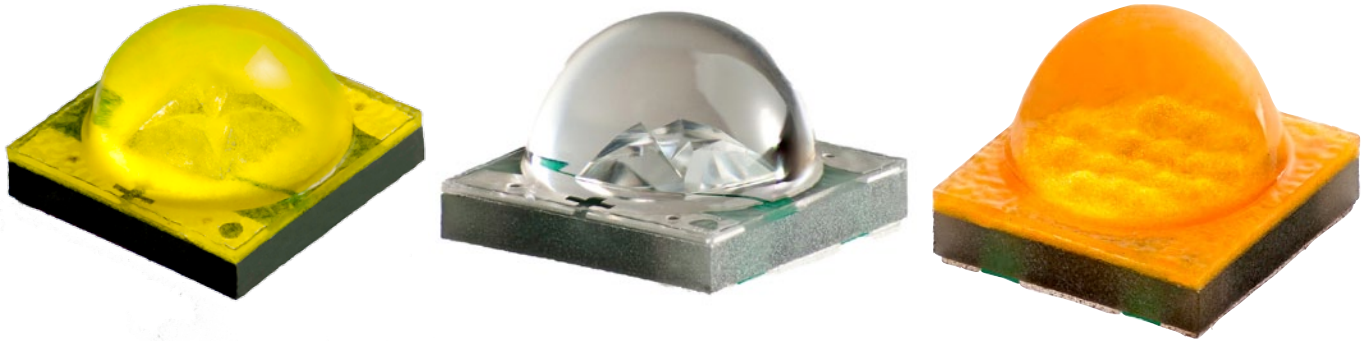


# Cree® XLamp® XT Family LEDs



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## INTRODUCTION

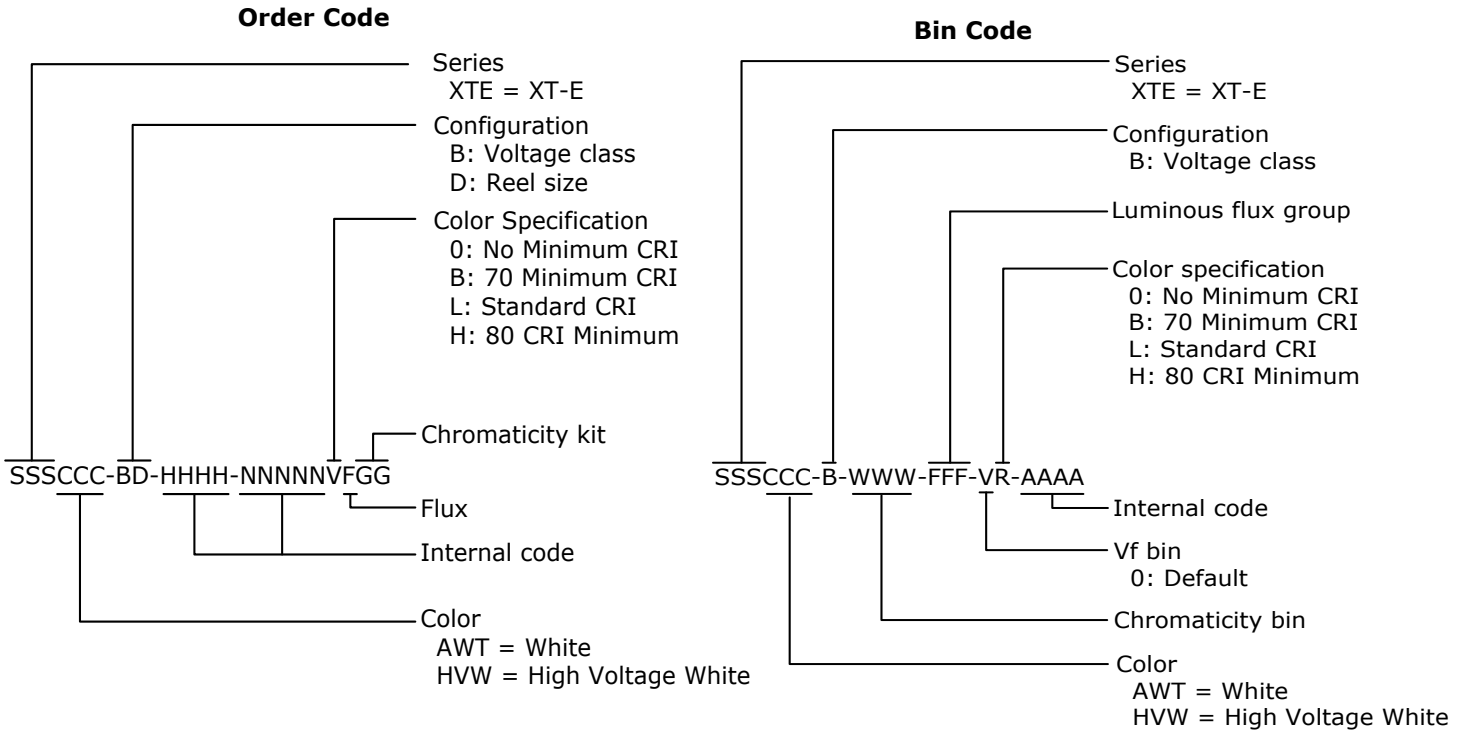
This document describes the product nomenclature required to select and order Cree’s XLamp XT Family LEDs. XLamp XT Family LEDs are tested and sorted into bins which are then combined into orderable kits identified by an order code.

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 sorted by chromaticity (color) and luminous flux (brightness). Color XLamp LEDs are sorted by dominant wavelength (color) and luminous or radiant flux (brightness). LEDs are shipped on reels containing LEDs from one bin and are always labeled with the appropriate bin code.

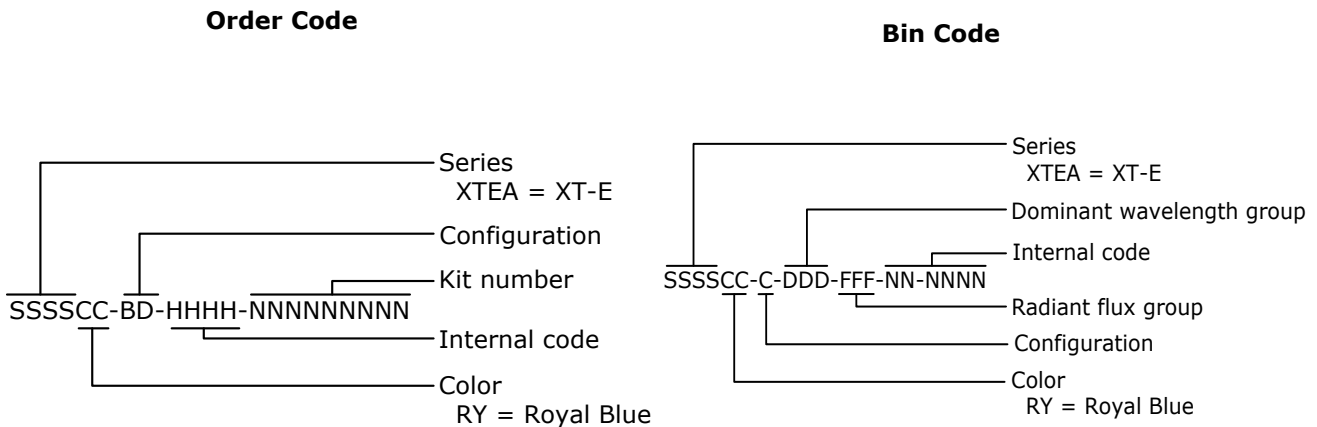
Kits contain LEDs from a number of similar bins and are fully defined by their order codes. A full explanation of the order codes for XLamp XT Family LEDs, as well as a list of standard order codes, is provided in this document.

**BIN AND ORDER-CODE FORMAT**

Bin codes and order codes for XT-E White and XT-E High Voltage White are configured in the following manner:



Bin codes and order codes for XT-E Royal Blue are configured as follows:



**PERFORMANCE GROUPS – BRIGHTNESS ( $T_j = 85\text{ }^\circ\text{C}$ )**

XLamp XT-E White and XT-E High Voltage White LEDs are tested for luminous flux and placed into one of the following luminous-flux groups.

Group Code	Min. Luminous Flux	Max. Luminous Flux
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
R2	114	122
R3	122	130
R4	130	139
R5	139	148

**PERFORMANCE GROUPS – RADIANT FLUX ( $T_j = 85\text{ }^\circ\text{C}$ )**

XLamp XT-E Royal Blue LEDs are tested for radiant flux and placed into one the following bins.

Group Code	Minimum Radiant Flux (mW)	Maximum Radiant Flux (mW)
31 (K)	475	500
32 (L)	500	525
33 (M)	525	550
34 (N)	550	575

**PERFORMANCE GROUPS – DOMINANT WAVELENGTH ( $T_j = 85\text{ }^\circ\text{C}$ )**

XLamp XT-E Royal Blue LEDs are tested for dominant wavelength and placed into one of the regions defined by the following bounding coordinates.

Group Code	Minimum Dominant Wavelength (nm)	Maximum Dominant Wavelength (nm)
D36	450.0	452.5
D37	452.5	455.0
D46	455.0	457.5
D47	457.5	460.0
D56	460.0	462.5
D57	462.5	465.0

**PERFORMANCE GROUPS – FORWARD VOLTAGE ( $T_j = 85\text{ }^\circ\text{C}$ )**

XLamp XT-E High Voltage White LEDs are tested for forward voltage and placed into one the following voltage bins.

Group Code	Minimum Forward Voltage (V) @ 22 mA	Maximum Forward Voltage (V) @ 22 mA
0	No Vf Bin	
1	40.0	42.5
2	42.5	45.0
3	45.0	47.5
4	47.5	50.0
5	50.0	52.5
6	52.5	55.0

XLamp XT-E White and Royal Blue LEDs are tested for forward voltage and placed into one the following voltage bins.

Group Code	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
F	2.75	3.00
G	3.00	3.25
H	3.25	3.50

**PERFORMANCE GROUPS – CHROMATICITY**

Region	x	y	Region	x	y	Region	x	y	Region	x	y
0A	0.2950	0.2970	0B	0.2920	0.3060	0C	0.2984	0.3133	0D	0.2984	0.3133
	0.2920	0.3060		0.2895	0.3135		0.2962	0.3220		0.3048	0.3207
	0.2984	0.3133		0.2962	0.3220		0.3028	0.3304		0.3068	0.3113
	0.3009	0.3042		0.2984	0.3133		0.3048	0.3207		0.3009	0.3042
0R	0.2980	0.2880	0S	0.2895	0.3135	0T	0.2962	0.3220	0U	0.3037	0.2937
	0.2950	0.2970		0.2870	0.3210		0.2937	0.3312		0.3009	0.3042
	0.3009	0.3042		0.2937	0.3312		0.3005	0.3415		0.3068	0.3113
	0.3037	0.2937		0.2962	0.3220		0.3028	0.3304		0.3093	0.2993
1A	0.3048	0.3207	1B	0.3028	0.3304	1C	0.3115	0.3391	1D	0.3130	0.3290
	0.3130	0.3290		0.3115	0.3391		0.3205	0.3481		0.3213	0.3373
	0.3144	0.3186		0.3130	0.3290		0.3213	0.3373		0.3221	0.3261
	0.3068	0.3113		0.3048	0.3207		0.3130	0.3290		0.3144	0.3186
1R	0.3068	0.3113	1S	0.3005	0.3415	1T	0.3099	0.3509	1U	0.3144	0.3186
	0.3144	0.3186		0.3099	0.3509		0.3196	0.3602		0.3221	0.3261
	0.3161	0.3059		0.3115	0.3391		0.3205	0.3481		0.3231	0.3120
	0.3093	0.2993		0.3028	0.3304		0.3115	0.3391		0.3161	0.3059
2A	0.3215	0.3350	2B	0.3207	0.3462	2C	0.3290	0.3538	2D	0.3290	0.3417
	0.3290	0.3417		0.3290	0.3538		0.3376	0.3616		0.3371	0.3490
	0.3290	0.3300		0.3290	0.3417		0.3371	0.3490		0.3366	0.3369
	0.3222	0.3243		0.3215	0.3350		0.3290	0.3417		0.3290	0.3300
2R	0.3222	0.3243	2S	0.3196	0.3602	2T	0.3290	0.3690	2U	0.3290	0.3300
	0.3290	0.3300		0.3290	0.3690		0.3381	0.3762		0.3366	0.3369
	0.3290	0.3180		0.3290	0.3538		0.3376	0.3616		0.3361	0.3245
	0.3231	0.3120		0.3207	0.3462		0.3290	0.3538		0.3290	0.3180
3A	0.3371	0.3490	3B	0.3376	0.3616	3C	0.3463	0.3687	3D	0.3451	0.3554
	0.3451	0.3554		0.3463	0.3687		0.3551	0.3760		0.3533	0.3620
	0.3440	0.3427		0.3451	0.3554		0.3533	0.3620		0.3515	0.3487
	0.3366	0.3369		0.3371	0.3490		0.3451	0.3554		0.3440	0.3427
3R	0.3366	0.3369	3S	0.3381	0.3762	3T	0.3480	0.3840	3U	0.3440	0.3428
	0.3440	0.3428		0.3480	0.3840		0.3571	0.3907		0.3515	0.3487
	0.3429	0.3307		0.3463	0.3687		0.3551	0.3760		0.3495	0.3339
	0.3361	0.3245		0.3376	0.3616		0.3463	0.3687		0.3429	0.3307
4A	0.3530	0.3597	4B	0.3548	0.3736	4C	0.3641	0.3804	4D	0.3615	0.3659
	0.3615	0.3659		0.3641	0.3804		0.3736	0.3874		0.3702	0.3722
	0.3590	0.3521		0.3615	0.3659		0.3702	0.3722		0.3670	0.3578
	0.3512	0.3465		0.3530	0.3597		0.3615	0.3659		0.3590	0.3521
4R	0.3512	0.3465	4S	0.3571	0.3907	4T	0.3668	0.3957	4U	0.3590	0.3521
	0.3590	0.3521		0.3668	0.3957		0.3771	0.4034		0.3670	0.3578
	0.3567	0.3389		0.3641	0.3804		0.3736	0.3874		0.3640	0.3440
	0.3495	0.3339		0.3548	0.3736		0.3641	0.3804		0.3567	0.3389

**PERFORMANCE GROUPS – CHROMATICITY (CONTINUED)**

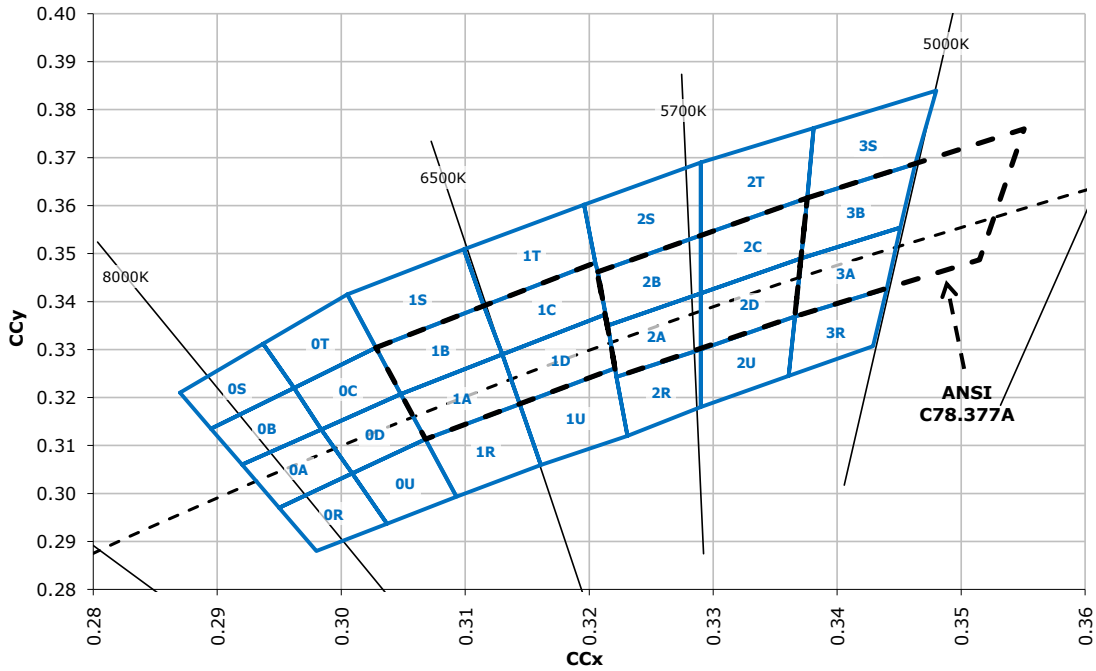
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5A1	0.3670	0.3578	5A2	0.3686	0.3649	5A3	0.3744	0.3685	5A4	0.3726	0.3612
	0.3686	0.3649		0.3702	0.3722		0.3763	0.3760		0.3744	0.3685
	0.3744	0.3685		0.3763	0.3760		0.3825	0.3798		0.3804	0.3721
	0.3726	0.3612		0.3744	0.3685		0.3804	0.3721		0.3783	0.3646
5B1	0.3702	0.3722	5B2	0.3719	0.3797	5B3	0.3782	0.3837	5B4	0.3763	0.3760
	0.3719	0.3797		0.3736	0.3874		0.3802	0.3916		0.3782	0.3837
	0.3782	0.3837		0.3802	0.3916		0.3869	0.3958		0.3847	0.3877
	0.3763	0.3760		0.3782	0.3837		0.3847	0.3877		0.3825	0.3798
5C1	0.3825	0.3798	5C2	0.3847	0.3877	5C3	0.3912	0.3917	5C4	0.3887	0.3836
	0.3847	0.3877		0.3869	0.3958		0.3937	0.4001		0.3912	0.3917
	0.3912	0.3917		0.3937	0.4001		0.4006	0.4044		0.3978	0.3958
	0.3887	0.3836		0.3912	0.3917		0.3978	0.3958		0.3950	0.3875
5D1	0.3783	0.3646	5D2	0.3804	0.3721	5D3	0.3863	0.3758	5D4	0.3840	0.3681
	0.3804	0.3721		0.3825	0.3798		0.3887	0.3836		0.3863	0.3758
	0.3863	0.3758		0.3887	0.3836		0.3950	0.3875		0.3924	0.3794
	0.3840	0.3681		0.3863	0.3758		0.3924	0.3794		0.3898	0.3716
5R	0.3670	0.3578	5S	0.3771	0.4034	5T	0.3916	0.4127	5U	0.3783	0.3646
	0.3783	0.3646		0.3916	0.4127		0.4064	0.4221		0.3898	0.3716
	0.3743	0.3502		0.3869	0.3958		0.4006	0.4044		0.3848	0.3565
	0.3640	0.3440		0.3736	0.3874		0.3869	0.3958		0.3743	0.3502
6A1	0.3889	0.3690	6A2	0.3915	0.3768	6A3	0.3981	0.3800	6A4	0.3953	0.3720
	0.3915	0.3768		0.3941	0.3848		0.4010	0.3882		0.3981	0.3800
	0.3981	0.3800		0.4010	0.3882		0.4080	0.3916		0.4048	0.3832
	0.3953	0.3720		0.3981	0.3800		0.4048	0.3832		0.4017	0.3751
6B1	0.3941	0.3848	6B2	0.3968	0.3930	6B3	0.4040	0.3966	6B4	0.4010	0.3882
	0.3968	0.3930		0.3996	0.4015		0.4071	0.4052		0.4040	0.3966
	0.4040	0.3966		0.4071	0.4052		0.4146	0.4089		0.4113	0.4001
	0.4010	0.3882		0.4040	0.3966		0.4113	0.4001		0.4080	0.3916
6C1	0.4080	0.3916	6C2	0.4113	0.4001	6C3	0.4186	0.4037	6C4	0.4150	0.3950
	0.4113	0.4001		0.4146	0.4089		0.4222	0.4127		0.4186	0.4037
	0.4186	0.4037		0.4222	0.4127		0.4299	0.4165		0.4259	0.4073
	0.4150	0.3950		0.4186	0.4037		0.4259	0.4073		0.4221	0.3984
6D1	0.4017	0.3751	6D2	0.4048	0.3832	6D3	0.4116	0.3865	6D4	0.4082	0.3782
	0.4048	0.3832		0.4080	0.3916		0.4150	0.3950		0.4116	0.3865
	0.4116	0.3865		0.4150	0.3950		0.4221	0.3984		0.4183	0.3898
	0.4082	0.3782		0.4116	0.3865		0.4183	0.3898		0.4147	0.3814

**PERFORMANCE GROUPS – CHROMATICITY (CONTINUED)**

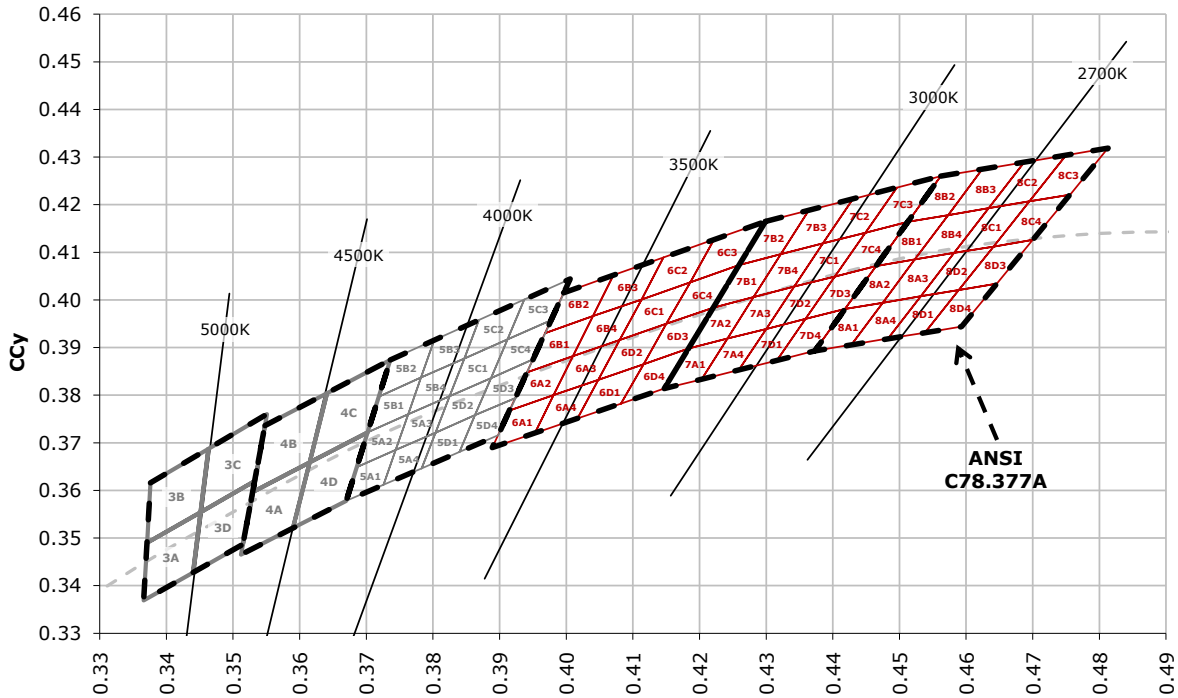
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6R	0.3889	0.3690	6S	0.4054	0.4191	6T	0.4217	0.4273	6U	0.4017	0.3751
	0.4017	0.3751		0.4217	0.4273		0.4382	0.4356		0.4147	0.3814
	0.3957	0.3596		0.4146	0.4089		0.4299	0.4165		0.4077	0.3652
	0.3840	0.3540		0.3996	0.4015		0.4146	0.4089		0.3957	0.3596
7A1	0.4147	0.3814	7A2	0.4183	0.3898	7A3	0.4242	0.3919	7A4	0.4203	0.3833
	0.4183	0.3898		0.4221	0.3984		0.4281	0.4006		0.4242	0.3919
	0.4242	0.3919		0.4281	0.4006		0.4342	0.4028		0.4300	0.3939
	0.4203	0.3833		0.4242	0.3919		0.4300	0.3939		0.4259	0.3853
7B1	0.4221	0.3984	7B2	0.4259	0.4073	7B3	0.4322	0.4096	7B4	0.4281	0.4006
	0.4259	0.4073		0.4299	0.4165		0.4364	0.4188		0.4322	0.4096
	0.4322	0.4096		0.4364	0.4188		0.4430	0.4212		0.4385	0.4119
	0.4281	0.4006		0.4322	0.4096		0.4385	0.4119		0.4342	0.4028
7C1	0.4342	0.4028	7C2	0.4385	0.4119	7C3	0.4449	0.4141	7C4	0.4403	0.4049
	0.4385	0.4119		0.4430	0.4212		0.4496	0.4236		0.4449	0.4141
	0.4449	0.4141		0.4496	0.4236		0.4562	0.4260		0.4513	0.4164
	0.4403	0.4049		0.4449	0.4141		0.4513	0.4164		0.4465	0.4071
7D1	0.4259	0.3853	7D2	0.4300	0.3939	7D3	0.4359	0.3960	7D4	0.4316	0.3873
	0.4300	0.3939		0.4342	0.4028		0.4403	0.4049		0.4359	0.3960
	0.4359	0.3960		0.4403	0.4049		0.4465	0.4071		0.4418	0.3981
	0.4316	0.3873		0.4359	0.3960		0.4418	0.3981		0.4373	0.3893
8A1	0.4373	0.3893	8A2	0.4418	0.3981	8A3	0.4475	0.3994	8A4	0.4428	0.3906
	0.4418	0.3981		0.4465	0.4071		0.4523	0.4085		0.4475	0.3994
	0.4475	0.3994		0.4523	0.4085		0.4582	0.4099		0.4532	0.4008
	0.4428	0.3906		0.4475	0.3994		0.4532	0.4008		0.4483	0.3919
8B1	0.4465	0.4071	8B2	0.4513	0.4164	8B3	0.4573	0.4178	8B4	0.4523	0.4085
	0.4513	0.4164		0.4562	0.4260		0.4624	0.4274		0.4573	0.4178
	0.4573	0.4178		0.4624	0.4274		0.4687	0.4289		0.4634	0.4193
	0.4523	0.4085		0.4573	0.4178		0.4634	0.4193		0.4582	0.4099
8C1	0.4582	0.4099	8C2	0.4634	0.4193	8C3	0.4695	0.4207	8C4	0.4641	0.4112
	0.4634	0.4193		0.4687	0.4289		0.4750	0.4304		0.4695	0.4207
	0.4695	0.4207		0.4750	0.4304		0.4813	0.4319		0.4756	0.4221
	0.4641	0.4112		0.4695	0.4207		0.4756	0.4221		0.4700	0.4126
8D1	0.4483	0.3919	8D2	0.4532	0.4008	8D3	0.4589	0.4021	8D4	0.4538	0.3931
	0.4532	0.4008		0.4582	0.4099		0.4641	0.4112		0.4589	0.4021
	0.4589	0.4021		0.4641	0.4112		0.4700	0.4126		0.4646	0.4034
	0.4538	0.3931		0.4589	0.4021		0.4646	0.4034		0.4593	0.3944

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

ANSI Cool White

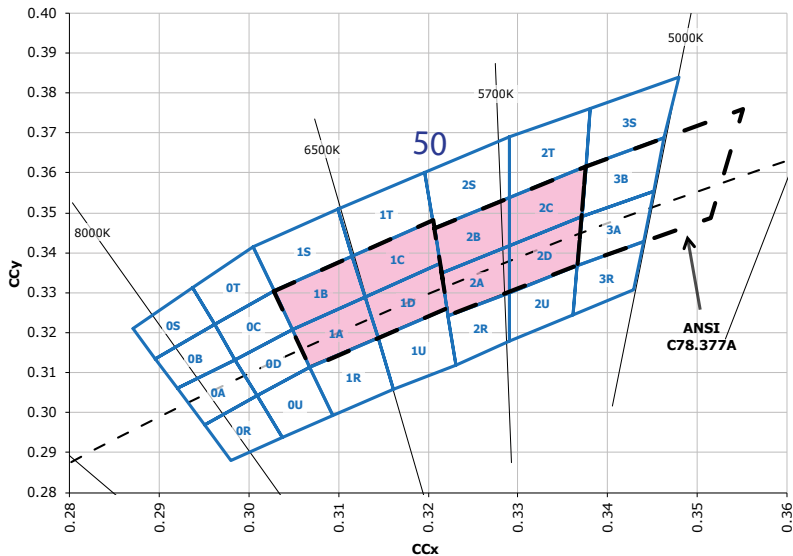
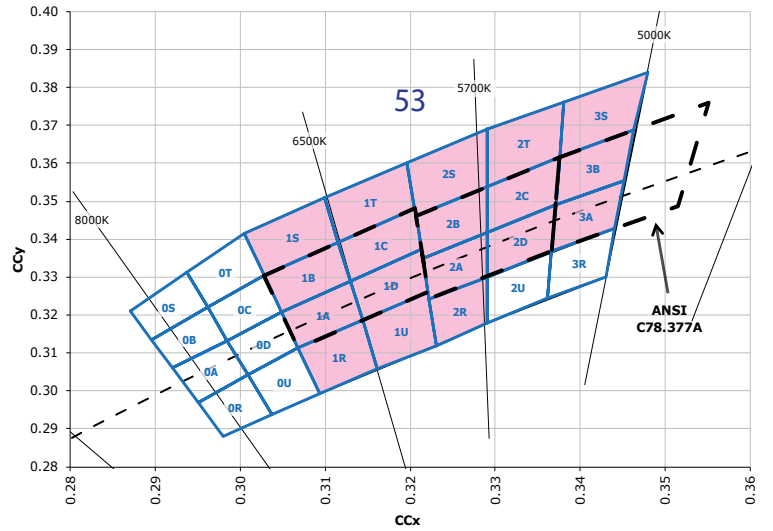
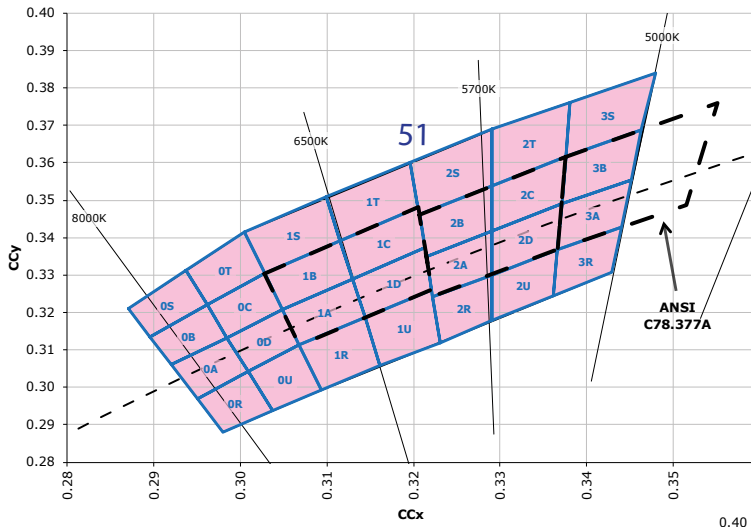


ANSI Neutral White and ANSI Warm White

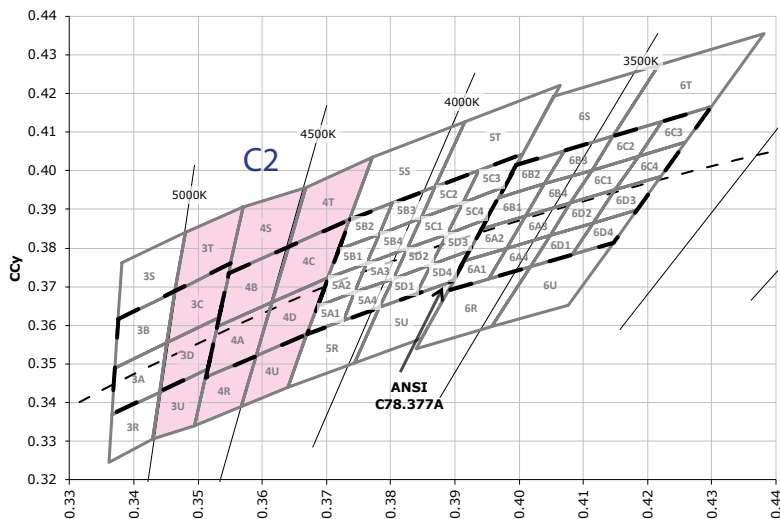
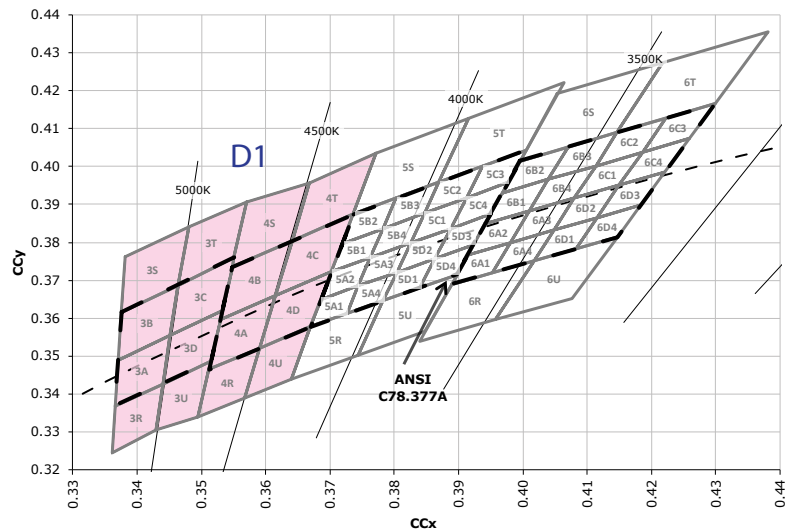
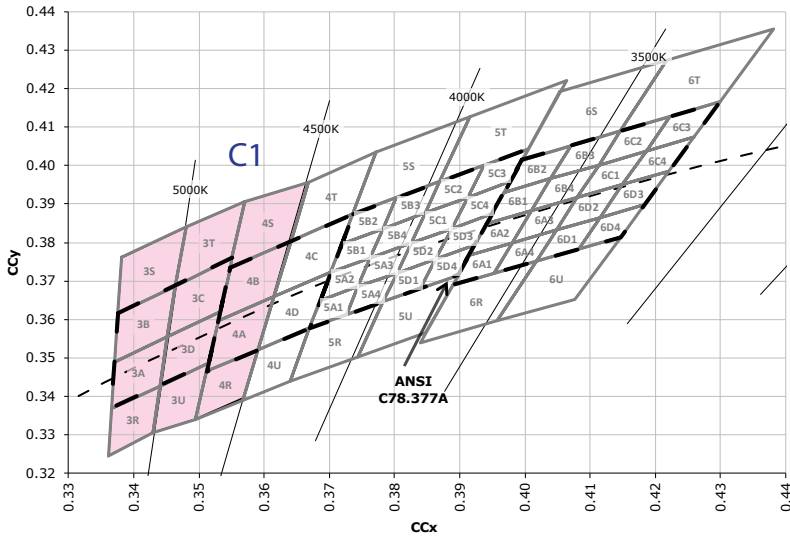


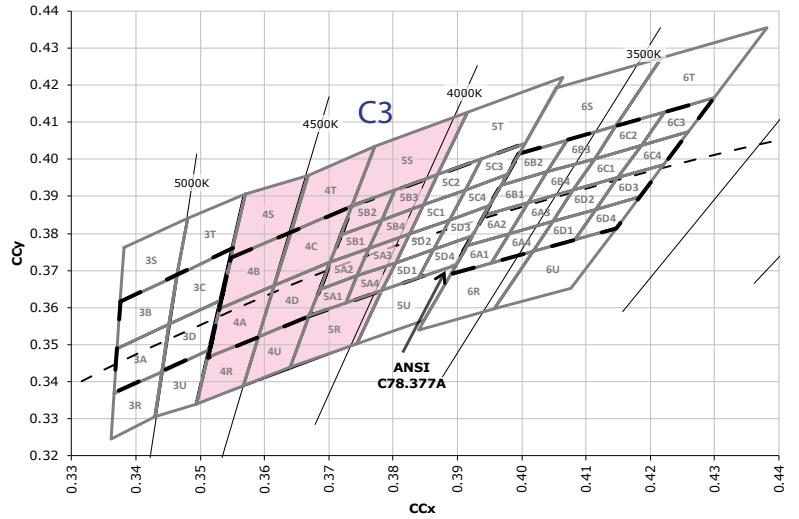
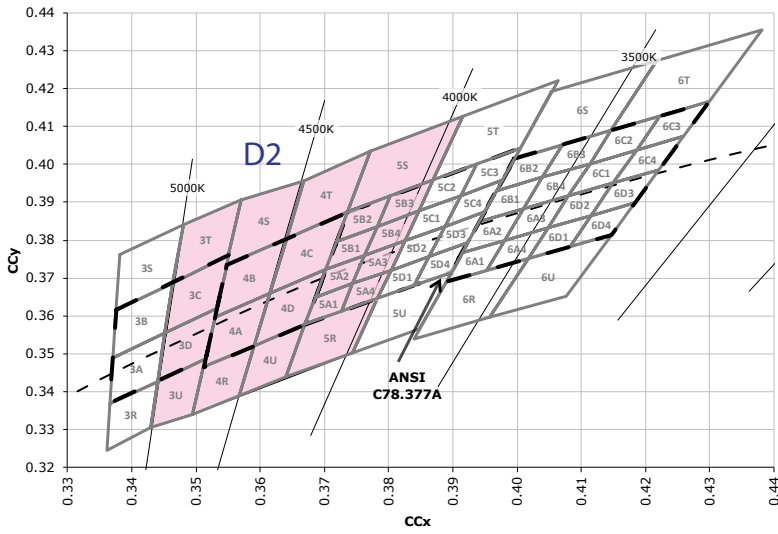


CREE'S STANDARD COOL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS

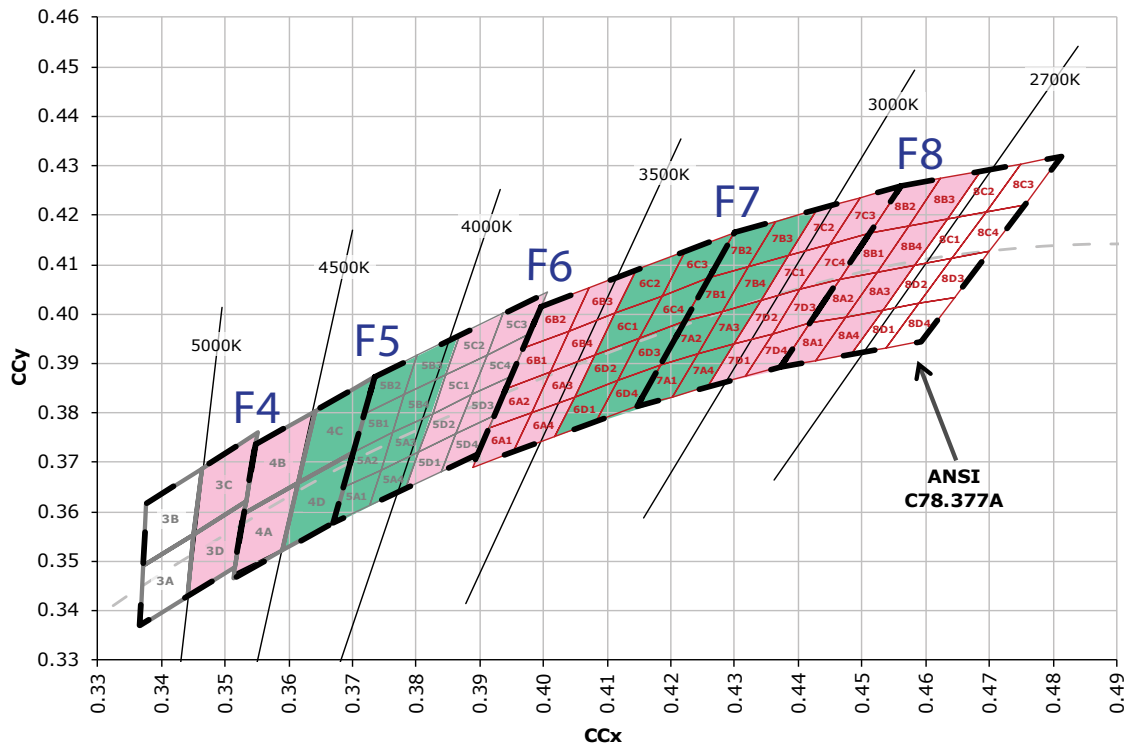
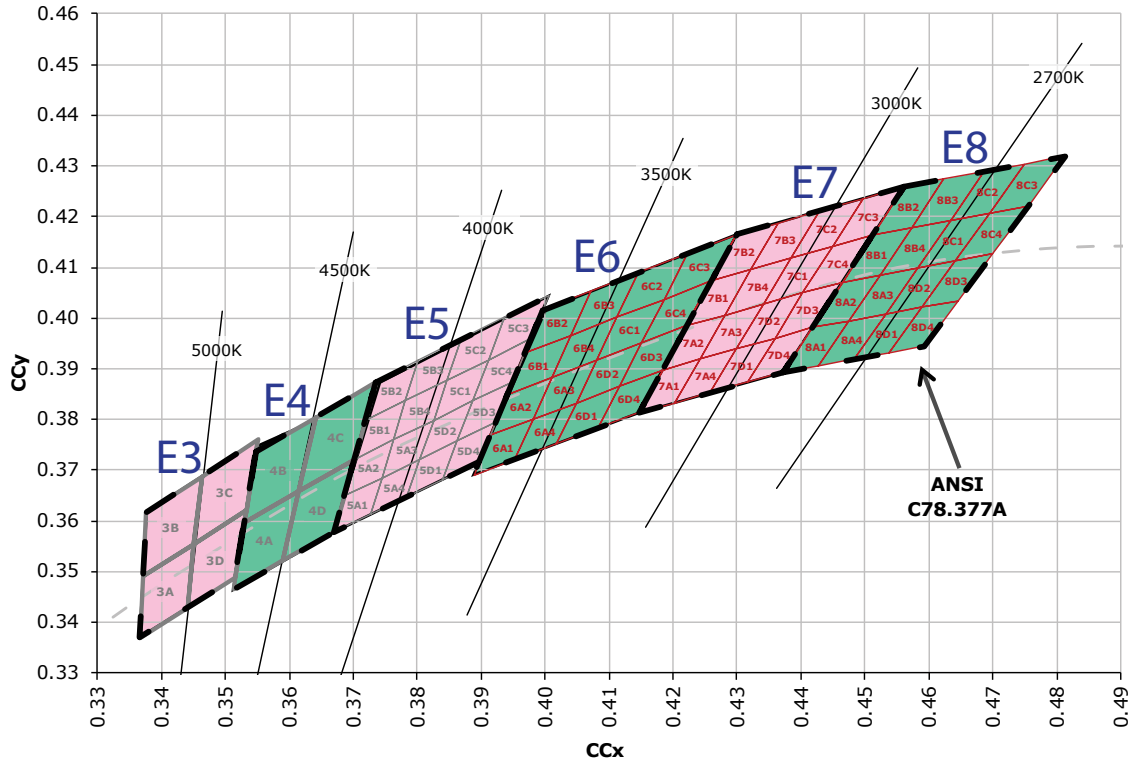


CREE'S OUTDOOR WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS





**CREE'S STANDARD WARM AND NEUTRAL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS**



### CREE'S STANDARD CHROMATICITY KITS

The following table provides the chromaticity bins associated with chromaticity kits.

Color	CCT	Kit	Chromaticity Bins
Cool White	6200 K	51	0A, 0B, 0C, 0D, 0R, 0S, 0T, 0U, 1A, 1B, 1C, 1D, 1R, 1S, 1T, 1U, 2A, 2B, 2C, 2D, 2R, 2S, 2T, 2U, 3A, 3B, 3R, 3S
	6000 K	53	1A, 1B, 1C, 1D, 1R, 1S, 1T, 1U, 2A, 2B, 2C, 2D, 2R, 2S, 2T, 3A, 3B, 3S
	6200 K	50	1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D
Neutral White	5000 K	E3	3A, 3B, 3C, 3D
	5000 K	C1	3A, 3B, 3C, 3D, 3R, 3S, 3T, 3U, 4A, 4B, 4R, 4S
	4750 K	F4	3C, 3D, 4A, 4B
	4750 K	D1	3A, 3B, 3C, 3D, 3R, 3S, 3T, 3U, 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U
	4500 K	E4	4A, 4B, 4C, 4D
	4500 K	D2	3C, 3D, 3T, 3U, 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5R, 5S
	4500 K	C2	3C, 3D, 3T, 3U, 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U
	4300 K	C3	4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5R, 5S
	4250 K	F5	4C, 4D, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4
4000 K	E5	5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5C1, 5C2, 5C3, 5C4, 5D1, 5D2, 5D3, 5D4	
Warm White	3750 K	F6	5C1, 5C2, 5C3, 5C4, 5D1, 5D2, 5D3, 5D4, 6A1, 6A2, 6A3, 6A4, 6B1, 6B2, 6B3, 6B4
	3500 K	E6	6A1, 6A2, 6A3, 6A4, 6B1, 6B2, 6B3, 6B4, 6C1, 6C2, 6C3, 6C4, 6D1, 6D2, 6D3, 6D4
	3250 K	F7	6C1, 6C2, 6C3, 6C4, 6D1, 6D2, 6D3, 6D4, 7A1, 7A2, 7A3, 7A4, 7B1, 7B2, 7B3, 7B4
	3000 K	E7	7A1, 7A2, 7A3, 7A4, 7B1, 7B2, 7B3, 7B4, 7C1, 7C2, 7C3, 7C4, 7D1, 7D2, 7D3, 7D4
	2850 K	F8	7C1, 7C2, 7C3, 7C4, 7D1, 7D2, 7D3, 7D4, 8A1, 8A2, 8A3, 8A4, 8B1, 8B2, 8B3, 8B4
	2700 K	E8	8A1, 8A2, 8A3, 8A4, 8B1, 8B2, 8B3, 8B4, 8C1, 8C2, 8C3, 8C4, 8D1, 8D2, 8D3, 8D4

The following tables of order codes list flux minimums and chromaticity regions for the various categories of XLamp XT LEDs. For other flux and chromaticity combinations, contact Cree or an authorized distributor.

### STANDARD ORDER CODES AND BINS (XT-E ANSI COOL WHITE, T<sub>j</sub> = 85 °C)

XLamp XT-E Standard Kit Codes - White					
Chromaticity		Minimum Luminous Flux (lm) @ 350 mA*		Order Codes	
Kit	CCT	Code	Flux (lm)	No Minimum CRI	70 CRI Minimum
ANSI Cool White (5000 K - 8300 K)					
51	6200 K	R5	139	XTEAWT-00-0000-000000H51	XTEAWT-00-0000-000000BH51
		R4	130	XTEAWT-00-0000-000000G51	XTEAWT-00-0000-000000BG51
		R3	122	XTEAWT-00-0000-000000F51	XTEAWT-00-0000-000000BF51
53	6000 K	R5	139	XTEAWT-00-0000-000000H53	XTEAWT-00-0000-000000BH53
		R4	130	XTEAWT-00-0000-000000G53	XTEAWT-00-0000-000000BG53
		R3	122	XTEAWT-00-0000-000000F53	XTEAWT-00-0000-000000BF53
50	6200 K	R5	139	XTEAWT-00-0000-000000H50	XTEAWT-00-0000-000000BH50
		R4	130	XTEAWT-00-0000-000000G50	XTEAWT-00-0000-000000BG50
		R3	122	XTEAWT-00-0000-000000F50	XTEAWT-00-0000-000000BF50

**Notes:**

- Cree maintains a tolerance of ±7% on flux and power measurements and ±2 on CRI measurements.
- Cree XLamp XT Family 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 (XT-E NEUTRAL WHITE, T<sub>j</sub> = 85 °C)**

XLamp XT-E Standard Kit Codes - White						
Chromaticity		Minimum Luminous Flux (lm) @ 350 mA*		Order Codes		
Kit	CCT	Code	Flux (lm)	No Minimum CRI	70 CRI Minimum	75 CRI Typical
ANSI Neutral White (3700 K – 5000 K)						
E3	5000 K	R5	139	XTEAWT-00-0000-000000HE3	XTEAWT-00-0000-000000BHE3	
		R4	130	XTEAWT-00-0000-000000GE3	XTEAWT-00-0000-000000BGE3	XTEAWT-00-0000-000000LGE3
		R3	122	XTEAWT-00-0000-000000FE3	XTEAWT-00-0000-000000BFE3	XTEAWT-00-0000-000000LFE3
		R2	114			XTEAWT-00-0000-000000LEE3
C1	5000 K	R5	139	XTEAWT-00-0000-000000HC1	XTEAWT-00-0000-000000BHC1	
		R4	130	XTEAWT-00-0000-000000GC1	XTEAWT-00-0000-000000BGC1	XTEAWT-00-0000-000000LGC1
		R3	122	XTEAWT-00-0000-000000FC1	XTEAWT-00-0000-000000BFC1	XTEAWT-00-0000-000000LFC1
		R2	114			XTEAWT-00-0000-000000LEC1
F4	4750 K	R4	130	XTEAWT-00-0000-000000GF4	XTEAWT-00-0000-000000BGF4	
		R3	122	XTEAWT-00-0000-000000FF4	XTEAWT-00-0000-000000BFF4	XTEAWT-00-0000-000000LFF4
		R2	114	XTEAWT-00-0000-000000EF4	XTEAWT-00-0000-000000BEF4	XTEAWT-00-0000-000000LEF4
		Q5	107			XTEAWT-00-0000-000000LDF4
D1	4750 K	R5	139	XTEAWT-00-0000-000000HD1	XTEAWT-00-0000-000000BHD1	
		R4	130	XTEAWT-00-0000-000000GD1	XTEAWT-00-0000-000000BGD1	XTEAWT-00-0000-000000LGD1
		R3	122	XTEAWT-00-0000-000000FD1	XTEAWT-00-0000-000000BFD1	XTEAWT-00-0000-000000LFD1
		R2	114			XTEAWT-00-0000-000000LED1
E4	4500 K	R5	139	XTEAWT-00-0000-000000HE4	XTEAWT-00-0000-000000BHE4	
		R4	130	XTEAWT-00-0000-000000GE4	XTEAWT-00-0000-000000BGE4	XTEAWT-00-0000-000000LGE4
		R3	122	XTEAWT-00-0000-000000FE4	XTEAWT-00-0000-000000BFE4	XTEAWT-00-0000-000000LFE4
		R2	114			XTEAWT-00-0000-000000LEE4
D2	4500 K	R4	130	XTEAWT-00-0000-000000GD2	XTEAWT-00-0000-000000BGD2	
		R3	122	XTEAWT-00-0000-000000FD2	XTEAWT-00-0000-000000BFD2	XTEAWT-00-0000-000000LFD2
		R2	114	XTEAWT-00-0000-000000ED2	XTEAWT-00-0000-000000BED2	XTEAWT-00-0000-000000LED2
		Q5	107			XTEAWT-00-0000-000000LDD2
C2	4500 K	R5	139	XTEAWT-00-0000-000000HC2	XTEAWT-00-0000-000000BHC2	
		R4	130	XTEAWT-00-0000-000000GC2	XTEAWT-00-0000-000000BGC2	XTEAWT-00-0000-000000LGC2
		R3	122	XTEAWT-00-0000-000000FC2	XTEAWT-00-0000-000000BFC2	XTEAWT-00-0000-000000LFC2
		R2	114			XTEAWT-00-0000-000000LEC2
C3	4300 K	R5	139	XTEAWT-00-0000-000000HC3	XTEAWT-00-0000-000000BHC3	
		R4	130	XTEAWT-00-0000-000000GC3	XTEAWT-00-0000-000000BGC3	XTEAWT-00-0000-000000LGC3
		R3	122	XTEAWT-00-0000-000000FC3	XTEAWT-00-0000-000000BFC3	XTEAWT-00-0000-000000LFC3
		R2	114			XTEAWT-00-0000-000000LEC3
F5	4250 K	R3	122	XTEAWT-00-0000-000000FF5	XTEAWT-00-0000-000000BFF5	
		R2	114	XTEAWT-00-0000-000000EF5	XTEAWT-00-0000-000000BEF5	XTEAWT-00-0000-000000LEF5
		Q5	107	XTEAWT-00-0000-000000DF5	XTEAWT-00-0000-000000BDF5	XTEAWT-00-0000-000000LDF5
		Q4	100			XTEAWT-00-0000-000000LCF5
E5	4000 K	R3	122	XTEAWT-00-0000-000000FE5	XTEAWT-00-0000-000000BFE5	
		R2	114	XTEAWT-00-0000-000000EE5	XTEAWT-00-0000-000000BEE5	XTEAWT-00-0000-000000LEE5
		Q5	107	XTEAWT-00-0000-000000DE5	XTEAWT-00-0000-000000BDE5	XTEAWT-00-0000-000000LDE5
		Q4	100			XTEAWT-00-0000-000000LCE5

- Notes:
- Cree maintains a tolerance of ±7% on flux and power measurements and ±2 on CRI measurements.
  - Cree XLamp XT Family 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 (XT-E WARM WHITE,  $T_j = 85\text{ }^\circ\text{C}$ )

XLamp XT-E Standard Kit Codes - White						
Chromaticity		Minimum Luminous Flux (lm) @ 350 mA*		Order Codes		
Kit	CCT	Code	Flux (lm)	70 CRI Minimum	80 CRI Typical	80 CRI Minimum
ANSI Warm White (2700 K - 3750 K)						
F6	3750 K	R3	122	XTEAWT-00-0000-00000BFF6		
		R2	114	XTEAWT-00-0000-00000BEF6	XTEAWT-00-0000-00000LEF6	XTEAWT-00-0000-00000HEF6
		Q5	107	XTEAWT-00-0000-00000BDF6	XTEAWT-00-0000-00000LDF6	XTEAWT-00-0000-00000HDF6
		Q4	100		XTEAWT-00-0000-00000LCF6	XTEAWT-00-0000-00000HCF6
E6	3500 K	R3	122	XTEAWT-00-0000-00000BFE6		
		R2	114	XTEAWT-00-0000-00000BEE6	XTEAWT-00-0000-00000LEE6	XTEAWT-00-0000-00000HEE6
		Q5	107	XTEAWT-00-0000-00000BDE6	XTEAWT-00-0000-00000LDE6	XTEAWT-00-0000-00000HDE6
		Q4	100		XTEAWT-00-0000-00000LCE6	XTEAWT-00-0000-00000HCE6
F7	3250 K	R2	114	XTEAWT-00-0000-00000BEF7		
		Q5	107	XTEAWT-00-0000-00000BDF7	XTEAWT-00-0000-00000LDF7	XTEAWT-00-0000-00000HDF7
		Q4	100	XTEAWT-00-0000-00000BCF7	XTEAWT-00-0000-00000LCF7	XTEAWT-00-0000-00000HCF7
		Q3	93.9		XTEAWT-00-0000-00000LBF7	XTEAWT-00-0000-00000HBF7
E7	3000 K	R2	114	XTEAWT-00-0000-00000BEE7		
		Q5	107	XTEAWT-00-0000-00000BDE7	XTEAWT-00-0000-00000LDE7	XTEAWT-00-0000-00000HDE7
		Q4	100	XTEAWT-00-0000-00000BCE7	XTEAWT-00-0000-00000LCE7	XTEAWT-00-0000-00000HCE7
		Q3	93.9		XTEAWT-00-0000-00000LBE7	XTEAWT-00-0000-00000HBE7
F8	2850 K	Q5	107	XTEAWT-00-0000-00000BDF8		
		Q4	100	XTEAWT-00-0000-00000BCF8	XTEAWT-00-0000-00000LCF8	XTEAWT-00-0000-00000HCF8
		Q3	93.9	XTEAWT-00-0000-00000BBF8	XTEAWT-00-0000-00000LBF8	XTEAWT-00-0000-00000HBF8
		Q2	87.4		XTEAWT-00-0000-00000LAF8	XTEAWT-00-0000-00000HAF8
E8	2700 K	Q5	107	XTEAWT-00-0000-00000BDE8		
		Q4	100	XTEAWT-00-0000-00000BCE8	XTEAWT-00-0000-00000LCE8	XTEAWT-00-0000-00000HCE8
		Q3	93.9	XTEAWT-00-0000-00000BBE8	XTEAWT-00-0000-00000LBE8	XTEAWT-00-0000-00000HBE8
		Q2	87.4		XTEAWT-00-0000-00000LAE8	XTEAWT-00-0000-00000HAE8

Notes:

- Cree maintains a tolerance of  $\pm 7\%$  on flux and power measurements and  $\pm 2$  on CRI measurements.
- Cree XLamp XT Family 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 (XT-E HVW ANSI COOL WHITE, T<sub>j</sub> = 85 °C)**

XLamp XT-E HVW Standard Kit Codes - White				
Chromaticity		Minimum Luminous Flux (lm) @ 22 mA		Order Codes
Kit	CCT	Code	Flux (lm)	No Minimum CRI
ANSI Cool White (5000 K – 8300 K)				
51	6200 K	R2	114	XTEHVW-Q0-0000-00000LE51
		Q5	107	XTEHVW-Q0-0000-00000LD51
		Q4	100	XTEHVW-Q0-0000-00000LC51
53	6000 K	R2	114	XTEHVW-Q0-0000-00000LE53
		Q5	107	XTEHVW-Q0-0000-00000LD53
		Q4	100	XTEHVW-Q0-0000-00000LC53
50	6200 K	R2	114	XTEHVW-Q0-0000-00000LE50
		Q5	107	XTEHVW-Q0-0000-00000LD50
		Q4	100	XTEHVW-Q0-0000-00000LC50

**STANDARD ORDER CODES AND BINS (XT-E HVW NEUTRAL WHITE, T<sub>j</sub> = 85 °C)**

XLamp XT-E Standard Kit Codes - White					
Chromaticity		Minimum Luminous Flux (lm) @ 22 mA		Order Codes	
Kit	CCT	Code	Flux (lm)	75 Typical CRI	80 CRI Minimum
ANSI Neutral White (3700 K – 5000 K)					
E3	5000 K	Q5	107	XTEHVW-Q0-0000-00000LDE3	
		Q4	100	XTEHVW-Q0-0000-00000LCE3	
		Q3	93.9	XTEHVW-Q0-0000-00000LBE3	
F4	4750 K	Q5	107	XTEHVW-Q0-0000-00000LDF4	
		Q4	100	XTEHVW-Q0-0000-00000LCF4	
		Q3	93.9	XTEHVW-Q0-0000-00000LBF4	
E4	4500 K	Q5	107	XTEHVW-Q0-0000-00000LDE4	
		Q4	100	XTEHVW-Q0-0000-00000LCE4	
		Q3	93.9	XTEHVW-Q0-0000-00000LBE4	
F5	4250 K	Q3	93.9	XTEHVW-Q0-0000-00000LBF5	
		Q2	87.4	XTEHVW-Q0-0000-00000LAF5	XTEHVW-Q0-0000-00000HAF5
		P4	80.6	XTEHVW-Q0-0000-00000L9F5	XTEHVW-Q0-0000-00000H9F5
E5	4000 K	Q3	93.9	XTEHVW-Q0-0000-00000LBE5	
		Q2	87.4	XTEHVW-Q0-0000-00000LAE5	XTEHVW-Q0-0000-00000HAE5
		P4	80.6	XTEHVW-Q0-0000-00000L9E5	XTEHVW-Q0-0000-00000H9E5

- Notes:
- Cree maintains a tolerance of ±7% on flux and power measurements and ±2 on CRI measurements.
  - Cree XLamp XT Family 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 (XT-E HVW WARM WHITE,  $T_j = 85^\circ\text{C}$ )**

XLamp XT-E HVW Standard Kit Codes - White					
Chromaticity		Minimum Luminous Flux (lm) @ 22 mA*		Order Codes	
Kit	CCT	Code	Flux (lm)	82 CRI Typical	80 CRI Minimum
ANSI Warm White (2700 K - 3750 K)					
F6	3750 K	Q2	87.4	XTEHVW-Q0-0000-00000LAF6	XTEHVW-Q0-0000-00000HAF6
		P4	80.6	XTEHVW-Q0-0000-00000L9F6	XTEHVW-Q0-0000-00000H9F6
		P3	73.9	XTEHVW-Q0-0000-00000L8F6	XTEHVW-Q0-0000-00000H8F6
E6	3500 K	Q2	87.4	XTEHVW-Q0-0000-00000LAE6	XTEHVW-Q0-0000-00000HAE6
		P4	80.6	XTEHVW-Q0-0000-00000L9E6	XTEHVW-Q0-0000-00000H9E6
		P3	73.9	XTEHVW-Q0-0000-00000L8E6	XTEHVW-Q0-0000-00000H8E6
F7	3250 K	Q2	87.4	XTEHVW-Q0-0000-00000LAF7	XTEHVW-Q0-0000-00000HAF7
		P4	80.6	XTEHVW-Q0-0000-00000L9F7	XTEHVW-Q0-0000-00000H9F7
		P3	73.9	XTEHVW-Q0-0000-00000L8F7	XTEHVW-Q0-0000-00000H8F7
E7	3000 K	Q2	87.4	XTEHVW-Q0-0000-00000LAE7	XTEHVW-Q0-0000-00000HAE7
		P4	80.6	XTEHVW-Q0-0000-00000L9E7	XTEHVW-Q0-0000-00000H9E7
		P3	73.9	XTEHVW-Q0-0000-00000L8E7	XTEHVW-Q0-0000-00000H8E7
F8	2850 K	P4	80.6	XTEHVW-Q0-0000-00000L9F8	XTEHVW-Q0-0000-00000H9F8
		P3	73.9	XTEHVW-Q0-0000-00000L8F8	XTEHVW-Q0-0000-00000H8F8
		P2	67.2	XTEHVW-Q0-0000-00000L7F8	XTEHVW-Q0-0000-00000H7F8
E8	2700 K	P4	80.6	XTEHVW-Q0-0000-00000L9E8	XTEHVW-Q0-0000-00000H9E8
		P3	73.9	XTEHVW-Q0-0000-00000L8E8	XTEHVW-Q0-0000-00000H8E8
		P2	67.2	XTEHVW-Q0-0000-00000L7E8	XTEHVW-Q0-0000-00000H7E8

**STANDARD ORDER CODES AND BINS (XT-E ROYAL BLUE,  $T_j = 85^\circ\text{C}$ )**

The following table provides order codes for XLamp XT-E Royal Blue LEDs.

XLamp XT-E Royal Blue								
DWL Kit Codes	Dominant Wavelength Range				Order Codes, Minimum Radiant Flux @ 350 mA, $T_j = 85^\circ\text{C}$			
	Min.		Max.		475 mW	500 mW	525 mW	550 mW
	Group	DWL (nm)	Group	DWL (nm)				
01	D36	450	D57	465	XTEARY-00-0000-000000K01	XTEARY-00-0000-000000L01	XTEARY-00-0000-000000M01	XTEARY-00-0000-000000N01
02	D36	450	D47	460	XTEARY-00-0000-000000K02	XTEARY-00-0000-000000L02	XTEARY-00-0000-000000M02	XTEARY-00-0000-000000N02
03	D46	455	D57	465	XTEARY-00-0000-000000K03	XTEARY-00-0000-000000L03	XTEARY-00-0000-000000M03	XTEARY-00-0000-000000N03
04	D36	450	D37	455	XTEARY-00-0000-000000K04	XTEARY-00-0000-000000L04	XTEARY-00-0000-000000M04	XTEARY-00-0000-000000N04
05	D46	455	D47	460	XTEARY-00-0000-000000K05	XTEARY-00-0000-000000L05	XTEARY-00-0000-000000M05	XTEARY-00-0000-000000N05
06	D56	460	D57	465	XTEARY-00-0000-000000K06	XTEARY-00-0000-000000L06	XTEARY-00-0000-000000M06	XTEARY-00-0000-000000N06
07	D37	452.5	D46	457.5	XTEARY-00-0000-000000K07	XTEARY-00-0000-000000L07	XTEARY-00-0000-000000M07	XTEARY-00-0000-000000N07
08	D47	457.5	D56	462.5	XTEARY-00-0000-000000K08	XTEARY-00-0000-000000L08	XTEARY-00-0000-000000M08	XTEARY-00-0000-000000N08
09	D37	452.5	D56	462.5	XTEARY-00-0000-000000K09	XTEARY-00-0000-000000L09	XTEARY-00-0000-000000M09	XTEARY-00-0000-000000N09

- Notes:
- Cree maintains a tolerance of  $\pm 7\%$  on flux and power measurements and  $\pm 2$  on CRI measurements.
  - Cree XLamp XT Family 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.