

C543A-WMN: 5-mm Round White LED



PRODUCT DESCRIPTION

Round LEDs offer superior light output • for excellent readability in sunlight and dependable performance. They provide • extremely stable light output over long periods of time.

These lamps are made with an advanced optical grade epoxy offering superior high temperature and high moisture resistance performance in lighting and illumination applications.

FEATURES

- Size (mm): 5
- Color Temperatures:
 Cool White :
 Min . (4600K) / Typical (9000K)
- Luminous Intensity (mcd) C543A-WMN:(15000-37500)
- Viewing angles: 20°: C543A-WMN
- Lead Free
- RoHS Compliant

APPLICATIONS

- Garden Light
- Channel Letter
- Retail Display Lighting

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

| Items | Symbol | Absolute Maximum Rating | Unit | |
|-----------------------------|------------------|--|------|--|
| Forward Current | I _F | 25 | mA | |
| Peak Forward Current Note 1 | I _{FP} | 100 | mA | |
| Reverse Voltage | V _R | 5 | V | |
| Power Dissipation | P _D | 100 | mW | |
| Operation Temperature | T _{opr} | -40 ~ +95 | °C | |
| Storage Temperature | T _{stg} | -40 ~ +100 | °C | |
| Lead Soldering Temperature | T _{sol} | Max. 260°C for 3 sec. max. (3 mm from the base of the epoxy bulb) | | |

Note:

1. Pulse width ≤ 0.1 msec, duty $\leq 1/10$.

TYPICAL ELECTRICAL & OPTICAL CHARACTERISTICS (T_A = 25^{\circ}C)

| Characteristics | Symbol | Condition | Unit | Minimum | Typical | Maximum |
|--------------------|----------------|------------------------|------|---------|---------|---------|
| Forward Voltage | V _F | I _F = 20 mA | V | | 3.2 | 4.0 |
| Reverse Current | I _R | V _R = 5 V | μA | | | 100 |
| Luminous Intensity | I _v | I _F = 20 mA | mcd | 15000 | 22000 | |
| Chromaticity | х | I _F = 20 mA | | | 0.2895 | |
| Coordinates | У | I _F = 20 mA | | | 0.2905 | |
| 50% Power Angle | 201⁄2 | I _F = 20 mA | deg | | 20 | |

* Continuous reverse voltage can cause LED damage.



INTENSITY BIN LIMIT

| Cool White (20 mA) - C543A-WMN | | | | | | |
|--------------------------------|-------|-------|--|--|--|--|
| Bin Code Min.(mcd) Max.(mcd) | | | | | | |
| сс | 15000 | 17500 | | | | |
| DD | 17500 | 20000 | | | | |
| EE | 20000 | 23500 | | | | |
| FF | 23500 | 27000 | | | | |
| GG | 27000 | 30500 | | | | |
| НН | 30500 | 34000 | | | | |
| КК | 34000 | 37500 | | | | |

* Tolerance of measurement of luminous intensity is ±15%

COLOR BIN LIMIT

Cool White (20 mA) - C543A-WMN

| Bin Code | Sub-bin | x | у |
|-------------|------------|-----------|--------|
| | | 0.2449 | 0.2288 |
| | \A/o1 | 0.2497 | 0.2384 |
| | Wa1 | 0.2543 | 0.2356 |
| | | 0.2497 | 0.2267 |
| | | 0.2497 | 0.2267 |
| | Wo2 | 0.2543 | 0.2356 |
| | Wa2 | 0.2589 | 0.2328 |
| | | 0.2545 | 0.2245 |
| | | 0.2497 0. | 0.2384 |
| | Wa3 | 0.2545 | 0.2480 |
| | VVdS | 0.2589 | 0.2445 |
| | | 0.2543 | 0.2356 |
| | | 0.2543 | 0.2356 |
| | Mod | 0.2589 | 0.2445 |
| | Wa4 | 0.2633 | 0.2410 |
| W1 | | 0.2589 | 0.2328 |
| VVI | | 0.2545 | 0.2245 |
| | Wb1 | 0.2589 | 0.2328 |
| | IUVV | 0.2635 | 0.2299 |
| | 0.2635 0.2 | 0.2223 | |
| | | 0.2593 | 0.2223 |
| | Wb2 | 0.2635 | 0.2299 |
| | ZUVV | 0.2680 | 0.2270 |
| | | 0.2640 | 0.2200 |
| | | 0.2589 | 0.2328 |
| | Wb3 | 0.2633 | 0.2410 |
| | 8003 | 0.2677 | 0.2375 |
| | | 0.2635 | 0.2299 |
| | | 0.2635 | 0.2299 |
| | Wb4 | 0.2677 | 0.2375 |
| | VVD4 | 0.2720 | 0.2340 |
| | | 0.2680 | 0.2270 |

| Bin Code | Sub-bin | x | у |
|--|--|--------|--------|
| | | 0.2545 | 0.2480 |
| | 144 1 | 0.2593 | 0.2575 |
| | Wc1 0.25 Wc1 0.25 0.25 0.25 0.25 0.25 Wc2 0.25 Wc2 0.26 Wc2 0.26 Wc3 0.26 Wc3 0.26 Wc3 0.26 Wc4 0.26 Wc2 0.26 Wc4 0.26 Wc2 0.27 0.27 0.27 Wd3 0.27 Wc4 0.27 Wc4 0.27 Wc4 0.27 0.27 0.27 Wc3 0.27 Wc4 0.27 Wc4 0.27 Wc4 0.27 | 0.2635 | 0.2534 |
| | | 0.2589 | 0.2445 |
| | | 0.2589 | 0.2445 |
| | | 0.2635 | 0.2534 |
| | | 0.2677 | 0.2493 |
| | | 0.2633 | 0.2410 |
| | | 0.2593 | 0.2575 |
| | Wc4 | 0.2640 | 0.2670 |
| | | 0.2680 | 0.2623 |
| | | 0.2635 | 0.2534 |
| | | 0.2635 | 0.2534 |
| | | 0.2680 | 0.2623 |
| | | 0.2720 | 0.2575 |
| \M/1 | | 0.2677 | 0.2493 |
| VVI | | 0.2633 | 0.2410 |
| | | 0.2677 | 0.2493 |
| Wc3 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. | | 0.2718 | 0.2451 |
| | 0.2677 | 0.2375 | |
| | Wc1 0.2593 0.2589 0.2589 0.2589 0.2589 0.2635 0.2635 0.2632 0.2633 0.2635 0.2636 0.2637 0.2635 0.2636 0.2637 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2635 0.2677 0.2677 0.2677 0.2677 0.2677 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 0.2718 | 0.2375 | |
| | W/d2 | 0.2718 | 0.2451 |
| | WUZ | 0.2760 | 0.2410 |
| | | 0.2720 | 0.2340 |
| | | 0.2677 | 0.2493 |
| | Wd3 | 0.2720 | 0.2575 |
| | | 0.2760 | 0.2528 |
| | | 0.2718 | 0.2451 |
| | | 0.2718 | 0.2451 |
| | Wd4 | 0.2760 | 0.2528 |
| | Wu- | 0.2800 | 0.2480 |
| | | 0.2760 | 0.2410 |

| Bin Code | Sub-bin | x | у |
|---|--|--|--|
| | | 0.2640 | 0.2670 |
| | W/o1 | 0.2688 | 0.2765 |
| | Wei | 0.2726 | 0.2711 |
| | | 0.2680 | 0.2640 0.2670 0.2688 0.2765 0.2726 0.2711 0.2680 0.2623 0.2726 0.2711 0.2680 0.2623 0.2726 0.2711 0.2764 0.2658 0.2726 0.2711 0.2764 0.2658 0.2726 0.2765 0.2688 0.2765 0.2735 0.2800 0.2772 0.2800 0.2772 0.2800 0.2772 0.2800 0.2774 0.2658 0.2775 0.2800 0.2764 0.2658 0.2764 0.2658 0.2760 0.2528 0.2760 0.2528 0.2760 0.2528 0.2760 0.2550 0.2802 0.2604 0.2802 0.2604 0.2803 0.2740 0.2804 0.2680 0.2802 0.2604 0.2802 0.2604 0.2802 |
| | | 0.2640 0 0.2688 0 0.2726 0 0.2680 0 0.2680 0 0.2680 0 0.2680 0 0.2680 0 0.2680 0 0.2726 0 0.2764 0 0.2780 0 0.2772 0 0.2772 0 0.2772 0 0.2772 0 0.2772 0 0.2772 0 0.27764 0 0.2764 0 0.2764 0 0.2760 0 0.2760 0 0.2760 0 0.2802 0 0.2802 0 0.2800 0 0.2801 0 0.2802 0 0.2802 0 0.2802 0 0.2803< | 0.2623 |
| | Sub-bin We1 We2 We3 We4 Wf1 Wf1 Wf2 Wf2 Wf3 | 0.2726 | 0.2711 |
| | | 0.2764 | 0.2658 |
| | | Image: state s | 0.2575 |
| | | 0.2640 0.2688 0.2680 0.2680 0.2680 0.2680 0.2680 0.2680 0.2726 0.2726 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2772 0.2764 0.2760 0.2760 0.2802 0.2802 0.2802 0.2803 0.2804 0.2804 0.2804 0.2804 0.2802 0.2804 0.2804 0.2804 0.2804 0.2804 0.2804 0. | 0.2765 |
| | 14/22 | 0.2735 | 0.2860 |
| | vve3 | 0.2772 | 0.2800 |
| | 0.2720 | 0.2726 | 0.2711 |
| | | 0.2726 | 0.2711 |
| | | 0.2772 | 0.2800 |
| W2 - | | 0.2808 | 0.2740 |
| | | 0.2764 | 0.2658 |
| VVZ | | 0.2726 0.2711 0.2726 0.2711 0.2772 0.2800 0.2808 0.2740 0.2764 0.2658 0.2764 0.2575 0.2764 0.2658 0.2764 0.2658 0.2764 0.2658 0.2802 0.2604 0.2760 0.2528 | 0.2575 |
| We3 0.2735 0 0.2772 0 0.2726 0 0.2772 0 0.2726 0 0.2772 0 0.2772 0 0.2700 0 0.2701 0 0.2702 0 0.2764 0 0.2764 0 0.2760 0 0.2760 0 0.2760 0 0.2760 0 0.2760 0 0.2760 0 0.2802 0 0.2802 0 0.2802 0 0.2802 0 0.2802 0 0.2802 0 0.2800 0 0.2800 0 0.2800 0 0.2800 0 0.2800 0 0.2800 0 | 14/61 | 0.2764 | 0.2658 |
| | WT1 | 0.2802 | 0.2604 |
| | 0.2528 | | |
| | | Image: state | 0.2528 |
| | W/fO | 0.2802 | 0.2604 |
| | VVIZ | 0.2840 | 0.2550 |
| | | 0.2800 | 0.2480 |
| | | 0.2764 | 0.2658 |
| | W/f2 | 0.2808 | 0.2740 |
| | 1113 | 0.2844 | 0.2680 |
| | | 0.2802 | 0.2604 |
| | | 0.2802 | 0.2604 |
| | W/f/ | 0.2844 | 0.2680 |
| | VV14 | 0.2880 | 0.2620 |
| | | 0.2840 | 0.2550 |

* Tolerance of measurement of the color coordinates is ± 0.01

COLOR BIN LIMIT

Cool White (20 mA) - C543A-WMN

| Bin Code | Sub-bin | x | у |
|-------------|--|--------|--|
| | | 0.2735 | 0.2860 |
| | 14/1 | 0.2783 | 0.2955 |
| | vvg i | 0.2817 | 0.2889 |
| | | 0.2772 | 0.2800 |
| | | 0.2772 | 0.2800 |
| | NumberNumber0.27350.28600.27350.28600.27830.29550.28170.28000.27720.28000.28170.28010.28520.28230.28030.29550.28030.29550.28300.29550.28330.29550.28330.29550.28330.29780.28340.28910.28170.28890.28170.28890.28170.28950.28520.29050.28520.29050.28520.28230.28640.27560.28840.26800.28840.26800.28840.26800.28860.27560.28950.28030.28860.27560.29280.28330.29280.28330.29280.28360.29280.2836 | 0.2817 | 0.2889 |
| | | 0.2852 | 0.2823 |
| | | | |
| | | 0.2783 | 772 0.2800 817 0.2889 852 0.2823 808 0.2740 783 0.2955 830 0.3050 863 0.2978 817 0.2889 817 0.2889 817 0.2889 817 0.2889 838 0.2978 839 0.2905 835 0.2905 836 0.2978 835 0.2905 836 0.2740 852 0.2823 836 0.2740 852 0.2823 844 0.2680 |
| | Ma2 | 0.2830 | 0.3050 |
| | Wg3 | 0.2863 | 0.2978 |
| | | 0.2817 | 0.2889 |
| | | 0.2817 | 0.2889 |
| | Mad | 0.2863 | 0.2978 |
| | 0.2895 0.2905 0.2852 0.2823 0.2852 0.2823 0.2808 0.2740 0.2852 0.2823 0.2866 0.2756 0.2844 0.2680 | 0.2895 | 0.2905 |
| W2 | | 0.2823 | |
| VVZ | | 0.2808 | 0.2740 |
| | | 0.2852 | 0.2823 |
| | | 0.2886 | 0.2756 |
| | | | |
| | | 0.2844 | 0.2680 |
| | Wb2 | 0.2886 | 0.2756 |
| | VVIIZ | 0.2920 | 0.2690 |
| | | 0.2880 | 0.2620 |
| | | 0.2852 | 0.2823 |
| | Wh2 | 0.2895 | 0.2905 |
| | WIIS | 0.2928 | 0.2833 |
| | | 0.2886 | 0.2756 |
| | | 0.2886 | 0.2756 |
| | W/h/ | 0.2928 | 0.2833 |
| | VV114 | 0.2960 | 0.2760 |
| | | 0.2920 | 0.2690 |

| Bin Code | Sub-bin | x | у |
|-------------|--|--------------|--------|
| | | 0.2830 | 0.3050 |
| | 14/14 | 0.2890 | 0.3130 |
| | vvji | 0.2918 | 0.3048 |
| | | 0.2863 | 0.2978 |
| | de Sub-bin Wj1 Wj2 Wj3 Wj4 | 0.2863 | 0.2978 |
| | | 0.2918 | 0.3048 |
| | | 0.2947 | 0.2967 |
| | | 0.2895 | 0.2905 |
| | | 0.2890 | 0.3130 |
| Wj3 | 0.2950 | 0.3210 | |
| | VVJ3 | 0.2974 | 0.3119 |
| | | 0.2918 | 0.3048 |
| | 0.2918 | 0.3048 | |
| | 14/54 | 0.2974 | 0.3119 |
| W3 - | vvj4 | 0.2998 0.302 | 0.3028 |
| | | 0.2947 | 0.2967 |
| VV3 | W3 | 0.2895 | 0.2905 |
| W3 W | \\/k1 | 0.2947 | 0.2967 |
| | WKI | 0.2975 | 0.2890 |
| | | 0.2928 | 0.2833 |
| | | 0.2928 | 0.2833 |
| | W/k2 | 0.2975 | 0.2890 |
| | VVKZ | 0.3003 | 0.2813 |
| | | 0.2960 | 0.2760 |
| | | 0.2947 | 0.2967 |
| | W/k3 | 0.2998 | 0.3028 |
| | VVKJ | 0.3022 | 0.2946 |
| | | 0.2975 | 0.2890 |
| | | 0.2975 | 0.2890 |
| | Wk4 | 0.3022 | 0.2946 |
| | V V I\-+ | 0.3045 | 0.2865 |
| | | 0.3003 | 0.2813 |

| Bin Code | Sub-bin | x | у |
|-------------|--|--|--|
| | | 0.2950 | 0.3210 |
| | 14/100 1 | 0.3010 | 0.3290 |
| | VVIIII | 0.3030 | 0.3190 |
| | | 0.2974 | 0.2950 0.3210 0.3010 0.3290 0.3030 0.3190 0.2974 0.3119 0.2974 0.3119 0.2974 0.3119 0.3030 0.3190 0.2974 0.3119 0.3030 0.3119 0.3030 0.3190 0.3050 0.3028 0.3070 0.3370 0.3070 0.3370 0.3030 0.3190 0.3030 0.3190 0.3030 0.3190 0.3030 0.3190 0.3030 0.3190 0.3030 0.3190 0.3030 0.3190 0.3030 0.3150 0.3050 0.3090 0.3050 0.3005 0.3070 0.3005 0.3070 0.3005 0.3070 0.3005 0.3045 0.2865 0.3050 0.3005 0.3070 0.3005 0.3070 0.3005 0.3070 |
| | | 0.2950 0.3010 0.3030 | 0.3119 |
| | Sub-bin Wm1 Wm2 Wm3 Wm4 Wn1 Wn1 Wn2 Wn2 Wn3 | 0.3030 | 0.3119 |
| | | 0.3050 | 0.3090 |
| | | Image: addition of the sector of the secto | 0.3028 |
| | | 0.3010 | 0.3290 |
| | Wm3 | 0.3070 | 0.3370 |
| | | 0.3085 | 0.3260 |
| | | 0.3085 0.32 0.3030 0.31 0.3030 0.31 0.3030 0.31 0.3085 0.32 Wm4 0.3085 | 0.3190 |
| | | 0.3030 | 0.3190 |
| | 14/22 4 | 0.3085 | 0.3260 |
| W3 | VVI114 | 0.3100 | 0.3150 |
| | | 0.3050 | 0.3090 |
| VV 3 | | 0.2998 | 0.3028 |
| | W/m1 | 0.3050 | 0.3090 |
| | Num0.2950Wm10.301000.3010000.297400Mm20.29740Mm20.303000.305000Mm30.305000.3030000Mm30.3030000.30300000.30300000.30300000.30300000.30300000.30500000.30700000.30700000.30700000.30450 <td>0.3070</td> <td>0.3005</td> | 0.3070 | 0.3005 |
| | | 0.3022 | 0.2946 |
| | | 0.2946 | |
| | W/m2 | 0.3070 | 0.3005 |
| | Wm1 0.3010 0.3 0.3030 0.3 0.2974 0.3 Wm2 0.2974 0.3 0.3030 0.3 0.3 Wm2 0.3030 0.3 0.3050 0.3 0.3 Wm2 0.3050 0.3 0.3050 0.3 0.3 Wm3 0.3070 0.3 0.3030 0.3 0.3 Wm4 0.3030 0.3 0.3050 0.3 0.3 Wm4 0.3070 0.3 0.3050 0.3 0.3 Wm4 0.3070 0.3 0.3050 0.3 0.3 Wm1 0.3070 0.3 0.3070 0.3 0.3 Wm1 0.3070 0.3 0.3070 0.3 0.3 0.3070 0.3 0.3 0.3070 0.3 0.3 0.3070 0.3 0.3 0.3070 0 | 0.2920 | |
| | | 0.3045 | 0.2865 |
| | | 0.3050 | 0.3090 |
| W | W/m2 | 0.3100 | 0.3150 |
| | VVI13 | 0.3115 | 0.3060 |
| | | 0.3070 | 0.3005 |
| | | 0.3070 | 0.3005 |
| | Mpd | 0.3115 | 0.3060 |
| | VVI14 | 0.3130 | 0.2970 |
| | | 0.3090 | 0.2920 |

* Tolerance of measurement of the color coordinates is ± 0.01



COLOR BIN LIMIT

Cool White (20 mA) - C543A-WMN

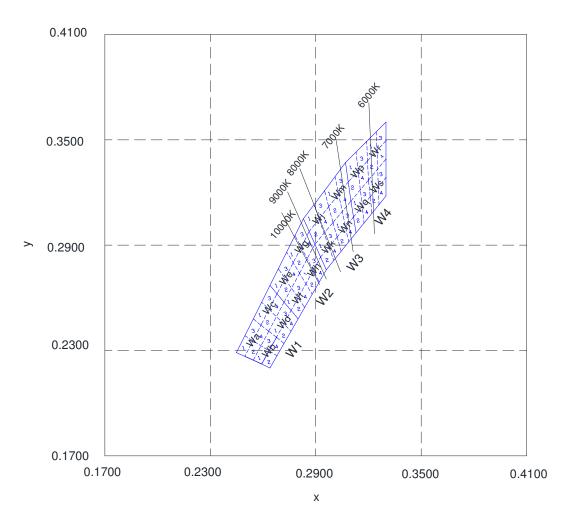
| Bin Code | Sub-bin | x | у |
|-------------|---------------|--|--|
| | | 0.3070 | 0.3370 |
| | \A/m1 | 0.3130 | |
| | Wp1 | 0.3070 0.3370 0.3070 0.3370 0.3130 0.3430 0.3140 0.320 0.3085 0.3260 0.3085 0.3260 0.3085 0.3260 0.3085 0.3260 0.3085 0.3260 0.3140 0.320 0.3150 0.3210 0.3100 0.3150 0.3190 0.3430 0.3190 0.3430 0.3191 0.3430 0.3192 0.3430 0.3193 0.3430 0.3194 0.3320 0.3195 0.3380 0.3195 0.3320 0.3195 0.3320 0.3195 0.3210 0.3100 0.3210 0.3163 0.3118 0.3163 0.3118 0.3163 0.3210 0.3163 0.3210 0.3163 0.3210 0.3163 0.3210 0.3163 0.3210 0.3200 | |
| | | 0.3085 | 0.3260 |
| | | 0.3085 | 0.3260 |
| | Wp2 | 0.3140 | 0.3320 |
| | ۷۷pz | 0.3150 | 0.3210 |
| | | 0.3100 | Image: Network 0 0.3370 0 0.3430 0 0.3430 0 0.3260 0 0.3260 0 0.3200 0 0.3200 0 0.3210 0 0.3150 0 0.3430 0 0.3430 0 0.3430 0 0.3400 0 0.3490 0 0.3320 0 0.3320 0 0.3320 0 0.3320 0 0.3320 0 0.3210 0 0.3210 0 0.3210 0 0.3210 0 0.3118 5 0.3060 5 0.3060 5 0.3210 0 0.2970 0 0.3270 0 0.3270 0 0.3270 0 0.3270 |
| | | 0.3130 | 0.3430 |
| | W/p2 | 0.3190 | 0.3490 |
| | vvps | 0.3195 | 0.3380 |
| | | 0.3140 | 0.3320 |
| | | 0.3140 | 0.3320 |
| | Wn4 | 0.3195 | 0.3380 |
| | vvp4 | Wp4 0.3200 0.3270 | |
| W4 | | 0.3150 | 0.3210 |
| VV4 | | 0.3100 | 95 0.3380 00 0.3270 50 0.3210 00 0.3150 50 0.3210 |
| | Wa1 | 0.3150 | 0.3210 |
| | vvqı | Wp2 0.3150 0.3210 0.3100 0.3150 0.3100 0.3430 0.3190 0.3430 0.3190 0.3490 0.3195 0.380 0.3195 0.380 0.3140 0.320 0.3140 0.320 0.3140 0.320 0.3140 0.320 0.3195 0.380 0.3195 0.3300 0.3195 0.320 0.3195 0.320 0.3195 0.320 0.3195 0.320 0.3195 0.3210 0.3150 0.3210 0.3151 0.3060 0.3115 0.3060 0.3115 0.3060 0.3115 0.3060 0.3115 0.3060 0.3115 0.3060 0.3115 0.3025 0.3130 0.2970 0.3130 0.2970 0.3200 0.3210 0.3200 0.3270 0.3 | |
| | | 0.3115 | 0.3070 0.3370 0.3130 0.3430 0.3140 0.3320 0.3085 0.3260 0.3085 0.3260 0.3085 0.3260 0.3085 0.3260 0.3140 0.3320 0.3150 0.3210 0.3150 0.3150 0.3150 0.3430 0.3150 0.3430 0.3150 0.3430 0.3150 0.3320 0.3190 0.3320 0.3140 0.3320 0.3140 0.3320 0.3150 0.3210 0.3150 0.3210 0.3150 0.3210 0.3150 0.3210 0.3150 0.3210 0.3150 0.3210 0.3151 0.3060 0.3152 0.3060 0.3153 0.3210 0.3154 0.3210 0.3155 0.3060 0.3150 0.3210 0.3150 0.3210 0.3150 |
| | | 0.3115 | 8130 0.3430 8140 0.3320 8085 0.3260 8085 0.3260 8085 0.3260 8085 0.3260 8140 0.3320 8150 0.3210 8150 0.3430 8150 0.3430 8190 0.3490 8190 0.3320 8195 0.3380 8140 0.3320 8140 0.3320 8140 0.3320 8140 0.3320 8140 0.3320 8140 0.3210 8150 0.3210 8150 0.3210 8163 0.3118 8175 0.3060 8163 0.3118 8175 0.3210 8163 0.3210 8208 0.3173 8163 0.3118 8163 0.3118 8163 0.3118 8163 0.3118 8163 |
| | Ma2 | 0.3163 | 0.3118 |
| | VVQZ | 0.3175 | 0.3025 |
| | | 0.3130 | 0.2970 |
| | | 0.3150 | 0.3210 |
| | Wa3 | 0.3200 | 0.3270 |
| | 1140 | 0.3208 | 0.3173 |
| | | 0.3163 | 0.3118 |
| | | 0.3163 | 0.3118 |
| | Wq4 | 0.3208 | 0.3173 |
| | ** 4 4 | 0.3215 | 0.3075 |
| | | 0.3175 | 0.3025 |

| Bin Code | Sub-bin | x | у |
|-------------|---|---|----------------------------|
| | | 0.3190 | 0.3490 |
| | 14/=1 | 0.3245 | 0.3545 |
| | VVEI | 0.3248 | 0.3438 |
| | Wr1Wr2Wr2Wr3Wr4Ws1Ws2Ws3Ws4 | 0.3195 | 0.3380 |
| | | 0.3195 | 0.3380 |
| | de Sub-bit Wr1 Wr2 Wr3 Wr3 Wr4 Ws1 Ws2 Ws2 Ws3 | 0.3248 | 0.3438 |
| | | 0.3250 | 0.3330 |
| | | 0.3200 | 0.3270 |
| | | 0.3245 | 0.3545 |
| Wr3 | 0.3300 | 0.3600 | |
| | Wr1 Wr2 Wr3 Wr4 Ws1 Ws2 Ws3 | 0.3300 | 0.3495 |
| | | ImageImage0.319000.324500.324500.324500.319500.319500.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.320000.321500.320000.320000.320000.320000.320000.320000.320000.320000.33000 | 0.3438 |
| | | 0.3248 | 0.3438 |
| Wr4 | 0.3300 | 0.3495 | |
| | VVI4 | 0.3300 | 0.3390 |
| | | 0.3250 | 0.3330 |
| *** | Wr4 | 0.3200 | 0.3270 |
| W4 | We1 | 0.3250 | 0.3330 |
| | 1151 | 0.3255 | 0.3230 |
| | | 0.3208 | 0.3330 0.3270 0.3330 |
| | Sub-sin X Wr1 0.314 Wr1 0.324 0.314 0.324 Wr2 0.314 Wr2 0.314 Wr2 0.314 Wr2 0.324 Wr2 0.324 Wr3 0.324 Wr3 0.324 Wr3 0.324 Wr4 0.324 Wr4 0.324 Ws1 0.324 Ws2 0.324 Ws2 0.324 Ws2 0.324 Ws3 0.324 Ws3 0.324 Ws3 0.324 Ws3 0.324 Ws3 0.324 Ws3 0.324 Ws4 0.334 Ws4 0.334 | 0.3208 | 0.3173 |
| | We2 | 0.3255 | 0.3230 |
| | de Sub-bin Burnen Wr1 X Wr1 0.319 Wr1 0.324 0.319 0.324 Wr2 0.319 Wr2 0.319 Wr2 0.324 Wr2 0.324 Wr2 0.324 Wr2 0.324 Wr3 0.320 Wr3 0.320 Wr4 0.330 0.324 0.324 Wr3 0.324 Wr3 0.324 0.324 0.324 Wr3 0.324 0.324 0.324 Wr4 0.330 0.325 0.320 Wr4 0.320 Ws1 0.320 Ws2 0.320 Ws3 0.320 Ws3 0.320 Ws4 0.320 Ws4 0.320 Ws4 0.330 0.320 0.320 | 0.3260 | 0.3130 |
| | | 0.3215 | 0.3075 |
| | | 0.3250 | 0.3330 |
| | Ws3 | 0.3300 | 0.3390 |
| | Wr2 Wr3 Wr4 Ws1 Ws2 Ws3 | 0.3300 | 0.3285 |
| | | 0.3255 | 0.3230 |
| | | 0.3255 | 0.3230 |
| | We4 | 0.3300 | 0.3285 |
| | 110-1 | 0.3300 | 0.3180 |
| | | 0.3260 | 0.3130 |

* Tolerance of measurement of the color coordinates is ± 0.01



CIE CHROMATICITY DIAGRAM



ORDER CODE TABLE

| Color | Viewing | Kit Number | Luminous In | tensity (mcd) | Color Bin Code | Package |
|------------|---------|--------------------|-------------|---------------|----------------|---------|
| Color | Angle | | Min. | Max. | Color Bin Code | Fackage |
| Cool White | 20° | C543A-WMN-CCCKK141 | 15000 | 37500 | W1,W2,W3,W4 | Bulk |

Notes:

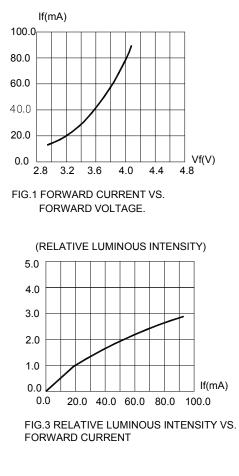
The above kit numbers represent order codes that include multiple intensity-bin and color-bin codes. Only one intensity-bin code and one color-bin code will be shipped on each bulk. Single intensity-bin code and single color-bin codes will not be orderable.

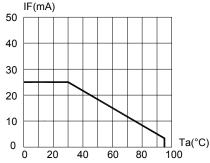
Please refer to the HB LED Lamp Reliability Test Standards document for reliability test conditions.

Please refer to the HB LED Lamp Soldering & Handling document for information about how to use this LED product safely.

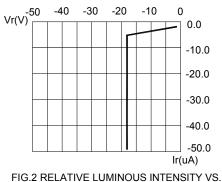
GRAPHS

The data below are collected from statistical figures that do not necessarily correspond to the actual parameters of each single LED. Hence, these data will be changed without further notice.











(RELATIVE LUMINOUS INTENSITY)

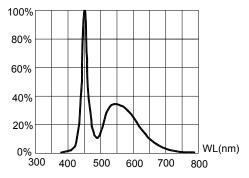
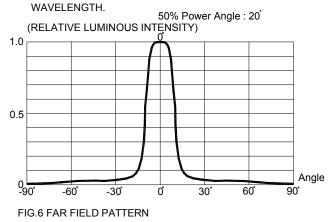


FIG.4 RELATIVE LUMINOUS INTENSITY VS.

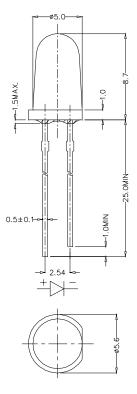


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MECHANICAL DIMENSIONS

All dimensions are in mm. Tolerance is ± 0.25 mm unless otherwise noted. An epoxy meniscus may extend about 1.5 mm down the leads. Burr around bottom of epoxy may be 0.5 mm max.



NOTES

RoHS Compliance

The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU Directive 2011/65/EC (RoHS2), as implemented January 2, 2013. RoHS Declarations for this product can be obtained from your Cree LED representative or from the Product Ecology section of the Cree LED website.

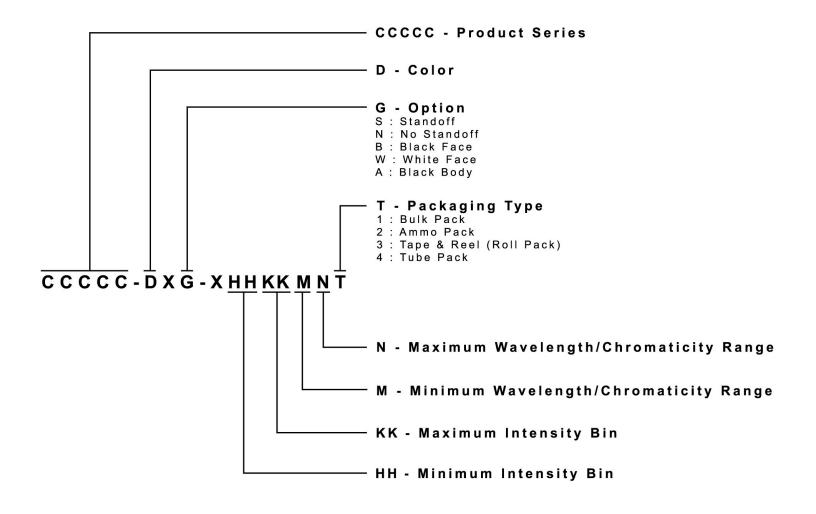
Vision Advisory

WARNING: Do not look at an exposed lamp in operation. Eye injury can result.

KIT NUMBER SYSTEM

Cree LED lamps are tested and sorted into performance bins. A bin is specified by ranges of color, forward voltage, and brightness. Sorted LEDs are packaged for shipping in various convenient options.

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

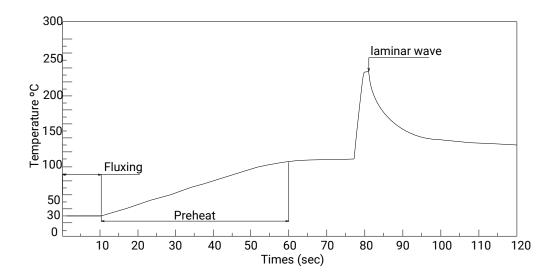


SOLDERING GUIDELINES

The LED soldering specification is shown below(suitable for both leaded solder & lead-free solder):

| Manual Soldering | | Solder Dipping | |
|------------------|--|-------------------------|--|
| Soldering iron | 35 W max | Preheat | 110 °C max |
| Temperature | 300 °C max | Preheat time | 60 seconds max |
| | | Solder-bath temperature | 260 °C Max |
| Soldering time | 3 seconds max | Dipping time | 5 seconds max |
| Position | Not less than 3 mm from the base of the package. | Position | Not less than 3 mm from the base of the package. |

- Manual soldering onto the PCB is not recommended because soldering time is uncontrollable.
- The recommended wave soldering is as below:

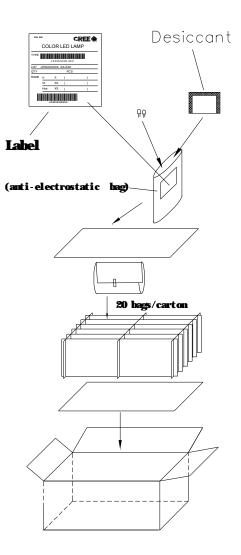


- Do not apply any stress to the LED package, particularly when heated.
- Only bottom preheat is suggested & should not preheat on top in order to reduce thermal stress experienced by the LEDs.
- The LEDs must not be re used once they have been extracted from PCB.
- After soldering the LEDs, the package should be protected from mechanical shock or vibration until the LEDs have reached 40 °C or below.
- Precautions must be taken as mechanical stress on the LEDs may be caused by PCB warpage or from the clinching and cutting of the LED leads.
- When it is necessary to clam the LEDs during soldering, it is important to ensure no mechanical stress is exerted on the LEDs.
- Cut the LED lead at normal room temperature. Lead cutting at high temperature may cause failure of the LEDs.
- Please refer to the HB LED Lamp Soldering & Handling document for information about how to use this LED product safely.



PACKAGING

- · The LEDs are packed in cardboard boxes after packaging in normal or anti-electrostatic bags.
- Cardboard boxes will be used to protect the LEDs from mechanical shock during transportation.
- The boxes are not water resistant, and they must be kept away from water and moisture.
- The Bulk Pack types of packaging.
- Max 500 pcs per bag.



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Click to view similar products for Standard LEDs - Through Hole category:

Click to view products by Cree manufacturer:

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LTL-10254W LTL-1214A LTL-3251A LTL-4262N LTL-433P LTL-5234 LTL87HTBK LTW-87HD4B HLMP-EL30-PS0DD 1L0532V23G0TD001 NSPW500CS NTE30036 NTE30044 NTE30059 NTE3020 LD CQDP-1U3U-W5-1-K LO566UHR3-70G-A3 LP379PPG1C0G0300001 SLX-LX3044GD SLX-LX3044ID SLX-LX3044YD 1.90690.3330000 SSS-LX4673ID-410B 1L0532Y24I0TD001 264-7SYGD/S530-E2 HLMP1385 LTL-10224W LTL-1224A LTL-1234A LTL-2251AT LTL-307YE-012 LTL-403HR LTL-4222 LU7-E-B 4380H1 TLHY44K1L2 HLMP-3962-F0002 HLMP-GG15-R0000 323-2SURD/S530-A3 L53SRC/E-Z L-7679C1ZGC 4302T1-5V 4306D23 4363D1/5 WP1503SRC/J4 WP153GDT WP153YDT WP1543SGC WP1543SRC/D WP1543SURC