

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: P776841

Luminaire Tested: HCDJBS4050CSD-HCD8TSQMW-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776841
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: HCDJBS4050CSD-HCD8TSQMW-5000lm-3000K
Description: 8 INCH SQUARE MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

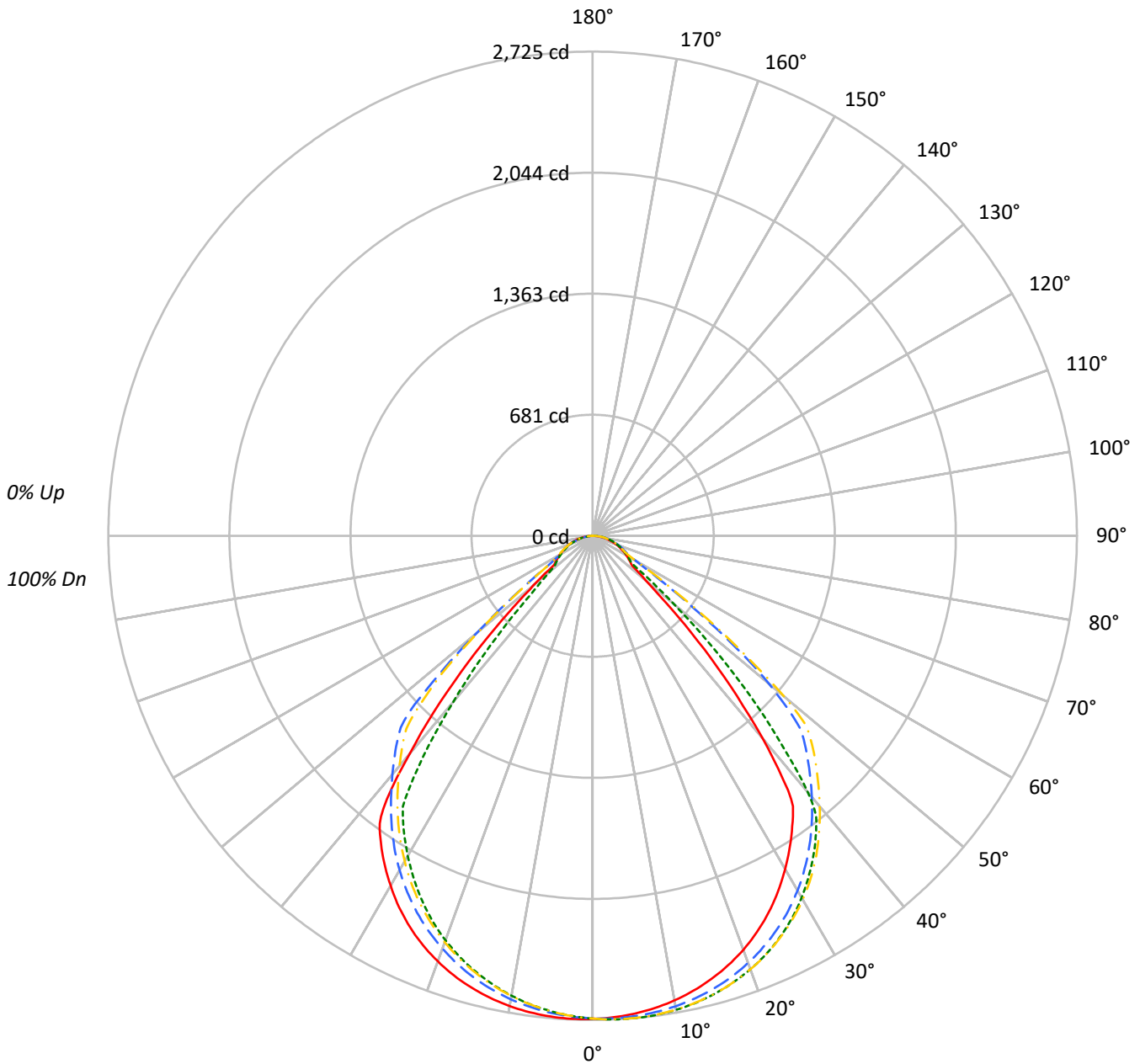
Lumens per Lamp: N/A
Luminaire Lumens: 4921.6 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.29
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): 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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					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								
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89								
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70								
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63								
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56								
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51								
7	73	62	54	49	72	61	54	49	60	53	48	58	52	48	57	52	48	46								
8	69	57	50	44	67	56	49	44	55	49	44	54	48	44	53	48	44	42								
9	65	53	45	41	63	52	45	40	51	45	40	50	44	40	49	44	40	38								
10	61	49	42	37	60	49	42	37	48	41	37	47	41	37	46	41	37	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	65159	65159	65159	65159
5°	64984	65598	65374	64659
10°	64650	65950	65451	63992
15°	64104	66201	65360	63066
20°	63273	66248	65026	61803
25°	61929	65947	64312	60000
30°	59989	65144	62946	57596
35°	57453	63597	60918	54476
40°	46549	58994	50183	38219
45°	28349	40584	31845	21011
50°	14537	22140	16250	11866
55°	10853	11338	10581	10154
60°	10488	10805	10200	9778
65°	10145	10621	9884	9435
70°	9836	10481	9542	9016
75°	9339	10497	9126	8394
80°	8396	10646	8396	7250
85°	5998	11363	6658	4209

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°

Vertical Angle: 45°

Luminance: 59974 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.1	5.2
10°-20°	734.9	14.9
20°-30°	1098.7	22.3
30°-40°	1260.7	25.6
40°-50°	915.5	18.6
50°-60°	335.5	6.8
60°-70°	179.9	3.7
70°-80°	108.8	2.2
80°-90°	30.5	0.6
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°	2090.8	42.5
0°-40°	3351.5	68.1
0°-60°	4602.5	93.5
0°-90°	4921.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4921.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2717	2717	2717	2717	2717	
5°	2700	2725	2716	2686	2700	256
15°	2582	2667	2633	2540	2582	728
25°	2341	2493	2431	2268	2341	1076
35°	1963	2173	2081	1861	1963	1198
45°	836	1197	939	620	836	659
55°	260	271	253	243	260	243
65°	179	187	174	166	179	177
75°	101	113	98	91	101	106
85°	22	41	24	15	22	27
90°	0	6	0	0	0	



TEST NUMBER: P776841
 CATALOG NUMBER: HCDJBL4050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4
0.5°	2718.3	2718.8	2717.4	2716.9	2719.3	2719.3	2719.3	2720.2	2720.2	2718.8	2715.1
1°	2717.4	2718.3	2717.9	2718.3	2721.1	2720.7	2720.7	2721.1	2720.7	2718.3	2713.7
1.5°	2716.0	2717.9	2718.3	2719.3	2722.5	2722.0	2722.0	2722.0	2720.7	2717.9	2712.3
2°	2714.6	2716.9	2718.3	2719.7	2723.4	2723.4	2723.0	2722.5	2720.7	2717.4	2710.9
2.5°	2712.3	2716.0	2718.3	2720.7	2724.4	2724.4	2723.9	2722.5	2720.7	2716.5	2708.6
3°	2710.4	2714.6	2717.9	2721.1	2725.3	2725.3	2724.4	2722.5	2720.2	2715.5	2706.7
3.5°	2708.6	2713.2	2717.4	2721.1	2725.3	2725.8	2724.8	2723.0	2719.7	2714.2	2703.9
4°	2705.8	2711.4	2716.9	2721.1	2725.3	2725.8	2725.3	2722.5	2718.8	2712.3	2701.1
4.5°	2703.0	2709.5	2715.5	2720.2	2725.3	2725.8	2724.8	2722.0	2717.4	2710.4	2698.4
5°	2699.8	2707.2	2714.6	2719.7	2725.3	2725.8	2724.8	2721.1	2716.0	2708.1	2695.1
5.5°	2696.5	2704.9	2712.8	2718.8	2724.8	2724.8	2723.9	2720.2	2714.2	2705.3	2691.9
6°	2692.8	2702.1	2711.4	2717.9	2723.9	2724.4	2723.0	2718.8	2712.3	2703.0	2688.1
6.5°	2689.5	2698.8	2709.0	2716.5	2723.0	2723.4	2722.0	2717.4	2710.0	2700.2	2684.4
7°	2685.4	2695.6	2707.2	2715.1	2721.6	2722.5	2720.7	2715.5	2707.6	2697.0	2679.8
7.5°	2680.7	2692.3	2704.4	2713.2	2720.2	2721.6	2719.3	2713.7	2704.9	2693.7	2675.6
8°	2676.1	2688.6	2702.1	2711.4	2718.3	2719.7	2717.4	2711.4	2702.1	2690.0	2670.5
8.5°	2671.4	2684.4	2698.8	2708.6	2716.5	2717.9	2715.5	2709.0	2698.8	2685.8	2665.4
9°	2666.3	2680.2	2695.6	2706.3	2714.2	2716.0	2713.2	2706.3	2695.6	2681.6	2660.3
9.5°	2660.7	2675.6	2692.3	2703.5	2711.8	2713.2	2710.9	2703.5	2691.9	2677.0	2654.7
10°	2655.2	2670.5	2689.1	2700.7	2708.6	2710.9	2707.6	2699.8	2688.1	2672.4	2649.1
10.5°	2649.1	2665.4	2684.9	2697.4	2705.8	2708.1	2704.9	2696.0	2683.5	2667.7	2642.6
11°	2643.1	2660.3	2680.7	2693.7	2702.5	2705.3	2701.6	2692.3	2678.9	2662.1	2636.1
11.5°	2636.6	2654.7	2675.6	2690.0	2699.3	2701.6	2697.9	2688.1	2674.2	2657.0	2629.6
12°	2629.6	2648.7	2671.4	2685.8	2695.6	2697.9	2694.2	2684.0	2669.6	2651.0	2623.1
12.5°	2622.2	2642.6	2666.3	2681.6	2691.4	2694.2	2690.5	2679.8	2664.0	2644.5	2615.7
13°	2615.2	2635.7	2661.2	2677.0	2687.2	2690.0	2685.8	2674.7	2658.4	2638.0	2608.3
13.5°	2607.3	2629.2	2655.6	2672.4	2682.6	2685.8	2681.2	2669.6	2652.4	2631.5	2600.4
14°	2599.4	2621.7	2650.1	2667.2	2677.5	2680.7	2676.5	2664.0	2646.3	2624.5	2592.0
14.5°	2591.1	2614.8	2644.0	2662.1	2672.4	2676.1	2671.4	2658.4	2639.8	2617.5	2583.6
15°	2582.3	2606.9	2637.5	2656.1	2666.8	2671.0	2665.9	2652.4	2632.9	2609.7	2575.3
15.5°	2573.4	2599.0	2631.0	2650.1	2661.2	2664.9	2660.7	2646.3	2625.9	2602.2	2566.5
16°	2564.1	2590.1	2624.1	2644.0	2655.2	2659.3	2654.7	2639.8	2618.5	2593.9	2557.2
16.5°	2554.9	2582.3	2616.6	2637.5	2649.1	2653.3	2648.2	2632.9	2611.0	2585.5	2547.4
17°	2545.1	2573.4	2609.2	2630.6	2642.2	2646.8	2641.7	2625.9	2603.2	2577.1	2537.7
17.5°	2534.9	2564.1	2601.8	2623.6	2635.2	2640.3	2634.7	2618.5	2594.8	2568.3	2527.4
18°	2524.7	2554.9	2593.4	2616.2	2628.2	2633.3	2628.2	2610.1	2586.0	2559.0	2517.2
18.5°	2513.5	2545.1	2585.0	2608.7	2620.8	2625.9	2620.8	2602.7	2577.1	2549.3	2506.1
19°	2502.4	2534.9	2576.7	2600.4	2612.9	2618.5	2612.9	2593.9	2567.9	2539.5	2494.9
19.5°	2491.2	2524.2	2567.4	2592.0	2604.5	2610.6	2605.0	2586.0	2558.6	2529.3	2483.8
20°	2479.6	2513.5	2558.1	2583.6	2596.2	2602.7	2596.6	2576.2	2548.3	2519.1	2472.2
20.5°	2467.1	2502.4	2548.8	2574.8	2587.4	2593.9	2588.3	2567.4	2538.1	2508.4	2460.1
21°	2454.5	2491.2	2539.1	2565.5	2578.5	2585.5	2579.0	2557.6	2527.9	2496.8	2447.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2414.6	2455.0	2507.0	2535.8	2548.8	2556.7	2550.7	2527.0	2494.5	2461.5	2409.5
23°	2400.7	2442.0	2495.9	2525.6	2538.6	2546.5	2540.9	2516.3	2482.4	2449.0	2396.0
23.5°	2386.3	2429.0	2484.7	2514.4	2527.4	2536.3	2530.2	2505.2	2469.9	2436.0	2382.1
24°	2371.4	2415.1	2472.6	2503.3	2516.8	2525.6	2519.1	2493.1	2457.8	2423.0	2368.1
24.5°	2356.5	2401.1	2460.6	2492.2	2505.2	2514.4	2508.4	2481.5	2444.3	2409.5	2353.3
25°	2340.7	2386.7	2448.0	2479.6	2492.6	2502.8	2496.8	2469.4	2430.8	2395.5	2338.9
25.5°	2325.0	2371.9	2435.5	2467.5	2481.0	2490.8	2485.2	2456.9	2417.4	2381.2	2323.6
26°	2309.2	2357.0	2422.0	2455.0	2468.0	2479.1	2473.1	2443.9	2403.0	2366.8	2308.2
26.5°	2292.4	2341.7	2409.0	2442.0	2455.0	2466.6	2460.6	2429.9	2388.1	2351.4	2292.4
27°	2275.7	2325.9	2395.5	2429.0	2441.5	2452.7	2448.0	2416.0	2372.8	2336.1	2276.2
27.5°	2257.6	2309.6	2381.2	2415.5	2427.6	2439.7	2435.0	2402.1	2357.5	2320.3	2259.9
28°	2240.4	2293.4	2366.3	2401.1	2413.2	2426.2	2421.6	2387.7	2341.7	2304.1	2243.7
28.5°	2221.4	2276.7	2351.9	2387.2	2398.3	2411.8	2407.6	2372.3	2325.4	2287.3	2226.0
29°	2204.2	2259.5	2336.6	2371.9	2384.4	2396.9	2393.7	2357.5	2308.2	2270.6	2208.8
29.5°	2184.7	2241.8	2321.2	2357.0	2367.7	2382.1	2379.3	2341.2	2291.5	2252.5	2190.7
30°	2166.6	2223.7	2305.4	2341.7	2352.8	2366.8	2364.0	2325.4	2273.4	2235.3	2173.1
30.5°	2146.6	2205.6	2289.7	2325.9	2335.2	2351.0	2349.1	2308.7	2256.2	2217.2	2154.0
31°	2128.0	2187.5	2272.9	2309.2	2319.8	2335.2	2333.3	2292.0	2238.1	2198.6	2135.5
31.5°	2108.1	2168.0	2255.8	2292.9	2301.3	2318.0	2317.5	2274.8	2220.0	2180.1	2116.4
32°	2088.6	2148.9	2238.6	2275.7	2283.6	2301.7	2300.8	2257.1	2201.4	2161.5	2096.9
32.5°	2067.7	2129.9	2220.9	2258.1	2266.0	2284.1	2284.1	2239.5	2182.4	2142.4	2076.5
33°	2048.2	2110.9	2202.3	2240.4	2248.3	2266.9	2266.9	2221.4	2162.9	2123.4	2056.5
33.5°	2027.3	2090.9	2184.7	2222.8	2229.3	2248.8	2249.3	2203.3	2143.4	2104.3	2036.1
34°	2006.4	2071.4	2165.7	2204.2	2210.2	2230.2	2231.1	2184.2	2123.4	2084.8	2015.2
34.5°	1983.6	2050.9	2146.6	2185.6	2191.2	2211.6	2213.0	2165.7	2102.0	2064.9	1994.3
35°	1962.7	2030.5	2127.1	2166.6	2172.6	2193.5	2194.4	2146.6	2081.1	2044.4	1972.9
35.5°	1940.9	2009.6	2107.6	2147.5	2151.7	2174.5	2174.9	2127.6	2059.8	2023.5	1951.6
36°	1918.1	1988.7	2087.2	2128.0	2131.8	2155.0	2155.4	2107.6	2037.9	2002.6	1929.7
36.5°	1894.4	1966.9	2067.2	2109.0	2110.4	2135.9	2135.5	2087.2	2013.8	1981.3	1907.4
37°	1854.5	1945.0	2046.8	2089.0	2089.0	2115.5	2115.5	2066.3	1978.5	1959.0	1885.6
37.5°	1806.6	1923.2	2025.9	2068.6	2067.2	2095.1	2094.6	2045.4	1934.4	1937.2	1862.8
38°	1742.6	1900.5	2005.0	2048.2	2044.9	2073.7	2074.2	2023.5	1879.6	1913.5	1840.6
38.5°	1678.5	1877.2	1983.1	2027.3	2019.8	2052.8	2052.8	2002.2	1815.0	1887.0	1818.7
39°	1616.2	1842.4	1961.8	2006.4	1984.1	2031.0	2031.9	1979.9	1746.7	1843.8	1796.4
39.5°	1553.1	1796.0	1940.4	1984.5	1939.9	2008.7	2010.1	1954.8	1675.2	1796.0	1774.1
40°	1487.1	1735.1	1918.6	1962.2	1884.7	1985.9	1987.8	1913.9	1603.2	1738.8	1752.3
40.5°	1418.4	1671.5	1896.7	1939.5	1822.0	1961.3	1965.5	1872.6	1535.0	1675.2	1730.9
41°	1348.3	1610.7	1874.5	1916.7	1750.9	1922.8	1944.1	1818.3	1469.5	1612.0	1709.1
41.5°	1279.1	1549.4	1852.6	1892.1	1678.9	1880.0	1921.8	1757.9	1402.6	1541.0	1687.3
42°	1213.1	1485.3	1830.3	1859.1	1606.5	1828.0	1900.0	1692.4	1335.2	1476.0	1665.0
42.5°	1150.4	1418.4	1808.0	1816.4	1537.7	1766.2	1878.2	1623.7	1265.6	1412.8	1643.2
43°	1085.8	1352.0	1786.2	1765.8	1470.9	1699.4	1855.9	1556.8	1196.8	1352.9	1620.9
43.5°	1021.8	1285.1	1763.5	1708.7	1403.5	1628.8	1834.5	1491.8	1128.6	1286.9	1598.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	836.0	1091.4	1696.6	1512.2	1196.8	1426.3	1768.6	1298.1	939.1	1096.1	1526.6
45.5°	777.0	1030.1	1673.8	1446.7	1127.2	1361.7	1745.8	1231.7	876.4	1029.6	1489.0
46°	721.7	968.3	1650.6	1384.9	1062.6	1295.8	1723.0	1165.7	816.9	970.7	1444.4
46.5°	667.4	905.6	1627.4	1323.2	999.5	1227.5	1700.3	1098.9	758.0	909.8	1382.2
47°	614.4	844.8	1603.2	1259.5	936.3	1159.2	1677.1	1035.7	701.8	855.0	1305.5
47.5°	566.6	786.8	1560.5	1195.5	874.1	1092.3	1652.9	974.4	647.4	795.1	1228.9
48°	520.6	730.6	1515.9	1131.4	812.3	1029.6	1627.8	914.9	599.1	741.2	1150.4
48.5°	479.8	676.7	1460.2	1066.8	753.8	967.9	1589.3	854.1	551.3	686.4	1074.7
49°	444.9	623.7	1405.4	1007.4	697.1	905.6	1535.9	795.1	507.6	633.5	1001.8
49.5°	415.2	574.5	1349.6	945.6	643.7	845.3	1476.9	738.0	466.3	585.7	929.8
50°	389.7	527.1	1295.8	889.9	593.5	784.9	1404.9	682.7	435.6	541.1	858.7
50.5°	368.3	483.9	1237.3	832.3	547.1	726.8	1328.3	630.7	405.5	496.9	791.4
51°	348.3	445.9	1169.4	775.1	502.5	671.6	1247.5	579.6	375.3	456.5	728.7
51.5°	328.4	415.2	1100.7	717.6	462.1	618.6	1166.2	533.6	345.1	424.5	670.2
52°	308.8	388.3	1028.7	665.5	430.1	568.9	1087.2	490.4	314.9	392.4	613.5
52.5°	291.7	365.5	954.9	614.0	397.6	522.5	1009.7	457.0	291.2	360.9	562.0
53°	279.1	344.6	883.4	566.6	365.5	478.8	938.2	423.6	274.5	328.8	515.1
53.5°	273.1	325.6	814.2	520.2	333.5	445.9	869.9	390.1	267.0	303.3	471.9
54°	268.0	306.1	748.7	479.3	309.3	412.9	803.0	356.7	261.9	280.5	439.4
54.5°	263.8	287.5	685.5	438.4	286.6	379.9	737.5	323.2	257.3	263.8	407.3
55°	259.6	272.6	629.8	403.1	271.2	346.9	674.8	299.6	253.1	256.4	375.7
55.5°	255.0	263.8	576.8	370.6	264.3	314.0	615.8	276.8	248.5	251.3	343.7
56°	250.8	258.7	525.3	341.4	259.6	289.3	561.0	259.2	244.3	247.1	312.1
56.5°	246.6	254.5	478.8	314.4	255.0	268.0	513.7	251.7	240.1	242.4	291.2
57°	242.4	249.9	437.5	289.8	250.3	255.0	474.7	246.6	235.9	238.3	273.6
57.5°	238.3	245.7	399.9	268.0	246.1	249.4	435.6	242.4	232.2	234.1	258.7
58°	234.5	241.5	366.4	254.0	242.0	245.2	396.2	237.8	228.0	229.9	246.6
58.5°	230.4	237.3	337.6	248.5	237.8	240.6	357.1	234.1	224.3	226.2	236.4
59°	226.6	233.1	312.1	243.8	233.6	236.4	318.6	229.9	220.1	222.0	227.6
59.5°	222.5	229.4	291.7	239.2	229.4	232.2	292.6	225.7	216.4	218.3	220.1
60°	218.7	225.3	274.5	235.0	225.3	228.0	272.2	222.0	212.7	214.6	213.6
60.5°	214.6	221.5	260.5	230.8	221.1	223.9	256.4	217.8	209.0	210.9	208.5
61°	210.9	217.8	248.9	226.6	217.4	219.7	242.4	214.1	205.3	207.1	204.4
61.5°	206.7	214.1	238.3	222.9	213.6	216.0	232.2	210.4	201.1	203.4	200.2
62°	203.0	209.9	229.4	218.7	209.9	212.2	222.9	206.7	197.4	199.7	195.5
62.5°	198.8	206.2	221.5	215.0	206.2	208.5	215.5	203.0	193.2	196.0	191.3
63°	194.6	202.5	215.5	210.9	202.0	204.8	208.5	199.2	189.5	191.8	187.2
63.5°	190.9	198.8	210.9	207.1	198.3	201.1	203.4	195.5	185.8	188.1	183.5
64°	186.7	195.1	206.2	203.4	194.6	197.4	198.8	191.8	181.6	183.9	179.3
64.5°	183.0	190.9	202.0	199.2	190.9	193.7	194.6	188.1	177.9	180.2	175.1
65°	178.8	187.2	197.8	195.5	187.2	190.0	190.4	184.4	174.2	176.5	170.9
65.5°	174.6	183.5	193.2	191.8	183.0	186.2	186.2	180.7	170.0	172.3	167.2
66°	170.9	179.3	189.0	188.1	179.3	182.5	182.1	176.5	166.3	168.6	163.0



TEST NUMBER: P776841

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	159.3	169.5	176.9	176.5	168.1	171.4	170.0	164.9	155.1	157.0	150.9
68°	155.6	165.3	172.8	172.3	164.4	167.7	165.8	161.2	151.4	152.8	146.8
68.5°	151.9	161.2	167.7	168.1	160.7	163.5	162.1	157.4	147.7	149.1	142.6
69°	148.2	156.5	163.9	164.4	157.0	159.8	157.9	153.3	144.0	144.9	138.9
69.5°	144.0	152.3	160.2	160.7	153.3	156.0	154.2	149.5	140.3	141.2	134.7
70°	140.3	148.6	156.0	157.4	149.5	152.3	150.0	145.8	136.1	137.5	130.5
70.5°	136.1	144.4	152.3	153.7	146.3	148.6	146.3	142.1	132.4	133.3	126.8
71°	132.4	140.7	148.2	149.5	142.6	144.9	142.1	137.9	128.6	129.6	122.6
71.5°	128.2	137.0	144.4	145.8	138.9	141.2	138.4	134.2	124.9	125.9	118.4
72°	124.5	132.8	140.3	142.1	135.2	137.5	134.2	130.5	121.2	121.7	114.7
72.5°	120.3	128.6	136.1	138.4	131.9	133.8	130.5	126.8	117.5	118.0	110.5
73°	116.6	124.9	131.9	134.2	128.2	130.0	126.3	122.6	113.8	114.3	106.8
73.5°	112.4	120.8	128.2	130.5	124.5	126.3	122.6	118.9	110.1	110.1	102.6
74°	108.7	117.0	124.0	126.8	120.8	122.6	118.9	115.2	106.4	106.4	98.5
74.5°	104.5	112.9	119.8	123.1	117.0	118.9	114.7	111.5	102.2	102.2	94.7
75°	100.8	109.1	116.1	119.4	113.3	115.2	111.0	107.3	98.5	98.5	90.6
75.5°	96.6	105.0	111.9	115.6	110.1	111.5	107.3	103.6	94.7	94.3	86.4
76°	92.4	100.8	107.7	111.5	106.4	107.7	103.1	99.4	91.0	90.1	82.7
76.5°	88.7	96.6	104.0	107.7	102.6	104.0	99.4	95.7	87.3	86.4	78.5
77°	84.5	92.9	99.9	104.0	98.9	100.3	95.7	92.0	83.1	82.7	74.8
77.5°	80.8	88.7	95.7	99.9	95.2	96.6	91.5	87.8	79.4	78.5	70.6
78°	76.6	84.5	92.0	96.1	91.5	92.9	87.8	84.1	75.7	74.8	66.9
78.5°	72.9	80.8	87.8	92.4	87.8	89.2	84.1	79.9	72.0	70.6	62.7
79°	68.7	76.6	84.1	88.2	84.5	85.5	79.9	76.2	68.3	66.9	59.0
79.5°	65.0	72.5	79.9	84.5	80.8	81.7	76.2	72.5	64.6	62.7	54.8
80°	60.8	68.7	75.7	80.8	77.1	77.6	72.5	68.3	60.8	59.0	51.1
80.5°	57.1	64.6	72.0	76.6	73.4	74.3	68.7	64.6	57.1	54.8	47.4
81°	53.4	60.4	68.3	72.9	70.1	70.6	65.0	60.8	53.4	51.1	43.2
81.5°	49.2	56.2	64.1	69.2	66.4	66.4	60.8	57.1	49.7	46.9	39.5
82°	45.5	52.5	59.9	65.0	62.7	63.2	57.1	52.9	46.0	43.2	35.8
82.5°	41.3	48.3	56.2	61.3	59.0	59.0	53.4	49.2	42.3	39.0	31.6
83°	37.6	44.6	52.5	57.6	55.7	55.3	49.7	45.5	38.5	35.3	27.9
83.5°	33.4	40.4	48.3	53.9	52.0	51.6	46.0	41.3	34.8	31.1	24.6
84°	29.7	36.2	44.6	50.2	48.3	47.8	42.3	37.6	31.1	27.4	21.4
84.5°	26.0	32.5	40.4	46.0	45.1	44.1	38.5	33.9	27.4	23.7	18.1
85°	21.8	28.3	36.7	42.3	41.3	40.9	34.8	29.7	24.2	19.5	14.9
85.5°	18.1	24.6	33.0	38.5	37.6	37.2	31.1	26.0	20.4	15.8	11.6
86°	15.3	20.4	28.8	34.8	34.4	33.4	27.4	22.3	17.2	12.5	8.8
86.5°	12.1	16.3	25.5	31.6	30.7	29.7	24.2	18.1	13.5	9.8	5.6
87°	9.3	13.5	22.3	27.9	26.9	26.0	20.9	14.9	10.2	7.4	2.8
87.5°	6.5	10.7	19.0	24.2	23.7	22.8	17.6	12.1	7.9	5.1	0.5
88°	3.7	7.9	16.3	20.9	20.0	19.0	14.9	9.3	5.6	2.8	0.0
88.5°	1.4	5.1	13.0	17.2	16.7	15.8	11.6	7.0	3.3	0.5	0.0



TEST NUMBER: P776841
CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	3.7	7.0	6.5	5.6	2.8	0.5	0.0	0.0	0.0



TEST NUMBER: P776841

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2717.4	2717.4	2717.4	2717.4	2717.4	2717.4
0.5°	2713.7	2715.5	2715.1	2715.5	2716.9	2718.3
1°	2711.8	2713.2	2712.3	2713.2	2715.1	2717.4
1.5°	2709.5	2710.9	2709.5	2710.4	2713.2	2716.0
2°	2707.2	2708.1	2706.7	2708.1	2710.9	2714.6
2.5°	2704.4	2704.9	2703.9	2704.9	2708.1	2712.3
3°	2701.6	2702.1	2700.2	2702.1	2705.3	2710.4
3.5°	2698.4	2698.4	2697.0	2698.4	2702.5	2708.6
4°	2695.1	2694.6	2692.8	2694.6	2699.3	2705.8
4.5°	2691.4	2690.5	2689.1	2690.9	2696.0	2703.0
5°	2687.7	2686.3	2684.4	2686.3	2691.9	2699.8
5.5°	2683.5	2681.6	2679.8	2682.1	2688.1	2696.5
6°	2678.9	2677.0	2674.7	2677.5	2684.0	2692.8
6.5°	2674.2	2671.9	2669.6	2672.4	2679.8	2689.5
7°	2669.1	2666.3	2664.0	2667.2	2674.7	2685.4
7.5°	2664.0	2660.7	2658.0	2661.7	2670.0	2680.7
8°	2658.4	2654.7	2651.9	2656.1	2664.5	2676.1
8.5°	2652.4	2648.7	2645.9	2650.1	2658.9	2671.4
9°	2646.3	2641.7	2639.4	2643.6	2653.3	2666.3
9.5°	2639.8	2635.2	2632.4	2637.1	2647.3	2660.7
10°	2633.3	2628.2	2625.0	2630.1	2640.8	2655.2
10.5°	2625.9	2620.8	2617.5	2623.1	2634.3	2649.1
11°	2618.9	2612.9	2610.1	2615.7	2627.3	2643.1
11.5°	2611.0	2605.0	2602.2	2608.3	2620.3	2636.6
12°	2603.6	2596.6	2593.4	2599.9	2612.4	2629.6
12.5°	2595.3	2587.8	2585.0	2592.0	2604.5	2622.2
13°	2586.9	2579.0	2575.7	2583.2	2597.1	2615.2
13.5°	2578.1	2569.7	2566.9	2574.8	2588.8	2607.3
14°	2569.2	2560.4	2557.2	2565.5	2579.9	2599.4
14.5°	2560.0	2550.7	2547.4	2556.2	2571.1	2591.1
15°	2550.2	2540.5	2536.7	2546.5	2561.8	2582.3
15.5°	2540.5	2530.2	2527.0	2536.7	2552.1	2573.4
16°	2530.2	2519.1	2516.3	2526.1	2542.8	2564.1
16.5°	2520.0	2508.4	2505.2	2515.8	2532.6	2554.9
17°	2508.9	2497.3	2493.5	2504.7	2522.3	2545.1
17.5°	2497.7	2485.2	2481.9	2494.0	2511.7	2534.9
18°	2486.6	2473.1	2470.3	2482.4	2500.5	2524.7
18.5°	2474.5	2460.6	2458.2	2470.3	2489.4	2513.5
19°	2462.4	2448.0	2444.8	2458.7	2477.8	2502.4
19.5°	2450.4	2435.5	2432.2	2446.2	2466.1	2491.2
20°	2437.8	2422.0	2419.2	2433.6	2453.6	2479.6
20.5°	2424.3	2408.1	2405.8	2421.1	2441.1	2467.1
21°	2411.3	2394.2	2391.8	2407.2	2428.1	2454.5

TEST NUMBER: P776841

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2369.1	2349.6	2348.2	2365.8	2387.2	2414.6
23°	2354.7	2333.8	2332.9	2351.4	2373.3	2400.7
23.5°	2339.4	2318.5	2317.5	2337.0	2358.9	2386.3
24°	2324.0	2301.7	2301.7	2321.7	2344.0	2371.4
24.5°	2308.2	2285.0	2285.0	2306.4	2328.7	2356.5
25°	2292.0	2267.8	2268.3	2290.6	2313.3	2340.7
25.5°	2275.7	2250.6	2251.6	2274.8	2297.1	2325.0
26°	2258.5	2233.0	2234.4	2258.1	2281.3	2309.2
26.5°	2241.4	2215.3	2216.7	2241.4	2264.6	2292.4
27°	2224.2	2196.8	2198.6	2224.6	2247.9	2275.7
27.5°	2206.1	2177.7	2180.5	2207.5	2230.2	2257.6
28°	2187.9	2158.7	2161.5	2189.3	2212.6	2240.4
28.5°	2169.4	2139.2	2142.9	2171.7	2194.9	2221.4
29°	2150.8	2119.7	2123.9	2153.1	2177.3	2204.2
29.5°	2131.8	2100.2	2104.3	2134.5	2158.2	2184.7
30°	2112.2	2080.2	2084.4	2116.0	2139.6	2166.6
30.5°	2092.7	2059.8	2064.9	2096.5	2120.6	2146.6
31°	2073.2	2039.3	2044.9	2077.4	2101.1	2128.0
31.5°	2053.3	2018.4	2024.0	2057.4	2081.6	2108.1
32°	2033.3	1997.1	2003.6	2037.5	2061.6	2088.6
32.5°	2013.3	1975.7	1983.6	2016.6	2041.7	2067.7
33°	1992.4	1953.9	1962.7	1996.6	2021.7	2048.2
33.5°	1971.5	1931.6	1940.9	1975.7	2000.8	2027.3
34°	1950.2	1909.3	1920.0	1954.8	1981.3	2006.4
34.5°	1929.3	1885.6	1897.7	1932.5	1960.4	1983.6
35°	1907.4	1861.0	1875.8	1911.6	1939.5	1962.7
35.5°	1885.6	1811.8	1853.1	1890.2	1918.6	1940.9
36°	1863.3	1755.6	1830.8	1868.0	1897.2	1918.1
36.5°	1840.6	1692.4	1806.2	1846.1	1874.9	1894.4
37°	1816.4	1629.2	1771.8	1824.3	1853.1	1854.5
37.5°	1788.1	1564.2	1723.0	1802.0	1830.8	1806.6
38°	1740.2	1497.3	1663.1	1779.7	1808.0	1742.6
38.5°	1682.6	1428.6	1601.4	1757.4	1785.7	1678.5
39°	1621.8	1358.0	1543.3	1735.6	1761.6	1616.2
39.5°	1560.5	1286.9	1480.6	1713.3	1723.5	1553.1
40°	1499.2	1221.0	1416.5	1691.5	1677.5	1487.1
40.5°	1434.6	1155.5	1349.2	1668.7	1618.1	1418.4
41°	1368.2	1092.3	1283.7	1646.4	1558.6	1348.3
41.5°	1300.4	1027.3	1218.2	1624.1	1501.1	1279.1
42°	1234.5	965.1	1154.6	1602.3	1441.6	1213.1
42.5°	1169.4	901.0	1093.7	1580.0	1382.2	1150.4
43°	1106.3	840.2	1035.2	1557.7	1319.5	1085.8
43.5°	1045.4	781.6	974.4	1534.5	1255.8	1021.8



TEST NUMBER: P776841

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	863.4	619.6	796.0	1424.4	1071.4	836.0
45.5°	804.9	568.9	740.8	1372.4	1013.9	777.0
46°	748.2	523.0	688.3	1319.0	955.3	721.7
46.5°	693.9	482.1	636.3	1268.4	896.8	667.4
47°	641.4	448.2	585.7	1215.9	838.3	614.4
47.5°	591.2	419.4	539.2	1162.0	782.6	566.6
48°	542.0	395.7	496.0	1097.0	728.7	520.6
48.5°	498.8	374.8	458.9	1029.6	676.7	479.8
49°	458.9	355.8	427.3	958.6	625.6	444.9
49.5°	433.3	336.7	399.9	891.7	578.2	415.2
50°	408.7	318.1	377.1	828.1	530.8	389.7
50.5°	384.1	299.1	357.1	768.2	488.1	368.3
51°	359.0	284.2	338.6	709.2	449.1	348.3
51.5°	334.4	274.5	320.0	656.2	416.1	328.4
52°	315.4	268.9	301.4	605.2	387.3	308.8
52.5°	297.2	264.3	283.8	555.0	362.7	291.7
53°	279.1	260.1	270.3	509.9	341.4	279.1
53.5°	264.7	255.9	263.8	469.1	321.9	273.1
54°	256.8	251.3	258.7	430.1	302.3	268.0
54.5°	252.2	247.1	254.5	398.0	284.2	263.8
55°	247.5	242.9	249.9	366.9	268.9	259.6
55.5°	243.4	238.7	245.7	340.0	259.6	255.0
56°	239.2	235.0	241.5	315.4	255.0	250.8
56.5°	235.0	230.8	237.3	296.3	250.3	246.6
57°	231.3	227.1	233.1	279.1	246.1	242.4
57.5°	227.1	222.9	229.4	265.2	242.0	238.3
58°	223.4	219.2	225.7	253.1	237.8	234.5
58.5°	219.7	215.5	221.5	243.4	233.6	230.4
59°	215.5	211.8	217.8	234.1	229.9	226.6
59.5°	211.8	208.1	214.1	226.2	225.7	222.5
60°	208.1	203.9	209.9	220.1	221.5	218.7
60.5°	204.4	200.2	206.7	215.5	217.8	214.6
61°	200.6	196.5	203.0	211.3	213.6	210.9
61.5°	196.5	192.7	199.2	207.1	209.9	206.7
62°	192.7	188.6	195.1	202.5	205.7	203.0
62.5°	189.0	184.8	191.3	198.3	202.0	198.8
63°	184.8	181.1	187.6	194.1	197.8	194.6
63.5°	181.1	176.9	183.5	190.0	193.7	190.9
64°	177.4	173.2	179.7	185.8	189.5	186.7
64.5°	173.2	170.0	175.6	181.6	185.3	183.0
65°	169.5	166.3	171.8	177.4	181.6	178.8
65.5°	165.3	162.6	167.2	173.7	177.4	174.6
66°	161.6	158.8	163.9	169.5	173.2	170.9



TEST NUMBER: P776841

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	150.0	147.2	153.3	157.0	161.2	159.3
68°	146.3	143.5	149.1	153.3	157.0	155.6
68.5°	142.1	139.8	145.4	149.1	152.8	151.9
69°	138.4	136.1	141.7	144.9	149.1	148.2
69.5°	134.2	132.4	137.5	140.7	144.9	144.0
70°	130.5	128.6	133.8	136.5	140.7	140.3
70.5°	126.8	124.9	129.6	132.4	136.5	136.1
71°	123.1	121.2	125.9	128.2	132.8	132.4
71.5°	118.9	117.5	122.1	124.0	128.6	128.2
72°	115.2	113.3	118.0	119.8	124.5	124.5
72.5°	111.0	109.6	113.8	115.6	120.3	120.3
73°	107.3	105.9	110.1	111.9	116.1	116.6
73.5°	103.1	101.7	105.9	107.7	111.9	112.4
74°	99.4	98.0	102.2	103.6	108.2	108.7
74.5°	95.2	94.3	98.0	99.4	104.0	104.5
75°	91.5	90.6	93.8	95.2	99.9	100.8
75.5°	87.3	86.4	90.1	91.0	95.2	96.6
76°	83.6	82.7	85.9	86.8	91.5	92.4
76.5°	79.4	79.0	82.2	82.7	87.3	88.7
77°	75.7	75.2	78.0	79.0	83.1	84.5
77.5°	71.5	71.5	74.3	74.8	79.0	80.8
78°	67.8	67.8	70.1	70.6	74.8	76.6
78.5°	63.6	63.6	66.4	66.4	70.6	72.9
79°	59.9	59.9	62.2	62.2	66.4	68.7
79.5°	55.7	56.2	58.1	58.1	62.2	65.0
80°	52.0	52.5	54.3	54.3	58.1	60.8
80.5°	47.8	48.8	50.2	50.2	53.9	57.1
81°	44.1	45.1	46.4	46.0	49.7	53.4
81.5°	40.4	41.3	42.7	42.3	45.5	49.2
82°	36.7	37.6	38.5	38.5	41.3	45.5
82.5°	33.0	33.4	34.8	34.8	37.6	41.3
83°	28.8	29.7	31.1	31.1	33.4	37.6
83.5°	25.1	26.0	26.9	27.4	28.8	33.4
84°	21.4	22.3	23.2	24.2	25.1	29.7
84.5°	18.1	19.0	19.5	20.4	20.9	26.0
85°	14.4	15.3	15.8	17.2	17.6	21.8
85.5°	10.7	11.6	12.5	13.9	14.9	18.1
86°	7.0	8.4	8.8	10.7	12.1	15.3
86.5°	3.7	4.6	5.1	7.4	8.8	12.1
87°	0.9	1.4	1.9	3.7	6.0	9.3
87.5°	0.0	0.0	0.5	1.4	3.7	6.5
88°	0.0	0.0	0.0	0.0	1.4	3.7
88.5°	0.0	0.0	0.0	0.0	0.0	1.4



TEST NUMBER: P776841

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-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



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

Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2441.5	2479.6	2528.4	2556.2	2568.8	2576.2	2570.2	2547.9	2517.2	2485.2	2435.5
22°	2428.1	2467.5	2518.2	2546.0	2559.0	2566.9	2560.9	2537.7	2506.1	2473.1	2422.5



44°	958.6	1218.7	1740.7	1644.1	1334.8	1559.1	1812.7	1428.6	1063.1	1222.9	1575.4
44.5°	896.4	1154.1	1717.9	1578.1	1266.0	1490.8	1790.9	1362.6	999.5	1155.5	1552.6



66.5°	167.2	175.6	184.8	183.9	175.6	178.8	177.9	172.8	162.6	164.4	158.8
67°	163.5	171.4	180.7	180.2	171.8	175.1	174.2	169.1	158.8	160.7	155.1



89°	0.0	2.8	9.8	13.9	13.0	12.1	8.8	4.2	1.4	0.0	0.0
89.5°	0.0	0.5	7.0	10.2	9.8	8.8	5.6	1.9	0.0	0.0	0.0

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21.5°	2397.4	2379.3	2377.9	2393.7	2415.1	2441.5
22°	2383.5	2364.4	2362.6	2380.2	2401.6	2428.1



44°	985.5	726.4	913.5	1509.9	1193.1	958.6
44.5°	924.7	670.6	853.2	1468.5	1131.4	896.4



66.5°	157.9	155.1	160.2	165.3	169.1	167.2
67°	154.2	151.4	156.5	161.2	164.9	163.5

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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)