

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: P776813

Luminaire Tested: HCDJBS4050CSD-HCD8TRMB-5000lm-4000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776813  
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: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K  
Description: 8 INCH ROUND MEDIUM MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3527.6 lumens  
Efficiency: N/A  
Efficacy: 73.5 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

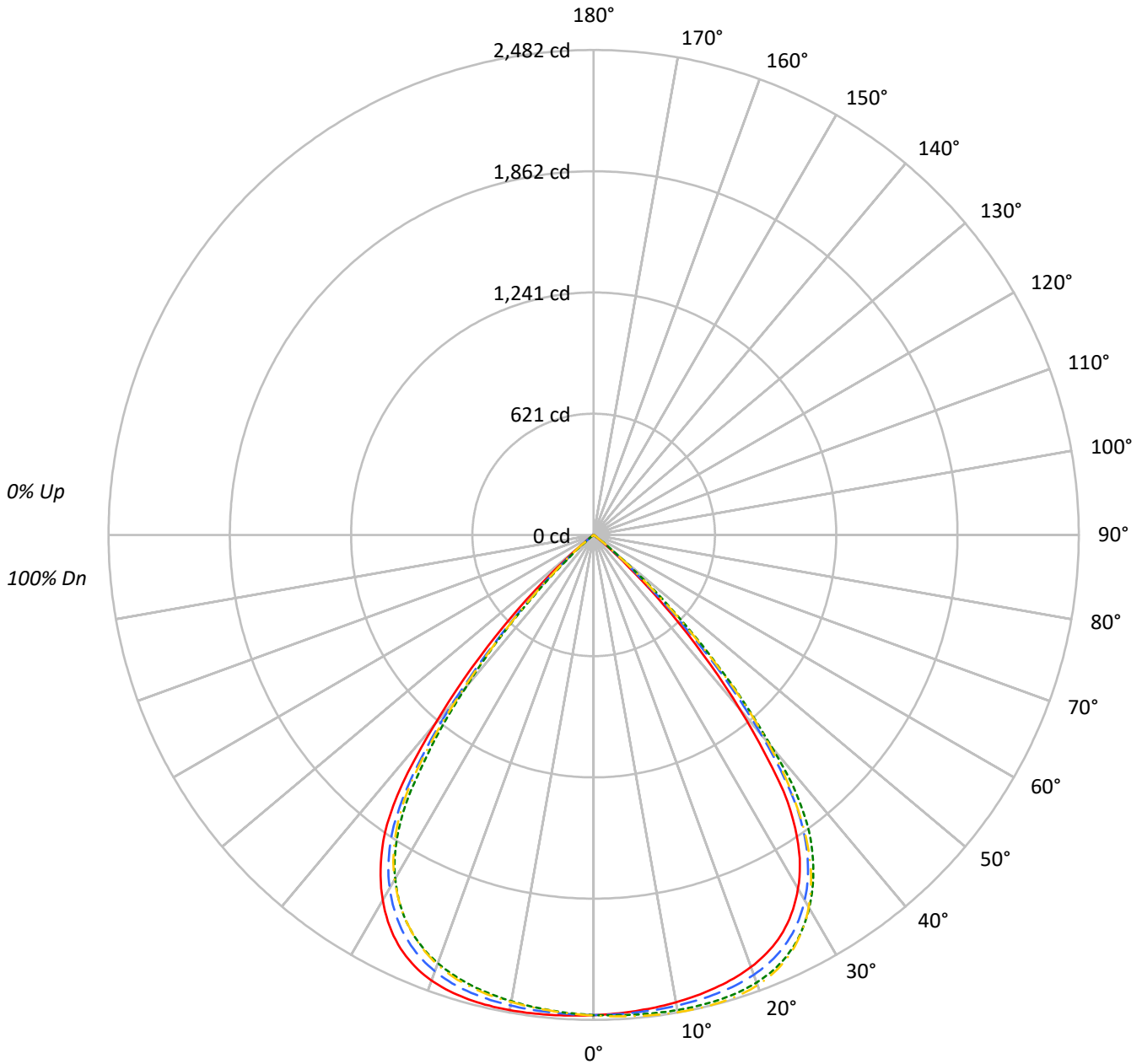
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	95	94	93																			
2	107	102	97	94	105	100	96	92	97	93	90	94	91	89	91	89	87	85																			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78																			
4	95	87	81	76	93	85	80	76	83	78	75	81	77	74	79	76	73	71																			
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65																			
6	84	74	68	63	83	74	67	63	72	66	62	70	66	62	69	65	61	60																			
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55																			
8	75	64	58	53	73	64	57	53	63	57	53	61	56	53	60	56	52	51																			
9	71	60	53	49	69	59	53	49	58	53	49	57	52	49	57	52	48	47																			
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	43																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	75037	75037	75037	75037
5°	74972	75529	75572	74898
10°	75290	76551	76564	75125
15°	75886	77896	77804	75551
20°	76464	79200	78843	75766
25°	76219	79571	78702	74915
30°	73711	77741	76073	71621
35°	66304	72510	69372	62186
40°	46403	56354	50332	40396
45°	22098	31519	25733	16688
50°	4498	8450	4792	2137
55°	202	303	176	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: 31519 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.2	6.6
10°-20°	687.3	19.5
20°-30°	1052.6	29.8
30°-40°	1095.4	31.1
40°-50°	442.2	12.5
50°-60°	15.1	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°	1974.1	56.0
0°-40°	3069.5	87.0
0°-60°	3526.9	100.0
0°-90°	3527.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3527.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2458	2458	2458	2458	2458	
5°	2446	2464	2466	2444	2446	233
15°	2401	2464	2462	2390	2401	678
25°	2263	2362	2336	2224	2263	1037
35°	1779	1946	1861	1668	1779	1070
45°	512	730	596	386	512	412
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°	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8
0.5°	2456.8	2455.9	2456.8	2457.3	2457.8	2460.2	2461.1	2461.1	2458.7	2457.3	2456.8
1°	2455.9	2455.9	2456.8	2457.8	2458.7	2461.6	2462.6	2462.1	2459.7	2457.8	2456.4
1.5°	2454.9	2454.9	2456.8	2458.3	2459.7	2462.6	2464.0	2463.5	2460.7	2457.8	2456.4
2°	2454.0	2454.4	2456.4	2458.7	2460.7	2463.5	2465.0	2464.5	2461.1	2458.3	2456.4
2.5°	2453.0	2453.5	2456.4	2459.2	2461.1	2464.5	2466.4	2465.4	2462.1	2458.7	2455.9
3°	2451.6	2453.0	2455.9	2459.2	2461.6	2465.9	2467.4	2466.9	2463.1	2459.2	2455.4
3.5°	2450.6	2452.0	2455.9	2459.2	2462.6	2466.4	2468.3	2467.8	2464.0	2459.2	2454.9
4°	2449.2	2451.1	2454.9	2459.7	2463.1	2467.4	2469.7	2468.8	2465.0	2459.2	2454.9
4.5°	2447.7	2450.1	2454.4	2459.7	2463.5	2468.8	2470.7	2469.7	2465.4	2459.7	2454.0
5°	2446.3	2449.2	2454.0	2459.7	2464.5	2469.7	2471.7	2471.2	2465.9	2459.7	2453.5
5.5°	2444.9	2447.7	2453.5	2460.2	2465.0	2470.7	2473.1	2472.1	2466.9	2459.7	2453.0
6°	2443.4	2446.8	2453.0	2460.2	2465.4	2471.7	2474.1	2472.6	2467.4	2460.2	2452.5
6.5°	2442.0	2445.4	2452.0	2460.2	2466.4	2472.6	2475.0	2473.6	2467.8	2460.2	2452.0
7°	2440.6	2443.9	2451.6	2460.2	2466.9	2473.1	2476.0	2474.5	2468.3	2459.7	2451.1
7.5°	2438.7	2442.5	2451.1	2460.7	2467.4	2474.1	2476.9	2475.5	2468.8	2459.7	2450.6
8°	2436.7	2441.0	2450.1	2460.2	2467.8	2475.0	2477.9	2476.0	2469.3	2460.2	2449.7
8.5°	2434.8	2439.1	2449.2	2460.7	2468.3	2475.5	2478.4	2476.9	2469.3	2459.7	2448.7
9°	2432.9	2437.7	2448.2	2460.2	2468.8	2476.0	2479.3	2477.4	2469.7	2459.2	2448.2
9.5°	2430.5	2435.8	2447.3	2460.2	2468.8	2476.4	2479.8	2477.9	2469.7	2459.2	2446.8
10°	2428.6	2433.9	2446.3	2459.7	2469.3	2476.9	2480.3	2478.4	2469.7	2458.7	2445.8
10.5°	2426.2	2432.0	2445.4	2459.7	2469.3	2477.4	2480.8	2478.4	2469.7	2458.3	2444.4
11°	2423.8	2430.0	2443.9	2459.2	2469.3	2477.9	2481.2	2478.8	2469.3	2457.3	2443.0
11.5°	2421.4	2427.7	2442.5	2458.7	2469.3	2477.9	2481.2	2478.8	2469.3	2456.4	2441.5
12°	2419.0	2425.3	2441.5	2458.3	2469.3	2477.9	2481.7	2478.8	2468.8	2455.4	2439.6
12.5°	2416.2	2423.3	2440.1	2457.8	2468.8	2477.9	2481.7	2478.4	2467.8	2454.4	2438.2
13°	2413.3	2420.5	2438.2	2456.8	2468.3	2477.9	2481.2	2478.4	2467.4	2453.0	2435.8
13.5°	2410.4	2418.1	2436.7	2455.9	2467.4	2477.9	2480.8	2477.9	2466.4	2451.1	2433.9
14°	2407.1	2415.7	2434.8	2454.9	2466.4	2476.9	2480.3	2477.4	2465.0	2449.7	2431.0
14.5°	2404.2	2412.8	2432.9	2453.5	2465.9	2476.4	2479.8	2476.4	2463.5	2447.7	2428.6
15°	2400.9	2410.0	2430.5	2452.0	2464.5	2475.5	2478.8	2475.5	2461.6	2445.4	2425.7
15.5°	2397.0	2407.1	2428.1	2450.1	2463.5	2474.5	2477.4	2474.1	2459.7	2443.0	2422.4
16°	2393.2	2403.7	2425.7	2448.2	2461.6	2473.1	2476.0	2472.1	2457.3	2440.1	2419.0
16.5°	2389.4	2400.4	2422.9	2446.3	2459.7	2471.2	2474.5	2470.2	2454.9	2436.7	2415.2
17°	2385.1	2396.6	2420.0	2443.4	2457.8	2469.3	2472.1	2467.4	2452.0	2433.4	2410.9
17.5°	2380.3	2392.7	2416.7	2440.6	2455.4	2466.9	2469.7	2465.0	2449.2	2429.6	2406.1
18°	2375.5	2388.9	2412.8	2437.2	2452.5	2464.0	2467.4	2461.6	2445.4	2425.3	2400.9
18.5°	2370.7	2384.1	2409.5	2433.9	2449.7	2460.7	2464.0	2457.8	2441.5	2420.5	2395.6
19°	2365.0	2379.8	2405.2	2430.0	2445.8	2456.8	2460.7	2454.0	2436.7	2415.2	2389.9
19.5°	2359.2	2374.6	2400.4	2425.3	2442.0	2453.0	2456.8	2449.2	2432.0	2409.5	2383.2
20°	2353.5	2369.3	2395.6	2420.5	2437.7	2448.7	2452.0	2444.4	2426.7	2403.3	2376.0
20.5°	2346.8	2363.6	2389.9	2415.2	2432.9	2443.4	2447.3	2438.7	2420.5	2396.6	2368.3
21°	2339.6	2357.3	2384.1	2409.5	2427.2	2437.7	2441.5	2432.9	2414.3	2388.9	2360.7



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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°	2315.7	2336.3	2363.1	2388.9	2408.5	2417.1	2420.5	2410.4	2390.3	2363.6	2332.5
23°	2306.6	2328.2	2354.9	2380.8	2400.9	2409.0	2412.3	2401.8	2381.3	2353.5	2321.9
23.5°	2296.6	2319.5	2346.3	2371.7	2391.8	2399.9	2403.3	2391.8	2371.2	2342.5	2310.9
24°	2286.1	2310.0	2336.8	2362.6	2383.6	2390.3	2393.7	2381.7	2360.7	2331.5	2299.0
24.5°	2275.1	2300.4	2326.7	2352.1	2374.1	2379.8	2382.2	2370.7	2348.7	2319.1	2286.1
25°	2262.6	2289.4	2316.2	2341.1	2362.1	2368.8	2371.2	2358.8	2336.3	2306.2	2272.7
25.5°	2250.2	2277.9	2304.2	2329.6	2351.1	2356.4	2358.3	2345.9	2322.9	2292.3	2258.8
26°	2236.3	2265.0	2291.8	2317.2	2339.2	2343.5	2344.9	2332.0	2308.5	2277.4	2243.5
26.5°	2222.0	2252.1	2278.9	2303.8	2325.8	2328.6	2330.1	2317.2	2293.2	2261.7	2227.2
27°	2206.2	2237.3	2264.5	2289.9	2310.5	2313.8	2314.3	2301.4	2277.0	2245.4	2210.5
27.5°	2189.4	2222.4	2249.2	2275.1	2296.1	2298.0	2298.0	2284.6	2259.8	2227.7	2191.8
28°	2171.7	2205.7	2233.0	2258.8	2279.8	2280.3	2280.8	2266.4	2241.6	2209.0	2173.2
28.5°	2153.1	2188.0	2216.2	2242.5	2262.6	2262.1	2261.7	2247.3	2222.0	2189.0	2153.6
29°	2133.0	2169.3	2198.0	2224.8	2244.4	2243.0	2242.5	2227.2	2201.9	2168.9	2132.5
29.5°	2112.9	2150.2	2179.4	2206.2	2225.8	2222.4	2221.5	2206.2	2180.3	2147.3	2110.5
30°	2090.9	2129.2	2159.3	2187.0	2205.2	2200.9	2199.5	2184.2	2157.9	2125.3	2087.5
30.5°	2068.4	2107.2	2138.2	2166.5	2184.6	2178.4	2176.5	2160.7	2134.4	2101.9	2063.6
31°	2043.5	2083.2	2116.2	2144.5	2162.2	2154.0	2151.6	2135.9	2110.0	2077.0	2037.8
31.5°	2017.7	2058.8	2093.3	2122.0	2138.7	2129.6	2126.8	2110.0	2084.7	2051.2	2010.5
32°	1990.4	2032.1	2067.9	2099.0	2114.8	2103.8	2098.5	2082.8	2057.4	2024.4	1981.3
32.5°	1961.3	2003.4	2041.1	2073.7	2090.4	2075.6	2069.4	2053.6	2028.7	1996.2	1949.3
33°	1929.2	1973.2	2012.9	2047.8	2063.1	2046.4	2039.2	2022.5	1999.0	1966.0	1916.8
33.5°	1896.2	1940.2	1982.3	2020.6	2035.9	2016.3	2006.7	1990.4	1968.4	1934.5	1881.8
34°	1859.4	1906.7	1951.7	1991.9	2007.2	1984.7	1972.7	1956.0	1935.4	1900.5	1844.5
34.5°	1820.6	1869.9	1917.2	1961.7	1977.0	1950.3	1935.9	1919.6	1899.5	1863.2	1803.9
35°	1779.0	1829.7	1881.8	1928.7	1945.5	1913.4	1896.2	1880.4	1861.3	1821.6	1757.0
35.5°	1736.0	1786.2	1842.6	1893.3	1910.6	1872.3	1854.6	1837.8	1819.2	1775.2	1707.7
36°	1688.6	1739.8	1802.0	1854.6	1873.7	1830.2	1810.6	1792.4	1773.3	1726.4	1655.1
36.5°	1633.1	1689.6	1756.0	1810.6	1833.1	1782.8	1763.2	1745.0	1723.5	1672.3	1596.8
37°	1569.5	1631.2	1705.8	1765.1	1787.1	1736.0	1715.4	1695.3	1669.5	1614.0	1535.5
37.5°	1501.1	1566.1	1651.8	1714.4	1739.3	1683.8	1665.6	1644.1	1609.2	1548.0	1469.5
38°	1433.2	1500.1	1594.4	1664.2	1688.6	1630.2	1615.4	1590.1	1543.2	1477.6	1403.5
38.5°	1363.3	1435.5	1533.6	1605.4	1633.1	1571.9	1562.8	1534.6	1473.3	1405.9	1334.1
39°	1296.3	1374.3	1470.0	1547.0	1566.1	1512.6	1507.3	1475.7	1402.1	1330.8	1261.9
39.5°	1230.3	1311.7	1403.0	1481.9	1490.1	1448.5	1445.1	1413.5	1330.8	1257.1	1188.2
40°	1164.3	1250.4	1334.1	1415.9	1414.0	1382.0	1383.9	1347.5	1262.9	1184.4	1115.0
40.5°	1095.9	1183.0	1265.7	1342.3	1341.3	1311.7	1324.1	1281.0	1196.8	1112.7	1037.1
41°	1026.6	1112.7	1196.8	1267.6	1274.8	1242.8	1258.1	1213.1	1129.9	1042.8	961.5
41.5°	959.1	1039.9	1126.0	1192.5	1208.8	1171.0	1190.6	1142.3	1061.9	971.5	887.8
42°	891.2	971.1	1056.2	1116.0	1141.4	1104.0	1121.3	1072.0	991.6	901.2	820.4
42.5°	825.6	903.1	985.9	1039.0	1073.4	1036.6	1050.0	1002.2	923.7	830.9	747.7
43°	762.5	835.7	914.6	965.8	1000.2	969.6	975.8	929.9	853.9	760.1	681.7
43.5°	697.9	769.7	841.4	891.2	929.0	901.2	904.6	860.1	788.3	693.1	615.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	511.8	570.2	623.3	686.0	730.0	697.0	686.4	658.2	596.0	517.1	443.4
45.5°	451.6	506.6	556.3	620.9	665.4	631.4	619.9	591.2	535.3	462.6	388.4
46°	396.6	445.8	493.7	561.6	601.8	567.3	552.0	527.6	477.9	408.5	333.4
46.5°	342.5	387.5	434.3	502.8	536.7	509.0	495.6	469.7	420.5	354.5	278.9
47°	291.3	332.5	378.4	446.3	481.2	450.1	439.1	412.3	363.1	299.9	236.3
47.5°	243.5	278.9	327.7	391.8	425.7	391.3	382.7	354.9	305.7	253.0	197.6
48°	201.4	231.0	279.8	338.2	370.2	332.5	326.2	297.1	256.4	210.0	163.1
48.5°	163.6	188.0	236.8	288.9	314.8	273.6	269.8	248.3	211.0	170.8	132.0
49°	140.6	153.1	198.5	244.0	266.9	223.4	225.8	201.9	169.3	135.4	105.7
49.5°	117.7	129.2	162.6	203.3	220.5	180.8	182.7	161.7	133.0	104.8	82.3
50°	94.7	105.2	138.7	166.0	177.9	143.5	143.5	126.3	100.9	87.1	67.9
50.5°	71.3	81.3	115.3	140.6	139.2	110.0	110.0	94.7	83.2	68.9	54.1
51°	48.8	57.9	91.8	115.8	105.2	90.9	90.4	78.0	65.5	51.2	39.7
51.5°	35.4	43.5	68.4	90.9	87.1	71.3	71.3	61.2	47.8	33.0	25.4
52°	24.4	31.1	45.0	66.0	68.9	52.1	51.7	44.5	30.1	14.8	11.5
52.5°	15.3	20.6	30.6	41.1	50.2	33.0	32.0	27.7	12.9	9.6	7.7
53°	12.9	17.7	19.1	26.3	32.0	14.4	12.9	10.5	8.6	7.2	6.2
53.5°	10.0	14.4	15.8	15.3	14.4	9.1	8.6	7.7	6.7	5.7	4.8
54°	7.2	11.0	12.0	12.4	9.1	7.2	6.7	6.2	5.3	4.3	3.8
54.5°	4.8	7.7	8.6	9.6	7.2	5.7	5.3	4.8	3.8	3.3	2.9
55°	3.8	4.3	5.3	7.2	5.7	4.3	4.3	3.8	3.3	2.9	2.4
55.5°	2.9	3.3	3.8	4.3	4.3	3.3	3.3	2.9	2.4	2.4	1.9
56°	2.4	2.9	3.3	3.3	3.3	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	1.4	1.4
57°	1.9	1.9	1.9	2.4	1.9	1.9	1.9	1.9	1.4	1.4	1.4
57.5°	1.4	1.4	1.9	1.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4
58°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0
58.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0
59°	1.0	1.4	1.4	1.4	1.4	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: P776813

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K

**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: P776813

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K

**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: P776813

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2457.8	2457.8	2457.8	2457.8	2457.8	2457.8
0.5°	2456.4	2455.9	2457.8	2458.7	2458.7	2456.8
1°	2455.9	2454.9	2456.4	2457.3	2457.3	2455.9
1.5°	2454.9	2453.5	2454.9	2455.9	2455.9	2454.9
2°	2454.0	2452.5	2453.5	2454.4	2454.4	2454.0
2.5°	2453.5	2451.1	2452.5	2453.0	2453.5	2453.0
3°	2452.5	2450.1	2451.1	2451.6	2451.6	2451.6
3.5°	2451.1	2448.7	2449.2	2450.1	2450.1	2450.6
4°	2450.6	2447.3	2447.7	2448.7	2448.7	2449.2
4.5°	2449.2	2445.4	2446.3	2447.3	2447.3	2447.7
5°	2448.2	2443.9	2444.4	2445.4	2446.3	2446.3
5.5°	2446.8	2442.5	2443.0	2443.9	2444.4	2444.9
6°	2445.8	2440.6	2441.0	2442.5	2443.0	2443.4
6.5°	2444.4	2438.7	2439.6	2440.6	2441.5	2442.0
7°	2442.5	2436.7	2437.7	2439.1	2440.1	2440.6
7.5°	2441.0	2434.8	2435.8	2437.2	2438.2	2438.7
8°	2439.6	2432.9	2433.9	2435.8	2436.7	2436.7
8.5°	2437.7	2430.5	2431.5	2433.9	2434.8	2434.8
9°	2435.8	2428.1	2429.6	2432.0	2432.9	2432.9
9.5°	2434.4	2425.7	2427.2	2430.0	2431.0	2430.5
10°	2432.0	2423.3	2424.8	2428.1	2429.1	2428.6
10.5°	2430.0	2420.5	2422.4	2425.7	2426.7	2426.2
11°	2427.7	2418.1	2420.0	2423.8	2424.8	2423.8
11.5°	2425.3	2414.7	2417.1	2421.4	2422.4	2421.4
12°	2422.9	2411.9	2414.3	2419.0	2420.0	2419.0
12.5°	2420.0	2409.0	2410.9	2416.2	2417.6	2416.2
13°	2417.1	2405.6	2407.6	2413.3	2414.7	2413.3
13.5°	2413.8	2402.3	2404.7	2410.4	2411.4	2410.4
14°	2410.9	2398.5	2400.9	2407.1	2408.5	2407.1
14.5°	2407.1	2394.6	2397.0	2403.3	2405.2	2404.2
15°	2403.7	2390.3	2393.2	2399.4	2401.3	2400.9
15.5°	2399.9	2386.0	2388.4	2395.6	2397.5	2397.0
16°	2395.1	2381.3	2384.1	2390.8	2393.2	2393.2
16.5°	2390.8	2376.5	2379.3	2386.0	2388.9	2389.4
17°	2386.0	2371.2	2373.6	2380.8	2384.1	2385.1
17.5°	2380.8	2365.5	2368.3	2375.0	2378.9	2380.3
18°	2375.0	2359.2	2362.1	2368.8	2373.1	2375.5
18.5°	2368.8	2353.5	2355.9	2362.1	2366.9	2370.7
19°	2362.6	2346.8	2349.2	2354.9	2360.7	2365.0
19.5°	2355.9	2339.2	2342.0	2347.3	2353.5	2359.2
20°	2348.2	2332.0	2334.4	2339.2	2345.9	2353.5
20.5°	2340.6	2323.9	2326.2	2330.5	2337.7	2346.8
21°	2332.0	2315.2	2317.6	2321.0	2329.6	2339.6

TEST NUMBER: P776813

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2303.8	2286.1	2288.0	2289.4	2299.9	2315.7
23°	2293.2	2275.1	2277.0	2277.4	2288.9	2306.6
23.5°	2281.3	2263.6	2265.0	2265.5	2277.0	2296.6
24°	2269.3	2251.1	2253.1	2252.6	2264.5	2286.1
24.5°	2256.4	2237.7	2239.7	2238.7	2251.6	2275.1
25°	2242.5	2223.9	2225.8	2223.9	2237.7	2262.6
25.5°	2228.2	2209.0	2210.5	2209.0	2222.9	2250.2
26°	2212.4	2193.7	2194.7	2192.8	2208.1	2236.3
26.5°	2196.1	2177.0	2178.4	2176.5	2191.8	2222.0
27°	2178.9	2158.8	2161.2	2158.8	2175.1	2206.2
27.5°	2160.3	2140.2	2143.0	2140.6	2156.9	2189.4
28°	2140.6	2120.5	2123.9	2120.5	2138.2	2171.7
28.5°	2120.1	2099.5	2103.8	2101.4	2118.2	2153.1
29°	2099.0	2078.0	2082.8	2079.9	2097.6	2133.0
29.5°	2076.5	2055.0	2061.2	2058.8	2077.0	2112.9
30°	2052.6	2031.6	2037.8	2035.9	2055.0	2090.9
30.5°	2026.8	2005.3	2014.4	2013.4	2032.1	2068.4
31°	1998.6	1978.5	1988.5	1988.0	2007.7	2043.5
31.5°	1968.9	1948.3	1961.3	1962.2	1981.3	2017.7
32°	1937.3	1917.2	1931.1	1932.6	1952.6	1990.4
32.5°	1902.9	1882.8	1900.0	1901.9	1922.0	1961.3
33°	1868.0	1846.9	1865.6	1868.5	1889.5	1929.2
33.5°	1828.8	1808.2	1831.6	1835.4	1857.0	1896.2
34°	1788.6	1765.1	1794.8	1799.6	1821.6	1859.4
34.5°	1744.6	1719.2	1755.1	1759.9	1783.3	1820.6
35°	1696.2	1668.5	1712.0	1716.3	1741.2	1779.0
35.5°	1641.7	1612.5	1662.8	1669.5	1695.3	1736.0
36°	1584.3	1550.3	1607.8	1616.4	1645.1	1688.6
36.5°	1519.7	1485.3	1546.0	1558.0	1588.1	1633.1
37°	1454.7	1422.2	1478.6	1494.4	1525.0	1569.5
37.5°	1386.3	1360.9	1405.9	1428.4	1456.6	1501.1
38°	1321.7	1297.8	1332.2	1357.6	1387.2	1433.2
38.5°	1255.2	1235.1	1262.4	1286.8	1316.9	1363.3
39°	1191.1	1161.9	1194.9	1211.2	1245.6	1296.3
39.5°	1125.1	1088.3	1130.4	1139.0	1173.4	1230.3
40°	1057.2	1013.6	1062.9	1066.3	1099.3	1164.3
40.5°	986.4	949.1	992.6	993.1	1028.9	1095.9
41°	913.7	885.0	923.2	920.4	960.5	1026.6
41.5°	840.5	822.8	855.3	847.6	892.1	959.1
42°	770.2	757.2	789.3	779.2	824.2	891.2
42.5°	699.4	691.2	725.2	714.2	754.8	825.6
43°	630.0	626.2	663.0	651.0	688.8	762.5
43.5°	563.5	561.6	601.3	590.3	624.7	697.9



TEST NUMBER: P776813

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	391.8	386.5	425.3	423.8	451.6	511.8
45.5°	334.4	331.5	371.7	376.0	399.4	451.6
46°	277.0	277.0	322.4	331.0	351.6	396.6
46.5°	232.5	228.7	277.0	288.4	307.1	342.5
47°	193.7	184.2	234.4	249.2	265.0	291.3
47.5°	158.8	158.8	195.2	212.4	226.7	243.5
48°	129.2	133.9	160.2	180.3	191.8	201.4
48.5°	102.8	109.1	135.9	155.5	159.8	163.6
49°	81.3	84.2	111.9	131.1	135.9	140.6
49.5°	67.4	59.3	88.5	107.2	111.9	117.7
50°	54.1	45.0	64.6	82.8	87.5	94.7
50.5°	40.7	33.0	47.8	58.4	64.1	71.3
51°	27.3	23.0	34.9	42.6	46.9	48.8
51.5°	13.9	14.4	23.4	28.7	32.5	35.4
52°	9.1	11.5	14.8	17.7	21.0	24.4
52.5°	6.7	9.1	12.0	14.4	17.7	15.3
53°	5.7	7.2	9.6	11.0	14.4	12.9
53.5°	4.3	4.8	7.2	8.1	11.0	10.0
54°	3.3	3.8	4.8	4.8	7.7	7.2
54.5°	2.9	2.9	3.8	3.8	4.3	4.8
55°	2.4	2.4	2.9	2.9	3.3	3.8
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°	1.4	1.4	1.9	1.9	1.9	1.9
57°	1.4	1.4	1.4	1.4	1.4	1.9
57.5°	1.4	1.4	1.4	1.4	1.4	1.4
58°	1.0	1.0	1.4	1.4	1.4	1.4
58.5°	1.0	1.0	1.0	1.4	1.4	1.4
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: P776813

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K

**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: P776813

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

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

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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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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Peachtree City, GA 30269

Scaled Data Report





21.5°	2332.5	2351.1	2377.9	2403.3	2421.4	2431.5	2435.3	2425.7	2407.1	2381.3	2352.1
22°	2324.3	2343.9	2370.7	2396.1	2415.7	2424.8	2428.1	2418.6	2399.0	2372.6	2343.0



44°	634.3	704.1	766.8	820.9	860.1	832.8	829.0	793.1	723.8	630.0	553.0
44.5°	572.1	637.2	693.1	751.0	793.1	764.4	759.6	725.2	660.6	571.2	498.0



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°	2323.4	2306.2	2308.5	2311.4	2320.0	2332.5
22°	2313.8	2296.6	2298.5	2300.9	2310.5	2324.3



44°	506.1	500.4	541.5	530.5	563.5	634.3
44.5°	449.2	443.0	481.7	475.5	506.1	572.1

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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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Scaled Data Report



(END OF REPORT)