

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: P776743

Luminaire Tested: HCDJBS4050CSD-HCD6TSQMW-5000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776743
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-HCD6TSQMW-5000lm-4000K
Description: 6 INCH SQUARE MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

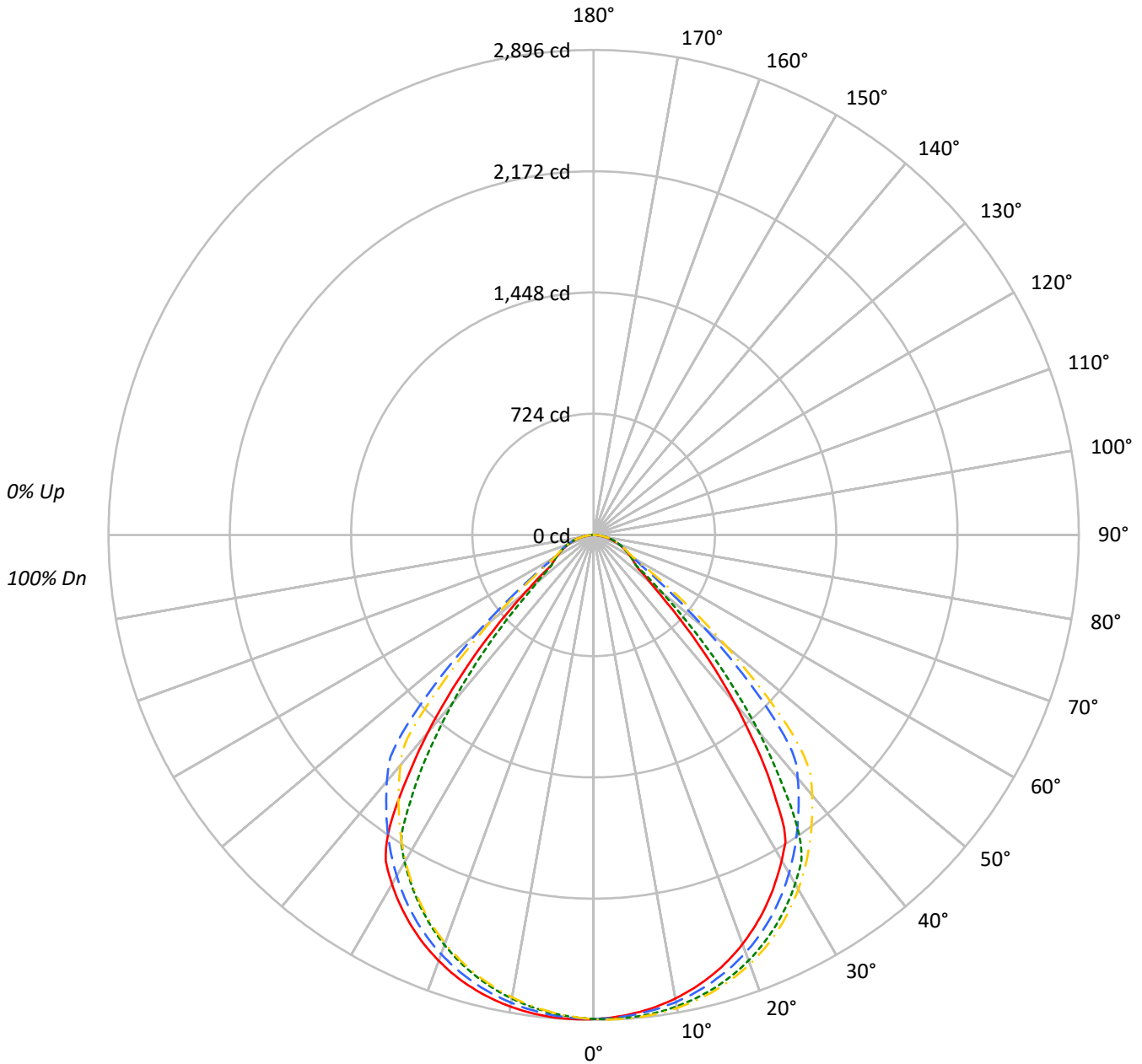
Lumens per Lamp: N/A
Luminaire Lumens: 5071.4 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.27
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
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	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			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70					70			
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63					63			
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	57					57			
6	78	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51					51			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46					46			
8	69	57	50	45	67	57	49	45	55	49	44	54	48	44	53	48	44	42					42			
9	65	53	46	41	63	52	46	41	51	45	41	50	45	40	49	44	40	39					39			
10	61	49	42	38	60	49	42	38	48	42	37	47	41	37	46	41	37	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	124448	124448	124448	124448
5°	123852	124820	124906	123869
10°	122879	124969	125052	122918
15°	121381	124746	124809	121506
20°	119115	123913	123977	119377
25°	115869	122273	122368	116277
30°	111603	119643	119737	112175
35°	98410	110978	111330	98763
40°	73325	86011	86522	73567
45°	47726	58935	59319	47987
50°	29405	35106	35494	29600
55°	22685	22760	22760	22685
60°	21786	21700	21700	21786
65°	20753	20946	20753	21048
70°	19689	20293	19802	20406
75°	18216	19646	18698	19563
80°	15645	18844	16960	18150
85°	8744	16994	12745	14672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 101863 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.3	5.4
10°-20°	778.9	15.4
20°-30°	1156.5	22.8
30°-40°	1278.7	25.2
40°-50°	866.6	17.1
50°-60°	353.3	7.0
60°-70°	208.5	4.1
70°-80°	123.3	2.4
80°-90°	32.5	0.6
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°	2208.7	43.6
0°-40°	3487.4	68.8
0°-60°	4707.3	92.8
0°-90°	5071.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5071.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2890	2890	2890	2890	2890	
5°	2866	2888	2890	2866	2866	272
15°	2723	2799	2800	2726	2723	767
25°	2439	2574	2576	2448	2439	1121
35°	1872	2111	2118	1879	1872	1146
45°	784	968	974	788	784	619
55°	302	303	303	302	302	284
65°	204	206	204	207	204	202
75°	110	118	112	118	110	116
85°	18	34	26	30	18	25
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°	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4
0.5°	2890.4	2889.5	2889.5	2890.4	2890.9	2891.4	2892.3	2892.8	2892.8	2890.9	2889.5
1°	2888.5	2888.5	2888.5	2890.4	2891.9	2892.3	2893.8	2893.8	2893.3	2890.9	2889.5
1.5°	2886.6	2887.1	2888.0	2890.0	2892.3	2893.3	2894.7	2894.7	2893.8	2891.4	2888.5
2°	2884.7	2885.7	2887.1	2889.5	2892.3	2893.3	2895.2	2895.2	2894.3	2890.9	2888.0
2.5°	2882.3	2883.3	2885.7	2889.0	2892.3	2893.8	2895.7	2895.7	2894.3	2890.4	2886.6
3°	2879.4	2880.9	2883.7	2888.0	2891.9	2893.8	2895.7	2895.7	2893.8	2890.0	2885.2
3.5°	2876.6	2878.5	2881.8	2886.6	2891.4	2893.3	2895.7	2895.2	2893.3	2889.0	2883.7
4°	2873.2	2875.6	2879.9	2885.2	2890.4	2892.8	2895.2	2894.7	2892.3	2887.6	2881.8
4.5°	2869.4	2872.7	2877.5	2883.3	2889.5	2892.3	2894.3	2894.3	2891.4	2886.1	2879.9
5°	2865.6	2869.4	2874.7	2880.9	2888.0	2891.4	2893.3	2893.3	2890.0	2884.2	2877.5
5.5°	2861.7	2866.0	2871.8	2879.0	2886.1	2890.0	2892.3	2891.9	2888.5	2882.3	2874.7
6°	2857.0	2861.7	2868.4	2876.1	2884.2	2888.5	2890.9	2890.4	2886.6	2879.9	2871.8
6.5°	2852.7	2857.9	2864.6	2873.2	2882.3	2886.6	2889.0	2888.5	2884.2	2877.0	2868.4
7°	2847.4	2853.1	2860.8	2869.9	2879.9	2884.7	2887.1	2886.1	2881.8	2873.7	2864.6
7.5°	2842.1	2848.8	2857.0	2866.5	2876.6	2882.3	2884.7	2883.7	2879.0	2870.3	2860.8
8°	2836.4	2843.6	2852.7	2862.7	2873.7	2879.4	2882.3	2880.9	2875.6	2867.0	2857.0
8.5°	2830.2	2838.3	2847.9	2858.9	2870.3	2876.1	2879.4	2878.0	2872.3	2863.2	2852.2
9°	2824.0	2832.1	2842.6	2854.1	2866.5	2873.2	2876.1	2874.2	2868.4	2858.9	2847.4
9.5°	2817.7	2826.3	2837.3	2849.8	2862.7	2869.4	2872.7	2870.8	2864.6	2854.6	2842.1
10°	2810.6	2820.1	2832.1	2844.5	2858.4	2865.6	2868.9	2866.5	2860.3	2850.3	2836.9
10.5°	2803.4	2813.4	2825.9	2839.3	2854.1	2861.3	2864.6	2862.7	2855.5	2845.0	2831.1
11°	2795.7	2806.3	2820.1	2834.0	2848.8	2857.0	2860.3	2857.9	2850.7	2839.3	2825.4
11.5°	2787.6	2799.1	2813.4	2828.3	2843.6	2851.7	2855.5	2853.1	2845.5	2833.5	2819.2
12°	2779.5	2791.4	2806.7	2822.0	2838.3	2846.9	2850.7	2847.9	2840.2	2827.8	2812.5
12.5°	2770.9	2783.8	2799.6	2815.8	2832.6	2841.2	2845.0	2842.6	2834.0	2821.6	2805.8
13°	2762.3	2775.7	2791.9	2808.7	2826.3	2835.4	2839.3	2836.4	2828.3	2814.9	2798.6
13.5°	2753.2	2767.0	2784.3	2801.5	2819.7	2829.7	2833.5	2830.2	2821.6	2808.2	2791.0
14°	2743.6	2758.0	2776.6	2794.3	2813.0	2823.0	2827.3	2824.0	2814.9	2800.5	2783.3
14.5°	2733.6	2748.9	2768.0	2786.7	2805.8	2816.3	2820.6	2817.3	2807.7	2793.4	2774.7
15°	2723.1	2739.3	2759.4	2778.5	2798.6	2809.6	2813.9	2810.1	2800.0	2785.2	2766.6
15.5°	2712.5	2729.3	2749.8	2769.9	2791.0	2802.0	2806.7	2802.4	2792.4	2777.1	2758.0
16°	2701.5	2718.7	2740.7	2761.3	2782.8	2793.8	2799.1	2794.8	2783.8	2768.5	2748.4
16.5°	2690.1	2708.2	2731.2	2752.7	2774.2	2786.2	2791.4	2787.1	2775.7	2759.9	2739.3
17°	2678.1	2697.2	2721.6	2743.1	2765.1	2777.6	2783.3	2778.5	2766.6	2750.3	2729.3
17.5°	2666.1	2685.7	2711.1	2733.1	2756.5	2769.0	2774.7	2769.4	2757.5	2740.7	2719.2
18°	2653.2	2673.8	2700.1	2723.1	2746.5	2759.9	2766.1	2760.4	2747.9	2730.7	2708.7
18.5°	2640.8	2661.8	2688.6	2712.5	2736.9	2750.8	2756.5	2750.8	2737.9	2720.7	2698.2
19°	2627.4	2649.4	2677.6	2702.0	2726.4	2740.7	2747.0	2740.7	2727.4	2709.7	2686.2
19.5°	2613.5	2636.5	2665.7	2690.5	2715.4	2730.7	2737.4	2730.7	2716.8	2699.1	2675.2
20°	2599.7	2623.6	2653.7	2679.1	2704.4	2719.7	2726.9	2720.2	2705.8	2687.7	2663.8
20.5°	2585.3	2609.2	2641.3	2666.6	2693.4	2708.7	2716.4	2709.2	2694.4	2676.2	2651.3
21°	2570.5	2595.4	2628.4	2654.2	2681.0	2697.2	2705.4	2697.7	2682.9	2663.8	2638.9



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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°	2523.6	2550.9	2587.2	2615.4	2643.7	2661.4	2670.0	2661.8	2645.6	2626.4	2599.2
23°	2507.4	2535.6	2572.9	2601.6	2630.3	2648.4	2657.5	2649.4	2632.2	2612.1	2584.8
23.5°	2491.1	2519.8	2558.1	2587.2	2616.9	2635.5	2645.1	2636.5	2618.8	2598.2	2570.5
24°	2474.4	2504.0	2543.2	2572.9	2602.5	2622.1	2631.7	2623.1	2604.4	2584.4	2555.7
24.5°	2456.7	2487.3	2527.5	2558.1	2588.2	2608.3	2617.8	2609.2	2590.1	2570.0	2540.8
25°	2439.0	2470.5	2511.7	2542.8	2573.8	2593.9	2604.0	2594.9	2575.8	2555.2	2525.1
25.5°	2420.8	2452.9	2495.4	2527.0	2558.5	2579.6	2590.1	2580.5	2560.5	2539.9	2509.8
26°	2402.6	2435.6	2478.7	2511.2	2542.8	2564.3	2575.3	2565.2	2545.1	2524.1	2494.0
26.5°	2384.0	2417.9	2461.5	2494.9	2527.0	2549.0	2560.0	2549.9	2528.9	2508.3	2477.2
27°	2364.9	2399.8	2444.2	2478.7	2510.7	2533.2	2544.2	2534.1	2513.1	2492.1	2460.0
27.5°	2345.2	2380.2	2426.5	2461.9	2494.5	2517.4	2528.9	2518.4	2496.8	2475.8	2443.8
28°	2325.6	2361.5	2408.4	2444.7	2476.8	2500.7	2512.2	2501.6	2479.6	2458.1	2425.6
28.5°	2306.0	2342.4	2389.7	2426.5	2460.0	2483.9	2495.4	2485.4	2461.9	2441.4	2407.9
29°	2285.9	2323.2	2372.0	2408.9	2442.3	2466.7	2478.2	2467.7	2444.7	2423.2	2389.2
29.5°	2265.4	2303.2	2352.4	2390.7	2424.6	2449.5	2461.5	2450.5	2427.0	2406.5	2370.6
30°	2244.8	2284.0	2332.8	2372.0	2406.5	2431.3	2443.3	2432.8	2408.4	2386.9	2351.9
30.5°	2223.8	2263.5	2313.2	2353.4	2387.3	2413.6	2425.1	2415.1	2389.2	2368.7	2332.8
31°	2202.7	2242.9	2293.1	2334.2	2367.7	2395.5	2406.9	2395.9	2370.1	2349.1	2313.2
31.5°	2181.7	2221.9	2272.6	2314.6	2348.6	2376.8	2388.3	2377.3	2351.0	2329.9	2293.1
32°	2161.1	2200.8	2252.0	2295.0	2327.6	2357.2	2368.7	2358.6	2330.4	2310.8	2273.0
32.5°	2124.3	2179.3	2231.0	2274.9	2307.5	2338.1	2350.0	2339.0	2309.9	2290.7	2252.9
33°	2086.0	2157.8	2210.4	2254.4	2278.3	2318.0	2329.9	2318.9	2278.3	2270.2	2231.9
33.5°	2035.4	2136.7	2188.4	2233.3	2244.3	2297.9	2309.9	2298.9	2245.8	2250.6	2210.9
34°	1980.8	2116.2	2166.9	2211.3	2205.6	2276.4	2288.8	2278.3	2208.0	2228.6	2189.3
34.5°	1925.4	2080.8	2144.9	2190.3	2161.6	2255.3	2268.7	2255.3	2165.0	2205.6	2168.3
35°	1872.3	2042.5	2122.9	2159.2	2111.4	2231.4	2248.2	2230.5	2118.1	2176.4	2146.3
35.5°	1819.7	1995.2	2100.4	2125.7	2058.3	2195.1	2227.1	2195.1	2065.0	2143.4	2124.3
36°	1766.6	1942.1	2078.4	2088.9	1999.0	2162.6	2205.6	2163.5	2006.7	2108.5	2102.3
36.5°	1711.6	1890.0	2055.4	2045.9	1939.7	2120.5	2184.6	2123.3	1948.3	2066.9	2080.3
37°	1652.8	1837.8	2033.0	1999.0	1876.1	2073.6	2163.0	2078.9	1887.6	2021.0	2056.9
37.5°	1593.5	1785.7	2010.0	1948.3	1816.3	2022.9	2140.6	2031.1	1826.4	1972.7	2034.4
38°	1533.7	1733.1	1987.1	1892.8	1757.0	1968.9	2118.6	1978.4	1768.0	1918.7	2011.9
38.5°	1474.9	1680.5	1964.6	1835.5	1701.1	1912.0	2096.1	1923.0	1710.6	1862.7	1989.4
39°	1417.0	1626.0	1941.1	1779.0	1644.2	1853.1	2074.6	1865.1	1653.7	1805.3	1966.0
39.5°	1360.6	1569.6	1918.7	1722.1	1588.2	1792.4	2051.6	1807.2	1597.3	1747.9	1943.1
40°	1304.6	1510.3	1894.8	1664.7	1530.3	1734.5	2029.6	1749.4	1539.4	1691.0	1920.1
40.5°	1251.1	1452.4	1871.3	1610.7	1472.0	1678.6	2006.2	1693.4	1481.1	1635.6	1897.1
41°	1196.1	1396.4	1847.9	1557.1	1411.7	1624.1	1983.2	1637.5	1420.3	1581.5	1873.2
41.5°	1142.0	1340.5	1825.9	1503.6	1352.4	1569.1	1958.8	1582.9	1361.0	1528.4	1848.8
42°	1087.0	1286.0	1791.5	1451.0	1294.1	1514.1	1934.4	1528.4	1302.2	1474.9	1824.0
42.5°	1033.5	1234.8	1755.1	1396.9	1237.7	1458.6	1911.0	1473.4	1244.8	1419.9	1795.3
43°	979.4	1181.2	1705.4	1340.5	1182.7	1401.7	1868.5	1416.5	1189.4	1364.4	1746.0
43.5°	929.2	1128.6	1650.9	1286.4	1127.7	1344.8	1826.4	1358.7	1134.8	1308.0	1703.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	783.8	970.8	1469.1	1125.3	967.9	1177.4	1672.9	1190.8	974.2	1145.4	1521.3
45.5°	737.9	920.1	1407.9	1075.1	914.4	1124.3	1612.1	1135.8	922.5	1093.2	1457.2
46°	693.9	870.4	1343.4	1024.9	863.2	1071.7	1546.6	1083.2	870.9	1042.5	1392.1
46.5°	652.3	823.5	1278.8	974.6	814.0	1018.6	1479.6	1031.1	821.1	992.8	1327.1
47°	611.7	775.7	1214.2	925.4	766.1	967.0	1411.3	978.9	773.8	943.1	1262.5
47.5°	574.4	731.2	1149.7	876.6	720.2	916.3	1341.9	927.8	727.9	894.3	1198.9
48°	540.4	687.7	1087.0	828.8	677.2	866.6	1275.9	878.5	684.3	847.4	1135.8
48.5°	510.8	645.6	1028.2	782.9	635.6	817.8	1210.4	828.3	642.3	800.1	1074.6
49°	484.4	605.0	971.8	738.4	596.4	769.0	1149.2	780.5	602.6	755.6	1015.3
49.5°	461.0	568.1	916.3	695.8	559.1	723.6	1089.4	734.6	565.3	711.1	957.9
50°	439.0	532.8	862.3	652.8	524.1	679.1	1031.1	690.1	529.9	669.0	902.9
50.5°	420.8	501.2	812.0	612.6	491.6	637.0	974.2	646.6	496.4	627.9	850.3
51°	403.1	472.5	763.3	574.8	461.5	597.3	918.7	606.4	466.3	590.1	798.2
51.5°	386.4	448.6	716.4	539.4	438.1	559.1	863.7	568.1	441.9	553.3	750.3
52°	369.2	426.6	671.0	505.5	414.1	523.7	812.0	531.3	417.0	519.4	704.0
52.5°	352.9	407.5	628.9	473.4	390.7	489.7	759.4	496.9	392.6	485.9	659.5
53°	336.7	389.3	588.7	443.8	366.8	459.6	709.7	464.4	367.8	454.8	617.9
53.5°	323.8	372.5	550.9	416.1	343.4	435.2	662.4	439.0	343.4	429.5	577.7
54°	313.7	356.3	516.0	391.2	324.7	410.3	620.3	413.7	324.7	404.1	540.9
54.5°	307.5	340.5	483.0	368.2	310.9	385.5	577.2	388.3	310.4	378.8	506.4
55°	302.2	323.8	452.9	346.7	303.2	360.6	538.5	363.0	303.2	353.4	474.9
55.5°	297.0	310.4	424.7	326.6	297.5	336.2	501.2	337.6	297.0	332.4	445.2
56°	291.7	299.4	399.8	308.5	292.2	316.6	467.7	317.5	291.7	313.7	421.8
56.5°	286.9	293.2	376.4	295.1	286.9	300.3	440.9	300.8	286.5	299.4	398.4
57°	282.2	287.9	355.3	287.9	281.7	290.3	413.7	289.8	281.7	291.2	374.9
57.5°	276.9	282.6	336.2	282.6	276.9	284.1	386.9	283.6	276.4	285.5	351.5
58°	272.1	277.9	320.4	277.4	271.6	278.8	359.6	278.3	271.6	280.2	332.8
58.5°	267.3	272.6	306.1	272.1	266.9	274.0	332.8	273.5	266.4	275.5	317.1
59°	262.5	267.8	293.2	267.3	262.1	268.8	314.2	268.8	261.6	270.2	303.2
59.5°	257.8	263.0	282.2	262.1	257.3	264.0	298.4	263.5	256.8	265.4	290.8
60°	253.0	258.2	272.6	257.3	252.0	259.2	285.0	258.7	252.0	260.6	279.8
60.5°	247.7	253.5	263.5	252.5	247.2	253.9	274.0	253.9	247.2	255.4	270.2
61°	242.9	248.7	255.4	247.2	242.9	249.2	263.5	249.2	242.0	250.6	261.6
61.5°	238.2	243.9	248.2	242.9	238.2	244.4	254.9	244.4	237.2	245.8	253.5
62°	233.4	239.1	241.5	238.2	233.4	240.1	246.8	239.6	232.4	241.0	246.3
62.5°	228.1	234.3	235.3	232.9	228.6	235.3	239.6	234.8	227.6	236.2	240.1
63°	223.3	229.6	230.0	228.1	223.8	230.5	233.4	229.6	222.4	231.0	233.9
63.5°	218.6	224.3	224.8	223.3	219.5	225.7	227.2	224.8	218.1	226.2	228.6
64°	213.8	219.5	219.5	218.6	214.7	220.9	222.4	220.0	213.3	221.4	223.8
64.5°	208.5	214.7	214.7	213.8	210.4	216.2	217.1	215.2	208.5	216.6	218.6
65°	203.7	209.9	209.9	209.5	205.6	211.9	212.3	210.4	203.7	211.9	213.8
65.5°	198.9	204.7	204.7	204.7	201.3	207.1	207.6	205.6	198.9	207.1	209.0
66°	194.2	199.9	199.9	199.9	196.6	202.3	202.3	200.9	194.2	202.3	203.7



TEST NUMBER: P776743

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	179.8	185.6	185.6	186.0	183.2	188.4	187.9	186.5	180.3	187.9	189.4
68°	175.0	180.8	180.8	181.2	178.9	184.1	183.2	181.7	175.5	182.7	184.6
68.5°	170.3	176.0	176.0	176.5	174.6	179.3	178.9	177.4	170.7	178.4	179.8
69°	165.5	171.2	171.2	174.1	170.3	175.0	174.1	172.6	166.4	173.6	175.0
69.5°	161.2	166.4	166.4	169.3	165.9	170.3	168.8	167.9	161.6	168.8	170.3
70°	156.4	161.6	161.6	164.5	161.2	165.9	164.5	163.1	157.3	164.0	165.5
70.5°	151.6	156.9	156.9	159.3	156.9	161.6	159.7	158.8	152.6	159.3	160.7
71°	147.3	152.6	152.1	154.5	152.6	156.9	154.9	154.0	148.3	154.5	155.9
71.5°	142.5	147.3	147.8	150.2	148.3	152.6	150.2	149.2	143.5	149.7	151.1
72°	137.7	143.0	143.0	145.4	143.9	147.8	145.4	144.9	139.2	145.4	146.3
72.5°	132.9	137.7	138.2	141.1	139.6	143.5	141.1	140.1	134.4	140.6	141.6
73°	128.2	133.4	133.4	136.3	135.3	139.2	136.3	135.3	130.1	135.8	136.8
73.5°	123.4	128.6	128.6	132.0	131.0	134.9	131.5	131.0	125.8	131.0	132.0
74°	118.6	123.9	123.9	127.2	126.7	130.1	127.2	126.3	121.0	126.7	127.2
74.5°	114.3	119.1	119.1	122.9	122.4	125.8	122.4	121.9	116.7	121.9	122.9
75°	109.5	114.3	114.8	118.6	118.1	121.5	118.1	117.2	112.4	117.2	118.1
75.5°	104.7	109.5	110.0	114.3	113.8	117.2	113.3	112.9	107.6	112.9	113.3
76°	100.4	104.7	105.2	109.5	109.5	112.9	108.6	108.1	103.3	108.1	108.6
76.5°	95.6	100.0	100.4	105.2	105.2	108.6	104.3	103.3	99.0	103.3	104.3
77°	90.9	95.2	95.6	100.9	101.4	104.3	100.0	99.0	94.7	99.0	99.5
77.5°	86.1	90.4	91.3	96.1	97.1	100.0	95.2	94.2	90.4	94.2	94.7
78°	81.8	85.6	86.6	91.8	92.8	95.2	90.9	89.9	86.1	89.4	90.4
78.5°	77.0	81.3	81.8	87.5	88.5	90.9	86.1	85.1	81.3	85.1	85.6
79°	72.2	76.5	77.5	82.7	84.2	86.6	81.8	80.8	77.0	80.3	80.8
79.5°	67.4	71.7	72.7	78.4	79.9	82.3	77.5	76.0	73.2	75.6	76.5
80°	63.1	67.0	67.9	73.6	76.0	78.0	72.7	71.7	68.4	71.3	71.7
80.5°	58.3	62.2	63.6	69.3	71.7	73.6	68.4	67.0	64.1	66.5	67.4
81°	54.0	57.4	58.8	65.0	67.4	68.9	64.1	62.6	59.8	62.2	62.6
81.5°	49.3	52.6	54.5	60.7	63.1	64.6	59.8	57.9	55.5	57.4	58.3
82°	45.0	48.3	49.7	56.4	59.3	60.3	55.5	53.6	51.2	52.6	53.6
82.5°	40.2	43.5	45.4	52.1	55.0	56.4	51.2	48.8	46.9	48.3	49.3
83°	35.9	38.7	41.1	47.8	51.2	52.1	47.3	44.5	42.6	43.5	45.0
83.5°	31.1	34.0	37.3	43.5	46.9	47.8	43.5	40.2	38.3	39.2	41.1
84°	26.8	29.2	33.0	39.2	42.6	43.5	39.7	35.4	34.0	34.4	37.3
84.5°	22.0	24.9	29.2	35.4	38.7	39.7	35.4	31.1	29.7	30.1	33.5
85°	17.7	20.1	25.8	31.1	34.4	35.4	31.6	26.8	25.8	25.3	29.7
85.5°	14.8	17.2	22.0	26.8	30.6	31.6	27.7	23.0	21.5	21.5	25.8
86°	12.0	14.3	18.7	23.0	26.3	27.3	24.4	19.6	17.2	17.7	22.0
86.5°	9.6	11.0	15.3	18.7	22.5	23.0	20.6	16.3	13.9	14.8	18.7
87°	6.7	8.1	11.5	14.8	18.2	19.1	17.2	13.4	11.5	12.0	14.8
87.5°	4.3	5.3	8.1	11.0	14.3	15.3	13.9	10.5	9.1	9.6	11.5
88°	1.9	2.9	4.8	7.2	10.5	11.5	10.5	8.1	7.2	7.2	8.1
88.5°	0.5	1.0	1.9	3.3	6.7	7.2	7.2	5.7	4.8	4.3	4.3



TEST NUMBER: P776743
CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-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	0.5	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0



TEST NUMBER: P776743

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2890.4	2890.4	2890.4	2890.4	2890.4	2890.4
0.5°	2889.5	2888.5	2888.5	2889.5	2889.5	2890.4
1°	2888.5	2887.1	2886.6	2887.6	2887.6	2888.5
1.5°	2887.1	2885.2	2884.2	2884.7	2885.7	2886.6
2°	2885.7	2882.8	2881.8	2882.3	2883.3	2884.7
2.5°	2884.2	2880.9	2879.4	2879.4	2880.4	2882.3
3°	2882.3	2878.5	2876.1	2876.1	2877.5	2879.4
3.5°	2879.9	2876.1	2873.2	2873.2	2874.2	2876.6
4°	2877.5	2872.7	2869.9	2869.4	2870.3	2873.2
4.5°	2874.7	2869.4	2866.0	2865.6	2866.5	2869.4
5°	2871.8	2866.0	2861.7	2861.3	2862.7	2865.6
5.5°	2868.4	2861.7	2857.9	2856.5	2858.4	2861.7
6°	2865.1	2857.0	2853.6	2852.2	2853.6	2857.0
6.5°	2861.3	2852.7	2848.3	2847.4	2848.3	2852.7
7°	2857.0	2847.9	2843.1	2841.7	2843.1	2847.4
7.5°	2852.2	2842.6	2837.8	2835.9	2837.8	2842.1
8°	2847.4	2836.9	2832.1	2830.2	2831.6	2836.4
8.5°	2842.6	2831.1	2825.9	2824.0	2825.9	2830.2
9°	2836.9	2824.9	2819.2	2817.3	2819.2	2824.0
9.5°	2831.1	2818.2	2812.5	2810.6	2812.0	2817.7
10°	2825.4	2811.5	2805.3	2803.4	2805.3	2810.6
10.5°	2818.7	2804.4	2798.6	2796.2	2798.1	2803.4
11°	2812.0	2797.2	2790.5	2788.6	2790.0	2795.7
11.5°	2805.3	2789.5	2782.4	2780.4	2782.4	2787.6
12°	2798.1	2781.4	2774.7	2771.8	2773.7	2779.5
12.5°	2790.5	2773.3	2766.1	2763.2	2765.1	2770.9
13°	2782.4	2764.2	2757.0	2754.1	2755.6	2762.3
13.5°	2774.2	2755.1	2747.9	2745.0	2746.5	2753.2
14°	2766.1	2745.5	2738.4	2735.5	2736.9	2743.6
14.5°	2757.0	2736.0	2728.3	2725.9	2726.9	2733.6
15°	2747.4	2725.9	2718.3	2715.4	2716.4	2723.1
15.5°	2737.9	2715.4	2707.7	2704.9	2705.8	2712.5
16°	2727.8	2704.4	2696.7	2693.9	2694.4	2701.5
16.5°	2717.3	2693.4	2685.3	2682.9	2682.9	2690.1
17°	2706.8	2681.9	2673.8	2670.9	2671.4	2678.1
17.5°	2695.8	2670.4	2661.8	2659.0	2659.4	2666.1
18°	2684.8	2658.0	2649.4	2646.5	2646.5	2653.2
18.5°	2672.8	2645.6	2637.0	2633.6	2633.6	2640.8
19°	2660.9	2632.2	2623.6	2620.7	2620.2	2627.4
19.5°	2648.4	2618.8	2610.2	2607.3	2606.8	2613.5
20°	2635.5	2605.4	2596.3	2594.4	2593.0	2599.7
20.5°	2622.6	2591.1	2582.0	2580.1	2578.6	2585.3
21°	2608.8	2577.2	2567.6	2565.7	2563.8	2570.5



TEST NUMBER: P776743

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2566.2	2531.8	2522.2	2520.3	2517.4	2523.6
23°	2551.4	2515.5	2506.4	2504.5	2501.2	2507.4
23.5°	2536.1	2499.2	2489.7	2488.2	2484.9	2491.1
24°	2520.3	2482.5	2473.4	2471.5	2467.7	2474.4
24.5°	2504.5	2465.3	2456.7	2454.3	2450.5	2456.7
25°	2488.2	2447.6	2439.9	2437.5	2433.2	2439.0
25.5°	2471.5	2429.9	2421.3	2419.9	2415.5	2420.8
26°	2454.3	2412.2	2404.1	2402.2	2397.4	2402.6
26.5°	2437.1	2394.0	2385.9	2384.0	2378.7	2384.0
27°	2418.9	2375.4	2367.2	2365.8	2360.1	2364.9
27.5°	2400.7	2355.8	2348.6	2346.7	2340.9	2345.2
28°	2382.6	2336.6	2329.0	2327.1	2321.8	2325.6
28.5°	2364.4	2316.6	2309.4	2307.5	2301.7	2306.0
29°	2344.8	2296.9	2289.8	2287.9	2282.1	2285.9
29.5°	2325.6	2276.9	2269.7	2267.8	2262.0	2265.4
30°	2305.6	2256.3	2249.6	2247.2	2241.5	2244.8
30.5°	2285.5	2234.8	2228.6	2226.2	2220.9	2223.8
31°	2264.9	2213.3	2208.0	2205.1	2199.9	2202.7
31.5°	2245.3	2190.8	2186.0	2183.6	2178.3	2181.7
32°	2224.3	2169.7	2164.5	2162.1	2157.3	2161.1
32.5°	2203.2	2133.9	2143.0	2140.1	2135.8	2124.3
33°	2181.7	2095.6	2121.0	2118.6	2113.8	2086.0
33.5°	2159.7	2043.0	2097.0	2096.1	2091.3	2035.4
34°	2136.7	1988.5	2076.0	2073.6	2070.7	1980.8
34.5°	2115.2	1933.5	2036.8	2050.7	2045.9	1925.4
35°	2081.3	1879.0	1999.5	2027.7	2003.8	1872.3
35.5°	2043.5	1825.9	1945.9	2004.7	1964.6	1819.7
36°	1994.7	1772.8	1897.1	1981.8	1914.4	1766.6
36.5°	1940.7	1717.3	1844.1	1958.8	1861.3	1711.6
37°	1889.5	1659.5	1792.9	1934.9	1809.6	1652.8
37.5°	1835.9	1600.2	1740.8	1911.5	1759.9	1593.5
38°	1783.3	1538.5	1690.1	1888.1	1709.7	1533.7
38.5°	1731.2	1478.7	1637.9	1864.6	1658.0	1474.9
39°	1680.0	1420.8	1583.9	1841.2	1606.9	1417.0
39.5°	1623.1	1363.9	1527.0	1817.3	1552.3	1360.6
40°	1566.2	1308.9	1471.0	1793.4	1496.9	1304.6
40.5°	1507.4	1255.4	1415.1	1769.5	1440.9	1251.1
41°	1451.4	1200.8	1358.7	1746.0	1385.0	1196.1
41.5°	1393.1	1145.4	1303.7	1720.7	1331.4	1142.0
42°	1337.6	1090.4	1253.9	1683.9	1279.3	1087.0
42.5°	1284.1	1037.3	1203.2	1644.2	1229.1	1033.5
43°	1232.9	983.2	1151.1	1585.8	1177.4	979.4
43.5°	1178.4	933.0	1100.9	1528.4	1126.2	929.2

TEST NUMBER: P776743

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1022.9	788.1	946.9	1335.2	973.2	783.8
45.5°	969.4	741.3	900.0	1275.4	925.4	737.9
46°	919.2	697.3	851.7	1217.6	877.6	693.9
46.5°	869.9	654.7	806.3	1161.1	830.7	652.3
47°	822.6	614.5	760.4	1104.7	785.3	611.7
47.5°	776.2	577.2	717.3	1048.3	741.7	574.4
48°	731.2	542.8	674.3	992.3	697.7	540.4
48.5°	687.7	512.7	633.7	939.7	656.6	510.8
49°	645.6	485.9	595.9	888.6	617.4	484.4
49.5°	605.9	462.5	560.5	839.3	580.6	461.0
50°	567.7	441.9	526.1	791.0	544.2	439.0
50.5°	532.3	422.3	496.9	747.5	512.7	420.8
51°	500.7	404.6	469.6	705.4	484.0	403.1
51.5°	473.0	387.8	446.2	664.7	458.6	386.4
52°	448.6	371.6	425.1	626.5	435.7	369.2
52.5°	427.1	354.8	406.5	589.7	415.6	352.9
53°	409.4	338.6	389.3	554.7	396.9	336.7
53.5°	391.7	324.7	372.1	522.2	379.7	323.8
54°	374.0	314.2	355.8	491.1	363.0	313.7
54.5°	356.8	307.5	339.5	462.5	347.2	307.5
55°	340.5	302.2	323.8	436.1	330.9	302.2
55.5°	323.8	297.0	310.9	411.3	316.1	297.0
56°	309.9	292.2	300.8	388.8	304.2	291.7
56.5°	298.9	286.9	295.1	368.7	297.0	286.9
57°	292.2	282.2	289.8	349.6	291.2	282.2
57.5°	286.9	276.9	284.5	332.4	286.0	276.9
58°	282.2	272.1	279.8	317.1	281.2	272.1
58.5°	276.9	267.3	274.5	303.2	275.9	267.3
59°	272.1	262.5	269.7	291.7	271.2	262.5
59.5°	267.3	257.8	264.9	281.2	266.4	257.8
60°	262.5	253.0	260.2	271.6	261.1	253.0
60.5°	257.8	248.2	255.4	263.5	256.3	247.7
61°	253.0	243.4	250.6	255.9	251.5	242.9
61.5°	248.2	239.1	245.8	248.7	246.8	238.2
62°	243.4	234.3	241.0	242.5	241.5	233.4
62.5°	238.6	229.6	236.2	236.7	236.7	228.1
63°	233.9	225.2	231.5	231.9	231.9	223.3
63.5°	229.1	220.5	226.7	226.7	226.7	218.6
64°	224.3	215.7	221.9	221.9	221.9	213.8
64.5°	219.5	211.4	217.1	216.6	216.6	208.5
65°	215.2	206.6	212.3	211.9	211.9	203.7
65.5°	210.4	202.3	207.6	206.6	206.6	198.9
66°	205.6	197.5	202.8	201.8	201.8	194.2



TEST NUMBER: P776743

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	191.8	184.1	188.9	187.5	187.0	179.8
68°	187.0	179.3	184.1	182.7	181.7	175.0
68.5°	182.2	175.0	179.3	177.4	176.9	170.3
69°	177.4	170.7	175.0	171.7	174.6	165.5
69.5°	173.1	166.4	170.3	167.4	169.3	161.2
70°	168.3	162.1	165.9	162.6	164.0	156.4
70.5°	163.6	157.3	161.2	158.3	158.3	151.6
71°	159.3	153.0	156.4	154.0	153.0	147.3
71.5°	154.5	148.7	152.1	148.7	148.3	142.5
72°	150.2	144.4	147.3	143.9	143.5	137.7
72.5°	145.4	139.6	143.0	139.2	138.7	132.9
73°	140.6	135.3	138.2	134.4	133.4	128.2
73.5°	136.3	130.6	133.4	129.6	128.6	123.4
74°	131.5	126.3	128.6	124.8	123.9	118.6
74.5°	127.2	121.9	124.3	120.0	119.1	114.3
75°	122.4	117.6	119.6	115.3	114.3	109.5
75.5°	118.1	112.9	114.8	110.5	109.5	104.7
76°	113.3	108.6	110.5	105.7	104.3	100.4
76.5°	109.0	104.3	105.7	100.9	99.5	95.6
77°	104.3	100.0	101.4	96.1	94.7	90.9
77.5°	100.0	95.2	96.6	91.3	89.9	86.1
78°	95.2	90.9	91.8	86.6	85.1	81.8
78.5°	90.9	86.6	87.5	81.8	80.3	77.0
79°	86.1	81.8	82.7	77.0	75.6	72.2
79.5°	81.3	77.5	78.0	72.2	70.8	67.4
80°	77.0	73.2	73.2	67.9	65.5	63.1
80.5°	72.2	68.9	68.9	63.1	60.7	58.3
81°	67.9	64.6	64.1	58.8	56.0	54.0
81.5°	63.1	60.3	59.8	54.0	51.2	49.3
82°	58.8	55.5	55.0	49.7	46.4	45.0
82.5°	54.5	51.2	50.7	45.4	41.6	40.2
83°	50.2	46.9	46.4	41.1	36.8	35.9
83.5°	45.9	42.6	41.6	36.8	32.0	31.1
84°	41.1	38.3	37.3	33.0	27.7	26.8
84.5°	36.8	34.0	33.0	28.7	23.9	22.0
85°	32.5	29.7	28.7	24.9	20.1	17.7
85.5°	28.2	25.3	23.9	21.0	16.7	14.8
86°	23.9	21.0	19.6	17.2	13.9	12.0
86.5°	19.6	16.7	15.8	13.4	11.0	9.6
87°	15.8	12.9	12.0	9.6	7.7	6.7
87.5°	11.5	9.1	8.1	6.2	4.8	4.3
88°	7.7	4.8	4.3	2.4	1.9	1.9
88.5°	3.3	1.0	0.5	0.5	0.5	0.5



TEST NUMBER: P776743
CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.5	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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Scaled Data Report



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Scaled Data Report





21.5°	2554.7	2581.0	2615.0	2641.8	2668.5	2685.7	2693.4	2685.7	2670.4	2651.3	2626.0
22°	2539.4	2566.2	2601.1	2628.8	2656.1	2673.8	2681.9	2674.3	2658.0	2638.9	2612.6



44°	878.5	1074.6	1592.0	1231.4	1073.2	1286.9	1782.4	1301.3	1080.3	1252.5	1645.1
44.5°	830.7	1022.9	1532.3	1178.4	1020.1	1231.4	1728.8	1245.3	1027.2	1198.4	1583.9



66.5°	189.4	195.1	195.1	195.1	192.2	197.5	197.5	196.1	189.4	197.5	198.9
67°	184.6	190.3	190.3	190.8	187.9	193.2	192.7	191.3	184.6	192.7	194.2



89°	0.0	0.5	0.5	1.0	2.9	3.8	3.8	2.9	2.4	1.9	1.4
89.5°	0.0	0.0	0.5	0.5	0.5	1.0	1.4	1.0	0.5	0.5	0.5

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21.5°	2594.9	2562.4	2552.8	2550.9	2548.5	2554.7
22°	2581.0	2547.1	2537.5	2536.1	2533.7	2539.4



44°	1125.8	881.9	1048.8	1459.6	1075.1	878.5
44.5°	1073.6	835.0	998.1	1397.9	1024.4	830.7



66.5°	200.9	193.2	198.0	197.0	196.6	189.4
67°	196.1	188.4	193.7	192.2	191.8	184.6

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89°	1.0	0.0	0.5	0.5	0.5	0.0
89.5°	0.0	0.0	0.0	0.5	0.5	0.0

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Scaled Data Report



(END OF REPORT)