

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: P776771

Luminaire Tested: HCDJBS4050CSD-HCD82TRC-5000lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B062-HCD82TRC)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD82TRC-5000lm-3000K
Description: 8 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5167.7 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 0.66 / 0.66
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

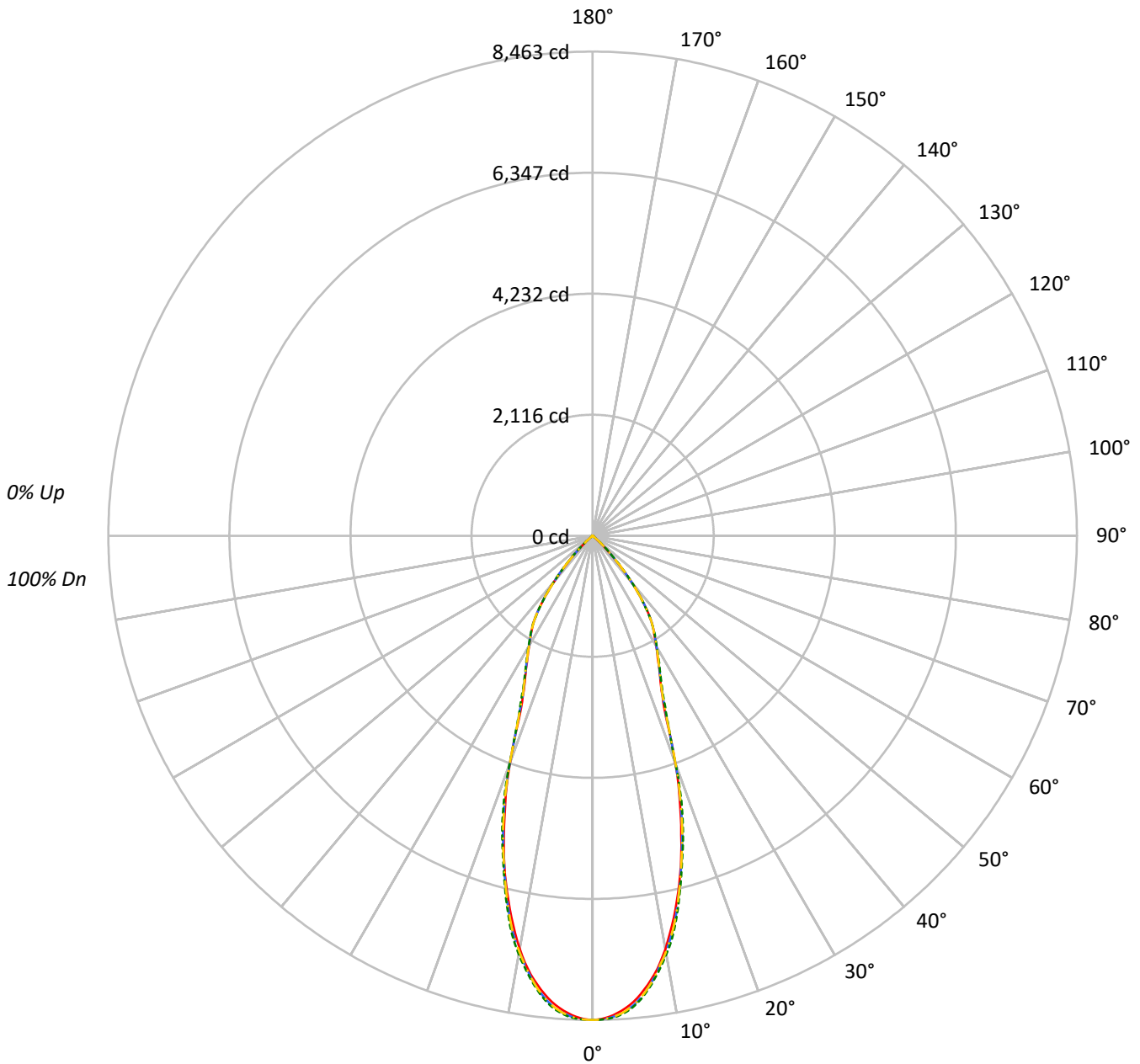
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	100	100	100	100		
	1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94	94	94		
	2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88	88	88	88	88	88		
	3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84	82	82	82	82	82	82		
	4	98	91	86	82	97	90	85	81	88	84	80	86	82	80	84	81	79	77	77	77	77	77	77		
	5	94	86	80	76	92	85	80	76	83	79	75	81	78	74	80	77	74	72	72	72	72	72	72		
	6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68	68	68	68	68	68		
	7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64	64	64	64	64	64		
	8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61	61	61	61	61	61		
	9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57	57	57	57	57	57		
	10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54	54	54	54	54	54		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	258317	258317	258317	258317
5°	250603	253137	250603	253137
10°	227221	230274	227221	230274
15°	188408	190036	188408	190036
20°	137197	137772	137197	137772
25°	94521	95838	94521	95838
30°	78308	79130	78308	79130
35°	65365	65056	65365	65056
40°	41839	42413	41839	42413
45°	16934	18600	16934	18600
50°	3178	3534	3178	3534
55°	963	942	963	942
60°	623	623	623	623
65°	433	433	433	433
70°	295	330	295	330
75°	224	224	224	224
80°	158	158	158	158
85°	0	175	0	175

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 18600 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	758.3	14.7
10°-20°	1635.5	31.6
20°-30°	1341.5	26.0
30°-40°	1055.9	20.4
40°-50°	347.4	6.7
50°-60°	20.3	0.4
60°-70°	6.3	0.1
70°-80°	2.2	0.0
80°-90°	0.4	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°	3735.3	72.3
0°-40°	4791.3	92.7
0°-60°	5158.9	99.8
0°-90°	5167.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5167.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	8461	8461	8461	8461	8461	
5°	8177	8260	8177	8260	8177	754
15°	5961	6012	5961	6012	5961	1622
25°	2806	2845	2806	2845	2806	1333
35°	1754	1746	1754	1746	1754	1055
45°	392	431	392	431	392	335
55°	18	18	18	18	18	19
65°	6	6	6	6	6	6
75°	2	2	2	2	2	2
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°	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0
0.5°	8457.3	8458.2	8462.4	8454.0	8463.3	8454.0	8462.4	8458.2	8457.3	8458.2	8462.4
1°	8448.5	8450.3	8456.8	8448.9	8458.7	8448.9	8456.8	8450.3	8448.5	8450.3	8456.8
1.5°	8432.7	8436.8	8446.6	8440.6	8450.8	8440.6	8446.6	8436.8	8432.7	8436.8	8446.6
2°	8411.7	8417.3	8432.2	8428.0	8442.4	8428.0	8432.2	8417.3	8411.7	8417.3	8432.2
2.5°	8384.8	8393.6	8412.2	8411.3	8427.1	8411.3	8412.2	8393.6	8384.8	8393.6	8412.2
3°	8353.7	8365.3	8388.0	8388.5	8406.6	8388.5	8388.0	8365.3	8353.7	8365.3	8388.0
3.5°	8317.4	8332.7	8358.3	8359.7	8380.1	8359.7	8358.3	8332.7	8317.4	8332.7	8358.3
4°	8277.0	8297.4	8323.0	8324.8	8347.1	8324.8	8323.0	8297.4	8277.0	8297.4	8323.0
4.5°	8230.0	8255.6	8280.7	8284.9	8307.2	8284.9	8280.7	8255.6	8230.0	8255.6	8280.7
5°	8177.1	8209.1	8232.4	8238.4	8259.8	8238.4	8232.4	8209.1	8177.1	8209.1	8232.4
5.5°	8118.0	8156.1	8174.7	8186.4	8204.9	8186.4	8174.7	8156.1	8118.0	8156.1	8174.7
6°	8053.4	8096.2	8111.1	8128.7	8140.3	8128.7	8111.1	8096.2	8053.4	8096.2	8111.1
6.5°	7982.8	8028.8	8038.6	8064.1	8068.3	8064.1	8038.6	8028.8	7982.8	8028.8	8038.6
7°	7908.5	7953.5	7960.0	7994.9	7988.4	7994.9	7960.0	7953.5	7908.5	7953.5	7960.0
7.5°	7829.5	7870.8	7873.6	7919.1	7904.7	7919.1	7873.6	7870.8	7829.5	7870.8	7873.6
8°	7744.9	7781.6	7783.5	7836.9	7814.6	7836.9	7783.5	7781.6	7744.9	7781.6	7783.5
8.5°	7652.4	7682.6	7687.3	7746.7	7722.6	7746.7	7687.3	7682.6	7652.4	7682.6	7687.3
9°	7553.9	7577.1	7587.8	7648.2	7625.0	7648.2	7587.8	7577.1	7553.9	7577.1	7587.8
9.5°	7445.1	7461.9	7486.5	7541.3	7528.8	7541.3	7486.5	7461.9	7445.1	7461.9	7486.5
10°	7329.4	7342.0	7380.5	7424.2	7427.9	7424.2	7380.5	7342.0	7329.4	7342.0	7380.5
10.5°	7206.7	7214.6	7271.3	7300.2	7324.3	7300.2	7271.3	7214.6	7206.7	7214.6	7271.3
11°	7081.7	7085.0	7157.9	7170.5	7210.9	7170.5	7157.9	7085.0	7081.7	7085.0	7157.9
11.5°	6951.2	6953.5	7035.7	7036.7	7086.4	7036.7	7035.7	6953.5	6951.2	6953.5	7035.7
12°	6819.6	6821.5	6901.4	6903.8	6952.5	6903.8	6901.4	6821.5	6819.6	6821.5	6901.4
12.5°	6681.2	6692.3	6756.0	6768.5	6803.4	6768.5	6756.0	6692.3	6681.2	6692.3	6756.0
13°	6545.0	6561.3	6605.9	6631.0	6653.7	6631.0	6605.9	6561.3	6545.0	6561.3	6605.9
13.5°	6403.7	6426.0	6449.3	6485.0	6493.4	6485.0	6449.3	6426.0	6403.7	6426.0	6449.3
14°	6261.5	6283.8	6293.1	6332.6	6332.2	6332.6	6293.1	6283.8	6261.5	6283.8	6293.1
14.5°	6113.7	6131.4	6138.4	6178.3	6172.8	6178.3	6138.4	6131.4	6113.7	6131.4	6138.4
15°	5960.9	5972.0	5983.2	6019.4	6012.4	6019.4	5983.2	5972.0	5960.9	5972.0	5983.2
15.5°	5797.3	5803.8	5828.4	5860.9	5862.3	5860.9	5828.4	5803.8	5797.3	5803.8	5828.4
16°	5630.9	5635.1	5672.3	5701.1	5708.0	5701.1	5672.3	5635.1	5630.9	5635.1	5672.3
16.5°	5455.7	5468.3	5512.4	5542.6	5559.3	5542.6	5512.4	5468.3	5455.7	5468.3	5512.4
17°	5286.1	5301.0	5349.8	5385.5	5406.9	5385.5	5349.8	5301.0	5286.1	5301.0	5349.8
17.5°	5114.6	5135.1	5179.2	5222.9	5243.8	5222.9	5179.2	5135.1	5114.6	5135.1	5179.2
18°	4949.6	4964.5	5004.9	5052.3	5070.5	5052.3	5004.9	4964.5	4949.6	4964.5	5004.9
18.5°	4777.7	4791.6	4822.8	4870.2	4884.1	4870.2	4822.8	4791.6	4777.7	4791.6	4822.8
19°	4601.6	4610.9	4635.0	4670.3	4684.8	4670.3	4635.0	4610.9	4601.6	4610.9	4635.0
19.5°	4417.5	4418.5	4436.6	4463.6	4477.0	4463.6	4436.6	4418.5	4417.5	4418.5	4436.6
20°	4222.8	4222.8	4232.6	4247.5	4240.5	4247.5	4232.6	4222.8	4222.8	4222.8	4232.6
20.5°	4031.4	4024.4	4028.6	4028.1	4007.7	4028.1	4028.6	4024.4	4031.4	4024.4	4028.6
21°	3834.3	3829.7	3812.5	3829.7	3823.2	3829.7	3812.5	3829.7	3834.3	3829.7	3812.5



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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°	3283.2	3305.0	3334.8	3370.6	3354.8	3370.6	3334.8	3305.0	3283.2	3305.0	3334.8
23°	3154.5	3169.3	3200.0	3248.8	3249.3	3248.8	3200.0	3169.3	3154.5	3169.3	3200.0
23.5°	3059.7	3057.3	3076.9	3123.8	3129.8	3123.8	3076.9	3057.3	3059.7	3057.3	3076.9
24°	2957.9	2968.1	2980.2	3018.3	3021.1	3018.3	2980.2	2968.1	2957.9	2968.1	2980.2
24.5°	2879.8	2884.9	2895.6	2919.8	2919.8	2919.8	2895.6	2884.9	2879.8	2884.9	2895.6
25°	2805.9	2812.4	2823.6	2845.9	2845.0	2845.9	2823.6	2812.4	2805.9	2812.4	2823.6
25.5°	2737.1	2740.4	2752.0	2772.9	2774.3	2772.9	2752.0	2740.4	2737.1	2740.4	2752.0
26°	2670.7	2673.5	2681.8	2697.6	2700.0	2697.6	2681.8	2673.5	2670.7	2673.5	2681.8
26.5°	2608.0	2608.9	2618.6	2633.1	2634.4	2633.1	2618.6	2608.9	2608.0	2608.9	2618.6
27°	2544.3	2547.1	2557.3	2575.4	2580.1	2575.4	2557.3	2547.1	2544.3	2547.1	2557.3
27.5°	2484.3	2488.1	2497.8	2515.5	2522.0	2515.5	2497.8	2488.1	2484.3	2488.1	2497.8
28°	2427.7	2431.4	2440.7	2453.7	2459.7	2453.7	2440.7	2431.4	2427.7	2431.4	2440.7
28.5°	2375.1	2377.0	2385.8	2396.1	2401.2	2396.1	2385.8	2377.0	2375.1	2377.0	2385.8
29°	2323.1	2324.5	2332.9	2341.7	2347.3	2341.7	2332.9	2324.5	2323.1	2324.5	2332.9
29.5°	2271.5	2274.3	2281.3	2291.0	2295.7	2291.0	2281.3	2274.3	2271.5	2274.3	2281.3
30°	2221.3	2224.1	2230.6	2239.9	2244.6	2239.9	2230.6	2224.1	2221.3	2224.1	2230.6
30.5°	2172.5	2174.8	2181.4	2190.2	2193.4	2190.2	2181.4	2174.8	2172.5	2174.8	2181.4
31°	2124.7	2127.0	2133.0	2142.3	2147.0	2142.3	2133.0	2127.0	2124.7	2127.0	2133.0
31.5°	2078.7	2081.0	2087.5	2095.8	2099.1	2095.8	2087.5	2081.0	2078.7	2081.0	2087.5
32°	2034.5	2036.4	2042.4	2050.8	2054.0	2050.8	2042.4	2036.4	2034.5	2036.4	2042.4
32.5°	1992.2	1994.1	1998.3	2006.2	2008.9	2006.2	1998.3	1994.1	1992.2	1994.1	1998.3
33°	1951.3	1952.3	1954.6	1958.3	1961.1	1958.3	1954.6	1952.3	1951.3	1952.3	1954.6
33.5°	1909.0	1909.0	1908.1	1906.2	1910.4	1906.2	1908.1	1909.0	1909.0	1909.0	1908.1
34°	1861.2	1859.3	1858.4	1852.3	1861.6	1852.3	1858.4	1859.3	1861.2	1859.3	1858.4
34.5°	1809.6	1805.4	1804.9	1797.0	1804.0	1797.0	1804.9	1805.4	1809.6	1805.4	1804.9
35°	1753.8	1748.2	1748.2	1740.8	1745.5	1740.8	1748.2	1748.2	1753.8	1748.2	1748.2
35.5°	1692.9	1690.6	1687.8	1681.3	1684.1	1681.3	1687.8	1690.6	1692.9	1690.6	1687.8
36°	1629.7	1628.8	1623.7	1620.0	1620.4	1620.0	1623.7	1628.8	1629.7	1628.8	1623.7
36.5°	1562.8	1564.7	1557.2	1554.9	1552.1	1554.9	1557.2	1564.7	1562.8	1564.7	1557.2
37°	1490.8	1496.4	1489.9	1488.5	1484.8	1488.5	1489.9	1496.4	1490.8	1496.4	1489.9
37.5°	1419.2	1423.4	1421.6	1419.2	1417.8	1419.2	1421.6	1423.4	1419.2	1423.4	1421.6
38°	1347.7	1350.9	1348.6	1350.5	1349.1	1350.5	1348.6	1350.9	1347.7	1350.9	1348.6
38.5°	1276.1	1274.2	1275.2	1275.6	1279.4	1275.6	1275.2	1274.2	1276.1	1274.2	1275.2
39°	1203.1	1199.0	1201.3	1201.3	1208.7	1201.3	1201.3	1199.0	1203.1	1199.0	1201.3
39.5°	1126.5	1124.1	1127.4	1130.2	1135.8	1130.2	1127.4	1124.1	1126.5	1124.1	1127.4
40°	1049.8	1051.6	1055.8	1060.0	1064.2	1060.0	1055.8	1051.6	1049.8	1051.6	1055.8
40.5°	973.6	978.2	982.4	992.6	992.2	992.6	982.4	978.2	973.6	978.2	982.4
41°	899.7	904.8	910.8	922.9	921.1	922.9	910.8	904.8	899.7	904.8	910.8
41.5°	825.3	831.8	839.7	854.1	850.9	854.1	839.7	831.8	825.3	831.8	839.7
42°	754.7	761.2	771.9	786.3	784.0	786.3	771.9	761.2	754.7	761.2	771.9
42.5°	686.4	692.4	706.4	721.2	719.8	721.2	706.4	692.4	686.4	692.4	706.4
43°	620.4	628.3	642.7	659.4	658.0	659.4	642.7	628.3	620.4	628.3	642.7
43.5°	561.4	565.6	580.0	596.2	597.6	596.2	580.0	565.6	561.4	565.6	580.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	392.2	394.1	409.9	424.7	430.8	424.7	409.9	394.1	392.2	394.1	409.9
45.5°	338.3	342.5	360.2	373.2	381.1	373.2	360.2	342.5	338.3	342.5	360.2
46°	290.9	294.2	313.2	328.1	336.5	328.1	313.2	294.2	290.9	294.2	313.2
46.5°	248.2	253.7	268.6	287.2	297.0	287.2	268.6	253.7	248.2	253.7	268.6
47°	209.1	215.6	227.2	248.2	257.5	248.2	227.2	215.6	209.1	215.6	227.2
47.5°	175.7	182.2	192.9	211.0	217.9	211.0	192.9	182.2	175.7	182.2	192.9
48°	145.5	153.4	160.8	177.1	178.4	177.1	160.8	153.4	145.5	153.4	160.8
48.5°	119.9	126.9	132.9	146.8	144.5	146.8	132.9	126.9	119.9	126.9	132.9
49°	99.4	103.6	107.8	120.8	117.1	120.8	107.8	103.6	99.4	103.6	107.8
49.5°	83.2	84.6	89.2	97.1	92.9	97.1	89.2	84.6	83.2	84.6	89.2
50°	66.9	66.5	71.6	79.0	74.4	79.0	71.6	66.5	66.9	66.5	71.6
50.5°	50.7	52.5	55.3	62.7	58.6	62.7	55.3	52.5	50.7	52.5	55.3
51°	39.0	40.0	45.1	50.2	46.5	50.2	45.1	40.0	39.0	40.0	45.1
51.5°	29.3	33.0	35.8	41.8	41.4	41.8	35.8	33.0	29.3	33.0	35.8
52°	25.6	27.4	30.2	33.0	36.2	33.0	30.2	27.4	25.6	27.4	30.2
52.5°	23.2	23.7	26.0	27.9	30.7	27.9	26.0	23.7	23.2	23.7	26.0
53°	21.8	22.3	22.3	24.2	25.6	24.2	22.3	22.3	21.8	22.3	22.3
53.5°	20.9	20.9	21.4	20.9	20.4	20.9	21.4	20.9	20.9	20.9	21.4
54°	20.0	20.0	20.0	20.0	19.5	20.0	20.0	20.0	20.0	20.0	20.0
54.5°	19.1	19.1	19.1	19.1	18.6	19.1	19.1	19.1	19.1	19.1	19.1
55°	18.1	18.1	18.1	18.1	17.7	18.1	18.1	18.1	18.1	18.1	18.1
55.5°	17.2	17.2	17.2	17.2	16.7	17.2	17.2	17.2	17.2	17.2	17.2
56°	16.3	16.3	16.3	16.3	15.8	16.3	16.3	16.3	16.3	16.3	16.3
56.5°	15.3	15.3	15.8	15.3	14.9	15.3	15.8	15.3	15.3	15.3	15.8
57°	14.4	14.4	14.9	14.4	14.4	14.4	14.9	14.4	14.4	14.4	14.9
57.5°	13.5	13.9	13.9	13.5	13.5	13.5	13.9	13.9	13.5	13.9	13.9
58°	13.0	13.0	13.0	13.0	12.5	13.0	13.0	13.0	13.0	13.0	13.0
58.5°	12.1	12.5	12.5	12.1	12.1	12.1	12.5	12.5	12.1	12.5	12.5
59°	11.6	11.6	11.6	11.6	11.2	11.6	11.6	11.6	11.6	11.6	11.6
59.5°	10.7	11.2	11.2	11.2	10.7	11.2	11.2	11.2	10.7	11.2	11.2
60°	10.2	10.2	10.7	10.2	10.2	10.2	10.7	10.2	10.2	10.2	10.7
60.5°	9.8	9.8	10.2	9.8	9.8	9.8	10.2	9.8	9.8	9.8	10.2
61°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
61.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
62°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
62.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
63°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
63.5°	7.0	7.0	7.4	7.0	7.0	7.0	7.4	7.0	7.0	7.0	7.4
64°	6.5	6.5	7.0	7.0	6.5	7.0	7.0	6.5	6.5	6.5	7.0
64.5°	6.0	6.5	6.5	6.5	6.0	6.5	6.5	6.5	6.0	6.5	6.5
65°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
65.5°	5.6	5.6	6.0	5.6	5.6	5.6	6.0	5.6	5.6	5.6	6.0
66°	5.1	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.1	5.6	5.6



TEST NUMBER: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
68°	4.2	4.2	4.6	4.6	4.2	4.6	4.6	4.2	4.2	4.2	4.6
68.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
69°	3.7	3.7	4.2	4.2	3.7	4.2	4.2	3.7	3.7	3.7	4.2
69.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.7
70.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
71°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
71.5°	2.8	2.8	3.3	3.3	2.8	3.3	3.3	2.8	2.8	2.8	3.3
72°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
72.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
73°	2.3	2.3	2.3	2.8	2.3	2.8	2.3	2.3	2.3	2.3	2.3
73.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
74°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
74.5°	1.9	1.9	2.3	2.3	1.9	2.3	2.3	1.9	1.9	1.9	2.3
75°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
75.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
76°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
76.5°	1.4	1.4	1.4	1.9	1.4	1.9	1.4	1.4	1.4	1.4	1.4
77°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
78°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
78.5°	0.9	0.9	1.4	1.4	0.9	1.4	1.4	0.9	0.9	0.9	1.4
79°	0.9	0.9	0.9	1.4	0.9	1.4	0.9	0.9	0.9	0.9	0.9
79.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
81°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
81.5°	0.5	0.5	0.9	0.9	0.5	0.9	0.9	0.5	0.5	0.5	0.9
82°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
83°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
83.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
84°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
84.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.5
85.5°	0.0	0.0	0.0	0.5	0.5	0.5	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: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	8461.0	8461.0	8461.0	8461.0	8461.0	8461.0
0.5°	8454.0	8463.3	8454.0	8462.4	8458.2	8457.3
1°	8448.9	8458.7	8448.9	8456.8	8450.3	8448.5
1.5°	8440.6	8450.8	8440.6	8446.6	8436.8	8432.7
2°	8428.0	8442.4	8428.0	8432.2	8417.3	8411.7
2.5°	8411.3	8427.1	8411.3	8412.2	8393.6	8384.8
3°	8388.5	8406.6	8388.5	8388.0	8365.3	8353.7
3.5°	8359.7	8380.1	8359.7	8358.3	8332.7	8317.4
4°	8324.8	8347.1	8324.8	8323.0	8297.4	8277.0
4.5°	8284.9	8307.2	8284.9	8280.7	8255.6	8230.0
5°	8238.4	8259.8	8238.4	8232.4	8209.1	8177.1
5.5°	8186.4	8204.9	8186.4	8174.7	8156.1	8118.0
6°	8128.7	8140.3	8128.7	8111.1	8096.2	8053.4
6.5°	8064.1	8068.3	8064.1	8038.6	8028.8	7982.8
7°	7994.9	7988.4	7994.9	7960.0	7953.5	7908.5
7.5°	7919.1	7904.7	7919.1	7873.6	7870.8	7829.5
8°	7836.9	7814.6	7836.9	7783.5	7781.6	7744.9
8.5°	7746.7	7722.6	7746.7	7687.3	7682.6	7652.4
9°	7648.2	7625.0	7648.2	7587.8	7577.1	7553.9
9.5°	7541.3	7528.8	7541.3	7486.5	7461.9	7445.1
10°	7424.2	7427.9	7424.2	7380.5	7342.0	7329.4
10.5°	7300.2	7324.3	7300.2	7271.3	7214.6	7206.7
11°	7170.5	7210.9	7170.5	7157.9	7085.0	7081.7
11.5°	7036.7	7086.4	7036.7	7035.7	6953.5	6951.2
12°	6903.8	6952.5	6903.8	6901.4	6821.5	6819.6
12.5°	6768.5	6803.4	6768.5	6756.0	6692.3	6681.2
13°	6631.0	6653.7	6631.0	6605.9	6561.3	6545.0
13.5°	6485.0	6493.4	6485.0	6449.3	6426.0	6403.7
14°	6332.6	6332.2	6332.6	6293.1	6283.8	6261.5
14.5°	6178.3	6172.8	6178.3	6138.4	6131.4	6113.7
15°	6019.4	6012.4	6019.4	5983.2	5972.0	5960.9
15.5°	5860.9	5862.3	5860.9	5828.4	5803.8	5797.3
16°	5701.1	5708.0	5701.1	5672.3	5635.1	5630.9
16.5°	5542.6	5559.3	5542.6	5512.4	5468.3	5455.7
17°	5385.5	5406.9	5385.5	5349.8	5301.0	5286.1
17.5°	5222.9	5243.8	5222.9	5179.2	5135.1	5114.6
18°	5052.3	5070.5	5052.3	5004.9	4964.5	4949.6
18.5°	4870.2	4884.1	4870.2	4822.8	4791.6	4777.7
19°	4670.3	4684.8	4670.3	4635.0	4610.9	4601.6
19.5°	4463.6	4477.0	4463.6	4436.6	4418.5	4417.5
20°	4247.5	4240.5	4247.5	4232.6	4222.8	4222.8
20.5°	4028.1	4007.7	4028.1	4028.6	4024.4	4031.4
21°	3829.7	3823.2	3829.7	3812.5	3829.7	3834.3

TEST NUMBER: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3370.6	3354.8	3370.6	3334.8	3305.0	3283.2
23°	3248.8	3249.3	3248.8	3200.0	3169.3	3154.5
23.5°	3123.8	3129.8	3123.8	3076.9	3057.3	3059.7
24°	3018.3	3021.1	3018.3	2980.2	2968.1	2957.9
24.5°	2919.8	2919.8	2919.8	2895.6	2884.9	2879.8
25°	2845.9	2845.0	2845.9	2823.6	2812.4	2805.9
25.5°	2772.9	2774.3	2772.9	2752.0	2740.4	2737.1
26°	2697.6	2700.0	2697.6	2681.8	2673.5	2670.7
26.5°	2633.1	2634.4	2633.1	2618.6	2608.9	2608.0
27°	2575.4	2580.1	2575.4	2557.3	2547.1	2544.3
27.5°	2515.5	2522.0	2515.5	2497.8	2488.1	2484.3
28°	2453.7	2459.7	2453.7	2440.7	2431.4	2427.7
28.5°	2396.1	2401.2	2396.1	2385.8	2377.0	2375.1
29°	2341.7	2347.3	2341.7	2332.9	2324.5	2323.1
29.5°	2291.0	2295.7	2291.0	2281.3	2274.3	2271.5
30°	2239.9	2244.6	2239.9	2230.6	2224.1	2221.3
30.5°	2190.2	2193.4	2190.2	2181.4	2174.8	2172.5
31°	2142.3	2147.0	2142.3	2133.0	2127.0	2124.7
31.5°	2095.8	2099.1	2095.8	2087.5	2081.0	2078.7
32°	2050.8	2054.0	2050.8	2042.4	2036.4	2034.5
32.5°	2006.2	2008.9	2006.2	1998.3	1994.1	1992.2
33°	1958.3	1961.1	1958.3	1954.6	1952.3	1951.3
33.5°	1906.2	1910.4	1906.2	1908.1	1909.0	1909.0
34°	1852.3	1861.6	1852.3	1858.4	1859.3	1861.2
34.5°	1797.0	1804.0	1797.0	1804.9	1805.4	1809.6
35°	1740.8	1745.5	1740.8	1748.2	1748.2	1753.8
35.5°	1681.3	1684.1	1681.3	1687.8	1690.6	1692.9
36°	1620.0	1620.4	1620.0	1623.7	1628.8	1629.7
36.5°	1554.9	1552.1	1554.9	1557.2	1564.7	1562.8
37°	1488.5	1484.8	1488.5	1489.9	1496.4	1490.8
37.5°	1419.2	1417.8	1419.2	1421.6	1423.4	1419.2
38°	1350.5	1349.1	1350.5	1348.6	1350.9	1347.7
38.5°	1275.6	1279.4	1275.6	1275.2	1274.2	1276.1
39°	1201.3	1208.7	1201.3	1201.3	1199.0	1203.1
39.5°	1130.2	1135.8	1130.2	1127.4	1124.1	1126.5
40°	1060.0	1064.2	1060.0	1055.8	1051.6	1049.8
40.5°	992.6	992.2	992.6	982.4	978.2	973.6
41°	922.9	921.1	922.9	910.8	904.8	899.7
41.5°	854.1	850.9	854.1	839.7	831.8	825.3
42°	786.3	784.0	786.3	771.9	761.2	754.7
42.5°	721.2	719.8	721.2	706.4	692.4	686.4
43°	659.4	658.0	659.4	642.7	628.3	620.4
43.5°	596.2	597.6	596.2	580.0	565.6	561.4



TEST NUMBER: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	424.7	430.8	424.7	409.9	394.1	392.2
45.5°	373.2	381.1	373.2	360.2	342.5	338.3
46°	328.1	336.5	328.1	313.2	294.2	290.9
46.5°	287.2	297.0	287.2	268.6	253.7	248.2
47°	248.2	257.5	248.2	227.2	215.6	209.1
47.5°	211.0	217.9	211.0	192.9	182.2	175.7
48°	177.1	178.4	177.1	160.8	153.4	145.5
48.5°	146.8	144.5	146.8	132.9	126.9	119.9
49°	120.8	117.1	120.8	107.8	103.6	99.4
49.5°	97.1	92.9	97.1	89.2	84.6	83.2
50°	79.0	74.4	79.0	71.6	66.5	66.9
50.5°	62.7	58.6	62.7	55.3	52.5	50.7
51°	50.2	46.5	50.2	45.1	40.0	39.0
51.5°	41.8	41.4	41.8	35.8	33.0	29.3
52°	33.0	36.2	33.0	30.2	27.4	25.6
52.5°	27.9	30.7	27.9	26.0	23.7	23.2
53°	24.2	25.6	24.2	22.3	22.3	21.8
53.5°	20.9	20.4	20.9	21.4	20.9	20.9
54°	20.0	19.5	20.0	20.0	20.0	20.0
54.5°	19.1	18.6	19.1	19.1	19.1	19.1
55°	18.1	17.7	18.1	18.1	18.1	18.1
55.5°	17.2	16.7	17.2	17.2	17.2	17.2
56°	16.3	15.8	16.3	16.3	16.3	16.3
56.5°	15.3	14.9	15.3	15.8	15.3	15.3
57°	14.4	14.4	14.4	14.9	14.4	14.4
57.5°	13.5	13.5	13.5	13.9	13.9	13.5
58°	13.0	12.5	13.0	13.0	13.0	13.0
58.5°	12.1	12.1	12.1	12.5	12.5	12.1
59°	11.6	11.2	11.6	11.6	11.6	11.6
59.5°	11.2	10.7	11.2	11.2	11.2	10.7
60°	10.2	10.2	10.2	10.7	10.2	10.2
60.5°	9.8	9.8	9.8	10.2	9.8	9.8
61°	9.3	9.3	9.3	9.3	9.3	9.3
61.5°	8.8	8.8	8.8	8.8	8.8	8.8
62°	8.4	8.4	8.4	8.4	8.4	8.4
62.5°	7.9	7.9	7.9	7.9	7.9	7.9
63°	7.4	7.4	7.4	7.4	7.4	7.4
63.5°	7.0	7.0	7.0	7.4	7.0	7.0
64°	7.0	6.5	7.0	7.0	6.5	6.5
64.5°	6.5	6.0	6.5	6.5	6.5	6.0
65°	6.0	6.0	6.0	6.0	6.0	6.0
65.5°	5.6	5.6	5.6	6.0	5.6	5.6
66°	5.6	5.6	5.6	5.6	5.6	5.1



TEST NUMBER: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	4.6	4.6	4.6	4.6	4.6	4.6
68°	4.6	4.2	4.6	4.6	4.2	4.2
68.5°	4.2	4.2	4.2	4.2	4.2	4.2
69°	4.2	3.7	4.2	4.2	3.7	3.7
69.5°	3.7	3.7	3.7	3.7	3.7	3.7
70°	3.7	3.7	3.7	3.7	3.3	3.3
70.5°	3.3	3.3	3.3	3.3	3.3	3.3
71°	3.3	3.3	3.3	3.3	3.3	3.3
71.5°	3.3	2.8	3.3	3.3	2.8	2.8
72°	2.8	2.8	2.8	2.8	2.8	2.8
72.5°	2.8	2.8	2.8	2.8	2.8	2.8
73°	2.8	2.3	2.8	2.3	2.3	2.3
73.5°	2.3	2.3	2.3	2.3	2.3	2.3
74°	2.3	2.3	2.3	2.3	2.3	2.3
74.5°	2.3	2.3	2.3	2.3	1.9	1.9
75°	1.9	1.9	1.9	1.9	1.9	1.9
75.5°	1.9	1.9	1.9	1.9	1.9	1.9
76°	1.9	1.9	1.9	1.9	1.9	1.9
76.5°	1.9	1.9	1.9	1.4	1.4	1.4
77°	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4
78°	1.4	1.4	1.4	1.4	1.4	1.4
78.5°	1.4	1.4	1.4	1.4	0.9	0.9
79°	1.4	0.9	1.4	0.9	0.9	0.9
79.5°	0.9	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9
80.5°	0.9	0.9	0.9	0.9	0.9	0.9
81°	0.9	0.9	0.9	0.9	0.9	0.9
81.5°	0.9	0.9	0.9	0.9	0.5	0.5
82°	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5
83°	0.5	0.5	0.5	0.5	0.5	0.5
83.5°	0.5	0.5	0.5	0.5	0.5	0.5
84°	0.5	0.5	0.5	0.5	0.5	0.5
84.5°	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0
85.5°	0.5	0.5	0.5	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: P776771

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRC-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

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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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°	3633.6	3631.3	3637.8	3658.2	3655.4	3658.2	3637.8	3631.3	3633.6	3631.3	3637.8
22°	3429.6	3462.1	3477.4	3504.4	3501.1	3504.4	3477.4	3462.1	3429.6	3462.1	3477.4



44°	503.3	507.0	520.0	536.3	538.1	536.3	520.0	507.0	503.3	507.0	520.0
44.5°	447.1	449.4	461.9	478.7	483.3	478.7	461.9	449.4	447.1	449.4	461.9



66.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
67°	4.6	4.6	5.1	5.1	4.6	5.1	5.1	4.6	4.6	4.6	5.1



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°	3658.2	3655.4	3658.2	3637.8	3631.3	3633.6
22°	3504.4	3501.1	3504.4	3477.4	3462.1	3429.6



44°	536.3	538.1	536.3	520.0	507.0	503.3
44.5°	478.7	483.3	478.7	461.9	449.4	447.1

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Scaled Data Report



66.5°	5.1	5.1	5.1	5.1	5.1	5.1
67°	5.1	4.6	5.1	5.1	4.6	4.6

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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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Scaled Data Report



(END OF REPORT)