

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: P776588

Luminaire Tested: HCDJBS4050CSD-HCD42TRMB-5000lm-4000K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776588  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B051)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD42TRMB-5000lm-4000K  
Description: 4 INCH ROUND NARROW MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

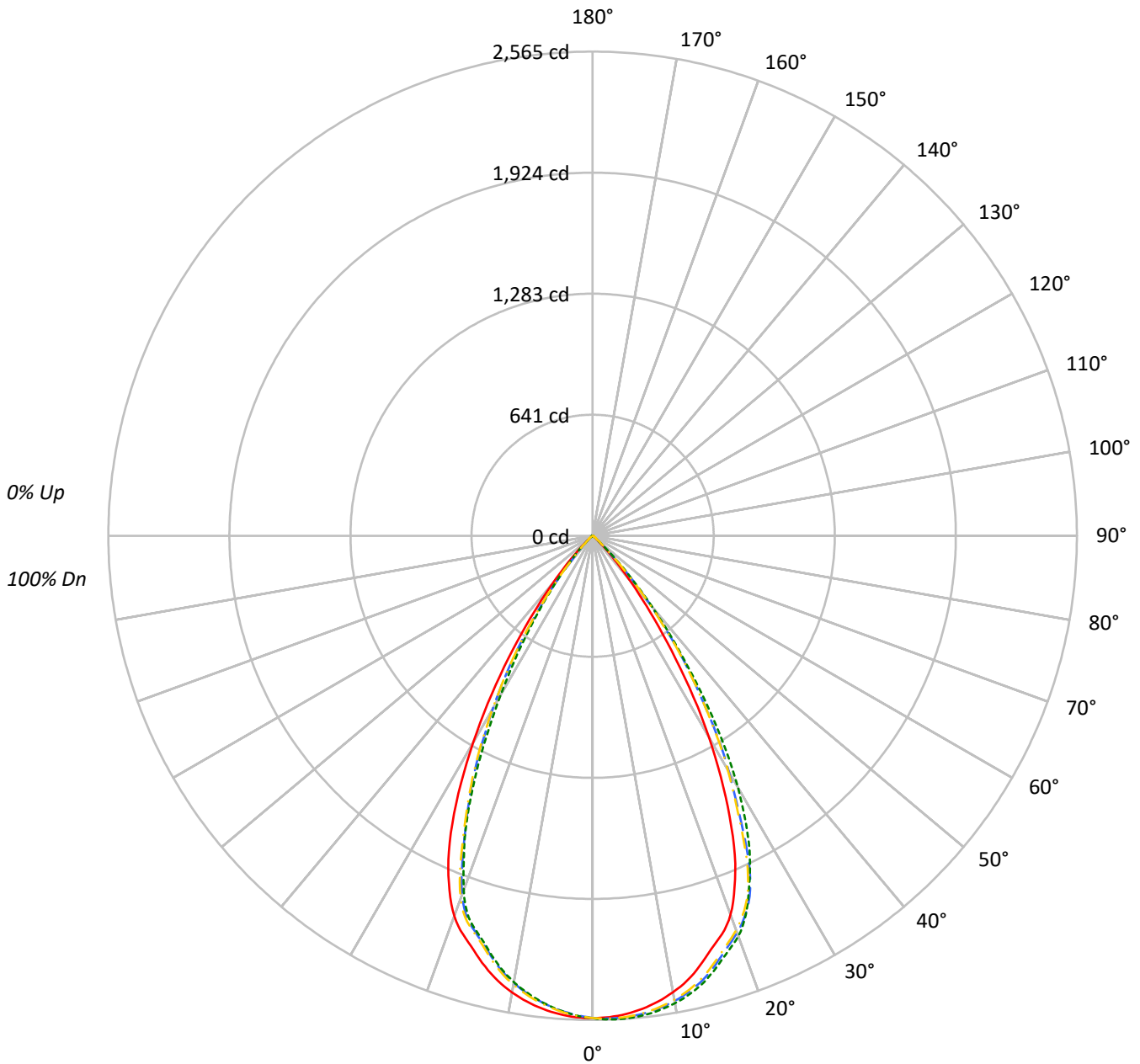
Lumens per Lamp: N/A  
Luminaire Lumens: 2256.1 lumens  
Efficiency: N/A  
Efficacy: 47.0 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.94 / 0.88  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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									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	114	111	109	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94																			
2	108	103	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	85	83	82																			
4	98	91	85	81	96	89	84	81	87	83	80	85	82	79	83	80	78	76																			
5	93	85	79	75	91	84	79	75	82	78	74	81	77	73	79	76	73	71																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																			
7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	63																			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59																			
9	76	67	61	57	75	67	61	57	66	61	57	65	60	57	64	60	57	55																			
10	73	63	58	54	72	63	58	54	62	57	54	61	57	54	61	56	53	52																			

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

	0°	90°	180°	270°
0°	321521	321521	321521	321521
5°	319667	323419	319793	316471
10°	313715	321293	313906	306814
15°	301359	313867	302167	290337
20°	286027	302286	287112	267210
25°	244074	273596	248920	211747
30°	178960	223689	183828	141599
35°	105731	149563	113213	80689
40°	48513	79760	54099	36668
45°	14968	27124	17104	10714
50°	4777	5423	4875	4112
55°	2940	3357	2940	2523
60°	1812	2039	1913	1686
65°	1280	1280	1280	1132
70°	883	883	883	699
75°	486	681	486	486
80°	362	362	362	362
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 28316 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.2	10.6
10°-20°	650.4	28.8
20°-30°	789.4	35.0
30°-40°	465.1	20.6
40°-50°	93.6	4.1
50°-60°	12.7	0.6
60°-70°	4.3	0.2
70°-80°	1.3	0.1
80°-90°	0.1	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°	1679.0	74.4
0°-40°	2144.1	95.0
0°-60°	2250.4	99.7
0°-90°	2256.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2256.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2555	2555	2555	2555	2555	
5°	2530	2560	2531	2505	2530	239
15°	2313	2409	2319	2228	2313	650
25°	1758	1970	1793	1525	1758	788
35°	688	974	737	525	688	437
45°	84	152	96	60	84	82
55°	13	15	13	12	13	13
65°	4	4	4	4	4	4
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	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°	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8
0.5°	2555.3	2556.7	2555.3	2554.3	2559.6	2557.7	2556.2	2555.8	2555.3	2554.8	2551.0
1°	2554.3	2556.7	2556.7	2556.2	2561.5	2559.6	2557.7	2556.2	2554.8	2552.9	2547.6
1.5°	2553.4	2556.7	2558.1	2558.1	2562.9	2561.0	2558.1	2555.8	2553.4	2550.5	2544.3
2°	2551.5	2555.8	2558.6	2559.1	2563.9	2562.0	2558.6	2555.3	2551.9	2548.1	2540.0
2.5°	2549.1	2554.8	2558.6	2559.6	2564.8	2562.4	2558.1	2554.3	2549.5	2544.8	2535.2
3°	2546.2	2552.9	2558.1	2560.1	2564.8	2562.4	2557.7	2552.4	2547.2	2540.9	2530.4
3.5°	2543.3	2551.0	2557.7	2559.6	2564.4	2561.5	2556.2	2550.5	2543.8	2536.6	2525.2
4°	2539.5	2548.1	2556.2	2558.6	2563.4	2560.5	2554.8	2547.6	2540.0	2531.9	2519.0
4.5°	2535.2	2545.2	2554.8	2557.7	2562.0	2559.1	2552.4	2544.8	2536.2	2527.1	2512.3
5°	2530.4	2541.4	2552.4	2555.8	2560.1	2556.7	2550.0	2541.4	2531.4	2521.4	2505.1
5.5°	2525.2	2537.6	2549.5	2553.8	2557.7	2554.3	2546.7	2537.6	2526.1	2515.1	2497.9
6°	2519.4	2532.8	2546.2	2551.0	2554.8	2551.0	2542.9	2532.8	2520.4	2508.4	2489.8
6.5°	2513.2	2528.0	2542.4	2547.6	2551.9	2547.6	2538.6	2527.6	2514.2	2500.8	2481.2
7°	2507.0	2522.3	2538.1	2543.8	2547.6	2543.3	2534.3	2521.8	2508.0	2493.2	2471.6
7.5°	2499.4	2516.1	2533.3	2540.0	2543.3	2538.6	2529.5	2516.1	2500.8	2484.6	2462.1
8°	2491.7	2509.4	2528.5	2535.2	2538.6	2533.8	2523.3	2509.4	2492.7	2476.0	2452.1
8.5°	2483.1	2502.2	2522.3	2530.0	2533.3	2528.0	2517.0	2502.2	2484.6	2466.9	2441.1
9°	2474.5	2494.6	2516.1	2524.2	2527.6	2522.3	2510.4	2494.6	2476.0	2456.8	2430.1
9.5°	2465.0	2486.0	2509.4	2518.0	2521.4	2515.6	2503.2	2486.5	2466.4	2446.8	2417.6
10°	2454.9	2477.4	2502.2	2511.3	2514.2	2508.9	2495.5	2477.9	2456.4	2435.3	2405.2
10.5°	2443.9	2467.8	2494.6	2504.1	2507.0	2500.8	2487.4	2468.3	2445.8	2423.9	2392.3
11°	2433.4	2458.3	2486.0	2496.0	2498.9	2492.7	2478.3	2458.3	2435.3	2411.4	2378.5
11.5°	2421.5	2447.8	2476.9	2487.9	2490.3	2483.6	2468.8	2447.8	2423.4	2398.5	2363.2
12°	2408.6	2436.3	2467.3	2479.3	2481.2	2474.5	2458.7	2436.8	2411.0	2384.7	2347.4
12.5°	2394.7	2423.9	2457.3	2469.3	2471.6	2464.0	2447.8	2424.8	2397.6	2369.9	2330.7
13°	2379.9	2411.4	2445.8	2459.2	2460.7	2453.5	2436.3	2412.4	2383.7	2354.6	2313.0
13.5°	2364.1	2397.1	2434.9	2448.2	2449.2	2441.5	2423.9	2398.5	2368.4	2338.3	2294.8
14°	2347.9	2382.8	2422.4	2436.3	2437.2	2429.1	2410.5	2384.2	2352.7	2320.6	2275.2
14.5°	2330.7	2367.0	2409.0	2423.4	2423.4	2414.8	2396.6	2368.9	2336.4	2302.5	2256.6
15°	2313.0	2350.3	2394.7	2409.5	2409.0	2400.9	2381.3	2353.1	2319.2	2284.3	2238.0
15.5°	2295.3	2333.1	2379.4	2394.7	2394.7	2385.6	2365.6	2336.4	2301.5	2266.2	2221.2
16°	2278.6	2316.3	2363.2	2379.4	2378.9	2369.9	2349.3	2319.2	2283.8	2248.5	2205.0
16.5°	2263.3	2299.6	2346.4	2363.2	2362.2	2353.6	2332.6	2302.5	2267.6	2232.2	2188.7
17°	2247.5	2284.3	2329.7	2347.4	2346.4	2337.4	2315.9	2286.2	2251.8	2216.9	2172.5
17.5°	2232.7	2269.0	2313.9	2331.1	2331.1	2322.1	2300.1	2270.9	2236.5	2201.2	2156.2
18°	2217.4	2254.2	2298.2	2316.3	2317.3	2307.3	2285.8	2255.6	2220.8	2184.9	2137.1
18.5°	2201.2	2238.4	2283.4	2302.0	2302.5	2292.9	2270.0	2239.4	2204.5	2167.7	2115.1
19°	2182.0	2223.1	2268.1	2287.2	2288.1	2278.1	2254.7	2224.6	2186.8	2147.6	2088.4
19.5°	2160.1	2205.9	2253.3	2271.9	2273.8	2263.3	2239.4	2207.4	2166.8	2123.7	2057.8
20°	2135.7	2186.3	2237.5	2257.6	2257.1	2247.0	2223.1	2189.2	2143.8	2096.5	2022.0
20.5°	2107.5	2164.4	2221.2	2240.8	2238.0	2228.9	2205.5	2169.1	2117.5	2066.4	1981.8
21°	2076.9	2140.9	2203.1	2222.2	2216.0	2207.9	2186.3	2146.7	2089.8	2032.5	1935.5



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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°	1971.3	2052.5	2139.0	2152.4	2136.2	2132.8	2118.0	2065.9	1989.9	1910.6	1785.9
23°	1933.1	2017.7	2112.8	2124.7	2104.6	2102.2	2091.2	2033.9	1955.1	1864.7	1736.7
23.5°	1893.9	1980.9	2083.6	2093.6	2070.7	2069.3	2059.7	1998.1	1917.3	1816.9	1687.9
24°	1850.4	1941.7	2051.1	2059.2	2037.2	2035.8	2025.3	1960.3	1878.1	1768.7	1642.0
24.5°	1805.0	1900.1	2014.3	2023.9	2004.3	1999.0	1985.6	1921.1	1836.5	1720.4	1595.7
25°	1757.7	1857.1	1970.8	1985.6	1970.3	1962.7	1943.6	1879.1	1792.6	1674.5	1549.3
25.5°	1707.5	1811.2	1924.5	1948.4	1936.4	1926.4	1895.3	1834.1	1744.8	1629.1	1502.5
26°	1656.4	1761.5	1871.4	1908.2	1900.6	1889.1	1842.7	1786.4	1695.6	1584.7	1454.7
26.5°	1603.3	1708.0	1815.0	1867.1	1862.3	1847.5	1786.8	1735.7	1643.9	1538.8	1405.5
27°	1550.3	1652.5	1756.2	1822.7	1821.7	1804.5	1732.8	1682.2	1592.8	1492.5	1354.8
27.5°	1497.7	1594.2	1698.4	1777.8	1776.3	1759.1	1677.9	1626.3	1538.8	1445.6	1301.8
28°	1445.6	1534.5	1642.0	1727.6	1730.0	1712.3	1625.3	1566.5	1484.3	1397.4	1249.7
28.5°	1393.1	1475.2	1589.5	1676.4	1681.7	1660.7	1573.7	1509.2	1432.2	1347.7	1198.5
29°	1339.0	1416.9	1539.3	1622.0	1635.3	1607.6	1527.3	1452.8	1375.8	1295.6	1149.8
29.5°	1285.5	1357.7	1492.0	1566.5	1587.6	1552.7	1479.1	1397.8	1319.9	1240.1	1101.5
30°	1231.5	1302.7	1444.2	1509.7	1539.3	1498.2	1431.8	1344.8	1265.0	1186.1	1053.7
30.5°	1177.5	1245.9	1396.4	1455.7	1487.7	1443.2	1384.0	1291.3	1211.5	1131.2	1007.4
31°	1121.1	1191.4	1345.3	1402.1	1435.6	1390.7	1334.7	1238.7	1156.0	1077.6	960.6
31.5°	1065.7	1135.9	1293.2	1349.1	1378.7	1338.1	1281.7	1186.1	1101.5	1024.6	913.7
32°	1009.8	1082.4	1238.7	1298.0	1321.4	1287.0	1228.2	1133.1	1047.5	973.9	866.4
32.5°	953.9	1030.3	1183.3	1248.7	1262.6	1234.4	1174.2	1079.1	995.4	924.2	816.2
33°	898.0	978.7	1126.9	1198.1	1203.8	1183.7	1120.2	1023.6	941.4	875.5	767.0
33.5°	842.5	927.1	1072.4	1146.9	1146.0	1130.7	1066.7	970.6	888.9	826.3	718.7
34°	788.5	878.4	1020.8	1094.8	1088.2	1079.1	1016.0	919.5	837.3	776.1	671.9
34.5°	736.9	829.1	971.6	1042.8	1030.8	1025.1	968.7	869.3	787.1	725.9	625.1
35°	688.2	780.9	921.9	988.8	973.5	972.5	919.5	821.0	736.9	675.7	580.6
35.5°	641.3	735.0	875.0	935.2	918.0	921.4	872.6	774.2	689.1	627.0	537.6
36°	595.9	692.0	828.2	882.2	864.0	869.8	824.4	730.2	642.8	578.7	496.1
36.5°	551.5	649.0	781.4	832.0	810.5	817.7	775.6	686.7	598.3	532.8	455.0
37°	509.4	605.5	733.1	782.3	759.4	766.5	725.9	644.2	552.9	488.4	413.9
37.5°	469.8	563.9	685.8	734.5	710.6	716.4	676.7	601.7	512.3	449.7	372.8
38°	431.1	521.9	637.5	687.2	663.3	667.6	628.4	560.6	472.6	411.5	332.1
38.5°	393.8	480.8	591.2	638.9	617.4	618.9	581.6	519.5	436.8	372.8	294.4
39°	359.4	440.6	547.7	593.5	572.5	572.5	535.7	478.8	401.0	334.5	259.5
39.5°	326.4	401.9	505.6	548.1	528.5	526.6	493.2	440.6	365.1	303.0	227.5
40°	295.3	365.1	466.9	503.2	485.5	483.1	455.4	402.9	329.3	270.5	199.3
40.5°	266.2	329.7	428.2	459.3	446.8	442.0	417.7	365.1	297.2	240.9	174.4
41°	238.5	296.3	391.9	415.8	408.1	401.4	379.9	327.4	268.1	213.1	152.9
41.5°	213.6	265.7	356.0	375.1	369.4	360.8	342.2	293.9	239.9	187.3	134.3
42°	190.2	237.0	320.7	336.4	330.7	319.7	304.4	262.8	214.1	163.9	119.0
42.5°	168.7	210.3	286.3	300.6	297.7	284.3	270.0	232.7	190.2	143.8	105.6
43°	151.5	184.9	251.8	266.7	264.8	250.9	236.6	205.0	168.2	125.7	92.7
43.5°	134.8	163.9	219.8	235.1	235.1	220.3	205.5	180.2	147.7	109.9	81.7



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CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	84.1	108.0	142.9	159.1	152.4	143.4	129.5	115.6	96.1	72.6	54.5
45.5°	72.2	89.8	123.3	139.5	129.0	122.8	109.4	98.9	82.2	62.6	48.7
46°	61.2	76.0	104.2	120.0	109.0	104.2	92.7	83.2	69.3	53.5	43.5
46.5°	51.1	63.6	84.6	100.4	90.8	87.9	77.9	70.2	58.3	48.3	37.8
47°	43.0	52.6	71.2	81.2	75.0	73.1	65.0	58.3	52.1	42.5	32.5
47.5°	35.8	43.5	58.8	67.4	61.6	60.7	58.8	52.1	45.9	37.3	26.8
48°	31.1	35.8	48.7	55.4	55.0	54.0	52.6	45.9	39.7	32.0	24.9
48.5°	28.2	31.1	40.1	44.9	47.8	47.8	46.4	40.1	33.5	26.8	23.9
49°	26.8	28.2	33.9	36.8	41.1	41.1	40.1	33.9	27.2	25.3	22.9
49.5°	25.3	26.8	30.1	31.5	34.4	34.4	33.5	28.2	25.8	23.9	22.0
50°	24.4	25.3	27.7	28.7	27.7	28.2	27.2	26.3	24.9	22.9	20.5
50.5°	22.9	24.4	26.3	26.8	26.3	26.8	26.3	25.3	23.4	22.0	19.6
51°	22.0	22.9	25.3	25.8	25.3	25.3	24.9	23.9	22.5	20.5	18.2
51.5°	20.5	22.0	23.9	24.4	23.9	23.9	23.4	22.5	21.0	19.6	17.2
52°	19.6	20.5	22.9	23.4	22.9	22.9	22.5	21.0	19.6	18.2	16.2
52.5°	18.2	19.1	21.5	22.0	21.5	21.5	21.0	20.1	18.6	17.2	15.3
53°	17.2	18.2	20.1	20.5	20.1	20.1	19.6	18.6	17.2	16.2	14.3
53.5°	16.2	16.7	18.6	19.1	18.6	18.6	18.2	17.7	16.2	15.3	13.4
54°	15.3	15.8	17.7	18.2	17.7	17.7	17.2	16.2	15.3	14.3	12.9
54.5°	14.3	14.8	16.7	17.2	16.2	16.2	16.2	15.3	14.3	13.4	11.9
55°	13.4	14.3	15.3	15.8	15.3	15.3	15.3	14.3	13.4	12.9	11.5
55.5°	12.4	13.4	14.3	14.8	14.3	14.3	14.3	13.4	12.9	11.9	10.5
56°	11.9	12.4	13.4	13.9	13.4	13.4	13.4	12.9	11.9	11.5	10.0
56.5°	11.0	11.5	12.9	12.9	12.9	12.9	12.4	11.9	11.5	10.5	9.6
57°	10.5	11.0	11.9	12.4	11.9	11.9	11.9	11.5	10.5	10.0	9.1
57.5°	9.6	10.0	11.0	11.5	11.0	11.0	11.0	10.5	10.0	9.6	8.6
58°	9.1	9.6	10.5	11.0	10.5	10.5	10.5	10.0	9.6	9.1	8.1
58.5°	8.6	9.1	10.0	10.0	10.0	10.0	9.6	9.6	9.1	8.6	7.6
59°	8.1	8.6	9.1	9.6	9.1	9.1	9.1	9.1	8.6	8.1	7.2
59.5°	7.6	8.1	8.6	9.1	8.6	8.6	8.6	8.1	8.1	7.6	6.7
60°	7.2	7.6	8.1	8.6	8.1	8.1	8.1	7.6	7.6	7.2	6.2
60.5°	6.7	7.2	7.6	8.1	7.6	7.6	7.6	7.2	7.2	6.7	6.2
61°	6.7	6.7	7.2	7.6	7.2	7.2	7.2	7.2	6.7	6.2	5.7
61.5°	6.2	6.2	6.7	7.2	6.7	6.7	6.7	6.7	6.2	5.7	5.3
62°	5.7	5.7	6.7	6.7	6.7	6.7	6.2	6.2	5.7	5.7	5.3
62.5°	5.3	5.7	6.2	6.2	6.2	6.2	6.2	5.7	5.7	5.3	4.8
63°	5.3	5.3	5.7	5.7	5.7	5.7	5.7	5.7	5.3	5.3	4.8
63.5°	4.8	4.8	5.3	5.7	5.3	5.3	5.3	5.3	4.8	4.8	4.3
64°	4.8	4.8	5.3	5.3	5.3	5.3	5.3	4.8	4.8	4.3	4.3
64.5°	4.3	4.3	4.8	4.8	4.8	4.8	4.8	4.8	4.3	4.3	3.8
65°	4.3	4.3	4.8	4.8	4.3	4.3	4.3	4.3	4.3	3.8	3.8
65.5°	3.8	3.8	4.3	4.3	4.3	4.3	4.3	4.3	3.8	3.8	3.3
66°	3.8	3.8	3.8	4.3	3.8	3.8	3.8	3.8	3.8	3.3	3.3





TEST NUMBER: P776588

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	2.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.9	2.9
68°	2.9	2.9	3.3	3.3	3.3	3.3	3.3	2.9	2.9	2.9	2.4
68.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.4
69°	2.4	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4
69.5°	2.4	2.4	2.9	2.9	2.9	2.9	2.4	2.4	2.4	2.4	2.4
70°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.9
70.5°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
71°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9	1.9
71.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
72°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4
72.5°	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4
73°	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.4
73.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
74°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
74.5°	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0
75°	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0
75.5°	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0	1.0
76°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
76.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
78°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
78.5°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
81°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
81.5°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
82.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
83°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P776588  
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**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: P776588

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2554.8	2554.8	2554.8	2554.8	2554.8	2554.8
0.5°	2548.6	2553.8	2552.4	2552.4	2553.4	2555.3
1°	2544.8	2550.5	2549.5	2549.5	2551.9	2554.3
1.5°	2540.9	2546.7	2545.7	2546.7	2549.5	2553.4
2°	2536.2	2541.9	2541.4	2542.9	2546.7	2551.5
2.5°	2530.9	2537.1	2536.6	2538.6	2543.3	2549.1
3°	2525.7	2531.9	2531.4	2534.3	2539.5	2546.2
3.5°	2519.4	2525.7	2525.7	2529.0	2535.7	2543.3
4°	2512.7	2519.4	2519.4	2523.3	2530.4	2539.5
4.5°	2506.1	2512.3	2512.7	2517.0	2525.2	2535.2
5°	2497.9	2505.1	2505.6	2510.8	2519.4	2530.4
5.5°	2490.3	2497.0	2497.5	2503.7	2513.7	2525.2
6°	2481.2	2488.4	2489.3	2496.0	2506.5	2519.4
6.5°	2472.6	2479.3	2480.7	2487.4	2499.4	2513.2
7°	2462.6	2469.7	2471.2	2479.3	2491.7	2507.0
7.5°	2452.1	2459.7	2461.6	2469.7	2483.1	2499.4
8°	2441.5	2448.7	2451.1	2459.7	2474.5	2491.7
8.5°	2430.1	2437.7	2440.1	2449.2	2465.0	2483.1
9°	2418.1	2425.8	2428.6	2438.7	2454.9	2474.5
9.5°	2406.2	2413.8	2416.7	2426.7	2444.4	2465.0
10°	2392.8	2400.9	2403.8	2415.3	2433.4	2454.9
10.5°	2379.4	2387.1	2390.4	2402.4	2421.5	2443.9
11°	2364.1	2372.7	2376.5	2388.5	2408.6	2433.4
11.5°	2348.8	2357.0	2360.8	2373.7	2395.2	2421.5
12°	2332.6	2341.2	2344.5	2358.4	2380.9	2408.6
12.5°	2314.9	2323.5	2326.8	2340.7	2365.1	2394.7
13°	2296.7	2304.9	2308.2	2323.5	2349.3	2379.9
13.5°	2277.6	2286.2	2290.1	2305.3	2331.6	2364.1
14°	2257.6	2266.6	2270.5	2286.2	2313.9	2347.9
14.5°	2238.4	2247.0	2250.9	2267.6	2295.3	2330.7
15°	2220.8	2228.4	2232.2	2248.0	2277.1	2313.0
15.5°	2204.0	2211.2	2215.5	2230.8	2259.0	2295.3
16°	2187.3	2195.0	2199.3	2214.5	2242.7	2278.6
16.5°	2170.6	2178.7	2182.5	2198.8	2227.4	2263.3
17°	2154.3	2162.5	2166.3	2183.0	2212.2	2247.5
17.5°	2136.6	2145.3	2149.6	2167.2	2196.4	2232.7
18°	2113.7	2125.7	2130.4	2150.0	2180.6	2217.4
18.5°	2087.9	2099.4	2105.6	2130.0	2162.5	2201.2
19°	2058.3	2070.2	2078.8	2105.6	2140.9	2182.0
19.5°	2024.3	2035.3	2046.3	2077.4	2116.1	2160.1
20°	1986.1	1995.2	2010.0	2043.5	2087.4	2135.7
20.5°	1944.5	1952.7	1969.4	2006.2	2054.0	2107.5
21°	1900.6	1908.2	1925.9	1963.7	2016.7	2076.9

TEST NUMBER: P776588

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1751.5	1775.8	1781.6	1815.5	1883.4	1971.3
23°	1699.4	1731.9	1731.9	1763.4	1833.2	1933.1
23.5°	1646.8	1684.1	1681.2	1711.8	1785.4	1893.9
24°	1596.6	1633.9	1628.2	1660.7	1737.6	1850.4
24.5°	1544.5	1580.9	1575.1	1612.9	1691.7	1805.0
25°	1493.9	1524.9	1523.0	1563.2	1647.3	1757.7
25.5°	1444.7	1470.5	1470.5	1515.4	1602.8	1707.5
26°	1395.9	1413.6	1416.5	1467.1	1557.4	1656.4
26.5°	1345.3	1359.1	1363.4	1419.8	1511.1	1603.3
27°	1295.1	1301.8	1311.8	1369.2	1462.3	1550.3
27.5°	1243.9	1245.9	1260.2	1318.0	1411.7	1497.7
28°	1194.2	1190.9	1208.1	1265.0	1357.2	1445.6
28.5°	1143.6	1135.0	1158.9	1211.9	1302.7	1393.1
29°	1092.9	1078.6	1107.3	1159.4	1244.9	1339.0
29.5°	1042.3	1026.0	1057.1	1109.7	1191.9	1285.5
30°	992.1	974.4	1005.5	1059.0	1136.4	1231.5
30.5°	941.0	923.3	954.3	1009.8	1084.8	1177.5
31°	891.3	874.5	900.3	961.0	1033.2	1121.1
31.5°	841.1	828.7	848.7	915.2	983.0	1065.7
32°	792.8	782.8	799.5	868.8	933.3	1009.8
32.5°	744.6	738.3	752.2	822.4	886.0	953.9
33°	699.2	693.4	706.8	774.2	836.8	898.0
33.5°	653.8	648.0	663.3	726.9	786.6	842.5
34°	610.3	605.5	620.3	680.0	735.5	788.5
34.5°	568.7	564.4	579.2	632.7	686.3	736.9
35°	527.6	525.2	538.1	587.3	636.1	688.2
35.5°	487.4	487.9	500.4	543.4	587.3	641.3
36°	452.6	454.0	462.1	500.8	540.5	595.9
36.5°	418.2	420.1	425.3	459.7	496.1	551.5
37°	383.3	388.5	390.4	419.6	454.0	509.4
37.5°	348.9	357.5	357.5	380.4	413.9	469.8
38°	314.0	326.9	326.9	342.2	375.6	431.1
38.5°	285.8	298.7	297.2	305.8	338.8	393.8
39°	257.6	271.9	270.0	271.9	304.4	359.4
39.5°	231.3	246.6	244.2	239.9	271.9	326.4
40°	206.0	223.2	219.8	209.8	239.9	295.3
40.5°	184.0	200.2	196.4	184.0	211.7	266.2
41°	162.0	179.7	174.4	163.0	185.4	238.5
41.5°	142.9	162.5	157.7	146.7	162.5	213.6
42°	125.2	145.8	141.0	130.5	146.2	190.2
42.5°	109.9	129.0	124.7	114.7	130.0	168.7
43°	96.1	112.3	108.0	98.4	113.7	151.5
43.5°	83.6	95.6	91.3	87.0	97.5	134.8



TEST NUMBER: P776588

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	55.4	60.2	58.3	58.3	65.0	84.1
45.5°	48.7	50.7	49.2	50.7	56.9	72.2
46°	41.6	42.1	42.1	43.5	48.7	61.2
46.5°	34.9	34.9	35.4	37.3	41.6	51.1
47°	28.2	30.1	30.1	32.0	35.4	43.0
47.5°	25.8	27.2	27.2	28.7	31.1	35.8
48°	24.4	25.3	25.8	26.8	28.2	31.1
48.5°	23.4	24.4	24.4	25.3	26.3	28.2
49°	22.5	23.4	23.4	24.4	25.3	26.8
49.5°	21.0	22.0	22.5	22.9	24.4	25.3
50°	20.1	21.0	21.0	22.0	22.9	24.4
50.5°	18.6	19.6	20.1	20.5	22.0	22.9
51°	17.7	18.6	18.6	19.6	20.5	22.0
51.5°	16.7	17.7	17.7	18.2	19.6	20.5
52°	15.8	16.2	16.7	17.2	18.2	19.6
52.5°	14.8	15.3	15.8	16.2	17.2	18.2
53°	13.9	14.3	14.8	15.3	16.2	17.2
53.5°	13.4	13.9	13.9	14.3	15.3	16.2
54°	12.4	12.9	12.9	13.9	14.3	15.3
54.5°	11.9	11.9	12.4	12.9	13.4	14.3
55°	11.0	11.5	11.5	11.9	12.9	13.4
55.5°	10.5	11.0	11.0	11.5	11.9	12.4
56°	10.0	10.0	10.5	11.0	11.5	11.9
56.5°	9.1	9.6	9.6	10.0	10.5	11.0
57°	8.6	9.1	9.1	9.6	10.0	10.5
57.5°	8.1	8.6	8.6	9.1	9.6	9.6
58°	7.6	8.1	8.1	8.6	9.1	9.1
58.5°	7.6	7.6	7.6	8.1	8.6	8.6
59°	7.2	7.2	7.2	7.6	8.1	8.1
59.5°	6.7	6.7	7.2	7.2	7.6	7.6
60°	6.2	6.7	6.7	6.7	7.2	7.2
60.5°	5.7	6.2	6.2	6.2	6.7	6.7
61°	5.7	5.7	5.7	6.2	6.2	6.7
61.5°	5.3	5.3	5.7	5.7	5.7	6.2
62°	5.3	5.3	5.3	5.3	5.7	5.7
62.5°	4.8	4.8	4.8	5.3	5.3	5.3
63°	4.3	4.8	4.8	4.8	4.8	5.3
63.5°	4.3	4.3	4.3	4.8	4.8	4.8
64°	3.8	4.3	4.3	4.3	4.3	4.8
64.5°	3.8	3.8	3.8	3.8	4.3	4.3
65°	3.8	3.8	3.8	3.8	3.8	4.3
65.5°	3.3	3.3	3.3	3.8	3.8	3.8
66°	3.3	3.3	3.3	3.3	3.3	3.8



TEST NUMBER: P776588  
 CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	2.9	2.9	2.9	2.9	2.9	2.9
68°	2.4	2.9	2.9	2.9	2.9	2.9
68.5°	2.4	2.4	2.4	2.4	2.4	2.9
69°	2.4	2.4	2.4	2.4	2.4	2.4
69.5°	1.9	2.4	2.4	2.4	2.4	2.4
70°	1.9	1.9	1.9	1.9	2.4	2.4
70.5°	1.9	1.9	1.9	1.9	1.9	1.9
71°	1.9	1.9	1.9	1.9	1.9	1.9
71.5°	1.9	1.9	1.9	1.9	1.9	1.9
72°	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	1.4	1.4	1.4	1.4	1.4
73°	1.4	1.4	1.4	1.4	1.4	1.4
73.5°	1.4	1.4	1.4	1.4	1.4	1.4
74°	1.4	1.4	1.4	1.4	1.4	1.4
74.5°	1.0	1.0	1.0	1.0	1.0	1.0
75°	1.0	1.0	1.0	1.0	1.0	1.0
75.5°	1.0	1.0	1.0	1.0	1.0	1.0
76°	1.0	1.0	1.0	1.0	1.0	1.0
76.5°	1.0	1.0	1.0	1.0	1.0	1.0
77°	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	0.5	1.0	1.0	1.0	0.5	0.5
78°	0.5	0.5	0.5	0.5	0.5	0.5
78.5°	0.5	0.5	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.5	0.5	0.5	0.5	0.5	0.5
81°	0.5	0.5	0.5	0.5	0.5	0.5
81.5°	0.5	0.5	0.5	0.5	0.0	0.0
82°	0.5	0.5	0.5	0.5	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	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
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: P776588

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-4000K

**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



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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°	2043.5	2114.2	2183.5	2200.7	2192.1	2185.4	2165.3	2122.3	2058.3	1994.7	1887.2
22°	2007.6	2084.6	2161.5	2178.2	2165.3	2160.1	2143.3	2096.0	2024.8	1954.1	1836.5



44°	118.0	145.3	189.7	206.0	205.0	191.6	177.3	156.3	128.6	96.1	72.2
44.5°	100.8	126.6	162.5	178.7	177.8	166.3	152.0	134.8	111.3	83.6	63.1



66.5°	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.8	3.3	3.3	2.9
67°	3.3	3.3	3.8	3.8	3.3	3.3	3.3	3.3	3.3	3.3	2.9



89°	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



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21.5°	1853.7	1863.8	1880.0	1916.8	1975.6	2043.5
22°	1804.5	1818.9	1831.8	1867.6	1930.2	2007.6



44°	72.6	82.7	78.9	76.5	85.5	118.0
44.5°	62.1	71.2	68.3	67.4	75.0	100.8

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66.5°	2.9	3.3	3.3	3.3	3.3	3.3
67°	2.9	2.9	2.9	2.9	3.3	3.3

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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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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)