

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: P776712

Luminaire Tested: HCDJBS4050CSD-HCD6TRMB-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B001-HCD6TRMB)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD6TRMB-5000lm-3500K
Description: 6 INCH ROUND MEDIUM MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3488.2 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

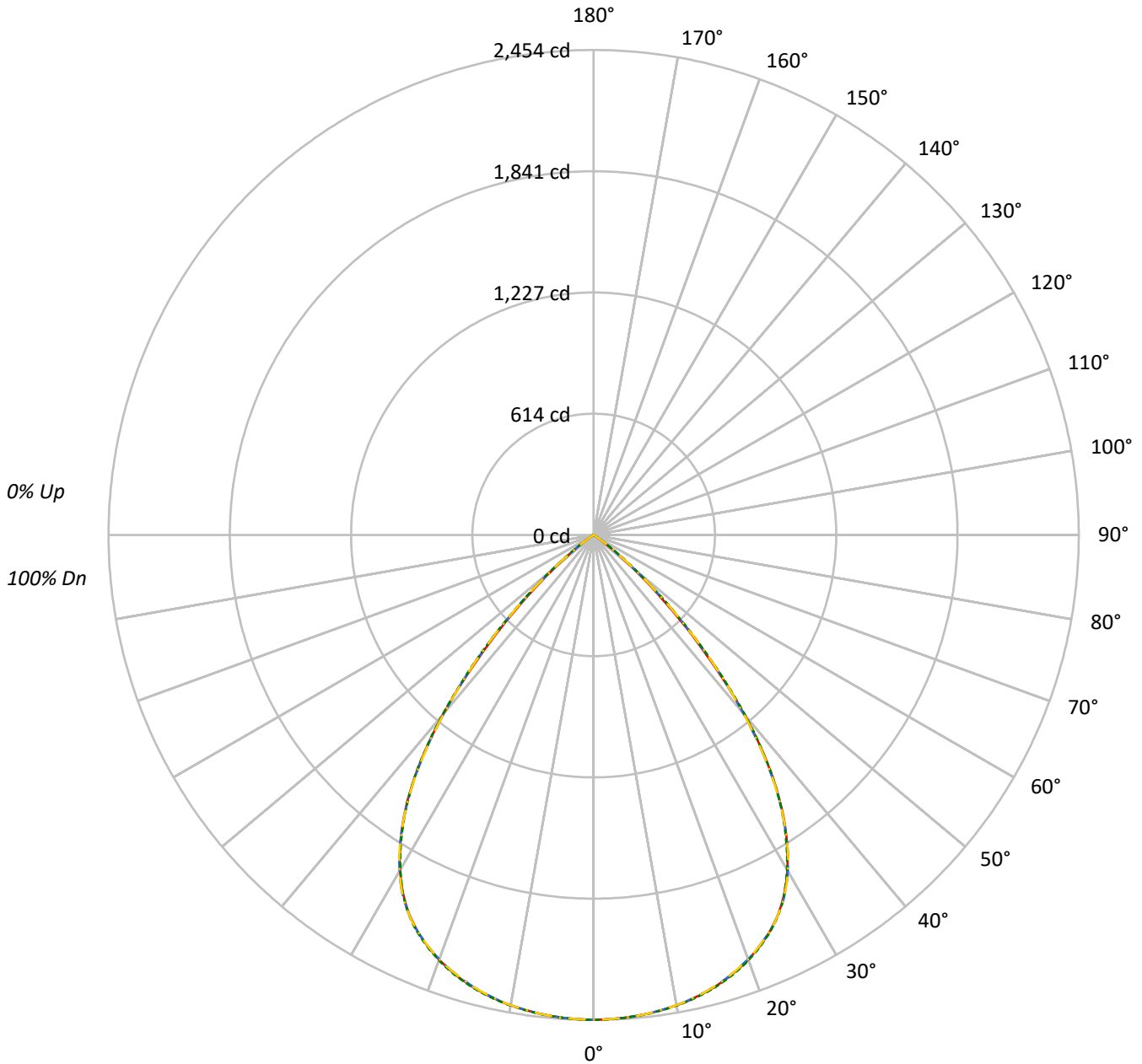
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92	92	92	92
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84	84	84	84
3	100	93	88	83	98	92	87	83	89	85	81	87	83	80	84	81	79	77	77	77	77
4	94	86	80	75	92	85	79	75	83	78	74	80	76	73	79	75	72	70	70	70	70
5	89	79	73	68	87	78	72	68	77	71	67	75	70	66	73	69	66	64	64	64	64
6	83	73	67	62	82	73	66	62	71	65	61	70	65	61	68	64	60	59	59	59	59
7	79	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	56	54	54	54	54
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50	50	50	50
9	70	59	52	48	69	58	52	48	57	52	48	57	51	47	56	51	47	46	46	46	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42	42	42	42

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	134479	134479	134479	134479
5°	134476	134525	134476	134525
10°	134505	134611	134505	134611
15°	134354	134513	134354	134513
20°	133432	133595	133432	133595
25°	130870	131131	130870	131131
30°	123975	123798	123975	123798
35°	109901	109553	109901	109553
40°	84759	85467	84759	85467
45°	50664	53184	50664	53184
50°	20946	24084	20946	24084
55°	4052	4779	4052	4779
60°	307	307	307	307
65°	117	117	117	117
70°	80	80	80	80
75°	0	0	0	0
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 53292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.4	6.7
10°-20°	667.4	19.1
20°-30°	991.1	28.4
30°-40°	1004.6	28.8
40°-50°	525.7	15.1
50°-60°	65.7	1.9
60°-70°	1.1	0.0
70°-80°	0.2	0.0
80°-90°	0.0	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°	1890.9	54.2
0°-40°	2895.5	83.0
0°-60°	3486.9	100.0
0°-90°	3488.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3488.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2453	2453	2453	2453	2453	
5°	2444	2445	2444	2445	2444	232
15°	2367	2370	2367	2370	2367	668
25°	2164	2168	2164	2168	2164	991
35°	1642	1637	1642	1637	1642	1006
45°	654	686	654	686	654	512
55°	42	50	42	50	42	61
65°	1	1	1	1	1	1
75°	0	0	0	0	0	0
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°	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1
0.5°	2453.1	2452.7	2452.7	2452.7	2453.6	2452.7	2452.7	2452.7	2453.1	2452.7	2452.7
1°	2452.7	2452.7	2452.2	2452.2	2453.6	2452.2	2452.2	2452.7	2452.7	2452.7	2452.2
1.5°	2452.2	2452.2	2451.7	2451.7	2453.1	2451.7	2451.7	2452.2	2452.2	2452.2	2451.7
2°	2451.7	2451.2	2451.2	2451.2	2452.2	2451.2	2451.2	2451.2	2451.7	2451.2	2451.2
2.5°	2450.8	2450.3	2450.3	2450.3	2451.7	2450.3	2450.3	2450.3	2450.8	2450.3	2450.3
3°	2449.4	2449.4	2449.4	2449.4	2450.8	2449.4	2449.4	2449.4	2449.4	2449.4	2449.4
3.5°	2448.4	2448.4	2448.4	2447.9	2449.4	2447.9	2448.4	2448.4	2448.4	2448.4	2448.4
4°	2447.0	2447.0	2447.0	2447.0	2447.9	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0
4.5°	2445.1	2445.1	2445.1	2445.1	2446.5	2445.1	2445.1	2445.1	2445.1	2445.1	2445.1
5°	2443.7	2443.7	2443.7	2443.7	2444.6	2443.7	2443.7	2443.7	2443.7	2443.7	2443.7
5.5°	2441.8	2441.8	2441.8	2441.8	2443.2	2441.8	2441.8	2441.8	2441.8	2441.8	2441.8
6°	2439.9	2439.5	2439.5	2439.5	2440.9	2439.5	2439.5	2439.5	2439.9	2439.5	2439.5
6.5°	2437.6	2437.1	2437.6	2437.6	2439.0	2437.6	2437.6	2437.1	2437.6	2437.1	2437.6
7°	2435.2	2434.7	2434.7	2435.2	2436.1	2435.2	2434.7	2434.7	2435.2	2434.7	2434.7
7.5°	2432.4	2432.4	2432.4	2432.4	2433.8	2432.4	2432.4	2432.4	2432.4	2432.4	2432.4
8°	2429.5	2429.5	2429.5	2429.5	2431.0	2429.5	2429.5	2429.5	2429.5	2429.5	2429.5
8.5°	2426.7	2426.2	2426.2	2426.7	2428.1	2426.7	2426.2	2426.2	2426.7	2426.2	2426.2
9°	2423.4	2423.4	2423.4	2423.4	2424.8	2423.4	2423.4	2423.4	2423.4	2423.4	2423.4
9.5°	2420.1	2419.6	2419.6	2420.1	2421.5	2420.1	2419.6	2419.6	2420.1	2419.6	2419.6
10°	2416.3	2416.3	2415.9	2416.3	2418.2	2416.3	2415.9	2416.3	2416.3	2416.3	2415.9
10.5°	2413.0	2412.1	2412.1	2412.6	2414.5	2412.6	2412.1	2412.1	2413.0	2412.1	2412.1
11°	2408.8	2408.3	2407.9	2408.8	2410.7	2408.8	2407.9	2408.3	2408.8	2408.3	2407.9
11.5°	2404.6	2403.6	2403.6	2404.6	2406.4	2404.6	2403.6	2403.6	2404.6	2403.6	2403.6
12°	2399.8	2399.4	2398.9	2399.8	2402.2	2399.8	2398.9	2399.4	2399.8	2399.4	2398.9
12.5°	2395.1	2394.2	2393.7	2395.1	2397.5	2395.1	2393.7	2394.2	2395.1	2394.2	2393.7
13°	2390.4	2389.5	2388.5	2389.9	2392.8	2389.9	2388.5	2389.5	2390.4	2389.5	2388.5
13.5°	2384.8	2383.8	2383.3	2384.8	2387.6	2384.8	2383.3	2383.8	2384.8	2383.8	2383.3
14°	2379.6	2378.2	2377.2	2379.1	2381.9	2379.1	2377.2	2378.2	2379.6	2378.2	2377.2
14.5°	2373.4	2372.5	2371.6	2373.0	2376.3	2373.0	2371.6	2372.5	2373.4	2372.5	2371.6
15°	2367.3	2365.9	2365.0	2366.8	2370.1	2366.8	2365.0	2365.9	2367.3	2365.9	2365.0
15.5°	2360.7	2359.3	2358.4	2360.2	2363.5	2360.2	2358.4	2359.3	2360.7	2359.3	2358.4
16°	2354.1	2352.7	2351.3	2353.6	2356.9	2353.6	2351.3	2352.7	2354.1	2352.7	2351.3
16.5°	2347.0	2345.2	2344.2	2346.6	2349.9	2346.6	2344.2	2345.2	2347.0	2345.2	2344.2
17°	2339.5	2337.6	2336.7	2339.0	2342.3	2339.0	2336.7	2337.6	2339.5	2337.6	2336.7
17.5°	2331.5	2330.1	2328.7	2331.0	2334.8	2331.0	2328.7	2330.1	2331.5	2330.1	2328.7
18°	2323.5	2321.6	2320.2	2323.0	2326.3	2323.0	2320.2	2321.6	2323.5	2321.6	2320.2
18.5°	2314.5	2313.1	2311.7	2314.5	2317.8	2314.5	2311.7	2313.1	2314.5	2313.1	2311.7
19°	2306.0	2304.1	2302.7	2305.5	2308.8	2305.5	2302.7	2304.1	2306.0	2304.1	2302.7
19.5°	2296.6	2295.2	2293.3	2296.1	2299.9	2296.1	2293.3	2295.2	2296.6	2295.2	2293.3
20°	2287.2	2285.3	2283.9	2286.7	2290.0	2286.7	2283.9	2285.3	2287.2	2285.3	2283.9
20.5°	2276.8	2275.4	2274.0	2276.8	2280.1	2276.8	2274.0	2275.4	2276.8	2275.4	2274.0
21°	2266.4	2265.0	2263.6	2266.4	2269.2	2266.4	2263.6	2265.0	2266.4	2265.0	2263.6



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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°	2232.0	2230.6	2230.1	2232.5	2235.3	2232.5	2230.1	2230.6	2232.0	2230.6	2230.1
23°	2219.3	2218.3	2217.9	2220.7	2222.6	2220.7	2217.9	2218.3	2219.3	2218.3	2217.9
23.5°	2206.1	2205.6	2205.6	2208.0	2209.8	2208.0	2205.6	2205.6	2206.1	2205.6	2205.6
24°	2192.9	2192.4	2192.9	2194.3	2196.6	2194.3	2192.9	2192.4	2192.9	2192.4	2192.9
24.5°	2178.7	2178.7	2179.2	2180.6	2182.5	2180.6	2179.2	2178.7	2178.7	2178.7	2179.2
25°	2163.6	2164.1	2165.0	2166.0	2167.9	2166.0	2165.0	2164.1	2163.6	2164.1	2165.0
25.5°	2148.1	2148.5	2150.0	2150.0	2151.8	2150.0	2150.0	2148.5	2148.1	2148.5	2150.0
26°	2131.1	2132.0	2133.5	2133.5	2135.3	2133.5	2133.5	2132.0	2131.1	2132.0	2133.5
26.5°	2113.7	2115.1	2117.0	2116.0	2117.0	2116.0	2117.0	2115.1	2113.7	2115.1	2117.0
27°	2094.8	2096.7	2098.6	2097.2	2098.1	2097.2	2098.6	2096.7	2094.8	2096.7	2098.6
27.5°	2075.0	2077.4	2079.2	2077.4	2077.4	2077.4	2079.2	2077.4	2075.0	2077.4	2079.2
28°	2053.8	2056.6	2059.0	2056.1	2054.7	2056.1	2059.0	2056.6	2053.8	2056.6	2059.0
28.5°	2031.6	2034.9	2037.3	2034.0	2031.6	2034.0	2037.3	2034.9	2031.6	2034.9	2037.3
29°	2008.5	2011.8	2014.2	2010.9	2007.6	2010.9	2014.2	2011.8	2008.5	2011.8	2014.2
29.5°	1984.0	1987.8	1990.1	1986.4	1982.1	1986.4	1990.1	1987.8	1984.0	1987.8	1990.1
30°	1958.5	1961.4	1964.2	1960.0	1955.7	1960.0	1964.2	1961.4	1958.5	1961.4	1964.2
30.5°	1932.1	1935.0	1937.3	1932.6	1927.9	1932.6	1937.3	1935.0	1932.1	1935.0	1937.3
31°	1904.3	1906.7	1909.0	1904.8	1899.6	1904.8	1909.0	1906.7	1904.3	1906.7	1909.0
31.5°	1875.6	1877.0	1879.3	1874.6	1869.9	1874.6	1879.3	1877.0	1875.6	1877.0	1879.3
32°	1845.9	1845.9	1848.2	1843.5	1839.7	1843.5	1848.2	1845.9	1845.9	1845.9	1848.2
32.5°	1814.7	1814.3	1815.7	1811.0	1808.1	1811.0	1815.7	1814.3	1814.7	1814.3	1815.7
33°	1782.7	1780.8	1782.2	1777.5	1776.5	1777.5	1782.2	1780.8	1782.7	1780.8	1782.2
33.5°	1750.1	1746.8	1747.3	1743.1	1742.6	1743.1	1747.3	1746.8	1750.1	1746.8	1747.3
34°	1715.3	1711.5	1711.5	1706.8	1709.1	1706.8	1711.5	1711.5	1715.3	1711.5	1711.5
34.5°	1679.4	1675.2	1674.2	1669.5	1673.8	1669.5	1674.2	1675.2	1679.4	1675.2	1674.2
35°	1642.2	1637.5	1635.6	1632.3	1637.0	1632.3	1635.6	1637.5	1642.2	1637.5	1635.6
35.5°	1603.0	1599.3	1596.0	1594.1	1599.3	1594.1	1596.0	1599.3	1603.0	1599.3	1596.0
36°	1562.5	1559.7	1554.9	1554.0	1560.1	1554.0	1554.9	1559.7	1562.5	1559.7	1554.9
36.5°	1520.5	1518.2	1512.5	1513.0	1520.1	1513.0	1512.5	1518.2	1520.5	1518.2	1512.5
37°	1476.7	1475.3	1468.7	1471.0	1477.6	1471.0	1468.7	1475.3	1476.7	1475.3	1468.7
37.5°	1431.4	1430.9	1422.9	1427.2	1433.3	1427.2	1422.9	1430.9	1431.4	1430.9	1422.9
38°	1385.2	1384.7	1375.8	1381.9	1388.0	1381.9	1375.8	1384.7	1385.2	1384.7	1375.8
38.5°	1337.1	1336.7	1326.8	1335.2	1341.4	1335.2	1326.8	1336.7	1337.1	1336.7	1326.8
39°	1288.1	1286.7	1277.2	1288.1	1293.7	1288.1	1277.2	1286.7	1288.1	1286.7	1277.2
39.5°	1237.6	1235.3	1226.8	1239.1	1244.7	1239.1	1226.8	1235.3	1237.6	1235.3	1226.8
40°	1184.4	1182.5	1175.4	1188.1	1194.3	1188.1	1175.4	1182.5	1184.4	1182.5	1175.4
40.5°	1131.6	1129.2	1124.5	1136.7	1141.9	1136.7	1124.5	1129.2	1131.6	1129.2	1124.5
41°	1077.3	1075.9	1075.0	1085.4	1090.1	1085.4	1075.0	1075.9	1077.3	1075.9	1075.0
41.5°	1023.6	1022.2	1025.5	1034.0	1038.2	1034.0	1025.5	1022.2	1023.6	1022.2	1025.5
42°	968.9	969.4	976.4	982.1	987.3	982.1	976.4	969.4	968.9	969.4	976.4
42.5°	914.7	917.0	926.9	931.6	936.4	931.6	926.9	917.0	914.7	917.0	926.9
43°	860.5	865.2	877.4	881.7	885.0	881.7	877.4	865.2	860.5	865.2	877.4
43.5°	807.2	813.8	827.9	832.2	834.1	832.2	827.9	813.8	807.2	813.8	827.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	653.5	662.9	681.8	687.4	686.0	687.4	681.8	662.9	653.5	662.9	681.8
45.5°	604.9	614.8	634.6	642.2	638.4	642.2	634.6	614.8	604.9	614.8	634.6
46°	557.3	569.1	589.8	597.4	591.7	597.4	589.8	569.1	557.3	569.1	589.8
46.5°	513.9	524.3	545.0	552.1	546.9	552.1	545.0	524.3	513.9	524.3	545.0
47°	470.5	480.4	500.7	508.7	503.1	508.7	500.7	480.4	470.5	480.4	500.7
47.5°	428.6	438.0	456.9	465.8	461.6	465.8	456.9	438.0	428.6	438.0	456.9
48°	387.1	397.0	415.4	425.3	422.4	425.3	415.4	397.0	387.1	397.0	415.4
48.5°	347.5	358.3	375.8	386.6	384.3	386.6	375.8	358.3	347.5	358.3	375.8
49°	311.2	321.6	337.6	349.4	349.8	349.4	337.6	321.6	311.2	321.6	337.6
49.5°	277.7	285.7	300.8	314.0	315.9	314.0	300.8	285.7	277.7	285.7	300.8
50°	245.6	252.7	265.4	279.6	282.4	279.6	265.4	252.7	245.6	252.7	265.4
50.5°	215.5	221.1	232.0	246.6	249.9	246.6	232.0	221.1	215.5	221.1	232.0
51°	187.7	192.8	203.2	215.9	219.2	215.9	203.2	192.8	187.7	192.8	203.2
51.5°	162.7	166.9	175.9	187.2	192.4	187.2	175.9	166.9	162.7	166.9	175.9
52°	139.1	142.9	150.4	160.3	166.0	160.3	150.4	142.9	139.1	142.9	150.4
52.5°	119.3	120.2	125.9	135.3	140.5	135.3	125.9	120.2	119.3	120.2	125.9
53°	100.9	100.4	105.1	114.1	117.9	114.1	105.1	100.4	100.9	100.4	105.1
53.5°	83.0	83.9	87.7	95.7	97.1	95.7	87.7	83.9	83.0	83.9	87.7
54°	67.4	68.8	71.2	78.3	78.3	78.3	71.2	68.8	67.4	68.8	71.2
54.5°	54.2	55.2	56.1	62.2	61.8	62.2	56.1	55.2	54.2	55.2	56.1
55°	42.4	42.0	42.9	48.1	50.0	48.1	42.9	42.0	42.4	42.0	42.9
55.5°	31.1	31.1	32.5	35.8	38.7	35.8	32.5	31.1	31.1	31.1	32.5
56°	20.7	22.2	24.5	27.3	29.7	27.3	24.5	22.2	20.7	22.2	24.5
56.5°	14.1	14.6	17.9	19.3	21.2	19.3	17.9	14.6	14.1	14.6	17.9
57°	11.3	10.4	11.8	12.7	12.7	12.7	11.8	10.4	11.3	10.4	11.8
57.5°	9.0	8.0	8.5	9.4	8.5	9.4	8.5	8.0	9.0	8.0	8.5
58°	7.1	6.6	7.1	7.5	6.1	7.5	7.1	6.6	7.1	6.6	7.1
58.5°	4.7	5.2	5.7	6.1	5.2	6.1	5.7	5.2	4.7	5.2	5.7
59°	4.2	4.2	4.2	4.7	4.2	4.7	4.2	4.2	4.2	4.2	4.2
59.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
60°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
60.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
61°	1.9	1.9	1.9	2.4	1.9	2.4	1.9	1.9	1.9	1.9	1.9
61.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
62°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.9	1.9
62.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
63°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
63.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
64°	0.9	0.9	0.9	0.9	1.4	0.9	0.9	0.9	0.9	0.9	0.9
64.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
65.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
66°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5
73.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.5
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	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	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: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2453.1	2453.1	2453.1	2453.1	2453.1	2453.1
0.5°	2452.7	2453.6	2452.7	2452.7	2452.7	2453.1
1°	2452.2	2453.6	2452.2	2452.2	2452.7	2452.7
1.5°	2451.7	2453.1	2451.7	2451.7	2452.2	2452.2
2°	2451.2	2452.2	2451.2	2451.2	2451.2	2451.7
2.5°	2450.3	2451.7	2450.3	2450.3	2450.3	2450.8
3°	2449.4	2450.8	2449.4	2449.4	2449.4	2449.4
3.5°	2447.9	2449.4	2447.9	2448.4	2448.4	2448.4
4°	2447.0	2447.9	2447.0	2447.0	2447.0	2447.0
4.5°	2445.1	2446.5	2445.1	2445.1	2445.1	2445.1
5°	2443.7	2444.6	2443.7	2443.7	2443.7	2443.7
5.5°	2441.8	2443.2	2441.8	2441.8	2441.8	2441.8
6°	2439.5	2440.9	2439.5	2439.5	2439.5	2439.9
6.5°	2437.6	2439.0	2437.6	2437.6	2437.1	2437.6
7°	2435.2	2436.1	2435.2	2434.7	2434.7	2435.2
7.5°	2432.4	2433.8	2432.4	2432.4	2432.4	2432.4
8°	2429.5	2431.0	2429.5	2429.5	2429.5	2429.5
8.5°	2426.7	2428.1	2426.7	2426.2	2426.2	2426.7
9°	2423.4	2424.8	2423.4	2423.4	2423.4	2423.4
9.5°	2420.1	2421.5	2420.1	2419.6	2419.6	2420.1
10°	2416.3	2418.2	2416.3	2415.9	2416.3	2416.3
10.5°	2412.6	2414.5	2412.6	2412.1	2412.1	2413.0
11°	2408.8	2410.7	2408.8	2407.9	2408.3	2408.8
11.5°	2404.6	2406.4	2404.6	2403.6	2403.6	2404.6
12°	2399.8	2402.2	2399.8	2398.9	2399.4	2399.8
12.5°	2395.1	2397.5	2395.1	2393.7	2394.2	2395.1
13°	2389.9	2392.8	2389.9	2388.5	2389.5	2390.4
13.5°	2384.8	2387.6	2384.8	2383.3	2383.8	2384.8
14°	2379.1	2381.9	2379.1	2377.2	2378.2	2379.6
14.5°	2373.0	2376.3	2373.0	2371.6	2372.5	2373.4
15°	2366.8	2370.1	2366.8	2365.0	2365.9	2367.3
15.5°	2360.2	2363.5	2360.2	2358.4	2359.3	2360.7
16°	2353.6	2356.9	2353.6	2351.3	2352.7	2354.1
16.5°	2346.6	2349.9	2346.6	2344.2	2345.2	2347.0
17°	2339.0	2342.3	2339.0	2336.7	2337.6	2339.5
17.5°	2331.0	2334.8	2331.0	2328.7	2330.1	2331.5
18°	2323.0	2326.3	2323.0	2320.2	2321.6	2323.5
18.5°	2314.5	2317.8	2314.5	2311.7	2313.1	2314.5
19°	2305.5	2308.8	2305.5	2302.7	2304.1	2306.0
19.5°	2296.1	2299.9	2296.1	2293.3	2295.2	2296.6
20°	2286.7	2290.0	2286.7	2283.9	2285.3	2287.2
20.5°	2276.8	2280.1	2276.8	2274.0	2275.4	2276.8
21°	2266.4	2269.2	2266.4	2263.6	2265.0	2266.4



TEST NUMBER: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2232.5	2235.3	2232.5	2230.1	2230.6	2232.0
23°	2220.7	2222.6	2220.7	2217.9	2218.3	2219.3
23.5°	2208.0	2209.8	2208.0	2205.6	2205.6	2206.1
24°	2194.3	2196.6	2194.3	2192.9	2192.4	2192.9
24.5°	2180.6	2182.5	2180.6	2179.2	2178.7	2178.7
25°	2166.0	2167.9	2166.0	2165.0	2164.1	2163.6
25.5°	2150.0	2151.8	2150.0	2150.0	2148.5	2148.1
26°	2133.5	2135.3	2133.5	2133.5	2132.0	2131.1
26.5°	2116.0	2117.0	2116.0	2117.0	2115.1	2113.7
27°	2097.2	2098.1	2097.2	2098.6	2096.7	2094.8
27.5°	2077.4	2077.4	2077.4	2079.2	2077.4	2075.0
28°	2056.1	2054.7	2056.1	2059.0	2056.6	2053.8
28.5°	2034.0	2031.6	2034.0	2037.3	2034.9	2031.6
29°	2010.9	2007.6	2010.9	2014.2	2011.8	2008.5
29.5°	1986.4	1982.1	1986.4	1990.1	1987.8	1984.0
30°	1960.0	1955.7	1960.0	1964.2	1961.4	1958.5
30.5°	1932.6	1927.9	1932.6	1937.3	1935.0	1932.1
31°	1904.8	1899.6	1904.8	1909.0	1906.7	1904.3
31.5°	1874.6	1869.9	1874.6	1879.3	1877.0	1875.6
32°	1843.5	1839.7	1843.5	1848.2	1845.9	1845.9
32.5°	1811.0	1808.1	1811.0	1815.7	1814.3	1814.7
33°	1777.5	1776.5	1777.5	1782.2	1780.8	1782.7
33.5°	1743.1	1742.6	1743.1	1747.3	1746.8	1750.1
34°	1706.8	1709.1	1706.8	1711.5	1711.5	1715.3
34.5°	1669.5	1673.8	1669.5	1674.2	1675.2	1679.4
35°	1632.3	1637.0	1632.3	1635.6	1637.5	1642.2
35.5°	1594.1	1599.3	1594.1	1596.0	1599.3	1603.0
36°	1554.0	1560.1	1554.0	1554.9	1559.7	1562.5
36.5°	1513.0	1520.1	1513.0	1512.5	1518.2	1520.5
37°	1471.0	1477.6	1471.0	1468.7	1475.3	1476.7
37.5°	1427.2	1433.3	1427.2	1422.9	1430.9	1431.4
38°	1381.9	1388.0	1381.9	1375.8	1384.7	1385.2
38.5°	1335.2	1341.4	1335.2	1326.8	1336.7	1337.1
39°	1288.1	1293.7	1288.1	1277.2	1286.7	1288.1
39.5°	1239.1	1244.7	1239.1	1226.8	1235.3	1237.6
40°	1188.1	1194.3	1188.1	1175.4	1182.5	1184.4
40.5°	1136.7	1141.9	1136.7	1124.5	1129.2	1131.6
41°	1085.4	1090.1	1085.4	1075.0	1075.9	1077.3
41.5°	1034.0	1038.2	1034.0	1025.5	1022.2	1023.6
42°	982.1	987.3	982.1	976.4	969.4	968.9
42.5°	931.6	936.4	931.6	926.9	917.0	914.7
43°	881.7	885.0	881.7	877.4	865.2	860.5
43.5°	832.2	834.1	832.2	827.9	813.8	807.2



TEST NUMBER: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	687.4	686.0	687.4	681.8	662.9	653.5
45.5°	642.2	638.4	642.2	634.6	614.8	604.9
46°	597.4	591.7	597.4	589.8	569.1	557.3
46.5°	552.1	546.9	552.1	545.0	524.3	513.9
47°	508.7	503.1	508.7	500.7	480.4	470.5
47.5°	465.8	461.6	465.8	456.9	438.0	428.6
48°	425.3	422.4	425.3	415.4	397.0	387.1
48.5°	386.6	384.3	386.6	375.8	358.3	347.5
49°	349.4	349.8	349.4	337.6	321.6	311.2
49.5°	314.0	315.9	314.0	300.8	285.7	277.7
50°	279.6	282.4	279.6	265.4	252.7	245.6
50.5°	246.6	249.9	246.6	232.0	221.1	215.5
51°	215.9	219.2	215.9	203.2	192.8	187.7
51.5°	187.2	192.4	187.2	175.9	166.9	162.7
52°	160.3	166.0	160.3	150.4	142.9	139.1
52.5°	135.3	140.5	135.3	125.9	120.2	119.3
53°	114.1	117.9	114.1	105.1	100.4	100.9
53.5°	95.7	97.1	95.7	87.7	83.9	83.0
54°	78.3	78.3	78.3	71.2	68.8	67.4
54.5°	62.2	61.8	62.2	56.1	55.2	54.2
55°	48.1	50.0	48.1	42.9	42.0	42.4
55.5°	35.8	38.7	35.8	32.5	31.1	31.1
56°	27.3	29.7	27.3	24.5	22.2	20.7
56.5°	19.3	21.2	19.3	17.9	14.6	14.1
57°	12.7	12.7	12.7	11.8	10.4	11.3
57.5°	9.4	8.5	9.4	8.5	8.0	9.0
58°	7.5	6.1	7.5	7.1	6.6	7.1
58.5°	6.1	5.2	6.1	5.7	5.2	4.7
59°	4.7	4.2	4.7	4.2	4.2	4.2
59.5°	3.3	3.3	3.3	3.3	3.3	3.3
60°	2.8	2.8	2.8	2.8	2.8	2.8
60.5°	2.4	2.4	2.4	2.4	2.4	2.4
61°	2.4	1.9	2.4	1.9	1.9	1.9
61.5°	1.9	1.9	1.9	1.9	1.9	1.9
62°	1.9	1.9	1.9	1.9	1.9	1.4
62.5°	1.4	1.4	1.4	1.4	1.4	1.4
63°	1.4	1.4	1.4	1.4	1.4	1.4
63.5°	1.4	1.4	1.4	1.4	1.4	1.4
64°	0.9	1.4	0.9	0.9	0.9	0.9
64.5°	0.9	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.9	0.9	0.9	0.9
65.5°	0.9	0.9	0.9	0.9	0.9	0.9
66°	0.9	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.0
73.5°	0.5	0.5	0.5	0.5	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	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: P776712

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

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



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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°	2255.6	2253.7	2252.7	2255.6	2258.4	2255.6	2252.7	2253.7	2255.6	2253.7	2252.7
22°	2243.8	2242.8	2241.4	2244.3	2246.6	2244.3	2241.4	2242.8	2243.8	2242.8	2241.4



44°	754.4	762.9	778.4	783.1	784.1	783.1	778.4	762.9	754.4	762.9	778.4
44.5°	703.5	712.4	729.9	735.0	734.6	735.0	729.9	712.4	703.5	712.4	729.9



66.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
67°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.9



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°	2255.6	2258.4	2255.6	2252.7	2253.7	2255.6
22°	2244.3	2246.6	2244.3	2241.4	2242.8	2243.8



44°	783.1	784.1	783.1	778.4	762.9	754.4
44.5°	735.0	734.6	735.0	729.9	712.4	703.5

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Peachtree City, GA 30269

Scaled Data Report



66.5°	0.9	0.9	0.9	0.9	0.9	0.9
67°	0.9	0.9	0.9	0.9	0.5	0.5

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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)