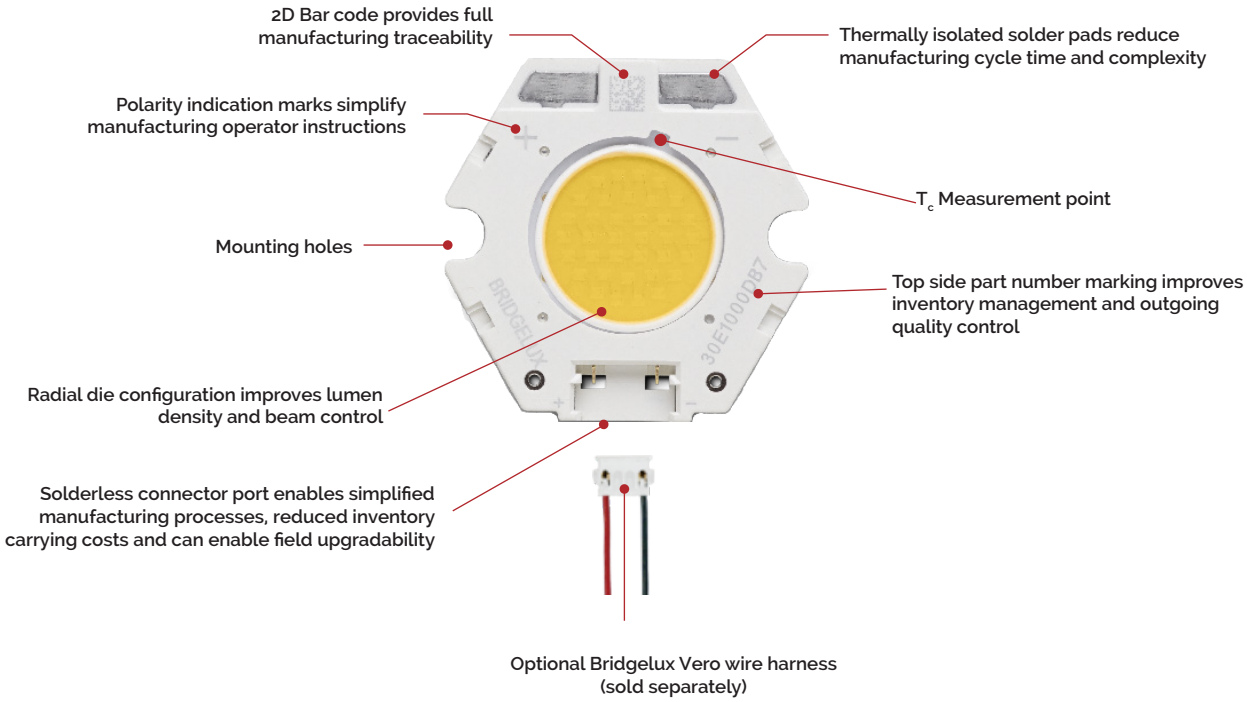
Product Feature Map

Vero 10 is the smallest form factor in the Vero family of next generation solid state light sources. In addition to delivering the performance and light quality required for many lighting applications, Vero 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 Series family of products.



Product Nomenclature

The part number designation for Bridgelux COB arrays is explained as follows:

1 2 3 4 – 5 6 7 8 9 10 11 – 12 – 13 14

BXRC – 30 E 10F0 – B – 9 3

Product Family

Nominal CCT
27 = 2,700K
30 = 3,000K
35 = 3,500K
40 = 4,000K
50 = 5,000K

Minimum CRI
E = 80 CRI min

Flux Indicator
10XX = 1000 lm

Array Configuration

Gen 9

CCT Bin Options
2 = 2 SDCM
3 = 3 SDCM
4 = 4 SDCM

Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide, Pulsed Measurement Data (T_c = 25˚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-27E10F0-B-9x	2700	80	200	1294	1164	33.6	6.7	193
BXRC-27E10F0-C-9x	2700	80	300	1755	1579	31.0	9.3	189
BXRC-30E10F0-B-9x	3000	80	200	1320	1188	33.6	6.7	196
BXRC-30E10F0-C-9x	3000	80	300	1790	1611	31.0	9.3	193
BXRC-35E10F0-B-9x	3500	80	200	1327	1194	33.6	6.7	197
BXRC-35E10F0-C-9x	3500	80	300	1799	1620	31.0	9.3	193
BXRC-40E10F0-B-9x	4000	80	200	1333	1200	33.6	6.7	198
BXRC-40E10F0-C-9x	4000	80	300	1808	1627	31.0	9.3	194
BXRC-50E10F0-B-9x	5000	80	200	1307	1176	33.6	6.7	194
BXRC-50E10F0-C-9x	5000	80	300	1772	1595	31.0	9.3	191

Table 2: Selection Guide, Stabilized DC Test Performance (T_c = 85˚C)[4,5,6]

Part Number	Nominal CCT[1] (K)	CRI[2]	Nominal Drive Current[3] (mA)	Typical DC Flux[4,5] 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-27E10F0-B-9x	2700	80	200	1190	1071	33.0	6.6	180
BXRC-27E10F0-C-9x	2700	80	300	1614	1453	30.4	9.1	177
BXRC-30E10F0-B-9x	3000	80	200	1214	1093	33.0	6.6	184
BXRC-30E10F0-C-9x	3000	80	300	1647	1482	30.4	9.1	181
BXRC-35E10F0-B-9x	3500	80	200	1221	1099	33.0	6.6	185
BXRC-35E10F0-C-9x	3500	80	300	1656	1490	30.4	9.1	182
BXRC-40E10F0-B-9x	4000	80	200	1226	1104	33.0	6.6	186
BXRC-40E10F0-C-9x	4000	80	300	1663	1497	30.4	9.1	182
BXRC-50E10F0-B-9x	5000	80	200	1202	1082	33.0	6.6	182
BXRC-50E10F0-C-9x	5000	80	300	1631	1468	30.4	9.1	179

Notes for Tables 1 & 2:

1. Nominal CCT as defined by ANSI C78.377-2011.
2. CRI values are minimums and tested at T_j = T_c = 85˚C. Minimum R9 value for 80 CRI products is 0.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 drive current where T_j (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 drive current are guaranteed by 100% test.

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

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

Table 3: Part numbers registered in European Product Registry for Energy Labeling

PART NUMBER[1]	CCT (K)	CRI	Current[2] (mA)	Vf (V)	Useful flux[3] (Φuse) at 85C (lm)	Power (W)	Efficacy (lm/W)	Energy efficiency class[4] 	Registration No	URL to Product Information Sheet in EPREL Database
BXRC-27E10F0-B-93	2700	80	540	37.5	2816	20	139	E	1718509	https://eprel.ec.europa.eu/qr/1718509
BXRC-30E10F0-B-93	3000	80	540	37.5	2872	20	142	E	1718512	https://eprel.ec.europa.eu/qr/1718512
BXRC-35E10F0-B-93	3500	80	540	37.5	2888	20	143	E	1718515	https://eprel.ec.europa.eu/qr/1718515
BXRC-40E10F0-B-93	4000	80	540	37.5	2901	20	143	E	1718518	https://eprel.ec.europa.eu/qr/1718518
BXRC-50E10F0-B-93	5000	80	540	37.5	2844	20	140	E	1718521	https://eprel.ec.europa.eu/qr/1718521

Notes for Table 3:

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 **(Φuse),** please see the ELR regulations at https://tinyurl.com/4b6zvt4m.
4. EPREL requires an arrow symbol containing the letter of the energy efficiency class to be displayed. on technical promotional material. Refer to this energy efficiency class column for specific energy efficiency class on each part number.

Performance at Commonly Used Drive Currents

Vero LED arrays are tested to the specifications shown using the nominal drive currents in Table 1. Vero 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 and 2 and the flux vs. current characteristics shown in Figures 3 and 4 . The performance at commonly used drive currents is summarized in Table 4.

Table 4: Product Performance at Commonly Used Drive Currents

Part Number	CRI	Drive Current[1] (mA)	Typical V_f T_c = 25°C (V)	Typical Power T_c = 25°C (W)	Typical Flux[2] T_c = 25°C (lm)	Typical DC Flux[3] T_c = 85°C (lm)	Typical Efficacy T_c = 25°C (lm/W)
BXRC-27E10F0-B-9x	80	75	31.8	2.4	497	462	208
		150	32.9	4.9	982	908	199
		180	33.3	6.0	1170	1079	195
		200	**33.6**	**6.7**	**1294**	**1190**	**193**
		405	36.0	14.6	2493	2242	171
		540	37.5	20.3	3242	2877	160
BXRC-27E10F0-C-9x	80	100	29.0	2.9	602	562	207
		200	30.1	6.0	1191	1105	198
		240	30.5	7.3	1419	1312	194
		300	**31.0**	**9.3**	**1754**	**1614**	**189**
		540	32.9	17.8	3025	2728	170
		720	34.3	24.7	3933	3500	159
BXRC-30E10F0-B-9x	80	75	31.8	2.4	507	471	213
		150	32.9	4.9	1002	927	203
		180	33.3	6	1194	1101	199
		200	**33.6**	**6.7**	**1320**	**1214**	**196**
		405	36	14.6	2544	2288	175
		540	37.5	20.3	3309	2936	163
BXRC-30E10F0-C-9x	80	100	29.0	2.9	615	573	212
		200	30.1	6.0	1216	1128	202
		240	30.5	7.3	1448	1339	198
		300	**31.0**	**9.3**	**1790**	**1647**	**192**
		540	32.9	17.8	3086	2783	174
		720	34.3	24.7	4014	3572	163
BXRC-35E10F0-B-9x	80	75	31.8	2.4	509	473	214
		150	32.9	4.9	1007	932	204
		180	33.3	6	1200	1106	200
		200	**33.6**	**6.7**	**1327**	**1220**	**197**
		405	36	14.6	2557	2300	176
		540	37.5	20.3	3325	2951	164
BXRC-35E10F0-C-9x	80	100	29.0	2.9	618	576	213
		200	30.1	6.0	1222	1133	203
		240	30.5	7.3	1456	1346	199
		300	**31.0**	**9.3**	**1799**	**1655**	**193**
		540	32.9	17.8	3102	2797	175
		720	34.3	24.7	4034	3589	163

Notes for Table 4:

1. Alternate drive currents in Table 4 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-40E10F0-B-9x	80	75	31.8	2.4	512	476	215
		150	32.9	4.9	1012	936	205
		180	33.3	6.0	1206	1112	201
		200	**33.6**	**6.7**	**1333**	**1227**	**198**
		405	36.0	14.6	2570	2311	176
		540	37.5	20.3	3342	2965	165
BXRC-40E10F0-C-9x	80	100	29.0	2.9	621	579	214
		200	30.1	6.0	1228	1139	204
		240	30.5	7.3	1463	1353	200
		300	**31.0**	**9.3**	**1808**	**1663**	**194**
		540	32.9	17.8	3117	2811	176
		720	34.3	24.7	4054	3607	164
BXRC-50E10F0-B-9x	80	75	31.8	2.4	502	466	211
		150	32.9	4.9	992	918	201
		180	33.3	6.0	1182	1090	197
		200	**33.6**	**6.7**	**1307**	**1202**	**194**
		405	36.0	14.6	2519	2265	173
		540	37.5	20.3	3275	2907	162
BXRC-50E10F0-C-9x	80	100	29.0	2.9	608	567	210
		200	30.1	6.0	1204	1116	200
		240	30.5	7.3	1434	1326	196
		300	**31.0**	**9.3**	**1772**	**1630**	**191**
		540	32.9	17.8	3056	2756	172
		720	34.3	24.7	3973	3536	161

Notes for Table 4:

1. Alternate drive currents in Table 4 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°C (V) [1, 2, 3, 8]			Typical Coefficient of Forward Voltage[4] $\Delta V_f/\Delta T_c$ (mV/°C)	Typical Thermal Resistance Junction to Case[5,6] R_{j-c} (°C/W)	Driver Selection Voltages[7] (V)	
		Minimum	Typical	Maximum			V_f Min. Hot T_c = 105°C (V)	V_f Max. Cold T_c = -40°C (V)
BXRC-xxx10Fx-B-9x	200	31.6	33.6	35.6	-13.20	0.62	30.8	36.9
	540	35.3	37.5	39.8	-14.61	0.95	34.4	41.2
BXRC-xxx10Fx-C-9x	300	29.1	31.0	32.9	-13.32	0.42	28.4	34.0
	720	32.2	34.3	36.4	-14.74	0.62	31.4	37.6

Notes for Table 5:

1. Parts are tested in pulsed conditions, T_c = 25°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_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.
8. This product has been designed and manufactured per IEC 62031:2018.

Eye Safety

Table 6: Eye Safety Risk Group (RG) Classifications

Part Number	Drive Current (mA)	CCT[4]		
		2700K/3000K	3500K/4000K[2]	5000K[3]
BXRC-xxx10F0-B-9x	410	RG1	RG1	RG1
	540	RG1	RG1	RG2
BXRC-xxx10F0-C-9x	410	RG1	RG1	RG1
	580	RG1	RG1	RG2
	720	RG1	RG2	RG2

Notes for Table 6:

1. Eye safety classification for the use of Bridgelux Vero 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 Ethr= 1980 lx.
3. For products classified as RG2 at 5000K Ethr= 1530 lx.
4. Please contact your Bridgelux sales representative for Ethr 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[1]	-40˚C to +105˚C	
Operating Case Temperature[2] (T_c)	105˚C[7]	
Soldering Temperature[3]	350˚C or lower for a maximum of 6 seconds	
	BXRC-xxx10Fx-B-9x	BXRC-xxx10Fx-C-9x
Maximum Drive Current[4]	540 mA	720 mA
Maximum Peak Pulsed Drive Current[5]	770mA	800mA
Maximum Reverse Voltage[6]	-60V	-55V

Notes for Table 7:

1. The Gen 9 product is robust enough to pass our internal humidity test but it is still more sensitive compared to regular LED array product The product needs to be stored in a dry environment. It is not recommended to use the product in a damp environment that directly exposes it to moisture.
2. For IEC 62717 requirement, please consult your Bridgelux sales representative.
3. Refer to Bridgelux Application Note AN31: Assembly Considerations for Bridgelux Vero LED Arrays.
4. Arrays may be driven at higher currents however lumen maintenance may be reduced and warranty will not apply.
5. 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.
6. 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.
7. For good thermal management and to achieve optimal LED lifetime, please ensure that your thermal design accounts for the temperature of the light emitting surface (LES) to not exceed 140 deg C.

Performance Curves

Figure 1: Vero10B Drive Current vs. Voltage

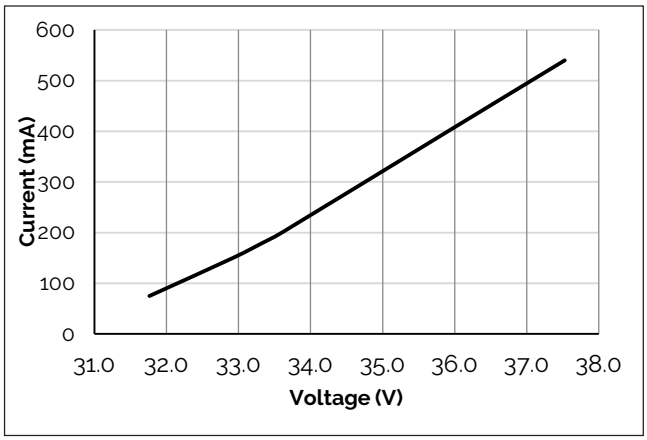


Figure 2: Vero10C Drive Current vs. Voltage

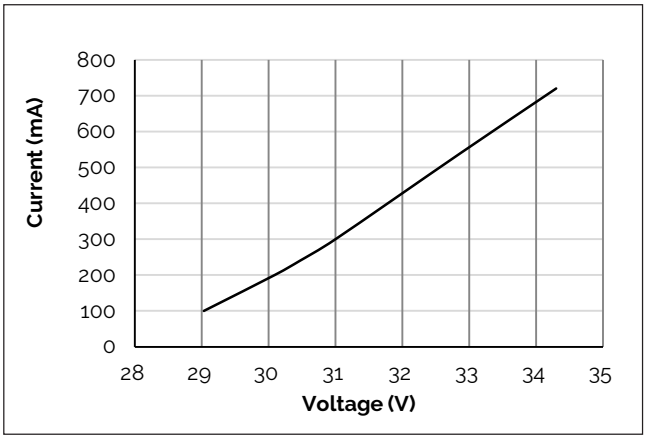


Figure 3: Vero10B Typical Relative Flux vs. Current

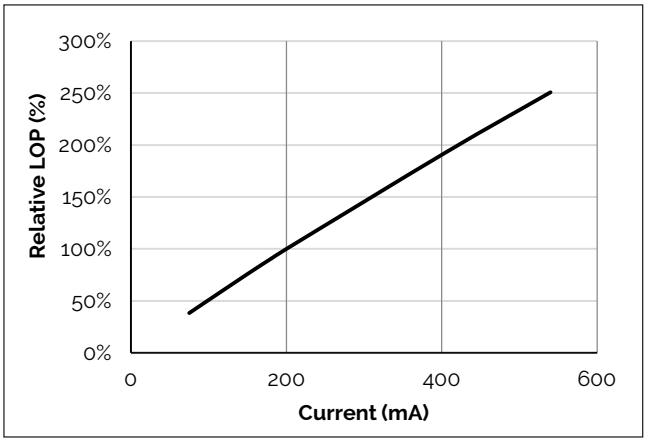


Figure 4: Vero10C Typical Relative Flux vs. Current

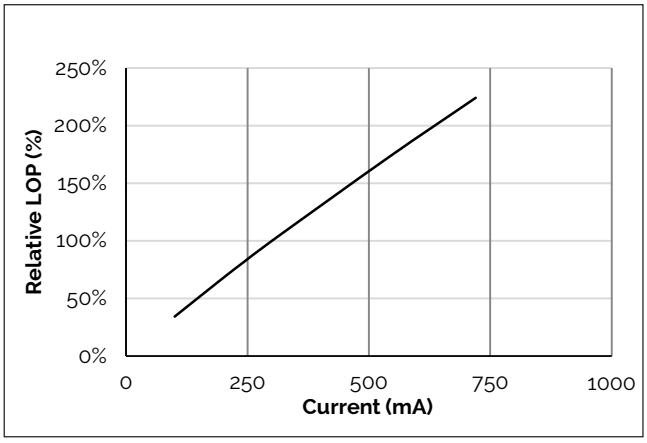


Figure 5: Typical DC Flux vs. Case Temperature

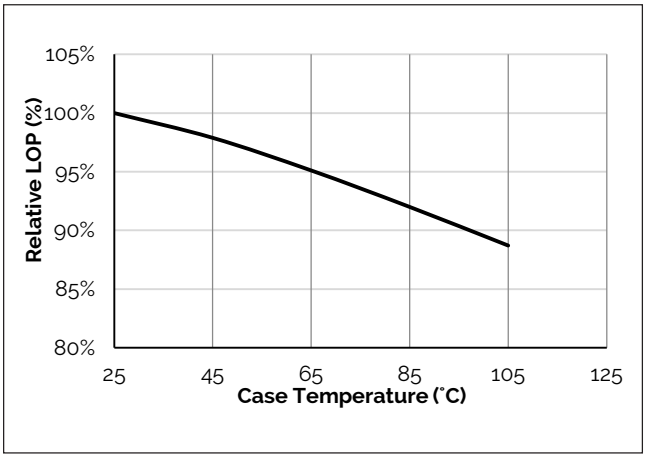
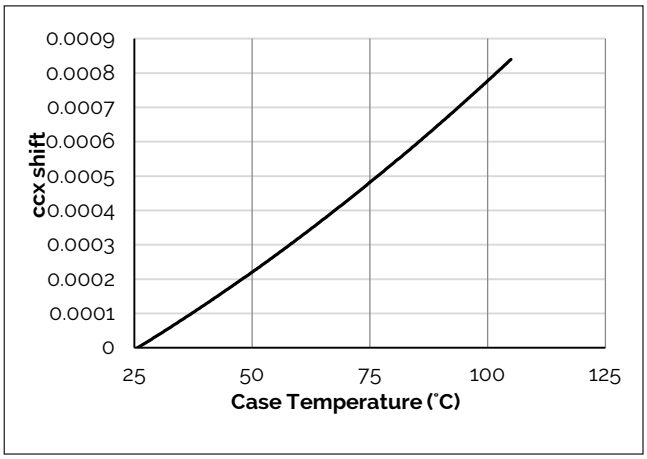


Figure 6: Typical DC ccx Shift vs. Case Temperature



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 drive current where T_j (junction temperature) = T_c (case temperature) = 25˚C.

Note for Figures 3-6:

1. Characteristics shown for Warm White.

Performance Curves

Figure 7: Typical DC ccy Shift vs. Case Temperature

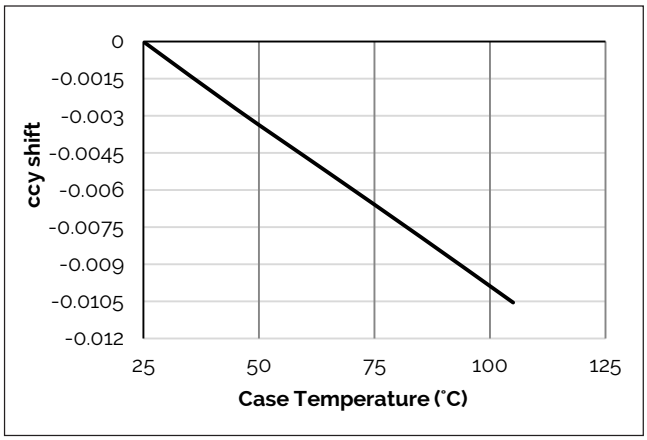


Figure 8: Vero10B Drive Current vs. ccx Shift

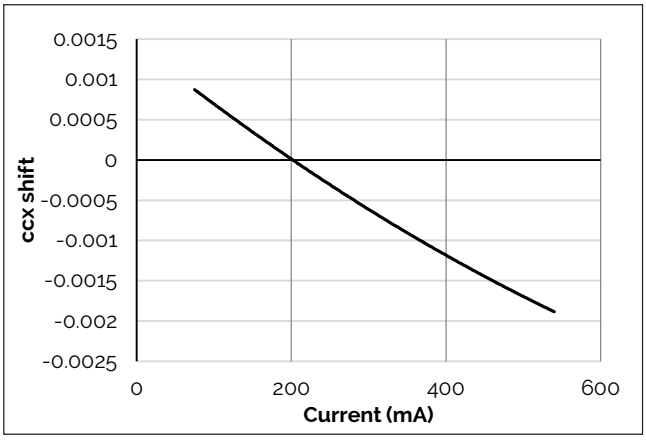


Figure 9: Vero10B Drive Current vs. ccy Shift

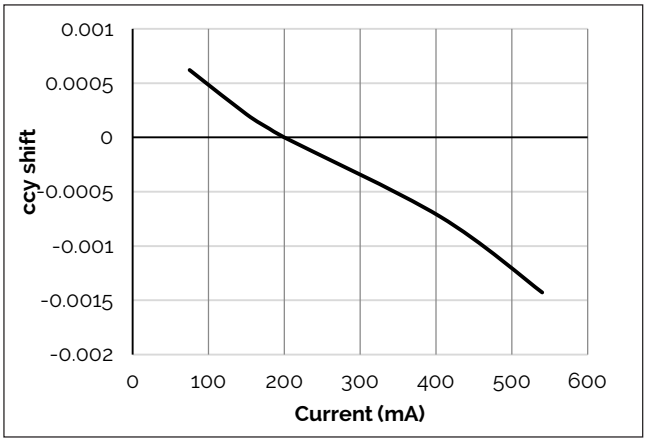


Figure 10: Vero10C Drive Current vs. ccx Shift

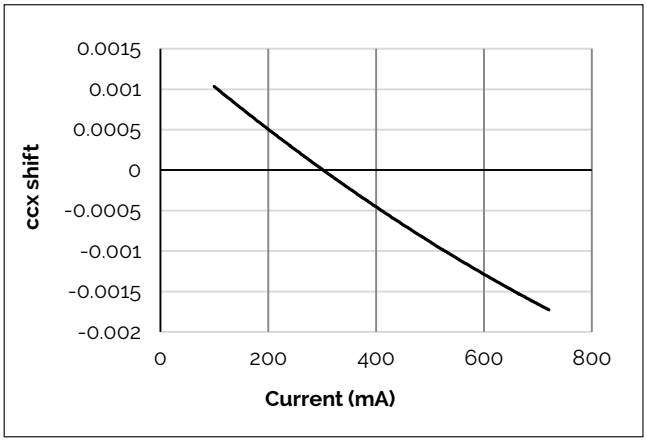
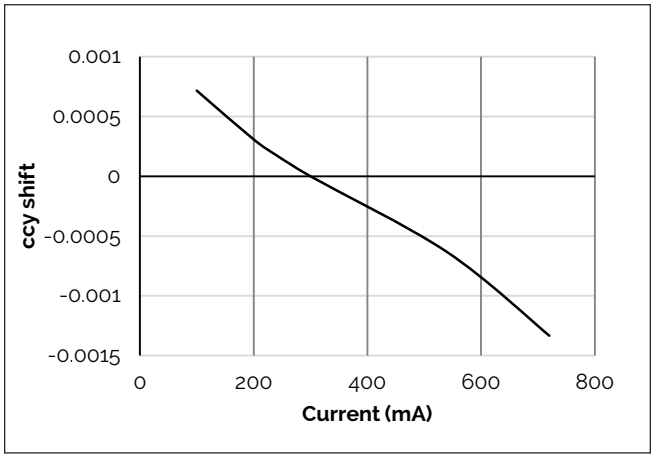


Figure 11: Vero10C Drive Current vs. ccy Shift



Notes for Figures 7-11:

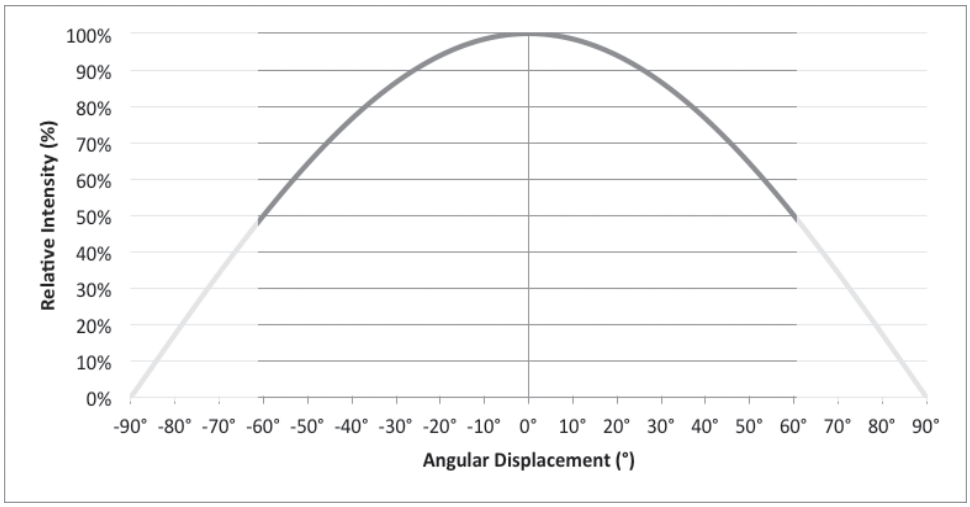
1. Bridgelux does not recommend driving high power LEDs at low currents. Doing so may produce unpredictable results. Pulse width modulation (PWM) is recommended for dimming effects.
2. Products tested under pulsed condition (10ms pulse width) at nominal drive current where T_j (junction temperature)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

Note for Figures 3-6:

1. Characteristics shown for Warm White.

Typical Radiation Pattern

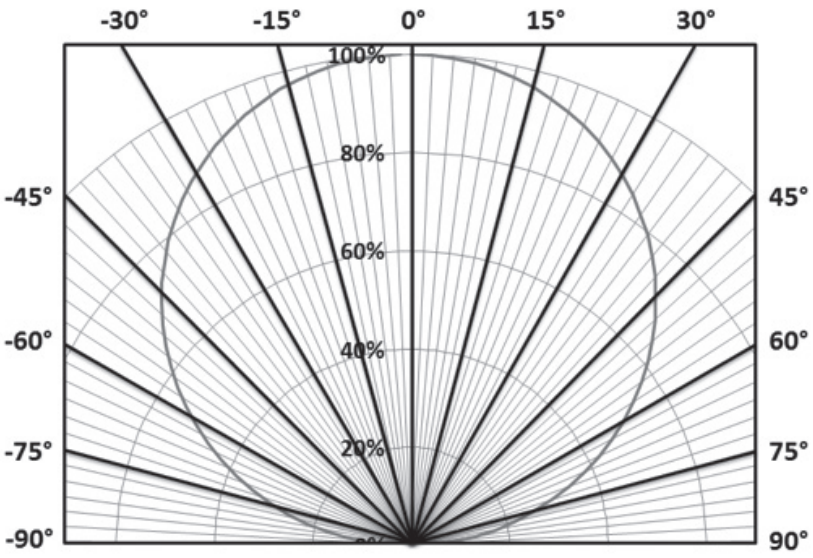
Figure 12: Typical Spatial Radiation Pattern



Notes for Figure 12:

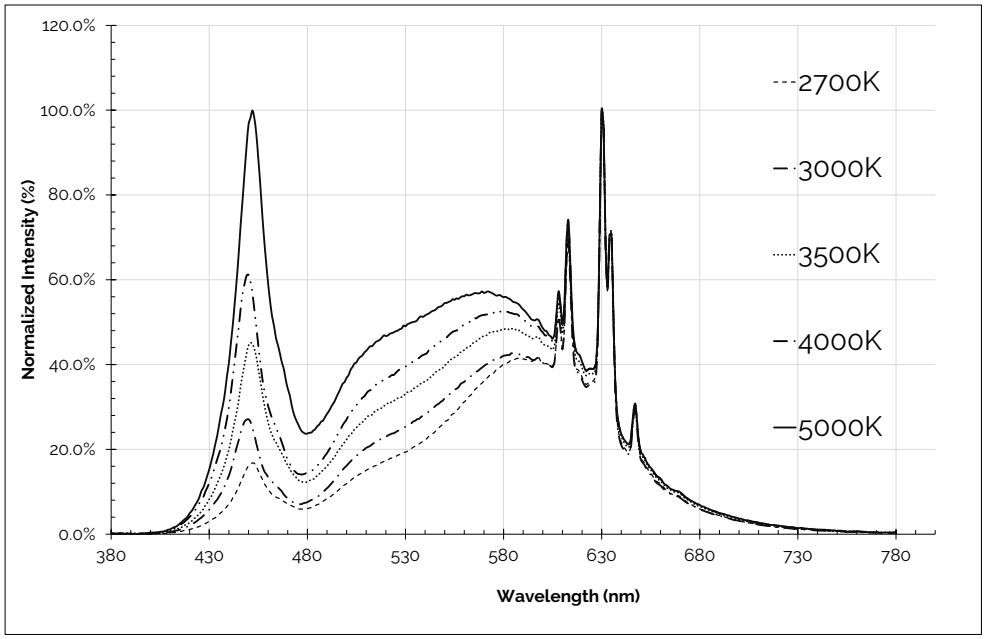
1. Typical viewing angle is 120°.
2. The viewing angle is defined as the off axis angle from the centerline where intensity is ½ of the peak value.

Figure 13: Typical Polar Radiation Pattern



Typical Color Spectrum

Figure 14: Typical Color Spectrum

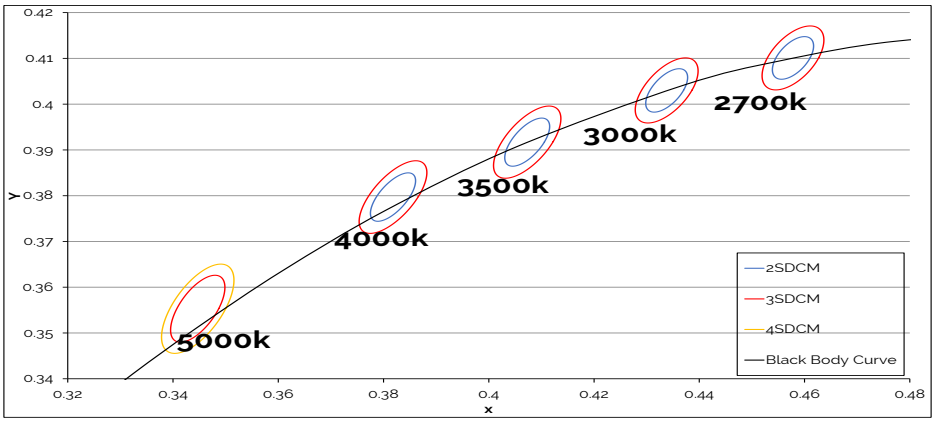


Notes for Figure 14:

1. Color spectra measured at nominal current for T_j = T_c = 85˚C.
2. Color spectra shown is 2700K and 80CRI.
3. Color spectra shown is 3000K and 80 CRI.
4. Color spectra shown is 3500K and 80 CRI.
5. Color spectra shown is 4000K and 80 CRI.
6. Color spectra shown is 5000K and 80 CRI.

Color Binning Information

Figure 15: Warm,Neutral and Cool White Test Bins in xy Color Space



Note: Pulsed Test Conditions, T_c = 85˚C

Table 8: Warm and Neutral White xy Bin Coordinates and Associated Typical CCT (product is hot targeted to Tc = 85˚C)

Bin Code	2700K	3000K	3500K	4000K
ANSI Bin (for reference only)	(2580K - 2870K)	(2870K - 3220K)	(3220K - 3710K)	(3710K - 4260K)
93 (3 SDCM)	(2651K - 2794K)	(2968K - 3136K)	(3369K - 3586K)	(3851K - 4130K)
92 (2 SDCM)	(2674K - 2769K)	(2995K - 3107K)	(3404K - 3548K)	(3895K - 4081K)
Center Point (x,y)	(0.4578, 0.4101)	(0.4338, 0.403)	(0.4073, 0.3917)	(0.3818, 0.3797)

Table 9: Cool White xy Bin Coordinates and Associated Typical CCT (product is hot targeted to T_c = 85˚C)

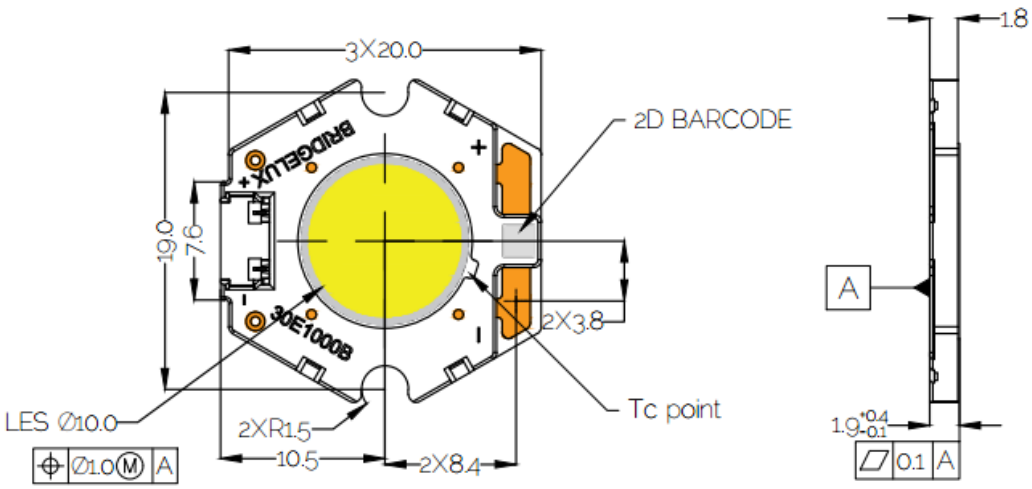
Bin Code	5000K
ANSI Bin (for reference only)	(4745K - 5311K)
94 (4 SDCM)	(4801K - 5282K)
93 (3 SDCM)	(4835K - 5215K)
Center Point (x,y)	(0.3447, 0.3553)

Note for Tables 8-9:

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

Mechanical Dimensions

Figure 16: **Drawing for Vero10 LED Array**

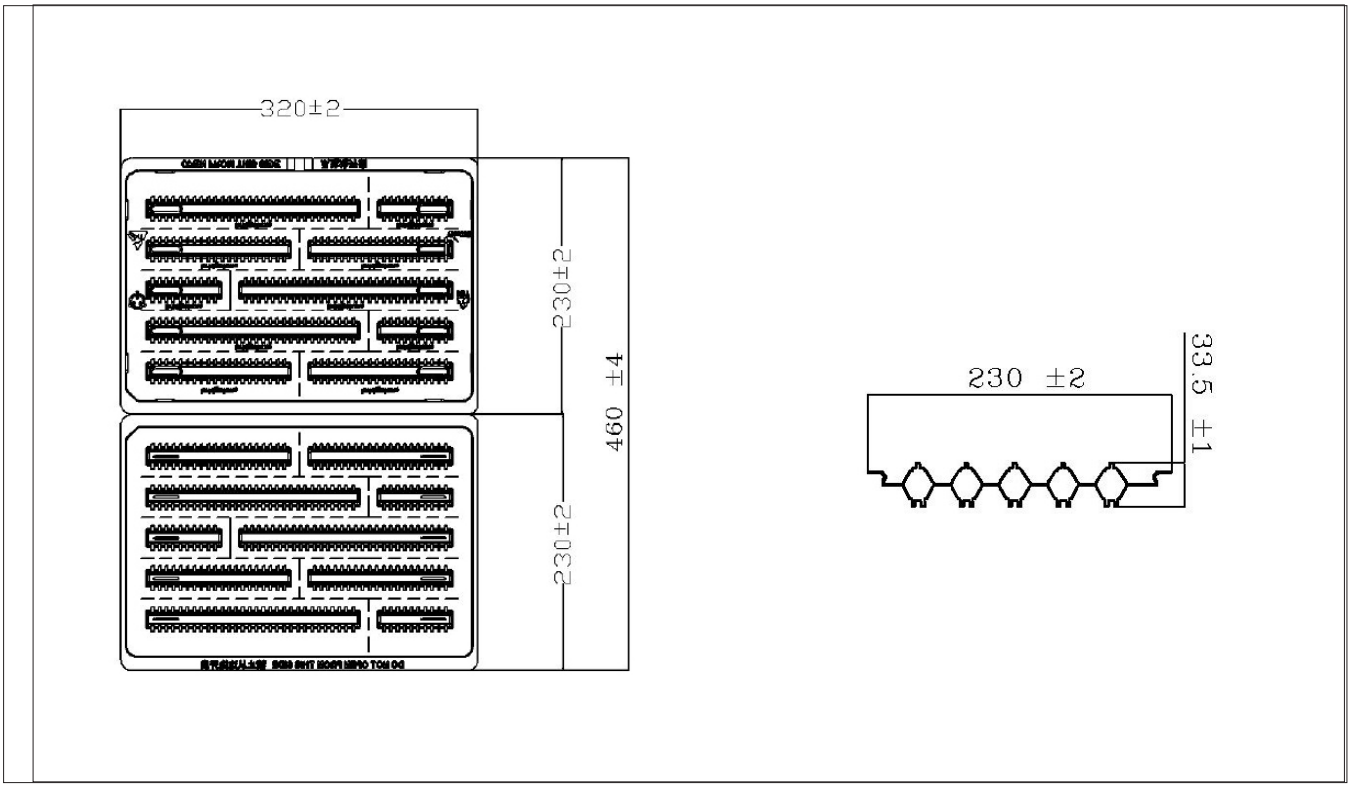


Notes for Figure 16:

1. Drawings are not to scale.
2. Dimensions are in mm.
3. Unless otherwise specified, tolerances are ± 0.10mm.
4. Mounting slots (2X) are for M2.5 screws.
5. Bridgelux recommends two tapped holes for mounting screws with 19.0 ± 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. Solder pads and connector port are labeled "+" and "-" to denote positive and negative, respectively.
8. It is not necessary to provide electrical connections to both the solder pads and the connector port. Either set may be used depending on application specific design requirements.
9. Refer to Application Notes AN30 and AN31 for product handling, mounting and heat sink recommendations.
10. The optical center of the LED Array is nominally defined by the mechanical center of the array to a tolerance of ± 0.2mm.
11. Bridgelux maintains a flatness of 0.10mm across the mounting surface of the array.

Packaging and Labeling

Figure 17: Drawing for Vero 10 Packaging Tray

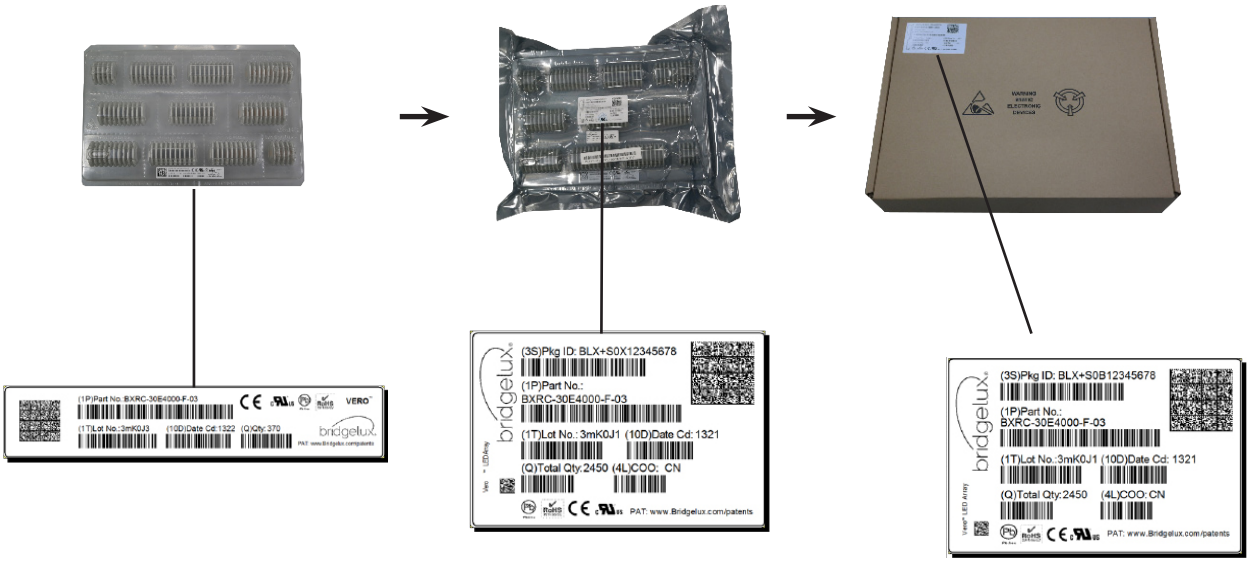


Notes for Figure 17:

1. Dimensions are in millimeters.
2. Drawings are not to scale.

Packaging and Labeling

Figure 18: Vero Series Packaging and Labeling



Notes for Figure 18:

1. Each tray holds 200 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 19: 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.

Design Resources

Application Notes

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

Optical Source Models

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

3D CAD Models

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

LM80

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

Precautions

CAUTION: CHEMICAL EXPOSURE HAZARD

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

CAUTION: RISK OF BURN

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

CAUTION

CONTACT WITH LIGHT EMITTING SURFACE (LES)

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

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

Disclaimers

MINOR PRODUCT CHANGE POLICY

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

STANDARD TEST CONDITIONS

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

About Bridgelux: Bridging Light and Life™

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

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