



Winter 2023

LED Components

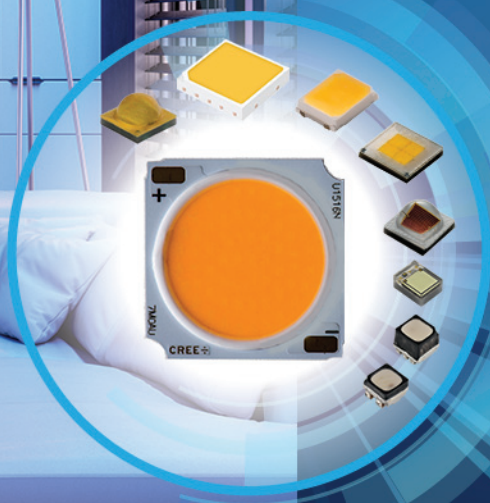
Product & Application Guide

High-Power General Lighting

Mid-Power General Lighting

Specialty Lighting

Video Screens



cree-led.com



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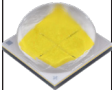
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XLamp® LEDs

- XP-G4 delivers best-in-class LPW with enhanced optical performance
- Broadcast color options, featuring TLCI 90 or 95 minimum at 5700K CCT, available on XP-G3, XP-G4, XP-L2, XHP35.2, XHP50.3 & XHP70.3

LEDs		Footprint (mm)	Voltage Class (V)	Typical LPW @ 85 °C	Maximum Drive Current (A)	Maximum Power (W)
	XP-E High Efficacy	3.45	3	169 @ 1 W	1.50	5
	XP-G3 S Line		3	195 @ 1 W 173 @ 2 W	2.00	6
	XP-G4 Standard		3	197 @ 1 W 177 @ 2 W	3.00	10
	XP-L2		3	165 @ 3 W	3.00	10
	XHP35.2 High Density		12	165 @ 4 W	1.50	20
	XHP50.3 High Density	5.00	6 12	148 @ 8 W	3.00 1.50	18
	XHP70.3 High Density	7.00	6 12	150 @ 12 W	7.20 3.60	45

J Series® LEDs

- JR5050C E Class LEDs deliver industry's highest efficacy for high power LEDs, with up to 3 times the light output of competing 5050 LEDs at the same LPW

LEDs		Footprint (mm)	Voltage Class (V)	Typical LPW @ 85 °C	Maximum Drive Current (A)	Maximum Power (W)
	JR5050C E Class	5.00	6	216 @ 1 W 204 @ 2 W	1.000	6
	JR5050B K Class		6 30	203 @ 1 W 190 @ 2 W	1.000 0.240	6
	JR5050 P Class		6 9 24	197 @ 1 W 183 @ 2 W	1.000 0.660 0.240	6



J Series® LEDs: 2835 Pro9™

- Up to 24% higher efficacy for 90 CRI over standard version LEDs

Voltage Class	Product / Class	Typ. Current (mA)	Typ. Voltage (V)	4000 K, 90 CRI		3000 K, 90 CRI		Max. Current (mA)
				Typ. lm	Typ. LPW	Typ. lm	Typ. LPW	
3-V	JB2835B / G	55	2.67	30.5	208	29.4	200	480
	JB2835B / J	55	2.68	30.2	205	29.0	197	480
	JB2835B / N	55	2.70	29.4	198	28.4	191	240
9-V	JK2835B / U	100	9.10	133	146	127	140	120

J Series® LEDs: 2835

- 3-V J & N Class available with Precision Dimming, a simplified binning scheme that improves consistency when dimming LEDs to low current

Voltage Class	Product / Class	Typ. Current (mA)	Typ. Voltage (V)	4000 K, 80 CRI		3000 K, 80 CRI		Max. Current (mA)
				Typ. lm	Typ. LPW	Typ. lm	Typ. LPW	
3-V	JB2835B / G	55	2.67	32.1	219	30.2	207	480
	JB2835B / J	55	2.68	31.0	210	29.1	197	480
	JE2835B / N	150	2.86	78.1	182	73.8	172	240
	JE2835B / P	150	3.04	77.0	169	72	158	240
	JE2835 / R	150	2.95	73.5	166	70.5	159	240
	JB2835 / W	60	2.91	30.4	174	29.1	167	150
6-V	JK2835 / P	150	6.07	154	169	146	160	240
	JK2835B / W	150	6.35	137	144	131	138	200
9-V	JK2835B / U	100	9.10	143	157	132	145	120
	JK2835B / W	100	9.15	132	144	124	136	120
18-V	JK2835B / U	50	18.1	141	156	133	147	60
	JK2835 / X	50	18.2	126	138	119	131	60

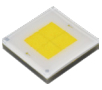
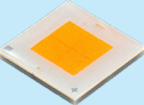
J Series® LEDs: 3030

Voltage Class	Product / Class	Typ. Current (mA)	Typ. Voltage (V)	4000 K, 80 CRI		3000 K, 80 CRI		Max. Current (mA)
				Typ. lm	Typ. LPW	Typ. lm	Typ. LPW	
3-V	JB3030 HE / B	65	2.70	36.5	208	34.1	194	480
	JB3030 HE / D	65	2.79	36.2	200	33.8	186	240
	JB3030 / P	65	2.81	33.8	185	31.7	174	240
	JK3030 / P	350	3.15	154	140	144	131	400
6-V	JK3030 HE / B	150	6.00	153	170	143	159	240
	JK3030 / P	150	6.14	148.5	161	141	153	240



XLamp® LEDs: High Intensity

- Breakthrough intensity of XP-P now available in full range of CCT/CRI options
- XHP High Intensity LEDs now available in 95 CRI minimum

LEDs		LES (mm)	CCT & CRI Options	Maximum Light Output* (lm)	Voltage Class (V)	Maximum Drive Current (A)
	XP-P	~1	6500K-2700K 70, 80, 90	489	3	2.50
	XQ-E High Intensity		6500K-1800K 70, 80, 90	383	3	1.50
	XE-G (Element G)	~2	6500K-2200K 70, 80, 90	659	3	3.00
	XD16 Premium White		7000K-2200K 70, 80, 90	602	3	2.00
	XHP35.2 High Intensity	~3	7000K-2700K 70, 80, 90, 95	1,613	12	1.50
	XP-L High Intensity		6500K-2700K 70, 80, 90	1,035	3	3.00
	XHP50.3 High Intensity	~4	7000K-2700K 70, 80, 90, 95	1,990	6 12	3.00 1.50
	XHP70.3 High Intensity	~5.5	7000K-2700K 70, 80, 90, 95	4,677	6 12	7.20 3.60

* Performance shown for 3000K, 80 CRI, T_c = 55 °C

XLamp® LEDs: COB

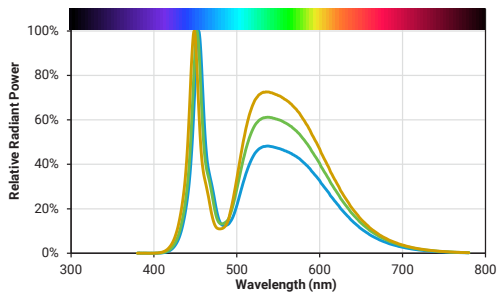
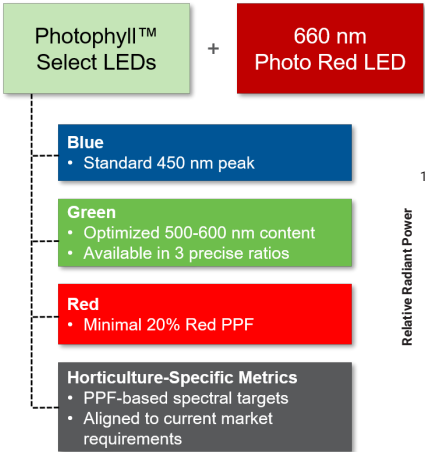
- Pro9™ versions deliver up to 15% higher efficacy for 90 & 95 CRI
- High Fidelity (98 CRI) & Specialty options

LES Type	Product Family	LES (mm)							
		3.3	4.2	4.5	6	8.5	9	9.8	12
Cree LED	CMBxxxx				1306 1304		1516 1510 1507		1825 1818
Others	CHAxxxx	0304	0410		0612	0825			
	CMUxxxx							1013 1010 1006 1003	



- Photophyll™ Select LEDs: new phosphor-converted LED color with blue and green spectral output tuned for horticulture applications
- Reported DLC Horticulture lifetimes up to Q90 >109K hrs

LED Platform	J Series® 5050		XLamp® XP		J Series 2835 3V
Footprint (mm)	5.0 x 5.0		3.45 x 3.45		2.8 x 3.5
Max Power (W)	6		4-6		1
Photophyll™ Select			 XP-G3		 G Class
White	 JR5050C E Class	 JR5050B K Class	 XP-G3 S Line		 G Class
450 nm			 XP-G3		 N Class
660 nm			 XP-G3 S Line	 XP-E2	 N Class
730 nm				 XP-E2	 N Class
PC Purple					 N Class

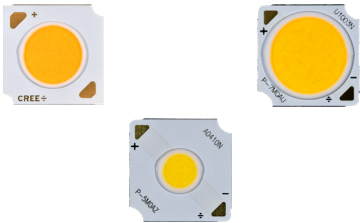




XLamp® COB LEDs: Premium Color

- Pro9™ versions deliver up to 15% higher efficacy for 90 & 95 CRI
- Standard 2-step color consistency on most offerings

Colors	CRI Min	4000K	3500K	3100K below BBL	3000K	3000K below BBL	2700K
Fidelity	95	40H	35H		30H		27H
Specialty	90			31Q		30Q 30U	
	95					L7C	



LES Type	Product Family	LES (mm)							
		3.3	4.2	4.5	6	8.5	9	9.8	12
Cree LED	CMBxxxx				1306 1304		1516 1510 1507		1825 1818
Others	CHAxxxx	0304	0410		0612	0825			
	CMUxxxx							1013 1010 1006 1003	

XLamp® Discrete LEDs

- Pro9™ versions deliver up to 10% higher efficacy for 90 & 95 CRI
- 4000K-2700K with 2- & 3-step color consistency options

Footprint (mm)	LEDs		LES (mm)	Version	Voltage Class (V)	CRI Min Options	Max. Flux (lm)	Max. Current (A)	Max. Power (W)
3.45		XP-G4	2.3 x 2.3	Pro9™	3	90, 95	695	2.000	6
		XHP35.2	2.6 x 2.6	High Intensity	12	90, 95	1,808	1.500	20
				High Intensity Pro9™	12	90, 95	849	0.700	8
		XHP35.2	3.2 x 3.2	High Density	12	90	2,084	1.500	20
				High Density Pro9™	12	90, 95	983	0.700	8

J Series® LEDs

- 6500K-2700K with 3-step color consistency



LEDs	Voltage Class	Typical Drive Current (mA)	4000 K, 95 CRI min		3000 K, 95 CRI min		Max. Drive Current (mA)
			Typ. lm	Typ. LPW	Typ. lm	Typ. LPW	
JE2835B N Class	3-V	150	59.5	139	55.5	129	240
JE2835B P Class	3-V	150	59	129	55	121	240

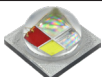


Single Color LEDs

- Higher max current ratings for XLamp® XQ-E HD, XQ-E HI & XP-E2
- New colors for XLamp XQ-E HD & HI: Cyan, PC Cyan, PC Lime

									
	XLamp Element G	XLamp XP-G3	XLamp XQ-E High Intensity	XLamp XQ-E High Density	XLamp XP-E2	XLamp XB-D	XLamp XQ-A	JE2835 3V N Class	CLX6F
	10 W max	6 W max	5 W max	5 W max	5 W max	3 W max	1 W max	0.8 W max	0.4 W max
White	•	•	•	•	•	•	•		•
Violet	•							•	
Royal Blue	•	•	•	•	•	•		•	
Blue	•		•	•	•	•	•	•	•
PC Blue	•		•				•		
Cyan	•		•	•				•	
PC Cyan	•		•	•					
Green	•		•	•	•	•	•	•	•
PC Mint	•							•	
PC Lime	•		•	•				•	
PC Yellow	•								
Amber	•				•	•		•	•
PC Amber	•		•	•	•	•	•	•	•
PC Red-Orange	•							•	
Red-Orange	•		•	•	•	•	•	•	
PC Red	•								
Red	•		•	•	•	•	•	•	•
Photo Red	•	•		•	•			•	

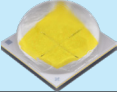
Multi-Color LEDs

						
	XLamp XM-L Color Gen 2 High Density	XLamp XM-L Color Gen 2 High Intensity	CLQ6x	CLR6A	CLW6A	CLX6F
	1.75 A max	1.75 A max	200 mA max	65 mA max	30 mA max	35 mA max
RGBW	•	•	•	•	•	
RGBA			•		•	
RGB			•			•



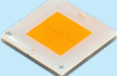
XLamp® LEDs: Lumen Optimized

- Optimized for maximum lumen output at high drive current

	XLamp LED	Footprint (mm)	Voltage Class	Lumens @ Max Current ¹ (lm)	Lumens @ Overdrive Current ² (lm)	Overdrive Flux Bin Tested	Light Source Size ³ (mm)
	XT-E HE	3.45	3V	511 @ 1.5A	762 @ 3.0A	S4	2.0 x 2.0
	XP-G3		3V	776 @ 2.0A	1,316 @ 4.5A	S7	2.3 x 2.3
	XP-L2		3V	1,172 @ 3.0A	1,858 @ 6.0A	W3	3.0 x 3.0
	XM-L3	5.00	3V	1,526 @ 5.0A	1,967 @ 6.1A	U5	3.0 x 3.0
	XHP50.3 HD		3V 6V	2,067 @ 6.0A 2,067 @ 3.0A	3,066 @ 10A 3,066 @ 5.0A	K2	3.9 x 3.9
	XHP70.3 HD	7.00	6V	4,857 @ 7.2A	N/R ⁴	---	5.3 x 5.3

XLamp® LEDs: Beam Distance Optimized

- Optimized for maximum beam distance

	XLamp LED	Footprint (mm)	Voltage Class	Lumens @ Max Current ¹ (lm)	Lumens @ Overdrive Current ² (lm)	Overdrive Flux Bin Tested	Light Source Size ³ (mm)
	XD16 Premium	1.6	3V	642 @ 2.0A	856 @ 3.0A	S3	1.4 x 1.4
	XE-G	2.05 x 1.6	3V	711 @ 3.0A	N/R ⁴	---	1.3 x 1.3
	XP-P	3.45	3V	614 @ 3.0A	N/R ⁴	---	1.0 x 1.0
	XP-L HI		3V	992 @ 3.0A	1,399 @ 5.0A	V3	2.1 x 2.1
	XHP50.3 HI	5.00	3V 6V	1,929 @ 6.0A 1,929 @ 3.0A	2,752 @ 10A 2,752 @ 5.0A	J4	3.0 x 3.0
	XHP70.3 HI	7.00	6V	4,523 @ 7.2A	N/R ⁴	---	3.9 x 3.9

1. Simulated light output with highest available flux bin at maximum rated current.
2. Measured light output with stated flux bin after 30 seconds of operation. Overdrive performance ratings are provided for reference in portable lighting applications only and are not a specification.
3. Apparent optical source size as seen by the optic. These values are not LED die sizes.
4. Running this LED above maximum current is not recommended since peak lumen output occurs at maximum current.

VIDEO SCREENS – FULL-COLOR SCREENS



Photo: Prismview, A Samsung Electronics Company

Surface Mount RGB

- Application optimized: IPX8 waterproofing, matte surface for contrast, small size
- Proven lifetime for displays that last under all viewing conditions

Package Size (mm)	LEDs		Angle (°)	Typ. Red Intensity (mcd)	Typ. Green Intensity (mcd)	Typ. Blue Intensity (mcd)	IPX8 Rated
1.0 x 1.0		UHD111A-FKA	120	35	60	12	
1.5 x 1.5		CLMUD-FKA	110	54	180	30	
		CLMUD-FKC	110	450	750	145	
1.6 x 1.7		CLMWB-FKA	120	380	640	100	●
		CLMWB-FKC	120	525	1,030	210	●
2.0 x 2.0		CLMVC-FKA	120	80	225	43	
		CLMVC-FKC	120	420	650	145	
2.19 x 1.8		CLMXB-FKA	120	275	565	95	●
2.19 x 1.85		CLMXB-FKC	120	515	1200	240	●
2.8 x 2.8		CLY6C-FKC	110	500	900	245	●
		CLY6G-FKC	110	750	1,350	240	●
		CLY6D-FKC	110	750	1,350	240	●
3.5 x 3.4		CLX6E-FKC	110	750	1,100	270	●
		CLX6F-FKC	110	800	1,400	270	●
9.4 x 4.2		CV94A-FGC	90/45	1,600	2,800	560	●
		CV94U-FGC	90/45/-8	1,600	2,800	560	●
		CV94D-FCC	30	6,000	12,000	2,300	●

Through-Hole: P2

Product Series		Angle (°)	Typ. Red Intensity (mcd)	Typ. Green Intensity (mcd)	Typ. Blue Intensity (mcd)
4 mm Oval	C4SMA	90/45	1,500	2,500	900
	C4SMB	90/45	2,800	7,500	1,400
	S4SMS	105/50	1,200	3,800	660
	C4SMM	115/65	1,050	1,800	380
5 mm Oval	C566D	70/30	3,000	8,200	2,000
	C5SMF	100/40	2,200	4,400	1,100



- Small form factor enables compact and more-aerodynamic light bars
- Industry's best lumen density and optical control
- New XLamp® Element G (XE-G) LEDs deliver breakthrough light output and lumen density and are available in 17 colors plus a full range of white
- Common XLamp XQ package for color and white LEDs simplifies design

Power Class	LEDs	Footprint (mm)	Maximum Power (W)	White	Blue / PC Blue	PC Amber	Red-Orange
High Power (1+ W)	XLamp XB-D	2.45	3				
	XLamp XE-G (Element G)	2.05 x 1.60	13				
	XLamp XQ-E High Density	1.60	5				
	XLamp XQ-E High Intensity	1.60	5				
Mid Power (0.5 W)	XLamp XQ-A	1.60	0.8				

Power Class	LEDs	Footprint (mm)	Maximum Power (W)	White	Amber	Orange	Red
Low Power (<0.5 W)	CP41B CP41A	7.6	0.1				

XLAMP® WHITE LEDS

- High-power LEDs that deliver the industry’s highest lumen density and efficacy
- Pro9™ versions deliver up to 10% higher efficacy for 90 & 95 CRI
- Broadcast color options, featuring TLCI 90 or 95 minimum at 5700K CCT, available on XP-G3, XP-G4, XP-L2, XHP35.2, XHP50.3 & XHP70.3

Footprint (mm)	XLamp LED	Voltage Class	Test Current (A)	Typ. Vf @ 85°C (V)	Version	Max. Current (A)	Max Light Output (lm)	LPW
1.60	XQ-A	3 V	0.175	3.00	---	0.300	90	●
	XQ-E	3 V	0.350	2.75	High Intensity	1.500	453	●
			0.350	2.80	High Density	1.500	454	●
	XD16	3 V	0.350	2.73	Premium White	2.000	688	●●
1.6 x 2.05	XE-G	3 V	1.000	3.00	---	3.000	861	●
2.45	XB-D	3 V	0.350	2.90	---	1.000	328	●●
3.45	XP-E2	3 V	0.350	2.84	---	1.500	435	●
	XT-E	3 V	0.350	2.77	High Efficacy	1.500	627	●●
	XP-P	3 V	1.000	3.10	<70 CRI	3.000	767	●
					70+ CRI	2.500	703	●
	XP-G3	3 V	0.350	2.70	Standard	2.000	769	●●●
					S Line	2.000	803	●●●●
	XP-G4	3 V	0.700	2.80	Standard	3.000	1,130	●●●●
					Pro9™	2.000	695	●●●●
	XP-L2	3 V	1.050	2.79	---	3.000	1,269	●●●
	XHP35.2	12 V	0.350	11.2	High Intensity	1.500	1,808	●●
					High Intensity Pro9™	0.700	849	●●●
					High Density	1.500	1,946	●●
					High Density Pro9™	0.700	983	●●●
5.00	XM-L3	3 V	0.700	2.75	---	5.000	1,783	●●
	XHP50.3	3 V	2.800	2.8	High Intensity	6.000	2,191	●●
		6 V 12V	1.400 0.700	5.6 11.2	High Density	3.000 1.500	2,320	●●
7.00	XHP70.3	6 V 12 V	2.100 1.050	5.6 11.2	High Intensity	7.200	5,157	●●
					High Density	3.600	5,511	●●

- Excellent value for general and specialty lighting applications in the industry's most common LED package sizes

J Series LEDs: 5050

Voltage Class	Product / Class	Typ. Current (mA)	Typ. Voltage (V)	4000 K, 70 CRI		3000 K, 80 CRI		Max. Current (mA)
				Typ lm	Typ LPW	Typ lm	Typ LPW	
6-V	JR5050C / E	400	5.63	480	213	424	188	1000
	JR5050B / K	400	5.67	455	201	404	178	1000
	JR5050 / P	400	5.77	442	192	394	171	1000
	JR5050 / Q	400	5.8	425	183	385	166	1000
9-V	JR5050 / P	260	8.56	434	195	383	172	660
	JR5050 / Q	260	8.6	415	186	372	166	660
24-V	JR5050 / P	100	23.08	442	192	394	171	240
	JR5050 / Q	100	23.5	430	183	385	164	240
30-V	JR5050B / K	80	28.35	455	201	404	178	240
36-V	JR5050 / Q	65	34.5	415	185	372	166	165

J Series LEDs: 3030

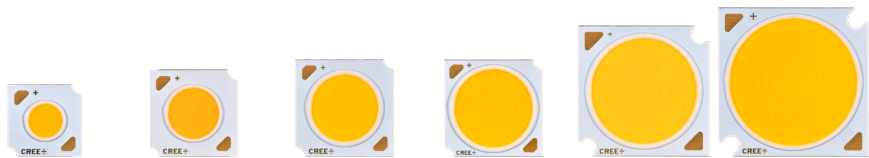
Voltage Class	Product / Class	Typ. Current (mA)	Typ. Voltage (V)	4000 K, 70 CRI		3000 K, 80 CRI		Max. Current (mA)
				Typ lm	Typ LPW	Typ lm	Typ LPW	
3-V	JB3030 HE / B	65	2.70	38.3	218	34.1	194	480
	JB3030 HE / D	65	2.79	37.9	209	33.8	186	240
	JB3030 / P	65	2.81	35.7	196	31.7	174	240
	JK3030 / P	350	3.15	164	149	144	131	400
6-V	JK3030 HE / B	150	6.00	160	178	143	159	240
	JK3030 / P	150	6.14	159	173	141	153	240

J Series LEDs: 2835

- Pro9™ versions available for 3-V (G, J, N) and 9-V (U) with up to 24% higher efficacy for 90 CRI over standard version LEDs

Voltage Class	Product / Class	Typ. Current (mA)	Typ. Voltage (V)	4000 K, 80 CRI		3000 K, 80 CRI		Max. Current (mA)
				Typ lm	Typ LPW	Typ lm	Typ LPW	
3-V	JB2835B / G	55	2.67	32.1	219	30.2	207	480
	JB2835B / J	55	2.68	31.0	210	29.1	197	480
	JE2835B / N	150	2.86	78.1	182	73.8	172	240
	JE2835B / P	150	3.04	77.0	169	72	158	240
	JE2835 / R	150	2.95	73.5	166	70.5	159	240
	JB2835 / W	60	2.91	30.4	174	29.1	167	150
6-V	JK2835 / P	150	6.07	154	169	146	160	240
	JK2835B / W	150	6.35	137	144	131	138	200
9-V	JK2835B / U	100	9.10	143	157	132	145	120
	JK2835B / W	100	9.15	132	144	124	136	120
18-V	JK2835B / U	50	18.1	141	156	133	147	60
	JK2835 / X	50	18.2	126	138	119	131	60

XLAMP® COB LEDs: CREE LED SOCKETS

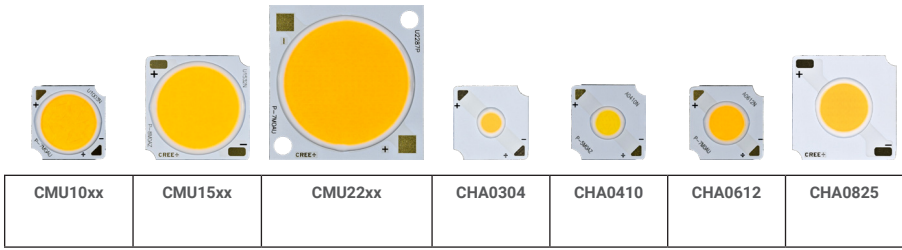


CMB1304 CMB1306	CMB1507 CMB1510 CMB1516	CMB1818 CMB1825	CMB1840	CMB2550	CMB3090
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XLamp CMB LED Family (XLamp CXA, CXB and CMA Compatible)

- Industry-leading lumen density and efficacy for drop-in upgrades

Light Emitting Surface (mm)	XLamp	Voltage Class	Typ. Current (A)	Typ. Voltage (V)	Max. Current (A)	Max. Power (W)	Standard Version 3000 K, 80 CRI		Pro9™ Version 3000 K, 90 CRI	
							Typ lm	Typ LPW	Typ lm	Typ LPW
6	CMB1304	9V	0.400	8.3	1.200	12	545	164	545	164
		18V	0.200	16.7	0.600	12	545	164	545	164
		36V	0.100	33.3	0.300	12	545	164	545	164
	CMB1306	18V	0.400	16.7	1.200	23	998	149	1,002	150
		36V	0.200	33.3	0.600	23	998	149	1,002	150
9	CMB1507	18V	0.400	16.8	1.200	23	1,106	167	1,110	167
		36V	0.200	33.5	0.600	23	1,106	167	1,110	167
	CMB1510	18V	0.700	17.0	1.800	35	1,874	157	1,827	154
		36V	0.350	34.0	0.900	35	1,874	157	1,827	154
	CMB1516	36V	0.450	34.0	1.200	46	2,416	158	2,427	159
12	CMB1818	36V	0.500	33.5	1.500	57	2,762	165	2,720	162
	CMB1825	36V	0.700	34.0	1.800	69	3,703	156	3,717	156
14	CMB1840	36V	1.100	34.4	2.400	91	5,693	150	5,773	153
19	CMB2550	36V	1.400	34.0	3.600	137	7,491	157	7,513	158
23	CMB3090	48V	1.800	45.4	3.600	176	12,405	152	12,441	152
		72V	1.200	68.1	2.400	176	12,405	152	12,441	152



XLamp CMU LED Family (Standard Series Compatible)

- Higher max. current, min. flux values and typical efficacy than competitors

Light Emitting Surface (mm)	XLamp	Voltage Class	Typ. Current (A)	Typ. Voltage (V)	Max. Current (A)	Max. Power (W)	Standard Version 3000 K, 80 CRI		Pro9™ Version 3000 K, 90 CRI	
							Typ lm	Typ LPW	Typ lm	Typ LPW
9.8	CMU1003	36V	0.090	33.6	0.240	9	533	176	522	172
	CMU1006	36V	0.180	33.6	0.480	17	1,051	174	1,032	170
	CMU1010	36V	0.270	33.6	0.720	26	1,550	171	1,524	167
	CMU1013	36V	0.360	33.6	0.960	35	2,025	167	1,992	164
14.5	CMU1516	36V	0.450	33.6	1.200	43	2,644	175	2,575	170
	CMU1519	36V	0.540	33.6	1.440	52	3,139	173	3,057	168
	CMU1526	36V	0.720	33.6	1.920	69	4,102	170	3,995	165
	CMU1532	36V	0.900	33.6	2.400	86	5,098	169	4,963	164
22	CMU2236	36V	0.990	33.6	2.640	95	5,839	176	5,737	172
	CMU2239	36V	1.080	33.6	2.880	104	6,367	175	6,253	172
	CMU2258	54V	1.080	50.5	2.880	156	9,321	171	9,154	168
	CMU2287	54V	1.620	50.5	4.320	233	13,603	166	13,361	163

XLamp CHA LED Family (High Intensity Series Compatible)

- Smaller LES options with similar lumen density to CXA2 HD family

Light Emitting Surface (mm)	XLamp	Voltage Class	Typ. Current (A)	Typ. Voltage (V)	Max. Current (A)	Max. Power (W)	Standard Version 3000 K, 80 CRI		Pro9™ Version 3000 K, 90 CRI	
							Typ lm	Typ LPW	Typ lm	Typ LPW
3.3	CHA0304	21V	0.175	20.8	0.300	7	454	125	460	125
4.2	CHA0410	12V	0.525	12	0.900	12	804	128	801	127
		36V	0.175	35.8	0.300	12	806	129	801	127
6.0	CHA0612	18V	0.700	18	1.200	24	1,603	127	1,623	129
		36V	0.350	35.8	0.600	24	1,603	128	1,623	129
8.5	CHA0825	36V	0.700	35.8	1.200	47	3,246	130	3,528	140

COLOR LEDS

LED	XLamp® XE-G	XLamp XP-G3	XLamp XQ-E HI	XLamp XQ-E HD	XLamp XP-E2	XLamp XB-D	XLamp XQ-A	JE2835 3-V N	CLX6F
Footprint (mm)	1.6x2.05	3.45x3.45	1.6x1.6	1.6x1.6	3.45x3.45	2.45x2.45	1.6x1.6	2.8x3.5	3.5x3.4
White									
Violet 400-420 nm									
Royal Blue 450-465 nm									
Blue 465-480 nm									
PC Blue									
Cyan 490-510 nm									
PC Cyan									
Green 520-535 nm									
PC Mint									
PC Lime									
PC Yellow									
Amber 585-595 nm									
PC Amber									
PC Red-Orange									
Red-Orange 610-620 nm									
PC Red									
Red 620-630 nm									
Photo Red 650-670 nm									
Far Red 720-740 nm									

LED Family	XLamp® XM-L Color Gen 2 HD	XLamp XM-L Color Gen 2 HI	CLQ6x	CLR6A	CLW6A	CLX6F
						
Color Options	RGBW	RGBW	RGBW, RGBA, RGB	RGBW	RGBW, RGBA	RGB
Footprint (mm)	5.0 x 5.0	5.0 x 5.0	5.2 x 5.0	3.8 x 3.8	3.5 x 3.5	3.5 x 3.4

Please see the Full Color Screens page for the SMD multi-color High Brightness LEDs.

PLCC Surface Mount

Size (mm)	Product Series	Angles (°)	Blue	Cyan	Green	Amber	Orange	Red	Cool White	Warm White
3.2 x 2.8	CLA	120							•	•
3.2 x 2.8	CLM1	120	•	•	•	•		•	•	
3.2 x 2.7 3.2 x 2.8	CLM2	30	•	•	•	•		•		
		30 min	•	•	•	•		•		
		50				•		•		
		60	•		•	•		•		
2.7 x 2.0	CLM3	120	•		•	•		•	•	•
3.2 x 2.7	CLM4	120	•		•	•	•	•		
6.0 x 5.0	CLP6	120				•		•	•	•
3.5 x 3.4	CLX6	110-120	•		•	•		•	•	

Through-Hole: P2

Product Series		Angle (°)	Blue	Green	Red	Amber	Cool White	Warm White
5 mm Round	C503D C503C C503B	15	•	•	•	•	•	
		15 min				•		
		23			•	•		
		30	•	•	•	•		
		30 min	•	•	•	•		
	C543A	20					•	
	C512A	25					•	
	C513A	55					•	•
	C535A	110					•	
4 mm Oval	C4SM	90/45	•	•	•			
		105/50	•	•	•			
		115/65	•	•	•			
5 mm Oval	C566	70/30			•	•		
	C5SMF	100/40	•	•	•	•		

Through-Hole: P4

Product Series	Angle (°)	Amber	Orange	Red	Cool White
CP41B CP41A	40	•	•	•	
	60				•
	70	•	•	•	
	90				•
	100	•	•	•	



Cree LED
4001 E. Hwy. 54, Suite 2000
Durham, NC 27709 USA
Phone: +1.919.313.5330
www.cree-led.com

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