

Cree® XLamp® XR-E and XR-C LED



INTRODUCTION

This document describes the product nomenclature required to select and order Cree's XLamp XR-E and XR-C LEDs. XLamp XR-E and XR-C LEDs are tested and sorted into bins which are then combined into orderable kits identified by an order code.

All XLamp LEDs are tested and sorted by color and brightness into a unique bin. Each bin contains LEDs from only one color and brightness group and is uniquely identified by a bin code. White XLamp LEDs are sored by chromaticity (color) and luminous flux (brightness). Color XLamp LEDs are sorted by dominant wavelength (color) and luminous flux (brightness), or in the case of roal blue, radiant flux (brightness). Amber, red-orange and red LEDs are additionally binned into forward voltage bins. LEDs are shipped onreels containing LEDs from one bin and are always labeled with the appropriate bin code.

Kits contain LEDs from a number of similar bins and are fully defined by their order codes. A full explanation of the order codes for each family, as well as a list of standard order codes, is provided in this document.

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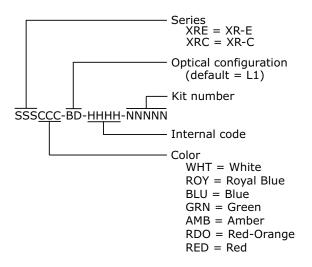
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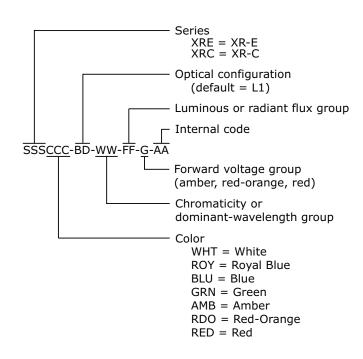
BIN AND ORDER-CODE FORMAT

Bin codes and order codes are configured in the following manner:

Order Code



Bin Code





PERFORMANCE GROUPS - BRIGHTNESS

White XLamp XR-E and XR-C LEDs are tested for luminous flux and placed into one of the following luminous-flux groups:

Group Code	Min. Luminous Flux @ 350 mA (lm)	Max. Luminous Flux @ 350 mA (lm)
M2	39.8	45.7
M3	45.7	51.7
N2	51.7	56.8
N3	56.8	62.0
N4	62.0	67.2
P2	67.2	73.9
P3	73.9	80.6
P4	80.6	87.4
Q2	87.4	93.9
Q3	93.9	100
Q4	100	107
Q5	107	114

Blue and green XLamp XR-E and XR-C LEDs are tested for luminous flux and placed into one of the following luminous-flux groups:

Group	Min. Luminous Flux @ 350 mA (lm)	Max. Luminous Flux @ 350 mA (lm)
G	13.9	18.1
Н	18.1	23.5
J	23.5	30.6
K	30.6	39.8
М	39.8	51.7
N	51.7	67.2
Р	67.2	87.4
Q	87.4	114

Amber, red-orange and red XLamp XR-C LEDs are tested for luminous flux and placed into one of the following luminous-flux groups:

Group	Min. Luminous Flux @ 350 mA (lm)	Max. Luminous Flux @ 350 mA (lm)
J	23.5	30.6
K2	30.6	35.2
K3	35.2	39.8
M2	39.8	45.7
M3	45.7	51.7
N2	51.7	56.8
N3	56.8	62.0
N4	62.0	67.2



PERFORMANCE GROUPS - BRIGHTNESS (CONTINUED)

Royal-blue XLamp XR-E and XR-C LEDs are tested for radiant flux and placed into one of the following radiant-flux groups:

Group	Min. Radiant Flux (mW) @ 350 mA	Max. Radiant Flux (mW) @ 350 mA
12	250	300
13	300	350
14	350	425
15	425	500
16	500	600

PERFORMANCE GROUPS - CHROMATICITY

White XLamp LEDs are tested for chromaticity and placed into one of the regions defined by the bounding coordinates below.

White Chromaticity Region Bounding Coordinates

Region	х	у	Region	х	у
	.283	.284		.314	.355
WK	.295	.297	WF	.316	.332
VVIC	.298	.288	VVF	.306	.322
	.287	.276		.301	.342
	.292	.306		.317	.319
WA	.295	.297	WP	.329	.330
VVA	.283	.284	VVP	.329	.318
	.279	.291		.318	.308
	.295	.297		.329	.345
WM	.308	.311	WD	.329	.330
VVIT	.310	.300	VVD	.317	.319
	.298	.288		.316	.332
	.306	.322		.329	.369
WB	.308	.311	WG	.329	.345
VVD	.295	.297	WG	.316	.332
	.292	.306		.314	.355
	.301	.342		.329	.330
WE	.306	.322	WJ	.329	.345
VV L	.292	.306	VVJ	.346	.359
	.287	.321		.344	.342
	.308	.311		.348	.384
WN	.317	.319	WH	.346	.359
VVIV	.318	.308	VVII	.329	.345
	.310	.300		.329	.369
	.316	.332			
WC	.317	.319			
VVC	.308	.311			
	.306	.322			



PERFORMANCE GROUPS - CHROMATICITY (CONTINUED)

Re- gion	x	у	Re- gion	x	у	Re- gion	х	у	Re- gion	х	у
	.3371	.3490		.3376	.3616		.3463	.3687		.3451	.3554
3A	.3451	.3554	3B	.3463	.3687	3C	.3551	.3760	3D	.3533	.3620
3A	.3440	.3428	36	.3451	.3554	30	.3533	.3620	30	.3515	.3487
	.3366	.3369		.3371	.3490		.3451	.3554		.3440	.3428
	.3512	.3465		.3529	.3597		.3615	.3659		.3590	.3521
4A	.3529	.3597	4B	.3548	.3736	4C	.3641	.3804	4D	.3615	.3659
44	.3615	.3659	40	.3641	.3804	40	.3736	.3874	40	.3702	.3722
	.3590	.3521		.3615	.3659		.3702	.3722		.3670	.3578
	.3670	.3578		.3702	.3722		.3825	.3798		.3783	.3646
5A	.3702	.3722	5B	.3736	.3874	5C	.3869	.3958	5D	.3825	.3798
JA	.3825	.3798	20	.3869	.3958	30	.4006	.4044	30	.3950	.3875
	.3783	.3646		.3825	.3798		.3950	.3875		.3898	.3716
	.3889	.3690		.3941	.3848		.4080	.3916		.4017	.3751
6A	.3941	.3848	6B	.3996	.4015	6C	.4146	.4089	6D	.4080	.3916
UA	.4080	.3916	OD	.4146	.4089	00	.4299	.4165	OD	.4221	.3984
	.4017	.3751		.4080	.3916		.4221	.3984		.4147	.3814
	.4147	.3814		.4221	.3984		.4342	.4028		.4259	.3853
7A	.4221	.3984	7B	.4299	.4165	7C	.4430	.4212	7D	.4342	.4028
//	.4342	.4028	70	.4430	.4212	, , ,	.4562	.4260	70	.4465	.4071
	.4259	.3853		.4342	.4028		.4465	.4071		.4373	.3893
	.4373	.3893		.4465	.4071		.4582	.4099		.4483	.3919
8A	.4465	.4071	8B	.4562	.4260	8C	.4687	.4289	8D	.4582	.4099
- OA	.4582	.4099	OD	.4687	.4289		.4319	OD	.4700	.4126	
	.4483	.3919		.4582	.4099		.4700	.4126		.4593	.3944



PERFORMANCE GROUPS - DOMINANT WAVELENGTH

Color 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
	В3	465	470
Blue	B4	470	475
blue	B5	475	480
	В6	480	485
	G2	520	525
Green	G3	525	530
	G4	530	535
Amber	A2	585	590
Allibei	A3	590	595
Red-Orange	03	610	615
Reu-Oralige	04	615	620
Dod	R2	620	625
Red	R3	625	630

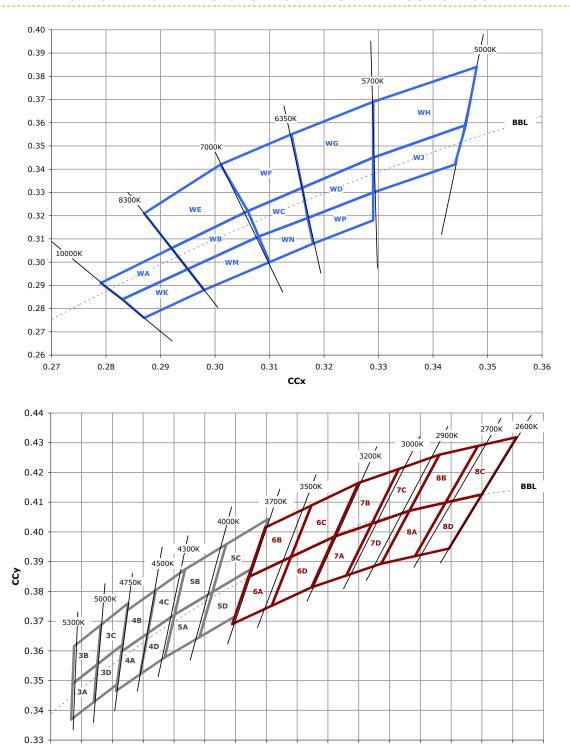
PERFORMANCE GROUPS - FORWARD VOLTAGE

Amber, red-orange and red XLamp LEDs are tested for forward voltage and placed into one of the forward voltage groups defined below.

Forward Voltage Group	Min. Forward Voltage @ 350 mA	Max. Forward Voltage @ 350 mA
В	1.75	2.0
С	2.0	2.25
D	2.25	2.5



CREE'S STANDARD CHROMATICITY REGIONS PLOTTED ON THE 1931 CIE CURVE





STANDARD ORDER CODES AND BINS (XR-C COOL WHITE)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's chromaticity regions and luminous flux range.

XLamp XR-C LED Standard Order Codes - White				
Min. Lumino @ 350	ous Flux (lm)) mA*	Chromaticity Regions	Kit Number	
Group	Flux (lm)			
		Cool White (5000 K - 10,000 K)		
N3	56.8	WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00501	
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00601	
N4	62.0	WC, WD, WF, WG	00602	
		WC, WD, WF, WG, WH, WJ, WN, WP	00603	
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00701	
P2	67.2	WC, WD, WF, WG	00702	
		WC, WD, WF, WG, WH, WJ, WN, WP	00703	
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00801	
Р3	73.9	WC, WD, WF, WG	00802	
		WC, WD, WF, WG, WH, WJ, WN, WP	00803	
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00901	
P4	80.6	WC, WD, WF, WG	00902	
		WC, WD, WF, WG, WH, WJ, WN, WP	00903	
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00A01	
Q2	87.4	WC, WD, WF, WG	00A02	
		WC, WD, WF, WG, WH, WJ, WN, WP	00A03	

^{*}Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-C NEUTRAL WHITE)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's chromaticity regions and luminous flux range.

Min Luminum A** Chromaticity Regions Kit Number CCT Neutral White (3700 K − 5000 K) N2 51.7 5A, 5B, 5C, 5D 004F5 4300 K N2 51.7 5A, 5B, 5C, 5D 004E5 4000 K SC, 5D, 6A, 6B 004F6 3700 K 3700 K AA, 3B, 3C, 3D 005E3 5000 K 4750 K 4A, 4B, 4C, 4D 005F4 4750 K 4750 K 4A, 4B, 4C, 4D 005E4 4500 K 4500 K 5C, 5D, 6A, 6B 005F6 3700 K 3700 K 5A, 5B, 5C, 5D 005E5 4000 K 4000 K 5C, 5D, 6A, 6B 005F6 3700 K 3700 K 3A, 3B, 3C, 3D 006E3 5000 K 4750 K 4A, 4B, 4C, 4D 006E4 4750 K 4750 K 4A, 4B, 4C, 4D 006E4 4500 K 4500 K 5A, 5B, 5C, 5D 006E5 4000 K 50,5D,6A,6B 006F6 3700 K Aga, 3B, 3C, 3D 007E3 5000 K 50,0D 50		XLamp XR-C LED Standard Order Codes - White							
Neutral White (3700 K - 5000 K) 4C, 4D, 5A, 5B	@ 350 mA* ` ´		Chromaticity Regions	Kit Number	сст				
N2 51.7 5A, 5B 004F5 4300 K 5C, 5D, 6A, 6B 004F6 3700 K 3A, 3B, 3C, 3D 005E3 5000 K 3C, 3D, 4A, 4B 005F4 4750 K 4A, 4B, 4C, 4D 005E4 4500 K 5C, 5D, 6A, 6B 005F5 4300 K 4C, 4D, 5A, 5B 005F5 4300 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 005E3 5000 K 4C, 4D, 5A, 5B 005F5 4300 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 006E3 5000 K 3C, 3D, 4A, 4B 006F4 4750 K 4A, 4B, 4C, 4D 006E4 4500 K 4C, 4D, 5A, 5B 006F5 4300 K 4C, 4D, 5A, 5B 006F5 4300 K 5C, 5D, 6A, 6B 006F6 3700 K 5C, 5D, 6A, 6B 007F4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 5C, 5D, 6A, 5B 007F5 4300 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3C, 3D, 4A, 4B 008F4 4750 K 4A, 4B, 4C, 4D 008E4 4500 K 5C, 5D, 6A, 6B 008F6 3700 K	Group								
N2 51.7 5A, 5B, 5C, 5D 004E5 4000 K 5C, 5D, 6A, 6B 004F6 3700 K 3A, 3B, 3C, 3D 005E3 5000 K 3C, 3D, 4A, 4B 005F4 4750 K 4A, 4B, 4C, 4D 005E4 4500 K 5C, 5D, 6A, 6B 005F5 4300 K 4C, 4D, 5A, 5B 005F5 4000 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 006E3 5000 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 006E3 5000 K 3C, 3D, 4A, 4B 006F4 4750 K 4C, 4D, 5A, 5B 006F5 4300 K 3C, 3D, 4A, 4B 006F4 4750 K 4C, 4D, 5A, 5B 006F5 4300 K 5C, 5D, 6A, 6B 006F6 3700 K 5C, 5D, 6A, 6B 007F4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 5C, 5D, 6A, 6B 007F5 4300 K 5C, 5D, 6A, 6B 007F5 4300 K 5C, 5D, 6A, 6B 007F6 3700 K 5C, 5D, 6A, 6B 007F5 4300 K 5C, 5D, 6A, 6B 007F5 4300 K 5C, 5D, 6A, 6B 007F6 3700 K 5C, 5D, 6A, 6B 008F6 3700 K									
N3									
N3	N2	51.7							
N3 56.8 3C, 3D, 4A, 4B 005F4 4750 K 4A, 4B, 4C, 4D 005E4 4500 K 4A, 4B, 4C, 4D 005E5 4300 K 5A, 5B, 5C, 5D 005E5 4000 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 006E3 5000 K 4A, 4B, 4C, 4D 006E4 4750 K 4A, 4B, 4C, 4D 006E4 4750 K 4A, 4B, 4C, 4D 006E5 4000 K 5A, 5B, 5C, 5D 006E5 4000 K 4C, 4D, 5A, 5B 006F5 4300 K 5A, 5B, 5C, 5D 006E5 4000 K 5C, 5D, 6A, 6B 006F6 3700 K 3A, 3B, 3C, 3D 007E3 5000 K 3C, 3D, 4A, 4B 007F4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 5A, 5B, 5C, 5D 007E5 4300 K 5A, 5B, 5C, 5D 007E5 4000 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3A, 3B, 3C, 3D 008E3 5000 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E5 4300 K 5A, 5B, 5C, 5D 008E5 4300 K 5A, 5B, 5C, 5D 008E5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K									
N3 4A, 4B, 4C, 4D 005E4 4500 K 4C, 4D, 5A, 5B 005F5 4300 K 5A, 5B, 5C, 5D 005E5 4000 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 006E3 3C, 3D, 4A, 4B 006F4 4750 K 4A, 4B, 4C, 4D 006E4 4500 K 4C, 4D, 5A, 5B 006F5 4300 K 4A, 4B, 4C, 4D 006E4 4500 K 4C, 4D, 5A, 5B 006F5 4300 K 5A, 5B, 5C, 5D 006E5 4000 K 5C, 5D, 6A, 6B 006F6 3700 K 5C, 5D, 6A, 6B 006F6 3700 K 3A, 3B, 3C, 3D 007E3 5000 K 3C, 3D, 4A, 4B 007F4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 5A, 5B, 5C, 5D 007E5 4000 K 5A, 5B, 5C, 5D 007E5 4000 K 5A, 5B, 5C, 5D 007E5 4000 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3A, 3B, 3C, 3D 008E3 5000 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E5 4000 K 5A, 5B, 5C, 5D 008E5 4000 K 4750 K									
N3 56.8 4C, 4D, 5A, 5B 005F5 4300 K 5A, 5B, 5C, 5D 005E5 4000 K 5C, 5D, 6A, 6B 005F6 3700 K 3A, 3B, 3C, 3D 006E3 5000 K 3C, 3D, 4A, 4B 006F4 4750 K 4A, 4B, 4C, 4D 006E5 4300 K 5A, 5B, 5C, 5D 006E5 4300 K 4C, 4D, 5A, 5B 006F5 4300 K 5A, 5B, 5C, 5D 006E5 4000 K 5C, 5D, 6A, 6B 006F6 3700 K 3A, 3B, 3C, 3D 007E3 5000 K 4750 K 4A, 4B, 4C, 4D 007E4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 4C, 4D, 5A, 5B 007F5 4300 K 5A, 5B, 5C, 5D 007E5 4000 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 007E3 5000 K 3A, 3B, 3C, 3D 007E5 4000 K 3A, 3B, 3C, 3D 008E3 5000 K 3A, 3B, 3C, 3D 008E3 5000 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4500 K 5A, 5B, 5C, 5D 008E5 4000 K 3A, 3B, 3C, 3D 009E3 5000 K									
P2 F3A, 5B, 5C, 5D F4A, 6B F5C, 5D, 6A, 6B F5C, 5D F5C, 5D, 6A, 6B F5C	N3	56.8	4A, 4B, 4C, 4D	005E4	4500 K				
P2			4C, 4D, 5A, 5B	005F5	4300 K				
P2 A3A, 3B, 3C, 3D B3C, 3D, 4A, 4B B3C, 4D B3C, 5B, 5C, 5D B3C, 5D, 6A, 6B B3C, 3D B3C, 3D, 4A, 4B B3C, 3D B3C, 3D			5A, 5B, 5C, 5D	005E5	4000 K				
P2 A 2, 3D, 4A, 4B B 006F4 A 750 K A 4A, 4B, 4C, 4D B 006E4 A 500 K A 4C, 4D, 5A, 5B B 006F5 A 300 K B 5A, 5B, 5C, 5D B 006E5 B 006F6 B 000F6			5C, 5D, 6A, 6B	005F6	3700 K				
P2 4A, 4B, 4C, 4D 4C, 4D, 5A, 5B 006F5 4300 K 4C, 4D, 5A, 5B 006F5 4300 K 5A, 5B, 5C, 5D 006E5 4000 K 5C, 5D, 6A, 6B 006F6 3700 K 3A, 3B, 3C, 3D 007E3 5000 K 3C, 3D, 4A, 4B 007F4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 4A, 4B, 4C, 4D 007E4 4500 K 5A, 5B, 5C, 5D 007E5 4300 K 5A, 5B, 5C, 5D 007E5 4300 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3C, 3D, 4A, 4B 008F4 4750 K 4A, 4B, 4C, 4D 008E4 4500 K 4A, 4B, 4C, 4D 008E4 4500 K 5A, 5B, 5C, 5D 008E5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K			3A, 3B, 3C, 3D	006E3	5000 K				
P2 62.0 4C, 4D, 5A, 5B 006F5 4300 K 5A, 5B, 5C, 5D 006E5 4000 K 5C, 5D, 6A, 6B 007E3 3A, 3B, 3C, 3D 007E3 5000 K 3C, 3D, 4A, 4B 007F4 4750 K 44, 4B, 4C, 4D 007E4 4500 K 5A, 5B, 5C, 5D 007E5 4300 K 5A, 5B, 5C, 5D 007E5 4000 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3A, 3B, 3C, 3D 008E3 5000 K 3A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 4A, 4B, 4C, 4D 4B, 4			3C, 3D, 4A, 4B	006F4	4750 K				
P2 4C, 4D, 5A, 5B 006F5 4300 K 5A, 5B, 5C, 5D 006E5 4000 K 5C, 5D, 6A, 6B 006F6 3700 K 3A, 3B, 3C, 3D 007E3 5000 K 3C, 3D, 4A, 4B 007F4 4750 K 4A, 4B, 4C, 4D 007E4 4500 K 5A, 5B, 5C, 5D 007E5 4300 K 5A, 5B, 5C, 5D 007F5 4300 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3C, 3D, 4A, 4B 008F4 4750 K 4A, 4B, 4C, 4D 008E4 4750 K 4A, 4B, 4C, 4D 008E4 4500 K 4A, 4B, 4C, 4D 008E4 4500 K 4A, 4B, 4C, 4D 008E4 4500 K 5C, 5D, 6A, 6B 008F5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K 3A, 3B, 3C, 3D 009E3 5000 K	N4	62.0	4A, 4B, 4C, 4D	006E4	4500 K				
P2 67.2 67	IN-T	02.0	4C, 4D, 5A, 5B	006F5	4300 K				
P2 67.2 67			5A, 5B, 5C, 5D	006E5	4000 K				
P2 67.2 67			5C, 5D, 6A, 6B	006F6	3700 K				
P2 4A, 4B, 4C, 4D 007E4 4500 K 40, 4D, 5A, 5B 007F5 4300 K 5A, 5B, 5C, 5D 007E5 4000 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3C, 3D, 4A, 4B 008F4 4750 K 4A, 4B, 4C, 4D 008E4 4500 K 40, 5A, 5B 008F5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K 7A, 5B, 5C, 5D 008E5 4000 K 7A, 5B, 5C, 5D 008E5 7A, 5B, 5C, 5D 008E5			3A, 3B, 3C, 3D	007E3	5000 K				
P2 67.2 4C, 4D, 5A, 5B 007F5 4300 K 5A, 5B, 5C, 5D 007E5 4000 K 5C, 5D, 6A, 6B 007F6 3700 K 3A, 3B, 3C, 3D 008E3 5000 K 3C, 3D, 4A, 4B 008F4 4750 K 4750 K 4750 K 4750 K 480.6 3C, 3D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 008E5 4000 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K			3C, 3D, 4A, 4B	007F4	4750 K				
P3 P4 80.6	D2	67.2	4A, 4B, 4C, 4D	007E4	4500 K				
P3 P3 P4 P4 80.6 SC, 5D, 6A, 6B 007F6 3700 K 3700 K 30, 3B, 3C, 3D 008E3 5000 K 30, 3D, 4A, 4B 008F4 4750 K 440, 4B, 4C, 4D 008E4 4500 K 4500 K 50, 5B, 5C, 5D 008E5 4000 K 50, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K	PZ	67.2	4C, 4D, 5A, 5B	007F5	4300 K				
P3 P4 80.6 3C, 3D, 4A, 4B 008E3 5000 K 3A, 3B, 3C, 3D 008E3 5000 K 3C, 3D, 4A, 4B 008F4 4750 K 4A, 4B, 4C, 4D 008E4 4500 K 4A, 4B, 4C, 4D 008F5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K			5A, 5B, 5C, 5D	007E5	4000 K				
P3 73.9			5C, 5D, 6A, 6B	007F6	3700 K				
P3 73.9 4A, 4B, 4C, 4D 008E4 4500 K 4500 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K			3A, 3B, 3C, 3D	008E3	5000 K				
P3 73.9 4C, 4D, 5A, 5B 008F5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K			3C, 3D, 4A, 4B	008F4	4750 K				
4C, 4D, 5A, 5B 008F5 4300 K 5A, 5B, 5C, 5D 008E5 4000 K 5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K			4A, 4B, 4C, 4D	008E4	4500 K				
5C, 5D, 6A, 6B 008F6 3700 K 3A, 3B, 3C, 3D 009E3 5000 K P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K	Ь3	/3.9	4C, 4D, 5A, 5B	008F5	4300 K				
3A, 3B, 3C, 3D 009E3 5000 K P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K			5A, 5B, 5C, 5D	008E5	4000 K				
P4 80.6 3C, 3D, 4A, 4B 009F4 4750 K			5C, 5D, 6A, 6B	008F6	3700 K				
33,33, 1,7			3A, 3B, 3C, 3D	009E3	5000 K				
4A, 4B, 4C, 4D 009F4 4500 K	P4	80.6	3C, 3D, 4A, 4B	009F4	4750 K				
11, 15, 15, 15 005E1 1500 K			4A, 4B, 4C, 4D	009E4	4500 K				

For other flux and chromaticity combinations, contact Cree or an authorized distributor.

*Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-C WARM WHITE)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's chromaticity regions and luminous flux range.

	XLamp XR-C LED Standard Order Codes - White					
	Min Luminous Flux (lm) @ 350 mA* Chromaticity Regions		Kit Number	сст		
Group	Flux (lm)					
		Warm White (2600 K - 3700 K)				
M2	39.8	8A, 8B, 8C, 8D	002E8	2700 K		
		6C, 6D, 7A, 7B	003F7	3200 K		
M3	45.7	7A, 7B, 7C, 7D	003E7	3000 K		
INI2	45.7	7C, 7D, 8A, 8B	003F8	2900 K		
		8A, 8B, 8C, 8D	003E8	2700 K		
		6A, 6B, 6C, 6D	004E6	3500 K		
		6C, 6D, 7A, 7B	004F7	3200 K		
N2	51.7	7A, 7B, 7C, 7D	004E7	3000 K		
		7C, 7D, 8A, 8B	004F8	2900 K		
		8A, 8B, 8C, 8D	004E8	2700 K		
		6A, 6B, 6C, 6D	005E6	3500 K		
N.O.	F.C. 0	6C, 6D, 7A, 7B	005F7	3200 K		
N3	56.8	7A, 7B, 7C, 7D	005E7	3000 K		
		7C, 7D, 8A, 8B	005F8	2900 K		
		6A, 6B, 6C, 6D	006E6	3500 K		
N4	62.0	6C, 6D, 7A, 7B	006F7	3200 K		
IN4	62.0	7A, 7B, 7C, 7D	006E7	3000 K		
		7C, 7D, 8A, 8B	006F8	2900 K		
		6A, 6B, 6C, 6D	007E6	3500 K		
P2	67.2	6C, 6D, 7A, 7B	007F7	3200 K		
		7A, 7B, 7C, 7D	007E7	3000 K		
P3	73.9	6A, 6B, 6C, 6D	008E6	3500 K		

^{*} Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-C COLOR)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's dominant-wavelength range and luminous- or radiant-flux range.

XLamp XR-C LED Standard Order Codes - Royal Blue								
Color	Min. Radiant Flux (mW) @ 350 mA*							
			Min.		Max.		Kit Number	
	Group	Flux (mW)	Group	DWL (nm)	Group	DWL (nm)		
	12	250	D3	450	D5	465	00701	
			D3	450	D4	460	00702	
Doval Plus			D4	455	D5	465	00703	
Royal Blue	13		D3	450	D5	465	00801	
		300	D3	450	D4	460	00802	
			D4	455	D5	465	00803	

XLamp XR-C LED Standard Order Codes - Blue, Green, Amber, Red-Orange, Red							
Color	Min. Luminous Flux (lm) @ 350 mA*		Dominant Wavelength (nm)				
			Min.		Max.		Kit Number
	Group	Flux (lm)	Group	DWL (nm)	Group	DWL (nm)	
Blue	G	13.9	В3	465	B4	475	00G01
blue	Н	18.1	В3	465	B4	475	00H01
			G2	520	G4	535	00M01
	М	39.8	G2	520	G3	530	00M02
C			G3	525	G4	535	00M03
Green	N	51.7	G2	520	G4	535	00N01
			G2	520	G3	530	00N02
			G3	525	G4	535	00N03
	J	23.5	A2	585	А3	595	00J01
Amber	K2	30.6	A2	585	А3	595	00K01
	M2	39.8	A2	585	А3	595	00M01
Dad Own	K2	30.6	03	610	04	620	00K01
Red-Orange	M2	39.8	03	610	04	620	00M01
Red	J	23.5	R2	620	R3	630	00J01
	K2	30.6	R2	620	R3	630	00K01
	M2	39.8	R2	620	R3	630	00M01

For other flux and dominant wavelength combinations, contact Cree or an authorized distributor.

^{*} Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-E COOL WHITE)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's chromaticity regions and luminous flux range.

XLamp XR-E LED Standard Order Codes - White						
Min. Luminous Flux (lm) @ 350 mA*		Chromaticity Regions	Kit Number			
Group	Flux (lm)					
		Cool White (5000 K - 10,000 K)				
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00901			
P4	80.6	WC, WD, WF, WG	00902			
		WC, WD, WF, WG, WH, WJ, WN, WP	00903			
	87.4	WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00A01			
Q2		WC, WD, WF, WG	00A02			
		WC, WD, WF, WG, WH, WJ, WN, WP	00A03			
	93.9	WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00B01			
Q3		WC, WD, WF, WG	00B02			
		WC, WD, WF, WG, WH, WJ, WN, WP	00B03			
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00C01			
Q4	100	WC, WD, WF, WG	00C02			
		WC, WD, WF, WG, WH, WJ, WN, WP	00C03			
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00D01			
Q5	107	WC, WD, WF, WG	00D02			
		WC, WD, WF, WG, WH, WJ, WN, WP	00D03			

^{*} Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-E NEUTRAL WHITE)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's chromaticity regions and luminous flux range.

XLamp XR-E LED Standard Order Codes - White							
Minimum Luminous Flux (lm) @ 350 mA*		Chromaticity Regions	Kit Number	сст			
Group	Flux (lm)						
		Neutral White (3700 K - 5000 K)					
		3A, 3B, 3C, 3D	006E3	5000 K			
		3C, 3D, 4A, 4B	006F4	4750 K			
N4	62.0	4A, 4B, 4C, 4D	006E4	4500 K			
114	02.0	4C, 4D, 5A, 5B	006F5	4300 K			
		5A, 5B, 5C, 5D	006E5	4000 K			
		5C, 5D, 6A, 6B	006F6	3700 K			
		3A, 3B, 3C, 3D	007E3	5000 K			
		3C, 3D, 4A, 4B	007F4	4750 K			
P2	67.2	4A, 4B, 4C, 4D	007E4	4500 K			
PZ	67.2	4C, 4D, 5A, 5B	007F5	4300 K			
		5A, 5B, 5C, 5D	007E5	4000 K			
		5C, 5D, 6A, 6B	007F6	3700 K			
		3A, 3B, 3C, 3D	008E3	5000 K			
	72.0	3C, 3D, 4A, 4B	008F4	4750 K			
		4A, 4B, 4C, 4D	008E4	4500 K			
P3	73.9	4C, 4D, 5A, 5B	008F5	4300 K			
		5A, 5B, 5C, 5D	008E5	4000 K			
		5C, 5D, 6A, 6B	008F6	3700 K			
		3A, 3B, 3C, 3D	009E3	5000 K			
		3C, 3D, 4A, 4B	009F4	4750 K			
	00.6	4A, 4B, 4C, 4D	009E4	4500 K			
P4	80.6	4C, 4D, 5A, 5B	009F5	4300 K			
		5A, 5B, 5C, 5D	009E5	4000 K			
		5C, 5D, 6A, 6B	009F6	3700 K			
		3A, 3B, 3C, 3D	00AE3	5000 K			
		3C, 3D, 4A, 4B	00AF4	4750 K			
	07.4	4A, 4B, 4C, 4D	00AE4	4500 K			
Q2	87.4	4C, 4D, 5A, 5B	00AF5	4300 K			
		5A, 5B, 5C, 5D	00AE5	4000 K			
		5C, 5D, 6A, 6B	00AF6	3700 K			
		3A, 3B, 3C, 3D	00BE3	5000 K			
		3C, 3D, 4A, 4B	00BF4	4750 K			
Q3	93.9	4A, 4B, 4C, 4D	00BE4	4500 K			
		4C, 4D, 5A, 5B	00BF5	4300 K			
		5A, 5B, 5C, 5D	00BE5	4000 K			

^{*} Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-E WARM WHITE)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's chromaticity regions and luminous flux range.

XLamp XR-E LED Standard Order Codes - White							
Minimum Luminous Flux (lm) @ 350 mA*		Chromaticity Regions	Kit Number	сст			
Group	Flux (lm)						
	Warm White (2600 K - 3700 K)						
		6C, 6D, 7A, 7B	005F7	3200 K			
N3	56.8	7A, 7B, 7C, 7D	005E7	3000 K			
IND	30.8	7C, 7D, 8A, 8B	005F8	2900 K			
		8A, 8B, 8C, 8D	005E8	2700 K			
		6A, 6B, 6C, 6D	006E6	3500 K			
		6C, 6D, 7A, 7B	006F7	3200 K			
N4	62.0	7A, 7B, 7C, 7D	006E7	3000 K			
		7C, 7D, 8A, 8B	006F8	2900 K			
		8A, 8B, 8C, 8D	006E8	2700 K			
		6A, 6B, 6C, 6D	007E6	3500 K			
		6C, 6D, 7A, 7B	007F7	3200 K			
P2	67.2	7A, 7B, 7C, 7D	007E7	3000 K			
		7C, 7D, 8A, 8B	007F8	2900 K			
		8A, 8B, 8C, 8D	007E8	2700 K			
		6A, 6B, 6C, 6D	008E6	3500 K			
P3	72.0	6C, 6D, 7A, 7B	008F7	3200 K			
P3	73.9	7A, 7B, 7C, 7D	008E7	3000 K			
		7C, 7D, 8A, 8B	008F8	2900 K			
		6A, 6B, 6C, 6D	009E6	3500 K			
P4	80.6	6C, 6D, 7A, 7B	009F7	3200 K			
		7A, 7B, 7C, 7D	009E7	3000 K			
Q2	87.4	6A, 6B, 6C, 6D	00AE6	3500 K			

^{*} Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.



STANDARD ORDER CODES AND BINS (XR-E COLOR)

The following tables list standard kit numbers and performance bins. Kit numbers completely describe an order code's dominant-wavelength range and luminous- or radiant-flux range.

XLamp XR-E LED Standard Order Codes - Royal Blue								
	Min. Radiant Flux (mW) @ 350 mA*		Dominant Wavelength (nm)					
Color			Min.		Max.		Kit Number	
	Group	Flux (mW)	Group	DWL (nm)	Group	DWL (nm)		
	13	300	D3	450	D5	465	00801	
			D3	450	D4	460	00802	
			D4	455	D5	465	00803	
	14	350	D3	450	D5	465	00901	
Royal Blue			D3	450	D4	460	00902	
			D4	455	D5	465	00903	
	15	425	D3	450	D5	465	00A01	
			D3	450	D4	460	00A02	
			D4	455	D5	465	00A03	

XLamp XR-E LED Standard Order Codes - Blue and Green								
	Min. Luminous Flux (lm) @ 350 mA*		Dominant Wavelength (nm)					
Color			Min.		Max.		Kit Number	
	Group	Flux (lm)	Group	DWL (nm)	Group	DWL (nm)		
	J	23.5	В3	465	В6	485	00J01	
			В3	465	B5	480	00J02	
Blue			B4	470	B5	480	00J03	
blue			В3	465	В6	485	00K01	
	K		В3	465	B5	480	00K02	
			B4	470	B5	480	00K03	
	Р	67.2	G2	520	G4	535	00P01	
Green			G2	520	G3	530	00P02	
			G3	525	G4	535	00P03	

For other flux and dominant wavelength combinations, contact Cree or an authorized distributor.

^{*} Cree XLamp XR-C & XR-E order codes specify only a minimum flux bin and not a maximum. Cree may ship reels in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity or DWL bin restrictions specified by the order code.