

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: P776000

Luminaire Tested: HCDJBS1525CSD-HCD4TSQC-2500lm-2700K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776000  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2310613A001)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K  
Description: 4 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

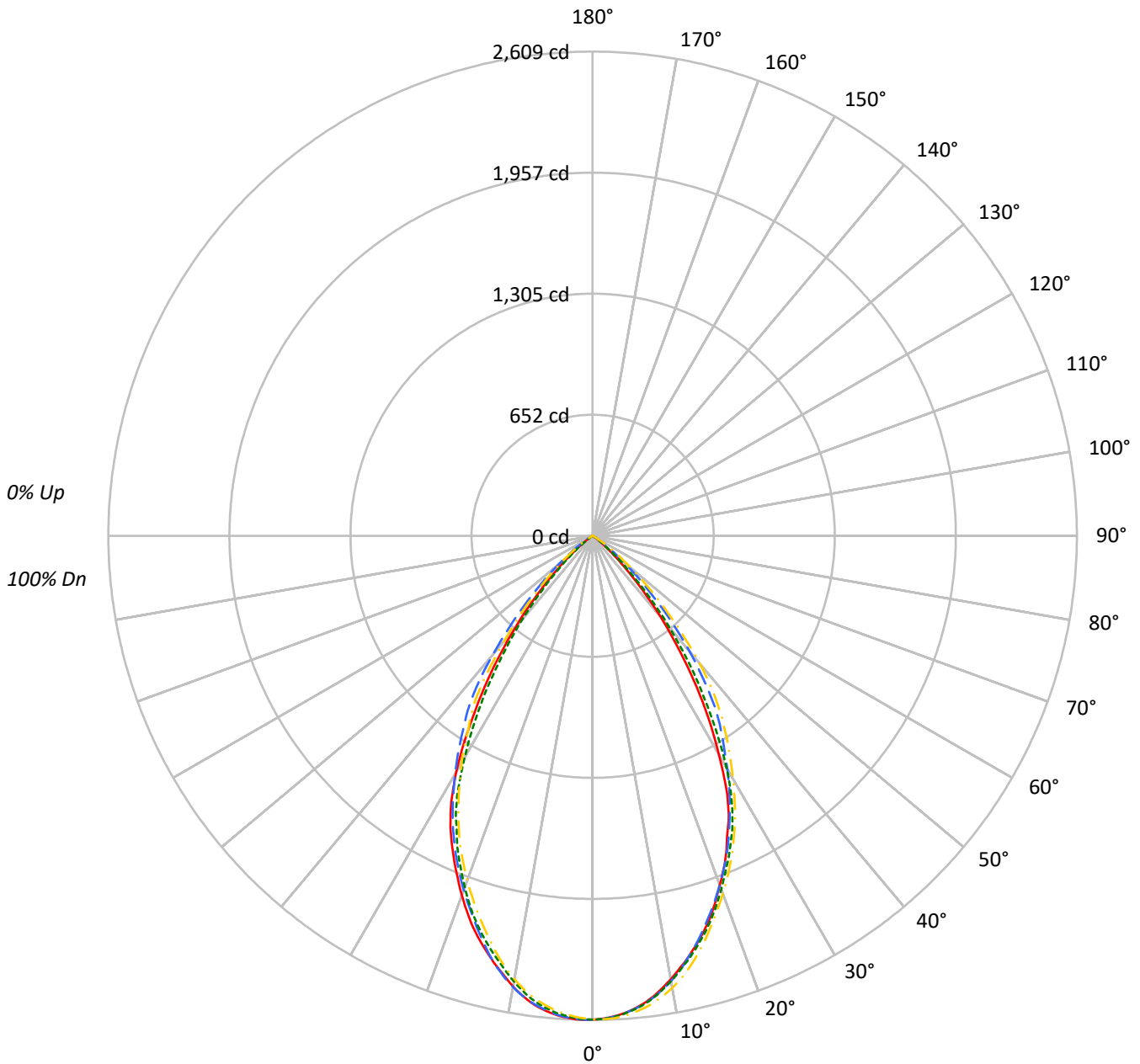
Lumens per Lamp: N/A  
Luminaire Lumens: 2696.7 lumens  
Efficiency: N/A  
Efficacy: 107.9 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.93 / 0.98  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P776000  
CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P776000

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TSQC-2500lm-2700K

**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   | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99  | 98  | 97  | 96  | 95  | 93  |    |    | 93  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 96  | 93  | 97  | 94  | 91  | 94  | 91  | 89  | 91  | 89  | 87  | 86  |    |    | 86  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 101 | 95  | 89  | 85  | 99  | 93  | 88  | 84  | 90  | 86  | 83  | 88  | 85  | 82  | 86  | 83  | 80  | 79  |    |    | 79  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 96  | 88  | 82  | 77  | 94  | 87  | 81  | 77  | 84  | 80  | 76  | 82  | 78  | 75  | 80  | 77  | 74  | 73  |    |    | 73  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 90  | 82  | 75  | 71  | 89  | 81  | 75  | 70  | 79  | 74  | 70  | 77  | 73  | 69  | 75  | 72  | 69  | 67  |    |    | 67  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 85  | 76  | 70  | 65  | 84  | 75  | 69  | 65  | 74  | 68  | 64  | 72  | 68  | 64  | 71  | 67  | 64  | 62  |    |    | 62  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 81  | 71  | 65  | 60  | 79  | 70  | 64  | 60  | 69  | 64  | 60  | 68  | 63  | 59  | 67  | 62  | 59  | 57  |    |    | 57  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 77  | 66  | 60  | 56  | 75  | 66  | 60  | 56  | 65  | 59  | 55  | 64  | 59  | 55  | 63  | 58  | 55  | 53  |    |    | 53  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 73  | 62  | 56  | 52  | 71  | 62  | 56  | 52  | 61  | 55  | 52  | 60  | 55  | 51  | 59  | 55  | 51  | 50  |    |    | 50  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 69  | 59  | 53  | 48  | 68  | 58  | 52  | 48  | 57  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 48  | 47  |    |    | 47  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 90°    | 180°   | 270°   |
|-----|--------|--------|--------|--------|
| 0°  | 257682 | 257682 | 257682 | 257682 |
| 5°  | 253953 | 254390 | 256096 | 254826 |
| 10° | 243520 | 244544 | 247585 | 244805 |
| 15° | 229462 | 230680 | 233975 | 230087 |
| 20° | 210718 | 213138 | 216735 | 211886 |
| 25° | 188336 | 193375 | 196418 | 189078 |
| 30° | 155427 | 164660 | 167753 | 157196 |
| 35° | 114353 | 123681 | 126058 | 117044 |
| 40° | 73173  | 82772  | 84398  | 76089  |
| 45° | 37015  | 45276  | 46660  | 39755  |
| 50° | 13009  | 17330  | 18437  | 14747  |
| 55° | 2430   | 3136   | 3550   | 3515   |
| 60° | 909    | 870    | 771    | 1048   |
| 65° | 725    | 678    | 631    | 795    |
| 70° | 549    | 549    | 491    | 636    |
| 75° | 458    | 458    | 382    | 573    |
| 80° | 285    | 285    | 285    | 398    |
| 85° | 227    | 227    | 0      | 227    |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 135°  
 Vertical Angle: 45°  
 Luminance: 75218 cd/sqm



TEST NUMBER: P776000

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 241.3  | 8.9       |
| 10°-20°   | 631.3  | 23.4      |
| 20°-30°   | 801.7  | 29.7      |
| 30°-40°   | 662.9  | 24.6      |
| 40°-50°   | 303.4  | 11.2      |
| 50°-60°   | 51.0   | 1.9       |
| 60°-70°   | 3.6    | 0.1       |
| 70°-80°   | 1.4    | 0.1       |
| 80°-90°   | 0.2    | 0.0       |
| 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°    | 1674.2 | 62.1      |
| 0°-40°    | 2337.1 | 86.7      |
| 0°-60°    | 2691.5 | 99.8      |
| 0°-90°    | 2696.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2696.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2607 | 2607 | 2607 | 2607 | 2607 |      |
| 5°  | 2560 | 2564 | 2581 | 2568 | 2560 | 240  |
| 15° | 2242 | 2254 | 2286 | 2248 | 2242 | 627  |
| 25° | 1727 | 1773 | 1801 | 1734 | 1727 | 784  |
| 35° | 948  | 1025 | 1045 | 970  | 948  | 589  |
| 45° | 265  | 324  | 334  | 284  | 265  | 215  |
| 55° | 14   | 18   | 21   | 20   | 14   | 23   |
| 65° | 3    | 3    | 3    | 3    | 3    | 3    |
| 75° | 1    | 1    | 1    | 2    | 1    | 1    |
| 85° | 0    | 0    | 0    | 0    | 0    | 0    |
| 90° | 0    | 0    | 0    | 0    | 0    | 0    |



TEST NUMBER: P776000

CATALOG NUMBER: HCDJBL5125CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 |
| 0.5°  | 2606.5 | 2606.8 | 2606.8 | 2605.6 | 2606.5 | 2606.5 | 2606.5 | 2607.5 | 2609.0 | 2609.2 | 2608.7 |
| 1°    | 2603.9 | 2604.6 | 2604.9 | 2604.1 | 2605.3 | 2605.8 | 2606.5 | 2607.5 | 2609.0 | 2609.0 | 2608.2 |
| 1.5°  | 2601.2 | 2601.7 | 2602.2 | 2601.9 | 2602.9 | 2603.9 | 2605.6 | 2606.5 | 2608.2 | 2608.7 | 2607.0 |
| 2°    | 2597.1 | 2597.8 | 2598.6 | 2598.3 | 2599.8 | 2601.9 | 2603.9 | 2604.9 | 2606.8 | 2607.5 | 2605.6 |
| 2.5°  | 2592.5 | 2593.2 | 2594.2 | 2594.2 | 2595.6 | 2598.6 | 2601.9 | 2602.2 | 2604.1 | 2604.9 | 2603.6 |
| 3°    | 2587.9 | 2588.4 | 2588.9 | 2589.3 | 2591.0 | 2594.4 | 2598.6 | 2599.0 | 2601.2 | 2601.5 | 2599.8 |
| 3.5°  | 2582.1 | 2582.3 | 2583.0 | 2583.8 | 2585.5 | 2590.1 | 2594.9 | 2594.2 | 2597.3 | 2597.6 | 2595.4 |
| 4°    | 2575.8 | 2575.8 | 2576.3 | 2577.5 | 2579.2 | 2584.5 | 2589.8 | 2589.6 | 2592.7 | 2592.7 | 2590.3 |
| 4.5°  | 2568.0 | 2568.5 | 2569.5 | 2570.7 | 2572.4 | 2578.7 | 2584.3 | 2583.8 | 2587.7 | 2587.4 | 2584.5 |
| 5°    | 2559.5 | 2559.8 | 2561.5 | 2562.9 | 2563.9 | 2571.7 | 2578.2 | 2577.5 | 2581.1 | 2581.6 | 2577.7 |
| 5.5°  | 2550.1 | 2550.6 | 2552.8 | 2554.5 | 2555.7 | 2563.7 | 2571.4 | 2570.4 | 2574.1 | 2574.6 | 2570.7 |
| 6°    | 2539.7 | 2540.2 | 2543.3 | 2544.8 | 2546.0 | 2555.4 | 2563.2 | 2562.2 | 2566.3 | 2566.6 | 2562.5 |
| 6.5°  | 2528.8 | 2529.0 | 2532.7 | 2534.8 | 2535.6 | 2545.7 | 2554.9 | 2553.5 | 2558.1 | 2558.1 | 2554.5 |
| 7°    | 2516.4 | 2516.9 | 2521.3 | 2523.9 | 2524.4 | 2535.1 | 2546.0 | 2543.8 | 2548.4 | 2548.6 | 2544.8 |
| 7.5°  | 2503.8 | 2503.8 | 2509.4 | 2512.1 | 2511.6 | 2523.7 | 2535.8 | 2533.6 | 2537.3 | 2538.5 | 2534.6 |
| 8°    | 2490.0 | 2490.3 | 2495.6 | 2499.5 | 2498.3 | 2511.1 | 2524.9 | 2521.8 | 2525.1 | 2526.4 | 2523.2 |
| 8.5°  | 2475.2 | 2476.2 | 2482.3 | 2485.7 | 2483.5 | 2497.8 | 2513.3 | 2509.4 | 2512.1 | 2514.5 | 2510.9 |
| 9°    | 2458.5 | 2460.5 | 2467.2 | 2470.6 | 2468.5 | 2483.7 | 2500.7 | 2495.6 | 2497.5 | 2500.7 | 2498.5 |
| 9.5°  | 2442.0 | 2444.2 | 2452.0 | 2455.4 | 2452.7 | 2468.7 | 2487.6 | 2480.8 | 2482.7 | 2486.1 | 2484.7 |
| 10°   | 2426.3 | 2427.3 | 2435.5 | 2439.4 | 2436.5 | 2453.7 | 2473.5 | 2465.5 | 2466.8 | 2470.6 | 2469.2 |
| 10.5° | 2408.9 | 2410.1 | 2418.8 | 2422.2 | 2419.5 | 2438.2 | 2458.3 | 2448.8 | 2450.0 | 2454.4 | 2453.4 |
| 11°   | 2391.7 | 2392.9 | 2401.1 | 2405.0 | 2402.6 | 2420.7 | 2441.6 | 2431.9 | 2432.1 | 2437.9 | 2437.2 |
| 11.5° | 2373.7 | 2375.2 | 2382.0 | 2386.6 | 2384.4 | 2403.8 | 2425.6 | 2413.5 | 2413.5 | 2420.0 | 2419.8 |
| 12°   | 2356.5 | 2357.0 | 2362.6 | 2367.4 | 2366.5 | 2386.3 | 2407.9 | 2395.0 | 2395.5 | 2400.9 | 2400.4 |
| 12.5° | 2338.6 | 2338.6 | 2341.3 | 2348.8 | 2348.8 | 2368.4 | 2388.7 | 2375.7 | 2378.6 | 2382.5 | 2382.2 |
| 13°   | 2319.7 | 2320.2 | 2321.2 | 2329.2 | 2331.1 | 2350.5 | 2369.4 | 2356.0 | 2361.1 | 2364.0 | 2361.1 |
| 13.5° | 2300.8 | 2300.8 | 2300.3 | 2309.0 | 2312.2 | 2332.3 | 2350.5 | 2336.9 | 2342.7 | 2344.2 | 2339.6 |
| 14°   | 2281.7 | 2281.2 | 2278.5 | 2289.4 | 2293.1 | 2313.6 | 2328.2 | 2317.5 | 2324.1 | 2324.8 | 2317.0 |
| 14.5° | 2262.0 | 2261.3 | 2256.7 | 2269.1 | 2273.9 | 2294.8 | 2306.9 | 2297.9 | 2305.4 | 2305.7 | 2294.8 |
| 15°   | 2242.4 | 2241.5 | 2235.4 | 2249.2 | 2254.3 | 2275.4 | 2285.3 | 2278.3 | 2286.5 | 2286.0 | 2270.3 |
| 15.5° | 2222.6 | 2220.9 | 2212.1 | 2228.4 | 2234.4 | 2255.5 | 2262.5 | 2257.4 | 2266.4 | 2265.7 | 2246.3 |
| 16°   | 2201.0 | 2198.8 | 2189.8 | 2206.6 | 2213.8 | 2235.2 | 2238.8 | 2237.1 | 2247.0 | 2245.8 | 2221.8 |
| 16.5° | 2179.7 | 2178.7 | 2166.8 | 2184.8 | 2192.8 | 2215.5 | 2215.8 | 2216.0 | 2226.2 | 2224.7 | 2198.6 |
| 17°   | 2157.4 | 2157.1 | 2144.1 | 2163.0 | 2171.0 | 2193.5 | 2192.0 | 2194.7 | 2204.6 | 2203.4 | 2173.9 |
| 17.5° | 2133.9 | 2134.6 | 2120.8 | 2140.7 | 2147.9 | 2172.2 | 2168.5 | 2172.4 | 2181.9 | 2182.1 | 2150.1 |
| 18°   | 2108.4 | 2109.7 | 2097.5 | 2118.1 | 2124.2 | 2149.9 | 2145.5 | 2149.6 | 2158.4 | 2160.0 | 2125.6 |
| 18.5° | 2082.0 | 2086.6 | 2074.3 | 2094.2 | 2100.5 | 2127.3 | 2122.5 | 2125.9 | 2134.4 | 2136.3 | 2102.1 |
| 19°   | 2055.1 | 2060.5 | 2050.5 | 2069.7 | 2076.2 | 2102.6 | 2099.0 | 2101.9 | 2110.6 | 2112.3 | 2078.6 |
| 19.5° | 2029.7 | 2033.6 | 2026.3 | 2044.2 | 2051.5 | 2079.4 | 2075.7 | 2077.9 | 2085.9 | 2087.4 | 2054.9 |
| 20°   | 2003.3 | 2006.9 | 2002.8 | 2019.5 | 2026.3 | 2053.9 | 2052.0 | 2052.0 | 2060.5 | 2062.4 | 2030.7 |
| 20.5° | 1977.6 | 1980.5 | 1979.1 | 1993.6 | 2000.9 | 2028.7 | 2028.0 | 2026.3 | 2034.8 | 2036.7 | 2006.2 |
| 21°   | 1952.4 | 1953.9 | 1954.6 | 1967.7 | 1975.0 | 2002.8 | 2003.8 | 2000.4 | 2009.1 | 2010.8 | 1981.0 |



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CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1873.7 | 1874.9 | 1879.3 | 1888.0 | 1901.6 | 1923.6 | 1930.4 | 1920.0 | 1932.3 | 1930.9 | 1906.6 |
| 23°   | 1843.2 | 1848.7 | 1852.9 | 1861.1 | 1876.6 | 1896.9 | 1905.4 | 1892.6 | 1907.4 | 1904.0 | 1880.7 |
| 23.5° | 1810.9 | 1820.9 | 1825.5 | 1832.3 | 1850.7 | 1871.8 | 1880.2 | 1865.2 | 1881.4 | 1876.8 | 1856.0 |
| 24°   | 1780.2 | 1790.8 | 1798.1 | 1806.6 | 1824.8 | 1843.6 | 1854.3 | 1837.8 | 1854.3 | 1849.5 | 1828.6 |
| 24.5° | 1753.5 | 1759.3 | 1769.8 | 1780.9 | 1799.1 | 1815.8 | 1827.2 | 1810.7 | 1827.7 | 1822.1 | 1801.0 |
| 25°   | 1726.9 | 1726.4 | 1741.2 | 1754.7 | 1773.1 | 1787.9 | 1800.0 | 1783.3 | 1801.0 | 1794.5 | 1773.6 |
| 25.5° | 1700.5 | 1696.4 | 1712.3 | 1724.9 | 1747.2 | 1759.8 | 1772.9 | 1755.9 | 1774.6 | 1767.1 | 1746.3 |
| 26°   | 1672.6 | 1669.0 | 1683.8 | 1695.1 | 1717.9 | 1732.0 | 1745.8 | 1728.8 | 1748.0 | 1739.7 | 1720.1 |
| 26.5° | 1638.0 | 1642.6 | 1655.2 | 1664.9 | 1687.1 | 1706.5 | 1719.4 | 1697.3 | 1716.7 | 1708.2 | 1690.8 |
| 27°   | 1604.5 | 1615.4 | 1627.1 | 1638.2 | 1657.3 | 1680.6 | 1690.1 | 1669.2 | 1686.7 | 1681.6 | 1661.0 |
| 27.5° | 1570.1 | 1587.3 | 1598.5 | 1612.8 | 1624.2 | 1652.7 | 1661.0 | 1643.1 | 1654.2 | 1652.7 | 1631.2 |
| 28°   | 1528.7 | 1551.7 | 1570.6 | 1587.1 | 1591.0 | 1620.3 | 1630.5 | 1614.7 | 1620.5 | 1620.5 | 1600.2 |
| 28.5° | 1486.1 | 1517.8 | 1541.3 | 1556.1 | 1555.4 | 1589.3 | 1601.1 | 1583.7 | 1584.2 | 1590.5 | 1570.1 |
| 29°   | 1444.4 | 1483.9 | 1512.2 | 1525.8 | 1519.5 | 1557.0 | 1571.6 | 1554.4 | 1547.6 | 1557.5 | 1539.8 |
| 29.5° | 1403.2 | 1444.6 | 1481.5 | 1495.8 | 1481.9 | 1523.1 | 1542.3 | 1522.2 | 1508.6 | 1523.1 | 1509.8 |
| 30°   | 1361.8 | 1403.5 | 1450.9 | 1464.0 | 1442.7 | 1488.0 | 1513.9 | 1488.7 | 1469.8 | 1488.2 | 1479.5 |
| 30.5° | 1320.4 | 1362.0 | 1419.2 | 1430.3 | 1401.0 | 1451.2 | 1484.6 | 1454.8 | 1428.6 | 1451.9 | 1450.2 |
| 31°   | 1279.2 | 1321.3 | 1389.2 | 1395.7 | 1359.6 | 1414.8 | 1454.1 | 1419.7 | 1385.3 | 1415.3 | 1421.4 |
| 31.5° | 1238.7 | 1280.9 | 1359.6 | 1360.6 | 1316.7 | 1376.8 | 1423.3 | 1383.8 | 1342.2 | 1376.6 | 1392.5 |
| 32°   | 1198.7 | 1241.6 | 1333.2 | 1324.5 | 1273.6 | 1338.0 | 1392.3 | 1346.0 | 1299.3 | 1337.8 | 1362.3 |
| 32.5° | 1158.0 | 1201.6 | 1306.1 | 1286.7 | 1229.7 | 1298.1 | 1364.7 | 1307.3 | 1254.7 | 1297.6 | 1330.3 |
| 33°   | 1116.1 | 1162.4 | 1279.4 | 1248.6 | 1187.8 | 1256.2 | 1337.6 | 1268.0 | 1212.1 | 1257.1 | 1300.5 |
| 33.5° | 1074.7 | 1124.1 | 1251.8 | 1209.2 | 1145.0 | 1214.7 | 1310.4 | 1227.8 | 1167.2 | 1214.7 | 1272.1 |
| 34°   | 1033.3 | 1085.1 | 1223.0 | 1169.2 | 1104.3 | 1173.3 | 1281.3 | 1186.4 | 1126.1 | 1171.6 | 1243.1 |
| 34.5° | 990.6  | 1045.9 | 1192.7 | 1128.7 | 1063.6 | 1132.1 | 1250.1 | 1145.0 | 1084.4 | 1129.9 | 1214.0 |
| 35°   | 947.7  | 1006.4 | 1166.0 | 1088.5 | 1025.0 | 1091.7 | 1223.7 | 1105.2 | 1044.7 | 1090.7 | 1188.1 |
| 35.5° | 905.4  | 966.2  | 1135.5 | 1048.0 | 985.5  | 1052.2 | 1197.8 | 1064.8 | 1002.7 | 1049.0 | 1161.9 |
| 36°   | 862.2  | 926.4  | 1099.2 | 1008.6 | 947.0  | 1013.4 | 1165.8 | 1025.3 | 963.5  | 1009.5 | 1130.2 |
| 36.5° | 824.2  | 886.0  | 1063.6 | 970.5  | 909.0  | 975.4  | 1134.5 | 986.5  | 924.0  | 969.6  | 1096.0 |
| 37°   | 786.2  | 848.4  | 1028.9 | 932.7  | 869.7  | 937.8  | 1104.7 | 948.0  | 885.7  | 933.5  | 1065.0 |
| 37.5° | 748.1  | 810.9  | 991.8  | 895.4  | 830.0  | 901.0  | 1071.3 | 910.9  | 845.8  | 895.2  | 1029.4 |
| 38°   | 709.8  | 773.3  | 955.0  | 856.4  | 791.5  | 864.6  | 1037.9 | 874.3  | 805.3  | 859.1  | 992.1  |
| 38.5° | 673.5  | 735.5  | 918.4  | 822.0  | 753.0  | 828.1  | 1004.7 | 838.5  | 766.3  | 822.7  | 954.0  |
| 39°   | 637.9  | 698.2  | 882.3  | 787.4  | 715.2  | 793.7  | 968.3  | 802.6  | 729.2  | 786.9  | 915.5  |
| 39.5° | 601.8  | 663.3  | 846.0  | 753.0  | 677.9  | 756.8  | 932.0  | 766.0  | 690.9  | 750.5  | 876.0  |
| 40°   | 567.1  | 629.4  | 809.9  | 718.6  | 641.5  | 720.7  | 895.9  | 730.7  | 654.1  | 715.4  | 837.8  |
| 40.5° | 531.8  | 595.0  | 773.8  | 684.2  | 606.4  | 684.9  | 858.6  | 695.5  | 617.8  | 680.0  | 799.5  |
| 41°   | 497.6  | 562.8  | 737.7  | 650.2  | 572.2  | 651.0  | 820.8  | 660.7  | 584.1  | 645.6  | 762.2  |
| 41.5° | 464.2  | 529.8  | 701.6  | 617.1  | 539.0  | 616.6  | 782.3  | 626.3  | 549.7  | 610.8  | 725.3  |
| 42°   | 431.7  | 498.3  | 665.5  | 583.6  | 505.6  | 583.9  | 744.2  | 593.3  | 517.2  | 578.3  | 689.2  |
| 42.5° | 400.5  | 467.3  | 630.1  | 552.9  | 474.4  | 550.9  | 707.7  | 561.3  | 484.8  | 546.8  | 653.9  |
| 43°   | 371.2  | 436.6  | 594.5  | 522.3  | 442.4  | 521.4  | 671.3  | 530.3  | 452.3  | 515.3  | 620.2  |
| 43.5° | 342.8  | 406.0  | 559.2  | 492.8  | 411.4  | 489.9  | 636.4  | 500.3  | 421.5  | 485.0  | 586.8  |



TEST NUMBER: P776000

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225°  |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45°   | 264.8 | 324.2 | 462.0 | 408.9 | 323.9 | 403.9  | 538.1 | 414.5  | 333.8 | 400.2  | 491.6 |
| 45.5° | 240.6 | 298.5 | 432.7 | 382.5 | 297.3 | 376.0  | 507.1 | 387.6  | 307.0 | 373.6  | 461.8 |
| 46°   | 218.0 | 275.2 | 403.6 | 356.1 | 271.8 | 349.3  | 477.5 | 361.7  | 281.3 | 347.4  | 432.2 |
| 46.5° | 196.5 | 252.7 | 376.7 | 330.9 | 247.8 | 323.7  | 448.4 | 335.5  | 256.8 | 322.0  | 403.4 |
| 47°   | 175.9 | 230.2 | 350.3 | 306.0 | 226.5 | 299.0  | 421.1 | 310.8  | 236.0 | 298.0  | 376.0 |
| 47.5° | 157.0 | 209.1 | 325.1 | 282.7 | 205.2 | 274.5  | 393.2 | 287.6  | 215.1 | 274.7  | 349.6 |
| 48°   | 139.5 | 189.0 | 300.4 | 260.4 | 184.1 | 252.2  | 367.3 | 264.3  | 194.3 | 252.4  | 324.4 |
| 48.5° | 123.6 | 170.1 | 277.2 | 238.9 | 163.0 | 232.6  | 341.4 | 242.8  | 173.7 | 233.3  | 300.4 |
| 49°   | 109.3 | 151.9 | 254.6 | 219.0 | 144.9 | 212.7  | 317.1 | 223.6  | 152.9 | 214.2  | 277.6 |
| 49.5° | 96.2  | 135.7 | 233.3 | 200.4 | 128.4 | 193.1  | 292.7 | 204.5  | 135.9 | 195.3  | 255.3 |
| 50°   | 84.6  | 120.6 | 212.2 | 182.2 | 112.7 | 173.5  | 269.9 | 185.3  | 119.9 | 176.1  | 236.5 |
| 50.5° | 75.8  | 106.6 | 193.6 | 163.8 | 98.4  | 153.8  | 248.1 | 166.2  | 105.4 | 157.0  | 217.8 |
| 51°   | 67.1  | 93.8  | 175.2 | 147.3 | 85.5  | 137.6  | 228.9 | 149.0  | 92.3  | 141.5  | 198.9 |
| 51.5° | 58.4  | 82.6  | 158.4 | 131.6 | 73.6  | 122.6  | 209.6 | 133.2  | 79.9  | 126.5  | 180.0 |
| 52°   | 49.7  | 74.1  | 142.5 | 117.0 | 63.0  | 108.8  | 190.2 | 118.2  | 68.3  | 112.4  | 161.3 |
| 52.5° | 42.9  | 65.7  | 128.2 | 103.2 | 53.1  | 95.2   | 170.8 | 104.7  | 57.9  | 99.1   | 145.6 |
| 53°   | 36.6  | 56.9  | 113.6 | 90.1  | 44.3  | 82.9   | 154.3 | 91.3   | 48.7  | 86.7   | 130.8 |
| 53.5° | 30.5  | 48.7  | 101.8 | 79.9  | 36.3  | 71.7   | 139.1 | 79.5   | 40.2  | 75.1   | 117.3 |
| 54°   | 25.0  | 42.2  | 89.6  | 69.8  | 30.3  | 61.3   | 124.0 | 68.1   | 33.7  | 64.4   | 104.2 |
| 54.5° | 19.1  | 36.1  | 80.4  | 59.8  | 24.2  | 51.8   | 110.0 | 58.1   | 27.1  | 55.2   | 92.3  |
| 55°   | 14.1  | 30.5  | 71.7  | 49.7  | 18.2  | 43.6   | 97.4  | 48.7   | 20.6  | 46.3   | 81.4  |
| 55.5° | 10.2  | 25.0  | 62.7  | 39.7  | 12.4  | 35.4   | 85.3  | 40.2   | 14.1  | 38.3   | 71.5  |
| 56°   | 9.2   | 19.4  | 53.8  | 32.2  | 6.3   | 29.6   | 74.1  | 33.7   | 7.5   | 32.0   | 62.5  |
| 56.5° | 8.2   | 14.5  | 44.8  | 25.4  | 5.8   | 23.5   | 63.7  | 27.4   | 5.3   | 25.7   | 54.0  |
| 57°   | 7.3   | 10.2  | 37.8  | 19.4  | 5.6   | 17.7   | 54.5  | 21.1   | 5.1   | 19.6   | 46.5  |
| 57.5° | 6.3   | 9.0   | 32.2  | 13.3  | 5.3   | 11.9   | 46.0  | 14.8   | 4.8   | 13.3   | 40.0  |
| 58°   | 5.3   | 8.0   | 27.1  | 8.7   | 5.1   | 5.8    | 38.5  | 8.5    | 4.6   | 7.0    | 34.2  |
| 58.5° | 5.1   | 7.0   | 22.8  | 7.8   | 4.8   | 5.1    | 32.2  | 5.1    | 4.4   | 5.1    | 28.8  |
| 59°   | 4.8   | 6.1   | 18.9  | 6.8   | 4.6   | 4.8    | 28.1  | 4.6    | 4.1   | 4.6    | 25.4  |
| 59.5° | 4.8   | 4.8   | 15.7  | 5.8   | 4.4   | 4.6    | 24.0  | 4.4    | 3.9   | 4.6    | 22.0  |
| 60°   | 4.6   | 4.6   | 13.3  | 4.6   | 4.4   | 4.4    | 20.1  | 4.1    | 3.9   | 4.4    | 18.4  |
| 60.5° | 4.4   | 4.6   | 11.1  | 4.6   | 4.1   | 4.4    | 16.0  | 4.1    | 3.6   | 4.1    | 15.0  |
| 61°   | 4.1   | 4.4   | 9.2   | 4.4   | 3.9   | 4.1    | 11.9  | 3.9    | 3.6   | 3.9    | 11.6  |
| 61.5° | 4.1   | 4.1   | 8.0   | 4.1   | 3.9   | 3.9    | 9.7   | 3.6    | 3.4   | 3.9    | 9.4   |
| 62°   | 3.9   | 4.1   | 6.8   | 3.9   | 3.6   | 3.9    | 8.0   | 3.6    | 3.1   | 3.6    | 8.0   |
| 62.5° | 3.6   | 3.9   | 5.6   | 3.9   | 3.6   | 3.6    | 6.5   | 3.4    | 3.1   | 3.6    | 6.5   |
| 63°   | 3.6   | 3.6   | 4.4   | 3.6   | 3.4   | 3.4    | 5.3   | 3.4    | 2.9   | 3.4    | 5.3   |
| 63.5° | 3.4   | 3.6   | 3.9   | 3.6   | 3.1   | 3.4    | 4.4   | 3.1    | 2.9   | 3.1    | 4.6   |
| 64°   | 3.4   | 3.4   | 3.6   | 3.4   | 3.1   | 3.1    | 3.6   | 3.1    | 2.9   | 3.1    | 3.9   |
| 64.5° | 3.1   | 3.4   | 3.4   | 3.4   | 2.9   | 3.1    | 3.4   | 2.9    | 2.7   | 2.9    | 3.4   |
| 65°   | 3.1   | 3.1   | 3.4   | 3.1   | 2.9   | 2.9    | 3.1   | 2.9    | 2.7   | 2.9    | 3.4   |
| 65.5° | 2.9   | 3.1   | 3.1   | 3.1   | 2.9   | 2.9    | 2.9   | 2.7    | 2.4   | 2.9    | 3.1   |
| 66°   | 2.9   | 2.9   | 2.9   | 2.9   | 2.7   | 2.7    | 2.9   | 2.7    | 2.4   | 2.7    | 2.9   |





TEST NUMBER: P776000  
 CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 67.5° | 2.4 | 2.7   | 2.7 | 2.7   | 2.4 | 2.4    | 2.7  | 2.4    | 2.2  | 2.4    | 2.7  |
| 68°   | 2.4 | 2.4   | 2.7 | 2.4   | 2.2 | 2.4    | 2.4  | 2.2    | 1.9  | 2.4    | 2.4  |
| 68.5° | 2.2 | 2.4   | 2.4 | 2.4   | 2.2 | 2.2    | 2.4  | 2.2    | 1.9  | 2.2    | 2.4  |
| 69°   | 2.2 | 2.2   | 2.4 | 2.2   | 2.2 | 2.2    | 2.2  | 1.9    | 1.9  | 2.2    | 2.4  |
| 69.5° | 2.2 | 2.2   | 2.2 | 2.2   | 1.9 | 2.2    | 2.2  | 1.9    | 1.7  | 1.9    | 2.2  |
| 70°   | 1.9 | 2.2   | 2.2 | 2.2   | 1.9 | 1.9    | 2.2  | 1.9    | 1.7  | 1.9    | 2.2  |
| 70.5° | 1.9 | 1.9   | 1.9 | 1.9   | 1.9 | 1.9    | 1.9  | 1.7    | 1.7  | 1.9    | 1.9  |
| 71°   | 1.7 | 1.9   | 1.9 | 1.9   | 1.7 | 1.9    | 1.9  | 1.7    | 1.7  | 1.7    | 1.9  |
| 71.5° | 1.7 | 1.9   | 1.9 | 1.9   | 1.7 | 1.7    | 1.7  | 1.7    | 1.5  | 1.7    | 1.9  |
| 72°   | 1.7 | 1.7   | 1.7 | 1.7   | 1.7 | 1.7    | 1.7  | 1.5    | 1.5  | 1.7    | 1.7  |
| 72.5° | 1.5 | 1.7   | 1.7 | 1.7   | 1.5 | 1.7    | 1.7  | 1.5    | 1.5  | 1.5    | 1.7  |
| 73°   | 1.5 | 1.5   | 1.7 | 1.7   | 1.5 | 1.5    | 1.5  | 1.5    | 1.2  | 1.5    | 1.7  |
| 73.5° | 1.5 | 1.5   | 1.5 | 1.5   | 1.5 | 1.5    | 1.5  | 1.5    | 1.2  | 1.5    | 1.5  |
| 74°   | 1.2 | 1.5   | 1.5 | 1.5   | 1.2 | 1.5    | 1.5  | 1.2    | 1.2  | 1.5    | 1.5  |
| 74.5° | 1.2 | 1.2   | 1.5 | 1.5   | 1.2 | 1.2    | 1.5  | 1.2    | 1.2  | 1.2    | 1.5  |
| 75°   | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 | 1.2    | 1.2  | 1.2    | 1.0  | 1.2    | 1.2  |
| 75.5° | 1.2 | 1.2   | 1.2 | 1.2   | 1.2 | 1.2    | 1.2  | 1.0    | 1.0  | 1.2    | 1.2  |
| 76°   | 1.0 | 1.2   | 1.2 | 1.2   | 1.0 | 1.2    | 1.2  | 1.0    | 1.0  | 1.0    | 1.2  |
| 76.5° | 1.0 | 1.0   | 1.2 | 1.2   | 1.0 | 1.0    | 1.2  | 1.0    | 1.0  | 1.0    | 1.2  |
| 77°   | 1.0 | 1.0   | 1.0 | 1.0   | 1.0 | 1.0    | 1.0  | 1.0    | 0.7  | 1.0    | 1.0  |
| 77.5° | 1.0 | 1.0   | 1.0 | 1.0   | 1.0 | 1.0    | 1.0  | 0.7    | 0.7  | 1.0    | 1.0  |
| 78°   | 0.7 | 0.7   | 1.0 | 1.0   | 0.7 | 1.0    | 1.0  | 0.7    | 0.7  | 0.7    | 1.0  |
| 78.5° | 0.7 | 0.7   | 1.0 | 0.7   | 0.7 | 0.7    | 1.0  | 0.7    | 0.7  | 0.7    | 1.0  |
| 79°   | 0.7 | 0.7   | 0.7 | 0.7   | 0.7 | 0.7    | 0.7  | 0.7    | 0.5  | 0.7    | 0.7  |
| 79.5° | 0.7 | 0.7   | 0.7 | 0.7   | 0.7 | 0.7    | 0.7  | 0.5    | 0.5  | 0.7    | 0.7  |
| 80°   | 0.5 | 0.5   | 0.7 | 0.7   | 0.5 | 0.7    | 0.7  | 0.5    | 0.5  | 0.5    | 0.7  |
| 80.5° | 0.5 | 0.5   | 0.7 | 0.7   | 0.5 | 0.7    | 0.7  | 0.5    | 0.5  | 0.5    | 0.7  |
| 81°   | 0.5 | 0.5   | 0.7 | 0.5   | 0.5 | 0.5    | 0.7  | 0.5    | 0.5  | 0.5    | 0.5  |
| 81.5° | 0.5 | 0.5   | 0.5 | 0.5   | 0.5 | 0.5    | 0.5  | 0.2    | 0.5  | 0.5    | 0.5  |
| 82°   | 0.5 | 0.2   | 0.5 | 0.5   | 0.5 | 0.5    | 0.5  | 0.2    | 0.2  | 0.2    | 0.5  |
| 82.5° | 0.2 | 0.2   | 0.5 | 0.5   | 0.5 | 0.5    | 0.5  | 0.2    | 0.2  | 0.2    | 0.5  |
| 83°   | 0.2 | 0.2   | 0.5 | 0.5   | 0.2 | 0.5    | 0.5  | 0.2    | 0.2  | 0.2    | 0.5  |
| 83.5° | 0.2 | 0.2   | 0.5 | 0.2   | 0.2 | 0.2    | 0.5  | 0.2    | 0.2  | 0.2    | 0.2  |
| 84°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 84.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.0    | 0.2  | 0.2    | 0.2  |
| 85°   | 0.2 | 0.0   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.0    | 0.0  | 0.0    | 0.2  |
| 85.5° | 0.0 | 0.0   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.0    | 0.0  | 0.0    | 0.2  |
| 86°   | 0.0 | 0.0   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.0    | 0.0  | 0.0    | 0.2  |
| 86.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.2    | 0.2  | 0.0    | 0.0  | 0.0    | 0.2  |
| 87°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 87.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 88°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 88.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |



TEST NUMBER: P776000  
CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |



TEST NUMBER: P776000

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|-------|--------|--------|--------|--------|--------|--------|
| 0°    | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 | 2607.0 |
| 0.5°  | 2606.5 | 2606.5 | 2605.1 | 2603.6 | 2605.3 | 2606.5 |
| 1°    | 2605.6 | 2605.3 | 2603.2 | 2601.2 | 2603.4 | 2603.9 |
| 1.5°  | 2603.9 | 2603.6 | 2601.0 | 2598.3 | 2600.2 | 2601.2 |
| 2°    | 2601.7 | 2601.0 | 2597.8 | 2594.2 | 2596.9 | 2597.1 |
| 2.5°  | 2598.3 | 2597.3 | 2593.5 | 2589.8 | 2592.5 | 2592.5 |
| 3°    | 2594.4 | 2593.2 | 2588.4 | 2584.0 | 2587.9 | 2587.9 |
| 3.5°  | 2590.1 | 2588.1 | 2582.8 | 2578.4 | 2582.6 | 2582.1 |
| 4°    | 2584.7 | 2582.8 | 2576.5 | 2571.4 | 2576.3 | 2575.8 |
| 4.5°  | 2578.4 | 2575.8 | 2569.2 | 2564.4 | 2569.0 | 2568.0 |
| 5°    | 2571.7 | 2568.3 | 2561.5 | 2555.9 | 2561.2 | 2559.5 |
| 5.5°  | 2563.7 | 2560.0 | 2552.5 | 2546.9 | 2552.0 | 2550.1 |
| 6°    | 2554.9 | 2550.8 | 2542.8 | 2537.7 | 2542.3 | 2539.7 |
| 6.5°  | 2545.0 | 2540.4 | 2532.4 | 2526.6 | 2531.4 | 2528.8 |
| 7°    | 2534.4 | 2529.0 | 2520.5 | 2514.7 | 2519.8 | 2516.4 |
| 7.5°  | 2522.2 | 2516.9 | 2508.4 | 2502.4 | 2507.7 | 2503.8 |
| 8°    | 2509.9 | 2503.3 | 2494.4 | 2488.8 | 2494.4 | 2490.0 |
| 8.5°  | 2496.1 | 2488.8 | 2479.8 | 2474.5 | 2480.8 | 2475.2 |
| 9°    | 2481.3 | 2472.6 | 2464.3 | 2459.5 | 2465.3 | 2458.5 |
| 9.5°  | 2465.5 | 2456.1 | 2447.9 | 2443.7 | 2449.3 | 2442.0 |
| 10°   | 2449.1 | 2439.1 | 2430.2 | 2425.6 | 2432.6 | 2426.3 |
| 10.5° | 2432.1 | 2421.0 | 2411.8 | 2409.6 | 2415.9 | 2408.9 |
| 11°   | 2414.2 | 2403.0 | 2393.6 | 2390.7 | 2398.7 | 2391.7 |
| 11.5° | 2396.3 | 2383.7 | 2374.5 | 2370.6 | 2380.8 | 2373.7 |
| 12°   | 2376.9 | 2364.5 | 2354.6 | 2349.3 | 2362.1 | 2356.5 |
| 12.5° | 2358.0 | 2345.9 | 2334.5 | 2328.7 | 2343.4 | 2338.6 |
| 13°   | 2338.6 | 2326.7 | 2314.1 | 2306.6 | 2324.8 | 2319.7 |
| 13.5° | 2319.0 | 2307.8 | 2294.3 | 2284.3 | 2305.4 | 2300.8 |
| 14°   | 2299.1 | 2288.5 | 2273.4 | 2260.8 | 2285.3 | 2281.7 |
| 14.5° | 2279.0 | 2269.3 | 2253.6 | 2238.1 | 2265.4 | 2262.0 |
| 15°   | 2259.1 | 2248.5 | 2232.5 | 2214.3 | 2244.8 | 2242.4 |
| 15.5° | 2238.8 | 2227.9 | 2210.9 | 2190.8 | 2223.5 | 2222.6 |
| 16°   | 2217.7 | 2207.3 | 2188.9 | 2167.1 | 2202.4 | 2201.0 |
| 16.5° | 2196.1 | 2186.0 | 2167.3 | 2143.6 | 2180.9 | 2179.7 |
| 17°   | 2173.6 | 2163.4 | 2144.8 | 2119.6 | 2158.4 | 2157.4 |
| 17.5° | 2151.8 | 2141.2 | 2121.8 | 2096.1 | 2135.8 | 2133.9 |
| 18°   | 2128.6 | 2116.7 | 2097.8 | 2072.3 | 2112.6 | 2108.4 |
| 18.5° | 2105.3 | 2091.5 | 2073.8 | 2048.1 | 2088.3 | 2082.0 |
| 19°   | 2080.8 | 2066.8 | 2048.6 | 2024.1 | 2062.7 | 2055.1 |
| 19.5° | 2055.4 | 2041.1 | 2022.9 | 1999.9 | 2036.0 | 2029.7 |
| 20°   | 2030.0 | 2014.4 | 1997.2 | 1974.2 | 2008.9 | 2003.3 |
| 20.5° | 2003.3 | 1988.5 | 1970.1 | 1949.5 | 1981.7 | 1977.6 |
| 21°   | 1976.9 | 1961.6 | 1943.5 | 1924.3 | 1953.6 | 1952.4 |

TEST NUMBER: P776000

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1895.7 | 1881.4 | 1859.9 | 1848.0 | 1870.8 | 1873.7 |
| 23°   | 1867.1 | 1854.8 | 1831.5 | 1821.8 | 1843.2 | 1843.2 |
| 23.5° | 1839.3 | 1827.4 | 1803.2 | 1795.2 | 1816.3 | 1810.9 |
| 24°   | 1811.2 | 1796.6 | 1775.3 | 1767.3 | 1787.7 | 1780.2 |
| 24.5° | 1783.1 | 1764.2 | 1746.7 | 1738.0 | 1757.4 | 1753.5 |
| 25°   | 1755.2 | 1733.7 | 1716.9 | 1708.9 | 1725.4 | 1726.9 |
| 25.5° | 1727.1 | 1707.3 | 1685.9 | 1679.9 | 1693.2 | 1700.5 |
| 26°   | 1694.7 | 1681.3 | 1653.2 | 1650.3 | 1660.5 | 1672.6 |
| 26.5° | 1661.9 | 1649.1 | 1622.5 | 1619.6 | 1632.2 | 1638.0 |
| 27°   | 1631.4 | 1614.2 | 1595.1 | 1590.0 | 1604.5 | 1604.5 |
| 27.5° | 1603.1 | 1582.5 | 1567.5 | 1559.0 | 1577.6 | 1570.1 |
| 28°   | 1575.7 | 1542.3 | 1535.0 | 1528.7 | 1549.3 | 1528.7 |
| 28.5° | 1544.5 | 1501.3 | 1499.6 | 1498.9 | 1517.3 | 1486.1 |
| 29°   | 1508.1 | 1459.4 | 1467.9 | 1470.1 | 1482.7 | 1444.4 |
| 29.5° | 1476.1 | 1418.2 | 1429.4 | 1441.0 | 1450.7 | 1403.2 |
| 30°   | 1436.9 | 1377.3 | 1388.9 | 1411.9 | 1413.1 | 1361.8 |
| 30.5° | 1398.4 | 1337.1 | 1347.5 | 1381.9 | 1374.4 | 1320.4 |
| 31°   | 1356.7 | 1296.6 | 1307.3 | 1351.1 | 1334.4 | 1279.2 |
| 31.5° | 1316.7 | 1256.2 | 1267.5 | 1317.4 | 1293.9 | 1238.7 |
| 32°   | 1277.7 | 1216.7 | 1228.5 | 1284.5 | 1254.2 | 1198.7 |
| 32.5° | 1239.4 | 1177.4 | 1188.8 | 1253.2 | 1215.0 | 1158.0 |
| 33°   | 1199.2 | 1137.4 | 1151.7 | 1224.9 | 1177.4 | 1116.1 |
| 33.5° | 1162.2 | 1096.3 | 1113.9 | 1200.7 | 1139.1 | 1074.7 |
| 34°   | 1123.6 | 1054.3 | 1076.6 | 1177.2 | 1101.3 | 1033.3 |
| 34.5° | 1087.3 | 1012.2 | 1037.6 | 1146.2 | 1062.8 | 990.6  |
| 35°   | 1048.0 | 970.0  | 1000.3 | 1117.6 | 1025.8 | 947.7  |
| 35.5° | 1010.7 | 928.6  | 961.1  | 1088.3 | 987.7  | 905.4  |
| 36°   | 971.5  | 887.4  | 922.6  | 1050.5 | 950.4  | 862.2  |
| 36.5° | 934.4  | 848.9  | 883.3  | 1014.9 | 911.9  | 824.2  |
| 37°   | 894.2  | 810.4  | 846.2  | 977.3  | 874.8  | 786.2  |
| 37.5° | 855.2  | 772.1  | 809.2  | 936.8  | 838.0  | 748.1  |
| 38°   | 816.4  | 733.6  | 772.3  | 896.1  | 800.9  | 709.8  |
| 38.5° | 778.9  | 695.3  | 735.5  | 855.0  | 764.1  | 673.5  |
| 39°   | 742.1  | 660.2  | 698.7  | 818.6  | 727.3  | 637.9  |
| 39.5° | 706.7  | 625.3  | 664.1  | 782.5  | 690.5  | 601.8  |
| 40°   | 671.6  | 589.7  | 631.6  | 746.2  | 657.0  | 567.1  |
| 40.5° | 638.1  | 554.1  | 598.4  | 710.1  | 623.6  | 531.8  |
| 41°   | 605.7  | 520.9  | 566.7  | 675.9  | 591.6  | 497.6  |
| 41.5° | 573.7  | 485.3  | 534.9  | 642.7  | 559.2  | 464.2  |
| 42°   | 542.2  | 454.3  | 503.7  | 610.3  | 528.4  | 431.7  |
| 42.5° | 510.7  | 422.8  | 472.9  | 579.0  | 497.9  | 400.5  |
| 43°   | 479.9  | 393.4  | 442.4  | 547.5  | 468.8  | 371.2  |
| 43.5° | 450.1  | 363.2  | 413.1  | 517.0  | 439.2  | 342.8  |



TEST NUMBER: P776000

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°  |
|-------|--------|-------|--------|-------|--------|-------|
| 45°   | 365.3  | 284.4 | 331.9  | 428.3 | 355.4  | 264.8 |
| 45.5° | 339.2  | 259.2 | 307.2  | 401.0 | 330.0  | 240.6 |
| 46°   | 314.2  | 236.5 | 283.7  | 373.8 | 305.0  | 218.0 |
| 46.5° | 290.2  | 214.2 | 260.9  | 348.9 | 281.8  | 196.5 |
| 47°   | 267.2  | 192.8 | 239.1  | 324.4 | 259.0  | 175.9 |
| 47.5° | 245.4  | 172.5 | 217.6  | 301.4 | 236.7  | 157.0 |
| 48°   | 225.6  | 155.1 | 197.4  | 278.8 | 216.3  | 139.5 |
| 48.5° | 205.7  | 137.8 | 178.6  | 258.5 | 196.2  | 123.6 |
| 49°   | 185.8  | 122.6 | 160.6  | 238.6 | 177.3  | 109.3 |
| 49.5° | 166.2  | 108.8 | 144.1  | 220.2 | 158.9  | 96.2  |
| 50°   | 149.0  | 95.9  | 128.4  | 201.6 | 143.4  | 84.6  |
| 50.5° | 133.0  | 84.3  | 114.1  | 184.6 | 128.2  | 75.8  |
| 51°   | 119.0  | 75.8  | 101.3  | 167.9 | 113.6  | 67.1  |
| 51.5° | 105.4  | 67.4  | 89.9   | 152.9 | 100.1  | 58.4  |
| 52°   | 92.8   | 59.1  | 81.4   | 138.6 | 88.7   | 49.7  |
| 52.5° | 81.6   | 50.6  | 72.9   | 124.8 | 79.9   | 42.9  |
| 53°   | 71.7   | 43.9  | 64.4   | 111.7 | 71.2   | 36.6  |
| 53.5° | 63.0   | 37.6  | 56.0   | 100.1 | 62.5   | 30.5  |
| 54°   | 55.0   | 31.5  | 47.5   | 89.2  | 53.8   | 25.0  |
| 54.5° | 48.0   | 25.9  | 41.4   | 80.4  | 45.1   | 19.1  |
| 55°   | 41.7   | 20.4  | 35.4   | 72.0  | 38.8   | 14.1  |
| 55.5° | 35.6   | 15.0  | 29.8   | 63.2  | 33.2   | 10.2  |
| 56°   | 31.0   | 11.1  | 24.0   | 54.8  | 27.6   | 9.2   |
| 56.5° | 26.4   | 8.0   | 18.9   | 46.0  | 22.5   | 8.2   |
| 57°   | 21.8   | 7.5   | 13.8   | 39.5  | 17.7   | 7.3   |
| 57.5° | 17.2   | 7.0   | 9.9    | 33.9  | 13.1   | 6.3   |
| 58°   | 12.6   | 6.8   | 9.0    | 28.8  | 9.2    | 5.3   |
| 58.5° | 8.0    | 6.3   | 8.0    | 24.2  | 8.2    | 5.1   |
| 59°   | 6.3    | 6.1   | 7.3    | 20.4  | 7.3    | 4.8   |
| 59.5° | 5.8    | 5.8   | 6.3    | 17.0  | 6.1    | 4.8   |
| 60°   | 5.6    | 5.3   | 5.6    | 14.1  | 5.1    | 4.6   |
| 60.5° | 5.3    | 5.1   | 5.3    | 11.6  | 4.8    | 4.4   |
| 61°   | 5.1    | 4.8   | 5.1    | 9.7   | 4.6    | 4.1   |
| 61.5° | 4.8    | 4.6   | 4.8    | 8.5   | 4.4    | 4.1   |
| 62°   | 4.6    | 4.6   | 4.6    | 7.3   | 4.1    | 3.9   |
| 62.5° | 4.4    | 4.4   | 4.4    | 6.1   | 4.1    | 3.6   |
| 63°   | 4.1    | 4.1   | 4.1    | 4.8   | 3.9    | 3.6   |
| 63.5° | 3.9    | 3.9   | 3.9    | 4.1   | 3.6    | 3.4   |
| 64°   | 3.9    | 3.6   | 3.9    | 3.6   | 3.6    | 3.4   |
| 64.5° | 3.6    | 3.6   | 3.6    | 3.6   | 3.4    | 3.1   |
| 65°   | 3.4    | 3.4   | 3.4    | 3.4   | 3.4    | 3.1   |
| 65.5° | 3.4    | 3.4   | 3.4    | 3.4   | 3.1    | 2.9   |
| 66°   | 3.1    | 3.1   | 3.1    | 3.1   | 3.1    | 2.9   |



TEST NUMBER: P776000

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQC-2500lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 2.9    | 2.7  | 2.9    | 2.7  | 2.7    | 2.4  |
| 68°   | 2.7    | 2.7  | 2.7    | 2.7  | 2.7    | 2.4  |
| 68.5° | 2.7    | 2.4  | 2.7    | 2.4  | 2.4    | 2.2  |
| 69°   | 2.4    | 2.4  | 2.4    | 2.4  | 2.4    | 2.2  |
| 69.5° | 2.4    | 2.4  | 2.4    | 2.4  | 2.2    | 2.2  |
| 70°   | 2.2    | 2.2  | 2.2    | 2.2  | 2.2    | 1.9  |
| 70.5° | 2.2    | 2.2  | 2.2    | 2.2  | 2.2    | 1.9  |
| 71°   | 1.9    | 1.9  | 1.9    | 1.9  | 1.9    | 1.7  |
| 71.5° | 1.9    | 1.9  | 1.9    | 1.9  | 1.9    | 1.7  |
| 72°   | 1.9    | 1.9  | 1.9    | 1.9  | 1.7    | 1.7  |
| 72.5° | 1.7    | 1.7  | 1.7    | 1.7  | 1.7    | 1.5  |
| 73°   | 1.7    | 1.7  | 1.7    | 1.7  | 1.7    | 1.5  |
| 73.5° | 1.7    | 1.7  | 1.7    | 1.7  | 1.5    | 1.5  |
| 74°   | 1.5    | 1.5  | 1.5    | 1.5  | 1.5    | 1.2  |
| 74.5° | 1.5    | 1.5  | 1.5    | 1.5  | 1.5    | 1.2  |
| 75°   | 1.5    | 1.5  | 1.5    | 1.5  | 1.2    | 1.2  |
| 75.5° | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 76°   | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.0  |
| 76.5° | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.0  |
| 77°   | 1.2    | 1.0  | 1.2    | 1.2  | 1.0    | 1.0  |
| 77.5° | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 78°   | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 0.7  |
| 78.5° | 1.0    | 1.0  | 1.0    | 1.0  | 0.7    | 0.7  |
| 79°   | 0.7    | 0.7  | 1.0    | 1.0  | 0.7    | 0.7  |
| 79.5° | 0.7    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 80°   | 0.7    | 0.7  | 0.7    | 0.7  | 0.7    | 0.5  |
| 80.5° | 0.7    | 0.7  | 0.7    | 0.7  | 0.5    | 0.5  |
| 81°   | 0.7    | 0.7  | 0.7    | 0.7  | 0.5    | 0.5  |
| 81.5° | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 82°   | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 82.5° | 0.5    | 0.5  | 0.5    | 0.5  | 0.2    | 0.2  |
| 83°   | 0.5    | 0.5  | 0.5    | 0.5  | 0.2    | 0.2  |
| 83.5° | 0.5    | 0.5  | 0.5    | 0.5  | 0.2    | 0.2  |
| 84°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 84.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 85°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.0    | 0.2  |
| 85.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.0    | 0.0  |
| 86°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.0    | 0.0  |
| 86.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.0    | 0.0  |
| 87°   | 0.0    | 0.2  | 0.0    | 0.0  | 0.0    | 0.0  |
| 87.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 88°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 88.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |



TEST NUMBER: P776000  
CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQC-2500lm-2700K

**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  |

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

Scaled Data Report



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  
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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





|       |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1927.7 | 1927.5 | 1929.2 | 1941.0 | 1949.5 | 1977.1 | 1979.6 | 1974.0 | 1983.4 | 1984.4 | 1956.8 |
| 22°   | 1901.8 | 1900.1 | 1904.5 | 1914.9 | 1925.8 | 1950.2 | 1954.6 | 1948.3 | 1958.0 | 1957.5 | 1931.8 |



|       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44°   | 315.4 | 377.7 | 525.2 | 463.5 | 381.3 | 460.8 | 601.8 | 470.2 | 391.7 | 455.5 | 554.8 |
| 44.5° | 289.0 | 350.3 | 492.5 | 436.3 | 351.8 | 431.7 | 569.1 | 442.1 | 362.7 | 427.6 | 522.6 |



|       |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 66.5° | 2.7 | 2.9 | 2.9 | 2.9 | 2.7 | 2.7 | 2.7 | 2.4 | 2.4 | 2.7 | 2.9 |
| 67°   | 2.7 | 2.7 | 2.7 | 2.7 | 2.4 | 2.7 | 2.7 | 2.4 | 2.2 | 2.4 | 2.7 |



|       |     |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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Scaled Data Report





|       |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 1950.2 | 1934.0 | 1915.8 | 1898.6 | 1926.3 | 1927.7 |
| 22°   | 1922.9 | 1907.9 | 1888.2 | 1873.7 | 1898.6 | 1901.8 |



|       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|
| 44°   | 421.1 | 336.3 | 385.0 | 486.5 | 409.7 | 315.4 |
| 44.5° | 392.2 | 310.1 | 358.3 | 457.4 | 381.6 | 289.0 |

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Scaled Data Report



|       |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|
| 66.5° | 3.1 | 2.9 | 3.1 | 2.9 | 2.9 | 2.7 |
| 67°   | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.7 |

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Peachtree City, GA 30269

Scaled Data Report



|       |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|
| 89°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report



(END OF REPORT)