

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P776371

Luminaire Tested: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776371
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B061)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K
Description: 6 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4463.4 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.09 / 1.15
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

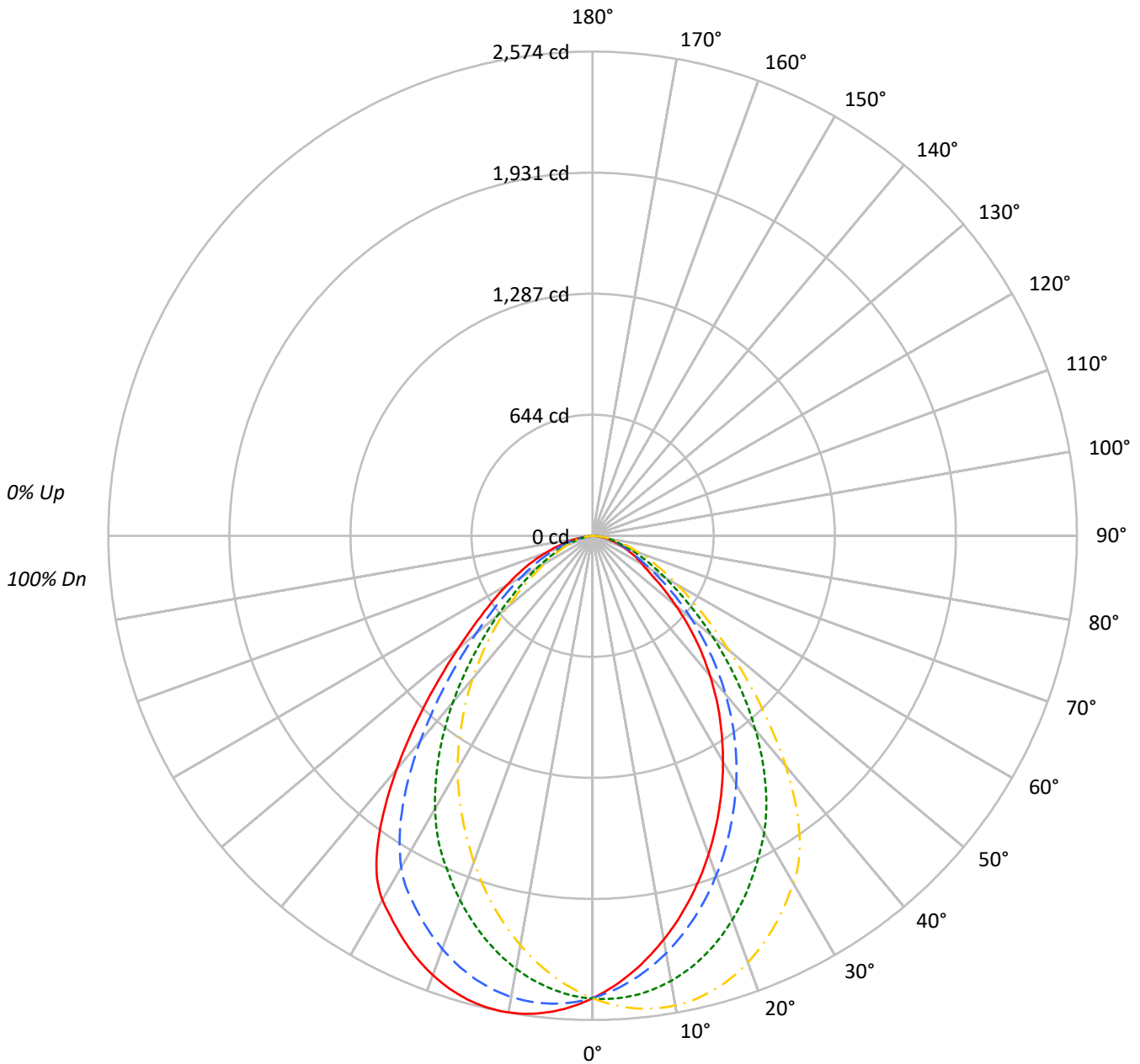
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|-----|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 50 | | | | | | | | | 30 | | | | | | | | | 10 | | | | | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 | | | | | | | | | | | | | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 92 | 90 | 88 | | | | 88 | | | | | | | | | | | | | | | |
| 2 | 103 | 96 | 90 | 85 | 100 | 94 | 89 | 84 | 91 | 86 | 82 | 87 | 84 | 81 | 84 | 81 | 79 | 77 | | | | 77 | | | | | | | | | | | | | | | |
| 3 | 95 | 86 | 79 | 74 | 93 | 85 | 78 | 73 | 82 | 76 | 72 | 79 | 74 | 71 | 77 | 73 | 69 | 67 | | | | 67 | | | | | | | | | | | | | | | |
| 4 | 88 | 78 | 70 | 64 | 86 | 76 | 69 | 64 | 74 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 60 | | | | 60 | | | | | | | | | | | | | | | |
| 5 | 82 | 71 | 63 | 57 | 80 | 69 | 62 | 57 | 67 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 55 | 53 | | | | 53 | | | | | | | | | | | | | | | |
| 6 | 76 | 64 | 56 | 51 | 74 | 63 | 56 | 51 | 62 | 55 | 50 | 60 | 54 | 50 | 59 | 53 | 49 | 48 | | | | 48 | | | | | | | | | | | | | | | |
| 7 | 71 | 59 | 51 | 46 | 70 | 58 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 43 | | | | 43 | | | | | | | | | | | | | | | |
| 8 | 67 | 54 | 47 | 41 | 65 | 54 | 46 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 | | | | 39 | | | | | | | | | | | | | | | |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 36 | | | | 36 | | | | | | | | | | | | | | | |
| 10 | 59 | 47 | 40 | 35 | 58 | 46 | 39 | 35 | 45 | 39 | 35 | 44 | 39 | 34 | 44 | 38 | 34 | 33 | | | | 33 | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 134770 | 134770 | 134770 | 134770 |
| 5° | 128516 | 135065 | 139808 | 133238 |
| 10° | 121307 | 133754 | 143251 | 130158 |
| 15° | 113463 | 130926 | 144967 | 125727 |
| 20° | 105097 | 126699 | 144971 | 120212 |
| 25° | 96441 | 121350 | 143537 | 114013 |
| 30° | 87697 | 115372 | 141465 | 106029 |
| 35° | 78775 | 107097 | 133030 | 95252 |
| 40° | 69502 | 96309 | 115924 | 82669 |
| 45° | 59572 | 83761 | 96754 | 69015 |
| 50° | 49278 | 70710 | 79793 | 56186 |
| 55° | 39731 | 58665 | 67161 | 45456 |
| 60° | 33780 | 48669 | 58033 | 36949 |
| 65° | 30665 | 40977 | 50732 | 30016 |
| 70° | 27232 | 34381 | 42924 | 23962 |
| 75° | 23871 | 29018 | 34080 | 18830 |
| 80° | 19763 | 25098 | 22983 | 14080 |
| 85° | 12328 | 24153 | 8114 | 7862 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 98816 cd/sqm



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 230.6 | 5.2 |
| 10°-20° | 637.5 | 14.3 |
| 20°-30° | 902.9 | 20.2 |
| 30°-40° | 962.0 | 21.6 |
| 40°-50° | 772.1 | 17.3 |
| 50°-60° | 501.2 | 11.2 |
| 60°-70° | 290.7 | 6.5 |
| 70°-80° | 136.7 | 3.1 |
| 80°-90° | 29.8 | 0.7 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1771.0 | 39.7 |
| 0°-40° | 2732.9 | 61.2 |
| 0°-60° | 4006.2 | 89.8 |
| 0°-90° | 4463.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4463.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 2458 | 2458 | 2458 | 2458 | 2458 | |
| 5° | 2335 | 2454 | 2541 | 2421 | 2335 | 218 |
| 15° | 1999 | 2307 | 2554 | 2215 | 1999 | 560 |
| 25° | 1594 | 2006 | 2373 | 1885 | 1594 | 732 |
| 35° | 1177 | 1600 | 1988 | 1423 | 1177 | 735 |
| 45° | 768 | 1080 | 1248 | 890 | 768 | 592 |
| 55° | 416 | 614 | 703 | 476 | 416 | 378 |
| 65° | 236 | 316 | 391 | 231 | 236 | 235 |
| 75° | 113 | 137 | 161 | 89 | 113 | 120 |
| 85° | 20 | 38 | 13 | 12 | 20 | 26 |
| 90° | 0 | 6 | 0 | 0 | 0 | |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 |
| 0.5° | 2448.2 | 2448.2 | 2450.9 | 2455.2 | 2462.3 | 2464.6 | 2467.0 | 2468.1 | 2469.3 | 2466.2 | 2463.4 |
| 1° | 2437.2 | 2438.8 | 2444.3 | 2452.1 | 2463.0 | 2469.3 | 2474.8 | 2477.9 | 2478.7 | 2474.8 | 2468.9 |
| 1.5° | 2425.9 | 2429.0 | 2436.4 | 2448.6 | 2463.4 | 2474.0 | 2482.2 | 2486.9 | 2488.1 | 2482.6 | 2474.0 |
| 2° | 2414.1 | 2418.4 | 2429.0 | 2444.3 | 2463.8 | 2477.9 | 2489.3 | 2495.5 | 2496.7 | 2490.1 | 2478.7 |
| 2.5° | 2401.6 | 2407.5 | 2420.8 | 2439.6 | 2463.0 | 2481.1 | 2495.9 | 2503.8 | 2505.3 | 2497.1 | 2483.0 |
| 3° | 2389.1 | 2396.5 | 2412.2 | 2434.9 | 2462.3 | 2484.2 | 2501.8 | 2511.6 | 2513.2 | 2503.8 | 2486.5 |
| 3.5° | 2376.5 | 2384.8 | 2403.2 | 2429.4 | 2461.1 | 2486.5 | 2507.3 | 2519.0 | 2521.0 | 2509.6 | 2490.1 |
| 4° | 2363.2 | 2373.0 | 2393.8 | 2423.5 | 2459.5 | 2488.9 | 2512.4 | 2526.1 | 2527.6 | 2515.5 | 2492.4 |
| 4.5° | 2349.5 | 2360.9 | 2384.0 | 2417.2 | 2457.2 | 2490.5 | 2517.1 | 2532.3 | 2534.3 | 2520.6 | 2495.1 |
| 5° | 2335.4 | 2348.0 | 2373.8 | 2410.2 | 2454.4 | 2491.2 | 2521.4 | 2538.6 | 2540.6 | 2525.3 | 2496.7 |
| 5.5° | 2321.3 | 2335.0 | 2363.2 | 2403.5 | 2451.3 | 2492.0 | 2524.9 | 2544.1 | 2546.0 | 2529.6 | 2498.3 |
| 6° | 2306.5 | 2321.7 | 2352.7 | 2395.7 | 2447.8 | 2492.0 | 2528.0 | 2548.8 | 2551.1 | 2533.1 | 2499.1 |
| 6.5° | 2291.6 | 2308.0 | 2341.3 | 2387.9 | 2443.5 | 2491.6 | 2530.8 | 2553.1 | 2555.8 | 2536.6 | 2499.5 |
| 7° | 2276.3 | 2293.9 | 2329.6 | 2379.3 | 2439.2 | 2490.8 | 2532.7 | 2557.0 | 2559.7 | 2539.0 | 2499.5 |
| 7.5° | 2261.1 | 2279.5 | 2317.8 | 2370.3 | 2434.1 | 2489.7 | 2534.3 | 2560.5 | 2563.3 | 2541.3 | 2499.1 |
| 8° | 2245.4 | 2265.0 | 2305.3 | 2361.3 | 2428.6 | 2487.7 | 2535.5 | 2563.3 | 2566.4 | 2542.9 | 2498.3 |
| 8.5° | 2229.0 | 2250.1 | 2292.4 | 2351.9 | 2422.7 | 2485.4 | 2536.3 | 2566.0 | 2568.7 | 2544.1 | 2496.7 |
| 9° | 2212.9 | 2234.4 | 2279.5 | 2341.7 | 2416.5 | 2482.6 | 2536.3 | 2567.6 | 2571.1 | 2544.9 | 2494.8 |
| 9.5° | 2196.1 | 2218.8 | 2266.1 | 2331.1 | 2409.8 | 2479.5 | 2535.9 | 2569.1 | 2572.3 | 2545.3 | 2492.4 |
| 10° | 2179.2 | 2203.5 | 2252.4 | 2320.2 | 2402.8 | 2475.6 | 2535.1 | 2569.9 | 2573.4 | 2544.9 | 2489.7 |
| 10.5° | 2162.0 | 2187.9 | 2238.4 | 2309.2 | 2394.9 | 2471.7 | 2533.9 | 2570.3 | 2573.8 | 2543.7 | 2486.1 |
| 11° | 2145.2 | 2171.4 | 2223.9 | 2297.5 | 2387.1 | 2467.0 | 2531.9 | 2569.9 | 2573.8 | 2542.5 | 2482.2 |
| 11.5° | 2127.2 | 2154.6 | 2209.0 | 2285.7 | 2378.1 | 2461.9 | 2529.6 | 2569.1 | 2573.0 | 2540.6 | 2477.5 |
| 12° | 2109.6 | 2138.1 | 2194.1 | 2273.2 | 2369.5 | 2456.0 | 2526.9 | 2568.0 | 2571.9 | 2538.2 | 2472.8 |
| 12.5° | 2091.6 | 2120.5 | 2178.9 | 2260.3 | 2360.5 | 2450.1 | 2523.3 | 2566.0 | 2570.3 | 2535.5 | 2467.7 |
| 13° | 2073.5 | 2104.1 | 2163.6 | 2247.4 | 2350.7 | 2443.5 | 2519.4 | 2563.7 | 2568.0 | 2531.9 | 2461.9 |
| 13.5° | 2054.8 | 2086.5 | 2147.5 | 2234.4 | 2340.1 | 2436.4 | 2514.7 | 2560.9 | 2565.2 | 2528.4 | 2455.6 |
| 14° | 2036.8 | 2068.9 | 2131.5 | 2220.7 | 2329.6 | 2429.0 | 2510.0 | 2557.4 | 2562.1 | 2524.1 | 2449.0 |
| 14.5° | 2017.6 | 2050.5 | 2115.4 | 2206.3 | 2318.6 | 2420.8 | 2504.5 | 2553.5 | 2558.6 | 2519.0 | 2441.9 |
| 15° | 1999.2 | 2032.8 | 2098.6 | 2192.2 | 2306.9 | 2412.2 | 2498.7 | 2549.2 | 2554.3 | 2513.5 | 2434.5 |
| 15.5° | 1979.2 | 2014.0 | 2081.4 | 2176.9 | 2295.5 | 2403.5 | 2492.4 | 2544.1 | 2549.2 | 2507.7 | 2426.3 |
| 16° | 1960.4 | 1995.6 | 2064.9 | 2162.4 | 2283.0 | 2394.2 | 2485.4 | 2538.6 | 2544.1 | 2501.4 | 2418.0 |
| 16.5° | 1941.2 | 1976.9 | 2047.7 | 2146.8 | 2270.5 | 2384.4 | 2477.9 | 2532.7 | 2538.2 | 2494.8 | 2409.4 |
| 17° | 1921.7 | 1958.5 | 2030.1 | 2131.1 | 2257.1 | 2374.2 | 2470.1 | 2526.1 | 2531.9 | 2487.7 | 2400.4 |
| 17.5° | 1901.7 | 1939.3 | 2012.1 | 2115.0 | 2244.2 | 2363.6 | 2461.9 | 2519.4 | 2525.3 | 2479.9 | 2390.6 |
| 18° | 1882.1 | 1920.5 | 1994.5 | 2099.0 | 2230.1 | 2351.9 | 2452.9 | 2511.6 | 2518.2 | 2472.1 | 2380.5 |
| 18.5° | 1861.8 | 1900.9 | 1976.1 | 2082.2 | 2216.0 | 2340.5 | 2443.5 | 2503.8 | 2510.4 | 2463.4 | 2369.9 |
| 19° | 1842.2 | 1881.7 | 1958.1 | 2065.3 | 2201.6 | 2328.8 | 2434.1 | 2495.5 | 2502.2 | 2454.4 | 2359.3 |
| 19.5° | 1821.8 | 1861.8 | 1939.3 | 2048.5 | 2187.1 | 2316.6 | 2423.9 | 2486.9 | 2493.6 | 2445.0 | 2348.4 |
| 20° | 1801.5 | 1842.6 | 1920.9 | 2031.7 | 2171.8 | 2304.1 | 2413.3 | 2477.5 | 2485.0 | 2435.6 | 2337.0 |
| 20.5° | 1780.7 | 1822.6 | 1902.1 | 2013.7 | 2156.5 | 2290.8 | 2402.4 | 2467.7 | 2475.2 | 2425.5 | 2324.9 |
| 21° | 1760.8 | 1802.7 | 1882.9 | 1996.4 | 2140.5 | 2277.5 | 2391.0 | 2458.0 | 2465.4 | 2414.5 | 2312.7 |

TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1698.5 | 1742.4 | 1825.0 | 1942.0 | 2092.7 | 2235.2 | 2355.4 | 2425.5 | 2433.7 | 2381.2 | 2274.4 |
| 23° | 1677.8 | 1721.6 | 1805.4 | 1923.6 | 2075.5 | 2220.3 | 2342.5 | 2414.1 | 2422.3 | 2369.1 | 2260.7 |
| 23.5° | 1657.4 | 1701.7 | 1786.2 | 1904.8 | 2058.7 | 2205.9 | 2329.2 | 2401.6 | 2410.6 | 2357.0 | 2247.0 |
| 24° | 1636.7 | 1680.9 | 1766.3 | 1886.4 | 2041.1 | 2189.8 | 2315.9 | 2389.5 | 2398.5 | 2344.0 | 2232.9 |
| 24.5° | 1615.5 | 1660.6 | 1746.3 | 1867.3 | 2023.8 | 2174.5 | 2302.2 | 2376.5 | 2385.9 | 2331.1 | 2218.4 |
| 25° | 1594.4 | 1640.2 | 1726.7 | 1848.1 | 2006.2 | 2158.9 | 2287.7 | 2364.0 | 2373.0 | 2317.8 | 2203.1 |
| 25.5° | 1573.7 | 1619.1 | 1706.8 | 1828.5 | 1988.6 | 2142.4 | 2273.6 | 2350.3 | 2360.1 | 2304.1 | 2188.6 |
| 26° | 1552.9 | 1598.7 | 1686.4 | 1809.7 | 1970.2 | 2126.4 | 2259.1 | 2336.6 | 2346.4 | 2290.0 | 2173.8 |
| 26.5° | 1532.2 | 1578.0 | 1666.8 | 1790.9 | 1952.6 | 2110.0 | 2243.8 | 2322.1 | 2332.3 | 2275.9 | 2158.9 |
| 27° | 1511.0 | 1558.0 | 1646.9 | 1771.3 | 1933.8 | 2093.1 | 2228.2 | 2308.4 | 2318.2 | 2261.4 | 2144.8 |
| 27.5° | 1489.9 | 1537.3 | 1626.9 | 1751.8 | 1915.8 | 2075.9 | 2212.9 | 2293.2 | 2304.1 | 2248.1 | 2129.9 |
| 28° | 1468.7 | 1515.7 | 1606.5 | 1732.6 | 1897.0 | 2058.7 | 2197.2 | 2278.7 | 2290.0 | 2234.4 | 2113.9 |
| 28.5° | 1448.4 | 1495.0 | 1586.6 | 1713.4 | 1879.0 | 2041.4 | 2181.2 | 2263.8 | 2276.7 | 2221.1 | 2095.9 |
| 29° | 1427.3 | 1474.6 | 1566.2 | 1693.4 | 1860.2 | 2024.2 | 2165.2 | 2249.3 | 2263.8 | 2206.3 | 2076.3 |
| 29.5° | 1406.1 | 1453.9 | 1545.9 | 1673.5 | 1841.8 | 2007.8 | 2149.9 | 2235.2 | 2249.7 | 2189.8 | 2055.9 |
| 30° | 1385.4 | 1433.1 | 1525.5 | 1653.9 | 1822.6 | 1989.8 | 2134.6 | 2221.1 | 2234.8 | 2171.4 | 2034.4 |
| 30.5° | 1364.6 | 1412.4 | 1504.8 | 1633.6 | 1803.1 | 1971.8 | 2117.8 | 2205.9 | 2218.8 | 2151.1 | 2011.7 |
| 31° | 1343.5 | 1391.6 | 1484.4 | 1612.0 | 1782.7 | 1952.6 | 2101.0 | 2189.8 | 2200.8 | 2129.5 | 1987.0 |
| 31.5° | 1322.7 | 1371.3 | 1463.3 | 1591.7 | 1761.6 | 1932.6 | 2082.2 | 2171.0 | 2180.8 | 2106.8 | 1962.0 |
| 32° | 1301.6 | 1349.7 | 1442.5 | 1570.1 | 1740.4 | 1911.1 | 2061.8 | 2151.4 | 2159.3 | 2082.2 | 1936.5 |
| 32.5° | 1280.8 | 1329.0 | 1421.8 | 1548.6 | 1718.1 | 1888.4 | 2039.9 | 2130.3 | 2135.4 | 2055.9 | 1909.5 |
| 33° | 1260.5 | 1308.3 | 1400.2 | 1527.1 | 1695.0 | 1865.3 | 2018.0 | 2107.6 | 2109.6 | 2027.7 | 1881.3 |
| 33.5° | 1239.7 | 1287.5 | 1379.5 | 1504.8 | 1672.3 | 1841.8 | 1993.7 | 2082.2 | 2081.4 | 1998.0 | 1852.4 |
| 34° | 1219.0 | 1266.4 | 1358.0 | 1482.4 | 1648.4 | 1817.5 | 1969.0 | 2055.2 | 2051.2 | 1967.9 | 1823.4 |
| 34.5° | 1198.3 | 1246.0 | 1336.8 | 1459.4 | 1624.5 | 1792.9 | 1942.8 | 2026.2 | 2020.7 | 1936.1 | 1792.1 |
| 35° | 1177.1 | 1224.9 | 1315.3 | 1436.6 | 1600.3 | 1766.6 | 1915.0 | 1995.6 | 1987.8 | 1903.7 | 1761.2 |
| 35.5° | 1157.1 | 1204.1 | 1293.8 | 1413.6 | 1575.6 | 1740.8 | 1886.4 | 1964.3 | 1954.2 | 1869.6 | 1729.5 |
| 36° | 1136.8 | 1183.4 | 1272.2 | 1390.5 | 1551.0 | 1714.2 | 1857.1 | 1931.8 | 1919.7 | 1835.2 | 1697.0 |
| 36.5° | 1116.0 | 1162.6 | 1250.7 | 1367.0 | 1525.9 | 1687.2 | 1826.5 | 1897.8 | 1883.7 | 1800.7 | 1664.1 |
| 37° | 1094.9 | 1141.1 | 1228.8 | 1343.9 | 1500.8 | 1659.4 | 1795.6 | 1862.9 | 1846.9 | 1764.7 | 1630.0 |
| 37.5° | 1074.6 | 1120.4 | 1207.3 | 1320.8 | 1475.4 | 1630.8 | 1763.1 | 1827.7 | 1810.1 | 1728.3 | 1596.0 |
| 38° | 1053.8 | 1099.6 | 1184.9 | 1297.3 | 1449.2 | 1603.8 | 1730.6 | 1792.5 | 1772.5 | 1691.1 | 1561.9 |
| 38.5° | 1033.1 | 1078.9 | 1163.8 | 1273.8 | 1424.1 | 1573.7 | 1697.8 | 1756.1 | 1734.9 | 1655.1 | 1527.9 |
| 39° | 1012.7 | 1057.7 | 1142.3 | 1250.7 | 1397.9 | 1544.7 | 1664.5 | 1719.3 | 1696.2 | 1617.1 | 1493.4 |
| 39.5° | 992.0 | 1037.4 | 1120.4 | 1226.8 | 1372.1 | 1514.9 | 1630.0 | 1681.7 | 1658.2 | 1580.3 | 1459.4 |
| 40° | 971.2 | 1016.6 | 1098.0 | 1203.3 | 1345.8 | 1486.0 | 1595.6 | 1644.1 | 1619.9 | 1542.7 | 1423.7 |
| 40.5° | 950.8 | 995.9 | 1076.9 | 1179.9 | 1318.8 | 1453.9 | 1561.5 | 1606.5 | 1581.5 | 1506.3 | 1389.3 |
| 41° | 930.1 | 975.1 | 1055.0 | 1156.4 | 1292.6 | 1424.1 | 1527.1 | 1569.0 | 1543.1 | 1468.0 | 1354.8 |
| 41.5° | 909.7 | 955.2 | 1033.4 | 1132.9 | 1266.0 | 1393.6 | 1492.6 | 1530.6 | 1504.4 | 1432.0 | 1320.8 |
| 42° | 889.0 | 934.4 | 1011.9 | 1109.0 | 1239.7 | 1364.2 | 1457.0 | 1493.0 | 1466.8 | 1394.0 | 1285.9 |
| 42.5° | 869.0 | 914.4 | 990.8 | 1085.9 | 1213.1 | 1332.1 | 1422.6 | 1456.2 | 1429.6 | 1358.4 | 1253.1 |
| 43° | 848.7 | 894.1 | 969.2 | 1061.6 | 1186.1 | 1302.0 | 1388.1 | 1419.4 | 1392.0 | 1321.6 | 1219.0 |
| 43.5° | 828.3 | 873.7 | 948.1 | 1039.7 | 1159.5 | 1270.7 | 1354.1 | 1383.0 | 1355.2 | 1286.3 | 1185.7 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 768.4 | 813.4 | 884.7 | 969.6 | 1080.4 | 1179.9 | 1252.3 | 1274.6 | 1248.0 | 1182.2 | 1089.4 |
| 45.5° | 748.5 | 793.9 | 863.9 | 948.1 | 1053.8 | 1149.3 | 1219.0 | 1240.9 | 1213.1 | 1148.9 | 1058.5 |
| 46° | 729.3 | 774.3 | 843.6 | 925.4 | 1028.4 | 1119.6 | 1186.5 | 1206.5 | 1179.5 | 1115.7 | 1028.0 |
| 46.5° | 709.7 | 754.7 | 822.8 | 902.7 | 1002.1 | 1090.6 | 1154.4 | 1174.0 | 1145.8 | 1083.6 | 997.8 |
| 47° | 690.1 | 735.5 | 802.5 | 879.6 | 976.3 | 1061.6 | 1121.5 | 1139.9 | 1113.3 | 1052.2 | 968.5 |
| 47.5° | 671.0 | 716.0 | 782.5 | 858.5 | 950.8 | 1032.3 | 1090.6 | 1108.6 | 1081.6 | 1021.3 | 940.3 |
| 48° | 651.8 | 696.8 | 762.6 | 836.5 | 926.2 | 1004.1 | 1060.5 | 1077.3 | 1051.1 | 991.6 | 912.1 |
| 48.5° | 633.0 | 678.0 | 742.6 | 815.4 | 901.1 | 976.7 | 1030.3 | 1047.5 | 1021.3 | 962.6 | 885.1 |
| 49° | 614.6 | 659.2 | 723.4 | 793.1 | 876.9 | 949.7 | 1001.3 | 1016.6 | 991.6 | 934.8 | 858.1 |
| 49.5° | 596.2 | 640.8 | 703.8 | 772.3 | 852.6 | 921.9 | 972.8 | 988.4 | 963.8 | 907.0 | 832.6 |
| 50° | 577.8 | 622.0 | 684.3 | 751.2 | 829.1 | 895.7 | 944.6 | 959.9 | 935.6 | 880.4 | 807.6 |
| 50.5° | 560.2 | 603.2 | 665.5 | 730.5 | 804.8 | 869.8 | 916.8 | 932.8 | 908.6 | 854.2 | 783.3 |
| 51° | 542.6 | 585.6 | 646.7 | 710.1 | 782.1 | 844.4 | 891.0 | 905.8 | 882.3 | 829.1 | 759.4 |
| 51.5° | 525.3 | 568.0 | 627.9 | 689.4 | 760.6 | 819.7 | 865.5 | 880.0 | 857.7 | 805.2 | 736.7 |
| 52° | 508.5 | 550.8 | 609.9 | 669.4 | 737.9 | 795.0 | 839.7 | 854.9 | 833.0 | 782.1 | 714.8 |
| 52.5° | 492.1 | 533.2 | 591.5 | 649.8 | 715.6 | 770.8 | 815.4 | 831.5 | 809.5 | 759.4 | 692.9 |
| 53° | 476.0 | 516.3 | 573.9 | 630.2 | 694.4 | 748.1 | 791.5 | 807.2 | 786.8 | 737.1 | 672.1 |
| 53.5° | 460.0 | 499.5 | 555.5 | 611.5 | 673.3 | 725.4 | 768.8 | 784.5 | 764.1 | 716.4 | 652.2 |
| 54° | 445.1 | 483.8 | 538.6 | 592.7 | 653.3 | 703.4 | 746.5 | 762.2 | 743.0 | 696.0 | 632.2 |
| 54.5° | 430.2 | 468.2 | 522.2 | 574.3 | 633.0 | 681.9 | 724.2 | 740.6 | 722.2 | 676.0 | 613.4 |
| 55° | 415.7 | 452.5 | 505.4 | 556.3 | 613.8 | 661.2 | 703.8 | 719.9 | 702.7 | 657.3 | 595.0 |
| 55.5° | 401.6 | 437.6 | 488.9 | 539.0 | 594.6 | 641.2 | 682.7 | 699.5 | 682.7 | 638.1 | 577.4 |
| 56° | 388.7 | 422.8 | 473.3 | 521.4 | 575.8 | 621.6 | 662.7 | 679.6 | 663.5 | 620.9 | 560.2 |
| 56.5° | 375.8 | 408.3 | 457.2 | 505.0 | 557.8 | 602.5 | 643.2 | 660.0 | 645.1 | 602.8 | 543.0 |
| 57° | 363.7 | 395.0 | 441.6 | 488.5 | 539.8 | 584.1 | 624.0 | 641.6 | 627.5 | 586.0 | 526.9 |
| 57.5° | 351.9 | 381.3 | 425.9 | 472.1 | 523.0 | 565.7 | 606.0 | 623.2 | 609.9 | 569.2 | 510.9 |
| 58° | 341.7 | 368.4 | 411.8 | 456.8 | 506.2 | 548.8 | 588.0 | 606.0 | 593.1 | 553.5 | 496.0 |
| 58.5° | 331.6 | 355.4 | 397.3 | 441.6 | 490.1 | 532.0 | 570.7 | 588.8 | 576.6 | 537.5 | 480.7 |
| 59° | 322.6 | 344.1 | 383.2 | 427.1 | 474.4 | 515.2 | 553.9 | 571.9 | 560.2 | 521.8 | 465.8 |
| 59.5° | 314.3 | 332.7 | 369.5 | 412.2 | 458.8 | 498.7 | 536.7 | 555.5 | 544.5 | 506.9 | 451.7 |
| 60° | 308.1 | 322.2 | 357.0 | 398.1 | 443.9 | 483.1 | 520.6 | 539.4 | 529.3 | 492.8 | 438.0 |
| 60.5° | 301.4 | 312.0 | 344.1 | 384.8 | 429.4 | 467.8 | 505.4 | 523.8 | 514.4 | 477.6 | 424.3 |
| 61° | 294.4 | 303.8 | 332.0 | 371.5 | 415.3 | 452.9 | 490.1 | 508.5 | 499.1 | 463.5 | 411.0 |
| 61.5° | 287.3 | 295.9 | 320.6 | 358.2 | 401.6 | 438.4 | 475.2 | 493.6 | 485.0 | 450.2 | 397.7 |
| 62° | 279.9 | 289.7 | 309.6 | 346.0 | 388.3 | 424.7 | 460.4 | 479.1 | 471.3 | 436.9 | 385.2 |
| 62.5° | 272.5 | 282.6 | 298.7 | 333.5 | 375.0 | 410.6 | 445.9 | 464.7 | 457.2 | 423.2 | 372.3 |
| 63° | 265.0 | 275.6 | 288.9 | 321.8 | 362.5 | 396.9 | 431.8 | 450.6 | 443.1 | 409.9 | 360.1 |
| 63.5° | 258.0 | 268.5 | 278.7 | 310.0 | 350.0 | 384.4 | 418.1 | 436.5 | 429.8 | 396.9 | 348.0 |
| 64° | 250.5 | 261.5 | 269.3 | 299.5 | 338.6 | 371.5 | 404.8 | 423.2 | 416.9 | 384.8 | 336.7 |
| 64.5° | 243.5 | 254.1 | 260.3 | 288.5 | 327.3 | 359.4 | 391.5 | 410.2 | 403.6 | 371.9 | 325.3 |
| 65° | 236.4 | 247.4 | 252.1 | 277.9 | 315.9 | 346.8 | 378.9 | 397.3 | 391.1 | 360.1 | 313.9 |
| 65.5° | 229.4 | 240.7 | 243.9 | 267.8 | 304.6 | 335.5 | 366.4 | 384.4 | 378.1 | 347.6 | 302.6 |
| 66° | 222.3 | 233.7 | 236.0 | 258.0 | 292.8 | 324.1 | 353.9 | 371.5 | 365.2 | 335.9 | 291.2 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 67.5° | 202.0 | 213.3 | 214.9 | 229.8 | 262.3 | 289.7 | 319.0 | 335.5 | 328.0 | 301.0 | 259.5 |
| 68° | 195.7 | 206.7 | 208.6 | 221.6 | 252.1 | 279.1 | 307.7 | 323.7 | 315.9 | 289.3 | 249.0 |
| 68.5° | 189.1 | 200.0 | 202.4 | 213.0 | 242.3 | 268.5 | 295.9 | 312.0 | 303.8 | 277.5 | 239.2 |
| 69° | 182.8 | 193.8 | 196.5 | 204.7 | 232.9 | 258.0 | 285.0 | 300.2 | 291.2 | 266.2 | 229.4 |
| 69.5° | 176.2 | 187.5 | 190.6 | 196.9 | 223.5 | 248.2 | 273.6 | 288.1 | 279.5 | 255.2 | 219.6 |
| 70° | 169.9 | 181.2 | 184.8 | 189.5 | 214.5 | 238.0 | 263.1 | 277.2 | 267.8 | 243.9 | 209.8 |
| 70.5° | 163.6 | 175.0 | 178.9 | 182.0 | 205.9 | 228.6 | 252.9 | 265.8 | 256.4 | 233.3 | 200.8 |
| 71° | 157.8 | 168.7 | 173.0 | 175.0 | 197.3 | 219.2 | 242.7 | 255.2 | 245.1 | 223.1 | 191.8 |
| 71.5° | 151.9 | 162.8 | 167.5 | 167.9 | 189.1 | 210.2 | 232.5 | 243.9 | 233.7 | 212.6 | 182.4 |
| 72° | 146.0 | 157.0 | 161.7 | 161.7 | 180.9 | 201.2 | 222.7 | 233.7 | 222.7 | 202.4 | 173.8 |
| 72.5° | 141.3 | 151.1 | 156.2 | 155.0 | 173.0 | 192.2 | 213.0 | 223.1 | 212.2 | 192.2 | 165.2 |
| 73° | 135.4 | 145.2 | 150.7 | 149.1 | 165.6 | 184.0 | 203.6 | 213.0 | 201.6 | 182.4 | 156.6 |
| 73.5° | 130.0 | 141.3 | 145.2 | 143.3 | 158.1 | 175.4 | 194.2 | 203.2 | 190.6 | 173.0 | 148.4 |
| 74° | 124.1 | 135.8 | 142.1 | 137.8 | 151.1 | 167.5 | 185.2 | 193.4 | 180.9 | 163.6 | 140.1 |
| 74.5° | 118.2 | 130.0 | 136.2 | 132.3 | 144.1 | 159.3 | 176.5 | 183.6 | 170.7 | 154.2 | 132.3 |
| 75° | 112.7 | 124.1 | 130.7 | 127.2 | 137.0 | 151.5 | 167.9 | 174.2 | 160.9 | 145.2 | 124.5 |
| 75.5° | 107.7 | 118.2 | 125.3 | 121.7 | 130.4 | 144.1 | 159.3 | 165.2 | 151.1 | 136.6 | 117.0 |
| 76° | 102.2 | 112.7 | 119.4 | 116.7 | 124.1 | 137.0 | 150.7 | 156.2 | 141.3 | 128.0 | 109.6 |
| 76.5° | 97.1 | 107.7 | 114.3 | 111.6 | 117.8 | 129.6 | 142.5 | 147.2 | 132.3 | 119.8 | 102.2 |
| 77° | 92.0 | 102.2 | 109.2 | 106.9 | 112.0 | 122.5 | 134.7 | 138.6 | 123.3 | 111.6 | 95.5 |
| 77.5° | 86.9 | 97.1 | 104.5 | 102.2 | 105.7 | 115.9 | 126.8 | 130.4 | 114.3 | 103.7 | 88.5 |
| 78° | 81.8 | 92.0 | 99.4 | 97.9 | 100.2 | 109.2 | 119.4 | 122.5 | 105.7 | 95.9 | 82.2 |
| 78.5° | 77.1 | 86.9 | 94.7 | 93.2 | 94.7 | 103.0 | 112.0 | 114.3 | 97.1 | 88.5 | 75.6 |
| 79° | 72.0 | 82.2 | 90.0 | 88.9 | 89.6 | 96.7 | 104.9 | 106.5 | 88.9 | 81.4 | 69.3 |
| 79.5° | 67.3 | 77.1 | 85.3 | 84.6 | 84.2 | 90.8 | 97.9 | 99.4 | 80.6 | 74.4 | 63.4 |
| 80° | 62.6 | 72.4 | 80.6 | 80.2 | 79.5 | 84.9 | 91.2 | 92.0 | 72.8 | 67.3 | 57.5 |
| 80.5° | 58.3 | 67.7 | 75.9 | 76.3 | 74.8 | 79.5 | 84.6 | 84.9 | 65.4 | 61.1 | 52.1 |
| 81° | 53.6 | 63.0 | 71.6 | 72.0 | 70.1 | 74.0 | 78.3 | 77.9 | 57.9 | 54.8 | 46.6 |
| 81.5° | 48.9 | 58.3 | 66.9 | 67.7 | 65.8 | 68.5 | 72.0 | 70.9 | 50.9 | 48.5 | 41.5 |
| 82° | 44.6 | 54.0 | 62.6 | 63.8 | 61.5 | 63.4 | 65.8 | 63.8 | 44.2 | 43.1 | 37.2 |
| 82.5° | 40.3 | 49.3 | 58.3 | 59.5 | 57.2 | 58.3 | 59.9 | 57.2 | 38.8 | 38.0 | 32.5 |
| 83° | 36.0 | 45.0 | 54.0 | 55.6 | 53.2 | 54.0 | 54.4 | 50.9 | 33.3 | 32.9 | 28.2 |
| 83.5° | 32.1 | 40.7 | 49.7 | 51.7 | 49.3 | 49.3 | 49.3 | 45.0 | 27.8 | 27.8 | 23.9 |
| 84° | 27.8 | 36.4 | 45.8 | 47.8 | 45.4 | 44.6 | 43.8 | 39.5 | 22.3 | 22.7 | 19.2 |
| 84.5° | 23.5 | 32.1 | 41.9 | 44.2 | 41.9 | 40.7 | 39.5 | 34.1 | 16.8 | 17.6 | 16.0 |
| 85° | 19.6 | 27.8 | 38.0 | 40.3 | 38.4 | 36.8 | 35.2 | 29.0 | 12.9 | 13.7 | 12.5 |
| 85.5° | 15.7 | 23.9 | 34.1 | 36.4 | 34.8 | 32.9 | 30.5 | 23.5 | 10.2 | 10.2 | 9.8 |
| 86° | 13.3 | 20.0 | 30.5 | 32.9 | 31.3 | 29.4 | 26.2 | 18.4 | 7.8 | 7.4 | 7.0 |
| 86.5° | 11.0 | 16.8 | 26.6 | 29.0 | 28.2 | 25.4 | 21.5 | 14.5 | 6.3 | 5.1 | 4.7 |
| 87° | 8.6 | 14.1 | 23.1 | 25.4 | 24.7 | 21.5 | 18.0 | 11.4 | 4.7 | 3.1 | 2.7 |
| 87.5° | 5.9 | 11.7 | 19.6 | 21.9 | 21.5 | 18.4 | 14.5 | 8.2 | 3.5 | 1.6 | 1.2 |
| 88° | 4.3 | 9.0 | 16.0 | 18.4 | 18.4 | 14.9 | 11.4 | 5.5 | 2.3 | 0.8 | 0.4 |
| 88.5° | 2.3 | 6.7 | 13.3 | 14.9 | 14.9 | 12.1 | 8.2 | 3.5 | 1.2 | 0.4 | 0.0 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.4 | 3.9 | 5.5 | 5.9 | 3.9 | 1.6 | 0.4 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 | 2458.4 |
| 0.5° | 2460.3 | 2458.7 | 2453.7 | 2450.1 | 2447.8 | 2448.2 |
| 1° | 2462.3 | 2456.4 | 2447.4 | 2440.7 | 2436.8 | 2437.2 |
| 1.5° | 2463.8 | 2453.7 | 2440.7 | 2430.9 | 2425.5 | 2425.9 |
| 2° | 2464.6 | 2450.1 | 2433.7 | 2421.2 | 2413.7 | 2414.1 |
| 2.5° | 2465.4 | 2446.6 | 2426.3 | 2410.6 | 2402.0 | 2401.6 |
| 3° | 2465.4 | 2442.3 | 2418.4 | 2400.0 | 2389.5 | 2389.1 |
| 3.5° | 2464.6 | 2437.6 | 2410.2 | 2388.7 | 2376.5 | 2376.5 |
| 4° | 2463.8 | 2432.5 | 2401.2 | 2377.3 | 2363.6 | 2363.2 |
| 4.5° | 2462.7 | 2427.0 | 2392.2 | 2365.2 | 2350.3 | 2349.5 |
| 5° | 2460.7 | 2421.2 | 2382.4 | 2353.0 | 2336.2 | 2335.4 |
| 5.5° | 2458.4 | 2414.9 | 2372.6 | 2340.1 | 2321.7 | 2321.3 |
| 6° | 2455.6 | 2407.9 | 2362.4 | 2327.2 | 2307.6 | 2306.5 |
| 6.5° | 2452.5 | 2400.8 | 2351.5 | 2313.5 | 2292.8 | 2291.6 |
| 7° | 2449.0 | 2393.0 | 2340.5 | 2299.8 | 2277.5 | 2276.3 |
| 7.5° | 2444.7 | 2384.8 | 2328.8 | 2285.7 | 2261.8 | 2261.1 |
| 8° | 2440.0 | 2376.1 | 2316.6 | 2271.2 | 2246.2 | 2245.4 |
| 8.5° | 2434.9 | 2367.1 | 2304.5 | 2256.4 | 2230.1 | 2229.0 |
| 9° | 2429.8 | 2357.7 | 2291.6 | 2241.5 | 2214.1 | 2212.9 |
| 9.5° | 2423.9 | 2348.0 | 2278.7 | 2225.8 | 2196.9 | 2196.1 |
| 10° | 2417.6 | 2338.2 | 2265.4 | 2210.2 | 2180.4 | 2179.2 |
| 10.5° | 2410.6 | 2327.2 | 2251.7 | 2194.1 | 2163.2 | 2162.0 |
| 11° | 2403.5 | 2316.3 | 2237.2 | 2177.7 | 2146.0 | 2145.2 |
| 11.5° | 2395.7 | 2304.9 | 2222.7 | 2161.2 | 2128.4 | 2127.2 |
| 12° | 2387.5 | 2293.2 | 2208.2 | 2144.4 | 2110.3 | 2109.6 |
| 12.5° | 2379.3 | 2281.4 | 2192.9 | 2127.2 | 2092.3 | 2091.6 |
| 13° | 2370.3 | 2268.5 | 2177.7 | 2109.6 | 2073.9 | 2073.5 |
| 13.5° | 2361.3 | 2255.6 | 2162.0 | 2091.9 | 2055.9 | 2054.8 |
| 14° | 2351.1 | 2242.7 | 2146.0 | 2074.3 | 2037.1 | 2036.8 |
| 14.5° | 2340.9 | 2229.3 | 2129.9 | 2056.3 | 2018.4 | 2017.6 |
| 15° | 2330.3 | 2215.3 | 2113.5 | 2037.9 | 1999.2 | 1999.2 |
| 15.5° | 2319.4 | 2201.2 | 2096.6 | 2019.5 | 1979.6 | 1979.2 |
| 16° | 2308.4 | 2186.7 | 2079.0 | 2000.7 | 1960.4 | 1960.4 |
| 16.5° | 2296.3 | 2171.8 | 2061.8 | 1981.9 | 1941.2 | 1941.2 |
| 17° | 2284.5 | 2156.9 | 2044.2 | 1962.8 | 1921.3 | 1921.7 |
| 17.5° | 2272.0 | 2141.7 | 2026.6 | 1943.6 | 1901.7 | 1901.7 |
| 18° | 2259.1 | 2125.6 | 2008.6 | 1924.4 | 1881.3 | 1882.1 |
| 18.5° | 2246.2 | 2110.0 | 1990.2 | 1904.4 | 1861.8 | 1861.8 |
| 19° | 2232.9 | 2093.5 | 1972.2 | 1884.9 | 1841.4 | 1842.2 |
| 19.5° | 2219.6 | 2077.5 | 1953.4 | 1865.3 | 1821.1 | 1821.8 |
| 20° | 2205.1 | 2060.6 | 1935.0 | 1845.3 | 1800.7 | 1801.5 |
| 20.5° | 2191.0 | 2043.8 | 1916.2 | 1825.4 | 1780.0 | 1780.7 |
| 21° | 2176.1 | 2026.6 | 1897.0 | 1804.6 | 1759.6 | 1760.8 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 2130.7 | 1973.7 | 1839.1 | 1744.3 | 1697.4 | 1698.5 |
| 23° | 2115.0 | 1956.1 | 1819.9 | 1723.6 | 1676.6 | 1677.8 |
| 23.5° | 2099.0 | 1938.1 | 1800.3 | 1703.2 | 1655.9 | 1657.4 |
| 24° | 2082.9 | 1920.5 | 1781.1 | 1683.3 | 1634.7 | 1636.7 |
| 24.5° | 2066.5 | 1902.5 | 1761.9 | 1662.9 | 1614.0 | 1615.5 |
| 25° | 2050.5 | 1884.9 | 1742.8 | 1641.4 | 1593.2 | 1594.4 |
| 25.5° | 2034.4 | 1866.5 | 1722.4 | 1622.2 | 1572.5 | 1573.7 |
| 26° | 2018.4 | 1848.5 | 1703.2 | 1600.7 | 1551.7 | 1552.9 |
| 26.5° | 2001.9 | 1829.7 | 1683.7 | 1581.1 | 1530.6 | 1532.2 |
| 27° | 1984.7 | 1809.3 | 1663.3 | 1560.3 | 1509.5 | 1511.0 |
| 27.5° | 1965.9 | 1787.4 | 1641.8 | 1540.0 | 1488.7 | 1489.9 |
| 28° | 1945.5 | 1766.3 | 1620.2 | 1518.5 | 1468.0 | 1468.7 |
| 28.5° | 1924.4 | 1743.6 | 1598.3 | 1498.1 | 1447.2 | 1448.4 |
| 29° | 1902.9 | 1721.6 | 1576.4 | 1477.0 | 1426.1 | 1427.3 |
| 29.5° | 1880.6 | 1698.5 | 1554.5 | 1455.8 | 1405.3 | 1406.1 |
| 30° | 1856.7 | 1675.0 | 1531.8 | 1433.1 | 1385.0 | 1385.4 |
| 30.5° | 1832.8 | 1651.2 | 1509.1 | 1412.8 | 1364.2 | 1364.6 |
| 31° | 1808.1 | 1627.3 | 1485.6 | 1390.5 | 1342.7 | 1343.5 |
| 31.5° | 1783.1 | 1602.6 | 1462.1 | 1368.5 | 1322.0 | 1322.7 |
| 32° | 1756.9 | 1577.6 | 1438.6 | 1345.8 | 1300.8 | 1301.6 |
| 32.5° | 1730.6 | 1552.1 | 1415.1 | 1324.7 | 1279.7 | 1280.8 |
| 33° | 1704.0 | 1527.1 | 1391.2 | 1302.4 | 1258.9 | 1260.5 |
| 33.5° | 1677.0 | 1501.2 | 1367.0 | 1280.1 | 1237.8 | 1239.7 |
| 34° | 1648.8 | 1475.8 | 1343.5 | 1257.8 | 1216.6 | 1219.0 |
| 34.5° | 1620.2 | 1448.4 | 1318.8 | 1235.4 | 1195.1 | 1198.3 |
| 35° | 1592.1 | 1423.3 | 1295.3 | 1213.1 | 1174.0 | 1177.1 |
| 35.5° | 1563.5 | 1396.3 | 1270.7 | 1190.8 | 1153.2 | 1157.1 |
| 36° | 1534.5 | 1370.1 | 1247.6 | 1168.5 | 1132.1 | 1136.8 |
| 36.5° | 1504.4 | 1343.5 | 1223.3 | 1146.6 | 1111.0 | 1116.0 |
| 37° | 1473.8 | 1316.9 | 1199.8 | 1124.3 | 1089.8 | 1094.9 |
| 37.5° | 1443.7 | 1290.2 | 1175.2 | 1102.7 | 1069.1 | 1074.6 |
| 38° | 1413.2 | 1262.8 | 1152.1 | 1080.0 | 1047.5 | 1053.8 |
| 38.5° | 1382.6 | 1235.8 | 1127.8 | 1058.1 | 1026.8 | 1033.1 |
| 39° | 1351.7 | 1209.2 | 1103.9 | 1036.6 | 1005.7 | 1012.7 |
| 39.5° | 1320.8 | 1182.6 | 1079.6 | 1014.7 | 984.9 | 992.0 |
| 40° | 1289.9 | 1155.2 | 1055.8 | 992.0 | 964.2 | 971.2 |
| 40.5° | 1258.9 | 1128.2 | 1031.5 | 969.6 | 943.4 | 950.8 |
| 41° | 1228.4 | 1101.2 | 1007.2 | 947.7 | 923.1 | 930.1 |
| 41.5° | 1197.1 | 1074.6 | 983.3 | 926.2 | 902.3 | 909.7 |
| 42° | 1166.9 | 1047.9 | 960.2 | 905.0 | 882.0 | 889.0 |
| 42.5° | 1136.4 | 1021.3 | 936.8 | 884.3 | 862.0 | 869.0 |
| 43° | 1106.3 | 994.7 | 913.7 | 863.2 | 842.0 | 848.7 |
| 43.5° | 1076.1 | 968.1 | 891.0 | 842.4 | 822.1 | 828.3 |

TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 45° | 989.6 | 890.2 | 824.0 | 781.0 | 761.8 | 768.4 |
| 45.5° | 961.4 | 865.1 | 801.7 | 761.0 | 741.8 | 748.5 |
| 46° | 934.0 | 840.9 | 780.6 | 741.4 | 722.6 | 729.3 |
| 46.5° | 906.2 | 816.2 | 759.0 | 721.5 | 703.1 | 709.7 |
| 47° | 878.8 | 792.7 | 737.9 | 702.3 | 684.3 | 690.1 |
| 47.5° | 853.0 | 768.8 | 716.8 | 683.1 | 665.9 | 671.0 |
| 48° | 827.5 | 745.7 | 695.6 | 663.5 | 647.5 | 651.8 |
| 48.5° | 802.5 | 723.4 | 674.9 | 644.7 | 628.7 | 633.0 |
| 49° | 778.2 | 701.1 | 655.3 | 626.3 | 611.1 | 614.6 |
| 49.5° | 753.9 | 680.4 | 635.7 | 607.5 | 593.4 | 596.2 |
| 50° | 731.2 | 658.8 | 616.2 | 589.5 | 575.4 | 577.8 |
| 50.5° | 708.1 | 638.1 | 596.6 | 571.5 | 557.8 | 560.2 |
| 51° | 685.8 | 618.1 | 577.8 | 553.5 | 541.4 | 542.6 |
| 51.5° | 665.1 | 598.9 | 559.8 | 535.9 | 524.6 | 525.3 |
| 52° | 644.7 | 579.7 | 542.2 | 519.5 | 508.1 | 508.5 |
| 52.5° | 624.0 | 561.0 | 524.6 | 502.6 | 491.7 | 492.1 |
| 53° | 604.4 | 543.0 | 507.3 | 485.8 | 475.6 | 476.0 |
| 53.5° | 585.2 | 525.3 | 490.5 | 469.4 | 459.6 | 460.0 |
| 54° | 566.8 | 508.1 | 474.1 | 453.3 | 443.9 | 445.1 |
| 54.5° | 548.4 | 491.7 | 458.4 | 437.6 | 428.6 | 430.2 |
| 55° | 531.6 | 475.6 | 443.1 | 422.4 | 414.2 | 415.7 |
| 55.5° | 514.4 | 460.0 | 427.5 | 407.5 | 399.3 | 401.6 |
| 56° | 497.9 | 444.7 | 413.0 | 393.0 | 385.6 | 388.7 |
| 56.5° | 481.9 | 429.8 | 398.5 | 378.9 | 371.5 | 375.8 |
| 57° | 466.6 | 415.3 | 384.4 | 365.2 | 358.2 | 363.7 |
| 57.5° | 451.4 | 401.2 | 371.1 | 351.9 | 345.7 | 351.9 |
| 58° | 436.9 | 387.5 | 357.8 | 339.4 | 333.5 | 341.7 |
| 58.5° | 422.4 | 374.6 | 345.3 | 326.9 | 322.2 | 331.6 |
| 59° | 408.3 | 361.7 | 332.7 | 315.1 | 311.2 | 322.6 |
| 59.5° | 395.0 | 349.2 | 321.0 | 303.8 | 301.0 | 314.3 |
| 60° | 381.7 | 337.0 | 309.3 | 292.4 | 291.6 | 308.1 |
| 60.5° | 369.1 | 324.9 | 297.5 | 281.8 | 282.6 | 301.4 |
| 61° | 357.0 | 313.6 | 286.9 | 271.7 | 274.0 | 294.4 |
| 61.5° | 344.5 | 302.2 | 276.0 | 261.9 | 266.6 | 287.3 |
| 62° | 333.1 | 291.6 | 265.8 | 252.9 | 259.9 | 279.9 |
| 62.5° | 321.4 | 280.7 | 256.0 | 243.9 | 253.3 | 272.5 |
| 63° | 310.0 | 270.1 | 245.8 | 234.9 | 246.6 | 265.0 |
| 63.5° | 298.3 | 259.9 | 236.4 | 226.7 | 240.0 | 258.0 |
| 64° | 288.1 | 250.1 | 227.4 | 218.8 | 233.3 | 250.5 |
| 64.5° | 277.5 | 240.7 | 218.8 | 211.4 | 226.7 | 243.5 |
| 65° | 267.0 | 231.4 | 210.2 | 203.9 | 220.4 | 236.4 |
| 65.5° | 256.8 | 222.0 | 201.6 | 196.9 | 214.1 | 229.4 |
| 66° | 247.0 | 213.0 | 193.8 | 190.2 | 207.5 | 222.3 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 67.5° | 218.4 | 187.5 | 171.1 | 172.2 | 189.1 | 202.0 |
| 68° | 209.0 | 179.7 | 164.0 | 166.8 | 182.8 | 195.7 |
| 68.5° | 200.4 | 171.8 | 157.4 | 161.7 | 176.5 | 189.1 |
| 69° | 191.8 | 164.4 | 150.7 | 156.2 | 170.7 | 182.8 |
| 69.5° | 183.2 | 157.0 | 144.4 | 151.1 | 164.4 | 176.2 |
| 70° | 175.0 | 149.5 | 139.0 | 146.0 | 158.9 | 169.9 |
| 70.5° | 166.8 | 142.9 | 133.1 | 140.5 | 153.1 | 163.6 |
| 71° | 159.3 | 136.6 | 127.6 | 135.4 | 147.2 | 157.8 |
| 71.5° | 151.5 | 130.0 | 122.1 | 130.7 | 141.3 | 151.9 |
| 72° | 143.7 | 123.7 | 116.3 | 126.0 | 135.8 | 146.0 |
| 72.5° | 136.6 | 117.4 | 111.2 | 121.4 | 130.7 | 141.3 |
| 73° | 129.6 | 111.2 | 106.1 | 116.7 | 125.3 | 135.4 |
| 73.5° | 122.5 | 104.9 | 101.4 | 111.6 | 120.2 | 130.0 |
| 74° | 115.5 | 99.4 | 96.7 | 106.9 | 114.7 | 124.1 |
| 74.5° | 109.2 | 93.9 | 92.4 | 102.2 | 109.6 | 118.2 |
| 75° | 103.0 | 88.9 | 88.1 | 97.5 | 104.5 | 112.7 |
| 75.5° | 96.7 | 83.8 | 83.8 | 93.2 | 99.4 | 107.7 |
| 76° | 90.8 | 78.7 | 79.5 | 88.5 | 94.3 | 102.2 |
| 76.5° | 84.9 | 74.0 | 75.6 | 83.8 | 89.6 | 97.1 |
| 77° | 79.5 | 69.3 | 71.6 | 79.5 | 84.6 | 92.0 |
| 77.5° | 74.0 | 65.0 | 67.7 | 75.2 | 79.9 | 86.9 |
| 78° | 68.9 | 60.7 | 63.8 | 70.9 | 75.2 | 81.8 |
| 78.5° | 63.4 | 56.4 | 59.9 | 66.5 | 70.5 | 77.1 |
| 79° | 58.7 | 52.1 | 56.4 | 62.2 | 65.8 | 72.0 |
| 79.5° | 54.0 | 48.1 | 52.5 | 57.9 | 61.1 | 67.3 |
| 80° | 49.3 | 44.6 | 48.9 | 54.0 | 56.8 | 62.6 |
| 80.5° | 45.0 | 41.1 | 45.4 | 50.1 | 52.1 | 58.3 |
| 81° | 40.7 | 37.6 | 41.9 | 46.2 | 47.8 | 53.6 |
| 81.5° | 36.8 | 34.1 | 38.0 | 42.3 | 43.5 | 48.9 |
| 82° | 33.3 | 30.5 | 34.8 | 38.4 | 39.1 | 44.6 |
| 82.5° | 29.4 | 27.4 | 31.3 | 34.4 | 34.8 | 40.3 |
| 83° | 25.4 | 24.3 | 27.8 | 30.9 | 30.5 | 36.0 |
| 83.5° | 21.9 | 21.1 | 24.7 | 27.4 | 26.6 | 32.1 |
| 84° | 18.4 | 18.0 | 21.1 | 23.9 | 22.7 | 27.8 |
| 84.5° | 15.3 | 15.3 | 18.0 | 20.7 | 19.2 | 23.5 |
| 85° | 12.5 | 12.5 | 14.9 | 17.2 | 16.0 | 19.6 |
| 85.5° | 9.4 | 9.8 | 11.7 | 14.1 | 13.7 | 15.7 |
| 86° | 7.0 | 6.7 | 8.6 | 11.4 | 11.4 | 13.3 |
| 86.5° | 4.7 | 3.9 | 5.9 | 8.2 | 9.0 | 11.0 |
| 87° | 2.3 | 1.6 | 2.7 | 5.5 | 6.7 | 8.6 |
| 87.5° | 0.8 | 0.4 | 0.8 | 2.3 | 4.3 | 5.9 |
| 88° | 0.0 | 0.0 | 0.0 | 0.4 | 2.3 | 4.3 |
| 88.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 2.3 |



TEST NUMBER: P776371

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRH-HCD62TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1740.0 | 1782.7 | 1863.7 | 1978.0 | 2124.8 | 2263.8 | 2379.7 | 2447.4 | 2455.2 | 2403.9 | 2300.2 |
| 22° | 1719.7 | 1762.7 | 1844.5 | 1960.4 | 2108.8 | 2249.3 | 2367.5 | 2436.4 | 2444.7 | 2392.6 | 2287.7 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 44° | 808.4 | 853.4 | 926.6 | 1016.2 | 1133.3 | 1240.9 | 1319.6 | 1345.4 | 1318.4 | 1250.3 | 1153.2 |
| 44.5° | 788.4 | 833.8 | 905.4 | 993.1 | 1107.0 | 1209.6 | 1285.2 | 1309.8 | 1283.6 | 1215.9 | 1121.5 |



| | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 66.5° | 215.3 | 226.7 | 228.6 | 248.2 | 282.6 | 312.4 | 342.1 | 359.4 | 352.3 | 324.5 | 280.3 |
| 67° | 208.6 | 220.0 | 221.6 | 239.2 | 272.1 | 301.0 | 330.8 | 347.6 | 340.2 | 312.8 | 270.1 |



| | | | | | | | | | | | |
|-------|-----|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| 89° | 1.2 | 4.3 | 10.2 | 11.7 | 11.7 | 9.4 | 5.5 | 2.0 | 0.4 | 0.0 | 0.0 |
| 89.5° | 0.0 | 2.3 | 7.0 | 8.6 | 9.0 | 6.7 | 3.5 | 0.8 | 0.0 | 0.0 | 0.0 |

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





| | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 2161.6 | 2009.0 | 1877.0 | 1784.7 | 1738.5 | 1740.0 |
| 22° | 2146.0 | 1991.7 | 1858.6 | 1764.7 | 1718.1 | 1719.7 |



| | | | | | | |
|-------|--------|-------|-------|-------|-------|-------|
| 44° | 1046.8 | 941.8 | 868.6 | 821.3 | 801.7 | 808.4 |
| 44.5° | 1018.2 | 916.4 | 846.3 | 801.3 | 781.7 | 788.4 |



| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 66.5° | 237.2 | 204.3 | 185.9 | 184.0 | 201.2 | 215.3 |
| 67° | 227.4 | 196.1 | 178.5 | 178.1 | 194.9 | 208.6 |

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 1.2 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)