

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: P776681

Luminaire Tested: HCDJBS4050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B061)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K
Description: 6 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5297.7 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.09 / 1.15
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

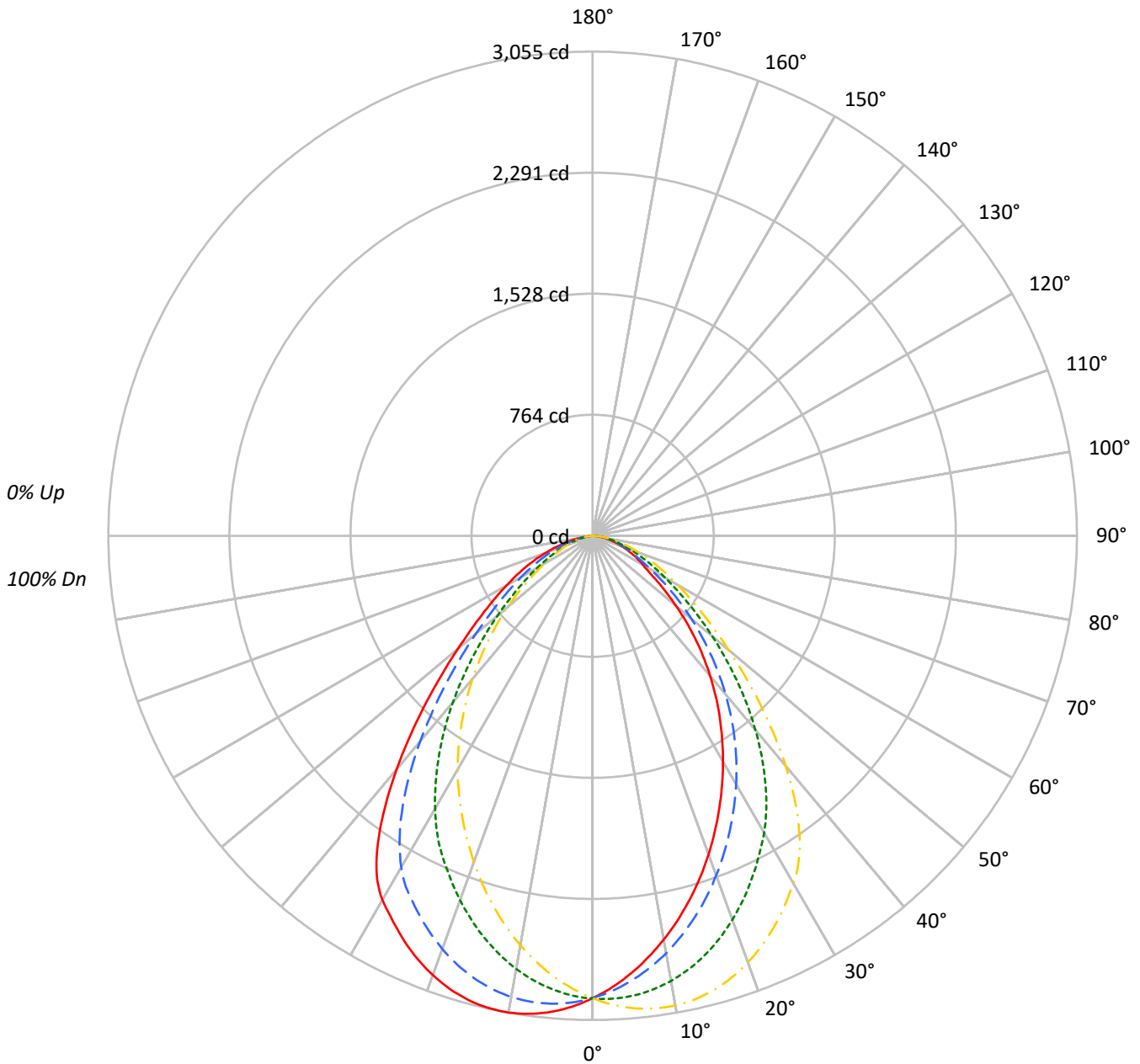
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	77					77			
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67					67			
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60					60			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53					53			
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	55	49	45	54	49	45	43					43			
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	40	35	58	46	39	35	45	39	35	44	39	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	159960	159960	159960	159960
5°	152542	160312	165942	158138
10°	143985	158753	170031	154484
15°	134672	155398	172061	149223
20°	124739	150385	172069	142684
25°	114466	144033	170369	135322
30°	104086	136939	167912	125855
35°	93498	127114	157898	113060
40°	82490	114314	137586	98120
45°	70713	99421	114834	81915
50°	58488	83929	94709	66693
55°	47157	69627	79710	53953
60°	40095	57769	68876	43856
65°	36398	48643	60214	35620
70°	32313	40808	50938	28450
75°	28340	34440	40455	22346
80°	23456	29770	27276	16732
85°	14593	28619	9624	9372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 117283 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.7	5.2
10°-20°	756.7	14.3
20°-30°	1071.7	20.2
30°-40°	1141.8	21.6
40°-50°	916.4	17.3
50°-60°	594.9	11.2
60°-70°	345.0	6.5
70°-80°	162.2	3.1
80°-90°	35.4	0.7
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°	2102.0	39.7
0°-40°	3243.8	61.2
0°-60°	4755.1	89.8
0°-90°	5297.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5297.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2918	2918	2918	2918	2918	
5°	2772	2913	3016	2874	2772	259
15°	2373	2738	3032	2629	2373	665
25°	1892	2381	2817	2237	1892	869
35°	1397	1899	2359	1689	1397	872
45°	912	1282	1481	1057	912	703
55°	493	728	834	564	493	449
65°	281	375	464	275	281	279
75°	134	163	191	106	134	143
85°	23	46	15	15	23	31
90°	0	7	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°	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9
0.5°	2905.8	2905.8	2909.1	2914.2	2922.5	2925.3	2928.1	2929.5	2930.9	2927.2	2923.9
1°	2892.8	2894.7	2901.2	2910.4	2923.5	2930.9	2937.4	2941.1	2942.0	2937.4	2930.4
1.5°	2879.3	2883.0	2891.9	2906.3	2923.9	2936.5	2946.2	2951.8	2953.2	2946.7	2936.5
2°	2865.4	2870.5	2883.0	2901.2	2924.4	2941.1	2954.6	2962.0	2963.4	2955.5	2942.0
2.5°	2850.5	2857.5	2873.3	2895.6	2923.5	2944.8	2962.5	2971.8	2973.6	2963.9	2947.2
3°	2835.6	2844.5	2863.1	2890.0	2922.5	2948.5	2969.5	2981.1	2982.9	2971.8	2951.3
3.5°	2820.8	2830.5	2852.4	2883.5	2921.1	2951.3	2976.0	2989.9	2992.2	2978.7	2955.5
4°	2805.0	2816.6	2841.2	2876.5	2919.3	2954.1	2982.0	2998.3	3000.1	2985.7	2958.3
4.5°	2788.7	2802.2	2829.6	2869.1	2916.5	2956.0	2987.6	3005.7	3008.0	2991.8	2961.6
5°	2772.0	2786.9	2817.5	2860.7	2913.2	2956.9	2992.7	3013.1	3015.5	2997.3	2963.4
5.5°	2755.3	2771.5	2805.0	2852.8	2909.5	2957.8	2996.9	3019.6	3022.0	3002.4	2965.3
6°	2737.6	2755.7	2792.4	2843.5	2905.3	2957.8	3000.6	3025.2	3028.0	3006.6	2966.2
6.5°	2719.9	2739.5	2779.0	2834.2	2900.2	2957.4	3003.8	3030.3	3033.6	3010.8	2966.7
7°	2701.8	2722.7	2765.0	2824.0	2895.1	2956.4	3006.2	3035.0	3038.2	3013.6	2966.7
7.5°	2683.7	2705.5	2751.1	2813.3	2889.1	2955.1	3008.0	3039.2	3042.4	3016.4	2966.2
8°	2665.1	2688.4	2736.2	2802.7	2882.6	2952.7	3009.4	3042.4	3046.1	3018.2	2965.3
8.5°	2645.6	2670.7	2720.9	2791.5	2875.6	2949.9	3010.3	3045.7	3048.9	3019.6	2963.4
9°	2626.6	2652.1	2705.5	2779.4	2868.2	2946.7	3010.3	3047.5	3051.7	3020.6	2961.1
9.5°	2606.6	2633.5	2689.7	2766.9	2860.3	2943.0	3009.9	3049.4	3053.1	3021.0	2958.3
10°	2586.6	2615.4	2673.5	2753.9	2851.9	2938.3	3008.9	3050.3	3054.5	3020.6	2955.1
10.5°	2566.2	2596.8	2656.8	2740.9	2842.6	2933.7	3007.6	3050.8	3054.9	3019.2	2950.9
11°	2546.2	2577.3	2639.6	2726.9	2833.3	2928.1	3005.2	3050.3	3054.9	3017.8	2946.2
11.5°	2524.8	2557.3	2621.9	2713.0	2822.6	2922.1	3002.4	3049.4	3054.0	3015.5	2940.6
12°	2503.9	2537.8	2604.3	2698.1	2812.4	2915.1	2999.2	3048.0	3052.6	3012.7	2935.1
12.5°	2482.5	2516.9	2586.1	2682.8	2801.7	2908.1	2995.0	3045.7	3050.8	3009.4	2929.0
13°	2461.1	2497.4	2568.0	2667.4	2790.1	2900.2	2990.4	3042.9	3048.0	3005.2	2922.1
13.5°	2438.8	2476.5	2549.0	2652.1	2777.6	2891.9	2984.8	3039.6	3044.7	3001.1	2914.6
14°	2417.5	2455.6	2529.9	2635.9	2765.0	2883.0	2979.2	3035.4	3041.0	2995.9	2906.7
14.5°	2394.7	2433.7	2510.9	2618.7	2752.0	2873.3	2972.7	3030.8	3036.8	2989.9	2898.4
15°	2372.9	2412.8	2490.9	2601.9	2738.1	2863.1	2965.7	3025.7	3031.7	2983.4	2889.5
15.5°	2349.2	2390.5	2470.4	2583.8	2724.6	2852.8	2958.3	3019.6	3025.7	2976.4	2879.8
16°	2326.9	2368.7	2450.9	2566.6	2709.7	2841.7	2949.9	3013.1	3019.6	2969.0	2870.0
16.5°	2304.1	2346.4	2430.5	2548.0	2694.9	2830.1	2941.1	3006.2	3012.7	2961.1	2859.8
17°	2280.9	2324.5	2409.6	2529.5	2679.1	2818.0	2931.8	2998.3	3005.2	2952.7	2849.1
17.5°	2257.2	2301.8	2388.2	2510.4	2663.7	2805.4	2922.1	2990.4	2997.3	2943.4	2837.5
18°	2233.9	2279.5	2367.3	2491.4	2647.0	2791.5	2911.4	2981.1	2989.0	2934.1	2825.4
18.5°	2209.8	2256.2	2345.5	2471.4	2630.3	2778.0	2900.2	2971.8	2979.7	2923.9	2812.9
19°	2186.6	2233.5	2324.1	2451.4	2613.1	2764.1	2889.1	2962.0	2969.9	2913.2	2800.3
19.5°	2162.4	2209.8	2301.8	2431.4	2595.9	2749.7	2877.0	2951.8	2959.7	2902.1	2787.3
20°	2138.2	2187.0	2279.9	2411.4	2577.8	2734.8	2864.4	2940.6	2949.5	2890.9	2773.8
20.5°	2113.6	2163.3	2257.6	2390.1	2559.7	2719.0	2851.4	2929.0	2937.9	2878.9	2759.4
21°	2089.9	2139.6	2234.9	2369.6	2540.6	2703.2	2838.0	2917.4	2926.2	2865.8	2745.0



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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°	2016.0	2068.1	2166.1	2305.0	2483.9	2653.0	2795.7	2878.9	2888.6	2826.3	2699.5
23°	1991.4	2043.4	2142.9	2283.2	2463.5	2635.4	2780.4	2865.4	2875.1	2811.9	2683.2
23.5°	1967.2	2019.8	2120.1	2260.9	2443.5	2618.2	2764.6	2850.5	2861.2	2797.5	2667.0
24°	1942.6	1995.1	2096.4	2239.1	2422.6	2599.1	2748.8	2836.1	2846.8	2782.2	2650.3
24.5°	1917.5	1971.0	2072.7	2216.3	2402.1	2581.0	2732.5	2820.8	2831.9	2766.9	2633.1
25°	1892.4	1946.8	2049.5	2193.5	2381.2	2562.4	2715.3	2805.9	2816.6	2751.1	2614.9
25.5°	1867.8	1921.7	2025.8	2170.3	2360.3	2542.9	2698.6	2789.6	2801.3	2734.8	2597.8
26°	1843.2	1897.6	2001.6	2148.0	2338.5	2523.9	2681.4	2773.4	2785.0	2718.1	2580.1
26.5°	1818.6	1872.9	1978.4	2125.7	2317.6	2504.4	2663.3	2756.2	2768.3	2701.4	2562.4
27°	1793.5	1849.2	1954.7	2102.5	2295.3	2484.4	2644.7	2739.9	2751.5	2684.2	2545.7
27.5°	1768.4	1824.6	1931.0	2079.2	2273.9	2463.9	2626.6	2721.8	2734.8	2668.4	2528.1
28°	1743.3	1799.1	1906.8	2056.5	2251.6	2443.5	2608.0	2704.6	2718.1	2652.1	2509.0
28.5°	1719.1	1774.4	1883.1	2033.7	2230.2	2423.0	2588.9	2687.0	2702.3	2636.3	2487.6
29°	1694.0	1750.3	1859.0	2010.0	2207.9	2402.6	2569.9	2669.8	2687.0	2618.7	2464.4
29.5°	1669.0	1725.6	1834.8	1986.3	2186.1	2383.1	2551.8	2653.0	2670.2	2599.1	2440.2
30°	1644.3	1701.0	1810.7	1963.1	2163.3	2361.7	2533.6	2636.3	2652.6	2577.3	2414.7
30.5°	1619.7	1676.4	1786.0	1938.9	2140.1	2340.3	2513.7	2618.2	2633.5	2553.1	2387.7
31°	1594.6	1651.8	1761.9	1913.3	2115.9	2317.6	2493.7	2599.1	2612.2	2527.6	2358.5
31.5°	1570.0	1627.6	1736.8	1889.2	2090.8	2293.9	2471.4	2576.8	2588.5	2500.6	2328.7
32°	1544.9	1602.0	1712.2	1863.6	2065.7	2268.3	2447.2	2553.6	2562.9	2471.4	2298.5
32.5°	1520.3	1577.4	1687.5	1838.1	2039.3	2241.4	2421.2	2528.5	2534.6	2440.2	2266.5
33°	1496.1	1552.8	1662.0	1812.5	2011.9	2214.0	2395.2	2501.6	2503.9	2406.8	2233.0
33.5°	1471.5	1528.2	1637.4	1786.0	1984.9	2186.1	2366.4	2471.4	2470.4	2371.5	2198.6
34°	1446.9	1503.1	1611.8	1759.6	1956.6	2157.3	2337.1	2439.3	2434.7	2335.7	2164.3
34.5°	1422.2	1478.9	1586.7	1732.1	1928.2	2128.0	2306.0	2404.9	2398.4	2298.1	2127.1
35°	1397.1	1453.8	1561.2	1705.2	1899.4	2096.9	2273.0	2368.7	2359.4	2259.5	2090.4
35.5°	1373.4	1429.2	1535.6	1677.8	1870.1	2066.2	2239.1	2331.5	2319.4	2219.1	2052.7
36°	1349.3	1404.6	1510.1	1650.4	1840.9	2034.6	2204.2	2293.0	2278.5	2178.2	2014.2
36.5°	1324.7	1380.0	1484.5	1622.5	1811.1	2002.6	2168.0	2252.5	2235.8	2137.3	1975.1
37°	1299.6	1354.4	1458.5	1595.1	1781.4	1969.6	2131.3	2211.2	2192.1	2094.6	1934.7
37.5°	1275.4	1329.8	1432.9	1567.7	1751.2	1935.7	2092.7	2169.4	2148.5	2051.3	1894.3
38°	1250.8	1305.1	1406.4	1539.8	1720.1	1903.6	2054.1	2127.5	2103.8	2007.2	1853.9
38.5°	1226.2	1280.5	1381.3	1511.9	1690.3	1867.8	2015.1	2084.3	2059.2	1964.5	1813.5
39°	1202.0	1255.4	1355.8	1484.5	1659.2	1833.4	1975.6	2040.7	2013.2	1919.4	1772.6
39.5°	1177.4	1231.3	1329.8	1456.2	1628.5	1798.1	1934.7	1996.1	1968.2	1875.7	1732.1
40°	1152.7	1206.6	1303.3	1428.3	1597.4	1763.7	1893.8	1951.4	1922.6	1831.1	1689.9
40.5°	1128.6	1182.0	1278.2	1400.4	1565.3	1725.6	1853.4	1906.8	1877.1	1787.9	1649.0
41°	1104.0	1157.4	1252.2	1372.5	1534.2	1690.3	1812.5	1862.2	1831.6	1742.4	1608.1
41.5°	1079.8	1133.7	1226.6	1344.6	1502.6	1654.1	1771.6	1816.7	1785.6	1699.6	1567.7
42°	1055.2	1109.1	1201.1	1316.3	1471.5	1619.2	1729.4	1772.1	1741.0	1654.6	1526.3
42.5°	1031.5	1085.4	1176.0	1288.9	1439.9	1581.1	1688.5	1728.4	1696.8	1612.3	1487.3
43°	1007.3	1061.2	1150.4	1260.1	1407.8	1545.4	1647.6	1684.8	1652.2	1568.6	1446.9
43.5°	983.2	1037.1	1125.3	1234.1	1376.2	1508.2	1607.2	1641.5	1608.6	1526.8	1407.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	912.1	965.5	1050.1	1150.9	1282.4	1400.4	1486.4	1512.8	1481.2	1403.2	1293.1
45.5°	888.4	942.3	1025.4	1125.3	1250.8	1364.2	1446.9	1472.9	1439.9	1363.7	1256.4
46°	865.6	919.0	1001.3	1098.4	1220.6	1328.8	1408.3	1432.0	1399.9	1324.2	1220.1
46.5°	842.4	895.8	976.7	1071.4	1189.5	1294.5	1370.2	1393.4	1360.0	1286.1	1184.3
47°	819.1	873.0	952.5	1044.0	1158.8	1260.1	1331.2	1353.0	1321.4	1248.9	1149.5
47.5°	796.4	849.8	928.8	1018.9	1128.6	1225.2	1294.5	1315.8	1283.8	1212.2	1116.0
48°	773.6	827.0	905.1	992.9	1099.3	1191.8	1258.7	1278.7	1247.5	1176.9	1082.6
48.5°	751.3	804.7	881.4	967.8	1069.6	1159.3	1222.9	1243.4	1212.2	1142.5	1050.5
49°	729.5	782.4	858.6	941.3	1040.8	1127.2	1188.5	1206.6	1176.9	1109.5	1018.5
49.5°	707.6	760.6	835.4	916.7	1012.0	1094.2	1154.6	1173.2	1143.9	1076.5	988.3
50°	685.8	738.3	812.2	891.6	984.1	1063.1	1121.2	1139.3	1110.5	1045.0	958.5
50.5°	664.9	716.0	789.9	867.0	955.3	1032.4	1088.2	1107.2	1078.4	1013.8	929.7
51°	644.0	695.1	767.6	842.8	928.3	1002.2	1057.5	1075.2	1047.3	984.1	901.4
51.5°	623.5	674.2	745.3	818.2	902.8	972.9	1027.3	1044.5	1018.0	955.7	874.4
52°	603.6	653.7	723.9	794.5	875.8	943.7	996.6	1014.8	988.7	928.3	848.4
52.5°	584.0	632.8	702.1	771.3	849.3	914.9	967.8	986.9	960.9	901.4	822.4
53°	565.0	612.8	681.1	748.1	824.3	887.9	939.5	958.1	933.9	874.9	797.8
53.5°	545.9	592.9	659.3	725.8	799.2	861.0	912.5	931.1	907.0	850.3	774.1
54°	528.3	574.3	639.3	703.5	775.5	834.9	886.1	904.6	881.9	826.1	750.4
54.5°	510.6	555.7	619.8	681.6	751.3	809.4	859.6	879.1	857.2	802.4	728.1
55°	493.4	537.1	599.8	660.2	728.5	784.8	835.4	854.5	834.0	780.1	706.2
55.5°	476.7	519.5	580.3	639.8	705.8	761.1	810.3	830.3	810.3	757.3	685.3
56°	461.4	501.8	561.7	618.9	683.5	737.8	786.6	806.6	787.5	736.9	664.9
56.5°	446.0	484.6	542.7	599.4	662.1	715.1	763.4	783.4	765.7	715.5	644.4
57°	431.6	468.8	524.1	579.9	640.7	693.2	740.6	761.5	744.8	695.6	625.4
57.5°	417.7	452.6	505.5	560.3	620.7	671.4	719.2	739.7	723.9	675.6	606.3
58°	405.6	437.2	488.8	542.2	600.8	651.4	697.9	719.2	703.9	657.0	588.7
58.5°	393.5	421.9	471.6	524.1	581.7	631.4	677.4	698.8	684.4	637.9	570.6
59°	382.9	408.4	454.9	506.9	563.1	611.5	657.5	678.8	664.9	619.4	552.9
59.5°	373.1	394.9	438.6	489.3	544.5	591.9	637.0	659.3	646.3	601.7	536.2
60°	365.7	382.4	423.7	472.5	526.9	573.4	618.0	640.3	628.2	585.0	519.9
60.5°	357.8	370.3	408.4	456.7	509.7	555.2	599.8	621.7	610.5	566.8	503.7
61°	349.4	360.6	394.0	440.9	493.0	537.6	581.7	603.6	592.4	550.1	487.9
61.5°	341.0	351.3	380.5	425.1	476.7	520.4	564.1	585.9	575.7	534.3	472.1
62°	332.2	343.8	367.5	410.7	460.9	504.1	546.4	568.7	559.4	518.5	457.2
62.5°	323.4	335.5	354.5	395.9	445.1	487.4	529.2	551.5	542.7	502.3	441.9
63°	314.6	327.1	342.9	381.9	430.2	471.1	512.5	534.8	526.0	486.5	427.5
63.5°	306.2	318.7	330.8	368.0	415.4	456.3	496.2	518.1	510.2	471.1	413.1
64°	297.4	310.4	319.7	355.4	401.9	440.9	480.4	502.3	494.8	456.7	399.6
64.5°	289.0	301.5	309.0	342.4	388.4	426.5	464.6	486.9	479.0	441.4	386.1
65°	280.6	293.6	299.2	329.9	375.0	411.7	449.8	471.6	464.2	427.5	372.6
65.5°	272.3	285.7	289.5	317.8	361.5	398.2	434.9	456.3	448.8	412.6	359.2
66°	263.9	277.4	280.2	306.2	347.5	384.7	420.0	440.9	433.5	398.7	345.7



TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	239.7	253.2	255.1	272.7	311.3	343.8	378.7	398.2	389.4	357.3	308.1
68°	232.3	245.3	247.6	263.0	299.2	331.3	365.2	384.2	375.0	343.4	295.5
68.5°	224.4	237.4	240.2	252.8	287.6	318.7	351.3	370.3	360.6	329.4	283.9
69°	217.0	230.0	233.2	243.0	276.5	306.2	338.3	356.4	345.7	315.9	272.3
69.5°	209.1	222.6	226.3	233.7	265.3	294.6	324.8	342.0	331.7	302.9	260.7
70°	201.6	215.1	219.3	224.9	254.6	282.5	312.2	329.0	317.8	289.5	249.0
70.5°	194.2	207.7	212.3	216.1	244.4	271.3	300.2	315.5	304.3	276.9	238.4
71°	187.2	200.3	205.4	207.7	234.2	260.2	288.1	302.9	290.9	264.8	227.7
71.5°	180.3	193.3	198.9	199.3	224.4	249.5	276.0	289.5	277.4	252.3	216.5
72°	173.3	186.3	191.9	191.9	214.7	238.8	264.4	277.4	264.4	240.2	206.3
72.5°	167.7	179.3	185.4	184.0	205.4	228.1	252.8	264.8	251.8	228.1	196.1
73°	160.8	172.4	178.9	177.0	196.5	218.4	241.6	252.8	239.3	216.5	185.9
73.5°	154.3	167.7	172.4	170.1	187.7	208.2	230.5	241.1	226.3	205.4	176.1
74°	147.3	161.2	168.7	163.6	179.3	198.9	219.8	229.5	214.7	194.2	166.3
74.5°	140.3	154.3	161.7	157.0	171.0	189.1	209.5	217.9	202.6	183.1	157.0
75°	133.8	147.3	155.2	151.0	162.6	179.8	199.3	206.8	191.0	172.4	147.8
75.5°	127.8	140.3	148.7	144.5	154.7	171.0	189.1	196.1	179.3	162.2	138.9
76°	121.3	133.8	141.7	138.5	147.3	162.6	178.9	185.4	167.7	151.9	130.1
76.5°	115.2	127.8	135.7	132.4	139.9	153.8	169.1	174.7	157.0	142.2	121.3
77°	109.2	121.3	129.6	126.8	132.9	145.4	159.8	164.5	146.4	132.4	113.4
77.5°	103.1	115.2	124.1	121.3	125.5	137.5	150.5	154.7	135.7	123.1	105.0
78°	97.1	109.2	118.0	116.2	118.9	129.6	141.7	145.4	125.5	113.8	97.6
78.5°	91.5	103.1	112.4	110.6	112.4	122.2	132.9	135.7	115.2	105.0	89.7
79°	85.5	97.6	106.9	105.5	106.4	114.8	124.5	126.4	105.5	96.6	82.2
79.5°	79.9	91.5	101.3	100.4	99.9	107.8	116.2	118.0	95.7	88.3	75.3
80°	74.3	86.0	95.7	95.2	94.3	100.8	108.3	109.2	86.4	79.9	68.3
80.5°	69.2	80.4	90.1	90.6	88.7	94.3	100.4	100.8	77.6	72.5	61.8
81°	63.7	74.8	85.0	85.5	83.2	87.8	92.9	92.5	68.8	65.0	55.3
81.5°	58.1	69.2	79.5	80.4	78.1	81.3	85.5	84.1	60.4	57.6	49.3
82°	53.0	64.1	74.3	75.7	72.9	75.3	78.1	75.7	52.5	51.1	44.1
82.5°	47.9	58.5	69.2	70.6	67.8	69.2	71.1	67.8	46.0	45.1	38.6
83°	42.7	53.4	64.1	66.0	63.2	64.1	64.6	60.4	39.5	39.0	33.5
83.5°	38.1	48.3	59.0	61.3	58.5	58.5	58.5	53.4	33.0	33.0	28.3
84°	33.0	43.2	54.4	56.7	53.9	53.0	52.0	46.9	26.5	26.9	22.8
84.5°	27.9	38.1	49.7	52.5	49.7	48.3	46.9	40.4	20.0	20.9	19.0
85°	23.2	33.0	45.1	47.9	45.5	43.7	41.8	34.4	15.3	16.3	14.9
85.5°	18.6	28.3	40.4	43.2	41.4	39.0	36.2	27.9	12.1	12.1	11.6
86°	15.8	23.7	36.2	39.0	37.2	34.8	31.1	21.8	9.3	8.8	8.4
86.5°	13.0	20.0	31.6	34.4	33.5	30.2	25.6	17.2	7.4	6.0	5.6
87°	10.2	16.7	27.4	30.2	29.3	25.6	21.4	13.5	5.6	3.7	3.3
87.5°	7.0	13.9	23.2	26.0	25.6	21.8	17.2	9.8	4.2	1.9	1.4
88°	5.1	10.7	19.0	21.8	21.8	17.7	13.5	6.5	2.8	0.9	0.5
88.5°	2.8	7.9	15.8	17.7	17.7	14.4	9.8	4.2	1.4	0.5	0.0



TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.5	4.6	6.5	7.0	4.6	1.9	0.5	0.0	0.0	0.0



TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2917.9	2917.9	2917.9	2917.9	2917.9	2917.9
0.5°	2920.2	2918.3	2912.3	2908.1	2905.3	2905.8
1°	2922.5	2915.6	2904.9	2897.0	2892.3	2892.8
1.5°	2924.4	2912.3	2897.0	2885.4	2878.9	2879.3
2°	2925.3	2908.1	2888.6	2873.7	2864.9	2865.4
2.5°	2926.2	2903.9	2879.8	2861.2	2851.0	2850.5
3°	2926.2	2898.8	2870.5	2848.7	2836.1	2835.6
3.5°	2925.3	2893.3	2860.7	2835.2	2820.8	2820.8
4°	2924.4	2887.2	2850.0	2821.7	2805.4	2805.0
4.5°	2923.0	2880.7	2839.4	2807.3	2789.6	2788.7
5°	2920.7	2873.7	2827.7	2792.9	2772.9	2772.0
5.5°	2917.9	2866.3	2816.1	2777.6	2755.7	2755.3
6°	2914.6	2857.9	2804.0	2762.2	2739.0	2737.6
6.5°	2910.9	2849.6	2791.0	2746.0	2721.3	2719.9
7°	2906.7	2840.3	2778.0	2729.7	2703.2	2701.8
7.5°	2901.6	2830.5	2764.1	2713.0	2684.6	2683.7
8°	2896.0	2820.3	2749.7	2695.8	2666.1	2665.1
8.5°	2890.0	2809.6	2735.3	2678.1	2647.0	2645.6
9°	2884.0	2798.5	2719.9	2660.5	2628.0	2626.6
9.5°	2877.0	2786.9	2704.6	2641.9	2607.5	2606.6
10°	2869.6	2775.2	2688.8	2623.3	2588.0	2586.6
10.5°	2861.2	2762.2	2672.6	2604.3	2567.5	2566.2
11°	2852.8	2749.2	2655.4	2584.7	2547.1	2546.2
11.5°	2843.5	2735.7	2638.2	2565.2	2526.2	2524.8
12°	2833.8	2721.8	2621.0	2545.2	2504.8	2503.9
12.5°	2824.0	2707.9	2602.9	2524.8	2483.5	2482.5
13°	2813.3	2692.5	2584.7	2503.9	2461.6	2461.1
13.5°	2802.7	2677.2	2566.2	2483.0	2440.2	2438.8
14°	2790.6	2661.9	2547.1	2462.1	2417.9	2417.5
14.5°	2778.5	2646.1	2528.1	2440.7	2395.6	2394.7
15°	2765.9	2629.3	2508.5	2418.9	2372.9	2372.9
15.5°	2752.9	2612.6	2488.6	2397.0	2349.6	2349.2
16°	2739.9	2595.4	2467.7	2374.7	2326.9	2326.9
16.5°	2725.5	2577.8	2447.2	2352.4	2304.1	2304.1
17°	2711.6	2560.1	2426.3	2329.7	2280.4	2280.9
17.5°	2696.7	2542.0	2405.4	2306.9	2257.2	2257.2
18°	2681.4	2522.9	2384.0	2284.1	2233.0	2233.9
18.5°	2666.1	2504.4	2362.2	2260.4	2209.8	2209.8
19°	2650.3	2484.8	2340.8	2237.2	2185.6	2186.6
19.5°	2634.5	2465.8	2318.5	2214.0	2161.5	2162.4
20°	2617.3	2445.8	2296.7	2190.3	2137.3	2138.2
20.5°	2600.5	2425.8	2274.4	2166.6	2112.7	2113.6
21°	2582.9	2405.4	2251.6	2141.9	2088.5	2089.9

TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2529.0	2342.7	2182.8	2070.4	2014.6	2016.0
23°	2510.4	2321.8	2160.1	2045.8	1990.0	1991.4
23.5°	2491.4	2300.4	2136.8	2021.6	1965.4	1967.2
24°	2472.3	2279.5	2114.1	1997.9	1940.3	1942.6
24.5°	2452.8	2258.1	2091.3	1973.8	1915.7	1917.5
25°	2433.7	2237.2	2068.5	1948.2	1891.0	1892.4
25.5°	2414.7	2215.4	2044.4	1925.4	1866.4	1867.8
26°	2395.6	2194.0	2021.6	1899.9	1841.8	1843.2
26.5°	2376.1	2171.7	1998.4	1876.6	1816.7	1818.6
27°	2355.7	2147.5	1974.2	1852.0	1791.6	1793.5
27.5°	2333.4	2121.5	1948.7	1827.9	1767.0	1768.4
28°	2309.2	2096.4	1923.1	1802.3	1742.4	1743.3
28.5°	2284.1	2069.5	1897.1	1778.1	1717.7	1719.1
29°	2258.6	2043.4	1871.1	1753.1	1692.7	1694.0
29.5°	2232.1	2016.0	1845.0	1728.0	1668.0	1669.0
30°	2203.7	1988.2	1818.1	1701.0	1643.9	1644.3
30.5°	2175.4	1959.8	1791.2	1676.9	1619.2	1619.7
31°	2146.1	1931.5	1763.3	1650.4	1593.7	1594.6
31.5°	2116.4	1902.2	1735.4	1624.3	1569.1	1570.0
32°	2085.3	1872.5	1707.5	1597.4	1544.0	1544.9
32.5°	2054.1	1842.3	1679.6	1572.3	1518.9	1520.3
33°	2022.5	1812.5	1651.3	1545.8	1494.3	1496.1
33.5°	1990.5	1781.9	1622.5	1519.3	1469.2	1471.5
34°	1957.0	1751.7	1594.6	1492.9	1444.1	1446.9
34.5°	1923.1	1719.1	1565.3	1466.4	1418.5	1422.2
35°	1889.7	1689.4	1537.5	1439.9	1393.4	1397.1
35.5°	1855.7	1657.3	1508.2	1413.4	1368.8	1373.4
36°	1821.4	1626.2	1480.8	1386.9	1343.7	1349.3
36.5°	1785.6	1594.6	1452.0	1360.9	1318.6	1324.7
37°	1749.3	1563.0	1424.1	1334.4	1293.5	1299.6
37.5°	1713.6	1531.4	1394.8	1308.9	1268.9	1275.4
38°	1677.3	1498.9	1367.4	1281.9	1243.4	1250.8
38.5°	1641.1	1466.8	1338.6	1255.9	1218.7	1226.2
39°	1604.4	1435.2	1310.3	1230.3	1193.6	1202.0
39.5°	1567.7	1403.6	1281.5	1204.3	1169.0	1177.4
40°	1531.0	1371.1	1253.1	1177.4	1144.4	1152.7
40.5°	1494.3	1339.1	1224.3	1150.9	1119.8	1128.6
41°	1458.0	1307.0	1195.5	1124.9	1095.6	1104.0
41.5°	1420.8	1275.4	1167.2	1099.3	1071.0	1079.8
42°	1385.1	1243.8	1139.7	1074.2	1046.8	1055.2
42.5°	1348.8	1212.2	1111.9	1049.6	1023.1	1031.5
43°	1313.0	1180.6	1084.4	1024.5	999.4	1007.3
43.5°	1277.3	1149.0	1057.5	999.9	975.7	983.2



TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1174.6	1056.6	978.0	926.9	904.2	912.1
45.5°	1141.1	1026.8	951.6	903.2	880.5	888.4
46°	1108.6	998.0	926.5	880.0	857.7	865.6
46.5°	1075.6	968.8	900.9	856.3	834.5	842.4
47°	1043.1	940.9	875.8	833.5	812.2	819.1
47.5°	1012.4	912.5	850.7	810.8	790.3	796.4
48°	982.2	885.1	825.6	787.5	768.5	773.6
48.5°	952.5	858.6	801.0	765.2	746.2	751.3
49°	923.7	832.2	777.8	743.4	725.3	729.5
49.5°	894.9	807.5	754.6	721.1	704.4	707.6
50°	867.9	782.0	731.3	699.7	683.0	685.8
50.5°	840.5	757.3	708.1	678.4	662.1	664.9
51°	814.0	733.7	685.8	657.0	642.6	644.0
51.5°	789.4	710.9	664.4	636.1	622.6	623.5
52°	765.2	688.1	643.5	616.6	603.1	603.6
52.5°	740.6	665.8	622.6	596.6	583.6	584.0
53°	717.4	644.4	602.2	576.6	564.5	565.0
53.5°	694.6	623.5	582.2	557.1	545.5	545.9
54°	672.8	603.1	562.7	538.0	526.9	528.3
54.5°	650.9	583.6	544.1	519.5	508.8	510.6
55°	631.0	564.5	526.0	501.3	491.6	493.4
55.5°	610.5	545.9	507.4	483.7	473.9	476.7
56°	591.0	527.8	490.2	466.5	457.7	461.4
56.5°	572.0	510.2	473.0	449.8	440.9	446.0
57°	553.8	493.0	456.3	433.5	425.1	431.6
57.5°	535.7	476.2	440.5	417.7	410.3	417.7
58°	518.5	460.0	424.7	402.8	395.9	405.6
58.5°	501.3	444.7	409.8	388.0	382.4	393.5
59°	484.6	429.3	394.9	374.0	369.4	382.9
59.5°	468.8	414.5	381.0	360.6	357.3	373.1
60°	453.0	400.0	367.1	347.1	346.1	365.7
60.5°	438.1	385.6	353.1	334.5	335.5	357.8
61°	423.7	372.2	340.6	322.5	325.2	349.4
61.5°	408.9	358.7	327.6	310.8	316.4	341.0
62°	395.4	346.1	315.5	300.2	308.5	332.2
62.5°	381.5	333.1	303.9	289.5	300.6	323.4
63°	368.0	320.6	291.8	278.8	292.7	314.6
63.5°	354.0	308.5	280.6	269.0	284.8	306.2
64°	342.0	296.9	270.0	259.7	276.9	297.4
64.5°	329.4	285.7	259.7	250.9	269.0	289.0
65°	316.9	274.6	249.5	242.1	261.6	280.6
65.5°	304.8	263.4	239.3	233.7	254.2	272.3
66°	293.2	252.8	230.0	225.8	246.3	263.9

TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	259.3	222.6	203.0	204.4	224.4	239.7
68°	248.1	213.3	194.7	197.9	217.0	232.3
68.5°	237.9	204.0	186.8	191.9	209.5	224.4
69°	227.7	195.1	178.9	185.4	202.6	217.0
69.5°	217.4	186.3	171.4	179.3	195.1	209.1
70°	207.7	177.5	164.9	173.3	188.6	201.6
70.5°	197.9	169.6	158.0	166.8	181.7	194.2
71°	189.1	162.2	151.5	160.8	174.7	187.2
71.5°	179.8	154.3	145.0	155.2	167.7	180.3
72°	170.5	146.8	138.0	149.6	161.2	173.3
72.5°	162.2	139.4	132.0	144.0	155.2	167.7
73°	153.8	132.0	125.9	138.5	148.7	160.8
73.5°	145.4	124.5	120.3	132.4	142.6	154.3
74°	137.1	118.0	114.8	126.8	136.1	147.3
74.5°	129.6	111.5	109.7	121.3	130.1	140.3
75°	122.2	105.5	104.5	115.7	124.1	133.8
75.5°	114.8	99.4	99.4	110.6	118.0	127.8
76°	107.8	93.4	94.3	105.0	112.0	121.3
76.5°	100.8	87.8	89.7	99.4	106.4	115.2
77°	94.3	82.2	85.0	94.3	100.4	109.2
77.5°	87.8	77.1	80.4	89.2	94.8	103.1
78°	81.8	72.0	75.7	84.1	89.2	97.1
78.5°	75.3	66.9	71.1	79.0	83.6	91.5
79°	69.7	61.8	66.9	73.9	78.1	85.5
79.5°	64.1	57.1	62.3	68.8	72.5	79.9
80°	58.5	53.0	58.1	64.1	67.4	74.3
80.5°	53.4	48.8	53.9	59.5	61.8	69.2
81°	48.3	44.6	49.7	54.8	56.7	63.7
81.5°	43.7	40.4	45.1	50.2	51.6	58.1
82°	39.5	36.2	41.4	45.5	46.5	53.0
82.5°	34.8	32.5	37.2	40.9	41.4	47.9
83°	30.2	28.8	33.0	36.7	36.2	42.7
83.5°	26.0	25.1	29.3	32.5	31.6	38.1
84°	21.8	21.4	25.1	28.3	26.9	33.0
84.5°	18.1	18.1	21.4	24.6	22.8	27.9
85°	14.9	14.9	17.7	20.4	19.0	23.2
85.5°	11.2	11.6	13.9	16.7	16.3	18.6
86°	8.4	7.9	10.2	13.5	13.5	15.8
86.5°	5.6	4.6	7.0	9.8	10.7	13.0
87°	2.8	1.9	3.3	6.5	7.9	10.2
87.5°	0.9	0.5	0.9	2.8	5.1	7.0
88°	0.0	0.0	0.0	0.5	2.8	5.1
88.5°	0.0	0.0	0.0	0.0	0.9	2.8



TEST NUMBER: P776681

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-HCD62TRLWW-5000lm-3000K

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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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°	2065.3	2115.9	2212.1	2347.8	2522.0	2687.0	2824.5	2904.9	2914.2	2853.3	2730.2
22°	2041.1	2092.2	2189.3	2326.9	2503.0	2669.8	2810.1	2891.9	2901.6	2839.8	2715.3



44°	959.5	1012.9	1099.8	1206.2	1345.1	1472.9	1566.3	1596.9	1564.9	1484.0	1368.8
44.5°	935.8	989.7	1074.7	1178.8	1314.0	1435.7	1525.4	1554.7	1523.5	1443.1	1331.2



66.5°	255.5	269.0	271.3	294.6	335.5	370.8	406.1	426.5	418.2	385.2	332.7
67°	247.6	261.1	263.0	283.9	322.9	357.3	392.6	412.6	403.8	371.2	320.6



89°	1.4	5.1	12.1	13.9	13.9	11.2	6.5	2.3	0.5	0.0	0.0
89.5°	0.0	2.8	8.4	10.2	10.7	7.9	4.2	0.9	0.0	0.0	0.0

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21.5°	2565.7	2384.5	2227.9	2118.3	2063.4	2065.3
22°	2547.1	2364.0	2206.1	2094.6	2039.3	2041.1



44°	1242.4	1117.9	1031.0	974.8	951.6	959.5
44.5°	1208.5	1087.7	1004.5	951.1	927.9	935.8

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66.5°	281.6	242.5	220.7	218.4	238.8	255.5
67°	270.0	232.8	211.9	211.4	231.4	247.6

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89°	0.0	0.0	0.0	0.0	0.5	1.4
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)