

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: P776814

Luminaire Tested: HCDJBS4050CSD-HCD8TRMB-5000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776814
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD8TRMB-5000lm-5000K
Description: 8 INCH ROUND MEDIUM MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3579.8 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.15
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

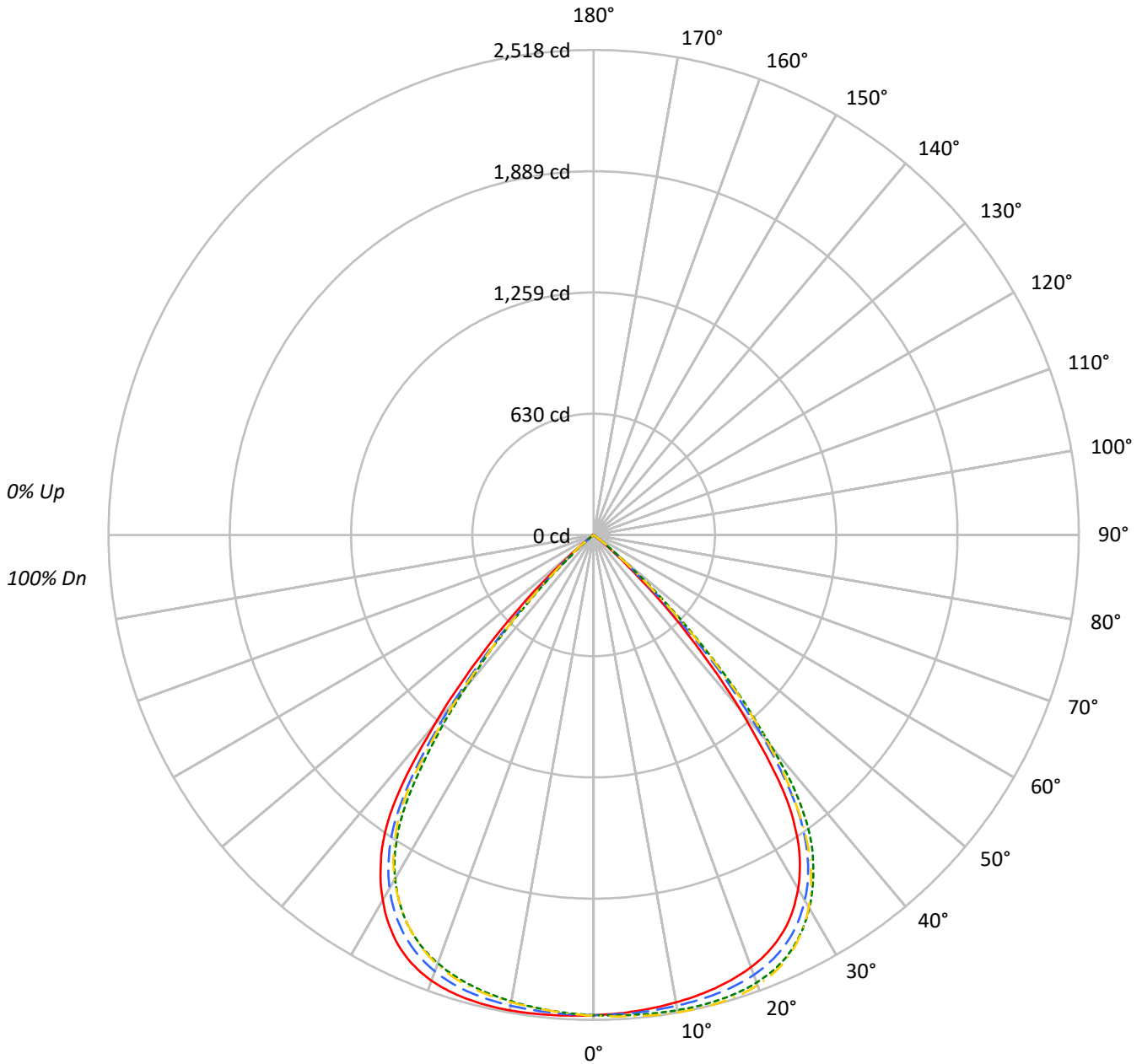
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	111	108	106	103	104	102	100	100	99	97	97	95	94	93	93	93	93
2	107	102	97	94	105	100	96	92	97	93	90	94	91	89	91	89	87	85	85	85	85
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78	78	78	78
4	95	87	81	76	93	85	80	76	83	78	75	81	77	74	79	76	73	71	71	71	71
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65	65	65	65
6	84	74	68	63	83	74	67	63	72	66	62	70	66	62	69	65	61	60	60	60	60
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55	55	55	55
8	75	64	58	53	73	64	57	53	63	57	53	61	56	53	60	56	52	51	51	51	51
9	71	60	53	49	69	59	53	49	58	53	49	57	52	49	57	52	48	47	47	47	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	43	43	43	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	76149	76149	76149	76149
5°	76081	76648	76691	76007
10°	76406	77683	77698	76238
15°	77008	79050	78958	76670
20°	77598	80373	80009	76887
25°	77347	80750	79867	76024
30°	74804	78893	77198	72682
35°	67285	73583	70397	63107
40°	47092	57191	51077	40994
45°	22426	31985	26117	16934
50°	4564	8578	4864	2166
55°	208	309	181	128
60°	61	61	61	61
65°	36	36	36	36
70°	45	45	45	45
75°	0	0	0	0
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 31985 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.7	6.6
10°-20°	697.4	19.5
20°-30°	1068.2	29.8
30°-40°	1111.6	31.1
40°-50°	448.8	12.5
50°-60°	15.3	0.4
60°-70°	0.6	0.0
70°-80°	0.1	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°	2003.4	56.0
0°-40°	3115.0	87.0
0°-60°	3579.1	100.0
0°-90°	3579.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3579.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2494	2494	2494	2494	2494	
5°	2482	2501	2502	2480	2482	236
15°	2436	2501	2498	2426	2436	689
25°	2296	2397	2371	2257	2296	1053
35°	1805	1974	1889	1693	1805	1086
45°	519	741	605	392	519	418
55°	4	6	3	2	4	13
65°	0	0	0	0	0	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°	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2
0.5°	2493.2	2492.2	2493.2	2493.7	2494.2	2496.6	2497.6	2497.6	2495.2	2493.7	2493.2
1°	2492.2	2492.2	2493.2	2494.2	2495.2	2498.1	2499.0	2498.6	2496.1	2494.2	2492.7
1.5°	2491.3	2491.3	2493.2	2494.7	2496.1	2499.0	2500.5	2500.0	2497.1	2494.2	2492.7
2°	2490.3	2490.8	2492.7	2495.2	2497.1	2500.0	2501.5	2501.0	2497.6	2494.7	2492.7
2.5°	2489.3	2489.8	2492.7	2495.6	2497.6	2501.0	2502.9	2502.0	2498.6	2495.2	2492.2
3°	2487.9	2489.3	2492.2	2495.6	2498.1	2502.4	2503.9	2503.4	2499.5	2495.6	2491.8
3.5°	2486.9	2488.4	2492.2	2495.6	2499.0	2502.9	2504.9	2504.4	2500.5	2495.6	2491.3
4°	2485.4	2487.4	2491.3	2496.1	2499.5	2503.9	2506.3	2505.3	2501.5	2495.6	2491.3
4.5°	2484.0	2486.4	2490.8	2496.1	2500.0	2505.3	2507.3	2506.3	2502.0	2496.1	2490.3
5°	2482.5	2485.4	2490.3	2496.1	2501.0	2506.3	2508.3	2507.8	2502.4	2496.1	2489.8
5.5°	2481.1	2484.0	2489.8	2496.6	2501.5	2507.3	2509.7	2508.7	2503.4	2496.1	2489.3
6°	2479.6	2483.0	2489.3	2496.6	2502.0	2508.3	2510.7	2509.2	2503.9	2496.6	2488.8
6.5°	2478.2	2481.6	2488.4	2496.6	2502.9	2509.2	2511.7	2510.2	2504.4	2496.6	2488.4
7°	2476.7	2480.1	2487.9	2496.6	2503.4	2509.7	2512.6	2511.2	2504.9	2496.1	2487.4
7.5°	2474.8	2478.6	2487.4	2497.1	2503.9	2510.7	2513.6	2512.1	2505.3	2496.1	2486.9
8°	2472.8	2477.2	2486.4	2496.6	2504.4	2511.7	2514.6	2512.6	2505.8	2496.6	2485.9
8.5°	2470.9	2475.3	2485.4	2497.1	2504.9	2512.1	2515.1	2513.6	2505.8	2496.1	2485.0
9°	2468.9	2473.8	2484.5	2496.6	2505.3	2512.6	2516.0	2514.1	2506.3	2495.6	2484.5
9.5°	2466.5	2471.9	2483.5	2496.6	2505.3	2513.1	2516.5	2514.6	2506.3	2495.6	2483.0
10°	2464.6	2469.9	2482.5	2496.1	2505.8	2513.6	2517.0	2515.1	2506.3	2495.2	2482.0
10.5°	2462.1	2468.0	2481.6	2496.1	2505.8	2514.1	2517.5	2515.1	2506.3	2494.7	2480.6
11°	2459.7	2466.0	2480.1	2495.6	2505.8	2514.6	2518.0	2515.5	2505.8	2493.7	2479.1
11.5°	2457.3	2463.6	2478.6	2495.2	2505.8	2514.6	2518.0	2515.5	2505.8	2492.7	2477.7
12°	2454.9	2461.2	2477.7	2494.7	2505.8	2514.6	2518.5	2515.5	2505.3	2491.8	2475.7
12.5°	2452.0	2459.2	2476.2	2494.2	2505.3	2514.6	2518.5	2515.1	2504.4	2490.8	2474.3
13°	2449.0	2456.3	2474.3	2493.2	2504.9	2514.6	2518.0	2515.1	2503.9	2489.3	2471.9
13.5°	2446.1	2453.9	2472.8	2492.2	2503.9	2514.6	2517.5	2514.6	2502.9	2487.4	2469.9
14°	2442.7	2451.5	2470.9	2491.3	2502.9	2513.6	2517.0	2514.1	2501.5	2485.9	2467.0
14.5°	2439.8	2448.6	2468.9	2489.8	2502.4	2513.1	2516.5	2513.1	2500.0	2484.0	2464.6
15°	2436.4	2445.6	2466.5	2488.4	2501.0	2512.1	2515.5	2512.1	2498.1	2481.6	2461.7
15.5°	2432.5	2442.7	2464.1	2486.4	2500.0	2511.2	2514.1	2510.7	2496.1	2479.1	2458.3
16°	2428.6	2439.3	2461.7	2484.5	2498.1	2509.7	2512.6	2508.7	2493.7	2476.2	2454.9
16.5°	2424.8	2435.9	2458.7	2482.5	2496.1	2507.8	2511.2	2506.8	2491.3	2472.8	2451.0
17°	2420.4	2432.0	2455.8	2479.6	2494.2	2505.8	2508.7	2503.9	2488.4	2469.4	2446.6
17.5°	2415.5	2428.2	2452.4	2476.7	2491.8	2503.4	2506.3	2501.5	2485.4	2465.5	2441.8
18°	2410.7	2424.3	2448.6	2473.3	2488.8	2500.5	2503.9	2498.1	2481.6	2461.2	2436.4
18.5°	2405.8	2419.4	2445.2	2469.9	2485.9	2497.1	2500.5	2494.2	2477.7	2456.3	2431.1
19°	2400.0	2415.1	2440.8	2466.0	2482.0	2493.2	2497.1	2490.3	2472.8	2451.0	2425.3
19.5°	2394.2	2409.7	2435.9	2461.2	2478.2	2489.3	2493.2	2485.4	2468.0	2445.2	2418.5
20°	2388.4	2404.4	2431.1	2456.3	2473.8	2485.0	2488.4	2480.6	2462.6	2438.8	2411.2
20.5°	2381.6	2398.6	2425.3	2451.0	2468.9	2479.6	2483.5	2474.8	2456.3	2432.0	2403.4
21°	2374.3	2392.2	2419.4	2445.2	2463.1	2473.8	2477.7	2468.9	2450.0	2424.3	2395.6



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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°	2350.0	2370.9	2398.1	2424.3	2444.2	2452.9	2456.3	2446.1	2425.7	2398.6	2367.0
23°	2340.8	2362.6	2389.8	2416.0	2436.4	2444.7	2448.1	2437.4	2416.5	2388.4	2356.3
23.5°	2330.6	2353.9	2381.1	2406.8	2427.2	2435.4	2438.8	2427.2	2406.3	2377.2	2345.2
24°	2319.9	2344.2	2371.4	2397.6	2418.9	2425.7	2429.1	2417.0	2395.6	2366.0	2333.0
24.5°	2308.7	2334.5	2361.2	2386.9	2409.2	2415.1	2417.5	2405.8	2383.5	2353.4	2319.9
25°	2296.1	2323.3	2350.5	2375.7	2397.1	2403.9	2406.3	2393.7	2370.9	2340.3	2306.3
25.5°	2283.5	2311.7	2338.4	2364.1	2385.9	2391.3	2393.2	2380.6	2357.3	2326.2	2292.2
26°	2269.4	2298.6	2325.7	2351.5	2373.8	2378.2	2379.6	2366.5	2342.7	2311.2	2276.7
26.5°	2254.9	2285.4	2312.6	2337.9	2360.2	2363.1	2364.6	2351.5	2327.2	2295.2	2260.2
27°	2238.8	2270.4	2298.1	2323.8	2344.7	2348.1	2348.6	2335.4	2310.7	2278.6	2243.2
27.5°	2221.9	2255.3	2282.5	2308.7	2330.1	2332.0	2332.0	2318.5	2293.2	2260.7	2224.3
28°	2203.9	2238.4	2266.0	2292.2	2313.6	2314.1	2314.6	2300.0	2274.8	2241.8	2205.3
28.5°	2185.0	2220.4	2249.0	2275.7	2296.1	2295.6	2295.2	2280.6	2254.9	2221.4	2185.4
29°	2164.6	2201.5	2230.6	2257.8	2277.7	2276.2	2275.7	2260.2	2234.5	2201.0	2164.1
29.5°	2144.2	2182.0	2211.7	2238.8	2258.7	2255.3	2254.4	2238.8	2212.6	2179.1	2141.8
30°	2121.9	2160.7	2191.3	2219.4	2237.9	2233.5	2232.0	2216.5	2189.8	2156.8	2118.5
30.5°	2099.0	2138.4	2169.9	2198.6	2217.0	2210.7	2208.7	2192.7	2166.0	2133.0	2094.2
31°	2073.8	2114.1	2147.6	2176.2	2194.2	2185.9	2183.5	2167.5	2141.3	2107.8	2068.0
31.5°	2047.6	2089.3	2124.3	2153.4	2170.4	2161.2	2158.3	2141.3	2115.5	2081.6	2040.3
32°	2019.9	2062.1	2098.6	2130.1	2146.1	2135.0	2129.6	2113.6	2087.9	2054.4	2010.7
32.5°	1990.3	2033.0	2071.4	2104.4	2121.4	2106.3	2100.0	2084.0	2058.7	2025.7	1978.2
33°	1957.8	2002.4	2042.7	2078.2	2093.7	2076.7	2069.4	2052.4	2028.6	1995.2	1945.2
33.5°	1924.3	1968.9	2011.7	2050.5	2066.0	2046.1	2036.4	2019.9	1997.6	1963.1	1909.7
34°	1886.9	1935.0	1980.6	2021.4	2036.9	2014.1	2001.9	1985.0	1964.1	1928.6	1871.9
34.5°	1847.6	1897.6	1945.6	1990.8	2006.3	1979.1	1964.6	1948.1	1927.7	1890.8	1830.6
35°	1805.3	1856.8	1909.7	1957.3	1974.3	1941.8	1924.3	1908.3	1888.8	1848.6	1783.0
35.5°	1761.7	1812.6	1869.9	1921.4	1938.8	1900.0	1882.0	1865.1	1846.1	1801.5	1733.0
36°	1713.6	1765.5	1828.6	1882.0	1901.5	1857.3	1837.4	1818.9	1799.5	1751.9	1679.6
36.5°	1657.3	1714.6	1782.0	1837.4	1860.2	1809.2	1789.3	1770.9	1749.0	1697.1	1620.4
37°	1592.7	1655.3	1731.1	1791.3	1813.6	1761.7	1740.8	1720.4	1694.2	1637.9	1558.3
37.5°	1523.3	1589.3	1676.2	1739.8	1765.1	1708.7	1690.3	1668.5	1633.0	1570.9	1491.3
38°	1454.4	1522.3	1618.0	1688.8	1713.6	1654.4	1639.3	1613.6	1566.0	1499.5	1424.3
38.5°	1383.5	1456.8	1556.3	1629.1	1657.3	1595.2	1585.9	1557.3	1495.2	1426.7	1353.9
39°	1315.5	1394.7	1491.8	1569.9	1589.3	1535.0	1529.6	1497.6	1422.8	1350.5	1280.6
39.5°	1248.5	1331.1	1423.8	1503.9	1512.1	1469.9	1466.5	1434.5	1350.5	1275.7	1205.8
40°	1181.6	1268.9	1353.9	1436.9	1435.0	1402.4	1404.4	1367.5	1281.6	1201.9	1131.6
40.5°	1112.1	1200.5	1284.5	1362.1	1361.2	1331.1	1343.7	1300.0	1214.6	1129.1	1052.4
41°	1041.8	1129.1	1214.6	1286.4	1293.7	1261.2	1276.7	1231.1	1146.6	1058.3	975.7
41.5°	973.3	1055.3	1142.7	1210.2	1226.7	1188.4	1208.3	1159.2	1077.7	985.9	901.0
42°	904.4	985.4	1071.8	1132.5	1158.3	1120.4	1137.9	1087.9	1006.3	914.6	832.5
42.5°	837.9	916.5	1000.5	1054.4	1089.3	1051.9	1065.5	1017.0	937.4	843.2	758.7
43°	773.8	848.1	928.2	980.1	1015.1	984.0	990.3	943.7	866.5	771.4	691.8
43.5°	708.3	781.1	853.9	904.4	942.7	914.6	918.0	872.8	800.0	703.4	624.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	519.4	578.6	632.5	696.1	740.8	707.3	696.6	668.0	604.9	524.8	450.0
45.5°	458.3	514.1	564.6	630.1	675.2	640.8	629.1	600.0	543.2	469.4	394.2
46°	402.4	452.4	501.0	569.9	610.7	575.7	560.2	535.4	485.0	414.6	338.4
46.5°	347.6	393.2	440.8	510.2	544.7	516.5	502.9	476.7	426.7	359.7	283.0
47°	295.6	337.4	384.0	452.9	488.4	456.8	445.6	418.4	368.4	304.4	239.8
47.5°	247.1	283.0	332.5	397.6	432.0	397.1	388.4	360.2	310.2	256.8	200.5
48°	204.4	234.5	284.0	343.2	375.7	337.4	331.1	301.5	260.2	213.1	165.5
48.5°	166.0	190.8	240.3	293.2	319.4	277.7	273.8	251.9	214.1	173.3	134.0
49°	142.7	155.3	201.5	247.6	270.9	226.7	229.1	204.9	171.8	137.4	107.3
49.5°	119.4	131.1	165.0	206.3	223.8	183.5	185.4	164.1	135.0	106.3	83.5
50°	96.1	106.8	140.8	168.4	180.6	145.6	145.6	128.2	102.4	88.3	68.9
50.5°	72.3	82.5	117.0	142.7	141.3	111.7	111.7	96.1	84.5	69.9	54.9
51°	49.5	58.7	93.2	117.5	106.8	92.2	91.7	79.1	66.5	51.9	40.3
51.5°	35.9	44.2	69.4	92.2	88.3	72.3	72.3	62.1	48.5	33.5	25.7
52°	24.8	31.6	45.6	67.0	69.9	52.9	52.4	45.1	30.6	15.0	11.7
52.5°	15.5	20.9	31.1	41.7	51.0	33.5	32.5	28.2	13.1	9.7	7.8
53°	13.1	18.0	19.4	26.7	32.5	14.6	13.1	10.7	8.7	7.3	6.3
53.5°	10.2	14.6	16.0	15.5	14.6	9.2	8.7	7.8	6.8	5.8	4.9
54°	7.3	11.2	12.1	12.6	9.2	7.3	6.8	6.3	5.3	4.4	3.9
54.5°	4.9	7.8	8.7	9.7	7.3	5.8	5.3	4.9	3.9	3.4	2.9
55°	3.9	4.4	5.3	7.3	5.8	4.4	4.4	3.9	3.4	2.9	2.4
55.5°	2.9	3.4	3.9	4.4	4.4	3.4	3.4	2.9	2.4	2.4	1.9
56°	2.4	2.9	3.4	3.4	3.4	2.4	2.4	2.4	1.9	1.9	1.9
56.5°	1.9	2.4	2.4	2.9	2.4	1.9	1.9	1.9	1.9	1.5	1.5
57°	1.9	1.9	1.9	2.4	1.9	1.9	1.9	1.9	1.5	1.5	1.5
57.5°	1.5	1.5	1.9	1.9	1.9	1.5	1.5	1.5	1.5	1.5	1.5
58°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0
58.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0
59°	1.0	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0
59.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
60°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
60.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
61°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
61.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
62°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
62.5°	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5
63°	0.5	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
63.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
65.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
66°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



TEST NUMBER: P776814

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TRMB-5000lm-5000K

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	0.0	0.0	0.0	0.0
71.5°	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
72°	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P776814

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-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: P776814

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2494.2	2494.2	2494.2	2494.2	2494.2	2494.2
0.5°	2492.7	2492.2	2494.2	2495.2	2495.2	2493.2
1°	2492.2	2491.3	2492.7	2493.7	2493.7	2492.2
1.5°	2491.3	2489.8	2491.3	2492.2	2492.2	2491.3
2°	2490.3	2488.8	2489.8	2490.8	2490.8	2490.3
2.5°	2489.8	2487.4	2488.8	2489.3	2489.8	2489.3
3°	2488.8	2486.4	2487.4	2487.9	2487.9	2487.9
3.5°	2487.4	2485.0	2485.4	2486.4	2486.4	2486.9
4°	2486.9	2483.5	2484.0	2485.0	2485.0	2485.4
4.5°	2485.4	2481.6	2482.5	2483.5	2483.5	2484.0
5°	2484.5	2480.1	2480.6	2481.6	2482.5	2482.5
5.5°	2483.0	2478.6	2479.1	2480.1	2480.6	2481.1
6°	2482.0	2476.7	2477.2	2478.6	2479.1	2479.6
6.5°	2480.6	2474.8	2475.7	2476.7	2477.7	2478.2
7°	2478.6	2472.8	2473.8	2475.3	2476.2	2476.7
7.5°	2477.2	2470.9	2471.9	2473.3	2474.3	2474.8
8°	2475.7	2468.9	2469.9	2471.9	2472.8	2472.8
8.5°	2473.8	2466.5	2467.5	2469.9	2470.9	2470.9
9°	2471.9	2464.1	2465.5	2468.0	2468.9	2468.9
9.5°	2470.4	2461.7	2463.1	2466.0	2467.0	2466.5
10°	2468.0	2459.2	2460.7	2464.1	2465.1	2464.6
10.5°	2466.0	2456.3	2458.3	2461.7	2462.6	2462.1
11°	2463.6	2453.9	2455.8	2459.7	2460.7	2459.7
11.5°	2461.2	2450.5	2452.9	2457.3	2458.3	2457.3
12°	2458.7	2447.6	2450.0	2454.9	2455.8	2454.9
12.5°	2455.8	2444.7	2446.6	2452.0	2453.4	2452.0
13°	2452.9	2441.3	2443.2	2449.0	2450.5	2449.0
13.5°	2449.5	2437.9	2440.3	2446.1	2447.1	2446.1
14°	2446.6	2434.0	2436.4	2442.7	2444.2	2442.7
14.5°	2442.7	2430.1	2432.5	2438.8	2440.8	2439.8
15°	2439.3	2425.7	2428.6	2435.0	2436.9	2436.4
15.5°	2435.4	2421.4	2423.8	2431.1	2433.0	2432.5
16°	2430.6	2416.5	2419.4	2426.2	2428.6	2428.6
16.5°	2426.2	2411.7	2414.6	2421.4	2424.3	2424.8
17°	2421.4	2406.3	2408.7	2416.0	2419.4	2420.4
17.5°	2416.0	2400.5	2403.4	2410.2	2414.1	2415.5
18°	2410.2	2394.2	2397.1	2403.9	2408.3	2410.7
18.5°	2403.9	2388.4	2390.8	2397.1	2402.0	2405.8
19°	2397.6	2381.6	2384.0	2389.8	2395.6	2400.0
19.5°	2390.8	2373.8	2376.7	2382.0	2388.4	2394.2
20°	2383.0	2366.5	2368.9	2373.8	2380.6	2388.4
20.5°	2375.3	2358.3	2360.7	2365.1	2372.3	2381.6
21°	2366.5	2349.5	2352.0	2355.3	2364.1	2374.3

TEST NUMBER: P776814

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2337.9	2319.9	2321.9	2323.3	2334.0	2350.0
23°	2327.2	2308.7	2310.7	2311.2	2322.8	2340.8
23.5°	2315.1	2297.1	2298.6	2299.0	2310.7	2330.6
24°	2302.9	2284.5	2286.4	2285.9	2298.1	2319.9
24.5°	2289.8	2270.9	2272.8	2271.9	2285.0	2308.7
25°	2275.7	2256.8	2258.7	2256.8	2270.9	2296.1
25.5°	2261.2	2241.8	2243.2	2241.8	2255.8	2283.5
26°	2245.2	2226.2	2227.2	2225.3	2240.8	2269.4
26.5°	2228.6	2209.2	2210.7	2208.7	2224.3	2254.9
27°	2211.2	2190.8	2193.2	2190.8	2207.3	2238.8
27.5°	2192.2	2171.9	2174.8	2172.3	2188.8	2221.9
28°	2172.3	2151.9	2155.3	2151.9	2169.9	2203.9
28.5°	2151.5	2130.6	2135.0	2132.5	2149.5	2185.0
29°	2130.1	2108.7	2113.6	2110.7	2128.6	2164.6
29.5°	2107.3	2085.4	2091.8	2089.3	2107.8	2144.2
30°	2083.0	2061.7	2068.0	2066.0	2085.4	2121.9
30.5°	2056.8	2035.0	2044.2	2043.2	2062.1	2099.0
31°	2028.2	2007.8	2018.0	2017.5	2037.4	2073.8
31.5°	1998.1	1977.2	1990.3	1991.3	2010.7	2047.6
32°	1966.0	1945.6	1959.7	1961.2	1981.6	2019.9
32.5°	1931.1	1910.7	1928.2	1930.1	1950.5	1990.3
33°	1895.6	1874.3	1893.2	1896.1	1917.5	1957.8
33.5°	1855.8	1835.0	1858.7	1862.6	1884.5	1924.3
34°	1815.1	1791.3	1821.4	1826.2	1848.6	1886.9
34.5°	1770.4	1744.7	1781.1	1785.9	1809.7	1847.6
35°	1721.4	1693.2	1737.4	1741.8	1767.0	1805.3
35.5°	1666.0	1636.4	1687.4	1694.2	1720.4	1761.7
36°	1607.8	1573.3	1631.6	1640.3	1669.4	1713.6
36.5°	1542.2	1507.3	1568.9	1581.1	1611.7	1657.3
37°	1476.2	1443.2	1500.5	1516.5	1547.6	1592.7
37.5°	1406.8	1381.1	1426.7	1449.5	1478.2	1523.3
38°	1341.3	1317.0	1351.9	1377.7	1407.8	1454.4
38.5°	1273.8	1253.4	1281.1	1305.8	1336.4	1383.5
39°	1208.7	1179.1	1212.6	1229.1	1264.1	1315.5
39.5°	1141.8	1104.4	1147.1	1155.8	1190.8	1248.5
40°	1072.8	1028.6	1078.6	1082.0	1115.5	1181.6
40.5°	1001.0	963.1	1007.3	1007.8	1044.2	1112.1
41°	927.2	898.1	936.9	934.0	974.8	1041.8
41.5°	852.9	835.0	868.0	860.2	905.3	973.3
42°	781.6	768.4	801.0	790.8	836.4	904.4
42.5°	709.7	701.5	735.9	724.8	766.0	837.9
43°	639.3	635.4	672.8	660.7	699.0	773.8
43.5°	571.8	569.9	610.2	599.0	634.0	708.3



TEST NUMBER: P776814

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	397.6	392.2	431.6	430.1	458.3	519.4
45.5°	339.3	336.4	377.2	381.6	405.3	458.3
46°	281.1	281.1	327.2	335.9	356.8	402.4
46.5°	235.9	232.0	281.1	292.7	311.7	347.6
47°	196.6	186.9	237.9	252.9	268.9	295.6
47.5°	161.2	161.2	198.1	215.5	230.1	247.1
48°	131.1	135.9	162.6	183.0	194.7	204.4
48.5°	104.4	110.7	137.9	157.8	162.1	166.0
49°	82.5	85.4	113.6	133.0	137.9	142.7
49.5°	68.4	60.2	89.8	108.7	113.6	119.4
50°	54.9	45.6	65.5	84.0	88.8	96.1
50.5°	41.3	33.5	48.5	59.2	65.0	72.3
51°	27.7	23.3	35.4	43.2	47.6	49.5
51.5°	14.1	14.6	23.8	29.1	33.0	35.9
52°	9.2	11.7	15.0	18.0	21.4	24.8
52.5°	6.8	9.2	12.1	14.6	18.0	15.5
53°	5.8	7.3	9.7	11.2	14.6	13.1
53.5°	4.4	4.9	7.3	8.3	11.2	10.2
54°	3.4	3.9	4.9	4.9	7.8	7.3
54.5°	2.9	2.9	3.9	3.9	4.4	4.9
55°	2.4	2.4	2.9	2.9	3.4	3.9
55.5°	1.9	1.9	2.4	2.4	2.9	2.9
56°	1.9	1.9	1.9	1.9	2.4	2.4
56.5°	1.5	1.5	1.9	1.9	1.9	1.9
57°	1.5	1.5	1.5	1.5	1.5	1.9
57.5°	1.5	1.5	1.5	1.5	1.5	1.5
58°	1.0	1.0	1.5	1.5	1.5	1.5
58.5°	1.0	1.0	1.0	1.5	1.5	1.5
59°	1.0	1.0	1.0	1.0	1.0	1.0
59.5°	1.0	1.0	1.0	1.0	1.0	1.0
60°	1.0	1.0	1.0	1.0	1.0	1.0
60.5°	1.0	1.0	1.0	1.0	1.0	1.0
61°	1.0	1.0	1.0	1.0	1.0	1.0
61.5°	1.0	1.0	1.0	1.0	1.0	1.0
62°	0.5	1.0	1.0	1.0	1.0	1.0
62.5°	0.5	0.5	1.0	1.0	1.0	1.0
63°	0.5	0.5	0.5	0.5	0.5	0.5
63.5°	0.5	0.5	0.5	0.5	0.5	0.5
64°	0.5	0.5	0.5	0.5	0.5	0.5
64.5°	0.5	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5	0.5
65.5°	0.5	0.5	0.5	0.5	0.5	0.5
66°	0.5	0.5	0.5	0.5	0.5	0.5



TEST NUMBER: P776814

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-5000K

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°	0.0	0.5	0.5	0.5	0.5	0.5
72°	0.0	0.0	0.5	0.5	0.5	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0
73°	0.0	0.0	0.0	0.0	0.0	0.0
73.5°	0.0	0.0	0.0	0.0	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: P776814

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-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
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Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°

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Scaled Data Report



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21.5°	2367.0	2385.9	2413.1	2438.8	2457.3	2467.5	2471.4	2461.7	2442.7	2416.5	2386.9
22°	2358.7	2378.6	2405.8	2431.6	2451.5	2460.7	2464.1	2454.4	2434.5	2407.8	2377.7



44°	643.7	714.6	778.2	833.0	872.8	845.1	841.3	804.9	734.5	639.3	561.2
44.5°	580.6	646.6	703.4	762.1	804.9	775.7	770.9	735.9	670.4	579.6	505.3



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



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°	2357.8	2340.3	2342.7	2345.6	2354.4	2367.0
22°	2348.1	2330.6	2332.5	2335.0	2344.7	2358.7



44°	513.6	507.8	549.5	538.4	571.8	643.7
44.5°	455.8	449.5	488.8	482.5	513.6	580.6

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66.5°	0.5	0.5	0.5	0.5	0.5	0.5
67°	0.5	0.5	0.5	0.5	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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(END OF REPORT)