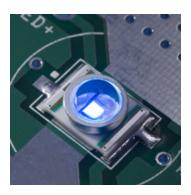


Cree® XLamp® XR-E Blue LED Binning and Labeling

Cree XLamp XR-E LEDs combine the brightness of power LED chips with a rugged package capable of operating in excess of three watts. XLamp LEDs lead the solidstate lighting industry in brightness while providing a reflow-solderable design that is optimized for ease-of-use and thermal management. Lighting applications featuring XLamp LEDs maximize light output and increase design flexibility, while minimizing environmental impact.



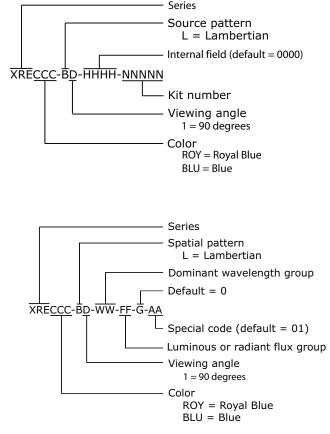
This application note describes Cree's procedures for sorting XLamp LEDs by color (dominant wavelength) and brightness (luminous or radiant flux) and then lists the order codes encompassing these color and brightness groups for easy reference.

Nomenclature

XLamp LEDs are tested and sorted into performance bins. A bin is specified by ranges of color and brightness. Sorted XLamp LEDs are packaged on reels. A reel contains lamps from one bin and is labeled with its bin code. For more information on packaging, see the XLamp XR-E Blue LEDs data sheet.

XLamp LEDs are sold by order codes in combinations of bins called kits. Order codes are configured in the following manner:

Bin codes are configured in a similar manner:



Subject to change without notice. www.cree.com/xlamp



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Performance Groups – Brightness

XLamp LEDs tested for radiant flux are placed into one of the following binned groups:

Group	Minimum Radiant Flux (mW) @ 350 mA	Maximum Radiant Flux (mW) @ 350 mA
12	250	300
13	300	350
14	350	425

XLamp LEDs tested for luminous flux are placed into one of the following binned groups:

Group	Minimum Luminous Flux (lm) @ 350 mA	Maximum Luminous Flux (Im) @ 350 mA
G0	13.9	18.1
HO	18.1	23.5
JO	23.5	30.6
К0	30.6	39.8
MO	39.8	51.7

Performance Groups – Dominant Wavelength

Royal blue and blue XLamp LEDs are tested for dominant wavelength (DWL) and placed into one of the DWL groups defined below.

Color	DWL Group	Min. DWL (nm) @ 350 mA	Max. DWL (nm) @ 350 mA
	D3	450	455
Royal Blue	D4	455	460
	D5	460	465
	B3	465	470
Plue	B4	470	475
Blue	B5	475	480
	В6	480	485

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Standard Order Codes and Bins

The following tables list standard order code configurations and performance bins. Contact an authorized Cree distributor if custom order codes are required. Kit numbers completely describe an order code's dominant wavelength groups and flux range.

Standard Order Codes – Royal Blue				
Kit Number	Dominant Wavelength (nm)		Radiant Flux (mW) @ 350 mA	
	Min.	Max.	Min.	
00701	450	465	250	

			Standard Bins – Royal Blue	
(Mr	⁴²⁵ I		1	1
Ű. ×	250	XREROY-L1-D3-14-0-01	XREROY-L1-D4-14-0-01	XREROY-L1-D5-14-0-01
it Flux	300	XREROY-L1-D3-13-0-01	XREROY-L1-D4-13-0-01	XREROY-L1-D5-13-0-01
Radian		XREROY-L1-D3-12-0-01	XREROY-L1-D4-12-0-01	XREROY-L1-D5-12-0-01
Ŕ	45	0 4	55 4	60
			Dominant Wavelength (nm)	

Standard Order Codes – Blue				
Kit Number	Dominant Wavelength (nm)		Luminous Flux (lm) @ 350 mA	
	Min.	Max.	Min.	
00G01	465	485	13.9	
00G02	465	475	13.9	
00H03	470	480	18.1	

			Standard	Bins – Blue			
Luminous Flux (Im)	51.7 •		XREBLU-L1-B6-M0-0-01	7			
	39.8 •		XREBLU-L1-B4-K0-0-01	XREBLU-L1-B5-K0-0-01	XREBLU-L1-B6-K0-0-01		
	30.6	XREBLU-L1-B3-J0-0-01	XREBLU-L1-B4-J0-0-01	XREBLU-L1-B5-J0-0-01	XREBLU-L1-B6-J0-0-01		
	23.5	XREBLU-L1-B3-H0-0-01	XREBLU-L1-B4-H0-0-01			-	
	13.9	XREBLU-L1-B3-G0-0-01		1	1	1 	
	46	5 4	70 4	75 4	480	485	
Dominant Wavelength (nm)							