

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: P776580

Luminaire Tested: HCDJBS4050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776580  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B054)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K  
Description: 4 INCH ROUND NARROW LENSED WALLWASH KIT  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4457.8 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.01 / 1.07  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

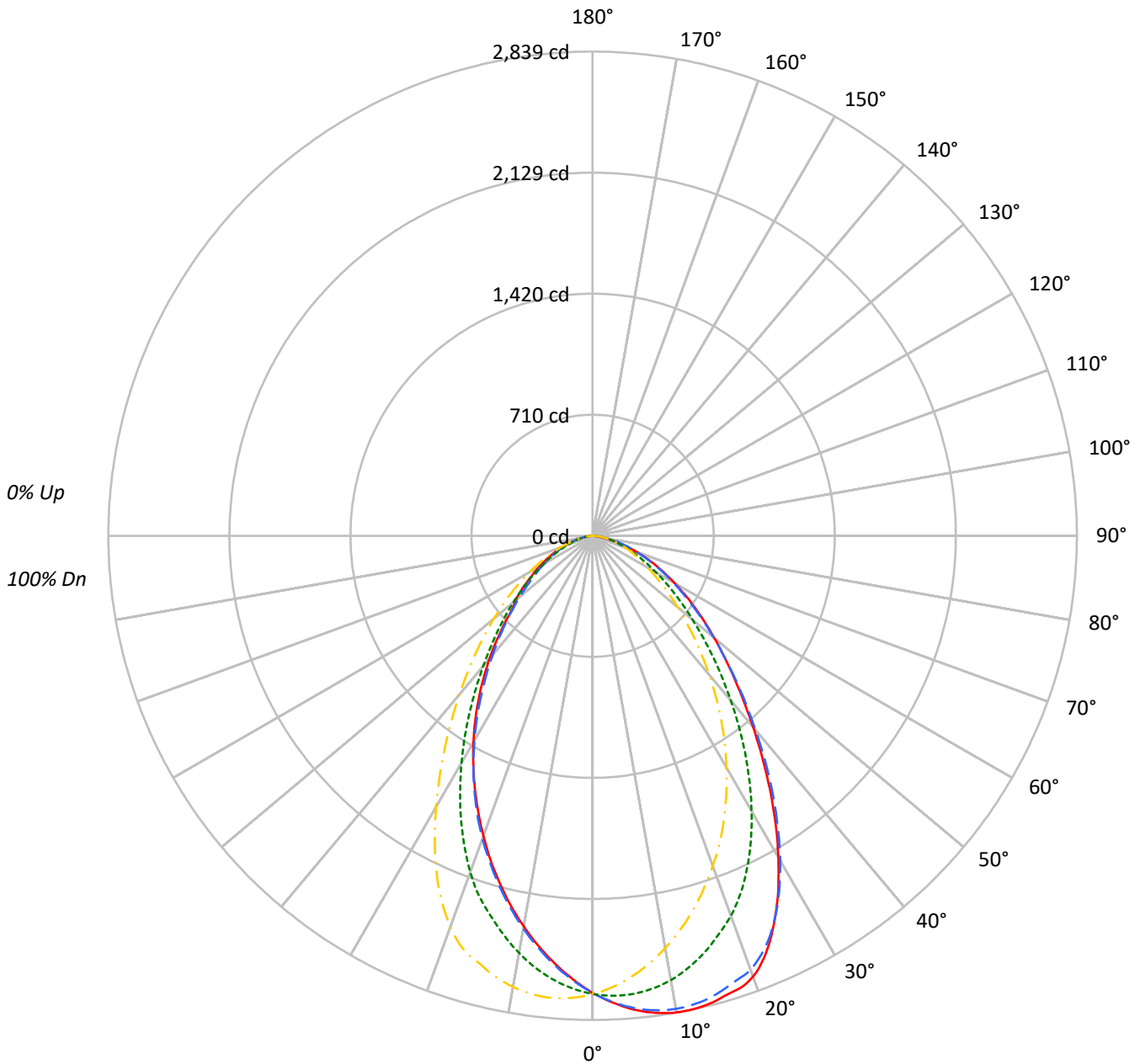
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	38	49	43	38	48	42	38	36					36			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34					34			

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

	0°	90°	180°	270°
0°	337806	337806	337806	337806
5°	352336	340713	318391	330177
10°	362633	337957	297217	317408
15°	367351	329671	274533	300708
20°	368338	317580	250724	280857
25°	349135	297910	226758	253628
30°	316461	270787	203083	223326
35°	278093	239546	178861	192581
40°	240284	206983	154231	163957
45°	208181	176412	130280	139517
50°	182102	149738	115045	118706
55°	159996	127325	102246	100447
60°	139995	108231	90108	84143
65°	121258	91956	79360	69980
70°	99055	77603	67042	57659
75°	74201	65789	54265	47847
80°	44572	57472	38629	37976
85°	17039	53282	13862	22381

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 213699 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.9	5.6
10°-20°	686.2	15.4
20°-30°	929.6	20.9
30°-40°	903.6	20.3
40°-50°	715.3	16.0
50°-60°	500.9	11.2
60°-70°	303.7	6.8
70°-80°	139.2	3.1
80°-90°	28.4	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°	1866.7	41.9
0°-40°	2770.3	62.1
0°-60°	3986.5	89.4
0°-90°	4457.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4457.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2684	2684	2684	2684	2684	
5°	2789	2697	2520	2614	2789	268
15°	2820	2530	2107	2308	2820	796
25°	2514	2145	1633	1826	2514	1148
35°	1810	1559	1164	1254	1810	1130
45°	1170	991	732	784	1170	907
55°	729	580	466	458	729	655
65°	407	309	266	235	407	404
75°	153	135	112	98	153	165
85°	12	37	10	16	12	20
90°	0	4	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2
0.5°	2692.4	2693.8	2692.9	2691.5	2690.2	2685.2	2681.5	2680.1	2665.1	2664.7	2667.4
1°	2705.2	2707.0	2705.6	2700.2	2693.3	2682.9	2674.2	2668.3	2650.5	2650.5	2654.2
1.5°	2717.5	2719.8	2716.1	2707.5	2696.1	2680.6	2666.5	2656.9	2635.5	2634.6	2640.1
2°	2729.3	2732.5	2726.6	2715.2	2697.9	2677.0	2658.3	2644.2	2620.5	2618.6	2625.0
2.5°	2740.7	2744.8	2737.1	2722.0	2699.7	2673.3	2649.2	2631.9	2604.5	2602.7	2610.0
3°	2751.7	2755.8	2747.1	2728.0	2700.2	2668.3	2639.6	2617.7	2588.1	2586.3	2595.0
3.5°	2762.1	2766.7	2755.8	2733.4	2700.6	2663.3	2629.6	2604.5	2571.7	2569.0	2579.0
4°	2771.7	2776.7	2764.4	2738.0	2699.7	2657.4	2619.1	2590.0	2555.3	2551.7	2563.1
4.5°	2780.8	2786.3	2772.2	2742.1	2698.8	2651.4	2608.2	2574.9	2537.6	2533.9	2546.2
5°	2789.0	2795.8	2779.4	2745.7	2697.0	2644.2	2596.3	2559.9	2520.3	2515.7	2529.8
5.5°	2796.7	2804.5	2786.3	2748.5	2694.7	2636.9	2584.5	2544.4	2501.6	2497.0	2511.6
6°	2804.0	2812.2	2792.2	2751.2	2691.5	2628.2	2571.3	2528.0	2483.8	2477.9	2494.3
6.5°	2810.4	2819.5	2797.7	2753.0	2687.9	2620.0	2558.5	2511.6	2465.1	2459.2	2475.6
7°	2816.3	2825.9	2802.2	2753.9	2683.8	2610.4	2544.9	2495.2	2446.0	2439.6	2456.5
7.5°	2821.8	2831.8	2806.3	2753.9	2678.3	2600.9	2531.2	2477.9	2426.9	2419.6	2437.8
8°	2825.9	2836.8	2810.0	2753.9	2672.9	2590.4	2516.6	2460.1	2407.3	2399.1	2418.7
8.5°	2830.0	2841.4	2812.7	2753.0	2666.9	2579.9	2501.6	2441.9	2387.3	2379.5	2399.6
9°	2833.2	2845.5	2815.0	2751.2	2660.1	2568.1	2486.1	2424.2	2367.2	2358.6	2379.5
9.5°	2835.9	2848.7	2815.9	2748.5	2652.8	2556.2	2470.6	2405.5	2346.3	2337.6	2359.0
10°	2837.7	2851.0	2816.8	2745.3	2644.6	2543.5	2454.7	2387.3	2325.8	2316.7	2338.5
10.5°	2838.7	2852.8	2816.3	2741.6	2636.0	2530.7	2437.8	2367.7	2304.8	2295.2	2318.0
11°	2839.1	2853.7	2815.9	2737.5	2626.4	2517.1	2420.5	2348.1	2283.9	2273.8	2297.1
11.5°	2839.1	2854.1	2814.5	2732.1	2616.4	2503.4	2403.7	2328.5	2262.5	2252.0	2275.7
12°	2838.2	2854.1	2812.2	2726.6	2605.9	2488.8	2385.9	2308.9	2241.0	2230.1	2253.8
12.5°	2836.8	2853.2	2809.5	2720.2	2594.5	2473.3	2367.7	2288.4	2219.2	2207.3	2232.4
13°	2834.6	2851.4	2805.9	2713.4	2583.1	2458.3	2349.4	2267.9	2197.3	2185.5	2211.0
13.5°	2831.4	2849.6	2802.2	2705.6	2570.8	2442.8	2330.8	2247.0	2175.0	2162.7	2188.7
14°	2828.2	2845.9	2797.2	2696.5	2558.1	2426.0	2311.2	2226.0	2152.7	2139.5	2166.3
14.5°	2824.1	2842.3	2791.7	2687.4	2544.4	2409.1	2291.6	2204.6	2129.9	2117.1	2143.6
15°	2819.5	2838.2	2785.4	2677.9	2530.3	2391.4	2272.0	2183.2	2107.1	2093.5	2120.8
15.5°	2813.6	2832.7	2778.5	2667.8	2516.2	2374.0	2252.0	2161.3	2084.4	2070.7	2097.6
16°	2807.2	2827.3	2770.8	2656.9	2500.7	2355.8	2231.0	2139.5	2061.6	2047.5	2074.8
16.5°	2802.2	2820.9	2762.6	2645.5	2485.2	2337.6	2210.5	2117.1	2038.3	2024.2	2051.6
17°	2798.1	2815.0	2754.4	2633.7	2468.8	2318.5	2190.0	2095.3	2015.1	1999.6	2028.8
17.5°	2794.5	2810.9	2745.7	2620.5	2452.8	2299.3	2168.6	2072.5	1991.4	1975.9	2005.6
18°	2790.8	2807.2	2738.9	2608.6	2436.4	2279.8	2146.8	2049.7	1967.7	1952.3	1981.9
18.5°	2784.0	2803.1	2732.5	2596.8	2420.5	2260.6	2125.3	2027.0	1944.1	1928.6	1958.6
19°	2775.3	2797.2	2726.1	2585.9	2404.6	2241.0	2103.5	2004.2	1920.4	1904.9	1936.3
19.5°	2763.5	2788.1	2717.9	2574.5	2388.6	2221.9	2082.5	1981.4	1896.2	1881.2	1913.1
20°	2750.3	2777.2	2707.0	2561.7	2371.3	2201.4	2059.8	1958.6	1872.1	1857.1	1889.4
20.5°	2735.3	2764.0	2693.8	2546.7	2352.2	2181.4	2038.3	1934.9	1847.9	1832.9	1865.3
21°	2717.5	2749.4	2678.3	2531.2	2331.7	2159.1	2015.1	1911.3	1824.7	1809.2	1840.7



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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°	2652.8	2693.8	2625.5	2472.9	2267.9	2091.2	1946.3	1840.7	1752.3	1737.3	1767.3
23°	2627.3	2671.5	2605.4	2452.4	2244.2	2067.5	1922.2	1816.5	1728.2	1713.6	1742.3
23.5°	2600.9	2648.3	2583.6	2430.5	2221.0	2043.8	1898.5	1792.8	1704.9	1689.4	1716.8
24°	2573.6	2623.2	2561.3	2407.3	2196.4	2018.3	1873.9	1769.1	1680.8	1665.7	1691.7
24.5°	2544.4	2596.3	2536.7	2382.7	2171.4	1993.3	1849.3	1744.6	1656.6	1641.6	1666.7
25°	2514.3	2568.1	2511.2	2357.6	2145.4	1967.7	1823.8	1720.4	1633.0	1617.9	1641.6
25.5°	2483.8	2538.5	2483.8	2332.1	2119.4	1941.8	1799.2	1696.3	1609.3	1593.3	1615.6
26°	2452.4	2508.4	2456.0	2305.3	2093.0	1915.8	1774.6	1672.1	1586.0	1568.7	1590.1
26.5°	2419.6	2477.9	2427.3	2278.4	2065.7	1888.9	1749.1	1647.5	1561.9	1545.0	1564.6
27°	2387.3	2445.6	2397.3	2250.2	2037.4	1862.1	1723.6	1622.9	1538.7	1520.9	1539.1
27.5°	2354.0	2412.8	2366.3	2221.5	2009.6	1835.7	1697.6	1598.8	1514.5	1496.8	1513.2
28°	2318.9	2378.6	2333.5	2191.4	1981.0	1809.2	1672.1	1574.7	1491.3	1472.6	1487.2
28.5°	2284.3	2344.0	2299.8	2161.3	1952.7	1781.4	1646.6	1549.6	1468.1	1448.5	1461.7
29°	2249.2	2309.4	2267.0	2130.8	1923.1	1753.7	1620.7	1525.0	1444.8	1424.3	1436.2
29.5°	2213.3	2274.3	2233.8	2098.9	1893.5	1726.8	1595.1	1500.9	1421.1	1400.7	1410.7
30°	2177.7	2237.9	2199.1	2068.0	1863.4	1699.0	1568.7	1476.7	1397.5	1376.5	1384.7
30.5°	2141.3	2201.9	2163.6	2035.6	1833.4	1670.8	1542.8	1452.1	1373.8	1352.8	1359.7
31°	2104.4	2165.0	2128.1	2002.4	1804.2	1643.4	1517.3	1427.5	1350.5	1328.7	1334.6
31.5°	2068.4	2127.6	2092.5	1969.6	1773.2	1615.2	1491.3	1403.4	1327.3	1304.5	1310.0
32°	2031.1	2089.8	2056.1	1935.4	1742.7	1587.9	1465.8	1379.2	1304.1	1281.3	1285.0
32.5°	1993.7	2052.0	2019.7	1901.7	1712.2	1560.1	1439.4	1355.1	1280.4	1257.6	1259.4
33°	1956.8	2014.7	1983.7	1868.0	1681.2	1531.8	1413.9	1331.4	1257.2	1233.9	1234.4
33.5°	1919.5	1977.3	1948.6	1833.8	1651.2	1504.0	1388.4	1306.4	1233.9	1210.3	1210.7
34°	1883.0	1939.5	1911.7	1799.2	1620.2	1475.4	1362.8	1282.7	1210.7	1186.6	1185.7
34.5°	1846.6	1901.2	1874.8	1765.0	1589.2	1447.6	1337.3	1259.0	1187.0	1163.3	1161.5
35°	1810.1	1863.9	1837.9	1730.9	1559.2	1420.2	1311.4	1235.3	1164.2	1140.6	1136.9
35.5°	1773.7	1827.0	1801.5	1697.2	1528.2	1392.5	1286.8	1211.2	1141.5	1117.8	1113.7
36°	1736.8	1790.1	1765.5	1663.5	1497.7	1364.7	1261.7	1187.9	1118.2	1095.0	1090.0
36.5°	1701.7	1753.7	1729.5	1629.3	1466.7	1336.9	1236.2	1164.7	1095.5	1072.2	1066.8
37°	1665.7	1716.3	1693.5	1596.5	1437.5	1310.5	1210.7	1141.5	1072.2	1049.5	1043.5
37.5°	1631.1	1679.9	1658.5	1563.3	1406.6	1282.7	1185.7	1118.2	1050.4	1027.6	1020.8
38°	1596.1	1644.3	1622.0	1529.1	1377.4	1255.8	1161.5	1095.9	1027.6	1005.3	998.0
38.5°	1562.4	1608.8	1587.4	1497.2	1347.8	1228.9	1136.0	1072.7	1005.3	983.0	976.6
39°	1528.6	1573.7	1552.3	1464.0	1318.7	1203.0	1111.4	1050.4	983.4	961.1	954.3
39.5°	1495.8	1539.6	1519.5	1433.0	1288.6	1176.1	1086.8	1027.6	961.1	939.7	932.4
40°	1462.6	1505.9	1485.4	1399.7	1259.9	1149.7	1063.1	1005.3	938.8	917.8	911.0
40.5°	1431.2	1473.1	1452.1	1369.7	1231.7	1122.8	1039.0	982.0	917.4	896.4	890.5
41°	1399.7	1439.4	1419.3	1338.2	1203.0	1098.2	1015.8	960.2	896.0	875.5	869.5
41.5°	1368.3	1408.4	1387.4	1307.3	1174.7	1071.8	992.5	937.9	874.6	854.5	849.5
42°	1338.2	1376.5	1355.6	1276.3	1147.9	1046.7	969.8	916.9	853.1	834.5	830.4
42.5°	1309.1	1345.5	1325.0	1248.1	1121.0	1022.6	947.0	895.1	832.6	814.9	811.2
43°	1279.9	1315.9	1295.0	1218.9	1094.1	998.4	925.1	874.1	811.7	795.3	791.7
43.5°	1251.7	1286.3	1264.5	1190.2	1067.7	974.3	902.8	852.7	791.2	776.6	772.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1169.7	1200.7	1178.4	1106.4	991.2	905.5	839.0	793.0	732.0	723.3	718.3
45.5°	1143.3	1173.8	1150.6	1079.5	966.6	883.2	819.0	774.3	712.9	706.5	701.0
46°	1117.8	1147.4	1123.7	1053.6	942.4	861.8	798.9	755.7	694.6	689.2	683.7
46.5°	1092.7	1121.0	1096.8	1027.6	918.7	839.9	779.8	737.0	676.9	672.3	666.4
47°	1068.1	1095.0	1071.3	1002.1	895.1	818.5	760.2	718.8	660.0	656.4	649.5
47.5°	1044.5	1070.0	1045.4	977.5	872.3	798.0	741.1	701.0	644.1	640.9	633.1
48°	1020.3	1044.9	1019.9	952.0	849.5	777.1	722.4	683.7	630.0	625.4	617.7
48.5°	996.6	1021.2	995.7	928.8	827.6	757.5	703.7	666.4	617.7	610.4	601.7
49°	974.3	997.5	971.6	905.5	806.2	737.9	686.0	650.0	606.7	595.8	586.7
49.5°	952.0	974.3	948.3	882.8	785.3	718.8	667.8	633.6	596.7	582.1	571.6
50°	930.1	952.0	925.6	860.0	764.8	700.1	650.4	617.7	587.6	569.4	557.1
50.5°	908.7	929.2	902.3	837.7	744.3	681.4	633.6	602.2	578.5	556.6	542.0
51°	887.3	907.3	880.0	816.2	724.2	663.7	616.7	587.1	568.0	545.2	528.4
51.5°	866.4	885.9	858.6	795.3	705.6	646.3	600.8	572.6	555.7	534.8	515.2
52°	845.9	864.5	837.2	773.9	686.4	629.0	584.4	558.4	542.0	522.5	501.5
52.5°	825.8	843.6	816.2	753.8	667.8	612.2	568.9	544.8	528.8	510.2	488.3
53°	806.2	823.5	795.3	734.3	649.5	595.3	553.4	532.0	516.1	497.9	475.5
53.5°	786.2	803.0	775.3	714.2	631.8	578.9	538.4	518.8	502.9	485.6	462.8
54°	767.1	783.5	755.2	695.1	614.5	563.0	523.8	507.0	490.1	473.7	450.5
54.5°	747.9	763.4	735.2	676.4	596.7	547.5	509.2	496.0	478.3	461.9	438.6
55°	729.2	744.7	717.0	657.7	580.3	532.5	495.6	484.6	466.0	450.9	427.3
55.5°	710.6	725.6	697.8	640.0	563.9	517.0	481.9	473.3	454.6	438.6	415.9
56°	692.4	706.9	679.1	621.8	548.0	502.0	468.3	461.4	442.7	427.3	404.9
56.5°	674.6	688.7	660.9	604.4	532.5	487.8	455.0	450.0	431.4	416.8	394.9
57°	657.3	670.9	643.2	587.6	516.5	473.3	442.3	438.6	420.0	406.3	384.9
57.5°	639.1	652.7	625.9	570.7	501.5	459.6	430.0	427.7	409.5	395.4	375.3
58°	622.2	635.0	608.1	554.3	486.5	445.9	418.1	416.8	398.6	385.3	365.3
58.5°	605.4	617.7	591.2	537.9	472.8	432.7	406.3	405.8	388.5	375.3	355.7
59°	588.5	601.3	574.8	522.0	458.2	419.5	394.9	395.4	378.1	365.3	345.7
59.5°	572.1	583.5	558.0	506.5	444.1	406.8	384.4	385.3	368.0	355.3	336.6
60°	556.2	568.0	542.0	491.5	430.0	394.5	374.0	375.3	358.0	345.3	327.5
60.5°	540.2	551.6	526.1	476.0	417.2	383.1	363.5	365.3	348.0	335.7	318.4
61°	524.3	535.7	510.6	461.9	404.0	371.2	353.0	355.3	338.4	326.6	309.3
61.5°	508.8	519.3	494.7	447.3	391.7	359.4	342.5	345.3	328.9	317.0	300.6
62°	493.8	504.7	480.1	433.2	379.4	347.5	333.4	335.7	319.8	307.9	292.0
62.5°	479.2	489.2	465.5	419.5	367.1	336.2	323.9	326.6	310.2	298.8	283.3
63°	464.2	474.2	450.5	405.8	354.8	325.2	314.7	317.0	301.5	290.6	274.7
63.5°	449.6	459.1	436.4	392.6	342.5	314.7	305.6	307.9	292.4	281.5	266.5
64°	435.5	444.6	422.2	379.4	330.7	304.3	297.4	298.8	283.8	273.3	258.3
64.5°	421.3	430.4	408.6	366.7	319.8	294.3	288.8	290.2	275.1	264.6	250.5
65°	407.2	416.8	394.9	353.9	308.8	284.2	280.6	282.0	266.5	256.4	242.3
65.5°	393.1	402.2	381.3	342.1	297.9	274.7	271.9	273.3	257.4	248.2	234.6
66°	378.5	389.0	368.5	330.2	287.4	265.1	264.2	264.6	248.7	240.0	227.3





TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	336.6	348.5	330.2	295.2	257.4	238.7	240.0	240.0	222.7	215.9	205.0
68°	322.9	335.2	317.9	284.2	247.8	230.0	232.8	231.8	214.5	208.2	197.7
68.5°	308.8	322.0	306.1	273.8	238.2	221.8	225.0	223.6	206.3	200.0	190.9
69°	295.6	308.8	294.7	262.8	229.1	213.6	217.7	215.9	198.1	192.7	184.0
69.5°	282.4	296.1	283.3	252.8	220.0	206.3	210.0	207.7	189.9	184.9	177.2
70°	269.2	283.3	271.9	242.3	210.9	198.6	203.2	200.0	182.2	177.6	170.4
70.5°	256.9	271.0	261.0	232.3	202.2	191.3	195.9	192.7	174.9	170.4	164.0
71°	244.1	259.2	250.1	222.7	194.0	184.5	189.0	184.9	167.2	162.6	157.1
71.5°	231.8	246.9	239.6	213.2	185.8	177.6	182.2	177.6	159.9	155.8	150.8
72°	219.5	235.5	229.6	204.1	178.1	170.8	175.4	170.4	152.6	148.9	144.4
72.5°	208.2	224.6	219.1	195.4	170.4	164.4	169.0	163.1	145.3	141.7	138.0
73°	196.8	213.2	209.1	186.8	163.1	157.6	162.2	156.2	138.0	135.3	132.1
73.5°	184.9	202.7	199.5	177.6	155.8	151.7	155.8	148.9	131.2	128.4	126.2
74°	174.0	191.8	189.5	169.4	148.9	145.8	149.4	142.6	124.4	121.6	120.3
74.5°	162.6	181.3	180.4	163.5	142.1	139.8	143.5	135.7	118.0	115.2	113.9
75°	152.6	171.3	171.3	155.8	135.3	133.9	137.1	129.4	111.6	108.9	108.4
75.5°	142.6	161.2	161.7	148.0	128.9	128.4	131.2	123.0	105.2	102.9	102.5
76°	132.5	152.6	153.5	139.8	123.0	123.0	125.3	116.6	98.8	96.6	97.0
76.5°	122.5	143.5	145.3	132.1	116.6	117.5	119.3	110.2	92.5	90.6	91.6
77°	113.0	134.4	137.6	124.8	111.1	112.1	113.4	104.3	86.5	84.7	86.1
77.5°	103.4	125.3	129.4	118.0	105.2	107.0	107.5	98.4	80.6	79.3	81.1
78°	94.3	116.6	121.2	111.6	99.8	102.0	102.5	92.5	75.2	73.3	76.1
78.5°	85.6	108.9	113.4	105.2	94.3	96.6	96.6	86.5	69.2	67.9	70.6
79°	77.0	100.7	106.1	98.8	88.8	91.6	91.6	80.6	63.8	62.4	65.6
79.5°	69.2	92.9	98.8	92.5	83.8	87.0	86.1	75.2	58.3	57.4	61.0
80°	61.5	85.2	91.6	86.5	79.3	82.0	81.1	69.7	53.3	51.9	56.0
80.5°	54.7	78.3	84.7	81.1	74.2	77.4	76.1	64.7	47.8	46.9	51.5
81°	47.8	71.5	78.3	75.6	69.7	72.9	71.1	59.2	43.3	42.4	46.9
81.5°	41.5	65.1	72.0	70.1	65.1	68.3	66.0	54.2	38.3	37.8	42.8
82°	35.1	58.8	65.6	65.1	60.6	63.8	61.5	49.2	33.7	33.3	38.7
82.5°	29.2	52.4	59.7	60.1	56.5	59.2	56.5	44.6	28.7	28.7	34.6
83°	24.1	46.5	54.2	55.1	52.4	55.1	51.9	40.1	23.7	24.1	30.5
83.5°	19.6	41.0	48.7	50.6	48.3	51.0	47.8	35.5	19.6	20.5	26.4
84°	15.9	35.1	43.7	46.0	44.2	46.5	43.7	31.0	15.5	17.3	22.8
84.5°	13.7	30.1	38.7	41.9	40.5	42.8	39.6	26.4	11.8	14.6	19.6
85°	11.8	25.1	34.2	37.8	36.9	38.7	36.0	22.8	9.6	12.3	15.9
85.5°	9.6	20.5	30.1	33.7	33.3	35.1	31.9	19.6	8.2	10.0	12.8
86°	7.7	16.4	26.0	30.1	29.6	31.0	27.8	16.9	6.8	8.2	9.1
86.5°	6.4	13.7	22.3	26.0	26.0	26.9	24.1	14.6	5.5	5.9	6.4
87°	5.5	10.9	18.7	22.8	22.8	23.2	20.5	11.8	4.1	4.1	3.6
87.5°	4.1	8.2	15.9	19.6	19.6	19.6	16.9	9.6	2.7	2.3	1.4
88°	3.2	5.5	13.2	16.4	15.9	16.4	13.7	7.3	1.8	0.9	0.5
88.5°	2.3	3.6	10.0	13.2	12.8	12.8	10.5	5.0	0.5	0.5	0.0



TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.9	2.7	5.0	4.1	3.6	1.8	0.5	0.0	0.5	0.0



TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2684.2	2684.2	2684.2	2684.2	2684.2	2684.2
0.5°	2671.9	2682.0	2687.0	2694.3	2701.1	2692.4
1°	2661.9	2676.5	2687.4	2699.3	2710.7	2705.2
1.5°	2651.0	2670.6	2687.0	2704.3	2719.8	2717.5
2°	2640.1	2664.7	2685.6	2708.4	2728.4	2729.3
2.5°	2628.2	2657.4	2684.2	2712.0	2736.6	2740.7
3°	2615.9	2650.1	2681.5	2714.8	2743.9	2751.7
3.5°	2602.7	2641.9	2678.8	2717.5	2750.7	2762.1
4°	2589.5	2633.2	2674.7	2718.9	2756.2	2771.7
4.5°	2575.8	2623.7	2670.6	2719.8	2761.7	2780.8
5°	2561.3	2613.6	2665.6	2720.2	2767.1	2789.0
5.5°	2546.2	2603.6	2659.6	2719.8	2771.2	2796.7
6°	2531.2	2592.2	2653.7	2718.9	2774.4	2804.0
6.5°	2515.7	2580.4	2646.9	2717.0	2777.2	2810.4
7°	2498.9	2568.1	2639.1	2714.3	2779.4	2816.3
7.5°	2482.5	2555.3	2630.9	2711.1	2781.3	2821.8
8°	2465.6	2542.6	2622.3	2707.5	2781.7	2825.9
8.5°	2447.8	2528.5	2612.7	2703.4	2781.7	2830.0
9°	2430.1	2513.9	2602.7	2698.4	2781.3	2833.2
9.5°	2411.4	2498.9	2592.2	2692.4	2780.3	2835.9
10°	2392.7	2483.8	2581.3	2686.1	2778.5	2837.7
10.5°	2373.6	2467.9	2569.9	2679.2	2776.2	2838.7
11°	2354.5	2451.9	2557.2	2671.5	2773.1	2839.1
11.5°	2334.9	2435.1	2543.9	2663.3	2769.0	2839.1
12°	2314.8	2417.3	2531.2	2654.6	2764.4	2838.2
12.5°	2294.8	2400.0	2517.5	2645.1	2759.4	2836.8
13°	2274.3	2382.2	2503.0	2635.0	2753.9	2834.6
13.5°	2252.9	2364.0	2487.9	2625.0	2747.6	2831.4
14°	2231.5	2344.9	2472.4	2613.2	2740.3	2828.2
14.5°	2210.1	2326.7	2457.9	2601.8	2733.4	2824.1
15°	2189.6	2308.0	2442.4	2590.9	2724.8	2819.5
15.5°	2168.2	2289.8	2428.3	2581.3	2717.9	2813.6
16°	2147.2	2271.1	2414.1	2572.6	2712.5	2807.2
16.5°	2125.8	2252.9	2400.0	2562.6	2707.0	2802.2
17°	2104.4	2234.2	2383.6	2550.8	2700.6	2798.1
17.5°	2082.5	2214.2	2364.9	2535.7	2692.0	2794.5
18°	2060.7	2192.8	2344.9	2519.8	2679.7	2790.8
18.5°	2037.9	2170.4	2323.5	2501.6	2665.1	2784.0
19°	2014.2	2146.3	2301.2	2482.5	2648.7	2775.3
19.5°	1990.1	2122.2	2278.4	2461.5	2631.9	2763.5
20°	1965.5	2097.1	2255.2	2439.6	2612.3	2750.3
20.5°	1940.0	2072.5	2230.1	2416.9	2592.2	2735.3
21°	1914.9	2046.1	2204.6	2392.3	2569.9	2717.5

TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1836.6	1966.4	2125.8	2314.4	2495.2	2652.8
23°	1810.1	1939.0	2098.0	2287.0	2467.4	2627.3
23.5°	1782.8	1911.3	2069.3	2257.9	2438.7	2600.9
24°	1755.9	1883.0	2041.1	2228.7	2408.2	2573.6
24.5°	1728.6	1854.8	2011.5	2197.8	2377.7	2544.4
25°	1701.7	1826.5	1981.9	2166.8	2345.4	2514.3
25.5°	1674.4	1798.3	1951.3	2135.4	2313.5	2483.8
26°	1647.1	1769.6	1920.8	2103.0	2280.2	2452.4
26.5°	1620.2	1740.5	1891.2	2070.7	2247.4	2419.6
27°	1592.9	1711.3	1859.8	2037.4	2213.7	2387.3
27.5°	1565.5	1682.1	1828.8	2004.2	2178.6	2354.0
28°	1538.2	1653.0	1796.5	1970.0	2143.6	2318.9
28.5°	1511.3	1623.4	1765.5	1936.3	2109.4	2284.3
29°	1484.0	1595.1	1734.5	1902.6	2074.8	2249.2
29.5°	1456.7	1566.0	1702.6	1868.0	2039.3	2213.3
30°	1429.8	1536.8	1670.8	1835.7	2003.7	2177.7
30.5°	1402.9	1507.7	1638.9	1801.5	1968.2	2141.3
31°	1376.1	1479.5	1607.4	1767.3	1933.6	2104.4
31.5°	1349.6	1450.3	1576.5	1734.1	1898.5	2068.4
32°	1322.3	1421.6	1545.0	1700.8	1862.5	2031.1
32.5°	1296.8	1393.4	1514.1	1667.1	1827.5	1993.7
33°	1270.4	1364.7	1483.1	1635.7	1792.4	1956.8
33.5°	1244.0	1336.4	1453.0	1602.9	1757.3	1919.5
34°	1218.5	1308.6	1422.5	1570.6	1724.1	1883.0
34.5°	1192.9	1280.9	1392.9	1538.7	1689.0	1846.6
35°	1167.4	1253.5	1363.3	1507.2	1655.3	1810.1
35.5°	1142.4	1225.7	1333.7	1475.8	1621.6	1773.7
36°	1117.8	1199.8	1305.9	1446.2	1588.8	1736.8
36.5°	1093.2	1172.9	1277.2	1414.3	1556.4	1701.7
37°	1068.6	1146.9	1250.3	1385.2	1523.2	1665.7
37.5°	1045.4	1120.5	1222.1	1355.6	1491.3	1631.1
38°	1021.7	1095.5	1195.2	1326.9	1459.4	1596.1
38.5°	998.9	1070.4	1168.3	1297.3	1428.0	1562.4
39°	976.6	1045.8	1142.4	1269.9	1398.4	1528.6
39.5°	953.4	1021.2	1116.9	1242.1	1367.9	1495.8
40°	931.0	998.0	1090.9	1214.8	1337.8	1462.6
40.5°	909.6	974.3	1066.3	1187.0	1308.6	1431.2
41°	888.2	952.0	1041.7	1161.1	1279.9	1399.7
41.5°	866.8	929.2	1018.0	1134.6	1251.7	1368.3
42°	846.8	907.3	994.3	1109.6	1223.9	1338.2
42.5°	826.3	885.5	970.7	1084.5	1196.6	1309.1
43°	806.7	865.0	947.9	1059.9	1169.7	1279.9
43.5°	787.1	843.6	925.1	1035.3	1143.8	1251.7



TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	731.5	783.9	860.0	965.2	1068.1	1169.7
45.5°	713.8	764.3	839.5	942.4	1044.0	1143.3
46°	696.0	745.6	818.5	920.1	1020.3	1117.8
46.5°	678.7	727.0	798.9	898.2	996.6	1092.7
47°	661.4	708.8	778.4	876.4	973.9	1068.1
47.5°	645.0	691.0	759.3	855.4	951.1	1044.5
48°	628.6	673.7	740.2	834.5	929.2	1020.3
48.5°	612.6	656.4	721.1	814.0	907.3	996.6
49°	596.2	639.5	702.8	794.4	886.4	974.3
49.5°	580.8	622.7	684.6	774.8	865.4	952.0
50°	565.7	606.3	666.4	754.8	844.5	930.1
50.5°	550.7	590.3	649.1	735.6	824.4	908.7
51°	536.1	574.4	631.8	717.4	804.4	887.3
51.5°	521.5	558.4	614.9	698.7	785.3	866.4
52°	507.0	543.9	598.1	681.0	765.2	845.9
52.5°	492.8	528.8	582.1	663.2	746.6	825.8
53°	479.2	514.3	565.7	645.4	727.9	806.2
53.5°	465.5	499.7	550.2	628.6	709.2	786.2
54°	452.3	485.1	534.8	611.3	691.0	767.1
54.5°	439.6	471.4	519.7	594.4	673.7	747.9
55°	426.8	457.8	504.7	578.0	655.5	729.2
55.5°	414.0	444.6	490.1	562.1	638.6	710.6
56°	402.2	431.4	475.1	546.1	621.3	692.4
56.5°	390.8	418.6	461.4	530.7	604.4	674.6
57°	379.4	405.4	447.3	515.2	587.6	657.3
57.5°	368.0	393.5	433.6	500.1	571.2	639.1
58°	356.7	380.8	420.4	485.1	554.8	622.2
58.5°	345.3	369.0	407.7	471.0	539.3	605.4
59°	334.8	357.1	394.5	456.4	523.4	588.5
59.5°	324.3	345.7	382.2	442.3	508.3	572.1
60°	314.7	334.3	369.4	428.6	492.8	556.2
60.5°	304.7	323.4	357.6	415.0	478.3	540.2
61°	295.2	312.9	345.3	401.7	462.8	524.3
61.5°	285.6	302.0	333.9	388.5	449.1	508.8
62°	276.5	291.5	322.5	375.3	435.0	493.8
62.5°	267.4	281.5	311.1	363.0	420.9	479.2
63°	258.7	271.9	300.2	350.3	406.8	464.2
63.5°	250.1	262.4	289.7	338.4	393.5	449.6
64°	241.9	252.8	278.8	326.1	380.3	435.5
64.5°	234.1	243.7	268.7	314.3	367.1	421.3
65°	226.4	235.0	258.7	302.9	354.4	407.2
65.5°	219.1	225.9	249.2	291.5	342.1	393.1
66°	211.8	217.3	239.1	280.1	329.8	378.5



TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	190.9	193.1	211.4	248.2	292.4	336.6
68°	184.5	185.4	202.7	238.2	280.6	322.9
68.5°	177.6	178.1	194.5	228.2	268.7	308.8
69°	171.3	170.8	186.3	218.2	256.9	295.6
69.5°	164.9	163.1	177.6	209.1	245.5	282.4
70°	158.5	156.7	169.9	200.0	234.6	269.2
70.5°	152.6	150.8	162.6	190.9	223.6	256.9
71°	146.7	144.4	155.8	181.7	212.7	244.1
71.5°	140.3	138.0	148.5	173.1	202.2	231.8
72°	134.8	132.1	141.2	164.9	191.8	219.5
72.5°	129.4	126.2	133.9	156.7	181.7	208.2
73°	123.0	120.3	127.5	148.9	172.2	196.8
73.5°	117.5	114.8	120.7	140.7	161.7	184.9
74°	112.1	109.3	114.3	133.0	153.0	174.0
74.5°	107.0	103.9	108.4	125.3	144.4	162.6
75°	101.6	98.4	102.5	118.0	135.7	152.6
75.5°	96.6	93.4	96.6	110.7	127.1	142.6
76°	91.6	88.4	91.1	103.4	118.9	132.5
76.5°	86.5	83.4	85.2	97.0	110.7	122.5
77°	81.5	78.8	80.2	90.2	102.9	113.0
77.5°	77.0	74.2	74.7	83.8	95.2	103.4
78°	72.0	69.7	69.7	77.9	87.9	94.3
78.5°	67.4	65.1	65.1	71.5	80.6	85.6
79°	62.9	61.0	60.6	66.0	73.8	77.0
79.5°	58.3	56.5	55.6	60.1	67.0	69.2
80°	53.7	52.4	51.5	55.1	60.6	61.5
80.5°	49.6	48.7	46.9	50.1	54.2	54.7
81°	45.5	44.6	43.3	45.1	48.3	47.8
81.5°	41.5	40.5	39.2	40.1	42.4	41.5
82°	37.4	36.9	35.1	36.0	36.9	35.1
82.5°	33.3	33.3	31.4	31.9	31.4	29.2
83°	29.6	29.6	27.8	27.8	26.4	24.1
83.5°	25.5	25.5	24.1	24.1	22.3	19.6
84°	21.9	22.3	21.0	20.5	18.2	15.9
84.5°	18.2	18.7	17.8	17.3	15.5	13.7
85°	14.6	15.5	15.0	14.6	12.3	11.8
85.5°	10.9	12.8	11.8	11.8	9.6	9.6
86°	7.7	9.6	9.1	9.1	6.8	7.7
86.5°	4.6	6.4	5.9	6.4	5.0	6.4
87°	2.3	3.2	3.6	4.6	3.6	5.5
87.5°	0.5	0.9	1.4	2.3	2.3	4.1
88°	0.0	0.0	0.0	0.5	1.4	3.2
88.5°	0.0	0.0	0.0	0.0	0.5	2.3



TEST NUMBER: P776580

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-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



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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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Scaled Data Report





21.5°	2697.0	2732.5	2662.4	2513.0	2311.2	2136.7	1992.8	1888.0	1800.6	1784.6	1817.0
22°	2675.1	2714.3	2644.6	2493.4	2289.8	2114.4	1969.6	1864.3	1776.4	1760.9	1791.9



44°	1223.5	1256.7	1234.9	1160.1	1042.2	951.1	881.4	832.6	771.2	758.9	754.8
44.5°	1196.1	1228.5	1207.1	1133.7	1016.7	927.8	860.0	812.1	752.0	741.5	736.5



66.5°	364.4	375.8	355.3	317.9	276.9	256.0	256.0	256.9	240.0	231.8	219.5
67°	350.3	361.7	343.0	306.5	266.9	247.3	247.8	248.2	231.4	224.1	212.3



89°	1.4	2.7	7.3	10.5	9.6	9.6	7.3	3.2	0.0	0.5	0.0
89.5°	0.5	1.8	4.6	7.7	6.8	6.4	4.1	1.4	0.0	0.5	0.0



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21.5°	1889.4	2019.7	2179.1	2367.7	2546.7	2697.0
22°	1863.4	1993.7	2152.7	2341.7	2521.2	2675.1



44°	768.4	823.1	903.2	1011.2	1117.8	1223.5
44.5°	749.7	803.0	881.8	988.0	1092.7	1196.1



66.5°	204.5	209.1	229.6	269.2	317.0	364.4
67°	197.7	200.9	220.5	258.7	304.7	350.3

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89°	0.0	0.0	0.0	0.0	0.5	1.4
89.5°	0.0	0.0	0.0	0.0	0.0	0.5

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)