

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: P776711

Luminaire Tested: HCDJBS4050CSD-HCD6TRMB-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776711
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: HCDJBL54050CSD-HCD6TRMB-5000lm-3000K
Description: 6 INCH ROUND MEDIUM MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3435.9 lumens
Efficiency: N/A
Efficacy: 71.6 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

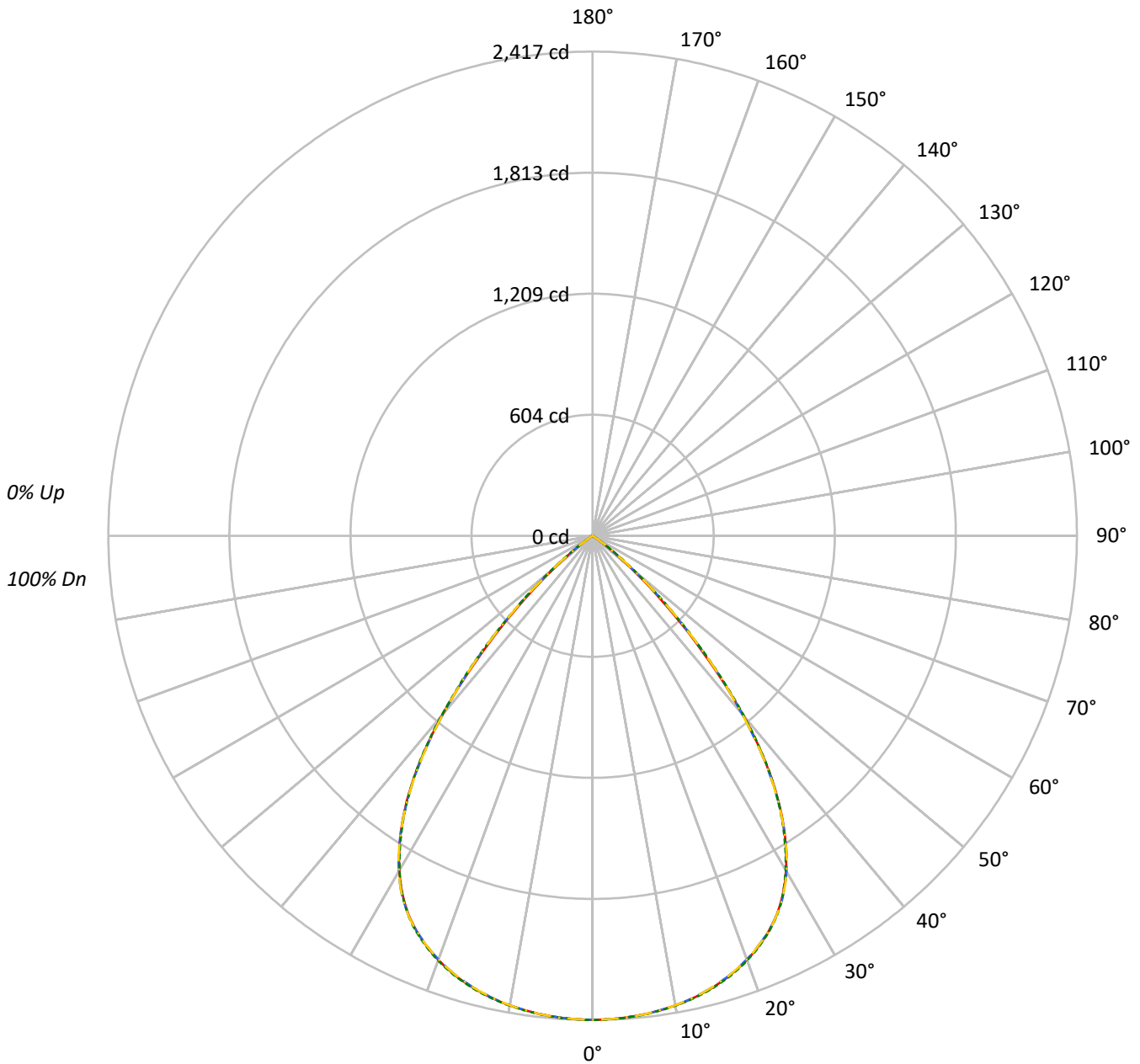
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	132462	132462	132462	132462
5°	132456	132506	132456	132506
10°	132490	132591	132490	132591
15°	132339	132498	132339	132498
20°	131425	131588	131425	131588
25°	128905	129159	128905	129159
30°	122114	121936	122114	121936
35°	108248	107907	108248	107907
40°	83485	84179	83485	84179
45°	49904	52385	49904	52385
50°	20639	23726	20639	23726
55°	3995	4702	3995	4702
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: 52494 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.9	6.7
10°-20°	657.4	19.1
20°-30°	976.2	28.4
30°-40°	989.5	28.8
40°-50°	517.8	15.1
50°-60°	64.7	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°	1862.6	54.2
0°-40°	2852.0	83.0
0°-60°	3434.6	100.0
0°-90°	3435.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3435.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2416	2416	2416	2416	2416	
5°	2407	2408	2407	2408	2407	229
15°	2332	2335	2332	2335	2332	658
25°	2131	2135	2131	2135	2131	976
35°	1618	1612	1618	1612	1618	991
45°	644	676	644	676	644	505
55°	42	49	42	49	42	60
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°	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3
0.5°	2416.3	2415.8	2415.8	2415.8	2416.8	2415.8	2415.8	2415.8	2416.3	2415.8	2415.8
1°	2415.8	2415.8	2415.4	2415.4	2416.8	2415.4	2415.4	2415.8	2415.8	2415.8	2415.4
1.5°	2415.4	2415.4	2414.9	2414.9	2416.3	2414.9	2414.9	2415.4	2415.4	2415.4	2414.9
2°	2414.9	2414.4	2414.4	2414.4	2415.4	2414.4	2414.4	2414.4	2414.9	2414.4	2414.4
2.5°	2414.0	2413.5	2413.5	2413.5	2414.9	2413.5	2413.5	2413.5	2414.0	2413.5	2413.5
3°	2412.6	2412.6	2412.6	2412.6	2414.0	2412.6	2412.6	2412.6	2412.6	2412.6	2412.6
3.5°	2411.6	2411.6	2411.6	2411.2	2412.6	2411.2	2411.6	2411.6	2411.6	2411.6	2411.6
4°	2410.3	2410.3	2410.3	2410.3	2411.2	2410.3	2410.3	2410.3	2410.3	2410.3	2410.3
4.5°	2408.4	2408.4	2408.4	2408.4	2409.8	2408.4	2408.4	2408.4	2408.4	2408.4	2408.4
5°	2407.0	2407.0	2407.0	2407.0	2407.9	2407.0	2407.0	2407.0	2407.0	2407.0	2407.0
5.5°	2405.1	2405.1	2405.1	2405.1	2406.5	2405.1	2405.1	2405.1	2405.1	2405.1	2405.1
6°	2403.3	2402.8	2402.8	2402.8	2404.2	2402.8	2402.8	2402.8	2403.3	2402.8	2402.8
6.5°	2401.0	2400.5	2401.0	2401.0	2402.4	2401.0	2401.0	2400.5	2401.0	2400.5	2401.0
7°	2398.6	2398.2	2398.2	2398.6	2399.6	2398.6	2398.2	2398.2	2398.6	2398.2	2398.2
7.5°	2395.9	2395.9	2395.9	2395.9	2397.2	2395.9	2395.9	2395.9	2395.9	2395.9	2395.9
8°	2393.1	2393.1	2393.1	2393.1	2394.5	2393.1	2393.1	2393.1	2393.1	2393.1	2393.1
8.5°	2390.3	2389.8	2389.8	2390.3	2391.7	2390.3	2389.8	2389.8	2390.3	2389.8	2389.8
9°	2387.0	2387.0	2387.0	2387.0	2388.4	2387.0	2387.0	2387.0	2387.0	2387.0	2387.0
9.5°	2383.8	2383.3	2383.3	2383.8	2385.2	2383.8	2383.3	2383.3	2383.8	2383.3	2383.3
10°	2380.1	2380.1	2379.6	2380.1	2381.9	2380.1	2379.6	2380.1	2380.1	2380.1	2379.6
10.5°	2376.8	2375.9	2375.9	2376.4	2378.2	2376.4	2375.9	2375.9	2376.8	2375.9	2375.9
11°	2372.6	2372.2	2371.7	2372.6	2374.5	2372.6	2371.7	2372.2	2372.6	2372.2	2371.7
11.5°	2368.5	2367.5	2367.5	2368.5	2370.3	2368.5	2367.5	2367.5	2368.5	2367.5	2367.5
12°	2363.8	2363.3	2362.9	2363.8	2366.1	2363.8	2362.9	2363.3	2363.8	2363.3	2362.9
12.5°	2359.2	2358.2	2357.8	2359.2	2361.5	2359.2	2357.8	2358.2	2359.2	2358.2	2357.8
13°	2354.5	2353.6	2352.7	2354.1	2356.8	2354.1	2352.7	2353.6	2354.5	2353.6	2352.7
13.5°	2349.0	2348.0	2347.6	2349.0	2351.7	2349.0	2347.6	2348.0	2349.0	2348.0	2347.6
14°	2343.8	2342.4	2341.5	2343.4	2346.2	2343.4	2341.5	2342.4	2343.8	2342.4	2341.5
14.5°	2337.8	2336.9	2335.9	2337.3	2340.6	2337.3	2335.9	2336.9	2337.8	2336.9	2335.9
15°	2331.8	2330.4	2329.4	2331.3	2334.6	2331.3	2329.4	2330.4	2331.8	2330.4	2329.4
15.5°	2325.3	2323.9	2322.9	2324.8	2328.1	2324.8	2322.9	2323.9	2325.3	2323.9	2322.9
16°	2318.8	2317.4	2316.0	2318.3	2321.6	2318.3	2316.0	2317.4	2318.8	2317.4	2316.0
16.5°	2311.8	2309.9	2309.0	2311.3	2314.6	2311.3	2309.0	2309.9	2311.8	2309.9	2309.0
17°	2304.4	2302.5	2301.6	2303.9	2307.2	2303.9	2301.6	2302.5	2304.4	2302.5	2301.6
17.5°	2296.5	2295.1	2293.7	2296.0	2299.7	2296.0	2293.7	2295.1	2296.5	2295.1	2293.7
18°	2288.6	2286.7	2285.3	2288.1	2291.4	2288.1	2285.3	2286.7	2288.6	2286.7	2285.3
18.5°	2279.8	2278.4	2277.0	2279.8	2283.0	2279.8	2277.0	2278.4	2279.8	2278.4	2277.0
19°	2271.4	2269.5	2268.1	2270.9	2274.2	2270.9	2268.1	2269.5	2271.4	2269.5	2268.1
19.5°	2262.1	2260.7	2258.9	2261.6	2265.4	2261.6	2258.9	2260.7	2262.1	2260.7	2258.9
20°	2252.8	2251.0	2249.6	2252.4	2255.6	2252.4	2249.6	2251.0	2252.8	2251.0	2249.6
20.5°	2242.6	2241.2	2239.8	2242.6	2245.9	2242.6	2239.8	2241.2	2242.6	2241.2	2239.8
21°	2232.4	2231.0	2229.6	2232.4	2235.2	2232.4	2229.6	2231.0	2232.4	2231.0	2229.6



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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°	2198.5	2197.1	2196.6	2198.9	2201.7	2198.9	2196.6	2197.1	2198.5	2197.1	2196.6
23°	2185.9	2185.0	2184.6	2187.3	2189.2	2187.3	2184.6	2185.0	2185.9	2185.0	2184.6
23.5°	2172.9	2172.5	2172.5	2174.8	2176.7	2174.8	2172.5	2172.5	2172.9	2172.5	2172.5
24°	2159.9	2159.5	2159.9	2161.3	2163.7	2161.3	2159.9	2159.5	2159.9	2159.5	2159.9
24.5°	2146.0	2146.0	2146.5	2147.9	2149.7	2147.9	2146.5	2146.0	2146.0	2146.0	2146.5
25°	2131.1	2131.6	2132.5	2133.5	2135.3	2133.5	2132.5	2131.6	2131.1	2131.6	2132.5
25.5°	2115.8	2116.3	2117.7	2117.7	2119.5	2117.7	2117.7	2116.3	2115.8	2116.3	2117.7
26°	2099.1	2100.0	2101.4	2101.4	2103.3	2101.4	2101.4	2100.0	2099.1	2100.0	2101.4
26.5°	2081.9	2083.3	2085.2	2084.2	2085.2	2084.2	2085.2	2083.3	2081.9	2083.3	2085.2
27°	2063.3	2065.2	2067.1	2065.7	2066.6	2065.7	2067.1	2065.2	2063.3	2065.2	2067.1
27.5°	2043.8	2046.2	2048.0	2046.2	2046.2	2046.2	2048.0	2046.2	2043.8	2046.2	2048.0
28°	2022.9	2025.7	2028.0	2025.3	2023.9	2025.3	2028.0	2025.7	2022.9	2025.7	2028.0
28.5°	2001.1	2004.4	2006.7	2003.4	2001.1	2003.4	2006.7	2004.4	2001.1	2004.4	2006.7
29°	1978.4	1981.6	1983.9	1980.7	1977.4	1980.7	1983.9	1981.6	1978.4	1981.6	1983.9
29.5°	1954.2	1957.9	1960.2	1956.5	1952.4	1956.5	1960.2	1957.9	1954.2	1957.9	1960.2
30°	1929.1	1931.9	1934.7	1930.5	1926.3	1930.5	1934.7	1931.9	1929.1	1931.9	1934.7
30.5°	1903.1	1905.9	1908.2	1903.6	1898.9	1903.6	1908.2	1905.9	1903.1	1905.9	1908.2
31°	1875.7	1878.0	1880.4	1876.2	1871.1	1876.2	1880.4	1878.0	1875.7	1878.0	1880.4
31.5°	1847.4	1848.8	1851.1	1846.5	1841.8	1846.5	1851.1	1848.8	1847.4	1848.8	1851.1
32°	1818.1	1818.1	1820.5	1815.8	1812.1	1815.8	1820.5	1818.1	1818.1	1818.1	1820.5
32.5°	1787.5	1787.0	1788.4	1783.8	1781.0	1783.8	1788.4	1787.0	1787.5	1787.0	1788.4
33°	1755.9	1754.1	1755.4	1750.8	1749.9	1750.8	1755.4	1754.1	1755.9	1754.1	1755.4
33.5°	1723.9	1720.6	1721.1	1716.9	1716.4	1716.9	1721.1	1720.6	1723.9	1720.6	1721.1
34°	1689.5	1685.8	1685.8	1681.1	1683.5	1681.1	1685.8	1685.8	1689.5	1685.8	1685.8
34.5°	1654.2	1650.0	1649.1	1644.5	1648.6	1644.5	1649.1	1650.0	1654.2	1650.0	1649.1
35°	1617.5	1612.9	1611.0	1607.8	1612.4	1607.8	1611.0	1612.9	1617.5	1612.9	1611.0
35.5°	1579.0	1575.3	1572.0	1570.1	1575.3	1570.1	1572.0	1575.3	1579.0	1575.3	1572.0
36°	1539.0	1536.2	1531.6	1530.7	1536.7	1530.7	1531.6	1536.2	1539.0	1536.2	1531.6
36.5°	1497.7	1495.4	1489.8	1490.3	1497.2	1490.3	1489.8	1495.4	1497.7	1495.4	1489.8
37°	1454.5	1453.1	1446.6	1448.9	1455.4	1448.9	1446.6	1453.1	1454.5	1453.1	1446.6
37.5°	1409.9	1409.5	1401.6	1405.7	1411.8	1405.7	1401.6	1409.5	1409.9	1409.5	1401.6
38°	1364.4	1364.0	1355.1	1361.2	1367.2	1361.2	1355.1	1364.0	1364.4	1364.0	1355.1
38.5°	1317.0	1316.6	1306.8	1315.2	1321.2	1315.2	1306.8	1316.6	1317.0	1316.6	1306.8
39°	1268.7	1267.4	1258.1	1268.7	1274.3	1268.7	1258.1	1267.4	1268.7	1267.4	1258.1
39.5°	1219.1	1216.7	1208.4	1220.5	1226.0	1220.5	1208.4	1216.7	1219.1	1216.7	1208.4
40°	1166.6	1164.7	1157.8	1170.3	1176.3	1170.3	1157.8	1164.7	1166.6	1164.7	1157.8
40.5°	1114.6	1112.2	1107.6	1119.7	1124.8	1119.7	1107.6	1112.2	1114.6	1112.2	1107.6
41°	1061.2	1059.8	1058.8	1069.1	1073.7	1069.1	1058.8	1059.8	1061.2	1059.8	1058.8
41.5°	1008.2	1006.8	1010.1	1018.4	1022.6	1018.4	1010.1	1006.8	1008.2	1006.8	1010.1
42°	954.3	954.8	961.8	967.4	972.5	967.4	961.8	954.8	954.3	954.8	961.8
42.5°	900.9	903.3	913.0	917.7	922.3	917.7	913.0	903.3	900.9	903.3	913.0
43°	847.5	852.2	864.3	868.4	871.7	868.4	864.3	852.2	847.5	852.2	864.3
43.5°	795.1	801.6	815.5	819.7	821.5	819.7	815.5	801.6	795.1	801.6	815.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	643.7	653.0	671.5	677.1	675.7	677.1	671.5	653.0	643.7	653.0	671.5
45.5°	595.8	605.6	625.1	632.5	628.8	632.5	625.1	605.6	595.8	605.6	625.1
46°	548.9	560.5	581.0	588.4	582.8	588.4	581.0	560.5	548.9	560.5	581.0
46.5°	506.2	516.4	536.9	543.8	538.7	543.8	536.9	516.4	506.2	516.4	536.9
47°	463.5	473.2	493.2	501.1	495.5	501.1	493.2	473.2	463.5	473.2	493.2
47.5°	422.1	431.4	450.0	458.8	454.7	458.8	450.0	431.4	422.1	431.4	450.0
48°	381.3	391.0	409.1	418.9	416.1	418.9	409.1	391.0	381.3	391.0	409.1
48.5°	342.3	352.9	370.1	380.8	378.5	380.8	370.1	352.9	342.3	352.9	370.1
49°	306.5	316.7	332.5	344.1	344.6	344.1	332.5	316.7	306.5	316.7	332.5
49.5°	273.5	281.4	296.3	309.3	311.2	309.3	296.3	281.4	273.5	281.4	296.3
50°	242.0	248.9	261.5	275.4	278.2	275.4	261.5	248.9	242.0	248.9	261.5
50.5°	212.2	217.8	228.5	242.9	246.1	242.9	228.5	217.8	212.2	217.8	228.5
51°	184.8	189.9	200.2	212.7	215.9	212.7	200.2	189.9	184.8	189.9	200.2
51.5°	160.2	164.4	173.2	184.4	189.5	184.4	173.2	164.4	160.2	164.4	173.2
52°	137.0	140.7	148.1	157.9	163.5	157.9	148.1	140.7	137.0	140.7	148.1
52.5°	117.5	118.4	124.0	133.3	138.4	133.3	124.0	118.4	117.5	118.4	124.0
53°	99.4	98.9	103.6	112.4	116.1	112.4	103.6	98.9	99.4	98.9	103.6
53.5°	81.7	82.7	86.4	94.3	95.7	94.3	86.4	82.7	81.7	82.7	86.4
54°	66.4	67.8	70.1	77.1	77.1	77.1	70.1	67.8	66.4	67.8	70.1
54.5°	53.4	54.3	55.3	61.3	60.8	61.3	55.3	54.3	53.4	54.3	55.3
55°	41.8	41.3	42.3	47.4	49.2	47.4	42.3	41.3	41.8	41.3	42.3
55.5°	30.7	30.7	32.0	35.3	38.1	35.3	32.0	30.7	30.7	30.7	32.0
56°	20.4	21.8	24.1	26.9	29.3	26.9	24.1	21.8	20.4	21.8	24.1
56.5°	13.9	14.4	17.6	19.0	20.9	19.0	17.6	14.4	13.9	14.4	17.6
57°	11.1	10.2	11.6	12.5	12.5	12.5	11.6	10.2	11.1	10.2	11.6
57.5°	8.8	7.9	8.4	9.3	8.4	9.3	8.4	7.9	8.8	7.9	8.4
58°	7.0	6.5	7.0	7.4	6.0	7.4	7.0	6.5	7.0	6.5	7.0
58.5°	4.6	5.1	5.6	6.0	5.1	6.0	5.6	5.1	4.6	5.1	5.6
59°	4.2	4.2	4.2	4.6	4.2	4.6	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°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
61°	1.9	1.9	1.9	2.3	1.9	2.3	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: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3000K

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: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-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: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2416.3	2416.3	2416.3	2416.3	2416.3	2416.3
0.5°	2415.8	2416.8	2415.8	2415.8	2415.8	2416.3
1°	2415.4	2416.8	2415.4	2415.4	2415.8	2415.8
1.5°	2414.9	2416.3	2414.9	2414.9	2415.4	2415.4
2°	2414.4	2415.4	2414.4	2414.4	2414.4	2414.9
2.5°	2413.5	2414.9	2413.5	2413.5	2413.5	2414.0
3°	2412.6	2414.0	2412.6	2412.6	2412.6	2412.6
3.5°	2411.2	2412.6	2411.2	2411.6	2411.6	2411.6
4°	2410.3	2411.2	2410.3	2410.3	2410.3	2410.3
4.5°	2408.4	2409.8	2408.4	2408.4	2408.4	2408.4
5°	2407.0	2407.9	2407.0	2407.0	2407.0	2407.0
5.5°	2405.1	2406.5	2405.1	2405.1	2405.1	2405.1
6°	2402.8	2404.2	2402.8	2402.8	2402.8	2403.3
6.5°	2401.0	2402.4	2401.0	2401.0	2400.5	2401.0
7°	2398.6	2399.6	2398.6	2398.2	2398.2	2398.6
7.5°	2395.9	2397.2	2395.9	2395.9	2395.9	2395.9
8°	2393.1	2394.5	2393.1	2393.1	2393.1	2393.1
8.5°	2390.3	2391.7	2390.3	2389.8	2389.8	2390.3
9°	2387.0	2388.4	2387.0	2387.0	2387.0	2387.0
9.5°	2383.8	2385.2	2383.8	2383.3	2383.3	2383.8
10°	2380.1	2381.9	2380.1	2379.6	2380.1	2380.1
10.5°	2376.4	2378.2	2376.4	2375.9	2375.9	2376.8
11°	2372.6	2374.5	2372.6	2371.7	2372.2	2372.6
11.5°	2368.5	2370.3	2368.5	2367.5	2367.5	2368.5
12°	2363.8	2366.1	2363.8	2362.9	2363.3	2363.8
12.5°	2359.2	2361.5	2359.2	2357.8	2358.2	2359.2
13°	2354.1	2356.8	2354.1	2352.7	2353.6	2354.5
13.5°	2349.0	2351.7	2349.0	2347.6	2348.0	2349.0
14°	2343.4	2346.2	2343.4	2341.5	2342.4	2343.8
14.5°	2337.3	2340.6	2337.3	2335.9	2336.9	2337.8
15°	2331.3	2334.6	2331.3	2329.4	2330.4	2331.8
15.5°	2324.8	2328.1	2324.8	2322.9	2323.9	2325.3
16°	2318.3	2321.6	2318.3	2316.0	2317.4	2318.8
16.5°	2311.3	2314.6	2311.3	2309.0	2309.9	2311.8
17°	2303.9	2307.2	2303.9	2301.6	2302.5	2304.4
17.5°	2296.0	2299.7	2296.0	2293.7	2295.1	2296.5
18°	2288.1	2291.4	2288.1	2285.3	2286.7	2288.6
18.5°	2279.8	2283.0	2279.8	2277.0	2278.4	2279.8
19°	2270.9	2274.2	2270.9	2268.1	2269.5	2271.4
19.5°	2261.6	2265.4	2261.6	2258.9	2260.7	2262.1
20°	2252.4	2255.6	2252.4	2249.6	2251.0	2252.8
20.5°	2242.6	2245.9	2242.6	2239.8	2241.2	2242.6
21°	2232.4	2235.2	2232.4	2229.6	2231.0	2232.4



TEST NUMBER: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2198.9	2201.7	2198.9	2196.6	2197.1	2198.5
23°	2187.3	2189.2	2187.3	2184.6	2185.0	2185.9
23.5°	2174.8	2176.7	2174.8	2172.5	2172.5	2172.9
24°	2161.3	2163.7	2161.3	2159.9	2159.5	2159.9
24.5°	2147.9	2149.7	2147.9	2146.5	2146.0	2146.0
25°	2133.5	2135.3	2133.5	2132.5	2131.6	2131.1
25.5°	2117.7	2119.5	2117.7	2117.7	2116.3	2115.8
26°	2101.4	2103.3	2101.4	2101.4	2100.0	2099.1
26.5°	2084.2	2085.2	2084.2	2085.2	2083.3	2081.9
27°	2065.7	2066.6	2065.7	2067.1	2065.2	2063.3
27.5°	2046.2	2046.2	2046.2	2048.0	2046.2	2043.8
28°	2025.3	2023.9	2025.3	2028.0	2025.7	2022.9
28.5°	2003.4	2001.1	2003.4	2006.7	2004.4	2001.1
29°	1980.7	1977.4	1980.7	1983.9	1981.6	1978.4
29.5°	1956.5	1952.4	1956.5	1960.2	1957.9	1954.2
30°	1930.5	1926.3	1930.5	1934.7	1931.9	1929.1
30.5°	1903.6	1898.9	1903.6	1908.2	1905.9	1903.1
31°	1876.2	1871.1	1876.2	1880.4	1878.0	1875.7
31.5°	1846.5	1841.8	1846.5	1851.1	1848.8	1847.4
32°	1815.8	1812.1	1815.8	1820.5	1818.1	1818.1
32.5°	1783.8	1781.0	1783.8	1788.4	1787.0	1787.5
33°	1750.8	1749.9	1750.8	1755.4	1754.1	1755.9
33.5°	1716.9	1716.4	1716.9	1721.1	1720.6	1723.9
34°	1681.1	1683.5	1681.1	1685.8	1685.8	1689.5
34.5°	1644.5	1648.6	1644.5	1649.1	1650.0	1654.2
35°	1607.8	1612.4	1607.8	1611.0	1612.9	1617.5
35.5°	1570.1	1575.3	1570.1	1572.0	1575.3	1579.0
36°	1530.7	1536.7	1530.7	1531.6	1536.2	1539.0
36.5°	1490.3	1497.2	1490.3	1489.8	1495.4	1497.7
37°	1448.9	1455.4	1448.9	1446.6	1453.1	1454.5
37.5°	1405.7	1411.8	1405.7	1401.6	1409.5	1409.9
38°	1361.2	1367.2	1361.2	1355.1	1364.0	1364.4
38.5°	1315.2	1321.2	1315.2	1306.8	1316.6	1317.0
39°	1268.7	1274.3	1268.7	1258.1	1267.4	1268.7
39.5°	1220.5	1226.0	1220.5	1208.4	1216.7	1219.1
40°	1170.3	1176.3	1170.3	1157.8	1164.7	1166.6
40.5°	1119.7	1124.8	1119.7	1107.6	1112.2	1114.6
41°	1069.1	1073.7	1069.1	1058.8	1059.8	1061.2
41.5°	1018.4	1022.6	1018.4	1010.1	1006.8	1008.2
42°	967.4	972.5	967.4	961.8	954.8	954.3
42.5°	917.7	922.3	917.7	913.0	903.3	900.9
43°	868.4	871.7	868.4	864.3	852.2	847.5
43.5°	819.7	821.5	819.7	815.5	801.6	795.1



TEST NUMBER: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	677.1	675.7	677.1	671.5	653.0	643.7
45.5°	632.5	628.8	632.5	625.1	605.6	595.8
46°	588.4	582.8	588.4	581.0	560.5	548.9
46.5°	543.8	538.7	543.8	536.9	516.4	506.2
47°	501.1	495.5	501.1	493.2	473.2	463.5
47.5°	458.8	454.7	458.8	450.0	431.4	422.1
48°	418.9	416.1	418.9	409.1	391.0	381.3
48.5°	380.8	378.5	380.8	370.1	352.9	342.3
49°	344.1	344.6	344.1	332.5	316.7	306.5
49.5°	309.3	311.2	309.3	296.3	281.4	273.5
50°	275.4	278.2	275.4	261.5	248.9	242.0
50.5°	242.9	246.1	242.9	228.5	217.8	212.2
51°	212.7	215.9	212.7	200.2	189.9	184.8
51.5°	184.4	189.5	184.4	173.2	164.4	160.2
52°	157.9	163.5	157.9	148.1	140.7	137.0
52.5°	133.3	138.4	133.3	124.0	118.4	117.5
53°	112.4	116.1	112.4	103.6	98.9	99.4
53.5°	94.3	95.7	94.3	86.4	82.7	81.7
54°	77.1	77.1	77.1	70.1	67.8	66.4
54.5°	61.3	60.8	61.3	55.3	54.3	53.4
55°	47.4	49.2	47.4	42.3	41.3	41.8
55.5°	35.3	38.1	35.3	32.0	30.7	30.7
56°	26.9	29.3	26.9	24.1	21.8	20.4
56.5°	19.0	20.9	19.0	17.6	14.4	13.9
57°	12.5	12.5	12.5	11.6	10.2	11.1
57.5°	9.3	8.4	9.3	8.4	7.9	8.8
58°	7.4	6.0	7.4	7.0	6.5	7.0
58.5°	6.0	5.1	6.0	5.6	5.1	4.6
59°	4.6	4.2	4.6	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°	2.3	2.3	2.3	2.3	2.3	2.3
61°	2.3	1.9	2.3	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: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-5000lm-3000K

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: P776711

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMB-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



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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°	2221.7	2219.8	2218.9	2221.7	2224.5	2221.7	2218.9	2219.8	2221.7	2219.8	2218.9
22°	2210.1	2209.2	2207.8	2210.6	2212.9	2210.6	2207.8	2209.2	2210.1	2209.2	2207.8



44°	743.0	751.4	766.7	771.4	772.3	771.4	766.7	751.4	743.0	751.4	766.7
44.5°	692.9	701.7	718.9	724.0	723.5	724.0	718.9	701.7	692.9	701.7	718.9



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°	2221.7	2224.5	2221.7	2218.9	2219.8	2221.7
22°	2210.6	2212.9	2210.6	2207.8	2209.2	2210.1



44°	771.4	772.3	771.4	766.7	751.4	743.0
44.5°	724.0	723.5	724.0	718.9	701.7	692.9

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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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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)