

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: P776540

Luminaire Tested: HCDJBS4050CSD-HCD42TRMW-4500lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776540
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156A001)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD42TRMW-4500lm-2700K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4029.0 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

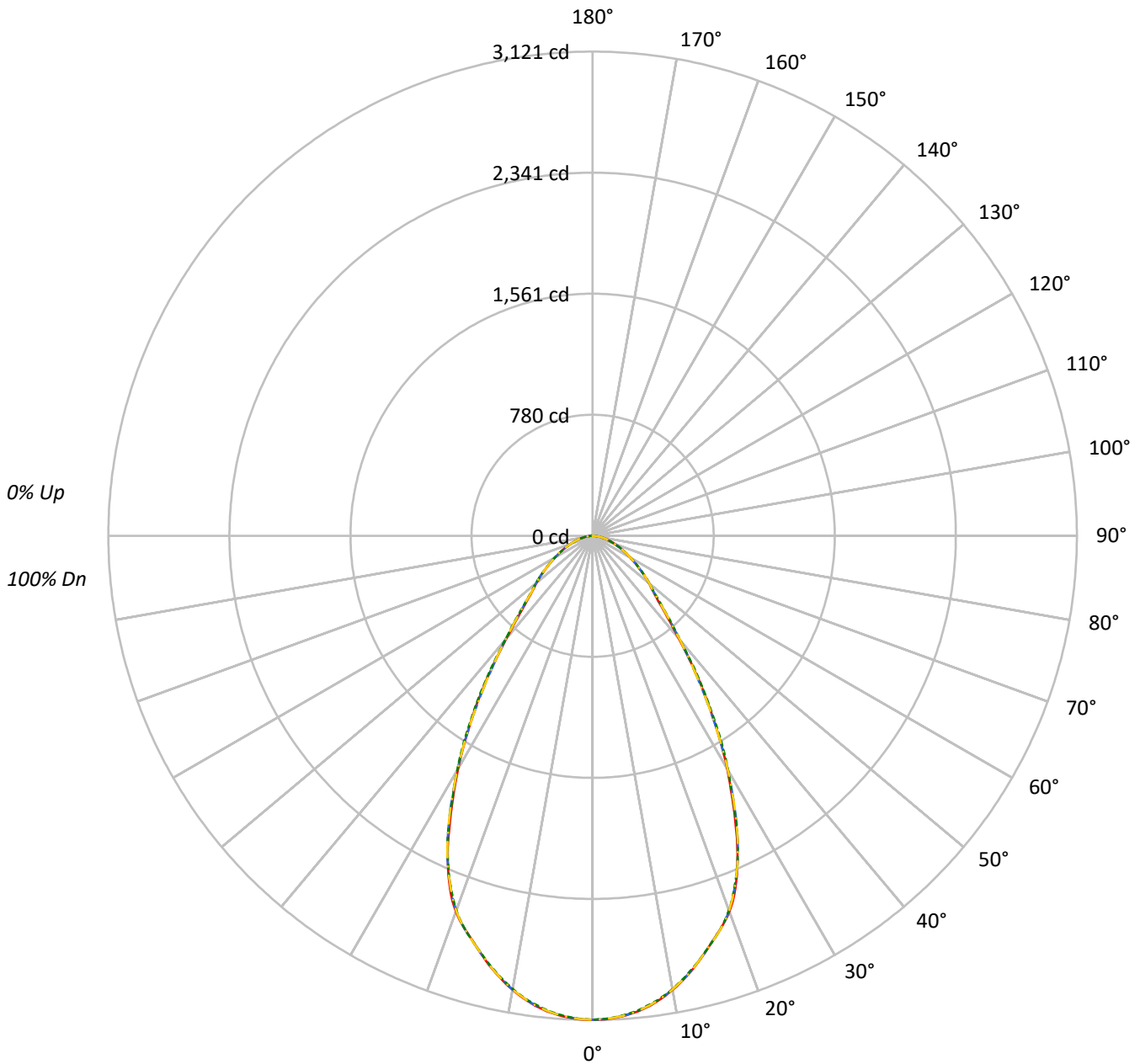
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776540

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

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								
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89								
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80								
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71								
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64								
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	62	57	78	68	61	56	67	60	56	65	60	55	64	59	55	53								
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49								
8	71	60	52	48	70	59	52	47	58	52	47	57	51	47	56	51	47	45								
9	67	56	49	44	66	55	48	44	54	48	44	53	48	44	52	47	43	42								
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	392677	392677	392677	392677
5°	389907	389060	389907	389060
10°	379834	378978	379834	378978
15°	363025	362595	363025	362595
20°	345182	343950	345182	343950
25°	306367	307352	306367	307352
30°	252070	253407	252070	253407
35°	195546	197666	195546	197666
40°	142041	144505	142041	144505
45°	107535	110222	107535	110222
50°	92607	93351	92607	93351
55°	80502	81424	80502	81424
60°	70375	71004	70375	71004
65°	61850	62356	61850	62356
70°	54568	54900	54568	54900
75°	47944	47944	47944	47944
80°	41455	41165	41455	41165
85°	33211	33211	33211	33211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 110222 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.7	7.2
10°-20°	782.7	19.4
20°-30°	1002.3	24.9
30°-40°	794.3	19.7
40°-50°	486.3	12.1
50°-60°	332.4	8.3
60°-70°	208.1	5.2
70°-80°	105.5	2.6
80°-90°	26.6	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2075.7	51.5
0°-40°	2870.0	71.2
0°-60°	3688.8	91.6
0°-90°	4029.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4029.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3120	3120	3120	3120	3120	
5°	3086	3080	3086	3080	3086	291
15°	2786	2783	2786	2783	2786	783
25°	2206	2213	2206	2213	2206	1000
35°	1273	1287	1273	1287	1273	793
45°	604	619	604	619	604	480
55°	367	371	367	371	367	331
65°	208	209	208	209	208	207
75°	99	99	99	99	99	105
85°	23	23	23	23	23	27
90°	0	1	0	1	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°	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2
0.5°	3120.6	3120.2	3119.4	3119.0	3117.7	3119.0	3119.4	3120.2	3120.6	3120.2	3119.4
1°	3119.4	3119.0	3118.5	3118.1	3116.4	3118.1	3118.5	3119.0	3119.4	3119.0	3118.5
1.5°	3117.7	3116.9	3116.9	3116.0	3114.8	3116.0	3116.9	3116.9	3117.7	3116.9	3116.9
2°	3115.2	3114.8	3113.9	3113.5	3111.9	3113.5	3113.9	3114.8	3115.2	3114.8	3113.9
2.5°	3112.3	3111.4	3110.6	3110.2	3108.1	3110.2	3110.6	3111.4	3112.3	3111.4	3110.6
3°	3108.1	3107.3	3106.4	3105.6	3103.5	3105.6	3106.4	3107.3	3108.1	3107.3	3106.4
3.5°	3103.5	3102.7	3101.4	3100.6	3099.3	3100.6	3101.4	3102.7	3103.5	3102.7	3101.4
4°	3098.1	3097.6	3096.0	3095.1	3093.0	3095.1	3096.0	3097.6	3098.1	3097.6	3096.0
4.5°	3092.2	3091.4	3089.7	3088.9	3086.4	3088.9	3089.7	3091.4	3092.2	3091.4	3089.7
5°	3086.4	3085.1	3083.4	3082.6	3079.7	3082.6	3083.4	3085.1	3086.4	3085.1	3083.4
5.5°	3080.1	3077.2	3075.1	3074.2	3071.7	3074.2	3075.1	3077.2	3080.1	3077.2	3075.1
6°	3070.5	3068.8	3066.7	3065.5	3062.1	3065.5	3066.7	3068.8	3070.5	3068.8	3066.7
6.5°	3060.9	3059.6	3057.1	3055.9	3052.5	3055.9	3057.1	3059.6	3060.9	3059.6	3057.1
7°	3050.8	3049.2	3047.9	3045.8	3042.9	3045.8	3047.9	3049.2	3050.8	3049.2	3047.9
7.5°	3039.6	3037.9	3036.2	3035.4	3032.5	3035.4	3036.2	3037.9	3039.6	3037.9	3036.2
8°	3027.4	3026.2	3024.5	3023.3	3021.6	3023.3	3024.5	3026.2	3027.4	3026.2	3024.5
8.5°	3014.9	3013.2	3011.6	3010.3	3008.6	3010.3	3011.6	3013.2	3014.9	3013.2	3011.6
9°	3001.5	3000.3	2998.2	2996.9	2995.3	2996.9	2998.2	3000.3	3001.5	3000.3	2998.2
9.5°	2986.9	2986.1	2984.0	2982.7	2981.1	2982.7	2984.0	2986.1	2986.9	2986.1	2984.0
10°	2972.3	2971.0	2969.4	2967.7	2965.6	2967.7	2969.4	2971.0	2972.3	2971.0	2969.4
10.5°	2956.0	2955.2	2953.1	2951.8	2950.1	2951.8	2953.1	2955.2	2956.0	2955.2	2953.1
11°	2939.7	2938.9	2937.2	2935.5	2933.4	2935.5	2937.2	2938.9	2939.7	2938.9	2937.2
11.5°	2922.6	2921.7	2920.1	2918.4	2916.7	2918.4	2920.1	2921.7	2922.6	2921.7	2920.1
12°	2905.0	2904.2	2902.9	2900.8	2899.2	2900.8	2902.9	2904.2	2905.0	2904.2	2902.9
12.5°	2886.6	2885.8	2884.5	2882.4	2880.4	2882.4	2884.5	2885.8	2886.6	2885.8	2884.5
13°	2867.8	2867.0	2865.7	2864.1	2862.0	2864.1	2865.7	2867.0	2867.8	2867.0	2865.7
13.5°	2848.2	2847.3	2846.5	2844.8	2843.2	2844.8	2846.5	2847.3	2848.2	2847.3	2846.5
14°	2828.1	2827.7	2826.9	2825.2	2823.5	2825.2	2826.9	2827.7	2828.1	2827.7	2826.9
14.5°	2807.2	2806.8	2806.4	2804.7	2803.0	2804.7	2806.4	2806.8	2807.2	2806.8	2806.4
15°	2786.3	2786.3	2785.5	2784.7	2783.0	2784.7	2785.5	2786.3	2786.3	2786.3	2785.5
15.5°	2764.6	2764.6	2765.4	2764.6	2763.8	2764.6	2765.4	2764.6	2764.6	2764.6	2765.4
16°	2743.7	2744.1	2745.4	2745.0	2744.1	2745.0	2745.4	2744.1	2743.7	2744.1	2745.4
16.5°	2722.8	2723.7	2725.3	2725.3	2724.9	2725.3	2725.3	2723.7	2722.8	2723.7	2725.3
17°	2703.2	2704.0	2705.7	2705.3	2705.7	2705.3	2705.7	2704.0	2703.2	2704.0	2705.7
17.5°	2684.0	2684.8	2686.0	2685.6	2685.2	2685.6	2686.0	2684.8	2684.0	2684.8	2686.0
18°	2665.2	2665.6	2666.4	2665.6	2664.7	2665.6	2666.4	2665.6	2665.2	2665.6	2666.4
18.5°	2645.1	2645.1	2645.1	2644.3	2643.0	2644.3	2645.1	2645.1	2645.1	2645.1	2645.1
19°	2624.6	2623.4	2622.5	2621.3	2620.0	2621.3	2622.5	2623.4	2624.6	2623.4	2622.5
19.5°	2602.1	2600.4	2597.9	2597.0	2595.8	2597.0	2597.9	2600.4	2602.1	2600.4	2597.9
20°	2577.4	2575.3	2570.7	2571.1	2568.2	2571.1	2570.7	2575.3	2577.4	2575.3	2570.7
20.5°	2550.2	2546.9	2541.5	2543.1	2539.8	2543.1	2541.5	2546.9	2550.2	2546.9	2541.5
21°	2521.8	2516.8	2510.5	2512.6	2508.5	2512.6	2510.5	2516.8	2521.8	2516.8	2510.5



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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°	2417.8	2412.8	2408.6	2408.2	2406.1	2408.2	2408.6	2412.8	2417.8	2412.8	2408.6
23°	2378.1	2373.9	2373.1	2370.1	2369.3	2370.1	2373.1	2373.9	2378.1	2373.9	2373.1
23.5°	2337.5	2333.8	2335.9	2330.9	2332.9	2330.9	2335.9	2333.8	2337.5	2333.8	2335.9
24°	2295.3	2292.4	2297.4	2290.7	2294.5	2290.7	2297.4	2292.4	2295.3	2292.4	2297.4
24.5°	2251.9	2250.6	2256.9	2250.2	2255.2	2250.2	2256.9	2250.6	2251.9	2250.6	2256.9
25°	2206.3	2207.2	2214.7	2209.7	2213.4	2209.7	2214.7	2207.2	2206.3	2207.2	2214.7
25.5°	2159.1	2164.5	2171.2	2169.1	2170.0	2169.1	2171.2	2164.5	2159.1	2164.5	2171.2
26°	2110.6	2120.3	2126.5	2126.9	2123.6	2126.9	2126.5	2120.3	2110.6	2120.3	2126.5
26.5°	2060.9	2075.1	2080.1	2083.1	2075.5	2083.1	2080.1	2075.1	2060.9	2075.1	2080.1
27°	2012.4	2028.3	2033.3	2037.9	2026.7	2037.9	2033.3	2028.3	2012.4	2028.3	2033.3
27.5°	1964.8	1979.9	1985.7	1991.6	1976.9	1991.6	1985.7	1979.9	1964.8	1979.9	1985.7
28°	1917.2	1931.4	1937.2	1943.1	1927.2	1943.1	1937.2	1931.4	1917.2	1931.4	1937.2
28.5°	1870.8	1882.1	1888.8	1893.8	1879.1	1893.8	1888.8	1882.1	1870.8	1882.1	1888.8
29°	1824.8	1832.3	1840.3	1843.6	1833.6	1843.6	1840.3	1832.3	1824.8	1832.3	1840.3
29.5°	1779.7	1783.5	1792.2	1793.5	1788.9	1793.5	1792.2	1783.5	1779.7	1783.5	1792.2
30°	1734.6	1733.3	1742.9	1743.3	1743.8	1743.3	1742.9	1733.3	1734.6	1733.3	1742.9
30.5°	1687.8	1684.8	1694.0	1694.9	1701.1	1694.9	1694.0	1684.8	1687.8	1684.8	1694.0
31°	1641.4	1635.1	1644.7	1646.4	1656.0	1646.4	1644.7	1635.1	1641.4	1635.1	1644.7
31.5°	1593.7	1587.5	1595.4	1598.3	1610.5	1598.3	1595.4	1587.5	1593.7	1587.5	1595.4
32°	1545.3	1539.4	1546.5	1551.1	1563.7	1551.1	1546.5	1539.4	1545.3	1539.4	1546.5
32.5°	1498.5	1493.5	1498.5	1504.3	1516.9	1504.3	1498.5	1493.5	1498.5	1493.5	1498.5
33°	1451.3	1447.5	1449.2	1457.5	1469.2	1457.5	1449.2	1447.5	1451.3	1447.5	1449.2
33.5°	1409.0	1401.5	1400.3	1410.7	1421.2	1410.7	1400.3	1401.5	1409.0	1401.5	1400.3
34°	1363.5	1355.6	1351.8	1364.8	1375.6	1364.8	1351.8	1355.6	1363.5	1355.6	1351.8
34.5°	1318.4	1310.0	1304.6	1318.4	1330.5	1318.4	1304.6	1310.0	1318.4	1310.0	1304.6
35°	1272.8	1265.7	1259.9	1273.7	1286.6	1273.7	1259.9	1265.7	1272.8	1265.7	1259.9
35.5°	1228.5	1221.8	1215.6	1229.4	1243.6	1229.4	1215.6	1221.8	1228.5	1221.8	1215.6
36°	1185.1	1178.0	1172.5	1186.7	1201.4	1186.7	1172.5	1178.0	1185.1	1178.0	1172.5
36.5°	1142.0	1135.8	1130.7	1144.5	1158.3	1144.5	1130.7	1135.8	1142.0	1135.8	1130.7
37°	1098.6	1094.0	1089.8	1103.6	1115.7	1103.6	1089.8	1094.0	1098.6	1094.0	1089.8
37.5°	1056.4	1053.4	1050.5	1064.3	1073.1	1064.3	1050.5	1053.4	1056.4	1053.4	1050.5
38°	1014.6	1014.2	1012.9	1025.9	1030.9	1025.9	1012.9	1014.2	1014.6	1014.2	1012.9
38.5°	975.3	976.1	977.0	988.3	990.3	988.3	977.0	976.1	975.3	976.1	977.0
39°	937.3	939.4	941.0	951.9	951.5	951.9	941.0	939.4	937.3	939.4	941.0
39.5°	900.1	903.8	906.8	916.0	914.7	916.0	906.8	903.8	900.1	903.8	906.8
40°	864.6	868.7	873.8	881.3	879.6	881.3	873.8	868.7	864.6	868.7	873.8
40.5°	831.1	835.3	842.0	847.4	847.0	847.4	842.0	835.3	831.1	835.3	842.0
41°	799.0	803.1	811.9	815.7	816.9	815.7	811.9	803.1	799.0	803.1	811.9
41.5°	768.5	773.1	783.1	785.2	788.9	785.2	783.1	773.1	768.5	773.1	783.1
42°	740.0	744.6	755.5	756.8	761.8	756.8	755.5	744.6	740.0	744.6	755.5
42.5°	713.3	717.9	729.6	730.0	735.4	730.0	729.6	717.9	713.3	717.9	729.6
43°	687.8	692.8	704.1	704.9	710.0	704.9	704.1	692.8	687.8	692.8	704.1
43.5°	664.4	669.4	680.3	680.7	685.3	680.7	680.3	669.4	664.4	669.4	680.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	604.2	608.4	615.1	617.2	619.3	617.2	615.1	608.4	604.2	608.4	615.1
45.5°	586.7	590.0	596.3	598.4	600.1	598.4	596.3	590.0	586.7	590.0	596.3
46°	570.0	572.9	578.3	581.3	582.1	581.3	578.3	572.9	570.0	572.9	578.3
46.5°	554.5	557.0	561.2	564.5	565.4	564.5	561.2	557.0	554.5	557.0	561.2
47°	539.9	541.6	545.7	549.1	550.3	549.1	545.7	541.6	539.9	541.6	545.7
47.5°	526.1	527.3	531.1	534.9	536.5	534.9	531.1	527.3	526.1	527.3	531.1
48°	513.1	514.8	518.6	521.9	523.6	521.9	518.6	514.8	513.1	514.8	518.6
48.5°	502.7	503.5	506.5	509.8	511.1	509.8	506.5	503.5	502.7	503.5	506.5
49°	492.7	493.1	495.6	498.1	499.4	498.1	495.6	493.1	492.7	493.1	495.6
49.5°	483.1	483.5	485.1	487.2	487.7	487.2	485.1	483.5	483.1	483.5	485.1
50°	473.0	473.4	474.7	476.4	476.8	476.4	474.7	473.4	473.0	473.4	474.7
50.5°	463.0	463.4	464.2	465.9	465.9	465.9	464.2	463.4	463.0	463.4	464.2
51°	451.7	452.5	453.8	455.5	455.5	455.5	453.8	452.5	451.7	452.5	453.8
51.5°	440.8	441.3	442.9	445.0	445.4	445.0	442.9	441.3	440.8	441.3	442.9
52°	429.6	430.4	432.1	434.2	434.6	434.2	432.1	430.4	429.6	430.4	432.1
52.5°	418.3	419.1	421.2	422.9	423.7	422.9	421.2	419.1	418.3	419.1	421.2
53°	407.8	408.7	410.3	412.0	412.9	412.0	410.3	408.7	407.8	408.7	410.3
53.5°	397.0	397.8	399.5	401.6	402.4	401.6	399.5	397.8	397.0	397.8	399.5
54°	386.9	387.4	389.0	390.7	391.5	390.7	389.0	387.4	386.9	387.4	389.0
54.5°	376.9	377.3	379.0	380.7	381.5	380.7	379.0	377.3	376.9	377.3	379.0
55°	366.9	367.7	369.4	370.6	371.1	370.6	369.4	367.7	366.9	367.7	369.4
55.5°	357.3	358.1	359.8	361.0	361.5	361.0	359.8	358.1	357.3	358.1	359.8
56°	348.1	348.9	350.2	351.4	351.8	351.4	350.2	348.9	348.1	348.9	350.2
56.5°	338.9	339.7	341.0	342.2	342.7	342.2	341.0	339.7	338.9	339.7	341.0
57°	329.7	330.5	331.8	333.0	333.5	333.0	331.8	330.5	329.7	330.5	331.8
57.5°	320.5	321.8	323.0	323.8	324.7	323.8	323.0	321.8	320.5	321.8	323.0
58°	312.6	313.0	314.2	315.5	315.9	315.5	314.2	313.0	312.6	313.0	314.2
58.5°	304.2	304.6	305.9	306.7	307.1	306.7	305.9	304.6	304.2	304.6	305.9
59°	295.8	296.3	297.1	297.9	298.8	297.9	297.1	296.3	295.8	296.3	297.1
59.5°	287.5	287.9	288.7	290.0	290.4	290.0	288.7	287.9	287.5	287.9	288.7
60°	279.6	280.0	280.8	281.6	282.1	281.6	280.8	280.0	279.6	280.0	280.8
60.5°	271.6	272.0	272.9	273.7	274.1	273.7	272.9	272.0	271.6	272.0	272.9
61°	264.1	264.5	265.3	266.2	266.6	266.2	265.3	264.5	264.1	264.5	265.3
61.5°	256.6	257.0	257.8	258.7	259.1	258.7	257.8	257.0	256.6	257.0	257.8
62°	249.5	249.5	250.3	251.1	251.1	251.1	250.3	249.5	249.5	249.5	250.3
62.5°	241.9	242.4	242.8	243.6	244.0	243.6	242.8	242.4	241.9	242.4	242.8
63°	234.8	235.3	235.7	236.5	236.5	236.5	235.7	235.3	234.8	235.3	235.7
63.5°	227.7	228.2	228.6	229.4	229.8	229.4	228.6	228.2	227.7	228.2	228.6
64°	221.1	221.5	221.9	222.3	222.7	222.3	221.9	221.5	221.1	221.5	221.9
64.5°	214.4	214.8	215.2	215.6	216.0	215.6	215.2	214.8	214.4	214.8	215.2
65°	207.7	208.1	208.5	208.9	209.4	208.9	208.5	208.1	207.7	208.1	208.5
65.5°	201.4	201.4	201.8	202.7	202.7	202.7	201.8	201.4	201.4	201.4	201.8
66°	194.7	195.1	195.6	196.0	196.4	196.0	195.6	195.1	194.7	195.1	195.6



TEST NUMBER: P776540

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	176.3	176.8	177.2	177.6	177.6	177.6	177.2	176.8	176.3	176.8	177.2
68°	170.5	170.9	171.3	171.7	171.7	171.7	171.3	170.9	170.5	170.9	171.3
68.5°	164.6	165.1	165.5	165.5	165.9	165.5	165.5	165.1	164.6	165.1	165.5
69°	159.2	159.2	159.2	160.0	160.0	160.0	159.2	159.2	159.2	159.2	159.2
69.5°	153.4	153.8	153.8	154.2	154.6	154.2	153.8	153.8	153.4	153.8	153.8
70°	148.3	148.8	148.3	148.8	149.2	148.8	148.3	148.8	148.3	148.8	148.3
70.5°	142.9	143.3	143.3	143.3	143.7	143.3	143.3	143.3	142.9	143.3	143.3
71°	137.9	137.9	137.9	137.9	138.3	137.9	137.9	137.9	137.9	137.9	137.9
71.5°	132.5	132.5	132.9	132.9	132.9	132.9	132.9	132.5	132.5	132.5	132.9
72°	127.4	127.4	127.4	127.9	127.9	127.9	127.4	127.4	127.4	127.4	127.4
72.5°	122.4	122.4	122.4	122.9	122.9	122.9	122.4	122.4	122.4	122.4	122.4
73°	117.4	117.4	117.4	117.8	117.8	117.8	117.4	117.4	117.4	117.4	117.4
73.5°	112.4	112.4	112.8	112.8	112.8	112.8	112.8	112.4	112.4	112.4	112.8
74°	107.8	107.8	107.8	108.2	108.2	108.2	107.8	107.8	107.8	107.8	107.8
74.5°	103.2	103.2	103.2	103.2	103.2	103.2	103.2	103.2	103.2	103.2	103.2
75°	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
75.5°	94.0	94.0	94.0	94.0	94.4	94.0	94.0	94.0	94.0	94.0	94.0
76°	89.8	89.4	89.4	89.8	89.8	89.8	89.4	89.4	89.8	89.4	89.4
76.5°	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
77°	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
77.5°	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
78°	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
78.5°	68.9	68.9	68.5	68.5	68.9	68.5	68.5	68.9	68.9	68.9	68.5
79°	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
79.5°	61.0	61.0	60.6	61.0	61.0	61.0	60.6	61.0	61.0	61.0	60.6
80°	57.2	57.2	56.8	56.8	56.8	56.8	56.8	57.2	57.2	57.2	56.8
80.5°	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
81°	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7
81.5°	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
82°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
82.5°	39.3	39.3	39.3	39.3	38.9	39.3	39.3	39.3	39.3	39.3	39.3
83°	35.9	35.9	35.9	35.5	35.5	35.5	35.9	35.9	35.9	35.9	35.9
83.5°	32.6	32.6	32.6	32.2	32.2	32.2	32.6	32.6	32.6	32.6	32.6
84°	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
84.5°	26.3	25.9	25.9	25.9	25.9	25.9	25.9	25.9	26.3	25.9	25.9
85°	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
85.5°	20.1	19.6	20.1	19.6	20.1	19.6	20.1	19.6	20.1	19.6	20.1
86°	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
86.5°	14.2	13.8	13.8	13.8	14.2	13.8	13.8	13.8	14.2	13.8	13.8
87°	11.3	11.3	11.3	10.9	11.3	10.9	11.3	11.3	11.3	11.3	11.3
87.5°	8.4	8.4	8.4	8.4	8.8	8.4	8.4	8.4	8.4	8.4	8.4
88°	5.4	5.9	5.9	6.3	6.3	6.3	5.9	5.9	5.4	5.9	5.9
88.5°	3.3	3.3	3.8	4.2	5.0	4.2	3.8	3.3	3.3	3.3	3.8



TEST NUMBER: P776540
CATALOG NUMBER: HCDJBL4050CSD-HCD42TRMW-4500lm-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	0.4	0.8	1.3	0.8	0.4	0.0	0.0	0.0	0.4



TEST NUMBER: P776540

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3120.2	3120.2	3120.2	3120.2	3120.2	3120.2
0.5°	3119.0	3117.7	3119.0	3119.4	3120.2	3120.6
1°	3118.1	3116.4	3118.1	3118.5	3119.0	3119.4
1.5°	3116.0	3114.8	3116.0	3116.9	3116.9	3117.7
2°	3113.5	3111.9	3113.5	3113.9	3114.8	3115.2
2.5°	3110.2	3108.1	3110.2	3110.6	3111.4	3112.3
3°	3105.6	3103.5	3105.6	3106.4	3107.3	3108.1
3.5°	3100.6	3099.3	3100.6	3101.4	3102.7	3103.5
4°	3095.1	3093.0	3095.1	3096.0	3097.6	3098.1
4.5°	3088.9	3086.4	3088.9	3089.7	3091.4	3092.2
5°	3082.6	3079.7	3082.6	3083.4	3085.1	3086.4
5.5°	3074.2	3071.7	3074.2	3075.1	3077.2	3080.1
6°	3065.5	3062.1	3065.5	3066.7	3068.8	3070.5
6.5°	3055.9	3052.5	3055.9	3057.1	3059.6	3060.9
7°	3045.8	3042.9	3045.8	3047.9	3049.2	3050.8
7.5°	3035.4	3032.5	3035.4	3036.2	3037.9	3039.6
8°	3023.3	3021.6	3023.3	3024.5	3026.2	3027.4
8.5°	3010.3	3008.6	3010.3	3011.6	3013.2	3014.9
9°	2996.9	2995.3	2996.9	2998.2	3000.3	3001.5
9.5°	2982.7	2981.1	2982.7	2984.0	2986.1	2986.9
10°	2967.7	2965.6	2967.7	2969.4	2971.0	2972.3
10.5°	2951.8	2950.1	2951.8	2953.1	2955.2	2956.0
11°	2935.5	2933.4	2935.5	2937.2	2938.9	2939.7
11.5°	2918.4	2916.7	2918.4	2920.1	2921.7	2922.6
12°	2900.8	2899.2	2900.8	2902.9	2904.2	2905.0
12.5°	2882.4	2880.4	2882.4	2884.5	2885.8	2886.6
13°	2864.1	2862.0	2864.1	2865.7	2867.0	2867.8
13.5°	2844.8	2843.2	2844.8	2846.5	2847.3	2848.2
14°	2825.2	2823.5	2825.2	2826.9	2827.7	2828.1
14.5°	2804.7	2803.0	2804.7	2806.4	2806.8	2807.2
15°	2784.7	2783.0	2784.7	2785.5	2786.3	2786.3
15.5°	2764.6	2763.8	2764.6	2765.4	2764.6	2764.6
16°	2745.0	2744.1	2745.0	2745.4	2744.1	2743.7
16.5°	2725.3	2724.9	2725.3	2725.3	2723.7	2722.8
17°	2705.3	2705.7	2705.3	2705.7	2704.0	2703.2
17.5°	2685.6	2685.2	2685.6	2686.0	2684.8	2684.0
18°	2665.6	2664.7	2665.6	2666.4	2665.6	2665.2
18.5°	2644.3	2643.0	2644.3	2645.1	2645.1	2645.1
19°	2621.3	2620.0	2621.3	2622.5	2623.4	2624.6
19.5°	2597.0	2595.8	2597.0	2597.9	2600.4	2602.1
20°	2571.1	2568.2	2571.1	2570.7	2575.3	2577.4
20.5°	2543.1	2539.8	2543.1	2541.5	2546.9	2550.2
21°	2512.6	2508.5	2512.6	2510.5	2516.8	2521.8



TEST NUMBER: P776540

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2408.2	2406.1	2408.2	2408.6	2412.8	2417.8
23°	2370.1	2369.3	2370.1	2373.1	2373.9	2378.1
23.5°	2330.9	2332.9	2330.9	2335.9	2333.8	2337.5
24°	2290.7	2294.5	2290.7	2297.4	2292.4	2295.3
24.5°	2250.2	2255.2	2250.2	2256.9	2250.6	2251.9
25°	2209.7	2213.4	2209.7	2214.7	2207.2	2206.3
25.5°	2169.1	2170.0	2169.1	2171.2	2164.5	2159.1
26°	2126.9	2123.6	2126.9	2126.5	2120.3	2110.6
26.5°	2083.1	2075.5	2083.1	2080.1	2075.1	2060.9
27°	2037.9	2026.7	2037.9	2033.3	2028.3	2012.4
27.5°	1991.6	1976.9	1991.6	1985.7	1979.9	1964.8
28°	1943.1	1927.2	1943.1	1937.2	1931.4	1917.2
28.5°	1893.8	1879.1	1893.8	1888.8	1882.1	1870.8
29°	1843.6	1833.6	1843.6	1840.3	1832.3	1824.8
29.5°	1793.5	1788.9	1793.5	1792.2	1783.5	1779.7
30°	1743.3	1743.8	1743.3	1742.9	1733.3	1734.6
30.5°	1694.9	1701.1	1694.9	1694.0	1684.8	1687.8
31°	1646.4	1656.0	1646.4	1644.7	1635.1	1641.4
31.5°	1598.3	1610.5	1598.3	1595.4	1587.5	1593.7
32°	1551.1	1563.7	1551.1	1546.5	1539.4	1545.3
32.5°	1504.3	1516.9	1504.3	1498.5	1493.5	1498.5
33°	1457.5	1469.2	1457.5	1449.2	1447.5	1451.3
33.5°	1410.7	1421.2	1410.7	1400.3	1401.5	1409.0
34°	1364.8	1375.6	1364.8	1351.8	1355.6	1363.5
34.5°	1318.4	1330.5	1318.4	1304.6	1310.0	1318.4
35°	1273.7	1286.6	1273.7	1259.9	1265.7	1272.8
35.5°	1229.4	1243.6	1229.4	1215.6	1221.8	1228.5
36°	1186.7	1201.4	1186.7	1172.5	1178.0	1185.1
36.5°	1144.5	1158.3	1144.5	1130.7	1135.8	1142.0
37°	1103.6	1115.7	1103.6	1089.8	1094.0	1098.6
37.5°	1064.3	1073.1	1064.3	1050.5	1053.4	1056.4
38°	1025.9	1030.9	1025.9	1012.9	1014.2	1014.6
38.5°	988.3	990.3	988.3	977.0	976.1	975.3
39°	951.9	951.5	951.9	941.0	939.4	937.3
39.5°	916.0	914.7	916.0	906.8	903.8	900.1
40°	881.3	879.6	881.3	873.8	868.7	864.6
40.5°	847.4	847.0	847.4	842.0	835.3	831.1
41°	815.7	816.9	815.7	811.9	803.1	799.0
41.5°	785.2	788.9	785.2	783.1	773.1	768.5
42°	756.8	761.8	756.8	755.5	744.6	740.0
42.5°	730.0	735.4	730.0	729.6	717.9	713.3
43°	704.9	710.0	704.9	704.1	692.8	687.8
43.5°	680.7	685.3	680.7	680.3	669.4	664.4



TEST NUMBER: P776540

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	617.2	619.3	617.2	615.1	608.4	604.2
45.5°	598.4	600.1	598.4	596.3	590.0	586.7
46°	581.3	582.1	581.3	578.3	572.9	570.0
46.5°	564.5	565.4	564.5	561.2	557.0	554.5
47°	549.1	550.3	549.1	545.7	541.6	539.9
47.5°	534.9	536.5	534.9	531.1	527.3	526.1
48°	521.9	523.6	521.9	518.6	514.8	513.1
48.5°	509.8	511.1	509.8	506.5	503.5	502.7
49°	498.1	499.4	498.1	495.6	493.1	492.7
49.5°	487.2	487.7	487.2	485.1	483.5	483.1
50°	476.4	476.8	476.4	474.7	473.4	473.0
50.5°	465.9	465.9	465.9	464.2	463.4	463.0
51°	455.5	455.5	455.5	453.8	452.5	451.7
51.5°	445.0	445.4	445.0	442.9	441.3	440.8
52°	434.2	434.6	434.2	432.1	430.4	429.6
52.5°	422.9	423.7	422.9	421.2	419.1	418.3
53°	412.0	412.9	412.0	410.3	408.7	407.8
53.5°	401.6	402.4	401.6	399.5	397.8	397.0
54°	390.7	391.5	390.7	389.0	387.4	386.9
54.5°	380.7	381.5	380.7	379.0	377.3	376.9
55°	370.6	371.1	370.6	369.4	367.7	366.9
55.5°	361.0	361.5	361.0	359.8	358.1	357.3
56°	351.4	351.8	351.4	350.2	348.9	348.1
56.5°	342.2	342.7	342.2	341.0	339.7	338.9
57°	333.0	333.5	333.0	331.8	330.5	329.7
57.5°	323.8	324.7	323.8	323.0	321.8	320.5
58°	315.5	315.9	315.5	314.2	313.0	312.6
58.5°	306.7	307.1	306.7	305.9	304.6	304.2
59°	297.9	298.8	297.9	297.1	296.3	295.8
59.5°	290.0	290.4	290.0	288.7	287.9	287.5
60°	281.6	282.1	281.6	280.8	280.0	279.6
60.5°	273.7	274.1	273.7	272.9	272.0	271.6
61°	266.2	266.6	266.2	265.3	264.5	264.1
61.5°	258.7	259.1	258.7	257.8	257.0	256.6
62°	251.1	251.1	251.1	250.3	249.5	249.5
62.5°	243.6	244.0	243.6	242.8	242.4	241.9
63°	236.5	236.5	236.5	235.7	235.3	234.8
63.5°	229.4	229.8	229.4	228.6	228.2	227.7
64°	222.3	222.7	222.3	221.9	221.5	221.1
64.5°	215.6	216.0	215.6	215.2	214.8	214.4
65°	208.9	209.4	208.9	208.5	208.1	207.7
65.5°	202.7	202.7	202.7	201.8	201.4	201.4
66°	196.0	196.4	196.0	195.6	195.1	194.7



TEST NUMBER: P776540

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	177.6	177.6	177.6	177.2	176.8	176.3
68°	171.7	171.7	171.7	171.3	170.9	170.5
68.5°	165.5	165.9	165.5	165.5	165.1	164.6
69°	160.0	160.0	160.0	159.2	159.2	159.2
69.5°	154.2	154.6	154.2	153.8	153.8	153.4
70°	148.8	149.2	148.8	148.3	148.8	148.3
70.5°	143.3	143.7	143.3	143.3	143.3	142.9
71°	137.9	138.3	137.9	137.9	137.9	137.9
71.5°	132.9	132.9	132.9	132.9	132.5	132.5
72°	127.9	127.9	127.9	127.4	127.4	127.4
72.5°	122.9	122.9	122.9	122.4	122.4	122.4
73°	117.8	117.8	117.8	117.4	117.4	117.4
73.5°	112.8	112.8	112.8	112.8	112.4	112.4
74°	108.2	108.2	108.2	107.8	107.8	107.8
74.5°	103.2	103.2	103.2	103.2	103.2	103.2
75°	98.6	98.6	98.6	98.6	98.6	98.6
75.5°	94.0	94.4	94.0	94.0	94.0	94.0
76°	89.8	89.8	89.8	89.4	89.4	89.8
76.5°	85.2	85.2	85.2	85.2	85.2	85.2
77°	81.1	81.1	81.1	81.1	81.1	81.1
77.5°	76.9	76.9	76.9	76.9	76.9	76.9
78°	72.7	72.7	72.7	72.7	72.7	72.7
78.5°	68.5	68.9	68.5	68.5	68.9	68.9
79°	64.8	64.8	64.8	64.8	64.8	64.8
79.5°	61.0	61.0	61.0	60.6	61.0	61.0
80°	56.8	56.8	56.8	56.8	57.2	57.2
80.5°	53.5	53.5	53.5	53.5	53.5	53.5
81°	49.7	49.7	49.7	49.7	49.7	49.7
81.5°	46.0	46.0	46.0	46.0	46.0	46.0
82°	42.6	42.6	42.6	42.6	42.6	42.6
82.5°	39.3	38.9	39.3	39.3	39.3	39.3
83°	35.5	35.5	35.5	35.9	35.9	35.9
83.5°	32.2	32.2	32.2	32.6	32.6	32.6
84°	29.3	29.3	29.3	29.3	29.3	29.3
84.5°	25.9	25.9	25.9	25.9	25.9	26.3
85°	23.0	23.0	23.0	23.0	23.0	23.0
85.5°	19.6	20.1	19.6	20.1	19.6	20.1
86°	16.7	16.7	16.7	16.7	16.7	16.7
86.5°	13.8	14.2	13.8	13.8	13.8	14.2
87°	10.9	11.3	10.9	11.3	11.3	11.3
87.5°	8.4	8.8	8.4	8.4	8.4	8.4
88°	6.3	6.3	6.3	5.9	5.9	5.4
88.5°	4.2	5.0	4.2	3.8	3.3	3.3



TEST NUMBER: P776540
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.8	1.3	0.8	0.4	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

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Peachtree City, GA 30269

Scaled Data Report





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

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Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2488.8	2484.6	2477.5	2479.6	2475.4	2479.6	2477.5	2484.6	2488.8	2484.6	2477.5
22°	2454.1	2450.0	2443.7	2444.5	2440.3	2444.5	2443.7	2450.0	2454.1	2450.0	2443.7



44°	642.7	647.7	657.3	658.1	662.3	658.1	657.3	647.7	642.7	647.7	657.3
44.5°	622.6	627.6	636.0	637.2	640.2	637.2	636.0	627.6	622.6	627.6	636.0



66.5°	188.5	188.9	189.3	189.7	190.1	189.7	189.3	188.9	188.5	188.9	189.3
67°	182.6	182.6	183.0	183.4	183.9	183.4	183.0	182.6	182.6	182.6	183.0



89°	1.3	1.7	2.5	2.9	3.3	2.9	2.5	1.7	1.3	1.7	2.5
89.5°	0.0	0.4	1.3	1.7	2.1	1.7	1.3	0.4	0.0	0.4	1.3

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21.5°	2479.6	2475.4	2479.6	2477.5	2484.6	2488.8
22°	2444.5	2440.3	2444.5	2443.7	2450.0	2454.1



44°	658.1	662.3	658.1	657.3	647.7	642.7
44.5°	637.2	640.2	637.2	636.0	627.6	622.6

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Scaled Data Report



66.5°	189.7	190.1	189.7	189.3	188.9	188.5
67°	183.4	183.9	183.4	183.0	182.6	182.6



89°	2.9	3.3	2.9	2.5	1.7	1.3
89.5°	1.7	2.1	1.7	1.3	0.4	0.0

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)