

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: P776582

Luminaire Tested: HCDJBS4050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B054)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K
Description: 4 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4614.8 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.01 / 1.07
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

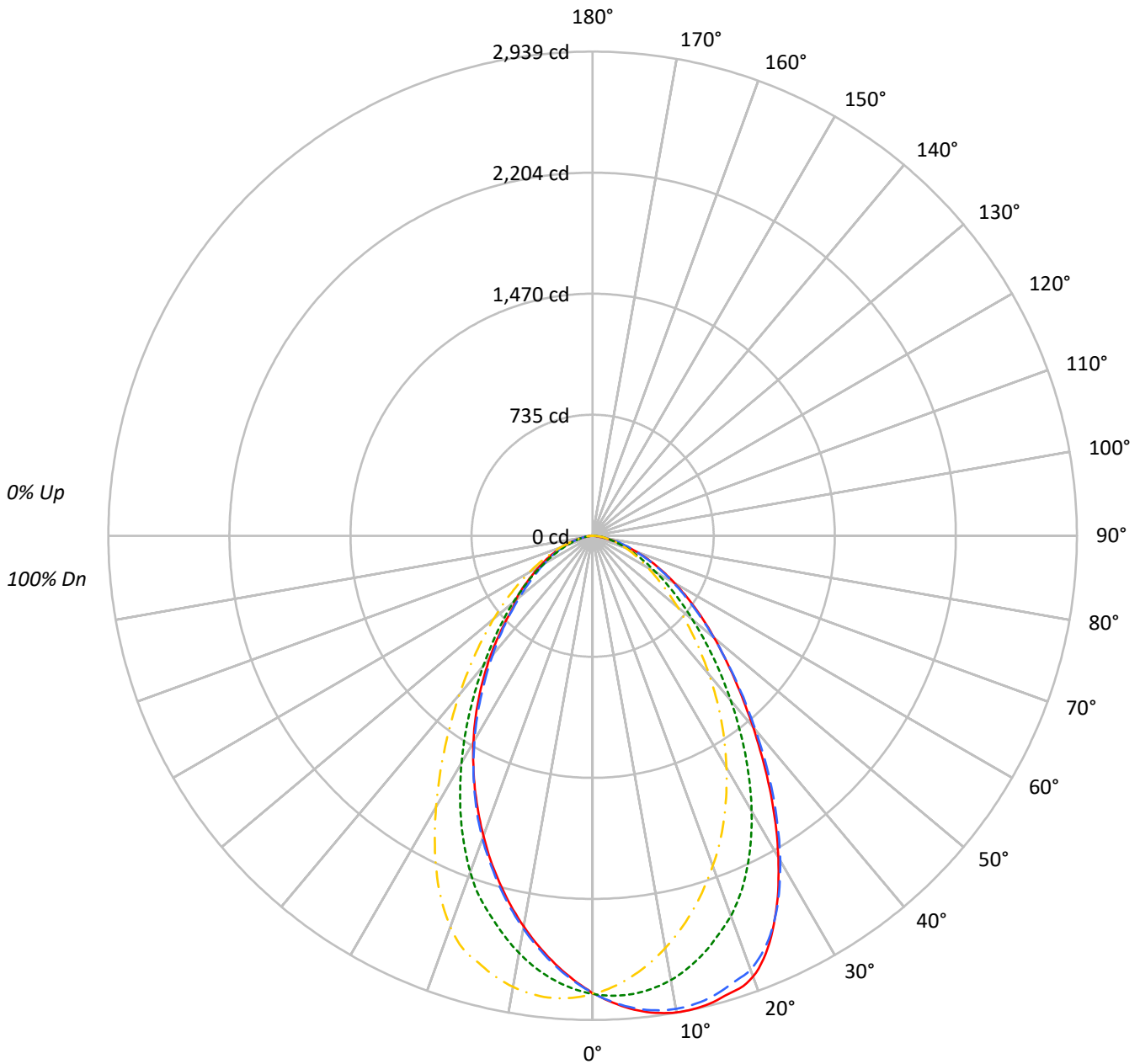
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	38	49	43	38	48	42	38	36					36			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	349711	349711	349711	349711
5°	364754	352715	329609	341812
10°	375412	349867	307683	328590
15°	380301	341280	284213	311300
20°	381316	328776	259550	290755
25°	361438	308408	234743	262570
30°	327621	280335	210233	231202
35°	287895	247981	185175	199371
40°	248744	214277	159669	169740
45°	215514	182624	134872	144430
50°	188524	155005	119098	122876
55°	165634	131801	105845	103980
60°	144929	112031	93280	87113
65°	125547	95202	82159	72451
70°	102551	80326	69397	59683
75°	76827	68074	56161	49548
80°	46166	59429	40006	39281
85°	17761	55159	14295	23103

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 221227 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.8	5.6
10°-20°	710.4	15.4
20°-30°	962.4	20.9
30°-40°	935.4	20.3
40°-50°	740.5	16.0
50°-60°	518.5	11.2
60°-70°	314.4	6.8
70°-80°	144.1	3.1
80°-90°	29.3	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°	1932.5	41.9
0°-40°	2867.9	62.1
0°-60°	4127.0	89.4
0°-90°	4614.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4614.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2779	2779	2779	2779	2779	
5°	2887	2792	2609	2706	2887	277
15°	2919	2619	2181	2389	2919	824
25°	2603	2221	1690	1891	2603	1188
35°	1874	1614	1205	1298	1874	1170
45°	1211	1026	758	812	1211	939
55°	755	601	482	474	755	678
65°	422	320	276	243	422	418
75°	158	140	116	102	158	171
85°	12	38	10	16	12	21
90°	0	4	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°	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8
0.5°	2787.3	2788.7	2787.8	2786.4	2784.9	2779.8	2776.0	2774.6	2759.0	2758.5	2761.4
1°	2800.5	2802.4	2801.0	2795.3	2788.2	2777.4	2768.4	2762.3	2743.9	2743.9	2747.7
1.5°	2813.2	2815.6	2811.8	2802.9	2791.1	2775.0	2760.4	2750.5	2728.4	2727.4	2733.1
2°	2825.5	2828.8	2822.7	2810.9	2793.0	2771.3	2751.9	2737.3	2712.8	2710.9	2717.5
2.5°	2837.3	2841.5	2833.5	2818.0	2794.8	2767.5	2742.5	2724.6	2696.3	2694.4	2702.0
3°	2848.6	2852.8	2843.9	2824.1	2795.3	2762.3	2732.6	2710.0	2679.3	2677.4	2686.4
3.5°	2859.4	2864.2	2852.8	2829.7	2795.8	2757.1	2722.2	2696.3	2662.3	2659.5	2669.9
4°	2869.4	2874.5	2861.8	2834.5	2794.8	2751.0	2711.4	2681.2	2645.4	2641.6	2653.4
4.5°	2878.8	2884.4	2869.8	2838.7	2793.9	2744.9	2700.1	2665.6	2627.0	2623.2	2635.9
5°	2887.3	2894.3	2877.4	2842.5	2792.0	2737.3	2687.8	2650.1	2609.1	2604.3	2619.0
5.5°	2895.3	2903.3	2884.4	2845.3	2789.7	2729.8	2675.5	2634.0	2589.7	2585.0	2600.1
6°	2902.8	2911.3	2890.6	2848.1	2786.4	2720.8	2661.9	2617.1	2571.3	2565.2	2582.2
6.5°	2909.4	2918.9	2896.2	2850.0	2782.6	2712.3	2648.7	2600.1	2552.0	2545.9	2562.8
7°	2915.6	2925.5	2900.9	2851.0	2778.3	2702.4	2634.5	2583.1	2532.2	2525.6	2543.0
7.5°	2921.2	2931.6	2905.2	2851.0	2772.7	2692.5	2620.4	2565.2	2512.4	2504.8	2523.7
8°	2925.5	2936.8	2909.0	2851.0	2767.0	2681.7	2605.3	2546.8	2492.1	2483.6	2503.9
8.5°	2929.7	2941.5	2911.8	2850.0	2760.9	2670.8	2589.7	2528.0	2471.4	2463.4	2484.1
9°	2933.0	2945.7	2914.1	2848.1	2753.8	2658.6	2573.7	2509.6	2450.6	2441.7	2463.4
9.5°	2935.8	2949.0	2915.1	2845.3	2746.3	2646.3	2557.7	2490.2	2428.9	2420.0	2442.1
10°	2937.7	2951.4	2916.0	2842.0	2737.8	2633.1	2541.2	2471.4	2407.7	2398.3	2420.9
10.5°	2938.7	2953.3	2915.6	2838.2	2728.8	2619.9	2523.7	2451.1	2386.0	2376.1	2399.7
11°	2939.1	2954.2	2915.1	2834.0	2718.9	2605.8	2505.8	2430.8	2364.3	2354.0	2378.0
11.5°	2939.1	2954.7	2913.7	2828.3	2708.6	2591.6	2488.3	2410.5	2342.2	2331.3	2355.8
12°	2938.2	2954.7	2911.3	2822.7	2697.7	2576.5	2470.0	2390.3	2320.0	2308.7	2333.2
12.5°	2936.8	2953.8	2908.5	2816.1	2685.9	2560.5	2451.1	2369.0	2297.4	2285.1	2311.0
13°	2934.4	2951.9	2904.7	2809.0	2674.1	2544.9	2432.2	2347.8	2274.7	2262.5	2288.9
13.5°	2931.1	2950.0	2900.9	2801.0	2661.4	2528.9	2412.9	2326.1	2251.6	2238.9	2265.8
14°	2927.8	2946.2	2895.8	2791.5	2648.2	2511.4	2392.6	2304.4	2228.5	2214.8	2242.7
14.5°	2923.6	2942.4	2890.1	2782.1	2634.0	2494.0	2372.3	2282.3	2204.9	2191.7	2219.1
15°	2918.9	2938.2	2883.5	2772.2	2619.4	2475.6	2352.1	2260.1	2181.4	2167.2	2195.5
15.5°	2912.7	2932.5	2876.4	2761.8	2604.8	2457.7	2331.3	2237.5	2157.8	2143.6	2171.5
16°	2906.1	2926.9	2868.4	2750.5	2588.8	2438.8	2309.6	2214.8	2134.2	2119.6	2147.9
16.5°	2900.9	2920.3	2859.9	2738.7	2572.7	2420.0	2288.4	2191.7	2110.2	2095.5	2123.8
17°	2896.7	2914.1	2851.4	2726.5	2555.8	2400.2	2267.2	2169.1	2086.1	2070.1	2100.3
17.5°	2892.9	2909.9	2842.5	2712.8	2539.3	2380.4	2245.0	2145.5	2061.6	2045.6	2076.2
18°	2889.2	2906.1	2835.4	2700.5	2522.3	2360.1	2222.4	2122.0	2037.1	2021.0	2051.7
18.5°	2882.1	2901.9	2828.8	2688.3	2505.8	2340.3	2200.2	2098.4	2012.6	1996.5	2027.6
19°	2873.1	2895.8	2822.2	2677.0	2489.3	2320.0	2177.6	2074.8	1988.0	1972.0	2004.5
19.5°	2860.9	2886.3	2813.7	2665.2	2472.8	2300.2	2155.9	2051.2	1963.0	1947.5	1980.5
20°	2847.2	2875.0	2802.4	2652.0	2454.9	2279.0	2132.3	2027.6	1938.0	1922.5	1956.0
20.5°	2831.6	2861.3	2788.7	2636.4	2435.1	2258.2	2110.2	2003.1	1913.1	1897.5	1931.0
21°	2813.2	2846.2	2772.7	2620.4	2413.8	2235.1	2086.1	1978.6	1889.0	1873.0	1905.5



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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°	2746.3	2788.7	2718.0	2560.0	2347.8	2164.9	2014.9	1905.5	1814.0	1798.5	1829.6
23°	2719.9	2765.6	2697.2	2538.8	2323.3	2140.3	1989.9	1880.5	1789.0	1774.0	1803.7
23.5°	2692.5	2741.6	2674.6	2516.2	2299.3	2115.8	1965.4	1856.0	1765.0	1749.0	1777.3
24°	2664.2	2715.6	2651.5	2492.1	2273.8	2089.4	1939.9	1831.5	1740.0	1724.4	1751.3
24.5°	2634.0	2687.8	2626.0	2466.7	2247.9	2063.5	1914.5	1806.0	1715.0	1699.4	1725.4
25°	2602.9	2658.6	2599.6	2440.7	2221.0	2037.1	1888.1	1781.0	1690.5	1674.9	1699.4
25.5°	2571.3	2627.9	2571.3	2414.3	2194.1	2010.2	1862.6	1756.0	1666.0	1649.5	1672.6
26°	2538.8	2596.8	2542.6	2386.5	2166.7	1983.3	1837.1	1731.0	1641.9	1624.0	1646.2
26.5°	2504.8	2565.2	2512.9	2358.7	2138.5	1955.5	1810.7	1705.6	1616.9	1599.5	1619.8
27°	2471.4	2531.7	2481.7	2329.4	2109.2	1927.7	1784.3	1680.1	1592.9	1574.5	1593.4
27.5°	2436.9	2497.8	2449.7	2299.7	2080.5	1900.3	1757.4	1655.1	1567.9	1549.5	1566.5
28°	2400.6	2462.4	2415.7	2268.6	2050.7	1873.0	1731.0	1630.1	1543.8	1524.5	1539.6
28.5°	2364.8	2426.6	2380.8	2237.5	2021.5	1844.2	1704.6	1604.2	1519.8	1499.5	1513.2
29°	2328.5	2390.7	2346.9	2205.9	1990.9	1815.4	1677.8	1578.7	1495.7	1474.5	1486.8
29.5°	2291.2	2354.4	2312.5	2172.9	1960.2	1787.6	1651.4	1553.7	1471.2	1450.0	1460.4
30°	2254.5	2316.7	2276.6	2140.8	1929.1	1758.9	1624.0	1528.7	1446.7	1425.0	1433.5
30.5°	2216.7	2279.4	2239.8	2107.3	1898.0	1729.6	1597.1	1503.3	1422.2	1400.5	1407.6
31°	2178.5	2241.3	2203.1	2072.9	1867.8	1701.3	1570.7	1477.8	1398.1	1375.5	1381.6
31.5°	2141.3	2202.6	2166.3	2039.0	1835.7	1672.1	1543.8	1452.8	1374.1	1350.5	1356.2
32°	2102.6	2163.4	2128.6	2003.6	1804.1	1643.8	1517.4	1427.8	1350.0	1326.5	1330.2
32.5°	2064.0	2124.3	2090.8	1968.7	1772.5	1615.0	1490.1	1402.8	1325.5	1301.9	1303.8
33°	2025.8	2085.6	2053.6	1933.8	1740.5	1585.8	1463.7	1378.3	1301.5	1277.4	1277.9
33.5°	1987.1	2047.0	2017.3	1898.4	1709.4	1557.0	1437.3	1352.4	1277.4	1252.9	1253.4
34°	1949.4	2007.8	1979.1	1862.6	1677.3	1527.3	1410.9	1327.9	1253.4	1228.4	1227.4
34.5°	1911.6	1968.2	1940.9	1827.2	1645.2	1498.6	1384.5	1303.3	1228.8	1204.3	1202.4
35°	1873.9	1929.6	1902.7	1791.9	1614.1	1470.3	1357.6	1278.8	1205.3	1180.7	1177.0
35.5°	1836.2	1891.4	1865.0	1757.0	1582.0	1441.5	1332.1	1253.8	1181.7	1157.2	1152.9
36°	1798.0	1853.2	1827.7	1722.1	1550.4	1412.7	1306.2	1229.8	1157.6	1133.6	1128.4
36.5°	1761.7	1815.4	1790.5	1686.7	1518.4	1384.0	1279.8	1205.7	1134.1	1110.0	1104.4
37°	1724.4	1776.8	1753.2	1652.8	1488.2	1356.6	1253.4	1181.7	1110.0	1086.4	1080.3
37.5°	1688.6	1739.1	1716.9	1618.3	1456.1	1327.9	1227.4	1157.6	1087.4	1063.8	1056.7
38°	1652.3	1702.3	1679.2	1583.0	1426.0	1300.0	1202.4	1134.5	1063.8	1040.7	1033.2
38.5°	1617.4	1665.5	1643.3	1550.0	1395.3	1272.2	1176.0	1110.5	1040.7	1017.6	1011.0
39°	1582.5	1629.2	1607.0	1515.5	1365.1	1245.3	1150.6	1087.4	1018.1	995.0	987.9
39.5°	1548.6	1593.8	1573.1	1483.5	1334.0	1217.5	1125.1	1063.8	995.0	972.8	965.3
40°	1514.1	1558.9	1537.7	1449.1	1304.3	1190.2	1100.6	1040.7	971.9	950.2	943.1
40.5°	1481.6	1525.0	1503.3	1417.9	1275.1	1162.4	1075.6	1016.7	949.7	928.0	921.9
41°	1449.1	1490.1	1469.3	1385.4	1245.3	1136.9	1051.5	994.0	927.5	906.3	900.2
41.5°	1416.5	1458.0	1436.3	1353.3	1216.1	1109.5	1027.5	970.9	905.4	884.6	879.4
42°	1385.4	1425.0	1403.3	1321.3	1188.3	1083.6	1003.9	949.2	883.2	863.9	859.6
42.5°	1355.2	1392.9	1371.7	1292.0	1160.5	1058.6	980.3	926.6	862.0	843.6	839.8
43°	1325.0	1362.3	1340.6	1261.9	1132.7	1033.6	957.7	904.9	840.3	823.3	819.5
43.5°	1295.8	1331.6	1309.0	1232.1	1105.3	1008.6	934.6	882.7	819.1	804.0	799.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1210.9	1243.0	1219.9	1145.4	1026.1	937.4	868.6	821.0	757.8	748.8	743.6
45.5°	1183.6	1215.2	1191.1	1117.6	1000.6	914.3	847.8	801.6	738.0	731.4	725.7
46°	1157.2	1187.8	1163.3	1090.7	975.6	892.2	827.1	782.3	719.1	713.4	707.8
46.5°	1131.2	1160.5	1135.5	1063.8	951.1	869.5	807.3	763.0	700.7	696.0	689.9
47°	1105.8	1133.6	1109.1	1037.4	926.6	847.4	787.0	744.1	683.3	679.5	672.4
47.5°	1081.3	1107.7	1082.2	1011.9	903.0	826.1	767.2	725.7	666.8	663.5	655.4
48°	1056.3	1081.7	1055.8	985.5	879.4	804.5	747.9	707.8	652.1	647.4	639.4
48.5°	1031.7	1057.2	1030.8	961.5	856.8	784.2	728.5	689.9	639.4	631.9	622.9
49°	1008.6	1032.7	1005.8	937.4	834.6	763.9	710.1	672.9	628.1	616.8	607.3
49.5°	985.5	1008.6	981.8	913.9	812.9	744.1	691.3	655.9	617.7	602.6	591.8
50°	962.9	985.5	958.2	890.3	791.7	724.8	673.4	639.4	608.3	589.4	576.7
50.5°	940.7	962.0	934.1	867.2	770.5	705.4	655.9	623.4	598.9	576.2	561.1
51°	918.6	939.3	911.0	845.0	749.8	687.0	638.5	607.8	588.0	564.4	547.0
51.5°	896.9	917.2	888.9	823.3	730.4	669.1	622.0	592.7	575.3	553.6	533.3
52°	875.7	895.0	866.7	801.2	710.6	651.2	605.0	578.1	561.1	540.9	519.2
52.5°	854.9	873.3	845.0	780.4	691.3	633.8	589.0	564.0	547.5	528.1	505.5
53°	834.6	852.6	823.3	760.1	672.4	616.3	572.9	550.8	534.3	515.4	492.3
53.5°	813.9	831.3	802.6	739.4	654.0	599.3	557.4	537.1	520.6	502.7	479.1
54°	794.1	811.1	781.8	719.6	636.1	582.8	542.3	524.8	507.4	490.4	466.4
54.5°	774.3	790.3	761.1	700.2	617.7	566.8	527.2	513.5	495.1	478.1	454.1
55°	754.9	771.0	742.2	680.9	600.7	551.2	513.0	501.7	482.4	466.8	442.3
55.5°	735.6	751.2	722.4	662.5	583.8	535.2	498.9	489.9	470.6	454.1	430.5
56°	716.7	731.8	703.1	643.7	567.3	519.6	484.7	477.7	458.3	442.3	419.2
56.5°	698.4	713.0	684.2	625.7	551.2	505.0	471.1	465.9	446.6	431.5	408.8
57°	680.4	694.6	665.8	608.3	534.7	489.9	457.9	454.1	434.8	420.6	398.5
57.5°	661.6	675.7	647.9	590.8	519.2	475.8	445.1	442.8	423.9	409.3	388.6
58°	644.1	657.3	629.5	573.9	503.6	461.6	432.9	431.5	412.6	398.9	378.2
58.5°	626.7	639.4	612.1	556.9	489.5	448.0	420.6	420.1	402.2	388.6	368.3
59°	609.2	622.4	595.1	540.4	474.4	434.3	408.8	409.3	391.4	378.2	357.9
59.5°	592.3	604.0	577.6	524.4	459.8	421.1	398.0	398.9	381.0	367.8	348.5
60°	575.8	588.0	561.1	508.8	445.1	408.4	387.1	388.6	370.6	357.4	339.0
60.5°	559.3	571.0	544.6	492.8	431.9	396.6	376.3	378.2	360.3	347.5	329.6
61°	542.7	554.5	528.6	478.1	418.3	384.3	365.4	367.8	350.4	338.1	320.2
61.5°	526.7	537.6	512.1	463.1	405.5	372.0	354.6	357.4	340.5	328.2	311.2
62°	511.2	522.5	497.0	448.4	392.8	359.8	345.2	347.5	331.0	318.8	302.3
62.5°	496.1	506.4	481.9	434.3	380.1	348.0	335.3	338.1	321.1	309.3	293.3
63°	480.5	490.9	466.4	420.1	367.3	336.7	325.8	328.2	312.2	300.8	284.3
63.5°	465.4	475.3	451.7	406.5	354.6	325.8	316.4	318.8	302.7	291.4	275.9
64°	450.8	460.2	437.1	392.8	342.3	315.0	307.9	309.3	293.8	282.9	267.4
64.5°	436.2	445.6	423.0	379.6	331.0	304.6	299.0	300.4	284.8	274.0	259.3
65°	421.6	431.5	408.8	366.4	319.7	294.2	290.5	291.9	275.9	265.5	250.9
65.5°	406.9	416.4	394.7	354.1	308.4	284.3	281.5	282.9	266.4	257.0	242.8
66°	391.9	402.7	381.5	341.9	297.5	274.4	273.5	274.0	257.5	248.5	235.3



TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	348.5	360.7	341.9	305.6	266.4	247.1	248.5	248.5	230.6	223.5	212.2
68°	334.3	347.1	329.1	294.2	256.5	238.1	241.0	240.0	222.1	215.5	204.7
68.5°	319.7	333.4	316.9	283.4	246.6	229.6	232.9	231.5	213.6	207.0	197.6
69°	306.0	319.7	305.1	272.1	237.2	221.2	225.4	223.5	205.1	199.5	190.5
69.5°	292.4	306.5	293.3	261.7	227.8	213.6	217.4	215.0	196.6	191.4	183.4
70°	278.7	293.3	281.5	250.9	218.3	205.6	210.3	207.0	188.6	183.9	176.4
70.5°	266.0	280.6	270.2	240.5	209.4	198.0	202.8	199.5	181.1	176.4	169.8
71°	252.7	268.3	258.9	230.6	200.9	191.0	195.7	191.4	173.1	168.3	162.7
71.5°	240.0	255.6	248.0	220.7	192.4	183.9	188.6	183.9	165.5	161.3	156.1
72°	227.3	243.8	237.7	211.3	184.4	176.8	181.5	176.4	158.0	154.2	149.5
72.5°	215.5	232.5	226.8	202.3	176.4	170.2	174.9	168.8	150.4	146.7	142.9
73°	203.7	220.7	216.4	193.3	168.8	163.2	167.9	161.7	142.9	140.0	136.7
73.5°	191.4	209.8	206.5	183.9	161.3	157.0	161.3	154.2	135.8	133.0	130.6
74°	180.1	198.5	196.2	175.4	154.2	150.9	154.7	147.6	128.7	125.9	124.5
74.5°	168.3	187.7	186.7	169.3	147.1	144.8	148.5	140.5	122.1	119.3	117.9
75°	158.0	177.3	177.3	161.3	140.0	138.6	141.9	133.9	115.5	112.7	112.2
75.5°	147.6	166.9	167.4	153.3	133.4	133.0	135.8	127.3	108.9	106.6	106.1
76°	137.2	158.0	158.9	144.8	127.3	127.3	129.7	120.7	102.3	100.0	100.4
76.5°	126.8	148.5	150.4	136.7	120.7	121.7	123.5	114.1	95.7	93.8	94.8
77°	116.9	139.1	142.4	129.2	115.1	116.0	117.4	108.0	89.6	87.7	89.1
77.5°	107.0	129.7	133.9	122.1	108.9	110.8	111.3	101.9	83.5	82.0	83.9
78°	97.6	120.7	125.4	115.5	103.3	105.6	106.1	95.7	77.8	75.9	78.7
78.5°	88.7	112.7	117.4	108.9	97.6	100.0	100.0	89.6	71.7	70.3	73.1
79°	79.7	104.2	109.9	102.3	92.0	94.8	94.8	83.5	66.0	64.6	67.9
79.5°	71.7	96.2	102.3	95.7	86.8	90.1	89.1	77.8	60.4	59.4	63.2
80°	63.7	88.2	94.8	89.6	82.0	84.9	83.9	72.1	55.2	53.8	58.0
80.5°	56.6	81.1	87.7	83.9	76.9	80.2	78.7	67.0	49.5	48.6	53.3
81°	49.5	74.0	81.1	78.3	72.1	75.4	73.6	61.3	44.8	43.9	48.6
81.5°	42.9	67.4	74.5	72.6	67.4	70.7	68.4	56.1	39.6	39.1	44.3
82°	36.3	60.8	67.9	67.4	62.7	66.0	63.7	50.9	34.9	34.4	40.1
82.5°	30.2	54.2	61.8	62.2	58.5	61.3	58.5	46.2	29.7	29.7	35.8
83°	25.0	48.1	56.1	57.1	54.2	57.1	53.8	41.5	24.5	25.0	31.6
83.5°	20.3	42.4	50.5	52.3	50.0	52.8	49.5	36.8	20.3	21.2	27.3
84°	16.5	36.3	45.3	47.6	45.7	48.1	45.3	32.1	16.0	17.9	23.6
84.5°	14.1	31.1	40.1	43.4	42.0	44.3	41.0	27.3	12.3	15.1	20.3
85°	12.3	25.9	35.4	39.1	38.2	40.1	37.3	23.6	9.9	12.7	16.5
85.5°	9.9	21.2	31.1	34.9	34.4	36.3	33.0	20.3	8.5	10.4	13.2
86°	8.0	17.0	26.9	31.1	30.7	32.1	28.8	17.4	7.1	8.5	9.4
86.5°	6.6	14.1	23.1	26.9	26.9	27.8	25.0	15.1	5.7	6.1	6.6
87°	5.7	11.3	19.3	23.6	23.6	24.0	21.2	12.3	4.2	4.2	3.8
87.5°	4.2	8.5	16.5	20.3	20.3	20.3	17.4	9.9	2.8	2.4	1.4
88°	3.3	5.7	13.7	17.0	16.5	17.0	14.1	7.5	1.9	0.9	0.5
88.5°	2.4	3.8	10.4	13.7	13.2	13.2	10.8	5.2	0.5	0.5	0.0



TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.9	2.8	5.2	4.2	3.8	1.9	0.5	0.0	0.5	0.0



TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2778.8	2778.8	2778.8	2778.8	2778.8	2778.8
0.5°	2766.1	2776.5	2781.6	2789.2	2796.3	2787.3
1°	2755.7	2770.8	2782.1	2794.4	2806.2	2800.5
1.5°	2744.4	2764.7	2781.6	2799.6	2815.6	2813.2
2°	2733.1	2758.5	2780.2	2803.8	2824.6	2825.5
2.5°	2720.8	2751.0	2778.8	2807.6	2833.0	2837.3
3°	2708.1	2743.4	2776.0	2810.4	2840.6	2848.6
3.5°	2694.4	2735.0	2773.2	2813.2	2847.7	2859.4
4°	2680.7	2726.0	2768.9	2814.7	2853.3	2869.4
4.5°	2666.6	2716.1	2764.7	2815.6	2859.0	2878.8
5°	2651.5	2705.7	2759.5	2816.1	2864.6	2887.3
5.5°	2635.9	2695.4	2753.4	2815.6	2868.9	2895.3
6°	2620.4	2683.6	2747.2	2814.7	2872.2	2902.8
6.5°	2604.3	2671.3	2740.1	2812.8	2875.0	2909.4
7°	2586.9	2658.6	2732.1	2809.9	2877.4	2915.6
7.5°	2569.9	2645.4	2723.6	2806.6	2879.3	2921.2
8°	2552.5	2632.2	2714.7	2802.9	2879.7	2925.5
8.5°	2534.1	2617.5	2704.8	2798.6	2879.7	2929.7
9°	2515.7	2602.5	2694.4	2793.4	2879.3	2933.0
9.5°	2496.4	2586.9	2683.6	2787.3	2878.3	2935.8
10°	2477.0	2571.3	2672.2	2780.7	2876.4	2937.7
10.5°	2457.2	2554.8	2660.5	2773.6	2874.1	2938.7
11°	2437.4	2538.3	2647.3	2765.6	2870.8	2939.1
11.5°	2417.1	2520.9	2633.6	2757.1	2866.5	2939.1
12°	2396.4	2502.5	2620.4	2748.2	2861.8	2938.2
12.5°	2375.6	2484.6	2606.2	2738.3	2856.6	2936.8
13°	2354.4	2466.2	2591.1	2727.9	2851.0	2934.4
13.5°	2332.3	2447.3	2575.6	2717.5	2844.4	2931.1
14°	2310.1	2427.5	2559.5	2705.3	2836.8	2927.8
14.5°	2287.9	2408.7	2544.5	2693.5	2829.7	2923.6
15°	2266.7	2389.3	2528.4	2682.1	2820.8	2918.9
15.5°	2244.6	2370.5	2513.8	2672.2	2813.7	2912.7
16°	2222.9	2351.1	2499.2	2663.3	2808.0	2906.1
16.5°	2200.7	2332.3	2484.6	2652.9	2802.4	2900.9
17°	2178.5	2312.9	2467.6	2640.7	2795.8	2896.7
17.5°	2155.9	2292.2	2448.3	2625.1	2786.8	2892.9
18°	2133.3	2270.0	2427.5	2608.6	2774.1	2889.2
18.5°	2109.7	2246.9	2405.4	2589.7	2759.0	2882.1
19°	2085.2	2221.9	2382.2	2569.9	2742.0	2873.1
19.5°	2060.2	2196.9	2358.7	2548.2	2724.6	2860.9
20°	2034.7	2171.0	2334.6	2525.6	2704.3	2847.2
20.5°	2008.3	2145.5	2308.7	2502.0	2683.6	2831.6
21°	1982.4	2118.2	2282.3	2476.6	2660.5	2813.2



TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1901.3	2035.7	2200.7	2395.9	2583.1	2746.3
23°	1873.9	2007.4	2171.9	2367.6	2554.4	2719.9
23.5°	1845.6	1978.6	2142.2	2337.4	2524.7	2692.5
24°	1817.8	1949.4	2113.0	2307.3	2493.1	2664.2
24.5°	1789.5	1920.1	2082.3	2275.2	2461.5	2634.0
25°	1761.7	1890.9	2051.7	2243.1	2428.0	2602.9
25.5°	1733.4	1861.7	2020.1	2210.6	2395.0	2571.3
26°	1705.1	1832.0	1988.5	2177.1	2360.6	2538.8
26.5°	1677.3	1801.8	1957.9	2143.6	2326.6	2504.8
27°	1649.0	1771.6	1925.3	2109.2	2291.7	2471.4
27.5°	1620.7	1741.4	1893.3	2074.8	2255.4	2436.9
28°	1592.4	1711.2	1859.8	2039.4	2219.1	2400.6
28.5°	1564.6	1680.6	1827.7	2004.5	2183.7	2364.8
29°	1536.3	1651.4	1795.6	1969.6	2147.9	2328.5
29.5°	1508.0	1621.2	1762.6	1933.8	2111.1	2291.2
30°	1480.2	1591.0	1729.6	1900.3	2074.3	2254.5
30.5°	1452.4	1560.8	1696.6	1865.0	2037.5	2216.7
31°	1424.5	1531.6	1664.1	1829.6	2001.7	2178.5
31.5°	1397.2	1501.4	1632.0	1795.2	1965.4	2141.3
32°	1368.9	1471.7	1599.5	1760.7	1928.1	2102.6
32.5°	1342.5	1442.5	1567.4	1725.9	1891.8	2064.0
33°	1315.1	1412.7	1535.4	1693.3	1855.5	2025.8
33.5°	1287.8	1383.5	1504.2	1659.4	1819.2	1987.1
34°	1261.4	1354.7	1472.6	1625.9	1784.8	1949.4
34.5°	1235.0	1326.0	1442.0	1592.9	1748.5	1911.6
35°	1208.6	1297.7	1411.3	1560.3	1713.6	1873.9
35.5°	1182.6	1268.9	1380.7	1527.8	1678.7	1836.2
36°	1157.2	1242.0	1351.9	1497.2	1644.7	1798.0
36.5°	1131.7	1214.2	1322.2	1464.1	1611.3	1761.7
37°	1106.2	1187.3	1294.4	1434.0	1576.8	1724.4
37.5°	1082.2	1160.0	1265.2	1403.3	1543.8	1688.6
38°	1057.7	1134.1	1237.3	1373.6	1510.8	1652.3
38.5°	1034.1	1108.1	1209.5	1343.0	1478.3	1617.4
39°	1011.0	1082.7	1182.6	1314.7	1447.6	1582.5
39.5°	986.9	1057.2	1156.2	1285.9	1416.0	1548.6
40°	963.8	1033.2	1129.3	1257.6	1384.9	1514.1
40.5°	941.7	1008.6	1103.9	1228.8	1354.7	1481.6
41°	919.5	985.5	1078.4	1202.0	1325.0	1449.1
41.5°	897.3	962.0	1053.9	1174.6	1295.8	1416.5
42°	876.6	939.3	1029.4	1148.7	1267.0	1385.4
42.5°	855.4	916.7	1004.9	1122.7	1238.7	1355.2
43°	835.1	895.5	981.3	1097.3	1210.9	1325.0
43.5°	814.8	873.3	957.7	1071.8	1184.0	1295.8



TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	757.3	811.5	890.3	999.2	1105.8	1210.9
45.5°	738.9	791.3	869.1	975.6	1080.8	1183.6
46°	720.5	771.9	847.4	952.5	1056.3	1157.2
46.5°	702.6	752.6	827.1	929.9	1031.7	1131.2
47°	684.7	733.7	805.9	907.3	1008.2	1105.8
47.5°	667.7	715.3	786.1	885.6	984.6	1081.3
48°	650.7	697.4	766.3	863.9	962.0	1056.3
48.5°	634.2	679.5	746.5	842.7	939.3	1031.7
49°	617.3	662.0	727.6	822.4	917.6	1008.6
49.5°	601.2	644.6	708.7	802.1	895.9	985.5
50°	585.7	627.6	689.9	781.3	874.2	962.9
50.5°	570.1	611.1	672.0	761.5	853.5	940.7
51°	555.0	594.6	654.0	742.7	832.7	918.6
51.5°	539.9	578.1	636.6	723.3	812.9	896.9
52°	524.8	563.0	619.1	705.0	792.2	875.7
52.5°	510.2	547.5	602.6	686.6	772.9	854.9
53°	496.1	532.4	585.7	668.2	753.5	834.6
53.5°	481.9	517.3	569.6	650.7	734.2	813.9
54°	468.2	502.2	553.6	632.8	715.3	794.1
54.5°	455.0	488.0	538.0	615.4	697.4	774.3
55°	441.8	473.9	522.5	598.4	678.6	754.9
55.5°	428.6	460.2	507.4	581.9	661.1	735.6
56°	416.4	446.6	491.8	565.4	643.2	716.7
56.5°	404.6	433.3	477.7	549.3	625.7	698.4
57°	392.8	419.7	463.1	533.3	608.3	680.4
57.5°	381.0	407.4	448.9	517.8	591.3	661.6
58°	369.2	394.2	435.2	502.2	574.3	644.1
58.5°	357.4	382.0	422.0	487.6	558.3	626.7
59°	346.6	369.7	408.4	472.5	541.8	609.2
59.5°	335.7	357.9	395.6	457.9	526.2	592.3
60°	325.8	346.1	382.4	443.7	510.2	575.8
60.5°	315.5	334.8	370.2	429.6	495.1	559.3
61°	305.6	324.0	357.4	415.9	479.1	542.7
61.5°	295.7	312.6	345.6	402.2	464.9	526.7
62°	286.2	301.8	333.9	388.6	450.3	511.2
62.5°	276.8	291.4	322.1	375.8	435.7	496.1
63°	267.8	281.5	310.7	362.6	421.1	480.5
63.5°	258.9	271.6	299.9	350.4	407.4	465.4
64°	250.4	261.7	288.6	337.6	393.7	450.8
64.5°	242.4	252.3	278.2	325.4	380.1	436.2
65°	234.4	243.3	267.8	313.6	366.9	421.6
65.5°	226.8	233.9	257.9	301.8	354.1	406.9
66°	219.3	224.9	247.6	290.0	341.4	391.9

TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	197.6	199.9	218.8	257.0	302.7	348.5
68°	191.0	191.9	209.8	246.6	290.5	334.3
68.5°	183.9	184.4	201.3	236.2	278.2	319.7
69°	177.3	176.8	192.9	225.9	266.0	306.0
69.5°	170.7	168.8	183.9	216.4	254.2	292.4
70°	164.1	162.2	175.9	207.0	242.8	278.7
70.5°	158.0	156.1	168.3	197.6	231.5	266.0
71°	151.8	149.5	161.3	188.1	220.2	252.7
71.5°	145.2	142.9	153.7	179.2	209.4	240.0
72°	139.6	136.7	146.2	170.7	198.5	227.3
72.5°	133.9	130.6	138.6	162.2	188.1	215.5
73°	127.3	124.5	132.0	154.2	178.2	203.7
73.5°	121.7	118.8	125.0	145.7	167.4	191.4
74°	116.0	113.2	118.4	137.7	158.4	180.1
74.5°	110.8	107.5	112.2	129.7	149.5	168.3
75°	105.2	101.9	106.1	122.1	140.5	158.0
75.5°	100.0	96.7	100.0	114.6	131.6	147.6
76°	94.8	91.5	94.3	107.0	123.1	137.2
76.5°	89.6	86.3	88.2	100.4	114.6	126.8
77°	84.4	81.6	83.0	93.4	106.6	116.9
77.5°	79.7	76.9	77.3	86.8	98.6	107.0
78°	74.5	72.1	72.1	80.6	91.0	97.6
78.5°	69.8	67.4	67.4	74.0	83.5	88.7
79°	65.1	63.2	62.7	68.4	76.4	79.7
79.5°	60.4	58.5	57.5	62.2	69.3	71.7
80°	55.6	54.2	53.3	57.1	62.7	63.7
80.5°	51.4	50.5	48.6	51.9	56.1	56.6
81°	47.2	46.2	44.8	46.7	50.0	49.5
81.5°	42.9	42.0	40.6	41.5	43.9	42.9
82°	38.7	38.2	36.3	37.3	38.2	36.3
82.5°	34.4	34.4	32.5	33.0	32.5	30.2
83°	30.7	30.7	28.8	28.8	27.3	25.0
83.5°	26.4	26.4	25.0	25.0	23.1	20.3
84°	22.6	23.1	21.7	21.2	18.9	16.5
84.5°	18.9	19.3	18.4	17.9	16.0	14.1
85°	15.1	16.0	15.6	15.1	12.7	12.3
85.5°	11.3	13.2	12.3	12.3	9.9	9.9
86°	8.0	9.9	9.4	9.4	7.1	8.0
86.5°	4.7	6.6	6.1	6.6	5.2	6.6
87°	2.4	3.3	3.8	4.7	3.8	5.7
87.5°	0.5	0.9	1.4	2.4	2.4	4.2
88°	0.0	0.0	0.0	0.5	1.4	3.3
88.5°	0.0	0.0	0.0	0.0	0.5	2.4



TEST NUMBER: P776582

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-3500K

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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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°	2792.0	2828.8	2756.2	2601.5	2392.6	2212.0	2063.0	1954.6	1864.0	1847.5	1881.0
22°	2769.4	2809.9	2737.8	2581.2	2370.5	2188.9	2039.0	1930.0	1839.0	1823.0	1855.1



44°	1266.6	1301.0	1278.4	1201.0	1078.9	984.6	912.4	862.0	798.3	785.6	781.3
44.5°	1238.3	1271.8	1249.6	1173.7	1052.5	960.5	890.3	840.8	778.5	767.7	762.5



66.5°	377.2	389.0	367.8	329.1	286.7	265.0	265.0	266.0	248.5	240.0	227.3
67°	362.6	374.4	355.1	317.3	276.3	256.0	256.5	257.0	239.5	232.0	219.7



89°	1.4	2.8	7.5	10.8	9.9	9.9	7.5	3.3	0.0	0.5	0.0
89.5°	0.5	1.9	4.7	8.0	7.1	6.6	4.2	1.4	0.0	0.5	0.0

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21.5°	1956.0	2090.8	2255.9	2451.1	2636.4	2792.0
22°	1929.1	2064.0	2228.5	2424.2	2610.0	2769.4



44°	795.5	852.1	935.1	1046.8	1157.2	1266.6
44.5°	776.2	831.3	912.9	1022.8	1131.2	1238.3



66.5°	211.7	216.4	237.7	278.7	328.2	377.2
67°	204.7	208.0	228.2	267.8	315.5	362.6

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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	0.5

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(END OF REPORT)