

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: P776744

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

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776744
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-5000K
Description: 6 INCH SQUARE MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5146.5 lumens
Efficiency: N/A
Efficacy: 107.2 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

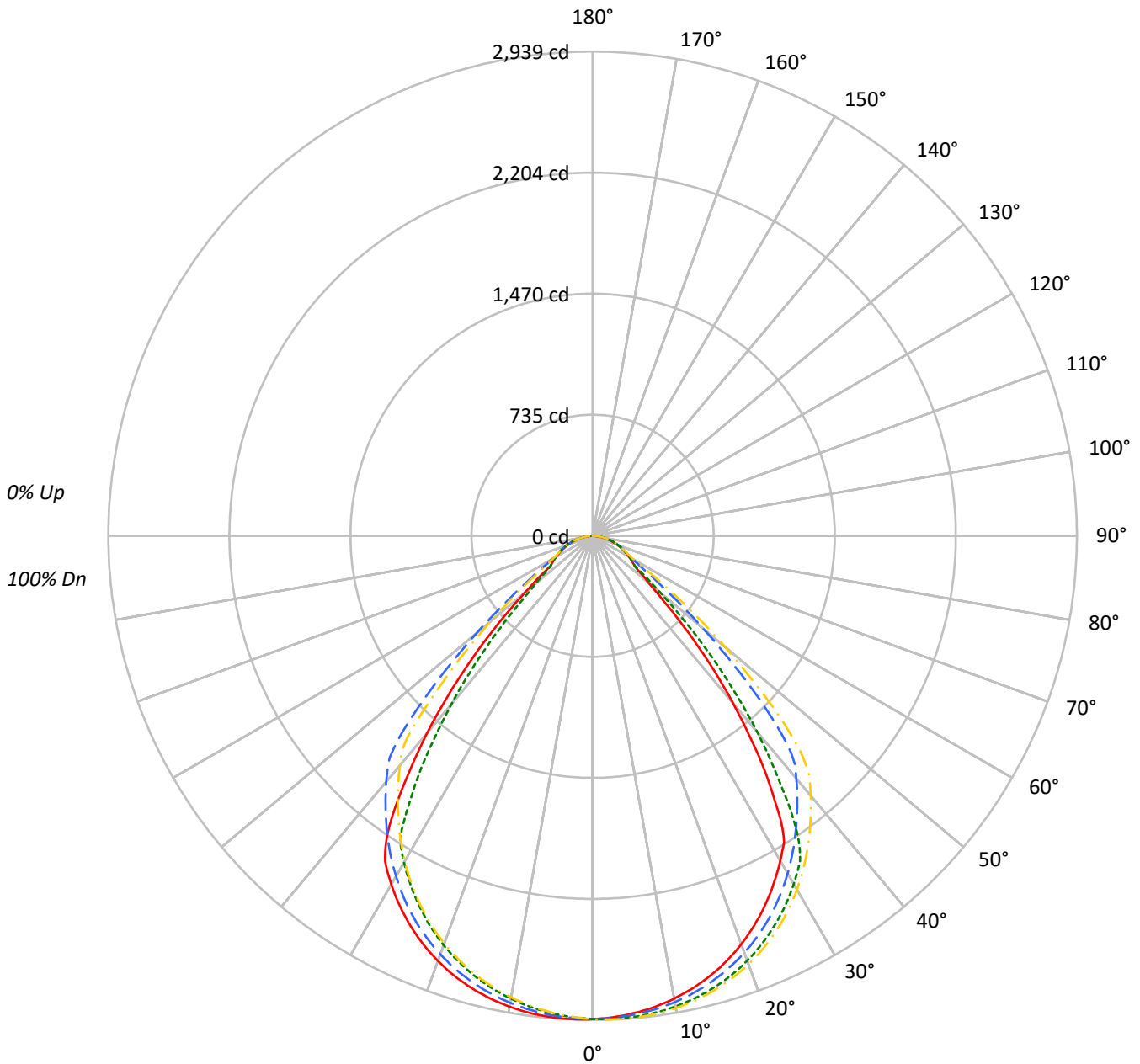
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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°	126291	126291	126291	126291
5°	125684	126670	126752	125706
10°	124698	126818	126906	124742
15°	123177	126596	126658	123306
20°	120879	125745	125814	121145
25°	117584	124087	124178	117997
30°	113259	121412	121507	113836
35°	99866	112623	112980	100224
40°	74410	87287	87804	74657
45°	48432	59812	60196	48700
50°	29841	35628	36017	30035
55°	23023	23098	23098	23023
60°	22105	22027	22027	22105
65°	21058	21262	21058	21364
70°	19978	20595	20104	20708
75°	18482	19946	18964	19863
80°	15893	19142	17208	18423
85°	8892	17241	12943	14870

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 103367 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.4	5.4
10°-20°	790.4	15.4
20°-30°	1173.7	22.8
30°-40°	1297.7	25.2
40°-50°	879.4	17.1
50°-60°	358.5	7.0
60°-70°	211.5	4.1
70°-80°	125.1	2.4
80°-90°	32.9	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°	2241.4	43.6
0°-40°	3539.1	68.8
0°-60°	4777.0	92.8
0°-90°	5146.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5146.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2933	2933	2933	2933	2933	
5°	2908	2931	2933	2908	2908	276
15°	2763	2840	2842	2766	2763	778
25°	2475	2612	2614	2484	2475	1138
35°	1900	2143	2150	1907	1900	1163
45°	795	982	989	800	795	628
55°	307	308	308	307	307	288
65°	207	209	207	210	207	205
75°	111	120	114	119	111	117
85°	18	35	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°	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2
0.5°	2933.2	2932.3	2932.3	2933.2	2933.7	2934.2	2935.2	2935.7	2935.7	2933.7	2932.3
1°	2931.3	2931.3	2931.3	2933.2	2934.7	2935.2	2936.6	2936.6	2936.1	2933.7	2932.3
1.5°	2929.3	2929.8	2930.8	2932.7	2935.2	2936.1	2937.6	2937.6	2936.6	2934.2	2931.3
2°	2927.4	2928.4	2929.8	2932.3	2935.2	2936.1	2938.1	2938.1	2937.1	2933.7	2930.8
2.5°	2925.0	2926.0	2928.4	2931.8	2935.2	2936.6	2938.6	2938.6	2937.1	2933.2	2929.3
3°	2922.1	2923.5	2926.4	2930.8	2934.7	2936.6	2938.6	2938.6	2936.6	2932.7	2927.9
3.5°	2919.2	2921.1	2924.5	2929.3	2934.2	2936.1	2938.6	2938.1	2936.1	2931.8	2926.4
4°	2915.8	2918.2	2922.6	2927.9	2933.2	2935.7	2938.1	2937.6	2935.2	2930.3	2924.5
4.5°	2911.9	2915.3	2920.1	2926.0	2932.3	2935.2	2937.1	2937.1	2934.2	2928.9	2922.6
5°	2908.0	2911.9	2917.2	2923.5	2930.8	2934.2	2936.1	2936.1	2932.7	2926.9	2920.1
5.5°	2904.1	2908.5	2914.3	2921.6	2928.9	2932.7	2935.2	2934.7	2931.3	2925.0	2917.2
6°	2899.3	2904.1	2910.9	2918.7	2926.9	2931.3	2933.7	2933.2	2929.3	2922.6	2914.3
6.5°	2894.9	2900.2	2907.0	2915.8	2925.0	2929.3	2931.8	2931.3	2926.9	2919.6	2910.9
7°	2889.6	2895.4	2903.1	2912.4	2922.6	2927.4	2929.8	2928.9	2924.5	2916.2	2907.0
7.5°	2884.2	2891.0	2899.3	2909.0	2919.2	2925.0	2927.4	2926.4	2921.6	2912.8	2903.1
8°	2878.4	2885.7	2894.9	2905.1	2916.2	2922.1	2925.0	2923.5	2918.2	2909.5	2899.3
8.5°	2872.1	2880.3	2890.0	2901.2	2912.8	2918.7	2922.1	2920.6	2914.8	2905.6	2894.4
9°	2865.8	2874.0	2884.7	2896.3	2909.0	2915.8	2918.7	2916.7	2910.9	2901.2	2889.6
9.5°	2859.5	2868.2	2879.4	2892.0	2905.1	2911.9	2915.3	2913.3	2907.0	2896.8	2884.2
10°	2852.2	2861.9	2874.0	2886.6	2900.7	2908.0	2911.4	2909.0	2902.7	2892.5	2878.9
10.5°	2844.9	2855.1	2867.7	2881.3	2896.3	2903.6	2907.0	2905.1	2897.8	2887.1	2873.1
11°	2837.1	2847.8	2861.9	2876.0	2891.0	2899.3	2902.7	2900.2	2893.0	2881.3	2867.2
11.5°	2828.9	2840.5	2855.1	2870.1	2885.7	2893.9	2897.8	2895.4	2887.6	2875.5	2860.9
12°	2820.6	2832.8	2848.3	2863.8	2880.3	2889.1	2893.0	2890.0	2882.3	2869.7	2854.1
12.5°	2811.9	2825.0	2841.0	2857.5	2874.5	2883.2	2887.1	2884.7	2876.0	2863.3	2847.3
13°	2803.2	2816.8	2833.3	2850.2	2868.2	2877.4	2881.3	2878.4	2870.1	2856.6	2840.1
13.5°	2793.9	2808.0	2825.5	2843.0	2861.4	2871.6	2875.5	2872.1	2863.3	2849.8	2832.3
14°	2784.2	2798.8	2817.7	2835.7	2854.6	2864.8	2869.2	2865.8	2856.6	2842.0	2824.5
14.5°	2774.0	2789.6	2809.0	2827.9	2847.3	2858.0	2862.4	2859.0	2849.3	2834.7	2815.8
15°	2763.4	2779.9	2800.3	2819.7	2840.1	2851.2	2855.6	2851.7	2841.5	2826.5	2807.5
15.5°	2752.7	2769.7	2790.6	2810.9	2832.3	2843.4	2848.3	2843.9	2833.7	2818.2	2798.8
16°	2741.5	2759.0	2781.3	2802.2	2824.0	2835.2	2840.5	2836.2	2825.0	2809.5	2789.1
16.5°	2729.9	2748.3	2771.6	2793.5	2815.3	2827.4	2832.8	2828.4	2816.8	2800.7	2779.9
17°	2717.8	2737.2	2761.9	2783.8	2806.1	2818.7	2824.5	2819.7	2807.5	2791.0	2769.7
17.5°	2705.6	2725.5	2751.2	2773.6	2797.3	2810.0	2815.8	2810.4	2798.3	2781.3	2759.5
18°	2692.5	2713.4	2740.1	2763.4	2787.2	2800.7	2807.1	2801.2	2788.6	2771.1	2748.8
18.5°	2679.9	2701.3	2728.4	2752.7	2777.4	2791.5	2797.3	2791.5	2778.4	2760.9	2738.1
19°	2666.3	2688.6	2717.3	2742.0	2766.8	2781.3	2787.6	2781.3	2767.7	2749.8	2726.0
19.5°	2652.2	2675.5	2705.1	2730.4	2755.6	2771.1	2777.9	2771.1	2757.1	2739.1	2714.8
20°	2638.2	2662.4	2693.0	2718.7	2744.4	2760.0	2767.3	2760.5	2745.9	2727.5	2703.2
20.5°	2623.6	2647.9	2680.4	2706.1	2733.3	2748.8	2756.6	2749.3	2734.3	2715.8	2690.6
21°	2608.6	2633.8	2667.3	2693.5	2720.7	2737.2	2745.4	2737.7	2722.6	2703.2	2678.0



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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°	2561.0	2588.7	2625.5	2654.2	2682.8	2700.8	2709.5	2701.3	2684.8	2665.3	2637.7
23°	2544.5	2573.1	2611.0	2640.1	2669.2	2687.7	2696.9	2688.6	2671.2	2650.8	2623.1
23.5°	2528.0	2557.1	2595.9	2625.5	2655.6	2674.6	2684.3	2675.5	2657.6	2636.7	2608.6
24°	2511.0	2541.1	2580.9	2611.0	2641.1	2661.0	2670.7	2661.9	2643.0	2622.6	2593.5
24.5°	2493.1	2524.1	2564.9	2595.9	2626.5	2646.9	2656.6	2647.9	2628.5	2608.1	2578.5
25°	2475.1	2507.1	2548.9	2580.4	2612.0	2632.3	2642.5	2633.3	2613.9	2593.0	2562.5
25.5°	2456.7	2489.2	2532.4	2564.4	2596.4	2617.8	2628.5	2618.7	2598.4	2577.5	2546.9
26°	2438.2	2471.7	2515.4	2548.4	2580.4	2602.2	2613.4	2603.2	2582.8	2561.5	2530.9
26.5°	2419.3	2453.7	2497.9	2531.9	2564.4	2586.7	2597.9	2587.7	2566.3	2545.5	2513.9
27°	2399.9	2435.3	2480.4	2515.4	2547.9	2570.7	2581.9	2571.7	2550.3	2529.0	2496.5
27.5°	2380.0	2415.4	2462.5	2498.4	2531.4	2554.7	2566.3	2555.7	2533.8	2512.5	2480.0
28°	2360.1	2396.5	2444.0	2480.9	2513.4	2537.7	2549.3	2538.7	2516.3	2494.5	2461.5
28.5°	2340.2	2377.1	2425.1	2462.5	2496.5	2520.7	2532.4	2522.2	2498.4	2477.5	2443.6
29°	2319.8	2357.7	2407.2	2444.5	2478.5	2503.2	2514.9	2504.2	2480.9	2459.1	2424.6
29.5°	2298.9	2337.3	2387.3	2426.1	2460.5	2485.8	2497.9	2486.7	2463.0	2442.1	2405.7
30°	2278.1	2317.9	2367.4	2407.2	2442.1	2467.3	2479.5	2468.8	2444.0	2422.2	2386.8
30.5°	2256.7	2297.0	2347.5	2388.2	2422.7	2449.4	2461.0	2450.8	2424.6	2403.8	2367.4
31°	2235.4	2276.1	2327.1	2368.8	2402.8	2430.9	2442.6	2431.4	2405.2	2383.9	2347.5
31.5°	2214.0	2254.8	2306.2	2348.9	2383.4	2412.0	2423.7	2412.5	2385.8	2364.4	2327.1
32°	2193.1	2233.4	2285.3	2329.0	2362.0	2392.1	2403.8	2393.6	2364.9	2345.0	2306.7
32.5°	2155.8	2211.6	2264.0	2308.6	2341.6	2372.7	2384.8	2373.7	2344.1	2324.6	2286.3
33°	2116.9	2189.7	2243.1	2287.8	2312.0	2352.3	2364.4	2353.3	2312.0	2303.8	2265.0
33.5°	2065.5	2168.4	2220.8	2266.4	2277.6	2331.9	2344.1	2332.9	2279.0	2283.9	2243.6
34°	2010.2	2147.5	2199.0	2244.1	2238.3	2310.1	2322.7	2312.0	2240.7	2261.6	2221.8
34.5°	1953.9	2111.6	2176.6	2222.7	2193.6	2288.7	2302.3	2288.7	2197.0	2238.3	2200.4
35°	1900.0	2072.8	2154.3	2191.2	2142.7	2264.5	2281.5	2263.5	2149.5	2208.7	2178.1
35.5°	1846.6	2024.7	2131.5	2157.2	2088.8	2227.6	2260.1	2227.6	2095.6	2175.2	2155.8
36°	1792.7	1970.9	2109.2	2119.8	2028.6	2194.6	2238.3	2195.6	2036.4	2139.7	2133.4
36.5°	1736.9	1918.0	2085.9	2076.2	1968.4	2151.9	2216.9	2154.8	1977.2	2097.5	2111.1
37°	1677.2	1865.1	2063.1	2028.6	1903.9	2104.3	2195.1	2109.7	1915.5	2050.9	2087.3
37.5°	1617.1	1812.2	2039.8	1977.2	1843.2	2052.9	2172.3	2061.1	1853.4	2001.9	2064.5
38°	1556.4	1758.8	2016.5	1920.9	1783.0	1998.0	2149.9	2007.7	1794.2	1947.1	2041.7
38.5°	1496.7	1705.4	1993.7	1862.6	1726.3	1940.3	2127.1	1951.4	1736.0	1890.3	2018.9
39°	1438.0	1650.1	1969.9	1805.4	1668.5	1880.6	2105.3	1892.7	1678.2	1832.1	1995.1
39.5°	1380.7	1592.8	1947.1	1747.6	1611.7	1819.0	2082.0	1834.0	1620.9	1773.8	1971.8
40°	1323.9	1532.6	1922.8	1689.4	1553.0	1760.2	2059.7	1775.3	1562.2	1716.1	1948.5
40.5°	1269.6	1473.9	1899.0	1634.5	1493.8	1703.4	2035.9	1718.5	1503.0	1659.8	1925.2
41°	1213.8	1417.1	1875.2	1580.2	1432.6	1648.1	2012.6	1661.7	1441.4	1604.9	1901.0
41.5°	1158.9	1360.3	1852.9	1525.8	1372.5	1592.3	1987.8	1606.4	1381.2	1551.1	1876.2
42°	1103.1	1305.0	1818.0	1472.4	1313.3	1536.5	1963.1	1551.1	1321.5	1496.7	1851.0
42.5°	1048.8	1253.1	1781.1	1417.6	1256.0	1480.2	1939.3	1495.2	1263.3	1440.9	1821.9
43°	993.9	1198.7	1730.6	1360.3	1200.2	1422.5	1896.1	1437.5	1207.0	1384.6	1771.9
43.5°	943.0	1145.3	1675.3	1305.5	1144.4	1364.7	1853.4	1378.8	1151.6	1327.3	1728.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	795.4	985.2	1490.9	1141.9	982.3	1194.8	1697.6	1208.4	988.6	1162.3	1543.8
45.5°	748.8	933.7	1428.8	1091.0	927.9	1141.0	1636.0	1152.6	936.2	1109.4	1478.7
46°	704.2	883.3	1363.2	1040.0	876.0	1087.6	1569.5	1099.2	883.8	1058.0	1412.7
46.5°	662.0	835.7	1297.7	989.1	826.0	1033.7	1501.6	1046.3	833.3	1007.5	1346.7
47°	620.7	787.2	1232.2	939.1	777.5	981.3	1432.2	993.4	785.2	957.0	1281.2
47.5°	582.9	742.0	1166.7	889.6	730.9	929.9	1361.8	941.5	738.6	907.5	1216.7
48°	548.4	697.9	1103.1	841.0	687.2	879.4	1294.8	891.5	694.5	860.0	1152.6
48.5°	518.3	655.2	1043.4	794.5	645.0	829.9	1228.3	840.6	651.8	811.9	1090.5
49°	491.6	613.9	986.2	749.3	605.2	780.4	1166.2	792.0	611.5	766.8	1030.3
49.5°	467.8	576.6	929.9	706.1	567.3	734.3	1105.5	745.4	573.6	721.7	972.1
50°	445.5	540.6	875.0	662.5	531.9	689.1	1046.3	700.3	537.7	679.0	916.3
50.5°	427.1	508.6	824.1	621.7	498.9	646.4	988.6	656.1	503.8	637.2	862.9
51°	409.1	479.5	774.6	583.3	468.3	606.2	932.3	615.4	473.2	598.9	810.0
51.5°	392.1	455.2	727.0	547.4	444.5	567.3	876.5	576.6	448.4	561.5	761.5
52°	374.7	432.9	680.9	513.0	420.3	531.4	824.1	539.2	423.2	527.1	714.4
52.5°	358.2	413.5	638.2	480.5	396.5	497.0	770.7	504.2	398.4	493.1	669.2
53°	341.7	395.0	597.4	450.4	372.2	466.4	720.2	471.2	373.2	461.5	627.0
53.5°	328.6	378.1	559.1	422.2	348.5	441.6	672.2	445.5	348.5	435.8	586.3
54°	318.4	361.6	523.7	397.0	329.5	416.4	629.5	419.8	329.5	410.1	548.9
54.5°	312.1	345.5	490.2	373.7	315.5	391.2	585.8	394.1	315.0	384.4	513.9
55°	306.7	328.6	459.6	351.9	307.7	365.9	546.5	368.4	307.7	358.6	481.9
55.5°	301.4	315.0	431.0	331.5	301.9	341.2	508.6	342.6	301.4	337.3	451.8
56°	296.0	303.8	405.7	313.0	296.5	321.3	474.6	322.2	296.0	318.4	428.0
56.5°	291.2	297.5	381.9	299.4	291.2	304.8	447.5	305.3	290.7	303.8	404.3
57°	286.3	292.2	360.6	292.2	285.8	294.6	419.8	294.1	285.8	295.6	380.5
57.5°	281.0	286.8	341.2	286.8	281.0	288.3	392.6	287.8	280.5	289.7	356.7
58°	276.1	282.0	325.2	281.5	275.7	282.9	365.0	282.5	275.7	284.4	337.8
58.5°	271.3	276.6	310.6	276.1	270.8	278.1	337.8	277.6	270.3	279.5	321.8
59°	266.4	271.8	297.5	271.3	266.0	272.7	318.9	272.7	265.5	274.2	307.7
59.5°	261.6	266.9	286.3	266.0	261.1	267.9	302.8	267.4	260.6	269.3	295.1
60°	256.7	262.1	276.6	261.1	255.8	263.0	289.2	262.6	255.8	264.5	283.9
60.5°	251.4	257.2	267.4	256.2	250.9	257.7	278.1	257.7	250.9	259.2	274.2
61°	246.5	252.4	259.2	250.9	246.5	252.8	267.4	252.8	245.6	254.3	265.5
61.5°	241.7	247.5	251.9	246.5	241.7	248.0	258.7	248.0	240.7	249.5	257.2
62°	236.8	242.7	245.1	241.7	236.8	243.6	250.4	243.1	235.9	244.6	249.9
62.5°	231.5	237.8	238.8	236.3	232.0	238.8	243.1	238.3	231.0	239.7	243.6
63°	226.6	233.0	233.4	231.5	227.1	233.9	236.8	233.0	225.7	234.4	237.3
63.5°	221.8	227.6	228.1	226.6	222.8	229.1	230.5	228.1	221.3	229.6	232.0
64°	216.9	222.8	222.8	221.8	217.9	224.2	225.7	223.2	216.4	224.7	227.1
64.5°	211.6	217.9	217.9	216.9	213.5	219.4	220.3	218.4	211.6	219.8	221.8
65°	206.7	213.1	213.1	212.6	208.7	215.0	215.5	213.5	206.7	215.0	216.9
65.5°	201.9	207.7	207.7	207.7	204.3	210.1	210.6	208.7	201.9	210.1	212.1
66°	197.0	202.9	202.9	202.9	199.5	205.3	205.3	203.8	197.0	205.3	206.7



TEST NUMBER: P776744

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	182.5	188.3	188.3	188.8	185.9	191.2	190.7	189.3	183.0	190.7	192.2
68°	177.6	183.4	183.4	183.9	181.5	186.8	185.9	184.4	178.1	185.4	187.3
68.5°	172.8	178.6	178.6	179.1	177.1	182.0	181.5	180.1	173.3	181.0	182.5
69°	167.9	173.7	173.7	176.7	172.8	177.6	176.7	175.2	168.9	176.2	177.6
69.5°	163.6	168.9	168.9	171.8	168.4	172.8	171.3	170.3	164.0	171.3	172.8
70°	158.7	164.0	164.0	166.9	163.6	168.4	166.9	165.5	159.7	166.5	167.9
70.5°	153.8	159.2	159.2	161.6	159.2	164.0	162.1	161.1	154.8	161.6	163.1
71°	149.5	154.8	154.3	156.8	154.8	159.2	157.2	156.3	150.4	156.8	158.2
71.5°	144.6	149.5	150.0	152.4	150.4	154.8	152.4	151.4	145.6	151.9	153.4
72°	139.8	145.1	145.1	147.5	146.1	150.0	147.5	147.0	141.2	147.5	148.5
72.5°	134.9	139.8	140.3	143.2	141.7	145.6	143.2	142.2	136.4	142.7	143.7
73°	130.1	135.4	135.4	138.3	137.3	141.2	138.3	137.3	132.0	137.8	138.8
73.5°	125.2	130.5	130.5	133.9	133.0	136.9	133.5	133.0	127.6	133.0	133.9
74°	120.4	125.7	125.7	129.1	128.6	132.0	129.1	128.1	122.8	128.6	129.1
74.5°	116.0	120.8	120.8	124.7	124.2	127.6	124.2	123.8	118.4	123.8	124.7
75°	111.1	116.0	116.5	120.4	119.9	123.3	119.9	118.9	114.0	118.9	119.9
75.5°	106.3	111.1	111.6	116.0	115.5	118.9	115.0	114.5	109.2	114.5	115.0
76°	101.9	106.3	106.8	111.1	111.1	114.5	110.2	109.7	104.8	109.7	110.2
76.5°	97.1	101.4	101.9	106.8	106.8	110.2	105.8	104.8	100.5	104.8	105.8
77°	92.2	96.6	97.1	102.4	102.9	105.8	101.4	100.5	96.1	100.5	100.9
77.5°	87.4	91.7	92.7	97.5	98.5	101.4	96.6	95.6	91.7	95.6	96.1
78°	83.0	86.9	87.8	93.2	94.2	96.6	92.2	91.2	87.4	90.8	91.7
78.5°	78.1	82.5	83.0	88.8	89.8	92.2	87.4	86.4	82.5	86.4	86.9
79°	73.3	77.7	78.6	84.0	85.4	87.8	83.0	82.0	78.1	81.5	82.0
79.5°	68.4	72.8	73.8	79.6	81.0	83.5	78.6	77.2	74.3	76.7	77.7
80°	64.1	67.9	68.9	74.7	77.2	79.1	73.8	72.8	69.4	72.3	72.8
80.5°	59.2	63.1	64.5	70.4	72.8	74.7	69.4	67.9	65.0	67.5	68.4
81°	54.8	58.2	59.7	66.0	68.4	69.9	65.0	63.6	60.7	63.1	63.6
81.5°	50.0	53.4	55.3	61.6	64.1	65.5	60.7	58.7	56.3	58.2	59.2
82°	45.6	49.0	50.5	57.3	60.2	61.1	56.3	54.4	51.9	53.4	54.4
82.5°	40.8	44.2	46.1	52.9	55.8	57.3	51.9	49.5	47.6	49.0	50.0
83°	36.4	39.3	41.7	48.5	51.9	52.9	48.0	45.1	43.2	44.2	45.6
83.5°	31.5	34.5	37.9	44.2	47.6	48.5	44.2	40.8	38.8	39.8	41.7
84°	27.2	29.6	33.5	39.8	43.2	44.2	40.3	35.9	34.5	34.9	37.9
84.5°	22.3	25.2	29.6	35.9	39.3	40.3	35.9	31.5	30.1	30.6	34.0
85°	18.0	20.4	26.2	31.5	34.9	35.9	32.0	27.2	26.2	25.7	30.1
85.5°	15.0	17.5	22.3	27.2	31.1	32.0	28.1	23.3	21.8	21.8	26.2
86°	12.1	14.6	18.9	23.3	26.7	27.7	24.8	19.9	17.5	18.0	22.3
86.5°	9.7	11.2	15.5	18.9	22.8	23.3	20.9	16.5	14.1	15.0	18.9
87°	6.8	8.3	11.6	15.0	18.4	19.4	17.5	13.6	11.6	12.1	15.0
87.5°	4.4	5.3	8.3	11.2	14.6	15.5	14.1	10.7	9.2	9.7	11.6
88°	1.9	2.9	4.9	7.3	10.7	11.6	10.7	8.3	7.3	7.3	8.3
88.5°	0.5	1.0	1.9	3.4	6.8	7.3	7.3	5.8	4.9	4.4	4.4



TEST NUMBER: P776744

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



TEST NUMBER: P776744

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2933.2	2933.2	2933.2	2933.2	2933.2	2933.2
0.5°	2932.3	2931.3	2931.3	2932.3	2932.3	2933.2
1°	2931.3	2929.8	2929.3	2930.3	2930.3	2931.3
1.5°	2929.8	2927.9	2926.9	2927.4	2928.4	2929.3
2°	2928.4	2925.5	2924.5	2925.0	2926.0	2927.4
2.5°	2926.9	2923.5	2922.1	2922.1	2923.0	2925.0
3°	2925.0	2921.1	2918.7	2918.7	2920.1	2922.1
3.5°	2922.6	2918.7	2915.8	2915.8	2916.7	2919.2
4°	2920.1	2915.3	2912.4	2911.9	2912.8	2915.8
4.5°	2917.2	2911.9	2908.5	2908.0	2909.0	2911.9
5°	2914.3	2908.5	2904.1	2903.6	2905.1	2908.0
5.5°	2910.9	2904.1	2900.2	2898.8	2900.7	2904.1
6°	2907.5	2899.3	2895.9	2894.4	2895.9	2899.3
6.5°	2903.6	2894.9	2890.5	2889.6	2890.5	2894.9
7°	2899.3	2890.0	2885.2	2883.7	2885.2	2889.6
7.5°	2894.4	2884.7	2879.8	2877.9	2879.8	2884.2
8°	2889.6	2878.9	2874.0	2872.1	2873.5	2878.4
8.5°	2884.7	2873.1	2867.7	2865.8	2867.7	2872.1
9°	2878.9	2866.7	2860.9	2859.0	2860.9	2865.8
9.5°	2873.1	2860.0	2854.1	2852.2	2853.6	2859.5
10°	2867.2	2853.2	2846.8	2844.9	2846.8	2852.2
10.5°	2860.4	2845.9	2840.1	2837.6	2839.6	2844.9
11°	2853.6	2838.6	2831.8	2829.9	2831.3	2837.1
11.5°	2846.8	2830.8	2823.6	2821.6	2823.6	2828.9
12°	2839.6	2822.6	2815.8	2812.9	2814.8	2820.6
12.5°	2831.8	2814.3	2807.1	2804.1	2806.1	2811.9
13°	2823.6	2805.1	2797.8	2794.9	2796.4	2803.2
13.5°	2815.3	2795.9	2788.6	2785.7	2787.2	2793.9
14°	2807.1	2786.2	2778.9	2776.0	2777.4	2784.2
14.5°	2797.8	2776.5	2768.7	2766.3	2767.3	2774.0
15°	2788.1	2766.3	2758.5	2755.6	2756.6	2763.4
15.5°	2778.4	2755.6	2747.8	2744.9	2745.9	2752.7
16°	2768.2	2744.4	2736.7	2733.8	2734.3	2741.5
16.5°	2757.5	2733.3	2725.0	2722.6	2722.6	2729.9
17°	2746.9	2721.6	2713.4	2710.5	2711.0	2717.8
17.5°	2735.7	2710.0	2701.3	2698.3	2698.8	2705.6
18°	2724.5	2697.4	2688.6	2685.7	2685.7	2692.5
18.5°	2712.4	2684.8	2676.0	2672.6	2672.6	2679.9
19°	2700.3	2671.2	2662.4	2659.5	2659.0	2666.3
19.5°	2687.7	2657.6	2648.8	2645.9	2645.4	2652.2
20°	2674.6	2644.0	2634.8	2632.8	2631.4	2638.2
20.5°	2661.5	2629.4	2620.2	2618.3	2616.8	2623.6
21°	2647.4	2615.4	2605.6	2603.7	2601.8	2608.6

TEST NUMBER: P776744

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2604.2	2569.2	2559.5	2557.6	2554.7	2561.0
23°	2589.1	2552.7	2543.5	2541.6	2538.2	2544.5
23.5°	2573.6	2536.2	2526.5	2525.1	2521.7	2528.0
24°	2557.6	2519.3	2510.0	2508.1	2504.2	2511.0
24.5°	2541.6	2501.8	2493.1	2490.6	2486.7	2493.1
25°	2525.1	2483.8	2476.1	2473.6	2469.3	2475.1
25.5°	2508.1	2465.9	2457.1	2455.7	2451.3	2456.7
26°	2490.6	2447.9	2439.7	2437.7	2432.9	2438.2
26.5°	2473.2	2429.5	2421.2	2419.3	2413.9	2419.3
27°	2454.7	2410.6	2402.3	2400.8	2395.0	2399.9
27.5°	2436.3	2390.7	2383.4	2381.4	2375.6	2380.0
28°	2417.8	2371.2	2363.5	2361.5	2356.2	2360.1
28.5°	2399.4	2350.9	2343.6	2341.6	2335.8	2340.2
29°	2379.5	2331.0	2323.7	2321.7	2315.9	2319.8
29.5°	2360.1	2310.6	2303.3	2301.4	2295.5	2298.9
30°	2339.7	2289.7	2282.9	2280.5	2274.7	2278.1
30.5°	2319.3	2267.9	2261.6	2259.1	2253.8	2256.7
31°	2298.4	2246.0	2240.7	2237.8	2232.4	2235.4
31.5°	2278.5	2223.2	2218.4	2215.9	2210.6	2214.0
32°	2257.2	2201.9	2196.5	2194.1	2189.2	2193.1
32.5°	2235.8	2165.5	2174.7	2171.8	2167.4	2155.8
33°	2214.0	2126.6	2152.4	2149.9	2145.1	2116.9
33.5°	2191.7	2073.3	2128.1	2127.1	2122.3	2065.5
34°	2168.4	2017.9	2106.7	2104.3	2101.4	2010.2
34.5°	2146.5	1962.1	2066.9	2081.0	2076.2	1953.9
35°	2112.1	1906.8	2029.1	2057.7	2033.5	1900.0
35.5°	2073.7	1852.9	1974.7	2034.4	1993.7	1846.6
36°	2024.2	1799.1	1925.2	2011.1	1942.7	1792.7
36.5°	1969.4	1742.8	1871.4	1987.8	1888.8	1736.9
37°	1917.5	1684.0	1819.4	1963.6	1836.4	1677.2
37.5°	1863.1	1623.9	1766.5	1939.8	1786.0	1617.1
38°	1809.7	1561.3	1715.1	1916.0	1735.0	1556.4
38.5°	1756.8	1500.6	1662.2	1892.2	1682.6	1496.7
39°	1704.9	1441.9	1607.4	1868.5	1630.7	1438.0
39.5°	1647.2	1384.1	1549.6	1844.2	1575.3	1380.7
40°	1589.4	1328.3	1492.8	1819.9	1519.0	1323.9
40.5°	1529.7	1273.9	1436.0	1795.7	1462.2	1269.6
41°	1472.9	1218.6	1378.8	1771.9	1405.5	1213.8
41.5°	1413.7	1162.3	1323.0	1746.2	1351.1	1158.9
42°	1357.4	1106.5	1272.5	1708.8	1298.2	1103.1
42.5°	1303.1	1052.6	1221.0	1668.5	1247.3	1048.8
43°	1251.1	997.8	1168.1	1609.3	1194.8	993.9
43.5°	1195.8	946.8	1117.2	1551.1	1142.9	943.0

TEST NUMBER: P776744

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1038.1	799.8	960.9	1355.0	987.6	795.4
45.5°	983.7	752.2	913.4	1294.3	939.1	748.8
46°	932.8	707.6	864.3	1235.6	890.5	704.2
46.5°	882.8	664.4	818.2	1178.3	843.0	662.0
47°	834.7	623.6	771.6	1121.1	796.9	620.7
47.5°	787.7	585.8	728.0	1063.8	752.7	582.9
48°	742.0	550.8	684.3	1007.0	708.1	548.4
48.5°	697.9	520.3	643.0	953.6	666.3	518.3
49°	655.2	493.1	604.7	901.7	626.5	491.6
49.5°	614.9	469.3	568.8	851.7	589.2	467.8
50°	576.1	448.4	533.8	802.7	552.3	445.5
50.5°	540.2	428.5	504.2	758.5	520.3	427.1
51°	508.1	410.6	476.6	715.8	491.1	409.1
51.5°	480.0	393.6	452.8	674.6	465.4	392.1
52°	455.2	377.1	431.4	635.8	442.1	374.7
52.5°	433.4	360.1	412.5	598.4	421.7	358.2
53°	415.4	343.6	395.0	563.0	402.8	341.7
53.5°	397.5	329.5	377.6	530.0	385.3	328.6
54°	379.5	318.9	361.1	498.4	368.4	318.4
54.5°	362.0	312.1	344.6	469.3	352.3	312.1
55°	345.5	306.7	328.6	442.6	335.8	306.7
55.5°	328.6	301.4	315.5	417.4	320.8	301.4
56°	314.5	296.5	305.3	394.6	308.7	296.0
56.5°	303.3	291.2	299.4	374.2	301.4	291.2
57°	296.5	286.3	294.1	354.8	295.6	286.3
57.5°	291.2	281.0	288.8	337.3	290.2	281.0
58°	286.3	276.1	283.9	321.8	285.4	276.1
58.5°	281.0	271.3	278.6	307.7	280.0	271.3
59°	276.1	266.4	273.7	296.0	275.2	266.4
59.5°	271.3	261.6	268.9	285.4	270.3	261.6
60°	266.4	256.7	264.0	275.7	265.0	256.7
60.5°	261.6	251.9	259.2	267.4	260.1	251.4
61°	256.7	247.0	254.3	259.6	255.3	246.5
61.5°	251.9	242.7	249.5	252.4	250.4	241.7
62°	247.0	237.8	244.6	246.1	245.1	236.8
62.5°	242.2	233.0	239.7	240.2	240.2	231.5
63°	237.3	228.6	234.9	235.4	235.4	226.6
63.5°	232.5	223.7	230.0	230.0	230.0	221.8
64°	227.6	218.9	225.2	225.2	225.2	216.9
64.5°	222.8	214.5	220.3	219.8	219.8	211.6
65°	218.4	209.7	215.5	215.0	215.0	206.7
65.5°	213.5	205.3	210.6	209.7	209.7	201.9
66°	208.7	200.4	205.8	204.8	204.8	197.0



TEST NUMBER: P776744

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	194.6	186.8	191.7	190.2	189.8	182.5
68°	189.8	182.0	186.8	185.4	184.4	177.6
68.5°	184.9	177.6	182.0	180.1	179.6	172.8
69°	180.1	173.3	177.6	174.2	177.1	167.9
69.5°	175.7	168.9	172.8	169.9	171.8	163.6
70°	170.8	164.5	168.4	165.0	166.5	158.7
70.5°	166.0	159.7	163.6	160.6	160.6	153.8
71°	161.6	155.3	158.7	156.3	155.3	149.5
71.5°	156.8	150.9	154.3	150.9	150.4	144.6
72°	152.4	146.6	149.5	146.1	145.6	139.8
72.5°	147.5	141.7	145.1	141.2	140.7	134.9
73°	142.7	137.3	140.3	136.4	135.4	130.1
73.5°	138.3	132.5	135.4	131.5	130.5	125.2
74°	133.5	128.1	130.5	126.7	125.7	120.4
74.5°	129.1	123.8	126.2	121.8	120.8	116.0
75°	124.2	119.4	121.3	117.0	116.0	111.1
75.5°	119.9	114.5	116.5	112.1	111.1	106.3
76°	115.0	110.2	112.1	107.3	105.8	101.9
76.5°	110.7	105.8	107.3	102.4	100.9	97.1
77°	105.8	101.4	102.9	97.5	96.1	92.2
77.5°	101.4	96.6	98.0	92.7	91.2	87.4
78°	96.6	92.2	93.2	87.8	86.4	83.0
78.5°	92.2	87.8	88.8	83.0	81.5	78.1
79°	87.4	83.0	84.0	78.1	76.7	73.3
79.5°	82.5	78.6	79.1	73.3	71.8	68.4
80°	78.1	74.3	74.3	68.9	66.5	64.1
80.5°	73.3	69.9	69.9	64.1	61.6	59.2
81°	68.9	65.5	65.0	59.7	56.8	54.8
81.5°	64.1	61.1	60.7	54.8	51.9	50.0
82°	59.7	56.3	55.8	50.5	47.1	45.6
82.5°	55.3	51.9	51.4	46.1	42.2	40.8
83°	51.0	47.6	47.1	41.7	37.4	36.4
83.5°	46.6	43.2	42.2	37.4	32.5	31.5
84°	41.7	38.8	37.9	33.5	28.1	27.2
84.5°	37.4	34.5	33.5	29.1	24.3	22.3
85°	33.0	30.1	29.1	25.2	20.4	18.0
85.5°	28.6	25.7	24.3	21.4	17.0	15.0
86°	24.3	21.4	19.9	17.5	14.1	12.1
86.5°	19.9	17.0	16.0	13.6	11.2	9.7
87°	16.0	13.1	12.1	9.7	7.8	6.8
87.5°	11.6	9.2	8.3	6.3	4.9	4.4
88°	7.8	4.9	4.4	2.4	1.9	1.9
88.5°	3.4	1.0	0.5	0.5	0.5	0.5



TEST NUMBER: P776744

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

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
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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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Scaled Data Report





21.5°	2592.5	2619.2	2653.7	2680.9	2708.0	2725.5	2733.3	2725.5	2710.0	2690.6	2664.9
22°	2577.0	2604.2	2639.6	2667.8	2695.4	2713.4	2721.6	2713.9	2697.4	2678.0	2651.3



44°	891.5	1090.5	1615.6	1249.7	1089.0	1306.0	1808.8	1320.5	1096.3	1271.0	1669.5
44.5°	843.0	1038.1	1554.9	1195.8	1035.2	1249.7	1754.4	1263.8	1042.5	1216.2	1607.4



66.5°	192.2	198.0	198.0	198.0	195.1	200.4	200.4	199.0	192.2	200.4	201.9
67°	187.3	193.2	193.2	193.6	190.7	196.1	195.6	194.1	187.3	195.6	197.0



89°	0.0	0.5	0.5	1.0	2.9	3.9	3.9	2.9	2.4	1.9	1.5
89.5°	0.0	0.0	0.5	0.5	0.5	1.0	1.5	1.0	0.5	0.5	0.5

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21.5°	2633.3	2600.3	2590.6	2588.7	2586.2	2592.5
22°	2619.2	2584.8	2575.1	2573.6	2571.2	2577.0



44°	1142.4	894.9	1064.3	1481.2	1091.0	891.5
44.5°	1089.5	847.4	1012.8	1418.6	1039.5	843.0



66.5°	203.8	196.1	200.9	199.9	199.5	192.2
67°	199.0	191.2	196.6	195.1	194.6	187.3

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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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(END OF REPORT)