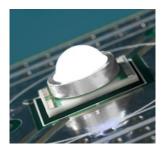


# Cree<sup>®</sup> XLamp<sup>®</sup> XR-E and XR-C LED



#### **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.

#### **TABLE OF CONTENTS**

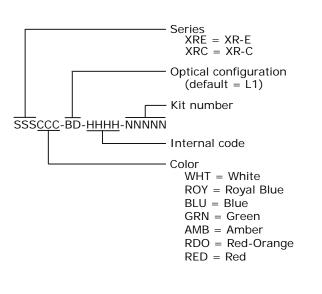
Bin and Order-Code Format 3
Performance Groups – Brightness 4
Performance Groups – Chromaticity 6
Performance Groups – Dominant Wavelength 7
Performance Groups – Forward Voltage7
Cree's Standard Chromaticity Regions Plotted on the
1931 CIE Curve 8
Standard Order Codes and Bins
(XR-C Cool White)
Standard Order Codes and Bins
(XR-C Neutral and Warm White) 10
Standard Order Codes and Bins
(XR-C Color) 11
Standard Order Codes and Bins
(XR-E Cool White) 12
Standard Order Codes and Bins
(XR-E Neutral White) 13
Standard Order Codes and Bins
(XR-E Warm White) 14
Standard Order Codes and Bins
(XR-E Color) 15

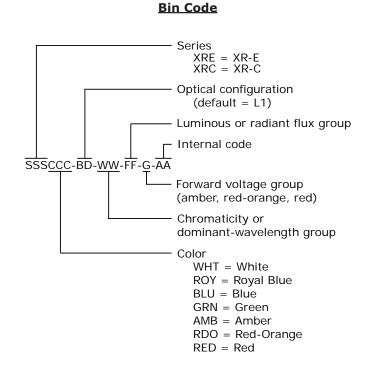


#### **BIN AND ORDER-CODE FORMAT**

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

#### Order 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 (Im)
G	13.9	18.1
Н	18.1	23.5
J	23.5	30.6
К	30.6	39.8
М	39.8	51.7
Ν	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
К2	30.6	35.2
К3	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.

RegionxyRegionxy.283.283.284.314.355.295.297.298.306.302.287.276.301.342.292.306.429.317.295.297.909.329.283.284.289.318.279.291.318.308.279.291.318.308.295.297.329.330.310.300.317.319.308.311.329.330.310.300.317.319.298.288.316.332.306.322.329.369.308.311.329.369.306.322.329.369.306.322.329.345.292.306.322.329.306.322.314.355.292.306.329.345.306.322.345.344.329.330.314.355.292.306.329.345.306.322.344.342.317.319.348.384.318.308.311.348.316.332.329.345.310.300.329.345.310.300.329.345.316.332.329.345.316.332.329.345.316.332.329	wille	e Chromat	icity kegi	on boundi		lates
WK.295.297WF.316.332.298.288.288.306.322.287.276.301.342.292.306	Region	x	У	Region	x	У
WK         .298         .288         WF         .306         .322           .287         .276         .301         .342           .292         .306         .301         .342           .292         .306         .301         .317           .295         .297         .406         .329         .330           .283         .284         .295         .317         .319           .283         .284         .295         .301         .329         .330           .295         .297         .400         .318         .308         .311           .308         .311         .309         .329         .345           .308         .311         .309         .317         .319           .295         .297         .400         .316         .332           .306         .322         .306         .317         .319           .292         .306         .322         .345         .316         .332           .292         .306         .322         .345         .314         .355           .292         .306         .322         .345         .346         .359           .292         .306		.283	.284		.314	.355
1.298         .288         .306         .322           1.287         .276         .301         .342           1.292         .306         .317         .319           1.295         .297         .329         .330           1.283         .284         .329         .318           1.295         .297         .329         .318           1.279         .291         .329         .318           1.295         .297         .329         .345           3.08         .311         .309         .318           .310         .300         .317         .319           .310         .300         .317         .319           .306         .322         .330         .317           .308         .311         .329         .369           .308         .311         .329         .369           .301         .342         .329         .330           .292         .306         .322         .316         .332           .292         .306         .324         .346         .359           .292         .306         .324         .346         .359           .292         .		.295	.297		.316	.332
WA.292.306.317.319.295.297.329.330.329.330.283.284.329.318.308.279.291.318.308.318.308.308.311.309.329.330.317.310.300.300.317.319.319.298.288.316.316.322.306.322.306.316.332.308.311.329.369.316.295.297.306.312.314.295.297.316.332.306.322.314.355.292.306.314.355.306.322.314.355.306.322.306.344.306.322.345.306.321.348.344.317.319.346.359.316.330.311.346.359.310.300.300.329.369.310.300.300.329.369.310.300.329.345.369.310.300.329.369.329.310.300.311.329.369.310.300.310.329.369.311.319.316.329.369.316.332.311.329.369.316.332.316.329.369.316.330	VVIN	.298	.288	VVI	.306	.322
WA $.295$ $.297$ $WP$ $.329$ $.330$ $.283$ $.284$ $.329$ $.318$ $.308$ $.279$ $.291$ $.318$ $.308$ $.279$ $.291$ $.318$ $.308$ $.4279$ $.291$ $.318$ $.308$ $.4279$ $.297$ $.429$ $.329$ $.345$ $.308$ $.311$ $.400$ $.317$ $.319$ $.298$ $.288$ $.316$ $.322$ $.369$ $.0298$ $.288$ $.316$ $.329$ $.369$ $.0306$ $.322$ $.369$ $.316$ $.332$ $.0308$ $.311$ $.443$ $.355$ $.292$ $.306$ $.314$ $.355$ $.0306$ $.322$ $.001$ $.314$ $.306$ $.322$ $.306$ $.329$ $.0306$ $.322$ $.001$ $.329$ $.306$ $.322$ $.036$ $.314$ $.306$ $.322$ $.036$ $.329$ $.0306$ $.322$ $.001$ $.346$ $.310$ $.306$ $.321$ $.348$ $.318$ $.308$ $.311$ $.348$ $.316$ $.332$ $.329$ $.369$ $.001$ $.300$ $.229$ $.369$ $.002$ $.316$ $.332$ $.329$ $.002$ $.316$ $.332$ $.329$ $.002$ $.316$ $.332$ $.329$ $.002$ $.316$ $.332$ $.329$ $.002$ $.316$ $.332$ $.329$ $.002$ $.316$ $.312$		.287	.276		.301	.342
WA.283.284WP.329.318.279.291.318.308.295.297.329.345.308.311.329.330.310.300.317.319.298.288.316.322.306.322.345.308.311.329.369.308.311.329.369.308.311.329.369.308.311.329.369.295.297.369.316.332.292.306.314.355.292.306.314.355.301.342.329.330.306.322.306.314.307.321.346.359.318.308.311.348.318.308.311.329.316.332.329.345.310.300.329.369.316.332.329.345.310.300.329.369.316.332.329.345.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.308.311.44.44 <t< td=""><th></th><td>.292</td><td>.306</td><td></td><td>.317</td><td>.319</td></t<>		.292	.306		.317	.319
.283         .284         .329         .318           .279         .291         .318         .308           .295         .297         .329         .345           .308         .311         .329         .330           .310         .300         .317         .319           .308         .311         .329         .330           .310         .300         .317         .319           .298         .288         .316         .332           .306         .322         .316         .332           .308         .311         .400         .329         .369           .308         .311         .329         .369         .369           .292         .306         .322         .316         .332           .292         .306         .322         .316         .332           .301         .342         .329         .330           .287         .321         .344         .342           .308         .311         .348         .384           .310         .300         .329         .345           .310         .300         .329         .369           .329	10/0	.295	.297	W/D	.329	.330
WM.295.297.329.345.308.311.309.330.317.319.310.300.300.317.319.317.298.288.316.322.316.332.306.322.445.316.332.369.308.311.442.329.369.316.295.297.06.316.332.316.332.292.306.314.355.316.332.306.322.306.329.330.316.306.322.306.329.345.308.306.322.306.329.345.306.322.306.344.359.306.321.348.384.384.317.319.346.359.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.316.332.329.369.308.311.445.329.316.332.311.445.308.311.445.445.308.311.445.445.308.311.445.445.308.311.445.445.308.311.445.445.308.311.	VVA	.283	.284	VV P	.329	.318
WM.308.311WD.329.330.310.300.300.317.319.298.288.316.332.306.322.369.308.311.44.295.297.369.292.306.314.301.342.329.306.322.314.306.322.314.301.342.329.306.322.306.306.322.301.306.322.329.306.322.314.306.322.329.306.322.345.306.321.346.317.319.348.316.332.316.332.316.332.308.311.308.311		.279	.291		.318	.308
WM         .310         .300         WD         .317         .319           .298         .288         .316         .332           .306         .322         .329         .369           .308         .311         .329         .369           .295         .297         .316         .332           .292         .306         .314         .355           .292         .306         .314         .355           .301         .342         .329         .330           .306         .322         .329         .330           .306         .322         .301         .342           .306         .322         .303         .314           .306         .322         .303         .345           .292         .306         .329         .345           .292         .306         .314         .348           .287         .321         .348         .384           .317         .319         .346         .359           .310         .300         .329         .369           .316         .332         .329         .369           .308         .311         .46		.295	.297		.329	.345
	14/54	.308	.311	WD	.329	.330
3.306 $.322$ $.329$ $.369$ $.308$ $.311$ $.329$ $.345$ $.295$ $.297$ $.316$ $.332$ $.292$ $.306$ $.314$ $.355$ $.301$ $.342$ $.314$ $.355$ $.301$ $.342$ $.329$ $.330$ $WE$ $.301$ $.342$ $.329$ $.330$ $.306$ $.322$ $.306$ $.329$ $.330$ $.806$ $.322$ $.306$ $.329$ $.330$ $.292$ $.306$ $.321$ $.346$ $.359$ $.287$ $.321$ $.348$ $.384$ $.317$ $.319$ $.346$ $.359$ $.310$ $.300$ $.329$ $.369$ $.316$ $.332$ $.329$ $.369$ $.308$ $.311$ $.46$ $.59$ $.316$ $.332$ $.329$ $.369$	VVIM	.310	.300	VVD	.317	.319
WB $.308$ $.311$ WG $.329$ $.345$ $.295$ $.297$ $.316$ $.312$ $.316$ $.332$ $.292$ $.306$ $.314$ $.355$ $.314$ $.355$ $.4292$ $.306$ $.322$ $.329$ $.330$ WE $.306$ $.322$ $.306$ $.329$ $.330$ WE $.306$ $.322$ $.306$ $.329$ $.330$ $.287$ $.321$ $.344$ $.345$ $.345$ $.308$ $.311$ $.348$ $.384$ $.348$ $.310$ $.308$ $.311$ $.329$ $.345$ $.310$ $.300$ $.329$ $.345$ $.316$ $.332$ $.329$ $.369$ $.316$ $.332$ $.329$ $.369$ $.308$ $.311$ $.416$ $.416$		.298	.288		.316	.332
WB         .295         .297         WG         .316         .332           .292         .306         .314         .355           .301         .342         .329         .330           WE         .306         .322         .329         .330           .292         .306         .297         .329         .330           WE         .306         .322         .329         .330           .292         .306         .297         .329         .345           .292         .306         .297         .346         .359           .292         .306         .311         .344         .342           .308         .311         .348         .384           .318         .308         .316         .329         .345           .310         .300         .329         .369         .369           WC         .317         .319         .329         .369           .316         .332         .316         .329         .369           .308         .311         .44         .44         .44		.306	.322		.329	.369
Image: 1.295         Image: 1.297         Image: 1.316         Image: 1.332           Image: 1.292         Image: 1.306         Image: 1.316         Image: 1.332           Image: 1.292         Image: 1.306         Image: 1.316         Image: 1.332           Image: 1.292         Image: 1.306         Image: 1.329         Image: 1.330           Image: 1.292         Image: 1.306         Image: 1.329         Image: 1.330           Image: 1.292         Image: 1.306         Image: 1.329         Image: 1.336           Image: 1.292         Image: 1.306         Image: 1.334         Image: 1.334           Image: 1.292         Image: 1.336         Image: 1.334         Image: 1.334           Image: 1.3317         Image: 1.3308         Image: 1.334         Image: 1.334           Image: 1.3316         Image: 1.332         Image: 1.334         Image: 1.336           Image: 1.3316         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314           Image: 1.3316         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314           Image: 1.3316         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314         Image: 1.3314      <	W/P	.308	.311	WC	.329	.345
3.301 $342$ $329$ $330$ $WE$ $306$ $322$ $302$ $329$ $345$ $292$ $306$ $329$ $345$ $359$ $287$ $321$ $344$ $342$ $308$ $311$ $348$ $384$ $$	VVD	.295	.297	WG	.316	.332
WE $3.306$ $.322$ $WJ$ $.329$ $.345$ $.292$ $.306$ $.346$ $.359$ $.287$ $.321$ $.344$ $.342$ $.308$ $.311$ $.344$ $.342$ $.317$ $.319$ $.346$ $.359$ $.310$ $.300$ $.329$ $.345$ $.316$ $.332$ $.329$ $.345$ $.316$ $.332$ $.329$ $.345$ $.316$ $.332$ $.329$ $.345$ $.316$ $.332$ $.329$ $.369$ $.308$ $.311$ $.46$ $.46$		.292	.306		.314	.355
WE         .292         .306         WJ         .346         .359           .287         .321         .344         .342           .308         .311         .348         .384           .317         .319         .346         .359           .318         .308         .311         .346         .359           .310         .300         WH         .346         .359           .310         .300         .329         .345           .316         .332         .329         .369           .317         .319         .316         .322         .369           .316         .332         .316         .329         .369           .308         .311         .400         .400         .400		.301	.342		.329	.330
.292         .306         .346         .359           .287         .321         .344         .342           .308         .311         .348         .384           .317         .319         .346         .359           .318         .308         .311         .329         .345           .310         .300         .329         .345           .316         .332         .329         .369           WC         .317         .319         .319         .316           .310         .308         .311         .329         .369		.306	.322	\\/]	.329	.345
NMN         3.308         .311         .348         .384           .317         .319	VVE	.292	.306	LAA	.346	.359
NN         3.317         3.319         WH         3.346         3.359           .318         .308         .329         .345           .310         .300         .329         .369           .316         .332         .369         .369           .317         .319         .319         .369           .318         .319         .316         .329         .369		.287	.321		.344	.342
WN         .318         .308         WH         .329         .345           .310         .300         .329         .369           .316         .332         .369         .369           .317         .319         .308         .311		.308	.311		.348	.384
.318     .308     .329     .345       .310     .300     .329     .369       .316     .332     .369       .317     .319     .308     .311	M/N	.317	.319		.346	.359
WC         .316         .332           .317         .319           .308         .311	VVIN	.318	.308	VVI	.329	.345
WC 317 .319 .308 .311		.310	.300		.329	.369
WC .308 .311		.316	.332			
.308 .311	WC	.317	.319			
.306 .322	WC	.308	.311			
		.306	.322			

#### White Chromaticity Region Bounding Coordinates



## **PERFORMANCE GROUPS – CHROMATICITY (CONTINUED)**

Re- gion	x	У									
	.3371	.3490		.3376	.3616		.3463	.3687		.3451	.3554
ЗA	.3451	.3554	3B	.3463	.3687	3C	.3551	.3760	3D	.3533	.3620
JA	.3440	.3428	50	.3451	.3554	50	.3533	.3620	50	.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	JD	.3869	.3958	30	.4006	.4044	50	.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	0D	.4146	.4089	00	.4299	.4165	UD	.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	70	.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
0A	.4582	.4099	00	.4687	.4289	00	.4813	.4319	00	.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
Diue	В5	475	480
	B6	480	485
	G2	520	525
Green	G3	525	530
	G4	530	535
Amber	A2	585	590
Amber	A3	590	595
Red-Orange	03	610	615
Reu-Orange	04	615	620
Red	R2	620	625
ĸea	R3	625	630

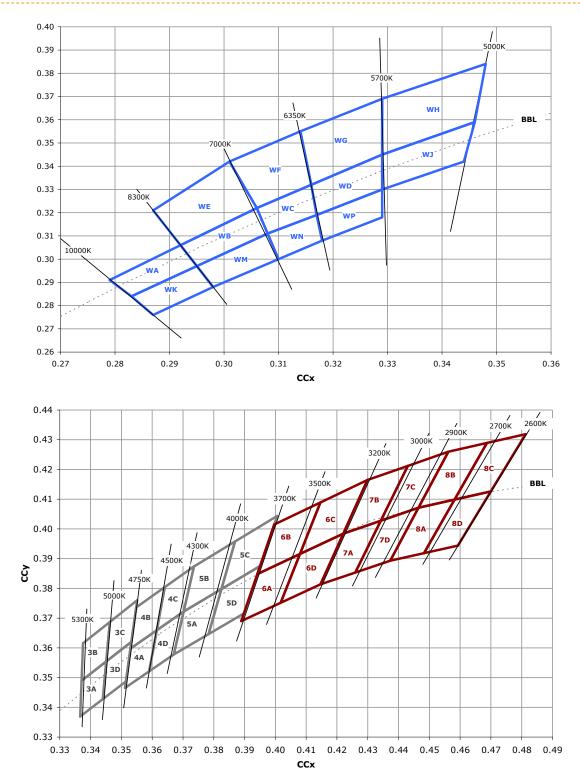
## **PERFORMANCE GROUPS – FORWARD VOLTAGE**

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				
	ous Flux (Im) ) 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		
P3	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		

#### 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 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 Luminous Flux (Im) @ 350 mA*				сст	
Group	Flux (lm)	chromaticity regions	Kit Number		
		Neutral White (3700 K – 5000 K)			
		4C, 4D, 5A, 5B	004F5	4300 K	
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	
	56.0	4A, 4B, 4C, 4D	005E4	4500 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	
	63.0	4A, 4B, 4C, 4D	006E4	4500 K	
N4	62.0	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	
52	(7.2)	4A, 4B, 4C, 4D	007E4	4500 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	
Р3	73.9	4A, 4B, 4C, 4D	008E4	4500 K	
F3	13.9	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	

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.

		mp XR-C LED Standard Order Codes -	White	
	ous Flux (lm) 0 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
CIM	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
	56.0	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
NIA	62.0	6C, 6D, 7A, 7B	006F7	3200 K
N4	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

#### 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 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								
	Min. Radiant Flux (mW)		Dominant Wavelength (nm)					
Color	@ 35	0 mA*	Min.		Max.		Kit Number	
	Group	Flux (mW)	Group	DWL (nm)	Group	DWL (nm)		
	12         250           13         300	250	D3	450	D5	465	00701	
			D3	450	D4	460	00702	
Royal Blue			D4	455	D5	465	00703	
Royal blue			D3	450	D5	465	00801	
		300	D3	450	D4	460	00802	
			D4	455	D5	465	00803	

	XLam	p XR-C LED St	tandard Orde	r Codes - Blue,	Green, Ambe	r, Red-Orange	e, Red
Color		us Flux (lm)		Kit Number			
	@ 350 mA*		Min.		Max.		
	Group	Flux (lm)	Group	DWL (nm)	Group	DWL (nm)	
Blue	G	13.9	B3	465	B4	475	00G01
Diue	Н	18.1	B3	465	B4	475	00H01
			G2	520	G4	535	00M01
	М	39.8	G2	520	G3	530	00M02
Green			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	A3	595	00J01
Amber	K2	30.6	A2	585	A3	595	00K01
	M2	39.8	A2	585	A3	595	00M01
Ded Orenes	K2	30.6	03	610	04	620	00K01
Red-Orange	M2	39.8	03	610	04	620	00M01
	J	23.5	R2	620	R3	630	00J01
Red	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 (Im) @ 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			
		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			
		WA, WB, WC, WD, WE, WF, WG, WH, WJ, WK, WM, WN, WP	00B01			
Q3	93.9	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			

#### 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-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 (Im) @ 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			
N/4	62.0	4A, 4B, 4C, 4D	006E4	4500 K			
N4	62.0	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			
52	(7.2)	4A, 4B, 4C, 4D	007E4	4500 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			
		4A, 4B, 4C, 4D	008E4	4500 K			
Р3	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			
		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			
		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			

#### 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-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 (Im) @ 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			
145	50.8	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			
52	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			

#### 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-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 15	350	D3	450	D5	465	00901	
Royal Blue			D3	450	D4	460	00902	
			D4	455	D5	465	00903	
		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		B3	465	B6	485	00J01	
		23.5	B3	465	В5	480	00J02	
Blue			B4	470	В5	480	00103	
Biue		30.6	B3	465	B6	485	00K01	
	К		B3	465	В5	480	00K02	
			B4	470	В5	480	00K03	
	P 67.2		G2	520	G4	535	00P01	
Green		67.2	67.2 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.