

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: P776542

Luminaire Tested: HCDJBS4050CSD-HCD42TRMW-4500lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776542
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-3500K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

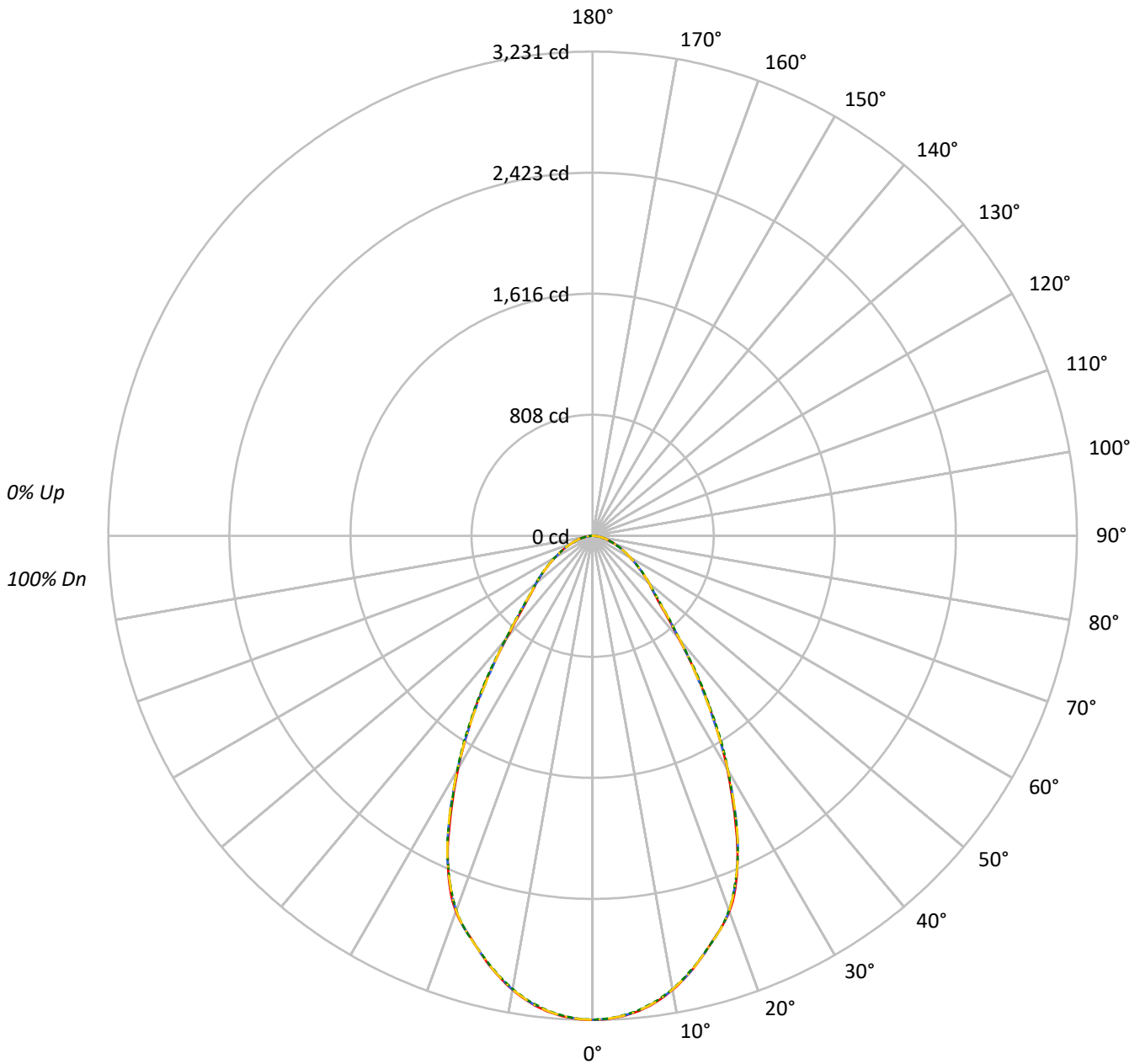
Lumens per Lamp: N/A
Luminaire Lumens: 4171.0 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 44
Input Voltage (V): NR
Input Current (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	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	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°	406507	406507	406507	406507
5°	403639	402767	403639	402767
10°	393214	392332	393214	392332
15°	375819	375363	375819	375363
20°	357343	356071	357343	356071
25°	317170	318184	317170	318184
30°	260949	262330	260949	262330
35°	202444	204625	202444	204625
40°	147035	149598	147035	149598
45°	111326	114102	111326	114102
50°	95877	96641	95877	96641
55°	83333	84276	83333	84276
60°	72842	73496	72842	73496
65°	64024	64530	64024	64530
70°	56519	56813	56519	56813
75°	49646	49646	49646	49646
80°	42977	42615	42977	42615
85°	34366	34366	34366	34366

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 114102 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.9	7.2
10°-20°	810.3	19.4
20°-30°	1037.7	24.9
30°-40°	822.3	19.7
40°-50°	503.5	12.1
50°-60°	344.2	8.3
60°-70°	215.4	5.2
70°-80°	109.2	2.6
80°-90°	27.6	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°	2148.9	51.5
0°-40°	2971.1	71.2
0°-60°	3818.8	91.6
0°-90°	4171.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4171.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3230	3230	3230	3230	3230	
5°	3195	3188	3195	3188	3195	301
15°	2884	2881	2884	2881	2884	811
25°	2284	2291	2284	2291	2284	1035
35°	1318	1332	1318	1332	1318	821
45°	626	641	626	641	626	497
55°	380	384	380	384	380	342
65°	215	217	215	217	215	215
75°	102	102	102	102	102	109
85°	24	24	24	24	24	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°	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1
0.5°	3230.6	3230.1	3229.3	3228.8	3227.5	3228.8	3229.3	3230.1	3230.6	3230.1	3229.3
1°	3229.3	3228.8	3228.4	3228.0	3226.3	3228.0	3228.4	3228.8	3229.3	3228.8	3228.4
1.5°	3227.5	3226.7	3226.7	3225.8	3224.5	3225.8	3226.7	3226.7	3227.5	3226.7	3226.7
2°	3225.0	3224.5	3223.7	3223.2	3221.5	3223.2	3223.7	3224.5	3225.0	3224.5	3223.7
2.5°	3221.9	3221.1	3220.2	3219.8	3217.6	3219.8	3220.2	3221.1	3221.9	3221.1	3220.2
3°	3217.6	3216.7	3215.9	3215.0	3212.8	3215.0	3215.9	3216.7	3217.6	3216.7	3215.9
3.5°	3212.8	3212.0	3210.7	3209.8	3208.5	3209.8	3210.7	3212.0	3212.8	3212.0	3210.7
4°	3207.2	3206.8	3205.1	3204.2	3202.0	3204.2	3205.1	3206.8	3207.2	3206.8	3205.1
4.5°	3201.2	3200.3	3198.6	3197.7	3195.1	3197.7	3198.6	3200.3	3201.2	3200.3	3198.6
5°	3195.1	3193.8	3192.1	3191.2	3188.2	3191.2	3192.1	3193.8	3195.1	3193.8	3192.1
5.5°	3188.6	3185.6	3183.4	3182.6	3180.0	3182.6	3183.4	3185.6	3188.6	3185.6	3183.4
6°	3178.7	3176.9	3174.8	3173.5	3170.0	3173.5	3174.8	3176.9	3178.7	3176.9	3174.8
6.5°	3168.7	3167.4	3164.8	3163.5	3160.1	3163.5	3164.8	3167.4	3168.7	3167.4	3164.8
7°	3158.3	3156.6	3155.3	3153.1	3150.1	3153.1	3155.3	3156.6	3158.3	3156.6	3155.3
7.5°	3146.7	3144.9	3143.2	3142.3	3139.3	3142.3	3143.2	3144.9	3146.7	3144.9	3143.2
8°	3134.1	3132.8	3131.1	3129.8	3128.1	3129.8	3131.1	3132.8	3134.1	3132.8	3131.1
8.5°	3121.1	3119.4	3117.7	3116.4	3114.6	3116.4	3117.7	3119.4	3121.1	3119.4	3117.7
9°	3107.3	3106.0	3103.8	3102.5	3100.8	3102.5	3103.8	3106.0	3107.3	3106.0	3103.8
9.5°	3092.1	3091.3	3089.1	3087.8	3086.1	3087.8	3089.1	3091.3	3092.1	3091.3	3089.1
10°	3077.0	3075.7	3074.0	3072.2	3070.1	3072.2	3074.0	3075.7	3077.0	3075.7	3074.0
10.5°	3060.1	3059.3	3057.1	3055.8	3054.1	3055.8	3057.1	3059.3	3060.1	3059.3	3057.1
11°	3043.3	3042.4	3040.7	3038.9	3036.8	3038.9	3040.7	3042.4	3043.3	3042.4	3040.7
11.5°	3025.5	3024.7	3022.9	3021.2	3019.5	3021.2	3022.9	3024.7	3025.5	3024.7	3022.9
12°	3007.4	3006.5	3005.2	3003.0	3001.3	3003.0	3005.2	3006.5	3007.4	3006.5	3005.2
12.5°	2988.3	2987.5	2986.2	2984.0	2981.8	2984.0	2986.2	2987.5	2988.3	2987.5	2986.2
13°	2968.9	2968.0	2966.7	2965.0	2962.8	2965.0	2966.7	2968.0	2968.9	2968.0	2966.7
13.5°	2948.5	2947.7	2946.8	2945.1	2943.3	2945.1	2946.8	2947.7	2948.5	2947.7	2946.8
14°	2927.8	2927.3	2926.5	2924.7	2923.0	2924.7	2926.5	2927.3	2927.8	2927.3	2926.5
14.5°	2906.1	2905.7	2905.3	2903.5	2901.8	2903.5	2905.3	2905.7	2906.1	2905.7	2905.3
15°	2884.5	2884.5	2883.6	2882.8	2881.0	2882.8	2883.6	2884.5	2884.5	2884.5	2883.6
15.5°	2862.0	2862.0	2862.9	2862.0	2861.1	2862.0	2862.9	2862.0	2862.0	2862.0	2862.9
16°	2840.4	2840.8	2842.1	2841.7	2840.8	2841.7	2842.1	2840.8	2840.4	2840.8	2842.1
16.5°	2818.8	2819.6	2821.3	2821.3	2820.9	2821.3	2821.3	2819.6	2818.8	2819.6	2821.3
17°	2798.4	2799.3	2801.0	2800.6	2801.0	2800.6	2801.0	2799.3	2798.4	2799.3	2801.0
17.5°	2778.5	2779.4	2780.7	2780.3	2779.8	2780.3	2780.7	2779.4	2778.5	2779.4	2780.7
18°	2759.1	2759.5	2760.4	2759.5	2758.6	2759.5	2760.4	2759.5	2759.1	2759.5	2760.4
18.5°	2738.3	2738.3	2738.3	2737.4	2736.1	2737.4	2738.3	2738.3	2738.3	2738.3	2738.3
19°	2717.1	2715.8	2714.9	2713.6	2712.3	2713.6	2714.9	2715.8	2717.1	2715.8	2714.9
19.5°	2693.7	2692.0	2689.4	2688.5	2687.2	2688.5	2689.4	2692.0	2693.7	2692.0	2689.4
20°	2668.2	2666.0	2661.3	2661.7	2658.7	2661.7	2661.3	2666.0	2668.2	2666.0	2661.3
20.5°	2640.1	2636.6	2631.0	2632.7	2629.3	2632.7	2631.0	2636.6	2640.1	2636.6	2631.0
21°	2610.7	2605.5	2599.0	2601.2	2596.8	2601.2	2599.0	2605.5	2610.7	2605.5	2599.0



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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°	2503.0	2497.8	2493.4	2493.0	2490.8	2493.0	2493.4	2497.8	2503.0	2497.8	2493.4
23°	2461.9	2457.5	2456.7	2453.6	2452.8	2453.6	2456.7	2457.5	2461.9	2457.5	2456.7
23.5°	2419.9	2416.0	2418.2	2413.0	2415.1	2413.0	2418.2	2416.0	2419.9	2416.0	2418.2
24°	2376.2	2373.2	2378.4	2371.5	2375.3	2371.5	2378.4	2373.2	2376.2	2373.2	2378.4
24.5°	2331.2	2329.9	2336.4	2329.5	2334.7	2329.5	2336.4	2329.9	2331.2	2329.9	2336.4
25°	2284.1	2284.9	2292.7	2287.5	2291.4	2287.5	2292.7	2284.9	2284.1	2284.9	2292.7
25.5°	2235.2	2240.8	2247.7	2245.6	2246.4	2245.6	2247.7	2240.8	2235.2	2240.8	2247.7
26°	2185.0	2195.0	2201.4	2201.9	2198.4	2201.9	2201.4	2195.0	2185.0	2195.0	2201.4
26.5°	2133.5	2148.2	2153.4	2156.5	2148.7	2156.5	2153.4	2148.2	2133.5	2148.2	2153.4
27°	2083.3	2099.8	2105.0	2109.7	2098.1	2109.7	2105.0	2099.8	2083.3	2099.8	2105.0
27.5°	2034.0	2049.6	2055.7	2061.7	2046.6	2061.7	2055.7	2049.6	2034.0	2049.6	2055.7
28°	1984.7	1999.4	2005.5	2011.5	1995.1	2011.5	2005.5	1999.4	1984.7	1999.4	2005.5
28.5°	1936.7	1948.4	1955.3	1960.5	1945.4	1960.5	1955.3	1948.4	1936.7	1948.4	1955.3
29°	1889.1	1896.9	1905.1	1908.6	1898.2	1908.6	1905.1	1896.9	1889.1	1896.9	1905.1
29.5°	1842.4	1846.3	1855.4	1856.7	1851.9	1856.7	1855.4	1846.3	1842.4	1846.3	1855.4
30°	1795.7	1794.4	1804.3	1804.8	1805.2	1804.8	1804.3	1794.4	1795.7	1794.4	1804.3
30.5°	1747.2	1744.2	1753.7	1754.6	1761.1	1754.6	1753.7	1744.2	1747.2	1744.2	1753.7
31°	1699.2	1692.7	1702.7	1704.4	1714.4	1704.4	1702.7	1692.7	1699.2	1692.7	1702.7
31.5°	1649.9	1643.4	1651.6	1654.7	1667.2	1654.7	1651.6	1643.4	1649.9	1643.4	1651.6
32°	1599.7	1593.7	1601.0	1605.8	1618.7	1605.8	1601.0	1593.7	1599.7	1593.7	1601.0
32.5°	1551.3	1546.1	1551.3	1557.3	1570.3	1557.3	1551.3	1546.1	1551.3	1546.1	1551.3
33°	1502.4	1498.5	1500.2	1508.9	1521.0	1508.9	1500.2	1498.5	1502.4	1498.5	1500.2
33.5°	1458.7	1450.9	1449.6	1460.4	1471.2	1460.4	1449.6	1450.9	1458.7	1450.9	1449.6
34°	1411.5	1403.3	1399.4	1412.8	1424.1	1412.8	1399.4	1403.3	1411.5	1403.3	1399.4
34.5°	1364.8	1356.2	1350.5	1364.8	1377.4	1364.8	1350.5	1356.2	1364.8	1356.2	1350.5
35°	1317.7	1310.3	1304.3	1318.5	1331.9	1318.5	1304.3	1310.3	1317.7	1310.3	1304.3
35.5°	1271.8	1264.9	1258.4	1272.7	1287.4	1272.7	1258.4	1264.9	1271.8	1264.9	1258.4
36°	1226.8	1219.5	1213.8	1228.6	1243.7	1228.6	1213.8	1219.5	1226.8	1219.5	1213.8
36.5°	1182.3	1175.8	1170.6	1184.9	1199.1	1184.9	1170.6	1175.8	1182.3	1175.8	1170.6
37°	1137.3	1132.5	1128.2	1142.5	1155.0	1142.5	1128.2	1132.5	1137.3	1132.5	1128.2
37.5°	1093.6	1090.6	1087.5	1101.8	1110.9	1101.8	1087.5	1090.6	1093.6	1090.6	1087.5
38°	1050.3	1049.9	1048.6	1062.0	1067.2	1062.0	1048.6	1049.9	1050.3	1049.9	1048.6
38.5°	1009.7	1010.5	1011.4	1023.1	1025.2	1023.1	1011.4	1010.5	1009.7	1010.5	1011.4
39°	970.3	972.5	974.2	985.4	985.0	985.4	974.2	972.5	970.3	972.5	974.2
39.5°	931.8	935.7	938.7	948.2	946.9	948.2	938.7	935.7	931.8	935.7	938.7
40°	895.0	899.4	904.5	912.3	910.6	912.3	904.5	899.4	895.0	899.4	904.5
40.5°	860.4	864.7	871.7	877.3	876.9	877.3	871.7	864.7	860.4	864.7	871.7
41°	827.1	831.4	840.5	844.4	845.7	844.4	840.5	831.4	827.1	831.4	840.5
41.5°	795.5	800.3	810.7	812.8	816.7	812.8	810.7	800.3	795.5	800.3	810.7
42°	766.1	770.9	782.1	783.4	788.6	783.4	782.1	770.9	766.1	770.9	782.1
42.5°	738.4	743.2	755.3	755.7	761.4	755.7	755.3	743.2	738.4	743.2	755.3
43°	712.0	717.2	728.9	729.8	735.0	729.8	728.9	717.2	712.0	717.2	728.9
43.5°	687.8	693.0	704.3	704.7	709.4	704.7	704.3	693.0	687.8	693.0	704.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	625.5	629.8	636.8	638.9	641.1	638.9	636.8	629.8	625.5	629.8	636.8
45.5°	607.4	610.8	617.3	619.5	621.2	619.5	617.3	610.8	607.4	610.8	617.3
46°	590.1	593.1	598.7	601.7	602.6	601.7	598.7	593.1	590.1	593.1	598.7
46.5°	574.0	576.6	581.0	584.4	585.3	584.4	581.0	576.6	574.0	576.6	581.0
47°	558.9	560.6	565.0	568.4	569.7	568.4	565.0	560.6	558.9	560.6	565.0
47.5°	544.6	545.9	549.8	553.7	555.4	553.7	549.8	545.9	544.6	545.9	549.8
48°	531.2	532.9	536.8	540.3	542.0	540.3	536.8	532.9	531.2	532.9	536.8
48.5°	520.4	521.3	524.3	527.8	529.1	527.8	524.3	521.3	520.4	521.3	524.3
49°	510.0	510.5	513.1	515.6	516.9	515.6	513.1	510.5	510.0	510.5	513.1
49.5°	500.1	500.5	502.2	504.4	504.8	504.4	502.2	500.5	500.1	500.5	502.2
50°	489.7	490.1	491.4	493.2	493.6	493.2	491.4	490.1	489.7	490.1	491.4
50.5°	479.3	479.7	480.6	482.3	482.3	482.3	480.6	479.7	479.3	479.7	480.6
51°	467.6	468.5	469.8	471.5	471.5	471.5	469.8	468.5	467.6	468.5	469.8
51.5°	456.4	456.8	458.5	460.7	461.1	460.7	458.5	456.8	456.4	456.8	458.5
52°	444.7	445.6	447.3	449.5	449.9	449.5	447.3	445.6	444.7	445.6	447.3
52.5°	433.0	433.9	436.0	437.8	438.6	437.8	436.0	433.9	433.0	433.9	436.0
53°	422.2	423.1	424.8	426.5	427.4	426.5	424.8	423.1	422.2	423.1	424.8
53.5°	411.0	411.8	413.6	415.7	416.6	415.7	413.6	411.8	411.0	411.8	413.6
54°	400.6	401.0	402.7	404.5	405.3	404.5	402.7	401.0	400.6	401.0	402.7
54.5°	390.2	390.6	392.4	394.1	395.0	394.1	392.4	390.6	390.2	390.6	392.4
55°	379.8	380.7	382.4	383.7	384.1	383.7	382.4	380.7	379.8	380.7	382.4
55.5°	369.9	370.7	372.5	373.8	374.2	373.8	372.5	370.7	369.9	370.7	372.5
56°	360.3	361.2	362.5	363.8	364.2	363.8	362.5	361.2	360.3	361.2	362.5
56.5°	350.8	351.7	353.0	354.3	354.7	354.3	353.0	351.7	350.8	351.7	353.0
57°	341.3	342.2	343.5	344.8	345.2	344.8	343.5	342.2	341.3	342.2	343.5
57.5°	331.8	333.1	334.4	335.3	336.1	335.3	334.4	333.1	331.8	333.1	334.4
58°	323.6	324.0	325.3	326.6	327.0	326.6	325.3	324.0	323.6	324.0	325.3
58.5°	314.9	315.4	316.7	317.5	318.0	317.5	316.7	315.4	314.9	315.4	316.7
59°	306.3	306.7	307.6	308.4	309.3	308.4	307.6	306.7	306.3	306.7	307.6
59.5°	297.6	298.1	298.9	300.2	300.6	300.2	298.9	298.1	297.6	298.1	298.9
60°	289.4	289.8	290.7	291.6	292.0	291.6	290.7	289.8	289.4	289.8	290.7
60.5°	281.2	281.6	282.5	283.3	283.8	283.3	282.5	281.6	281.2	281.6	282.5
61°	273.4	273.8	274.7	275.6	276.0	275.6	274.7	273.8	273.4	273.8	274.7
61.5°	265.6	266.0	266.9	267.8	268.2	267.8	266.9	266.0	265.6	266.0	266.9
62°	258.3	258.3	259.1	260.0	260.0	260.0	259.1	258.3	258.3	258.3	259.1
62.5°	250.5	250.9	251.3	252.2	252.6	252.2	251.3	250.9	250.5	250.9	251.3
63°	243.1	243.5	244.0	244.8	244.8	244.8	244.0	243.5	243.1	243.5	244.0
63.5°	235.8	236.2	236.6	237.5	237.9	237.5	236.6	236.2	235.8	236.2	236.6
64°	228.8	229.3	229.7	230.1	230.6	230.1	229.7	229.3	228.8	229.3	229.7
64.5°	221.9	222.4	222.8	223.2	223.6	223.2	222.8	222.4	221.9	222.4	222.8
65°	215.0	215.4	215.9	216.3	216.7	216.3	215.9	215.4	215.0	215.4	215.9
65.5°	208.5	208.5	208.9	209.8	209.8	209.8	208.9	208.5	208.5	208.5	208.9
66°	201.6	202.0	202.5	202.9	203.3	202.9	202.5	202.0	201.6	202.0	202.5



TEST NUMBER: P776542

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	182.6	183.0	183.4	183.9	183.9	183.9	183.4	183.0	182.6	183.0	183.4
68°	176.5	176.9	177.4	177.8	177.8	177.8	177.4	176.9	176.5	176.9	177.4
68.5°	170.4	170.9	171.3	171.3	171.7	171.3	171.3	170.9	170.4	170.9	171.3
69°	164.8	164.8	164.8	165.7	165.7	165.7	164.8	164.8	164.8	164.8	164.8
69.5°	158.8	159.2	159.2	159.6	160.1	159.6	159.2	159.2	158.8	159.2	159.2
70°	153.6	154.0	153.6	154.0	154.4	154.0	153.6	154.0	153.6	154.0	153.6
70.5°	147.9	148.4	148.4	148.4	148.8	148.4	148.4	148.4	147.9	148.4	148.4
71°	142.8	142.8	142.8	142.8	143.2	142.8	142.8	142.8	142.8	142.8	142.8
71.5°	137.1	137.1	137.6	137.6	137.6	137.6	137.6	137.1	137.1	137.1	137.6
72°	131.9	131.9	131.9	132.4	132.4	132.4	131.9	131.9	131.9	131.9	131.9
72.5°	126.7	126.7	126.7	127.2	127.2	127.2	126.7	126.7	126.7	126.7	126.7
73°	121.6	121.6	121.6	122.0	122.0	122.0	121.6	121.6	121.6	121.6	121.6
73.5°	116.4	116.4	116.8	116.8	116.8	116.8	116.8	116.4	116.4	116.4	116.8
74°	111.6	111.6	111.6	112.0	112.0	112.0	111.6	111.6	111.6	111.6	111.6
74.5°	106.8	106.8	106.8	106.8	106.8	106.8	106.8	106.8	106.8	106.8	106.8
75°	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1	102.1
75.5°	97.3	97.3	97.3	97.3	97.8	97.3	97.3	97.3	97.3	97.3	97.3
76°	93.0	92.6	92.6	93.0	93.0	93.0	92.6	92.6	93.0	92.6	92.6
76.5°	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
77°	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
77.5°	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
78°	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
78.5°	71.4	71.4	70.9	70.9	71.4	70.9	70.9	71.4	71.4	71.4	70.9
79°	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
79.5°	63.2	63.2	62.7	63.2	63.2	63.2	62.7	63.2	63.2	63.2	62.7
80°	59.3	59.3	58.8	58.8	58.8	58.8	58.8	59.3	59.3	59.3	58.8
80.5°	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
81°	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
81.5°	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6
82°	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
82.5°	40.7	40.7	40.7	40.7	40.2	40.7	40.7	40.7	40.7	40.7	40.7
83°	37.2	37.2	37.2	36.8	36.8	36.8	37.2	37.2	37.2	37.2	37.2
83.5°	33.7	33.7	33.7	33.3	33.3	33.3	33.7	33.7	33.7	33.7	33.7
84°	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3
84.5°	27.3	26.8	26.8	26.8	26.8	26.8	26.8	26.8	27.3	26.8	26.8
85°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
85.5°	20.8	20.3	20.8	20.3	20.8	20.3	20.8	20.3	20.8	20.3	20.8
86°	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
86.5°	14.7	14.3	14.3	14.3	14.7	14.3	14.3	14.3	14.7	14.3	14.3
87°	11.7	11.7	11.7	11.2	11.7	11.2	11.7	11.7	11.7	11.7	11.7
87.5°	8.7	8.7	8.7	8.7	9.1	8.7	8.7	8.7	8.7	8.7	8.7
88°	5.6	6.1	6.1	6.5	6.5	6.5	6.1	6.1	5.6	6.1	6.1
88.5°	3.5	3.5	3.9	4.3	5.2	4.3	3.9	3.5	3.5	3.5	3.9



TEST NUMBER: P776542
CATALOG NUMBER: HCDJBL4050CSD-HCD42TRMW-4500lm-3500K

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	0.9	1.3	0.9	0.4	0.0	0.0	0.0	0.4



TEST NUMBER: P776542

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3230.1	3230.1	3230.1	3230.1	3230.1	3230.1
0.5°	3228.8	3227.5	3228.8	3229.3	3230.1	3230.6
1°	3228.0	3226.3	3228.0	3228.4	3228.8	3229.3
1.5°	3225.8	3224.5	3225.8	3226.7	3226.7	3227.5
2°	3223.2	3221.5	3223.2	3223.7	3224.5	3225.0
2.5°	3219.8	3217.6	3219.8	3220.2	3221.1	3221.9
3°	3215.0	3212.8	3215.0	3215.9	3216.7	3217.6
3.5°	3209.8	3208.5	3209.8	3210.7	3212.0	3212.8
4°	3204.2	3202.0	3204.2	3205.1	3206.8	3207.2
4.5°	3197.7	3195.1	3197.7	3198.6	3200.3	3201.2
5°	3191.2	3188.2	3191.2	3192.1	3193.8	3195.1
5.5°	3182.6	3180.0	3182.6	3183.4	3185.6	3188.6
6°	3173.5	3170.0	3173.5	3174.8	3176.9	3178.7
6.5°	3163.5	3160.1	3163.5	3164.8	3167.4	3168.7
7°	3153.1	3150.1	3153.1	3155.3	3156.6	3158.3
7.5°	3142.3	3139.3	3142.3	3143.2	3144.9	3146.7
8°	3129.8	3128.1	3129.8	3131.1	3132.8	3134.1
8.5°	3116.4	3114.6	3116.4	3117.7	3119.4	3121.1
9°	3102.5	3100.8	3102.5	3103.8	3106.0	3107.3
9.5°	3087.8	3086.1	3087.8	3089.1	3091.3	3092.1
10°	3072.2	3070.1	3072.2	3074.0	3075.7	3077.0
10.5°	3055.8	3054.1	3055.8	3057.1	3059.3	3060.1
11°	3038.9	3036.8	3038.9	3040.7	3042.4	3043.3
11.5°	3021.2	3019.5	3021.2	3022.9	3024.7	3025.5
12°	3003.0	3001.3	3003.0	3005.2	3006.5	3007.4
12.5°	2984.0	2981.8	2984.0	2986.2	2987.5	2988.3
13°	2965.0	2962.8	2965.0	2966.7	2968.0	2968.9
13.5°	2945.1	2943.3	2945.1	2946.8	2947.7	2948.5
14°	2924.7	2923.0	2924.7	2926.5	2927.3	2927.8
14.5°	2903.5	2901.8	2903.5	2905.3	2905.7	2906.1
15°	2882.8	2881.0	2882.8	2883.6	2884.5	2884.5
15.5°	2862.0	2861.1	2862.0	2862.9	2862.0	2862.0
16°	2841.7	2840.8	2841.7	2842.1	2840.8	2840.4
16.5°	2821.3	2820.9	2821.3	2821.3	2819.6	2818.8
17°	2800.6	2801.0	2800.6	2801.0	2799.3	2798.4
17.5°	2780.3	2779.8	2780.3	2780.7	2779.4	2778.5
18°	2759.5	2758.6	2759.5	2760.4	2759.5	2759.1
18.5°	2737.4	2736.1	2737.4	2738.3	2738.3	2738.3
19°	2713.6	2712.3	2713.6	2714.9	2715.8	2717.1
19.5°	2688.5	2687.2	2688.5	2689.4	2692.0	2693.7
20°	2661.7	2658.7	2661.7	2661.3	2666.0	2668.2
20.5°	2632.7	2629.3	2632.7	2631.0	2636.6	2640.1
21°	2601.2	2596.8	2601.2	2599.0	2605.5	2610.7

TEST NUMBER: P776542

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2493.0	2490.8	2493.0	2493.4	2497.8	2503.0
23°	2453.6	2452.8	2453.6	2456.7	2457.5	2461.9
23.5°	2413.0	2415.1	2413.0	2418.2	2416.0	2419.9
24°	2371.5	2375.3	2371.5	2378.4	2373.2	2376.2
24.5°	2329.5	2334.7	2329.5	2336.4	2329.9	2331.2
25°	2287.5	2291.4	2287.5	2292.7	2284.9	2284.1
25.5°	2245.6	2246.4	2245.6	2247.7	2240.8	2235.2
26°	2201.9	2198.4	2201.9	2201.4	2195.0	2185.0
26.5°	2156.5	2148.7	2156.5	2153.4	2148.2	2133.5
27°	2109.7	2098.1	2109.7	2105.0	2099.8	2083.3
27.5°	2061.7	2046.6	2061.7	2055.7	2049.6	2034.0
28°	2011.5	1995.1	2011.5	2005.5	1999.4	1984.7
28.5°	1960.5	1945.4	1960.5	1955.3	1948.4	1936.7
29°	1908.6	1898.2	1908.6	1905.1	1896.9	1889.1
29.5°	1856.7	1851.9	1856.7	1855.4	1846.3	1842.4
30°	1804.8	1805.2	1804.8	1804.3	1794.4	1795.7
30.5°	1754.6	1761.1	1754.6	1753.7	1744.2	1747.2
31°	1704.4	1714.4	1704.4	1702.7	1692.7	1699.2
31.5°	1654.7	1667.2	1654.7	1651.6	1643.4	1649.9
32°	1605.8	1618.7	1605.8	1601.0	1593.7	1599.7
32.5°	1557.3	1570.3	1557.3	1551.3	1546.1	1551.3
33°	1508.9	1521.0	1508.9	1500.2	1498.5	1502.4
33.5°	1460.4	1471.2	1460.4	1449.6	1450.9	1458.7
34°	1412.8	1424.1	1412.8	1399.4	1403.3	1411.5
34.5°	1364.8	1377.4	1364.8	1350.5	1356.2	1364.8
35°	1318.5	1331.9	1318.5	1304.3	1310.3	1317.7
35.5°	1272.7	1287.4	1272.7	1258.4	1264.9	1271.8
36°	1228.6	1243.7	1228.6	1213.8	1219.5	1226.8
36.5°	1184.9	1199.1	1184.9	1170.6	1175.8	1182.3
37°	1142.5	1155.0	1142.5	1128.2	1132.5	1137.3
37.5°	1101.8	1110.9	1101.8	1087.5	1090.6	1093.6
38°	1062.0	1067.2	1062.0	1048.6	1049.9	1050.3
38.5°	1023.1	1025.2	1023.1	1011.4	1010.5	1009.7
39°	985.4	985.0	985.4	974.2	972.5	970.3
39.5°	948.2	946.9	948.2	938.7	935.7	931.8
40°	912.3	910.6	912.3	904.5	899.4	895.0
40.5°	877.3	876.9	877.3	871.7	864.7	860.4
41°	844.4	845.7	844.4	840.5	831.4	827.1
41.5°	812.8	816.7	812.8	810.7	800.3	795.5
42°	783.4	788.6	783.4	782.1	770.9	766.1
42.5°	755.7	761.4	755.7	755.3	743.2	738.4
43°	729.8	735.0	729.8	728.9	717.2	712.0
43.5°	704.7	709.4	704.7	704.3	693.0	687.8



TEST NUMBER: P776542

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	638.9	641.1	638.9	636.8	629.8	625.5
45.5°	619.5	621.2	619.5	617.3	610.8	607.4
46°	601.7	602.6	601.7	598.7	593.1	590.1
46.5°	584.4	585.3	584.4	581.0	576.6	574.0
47°	568.4	569.7	568.4	565.0	560.6	558.9
47.5°	553.7	555.4	553.7	549.8	545.9	544.6
48°	540.3	542.0	540.3	536.8	532.9	531.2
48.5°	527.8	529.1	527.8	524.3	521.3	520.4
49°	515.6	516.9	515.6	513.1	510.5	510.0
49.5°	504.4	504.8	504.4	502.2	500.5	500.1
50°	493.2	493.6	493.2	491.4	490.1	489.7
50.5°	482.3	482.3	482.3	480.6	479.7	479.3
51°	471.5	471.5	471.5	469.8	468.5	467.6
51.5°	460.7	461.1	460.7	458.5	456.8	456.4
52°	449.5	449.9	449.5	447.3	445.6	444.7
52.5°	437.8	438.6	437.8	436.0	433.9	433.0
53°	426.5	427.4	426.5	424.8	423.1	422.2
53.5°	415.7	416.6	415.7	413.6	411.8	411.0
54°	404.5	405.3	404.5	402.7	401.0	400.6
54.5°	394.1	395.0	394.1	392.4	390.6	390.2
55°	383.7	384.1	383.7	382.4	380.7	379.8
55.5°	373.8	374.2	373.8	372.5	370.7	369.9
56°	363.8	364.2	363.8	362.5	361.2	360.3
56.5°	354.3	354.7	354.3	353.0	351.7	350.8
57°	344.8	345.2	344.8	343.5	342.2	341.3
57.5°	335.3	336.1	335.3	334.4	333.1	331.8
58°	326.6	327.0	326.6	325.3	324.0	323.6
58.5°	317.5	318.0	317.5	316.7	315.4	314.9
59°	308.4	309.3	308.4	307.6	306.7	306.3
59.5°	300.2	300.6	300.2	298.9	298.1	297.6
60°	291.6	292.0	291.6	290.7	289.8	289.4
60.5°	283.3	283.8	283.3	282.5	281.6	281.2
61°	275.6	276.0	275.6	274.7	273.8	273.4
61.5°	267.8	268.2	267.8	266.9	266.0	265.6
62°	260.0	260.0	260.0	259.1	258.3	258.3
62.5°	252.2	252.6	252.2	251.3	250.9	250.5
63°	244.8	244.8	244.8	244.0	243.5	243.1
63.5°	237.5	237.9	237.5	236.6	236.2	235.8
64°	230.1	230.6	230.1	229.7	229.3	228.8
64.5°	223.2	223.6	223.2	222.8	222.4	221.9
65°	216.3	216.7	216.3	215.9	215.4	215.0
65.5°	209.8	209.8	209.8	208.9	208.5	208.5
66°	202.9	203.3	202.9	202.5	202.0	201.6

TEST NUMBER: P776542

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	183.9	183.9	183.9	183.4	183.0	182.6
68°	177.8	177.8	177.8	177.4	176.9	176.5
68.5°	171.3	171.7	171.3	171.3	170.9	170.4
69°	165.7	165.7	165.7	164.8	164.8	164.8
69.5°	159.6	160.1	159.6	159.2	159.2	158.8
70°	154.0	154.4	154.0	153.6	154.0	153.6
70.5°	148.4	148.8	148.4	148.4	148.4	147.9
71°	142.8	143.2	142.8	142.8	142.8	142.8
71.5°	137.6	137.6	137.6	137.6	137.1	137.1
72°	132.4	132.4	132.4	131.9	131.9	131.9
72.5°	127.2	127.2	127.2	126.7	126.7	126.7
73°	122.0	122.0	122.0	121.6	121.6	121.6
73.5°	116.8	116.8	116.8	116.8	116.4	116.4
74°	112.0	112.0	112.0	111.6	111.6	111.6
74.5°	106.8	106.8	106.8	106.8	106.8	106.8
75°	102.1	102.1	102.1	102.1	102.1	102.1
75.5°	97.3	97.8	97.3	97.3	97.3	97.3
76°	93.0	93.0	93.0	92.6	92.6	93.0
76.5°	88.2	88.2	88.2	88.2	88.2	88.2
77°	83.9	83.9	83.9	83.9	83.9	83.9
77.5°	79.6	79.6	79.6	79.6	79.6	79.6
78°	75.3	75.3	75.3	75.3	75.3	75.3
78.5°	70.9	71.4	70.9	70.9	71.4	71.4
79°	67.1	67.1	67.1	67.1	67.1	67.1
79.5°	63.2	63.2	63.2	62.7	63.2	63.2
80°	58.8	58.8	58.8	58.8	59.3	59.3
80.5°	55.4	55.4	55.4	55.4	55.4	55.4
81°	51.5	51.5	51.5	51.5	51.5	51.5
81.5°	47.6	47.6	47.6	47.6	47.6	47.6
82°	44.1	44.1	44.1	44.1	44.1	44.1
82.5°	40.7	40.2	40.7	40.7	40.7	40.7
83°	36.8	36.8	36.8	37.2	37.2	37.2
83.5°	33.3	33.3	33.3	33.7	33.7	33.7
84°	30.3	30.3	30.3	30.3	30.3	30.3
84.5°	26.8	26.8	26.8	26.8	26.8	27.3
85°	23.8	23.8	23.8	23.8	23.8	23.8
85.5°	20.3	20.8	20.3	20.8	20.3	20.8
86°	17.3	17.3	17.3	17.3	17.3	17.3
86.5°	14.3	14.7	14.3	14.3	14.3	14.7
87°	11.2	11.7	11.2	11.7	11.7	11.7
87.5°	8.7	9.1	8.7	8.7	8.7	8.7
88°	6.5	6.5	6.5	6.1	6.1	5.6
88.5°	4.3	5.2	4.3	3.9	3.5	3.5



TEST NUMBER: P776542
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMW-4500lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.9	1.3	0.9	0.4	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°	2576.5	2572.2	2564.8	2567.0	2562.7	2567.0	2564.8	2572.2	2576.5	2572.2	2564.8
22°	2540.6	2536.3	2529.8	2530.6	2526.3	2530.6	2529.8	2536.3	2540.6	2536.3	2529.8



44°	665.3	670.5	680.5	681.3	685.7	681.3	680.5	670.5	665.3	670.5	680.5
44.5°	644.6	649.7	658.4	659.7	662.7	659.7	658.4	649.7	644.6	649.7	658.4



66.5°	195.1	195.5	196.0	196.4	196.8	196.4	196.0	195.5	195.1	195.5	196.0
67°	189.0	189.0	189.5	189.9	190.3	189.9	189.5	189.0	189.0	189.0	189.5



89°	1.3	1.7	2.6	3.0	3.5	3.0	2.6	1.7	1.3	1.7	2.6
89.5°	0.0	0.4	1.3	1.7	2.2	1.7	1.3	0.4	0.0	0.4	1.3

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21.5°	2567.0	2562.7	2567.0	2564.8	2572.2	2576.5
22°	2530.6	2526.3	2530.6	2529.8	2536.3	2540.6



44°	681.3	685.7	681.3	680.5	670.5	665.3
44.5°	659.7	662.7	659.7	658.4	649.7	644.6



66.5°	196.4	196.8	196.4	196.0	195.5	195.1
67°	189.9	190.3	189.9	189.5	189.0	189.0



89°	3.0	3.5	3.0	2.6	1.7	1.3
89.5°	1.7	2.2	1.7	1.3	0.4	0.0

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)