

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: P776589

Luminaire Tested: HCDJBS4050CSD-HCD42TRMB-5000lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776589
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B051)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD42TRMB-5000lm-5000K
Description: 4 INCH ROUND NARROW MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

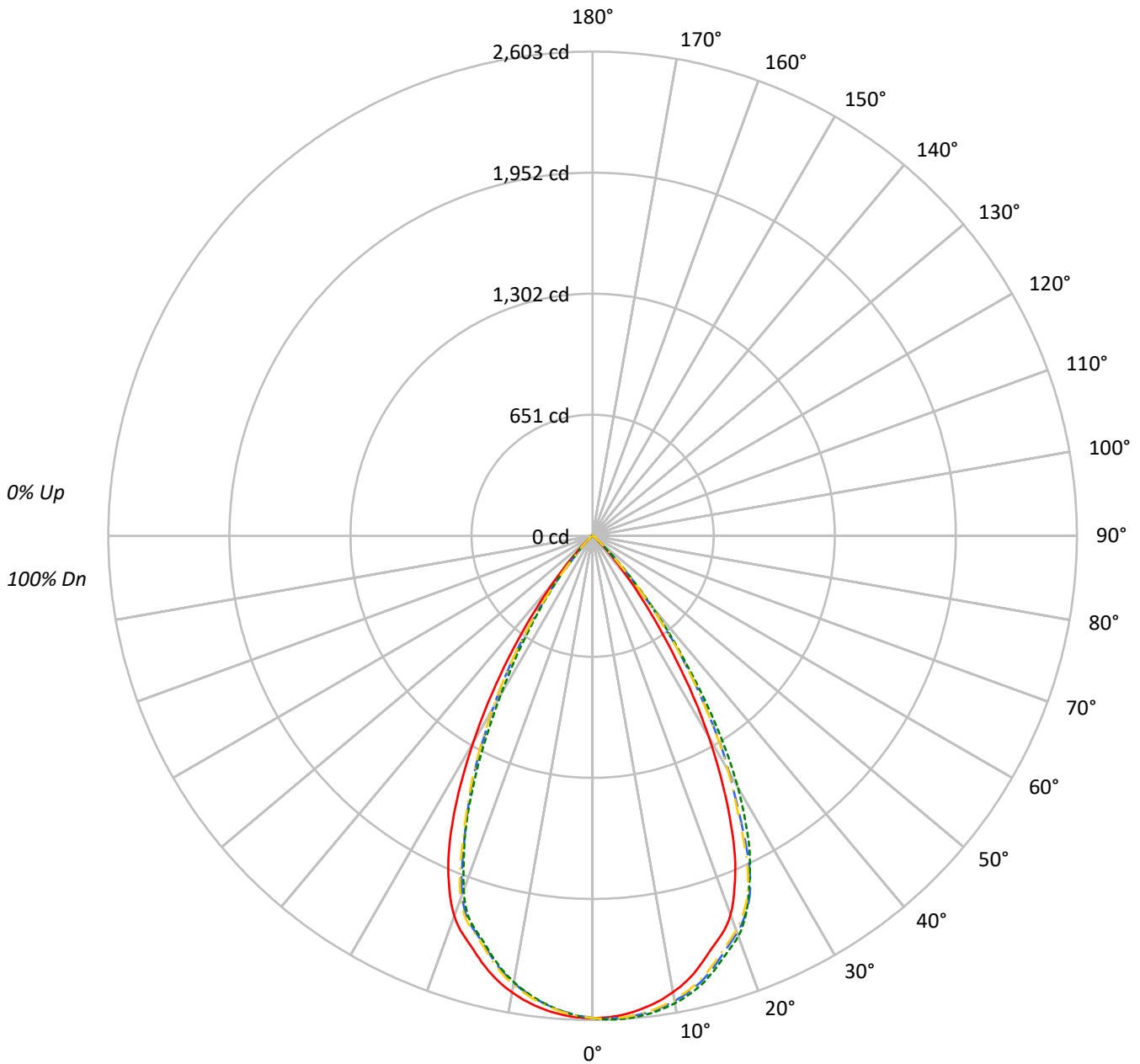
Lumens per Lamp: N/A
Luminaire Lumens: 2289.5 lumens
Efficiency: N/A
Efficacy: 47.7 lumens/watt
Spacing Criteria (0/90/45): 0.95 / 0.94 / 0.88
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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									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	114	111	109	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94																			
2	108	103	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	85	83	82																			
4	98	91	85	81	96	89	84	81	87	83	80	85	82	79	83	80	78	76																			
5	93	85	79	75	91	84	79	75	82	78	74	81	77	73	79	76	73	71																			
6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	67																			
7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	63																			
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59																			
9	76	67	61	57	75	67	61	57	66	61	57	65	60	57	64	60	57	55																			
10	73	63	58	54	72	63	58	54	62	57	54	61	57	54	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	326278	326278	326278	326278
5°	324404	328207	324530	321157
10°	318366	326047	318545	311363
15°	305815	318518	306636	294636
20°	290259	306759	291371	271161
25°	247684	277650	252600	214886
30°	181619	227003	186546	143691
35°	107298	151775	114888	81887
40°	49236	80943	54888	37211
45°	15199	27533	17353	10874
50°	4836	5502	4934	4170
55°	2984	3401	2984	2545
60°	1837	2064	1963	1712
65°	1310	1310	1310	1161
70°	883	883	883	699
75°	486	729	486	486
80°	362	362	362	362
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 28744 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.7	10.6
10°-20°	660.0	28.8
20°-30°	801.1	35.0
30°-40°	472.0	20.6
40°-50°	95.0	4.1
50°-60°	12.9	0.6
60°-70°	4.4	0.2
70°-80°	1.3	0.1
80°-90°	0.1	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°	1703.8	74.4
0°-40°	2175.8	95.0
0°-60°	2283.7	99.7
0°-90°	2289.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2289.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2593	2593	2593	2593	2593	
5°	2568	2598	2569	2542	2568	243
15°	2347	2445	2354	2261	2347	660
25°	1784	2000	1819	1548	1784	799
35°	698	988	748	533	698	444
45°	85	155	98	61	85	83
55°	14	16	14	12	14	13
65°	4	4	4	4	4	4
75°	1	2	1	1	1	1
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°	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6
0.5°	2593.1	2594.6	2593.1	2592.1	2597.5	2595.5	2594.1	2593.6	2593.1	2592.6	2588.8
1°	2592.1	2594.6	2594.6	2594.1	2599.4	2597.5	2595.5	2594.1	2592.6	2590.7	2585.4
1.5°	2591.2	2594.6	2596.0	2596.0	2600.9	2598.9	2596.0	2593.6	2591.2	2588.3	2582.0
2°	2589.2	2593.6	2596.5	2597.0	2601.8	2599.9	2596.5	2593.1	2589.7	2585.8	2577.6
2.5°	2586.8	2592.6	2596.5	2597.5	2602.8	2600.4	2596.0	2592.1	2587.3	2582.4	2572.7
3°	2583.9	2590.7	2596.0	2598.0	2602.8	2600.4	2595.5	2590.2	2584.9	2578.6	2567.9
3.5°	2581.0	2588.8	2595.5	2597.5	2602.3	2599.4	2594.1	2588.3	2581.5	2574.2	2562.6
4°	2577.1	2585.8	2594.1	2596.5	2601.4	2598.5	2592.6	2585.4	2577.6	2569.4	2556.3
4.5°	2572.7	2582.9	2592.6	2595.5	2599.9	2597.0	2590.2	2582.4	2573.7	2564.5	2549.5
5°	2567.9	2579.1	2590.2	2593.6	2598.0	2594.6	2587.8	2579.1	2568.9	2558.7	2542.2
5.5°	2562.6	2575.2	2587.3	2591.7	2595.5	2592.1	2584.4	2575.2	2563.5	2552.4	2534.9
6°	2556.7	2570.3	2583.9	2588.8	2592.6	2588.8	2580.5	2570.3	2557.7	2545.6	2526.7
6.5°	2550.4	2565.5	2580.0	2585.4	2589.7	2585.4	2576.1	2565.0	2551.4	2537.8	2517.9
7°	2544.1	2559.7	2575.7	2581.5	2585.4	2581.0	2571.8	2559.2	2545.1	2530.1	2508.2
7.5°	2536.4	2553.4	2570.8	2577.6	2581.0	2576.1	2566.9	2553.4	2537.8	2521.3	2498.5
8°	2528.6	2546.6	2566.0	2572.7	2576.1	2571.3	2560.6	2546.6	2529.6	2512.6	2488.4
8.5°	2519.9	2539.3	2559.7	2567.4	2570.8	2565.5	2554.3	2539.3	2521.3	2503.4	2477.2
9°	2511.2	2531.5	2553.4	2561.6	2565.0	2559.7	2547.5	2531.5	2512.6	2493.2	2466.1
9.5°	2501.5	2522.8	2546.6	2555.3	2558.7	2552.9	2540.3	2523.3	2502.9	2483.0	2453.4
10°	2491.3	2514.1	2539.3	2548.5	2551.4	2546.1	2532.5	2514.6	2492.7	2471.4	2440.8
10.5°	2480.1	2504.4	2531.5	2541.2	2544.1	2537.8	2524.3	2504.9	2482.1	2459.8	2427.7
11°	2469.5	2494.7	2522.8	2533.0	2535.9	2529.6	2515.0	2494.7	2471.4	2447.1	2413.7
11.5°	2457.3	2484.0	2513.6	2524.7	2527.2	2520.4	2505.3	2484.0	2459.3	2434.0	2398.2
12°	2444.2	2472.4	2503.9	2516.0	2517.9	2511.2	2495.2	2472.8	2446.7	2420.0	2382.2
12.5°	2430.2	2459.8	2493.7	2505.8	2508.2	2500.5	2484.0	2460.7	2433.1	2405.0	2365.2
13°	2415.1	2447.1	2482.1	2495.6	2497.1	2489.8	2472.4	2448.1	2419.0	2389.4	2347.2
13.5°	2399.1	2432.6	2470.9	2484.5	2485.5	2477.7	2459.8	2434.0	2403.5	2372.9	2328.8
14°	2382.6	2418.0	2458.3	2472.4	2473.3	2465.1	2446.2	2419.5	2387.5	2355.0	2308.9
14.5°	2365.2	2402.0	2444.7	2459.3	2459.3	2450.5	2432.1	2404.0	2371.0	2336.6	2290.0
15°	2347.2	2385.1	2430.2	2445.2	2444.7	2436.5	2416.6	2388.0	2353.5	2318.1	2271.1
15.5°	2329.3	2367.6	2414.7	2430.2	2430.2	2421.0	2400.6	2371.0	2335.6	2299.7	2254.1
16°	2312.3	2350.6	2398.2	2414.7	2414.2	2405.0	2384.1	2353.5	2317.7	2281.8	2237.6
16.5°	2296.8	2333.7	2381.2	2398.2	2397.2	2388.5	2367.1	2336.6	2301.2	2265.3	2221.1
17°	2280.8	2318.1	2364.2	2382.2	2381.2	2372.0	2350.1	2320.1	2285.2	2249.8	2204.7
17.5°	2265.8	2302.6	2348.2	2365.7	2365.7	2356.5	2334.1	2304.6	2269.6	2233.8	2188.2
18°	2250.2	2287.6	2332.2	2350.6	2351.6	2341.4	2319.6	2289.0	2253.6	2217.3	2168.8
18.5°	2233.8	2271.6	2317.2	2336.1	2336.6	2326.9	2303.6	2272.6	2237.2	2199.8	2146.5
19°	2214.4	2256.1	2301.7	2321.1	2322.0	2311.8	2288.1	2257.5	2219.2	2179.4	2119.3
19.5°	2192.1	2238.6	2286.6	2305.5	2307.5	2296.8	2272.6	2240.1	2198.8	2155.2	2088.3
20°	2167.3	2218.7	2270.6	2291.0	2290.5	2280.3	2256.1	2221.6	2175.6	2127.5	2051.9
20.5°	2138.7	2196.4	2254.1	2274.0	2271.1	2261.9	2238.1	2201.3	2148.9	2097.0	2011.2
21°	2107.7	2172.7	2235.7	2255.1	2248.8	2240.5	2218.7	2178.5	2120.8	2062.6	1964.1



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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°	2000.5	2082.9	2170.7	2184.3	2167.8	2164.4	2149.4	2096.5	2019.4	1938.9	1812.3
23°	1961.7	2047.5	2144.0	2156.2	2135.8	2133.4	2122.2	2064.0	1984.0	1892.3	1762.4
23.5°	1921.9	2010.2	2114.5	2124.6	2101.4	2099.9	2090.2	2027.6	1945.7	1843.8	1712.9
24°	1877.8	1970.4	2081.5	2089.7	2067.4	2066.0	2055.3	1989.3	1905.9	1794.9	1666.3
24.5°	1831.7	1928.2	2044.1	2053.8	2034.0	2028.6	2015.0	1949.6	1863.7	1745.9	1619.3
25°	1783.7	1884.6	2000.0	2015.0	1999.5	1991.8	1972.4	1906.9	1819.1	1699.3	1572.3
25.5°	1732.8	1838.0	1953.0	1977.2	1965.1	1954.9	1923.4	1861.3	1770.6	1653.3	1524.7
26°	1680.9	1787.6	1899.1	1936.5	1928.7	1917.1	1870.0	1812.8	1720.7	1608.2	1476.2
26.5°	1627.1	1733.3	1841.9	1894.8	1889.9	1874.9	1813.3	1761.4	1668.3	1561.6	1426.3
27°	1573.2	1677.0	1782.3	1849.7	1848.7	1831.2	1758.5	1707.1	1616.4	1514.6	1374.9
27.5°	1519.9	1617.8	1723.6	1804.1	1802.6	1785.2	1702.7	1650.3	1561.6	1467.0	1321.0
28°	1467.0	1557.2	1666.3	1753.2	1755.6	1737.6	1649.4	1589.7	1506.3	1418.0	1268.2
28.5°	1413.7	1497.1	1613.0	1701.3	1706.6	1685.3	1597.0	1531.5	1453.4	1367.6	1216.3
29°	1358.9	1437.9	1562.1	1646.0	1659.6	1631.4	1550.0	1474.3	1396.2	1314.7	1166.8
29.5°	1304.6	1377.8	1514.1	1589.7	1611.1	1575.7	1501.0	1418.5	1339.5	1258.5	1117.8
30°	1249.8	1322.0	1465.6	1532.0	1562.1	1520.4	1453.0	1364.7	1283.7	1203.7	1069.4
30.5°	1195.0	1264.3	1417.1	1477.2	1509.7	1464.6	1404.5	1310.4	1229.4	1147.9	1022.3
31°	1137.7	1209.0	1365.2	1422.9	1456.8	1411.3	1354.5	1257.0	1173.1	1093.6	974.8
31.5°	1081.5	1152.8	1312.3	1369.1	1399.1	1357.9	1300.7	1203.7	1117.8	1039.8	927.3
32°	1024.7	1098.4	1257.0	1317.2	1340.9	1306.0	1246.4	1149.9	1063.0	988.4	879.2
32.5°	968.0	1045.6	1200.8	1267.2	1281.3	1252.7	1191.6	1095.1	1010.2	937.9	828.3
33°	911.3	993.2	1143.6	1215.8	1221.6	1201.3	1136.8	1038.8	955.4	888.5	778.4
33.5°	855.0	940.8	1088.3	1163.9	1163.0	1147.4	1082.4	985.0	902.0	838.5	729.4
34°	800.2	891.4	1035.9	1111.1	1104.3	1095.1	1031.0	933.1	849.7	787.6	681.9
34.5°	747.8	841.4	985.9	1058.2	1046.1	1040.3	983.0	882.2	798.7	736.7	634.3
35°	698.4	792.4	935.5	1003.4	987.9	986.9	933.1	833.2	747.8	685.7	589.2
35.5°	650.8	745.9	888.0	949.1	931.6	935.0	885.5	785.6	699.3	636.3	545.6
36°	604.8	702.2	840.4	895.2	876.8	882.6	836.6	741.0	652.3	587.3	503.4
36.5°	559.7	658.6	792.9	844.3	822.5	829.8	787.1	696.9	607.2	540.7	461.7
37°	517.0	614.5	743.9	793.9	770.6	777.9	736.7	653.7	561.1	495.6	420.0
37.5°	476.7	572.3	695.9	745.4	721.1	727.0	686.7	610.6	519.9	456.4	378.3
38°	437.4	529.6	646.9	697.4	673.1	677.5	637.7	568.9	479.6	417.6	337.1
38.5°	399.6	487.9	599.9	648.4	626.6	628.0	590.2	527.2	443.3	378.3	298.7
39°	364.7	447.1	555.8	602.3	581.0	581.0	543.6	485.9	406.9	339.5	263.3
39.5°	331.2	407.9	513.1	556.3	536.4	534.4	500.5	447.1	370.5	307.5	230.8
40°	299.7	370.5	473.8	510.7	492.7	490.3	462.2	408.8	334.1	274.5	202.2
40.5°	270.1	334.6	434.5	466.1	453.4	448.6	423.9	370.5	301.6	244.4	177.0
41°	242.0	300.7	397.7	421.9	414.2	407.4	385.5	332.2	272.1	216.3	155.2
41.5°	216.8	269.6	361.3	380.7	374.9	366.1	347.2	298.3	243.5	190.1	136.3
42°	193.0	240.5	325.4	341.4	335.6	324.4	308.9	266.7	217.3	166.3	120.8
42.5°	171.2	213.4	290.5	305.0	302.1	288.6	274.0	236.2	193.0	146.0	107.2
43°	153.7	187.7	255.6	270.6	268.7	254.6	240.1	208.1	170.7	127.5	94.1
43.5°	136.8	166.3	223.1	238.6	238.6	223.6	208.5	182.8	149.9	111.5	82.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	85.4	109.6	145.0	161.5	154.7	145.5	131.4	117.4	97.5	73.7	55.3
45.5°	73.2	91.2	125.1	141.6	130.9	124.6	111.1	100.4	83.4	63.5	49.5
46°	62.1	77.1	105.7	121.7	110.6	105.7	94.1	84.4	70.3	54.3	44.1
46.5°	51.9	64.5	85.8	101.8	92.1	89.2	79.0	71.3	59.2	49.0	38.3
47°	43.6	53.3	72.3	82.4	76.1	74.2	66.0	59.2	52.9	43.2	33.0
47.5°	36.4	44.1	59.7	68.4	62.6	61.6	59.7	52.9	46.6	37.8	27.2
48°	31.5	36.4	49.5	56.3	55.8	54.8	53.3	46.6	40.3	32.5	25.2
48.5°	28.6	31.5	40.7	45.6	48.5	48.5	47.0	40.7	33.9	27.2	24.2
49°	27.2	28.6	34.4	37.3	41.7	41.7	40.7	34.4	27.6	25.7	23.3
49.5°	25.7	27.2	30.6	32.0	34.9	34.9	33.9	28.6	26.2	24.2	22.3
50°	24.7	25.7	28.1	29.1	28.1	28.6	27.6	26.7	25.2	23.3	20.9
50.5°	23.3	24.7	26.7	27.2	26.7	27.2	26.7	25.7	23.8	22.3	19.9
51°	22.3	23.3	25.7	26.2	25.7	25.7	25.2	24.2	22.8	20.9	18.4
51.5°	20.9	22.3	24.2	24.7	24.2	24.2	23.8	22.8	21.3	19.9	17.5
52°	19.9	20.9	23.3	23.8	23.3	23.3	22.8	21.3	19.9	18.4	16.5
52.5°	18.4	19.4	21.8	22.3	21.8	21.8	21.3	20.4	18.9	17.5	15.5
53°	17.5	18.4	20.4	20.9	20.4	20.4	19.9	18.9	17.5	16.5	14.5
53.5°	16.5	17.0	18.9	19.4	18.9	18.9	18.4	17.9	16.5	15.5	13.6
54°	15.5	16.0	17.9	18.4	17.9	17.9	17.5	16.5	15.5	14.5	13.1
54.5°	14.5	15.0	17.0	17.5	16.5	16.5	16.5	15.5	14.5	13.6	12.1
55°	13.6	14.5	15.5	16.0	15.5	15.5	15.5	14.5	13.6	13.1	11.6
55.5°	12.6	13.6	14.5	15.0	14.5	14.5	14.5	13.6	13.1	12.1	10.7
56°	12.1	12.6	13.6	14.1	13.6	13.6	13.6	13.1	12.1	11.6	10.2
56.5°	11.2	11.6	13.1	13.1	13.1	13.1	12.6	12.1	11.6	10.7	9.7
57°	10.7	11.2	12.1	12.6	12.1	12.1	12.1	11.6	10.7	10.2	9.2
57.5°	9.7	10.2	11.2	11.6	11.2	11.2	11.2	10.7	10.2	9.7	8.7
58°	9.2	9.7	10.7	11.2	10.7	10.7	10.7	10.2	9.7	9.2	8.2
58.5°	8.7	9.2	10.2	10.2	10.2	10.2	9.7	9.7	9.2	8.7	7.8
59°	8.2	8.7	9.2	9.7	9.2	9.2	9.2	9.2	8.7	8.2	7.3
59.5°	7.8	8.2	8.7	9.2	8.7	8.7	8.7	8.2	8.2	7.8	6.8
60°	7.3	7.8	8.2	8.7	8.2	8.2	8.2	7.8	7.8	7.3	6.3
60.5°	6.8	7.3	7.8	8.2	7.8	7.8	7.8	7.3	7.3	6.8	6.3
61°	6.8	6.8	7.3	7.8	7.3	7.3	7.3	7.3	6.8	6.3	5.8
61.5°	6.3	6.3	6.8	7.3	6.8	6.8	6.8	6.8	6.3	5.8	5.3
62°	5.8	5.8	6.8	6.8	6.8	6.8	6.3	6.3	5.8	5.8	5.3
62.5°	5.3	5.8	6.3	6.3	6.3	6.3	6.3	5.8	5.8	5.3	4.8
63°	5.3	5.3	5.8	5.8	5.8	5.8	5.8	5.8	5.3	5.3	4.8
63.5°	4.8	4.8	5.3	5.8	5.3	5.3	5.3	5.3	4.8	4.8	4.4
64°	4.8	4.8	5.3	5.3	5.3	5.3	5.3	4.8	4.8	4.4	4.4
64.5°	4.4	4.4	4.8	4.8	4.8	4.8	4.8	4.8	4.4	4.4	3.9
65°	4.4	4.4	4.8	4.8	4.4	4.4	4.4	4.4	4.4	3.9	3.9
65.5°	3.9	3.9	4.4	4.4	4.4	4.4	4.4	4.4	3.9	3.9	3.4
66°	3.9	3.9	3.9	4.4	3.9	3.9	3.9	3.9	3.9	3.4	3.4



TEST NUMBER: P776589

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	2.9	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9	2.9
68°	2.9	2.9	3.4	3.4	3.4	3.4	3.4	2.9	2.9	2.9	2.4
68.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.4
69°	2.4	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4
69.5°	2.4	2.4	2.9	2.9	2.9	2.9	2.4	2.4	2.4	2.4	2.4
70°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.9
70.5°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9
71°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9	1.9
71.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
72°	1.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.5
72.5°	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9	1.5	1.5	1.5
73°	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.5	1.5	1.5	1.5
73.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
74°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
74.5°	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0
75°	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0
75.5°	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
76°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
76.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
78°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
78.5°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
81°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
81.5°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
82.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
83°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	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: P776589
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

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: P776589

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2592.6	2592.6	2592.6	2592.6	2592.6	2592.6
0.5°	2586.3	2591.7	2590.2	2590.2	2591.2	2593.1
1°	2582.4	2588.3	2587.3	2587.3	2589.7	2592.1
1.5°	2578.6	2584.4	2583.4	2584.4	2587.3	2591.2
2°	2573.7	2579.5	2579.1	2580.5	2584.4	2589.2
2.5°	2568.4	2574.7	2574.2	2576.1	2581.0	2586.8
3°	2563.0	2569.4	2568.9	2571.8	2577.1	2583.9
3.5°	2556.7	2563.0	2563.0	2566.4	2573.2	2581.0
4°	2550.0	2556.7	2556.7	2560.6	2567.9	2577.1
4.5°	2543.2	2549.5	2550.0	2554.3	2562.6	2572.7
5°	2534.9	2542.2	2542.7	2548.0	2556.7	2567.9
5.5°	2527.2	2534.0	2534.4	2540.7	2550.9	2562.6
6°	2517.9	2525.2	2526.2	2533.0	2543.7	2556.7
6.5°	2509.2	2516.0	2517.5	2524.3	2536.4	2550.4
7°	2499.0	2506.3	2507.8	2516.0	2528.6	2544.1
7.5°	2488.4	2496.1	2498.1	2506.3	2519.9	2536.4
8°	2477.7	2485.0	2487.4	2496.1	2511.2	2528.6
8.5°	2466.1	2473.8	2476.2	2485.5	2501.5	2519.9
9°	2453.9	2461.7	2464.6	2474.8	2491.3	2511.2
9.5°	2441.8	2449.6	2452.5	2462.7	2480.6	2501.5
10°	2428.2	2436.5	2439.4	2451.0	2469.5	2491.3
10.5°	2414.7	2422.4	2425.8	2437.9	2457.3	2480.1
11°	2399.1	2407.9	2411.7	2423.9	2444.2	2469.5
11.5°	2383.6	2391.9	2395.7	2408.8	2430.7	2457.3
12°	2367.1	2375.9	2379.2	2393.3	2416.1	2444.2
12.5°	2349.2	2357.9	2361.3	2375.4	2400.1	2430.2
13°	2330.8	2339.0	2342.4	2357.9	2384.1	2415.1
13.5°	2311.4	2320.1	2324.0	2339.5	2366.2	2399.1
14°	2291.0	2300.2	2304.1	2320.1	2348.2	2382.6
14.5°	2271.6	2280.3	2284.2	2301.2	2329.3	2365.2
15°	2253.6	2261.4	2265.3	2281.3	2310.9	2347.2
15.5°	2236.7	2243.9	2248.3	2263.8	2292.4	2329.3
16°	2219.7	2227.5	2231.8	2247.3	2275.9	2312.3
16.5°	2202.7	2211.0	2214.8	2231.3	2260.4	2296.8
17°	2186.2	2194.5	2198.4	2215.3	2244.9	2280.8
17.5°	2168.3	2177.0	2181.4	2199.3	2228.9	2265.8
18°	2145.0	2157.1	2162.0	2181.9	2212.9	2250.2
18.5°	2118.8	2130.5	2136.8	2161.5	2194.5	2233.8
19°	2088.8	2100.9	2109.6	2136.8	2172.7	2214.4
19.5°	2054.3	2065.5	2076.6	2108.2	2147.4	2192.1
20°	2015.5	2024.7	2039.8	2073.7	2118.3	2167.3
20.5°	1973.3	1981.6	1998.5	2035.9	2084.4	2138.7
21°	1928.7	1936.5	1954.4	1992.7	2046.6	2107.7



TEST NUMBER: P776589

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1777.4	1802.1	1808.0	1842.4	1911.3	2000.5
23°	1724.5	1757.5	1757.5	1789.5	1860.3	1961.7
23.5°	1671.2	1709.0	1706.1	1737.2	1811.8	1921.9
24°	1620.3	1658.1	1652.3	1685.3	1763.3	1877.8
24.5°	1567.4	1604.3	1598.5	1636.8	1716.8	1831.7
25°	1516.0	1547.5	1545.6	1586.3	1671.7	1783.7
25.5°	1466.1	1492.2	1492.2	1537.8	1626.6	1732.8
26°	1416.6	1434.5	1437.4	1488.8	1580.5	1680.9
26.5°	1365.2	1379.2	1383.6	1440.8	1533.5	1627.1
27°	1314.3	1321.0	1331.2	1389.4	1484.0	1573.2
27.5°	1262.4	1264.3	1278.9	1337.5	1432.6	1519.9
28°	1211.9	1208.5	1226.0	1283.7	1377.3	1467.0
28.5°	1160.5	1151.8	1176.0	1229.9	1322.0	1413.7
29°	1109.1	1094.6	1123.7	1176.5	1263.3	1358.9
29.5°	1057.7	1041.2	1072.7	1126.1	1209.5	1304.6
30°	1006.8	988.8	1020.4	1074.7	1153.3	1249.8
30.5°	954.9	937.0	968.5	1024.7	1100.9	1195.0
31°	904.5	887.5	913.7	975.3	1048.5	1137.7
31.5°	853.5	840.9	861.3	928.7	997.6	1081.5
32°	804.6	794.4	811.3	881.7	947.1	1024.7
32.5°	755.6	749.3	763.3	834.6	899.1	968.0
33°	709.5	703.7	717.3	785.6	849.2	911.3
33.5°	663.4	657.6	673.1	737.6	798.3	855.0
34°	619.3	614.5	629.5	690.1	746.4	800.2
34.5°	577.1	572.7	587.8	642.1	696.4	747.8
35°	535.4	533.0	546.1	596.0	645.5	698.4
35.5°	494.7	495.2	507.8	551.4	596.0	650.8
36°	459.3	460.7	469.0	508.2	548.5	604.8
36.5°	424.3	426.3	431.6	466.5	503.4	559.7
37°	388.9	394.3	396.2	425.8	460.7	517.0
37.5°	354.0	362.8	362.8	386.0	420.0	476.7
38°	318.6	331.7	331.7	347.2	381.2	437.4
38.5°	290.0	303.1	301.6	310.4	343.8	399.6
39°	261.4	275.9	274.0	275.9	308.9	364.7
39.5°	234.7	250.2	247.8	243.5	275.9	331.2
40°	209.0	226.5	223.1	212.9	243.5	299.7
40.5°	186.7	203.2	199.3	186.7	214.8	270.1
41°	164.4	182.3	177.0	165.4	188.2	242.0
41.5°	145.0	164.9	160.0	148.9	164.9	216.8
42°	127.1	147.9	143.1	132.4	148.4	193.0
42.5°	111.5	130.9	126.6	116.4	131.9	171.2
43°	97.5	114.0	109.6	99.9	115.4	153.7
43.5°	84.9	97.0	92.6	88.3	98.9	136.8



TEST NUMBER: P776589

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	56.3	61.1	59.2	59.2	66.0	85.4
45.5°	49.5	51.4	50.0	51.4	57.7	73.2
46°	42.2	42.7	42.7	44.1	49.5	62.1
46.5°	35.4	35.4	35.9	37.8	42.2	51.9
47°	28.6	30.6	30.6	32.5	35.9	43.6
47.5°	26.2	27.6	27.6	29.1	31.5	36.4
48°	24.7	25.7	26.2	27.2	28.6	31.5
48.5°	23.8	24.7	24.7	25.7	26.7	28.6
49°	22.8	23.8	23.8	24.7	25.7	27.2
49.5°	21.3	22.3	22.8	23.3	24.7	25.7
50°	20.4	21.3	21.3	22.3	23.3	24.7
50.5°	18.9	19.9	20.4	20.9	22.3	23.3
51°	17.9	18.9	18.9	19.9	20.9	22.3
51.5°	17.0	17.9	17.9	18.4	19.9	20.9
52°	16.0	16.5	17.0	17.5	18.4	19.9
52.5°	15.0	15.5	16.0	16.5	17.5	18.4
53°	14.1	14.5	15.0	15.5	16.5	17.5
53.5°	13.6	14.1	14.1	14.5	15.5	16.5
54°	12.6	13.1	13.1	14.1	14.5	15.5
54.5°	12.1	12.1	12.6	13.1	13.6	14.5
55°	11.2	11.6	11.6	12.1	13.1	13.6
55.5°	10.7	11.2	11.2	11.6	12.1	12.6
56°	10.2	10.2	10.7	11.2	11.6	12.1
56.5°	9.2	9.7	9.7	10.2	10.7	11.2
57°	8.7	9.2	9.2	9.7	10.2	10.7
57.5°	8.2	8.7	8.7	9.2	9.7	9.7
58°	7.8	8.2	8.2	8.7	9.2	9.2
58.5°	7.8	7.8	7.8	8.2	8.7	8.7
59°	7.3	7.3	7.3	7.8	8.2	8.2
59.5°	6.8	6.8	7.3	7.3	7.8	7.8
60°	6.3	6.8	6.8	6.8	7.3	7.3
60.5°	5.8	6.3	6.3	6.3	6.8	6.8
61°	5.8	5.8	5.8	6.3	6.3	6.8
61.5°	5.3	5.3	5.8	5.8	5.8	6.3
62°	5.3	5.3	5.3	5.3	5.8	5.8
62.5°	4.8	4.8	4.8	5.3	5.3	5.3
63°	4.4	4.8	4.8	4.8	4.8	5.3
63.5°	4.4	4.4	4.4	4.8	4.8	4.8
64°	3.9	4.4	4.4	4.4	4.4	4.8
64.5°	3.9	3.9	3.9	3.9	4.4	4.4
65°	3.9	3.9	3.9	3.9	3.9	4.4
65.5°	3.4	3.4	3.4	3.9	3.9	3.9
66°	3.4	3.4	3.4	3.4	3.4	3.9



TEST NUMBER: P776589
 CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	2.9	2.9	2.9	2.9	2.9	2.9
68°	2.4	2.9	2.9	2.9	2.9	2.9
68.5°	2.4	2.4	2.4	2.4	2.4	2.9
69°	2.4	2.4	2.4	2.4	2.4	2.4
69.5°	1.9	2.4	2.4	2.4	2.4	2.4
70°	1.9	1.9	1.9	1.9	2.4	2.4
70.5°	1.9	1.9	1.9	1.9	1.9	1.9
71°	1.9	1.9	1.9	1.9	1.9	1.9
71.5°	1.9	1.9	1.9	1.9	1.9	1.9
72°	1.5	1.5	1.5	1.5	1.5	1.5
72.5°	1.5	1.5	1.5	1.5	1.5	1.5
73°	1.5	1.5	1.5	1.5	1.5	1.5
73.5°	1.5	1.5	1.5	1.5	1.5	1.5
74°	1.5	1.5	1.5	1.5	1.5	1.5
74.5°	1.0	1.0	1.0	1.0	1.0	1.0
75°	1.0	1.0	1.0	1.0	1.0	1.0
75.5°	1.0	1.0	1.0	1.0	1.0	1.0
76°	1.0	1.0	1.0	1.0	1.0	1.0
76.5°	1.0	1.0	1.0	1.0	1.0	1.0
77°	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	0.5	1.0	1.0	1.0	0.5	0.5
78°	0.5	0.5	0.5	0.5	0.5	0.5
78.5°	0.5	0.5	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.5	0.5	0.5	0.5	0.5	0.5
81°	0.5	0.5	0.5	0.5	0.5	0.5
81.5°	0.5	0.5	0.5	0.5	0.0	0.0
82°	0.5	0.5	0.5	0.5	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: P776589
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-5000K

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



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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Scaled Data Report



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Scaled Data Report





21.5°	2073.7	2145.5	2215.8	2233.3	2224.5	2217.8	2197.4	2153.7	2088.8	2024.3	1915.1
22°	2037.3	2115.4	2193.5	2210.5	2197.4	2192.1	2175.1	2127.1	2054.8	1983.0	1863.7



44°	119.8	147.4	192.5	209.0	208.1	194.5	179.9	158.6	130.5	97.5	73.2
44.5°	102.3	128.5	164.9	181.4	180.4	168.8	154.2	136.8	113.0	84.9	64.0



66.5°	3.4	3.4	3.9	3.9	3.9	3.9	3.9	3.9	3.4	3.4	2.9
67°	3.4	3.4	3.9	3.9	3.4	3.4	3.4	3.4	3.4	3.4	2.9



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°	1881.2	1891.4	1907.9	1945.2	2004.9	2073.7
22°	1831.2	1845.8	1858.9	1895.3	1958.8	2037.3



44°	73.7	83.9	80.0	77.6	86.8	119.8
44.5°	63.0	72.3	69.4	68.4	76.1	102.3



66.5°	2.9	3.4	3.4	3.4	3.4	3.4
67°	2.9	2.9	2.9	2.9	3.4	3.4

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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)