# Cree® XLamp® XB-D White LEDs

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## INTRODUCTION

This document describes the product nomenclature required to select and order Cree's XLamp XB-D LEDs. XLamp XB-D 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 in reels containing LEDs from a single bin and labeled with the corresponding bin code. XLamp LED packaging details are provided in product data sheets.

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 XB Family LEDs, as well as a list of standard order codes, is provided in this document.





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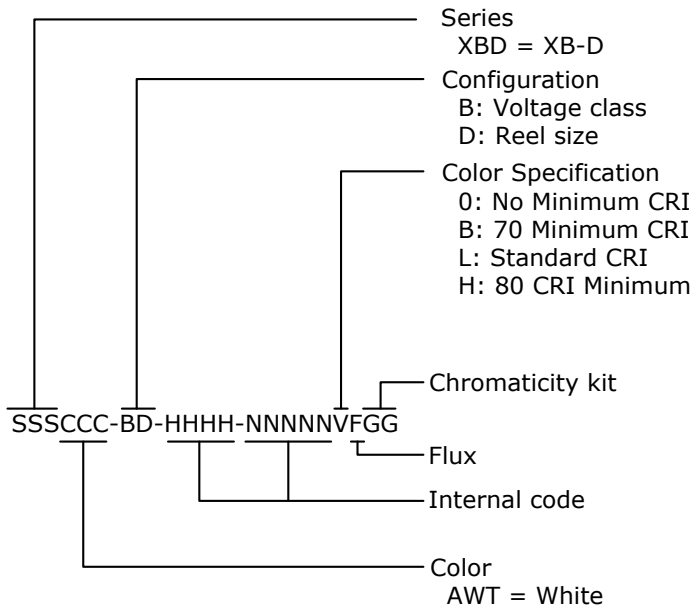
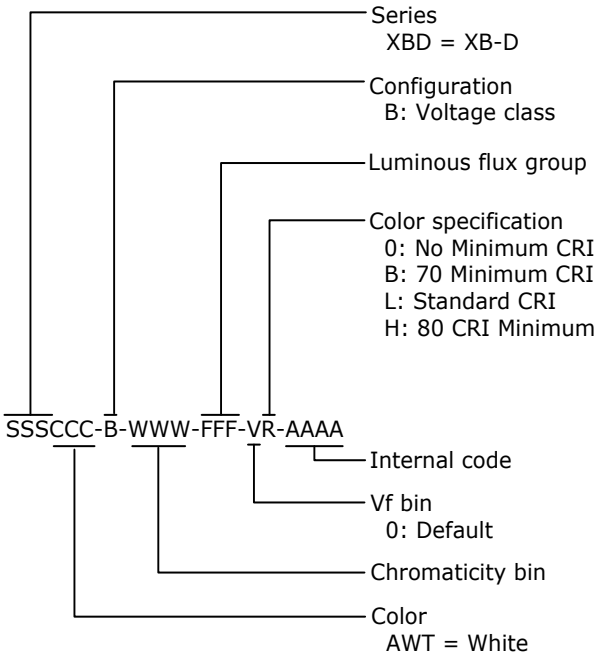
## BIN AND ORDER-CODE FORMAT

Bin codes and order codes for XB-D White LEDs are configured in the following manner:

**Order Code**




**Bin Code**




Example Order Code: XBDAWT-00-0000-00000HAE7

Example Bin Code: XBDAWT-0-7A3-Q20-0H-0001

## PERFORMANCE GROUPS – BRIGHTNESS ($T_J$ = 85 °C)

XLamp XB-D White 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) |
|---|---|---|
| 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 |
| S2 | 148 | 156 |

## 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)

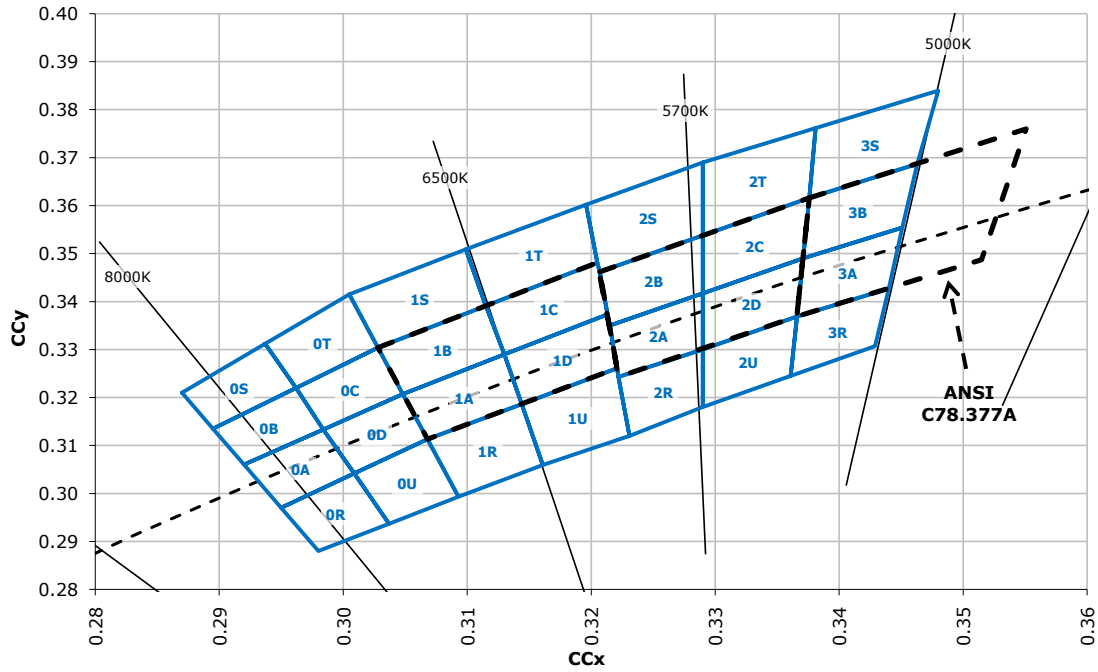
| Region | x | y | Region | x | y | Region | x | y | Region | x | y |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5A1 | 0.3670 | 0.3578 | 5A2 | 0.3686 | 0.3649 | 5A3 | 0.3744 | 0.3685 | 5A4 | 0.3726 | 0.3612 |
| | 0.3686 | 0.3649 | | 0.3702 | 0.3722 | | 0.3763 | 0.3760 | | 0.3744 | 0.3685 |
| | 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)

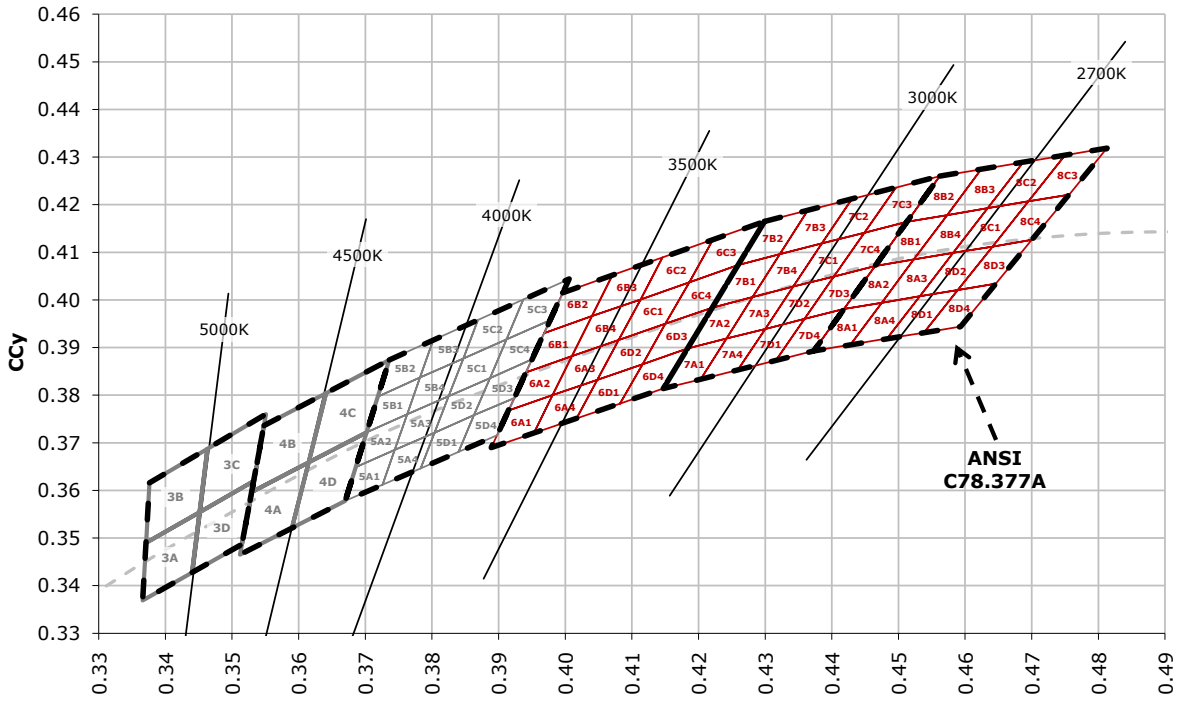
| Region | x | y | Region | x | y | Region | x | y | Region | x | y |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6R | 0.3889 | 0.3690 | 6S | 0.4054 | 0.4191 | 6T | 0.4217 | 0.4273 | 6U | 0.4017 | 0.3751 |
| | 0.4017 | 0.3751 | | 0.4217 | 0.4273 | | 0.4382 | 0.4356 | | 0.4147 | 0.3814 |
| | 0.3957 | 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 CHROMATICITY REGIONS PLOTTED ON THE 1931 CIE CURVE

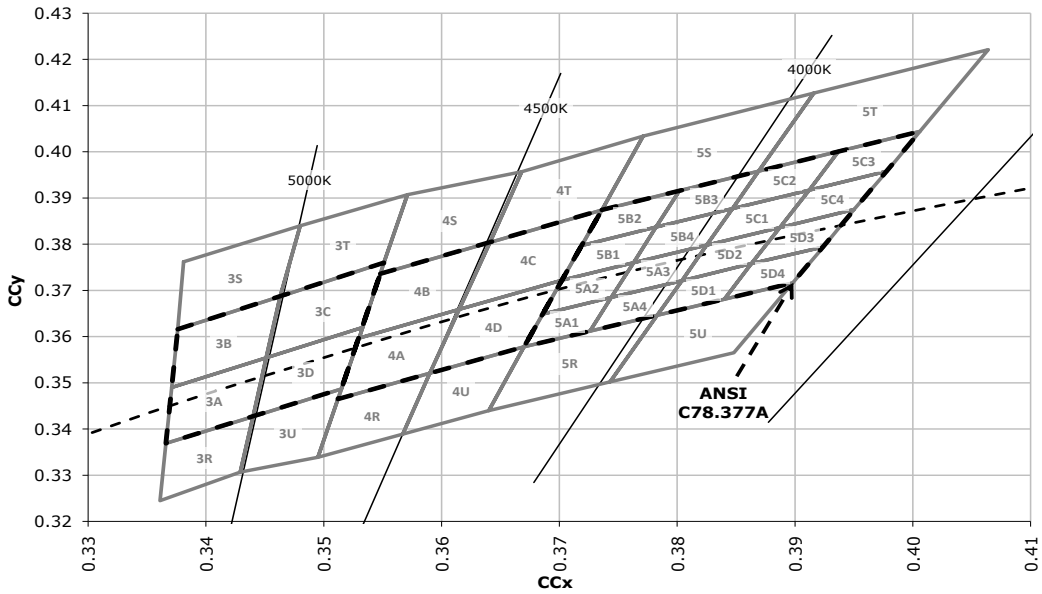
ANSI Cool White



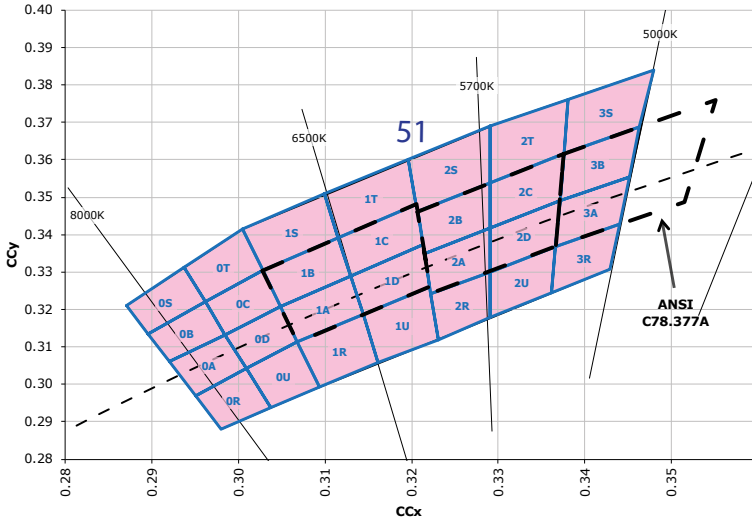

ANSI Neutral White and ANSI Warm White

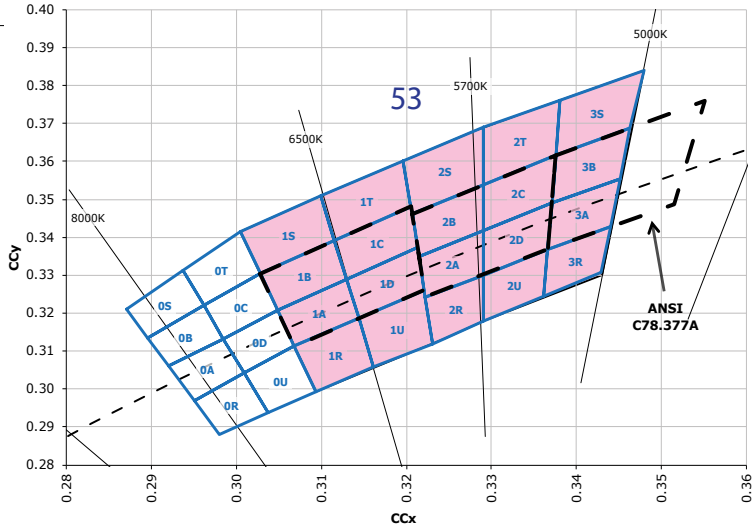


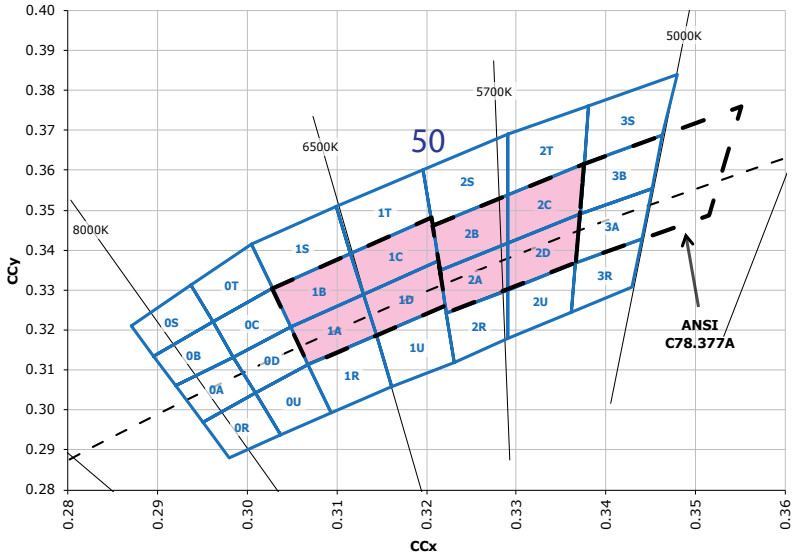
Outdoor White



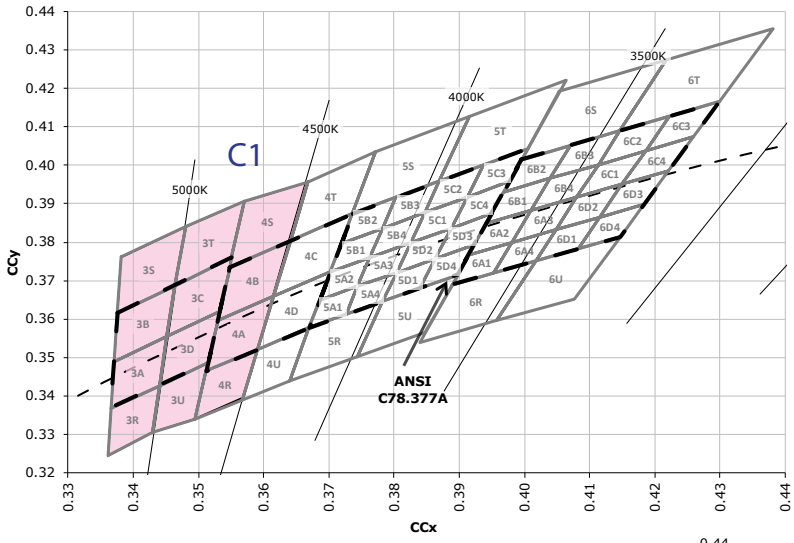

## CREE'S STANDARD COOL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS

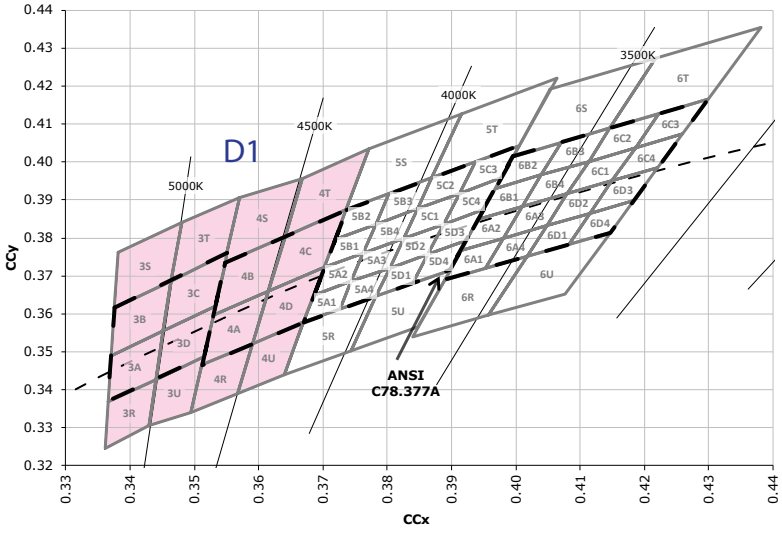


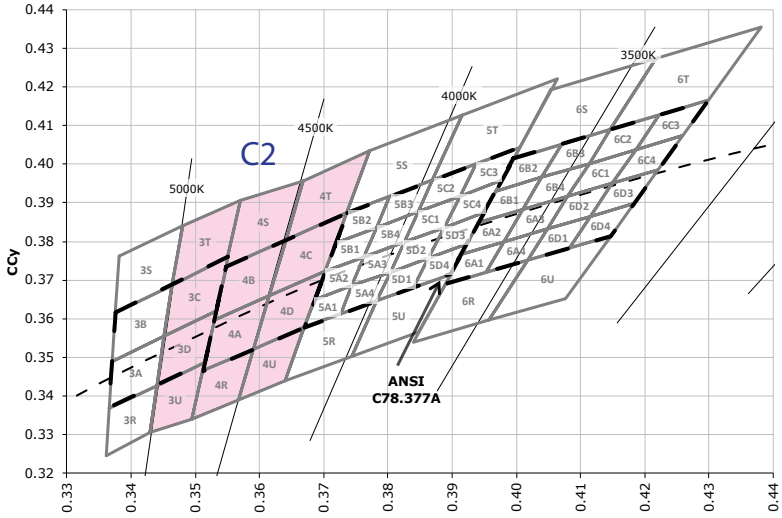



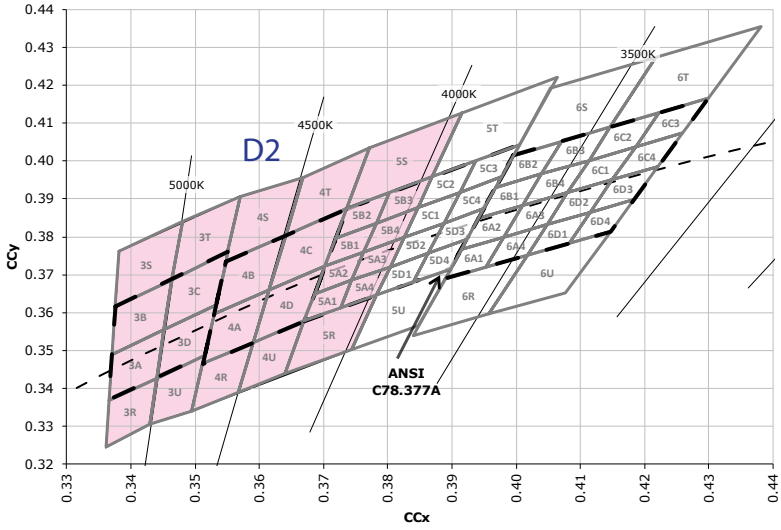


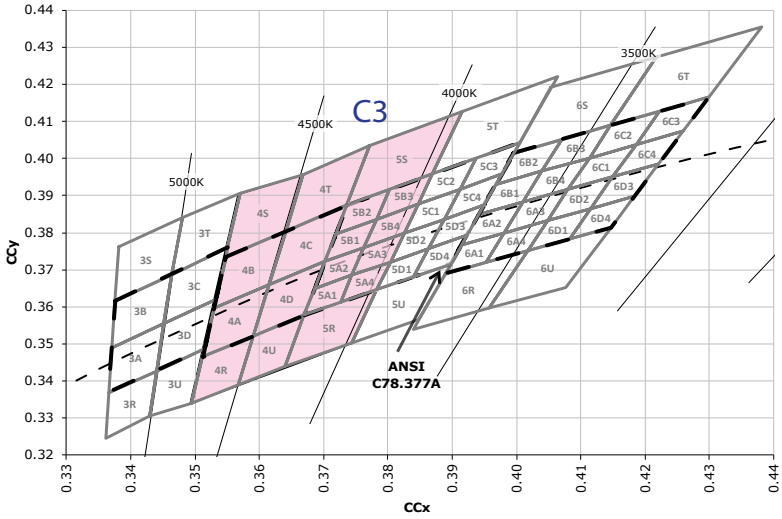

## CREE'S OUTDOOR WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS



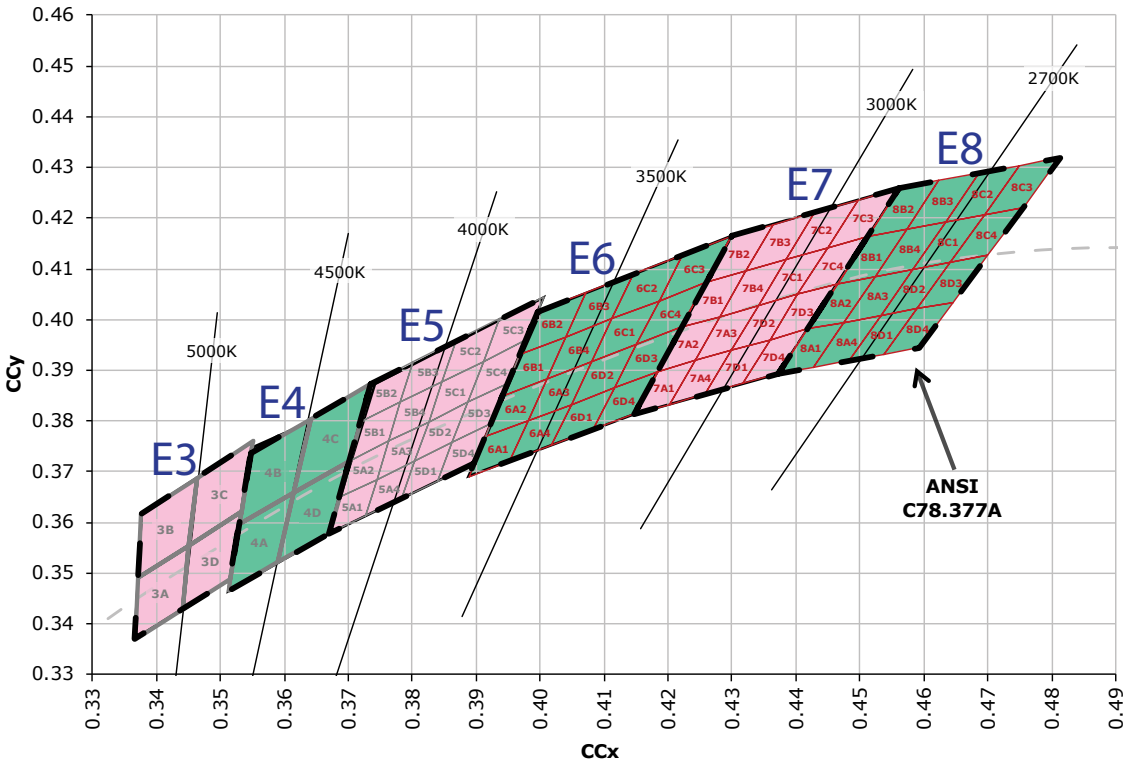



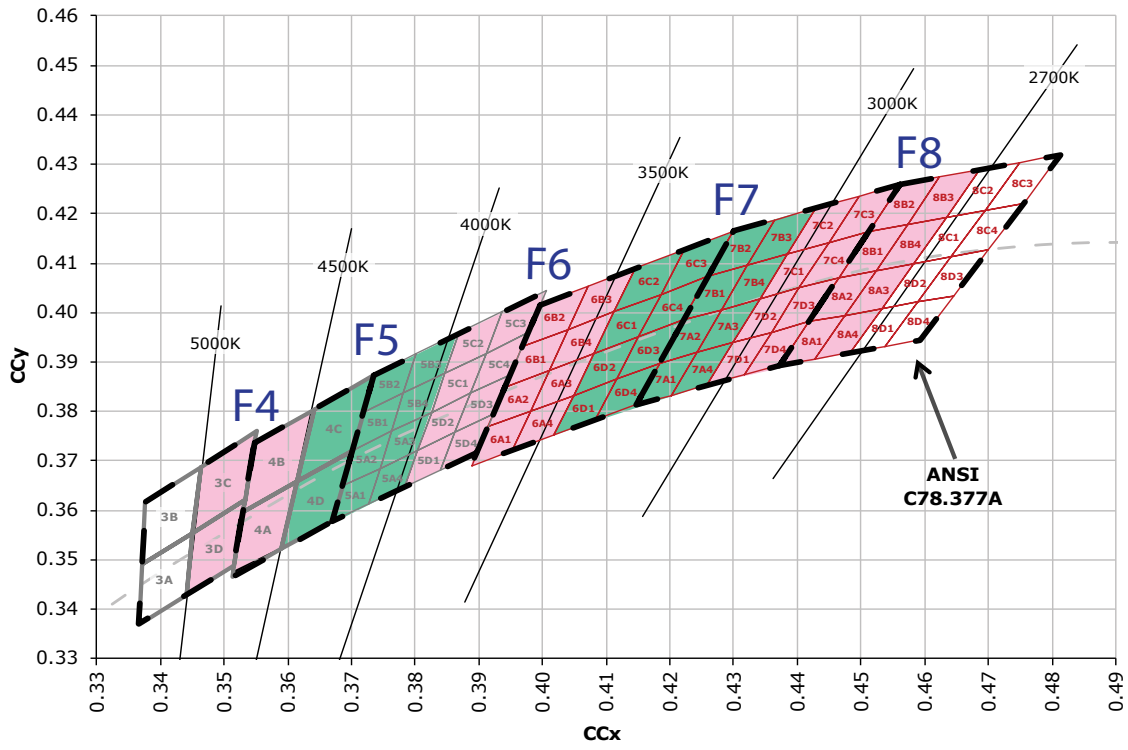


## CREE'S STANDARD WARM AND NEUTRAL WHITE KITS PLOTTED ON ANSI STANDARD CHROMATICITY REGIONS



## CREE'S STANDARD CHROMATICITY KITS

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

| Color | Kit | Chromaticity Bins |
|---|---|---|
| Cool White | 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 |
| | 53 | 1A, 1B, 1C, 1D, 1R, 1S, 1T, 1U, 2A, 2B, 2C, 2D, 2R, 2S, 2T, 3A, 3B, 3S |
| | 50 | 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D |
| Neutral White | E3 | 3A, 3B, 3C, 3D |
| | C1 | 3A, 3B, 3C, 3D, 3R, 3S, 3T, 3U, 4A, 4B, 4R, 4S |
| | F4 | 3C, 3D, 4A, 4B |
| | D1 | 3A, 3B, 3C, 3D, 3R, 3S, 3T, 3U, 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U |
| | E4 | 4A, 4B, 4C, 4D |
| | D2 | 3C, 3D, 3T, 3U, 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5R, 5S |
| | C2 | 3C, 3D, 3T, 3U, 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U |
| | C3 | 4A, 4B, 4C, 4D, 4R, 4S, 4T, 4U, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5R, 5S |
| | F5 | 4C, 4D, 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4 |
| | E5 | 5A1, 5A2, 5A3, 5A4, 5B1, 5B2, 5B3, 5B4, 5C1, 5C2, 5C3, 5C4, 5D1, 5D2, 5D3, 5D4 |
| Warm White | F6 | 5C1, 5C2, 5C3, 5C4, 5D1, 5D2, 5D3, 5D4, 6A1, 6A2, 6A3, 6A4, 6B1, 6B2, 6B3, 6B4 |
| | E6 | 6A1, 6A2, 6A3, 6A4, 6B1, 6B2, 6B3, 6B4, 6C1, 6C2, 6C3, 6C4, 6D1, 6D2, 6D3, 6D4 |
| | F7 | 6C1, 6C2, 6C3, 6C4, 6D1, 6D2, 6D3, 6D4, 7A1, 7A2, 7A3, 7A4, 7B1, 7B2, 7B3, 7B4 |
| | E7 | 7A1, 7A2, 7A3, 7A4, 7B1, 7B2, 7B3, 7B4, 7C1, 7C2, 7C3, 7C4, 7D1, 7D2, 7D3, 7D4 |
| | F8 | 7C1, 7C2, 7C3, 7C4, 7D1, 7D2, 7D3, 7D4, 8A1, 8A2, 8A3, 8A4, 8B1, 8B2, 8B3, 8B4 |
| | 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 XB-D LEDs. For other flux and chromaticity combinations, contact Cree or an authorized distributor.

## STANDARD ORDER CODES AND BINS (XB-D ANSI COOL WHITE, $T_J$ = 85 °C)

| XLamp XB-D 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 | R4 | 130 | XBDAWT-00-0000-000000G51 | XBDAWT-00-0000-00000BG51 |
| | | R3 | 122 | XBDAWT-00-0000-000000F51 | XBDAWT-00-0000-00000BF51 |
| | | R2 | 114 | XBDAWT-00-0000-000000E51 | XBDAWT-00-0000-00000BE51 |
| 53 | 6000 K | R4 | 130 | XBDAWT-00-0000-000000G53 | XBDAWT-00-0000-00000BG53 |
| | | R3 | 122 | XBDAWT-00-0000-000000F53 | XBDAWT-00-0000-00000BF53 |
| | | R2 | 114 | XBDAWT-00-0000-000000E53 | XBDAWT-00-0000-00000BE53 |
| 50 | 6200 K | R4 | 130 | XBDAWT-00-0000-000000G50 | XBDAWT-00-0000-00000BG50 |
| | | R3 | 122 | XBDAWT-00-0000-000000F50 | XBDAWT-00-0000-00000BF50 |
| | | R2 | 114 | XBDAWT-00-0000-000000E50 | XBDAWT-00-0000-00000BE50 |

## STANDARD ORDER CODES AND BINS (XB-D NEUTRAL WHITE, $T_J$ = 85 °C)

| XLamp XB-D Standard Kit Codes - White | | | | |
|---|---|---|---|---|
| Chromaticity | | Minimum Luminous Flux (lm) @ 350 mA* | | Order Codes |
| Kit | CCT | Code | Flux (lm) | Standard CRI |
| ANSI Neutral White (3700 K – 5000 K) | | | | |
| E3 | 5000 K | R3 | 122 | XBDAWT-00-0000-00000LFE3 |
| | | R2 | 114 | XBDAWT-00-0000-00000LEE3 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDE3 |
| C1 | 5000 K | R3 | 122 | XBDAWT-00-0000-00000LFC1 |
| | | R2 | 114 | XBDAWT-00-0000-00000LEC1 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDC1 |
| F4 | 4750 K | R2 | 114 | XBDAWT-00-0000-00000LEF4 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDF4 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCF4 |
| D1 | 4750 K | R3 | 122 | XBDAWT-00-0000-00000LFD1 |
| | | R2 | 114 | XBDAWT-00-0000-00000LED1 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDD1 |
| E4 | 4500 K | R2 | 114 | XBDAWT-00-0000-00000LEE4 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDE4 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCE4 |
| D2 | 4500 K | R2 | 114 | XBDAWT-00-0000-00000LED2 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDD2 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCD2 |
| C2 | 4500 K | R3 | 122 | XBDAWT-00-0000-00000LFC2 |
| | | R2 | 114 | XBDAWT-00-0000-00000LEC2 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDC2 |
| C3 | 4300 K | R3 | 122 | XBDAWT-00-0000-00000LFC3 |
| | | R2 | 114 | XBDAWT-00-0000-00000LEC3 |
| | | Q5 | 107 | XBDAWT-00-0000-00000LDC3 |
| F5 | 4250 K | Q5 | 107 | XBDAWT-00-0000-00000LDF5 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCF5 |
| | | Q3 | 93.9 | XBDAWT-00-0000-00000LBF5 |
| E5 | 4000 K | Q5 | 107 | XBDAWT-00-0000-00000LDE5 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCE5 |
| | | Q3 | 93.9 | XBDAWT-00-0000-00000LBE5 |

## STANDARD ORDER CODES AND BINS (XB-D WARM WHITE, $T_J$ = 85 °C)

| XLamp XB-D Standard Kit Codes - White | | | | | |
|---|---|---|---|---|---|
| Chromaticity | | Minimum Luminous Flux (lm) @ 350 mA* | | Order Codes | |
| Kit | CCT | Code | Flux (lm) | Standard CRI | 80 CRI Minimum |
| ANSI Warm White (2700 K - 3750 K) | | | | | |
| F6 | 3750 K | Q5 | 107 | XBDAWT-00-0000-00000LDF6 | XBDAWT-00-0000-00000HDF6 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCF6 | XBDAWT-00-0000-00000HCF6 |
| | | Q3 | 93.9 | XBDAWT-00-0000-00000LBF6 | XBDAWT-00-0000-00000HBF6 |
| E6 | 3500 K | Q5 | 107 | XBDAWT-00-0000-00000LDE6 | XBDAWT-00-0000-00000HDE6 |
| | | Q4 | 100 | XBDAWT-00-0000-00000LCE6 | XBDAWT-00-0000-00000HCE6 |
| | | Q3 | 93.9 | XBDAWT-00-0000-00000LBE6 | XBDAWT-00-0000-00000HBE6 |
| F7 | 3250 K | Q4 | 100 | XBDAWT-00-0000-00000LCF7 | XBDAWT-00-0000-00000HCF7 |
| | | Q3 | 93.9 | XBDAWT-00-0000-00000LBF7 | XBDAWT-00-0000-00000HBF7 |
| | | Q2 | 87.4 | XBDAWT-00-0000-00000LAF7 | XBDAWT-00-0000-00000HAF7 |
| E7 | 3000 K | Q4 | 100 | XBDAWT-00-0000-00000LCE7 | XBDAWT-00-0000-00000HCE7 |
| | | Q3 | 93.9 | XBDAWT-00-0000-00000LBE7 | XBDAWT-00-0000-00000HBE7 |
| | | Q2 | 87.4 | XBDAWT-00-0000-00000LAE7 | XBDAWT-00-0000-00000HAE7 |
| F8 | 2850 K | Q3 | 93.9 | XBDAWT-00-0000-00000LBF8 | XBDAWT-00-0000-00000HBF8 |
| | | Q2 | 87.4 | XBDAWT-00-0000-00000LAF8 | XBDAWT-00-0000-00000HAF8 |
| | | P4 | 80.6 | XBDAWT-00-0000-00000L9F8 | XBDAWT-00-0000-00000H9F8 |
| E8 | 2700 K | Q3 | 93.9 | XBDAWT-00-0000-00000LBE8 | XBDAWT-00-0000-00000HBE8 |
| | | Q2 | 87.4 | XBDAWT-00-0000-00000LAE8 | XBDAWT-00-0000-00000HAE8 |
| | | P4 | 80.6 | XBDAWT-00-0000-00000L9E8 | XBDAWT-00-0000-00000H9E8 |

- Typical CRI for Warm White, 2600 K - 3700 K CCT is 80.
- Typical CRI for Neutral White, 3700 K - 5000K CCT is 75.

* Cree XLamp XB 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