

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: P776584

Luminaire Tested: HCDJBL54050CSD-HCD42TRH-HCD42TRLWW-5000lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776584
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-5000K
Description: 4 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4748.8 lumens
Efficiency: N/A
Efficacy: 98.9 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

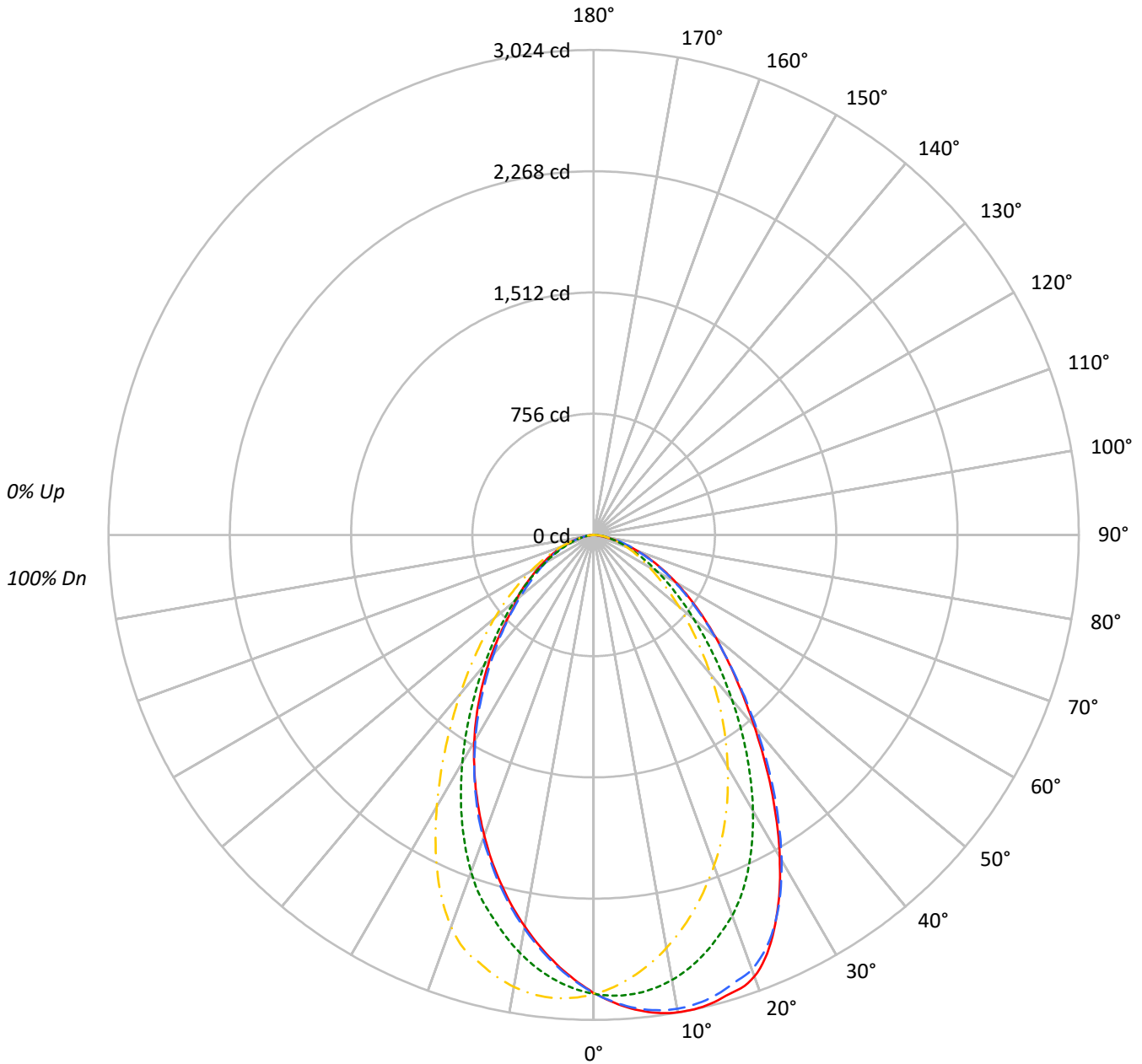
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	56	54																			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48																			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44																			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40																			
9	63	51	44	39	62	51	44	39	50	43	38	49	43	38	48	42	38	36																			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	359867	359867	359867	359867
5°	375341	362960	339172	351742
10°	386313	360026	316616	338136
15°	391337	351195	292460	320342
20°	392378	338312	267090	299192
25°	371936	317350	241561	270194
30°	337125	288472	216336	237916
35°	296253	255186	190553	205163
40°	255973	220504	164302	174652
45°	221779	187927	138788	148630
50°	193986	159508	122563	126440
55°	170462	135641	108916	107007
60°	149132	115304	95998	89655
65°	129180	97972	84541	74566
70°	105531	82681	71421	61413
75°	79064	70068	57815	50959
80°	47470	61168	41165	40440
85°	18194	56748	14728	23825

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 227652 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.3	5.6
10°-20°	731.0	15.4
20°-30°	990.3	20.9
30°-40°	962.6	20.3
40°-50°	762.0	16.0
50°-60°	533.6	11.2
60°-70°	323.5	6.8
70°-80°	148.3	3.1
80°-90°	30.2	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°	1988.6	41.9
0°-40°	2951.2	62.1
0°-60°	4246.8	89.4
0°-90°	4748.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4748.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2860	2860	2860	2860	2860	
5°	2971	2873	2685	2784	2971	285
15°	3004	2696	2245	2459	3004	848
25°	2678	2285	1740	1946	2678	1223
35°	1928	1661	1240	1335	1928	1204
45°	1246	1056	780	835	1246	966
55°	777	618	496	488	777	698
65°	434	329	284	250	434	430
75°	163	144	119	105	163	176
85°	13	39	10	16	13	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°	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5
0.5°	2868.2	2869.7	2868.7	2867.2	2865.8	2860.5	2856.6	2855.1	2839.1	2838.6	2841.5
1°	2881.8	2883.7	2882.3	2876.5	2869.2	2858.0	2848.8	2842.5	2823.6	2823.6	2827.5
1.5°	2894.9	2897.3	2893.4	2884.2	2872.1	2855.6	2840.6	2830.4	2807.6	2806.6	2812.4
2°	2907.5	2910.9	2904.6	2892.5	2874.0	2851.7	2831.8	2816.8	2791.5	2789.6	2796.4
2.5°	2919.6	2924.0	2915.8	2899.8	2876.0	2847.8	2822.1	2803.7	2774.6	2772.6	2780.4
3°	2931.3	2935.7	2926.4	2906.1	2876.5	2842.5	2811.9	2788.6	2757.1	2755.2	2764.4
3.5°	2942.5	2947.3	2935.7	2911.9	2876.9	2837.2	2801.3	2774.6	2739.6	2736.7	2747.4
4°	2952.6	2958.0	2944.9	2916.7	2876.0	2830.9	2790.1	2759.0	2722.2	2718.3	2730.4
4.5°	2962.3	2968.2	2953.1	2921.1	2875.0	2824.5	2778.4	2743.0	2703.2	2699.4	2712.5
5°	2971.1	2978.4	2960.9	2925.0	2873.1	2816.8	2765.8	2727.0	2684.8	2679.9	2695.0
5.5°	2979.3	2987.6	2968.2	2927.9	2870.6	2809.0	2753.2	2710.5	2664.9	2660.0	2675.6
6°	2987.1	2995.8	2974.5	2930.8	2867.2	2799.8	2739.1	2693.0	2646.0	2639.7	2657.1
6.5°	2993.9	3003.6	2980.3	2932.8	2863.4	2791.1	2725.6	2675.6	2626.1	2619.8	2637.2
7°	3000.2	3010.4	2985.2	2933.7	2859.0	2780.9	2711.0	2658.1	2605.7	2598.9	2616.9
7.5°	3006.0	3016.7	2989.5	2933.7	2853.2	2770.7	2696.4	2639.7	2585.3	2577.6	2597.0
8°	3010.4	3022.0	2993.4	2933.7	2847.3	2759.5	2680.9	2620.7	2564.5	2555.7	2576.6
8.5°	3014.8	3026.9	2996.3	2932.8	2841.0	2748.4	2664.9	2601.3	2543.1	2534.9	2556.2
9°	3018.2	3031.3	2998.7	2930.8	2833.8	2735.7	2648.4	2582.4	2521.8	2512.5	2534.9
9.5°	3021.1	3034.6	2999.7	2927.9	2826.0	2723.1	2631.9	2562.5	2499.4	2490.2	2513.0
10°	3023.0	3037.1	3000.7	2924.5	2817.3	2709.5	2614.9	2543.1	2477.6	2467.9	2491.2
10.5°	3024.0	3039.0	3000.2	2920.6	2808.0	2696.0	2597.0	2522.2	2455.3	2445.1	2469.4
11°	3024.5	3040.0	2999.7	2916.3	2797.9	2681.4	2578.5	2501.4	2433.0	2422.3	2447.0
11.5°	3024.5	3040.5	2998.3	2910.4	2787.2	2666.8	2560.6	2480.5	2410.2	2399.0	2424.2
12°	3023.5	3040.5	2995.8	2904.6	2776.0	2651.3	2541.7	2459.6	2387.3	2375.7	2400.9
12.5°	3022.0	3039.5	2992.9	2897.8	2763.9	2634.8	2522.2	2437.8	2364.1	2351.4	2378.1
13°	3019.6	3037.6	2989.0	2890.5	2751.8	2618.8	2502.8	2416.0	2340.8	2328.1	2355.3
13.5°	3016.2	3035.6	2985.2	2882.3	2738.7	2602.3	2482.9	2393.7	2317.0	2303.9	2331.5
14°	3012.8	3031.7	2979.8	2872.6	2725.1	2584.4	2462.1	2371.3	2293.2	2279.1	2307.8
14.5°	3008.4	3027.9	2974.0	2862.9	2710.5	2566.4	2441.2	2348.5	2269.0	2255.4	2283.5
15°	3003.6	3023.5	2967.2	2852.7	2695.5	2547.5	2420.3	2325.7	2244.7	2230.1	2259.2
15.5°	2997.3	3017.7	2959.9	2842.0	2680.4	2529.0	2399.0	2302.4	2220.4	2205.9	2234.5
16°	2990.5	3011.8	2951.7	2830.4	2663.9	2509.6	2376.7	2279.1	2196.2	2181.1	2210.2
16.5°	2985.2	3005.1	2942.9	2818.2	2647.4	2490.2	2354.8	2255.4	2171.4	2156.4	2185.5
17°	2980.8	2998.7	2934.2	2805.6	2630.0	2469.8	2333.0	2232.1	2146.7	2130.2	2161.2
17.5°	2976.9	2994.4	2925.0	2791.5	2613.0	2449.5	2310.2	2207.8	2121.4	2104.9	2136.5
18°	2973.0	2990.5	2917.7	2778.9	2595.5	2428.6	2286.9	2183.6	2096.2	2079.7	2111.3
18.5°	2965.7	2986.1	2910.9	2766.3	2578.5	2408.2	2264.1	2159.3	2071.0	2054.5	2086.5
19°	2956.5	2979.8	2904.1	2754.7	2561.5	2387.3	2240.8	2135.0	2045.7	2029.2	2062.7
19.5°	2943.9	2970.1	2895.4	2742.5	2544.6	2367.0	2218.5	2110.8	2020.0	2004.0	2038.0
20°	2929.8	2958.5	2883.7	2729.0	2526.1	2345.1	2194.2	2086.5	1994.3	1978.3	2012.7
20.5°	2913.8	2944.4	2869.7	2712.9	2505.7	2323.8	2171.4	2061.3	1968.6	1952.6	1987.0
21°	2894.9	2928.9	2853.2	2696.4	2483.9	2300.0	2146.7	2036.0	1943.8	1927.3	1960.8

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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°	2826.0	2869.7	2796.9	2634.3	2416.0	2227.7	2073.4	1960.8	1866.7	1850.7	1882.7
23°	2798.8	2845.9	2775.5	2612.5	2390.7	2202.5	2047.7	1935.1	1841.0	1825.4	1856.0
23.5°	2770.7	2821.1	2752.2	2589.2	2366.0	2177.2	2022.5	1909.9	1816.2	1799.7	1828.8
24°	2741.6	2794.5	2728.5	2564.5	2339.8	2150.1	1996.2	1884.6	1790.5	1774.5	1802.2
24.5°	2710.5	2765.8	2702.3	2538.3	2313.1	2123.4	1970.0	1858.4	1764.8	1748.8	1775.5
25°	2678.5	2735.7	2675.1	2511.6	2285.4	2096.2	1942.9	1832.7	1739.6	1723.5	1748.8
25.5°	2646.0	2704.2	2646.0	2484.4	2257.8	2068.5	1916.7	1807.0	1714.3	1697.3	1721.1
26°	2612.5	2672.2	2616.4	2455.8	2229.6	2040.9	1890.5	1781.3	1689.6	1671.1	1693.9
26.5°	2577.6	2639.7	2585.8	2427.1	2200.5	2012.3	1863.3	1755.1	1663.9	1645.9	1666.8
27°	2543.1	2605.2	2553.8	2397.1	2170.4	1983.6	1836.1	1728.9	1639.1	1620.2	1639.6
27.5°	2507.7	2570.3	2520.8	2366.5	2140.8	1955.5	1808.5	1703.2	1613.4	1594.5	1611.9
28°	2470.3	2533.9	2485.9	2334.5	2110.3	1927.3	1781.3	1677.5	1588.7	1568.8	1584.3
28.5°	2433.4	2497.0	2449.9	2302.4	2080.2	1897.7	1754.1	1650.8	1563.9	1543.0	1557.1
29°	2396.1	2460.1	2415.0	2269.9	2048.7	1868.1	1726.5	1624.6	1539.2	1517.3	1529.9
29.5°	2357.7	2422.8	2379.6	2236.0	2017.1	1839.5	1699.3	1598.8	1513.9	1492.1	1502.8
30°	2319.9	2384.0	2342.7	2203.0	1985.1	1809.9	1671.1	1573.1	1488.7	1466.4	1475.1
30.5°	2281.1	2345.6	2304.9	2168.5	1953.1	1779.8	1643.5	1546.9	1463.5	1441.1	1448.4
31°	2241.8	2306.3	2267.0	2133.1	1922.0	1750.7	1616.3	1520.7	1438.7	1415.4	1421.7
31.5°	2203.4	2266.5	2229.2	2098.1	1889.0	1720.6	1588.7	1495.0	1414.0	1389.7	1395.5
32°	2163.7	2226.3	2190.3	2061.8	1856.5	1691.5	1561.5	1469.3	1389.2	1365.0	1368.8
32.5°	2123.9	2186.0	2151.5	2025.8	1824.0	1661.9	1533.3	1443.6	1364.0	1339.7	1341.7
33°	2084.6	2146.2	2113.2	1989.9	1791.0	1631.8	1506.2	1418.3	1339.2	1314.5	1315.0
33.5°	2044.8	2106.4	2075.8	1953.5	1759.0	1602.2	1479.0	1391.6	1314.5	1289.3	1289.8
34°	2006.0	2066.1	2036.5	1916.7	1726.0	1571.7	1451.8	1366.4	1289.8	1264.0	1263.1
34.5°	1967.1	2025.4	1997.2	1880.3	1693.0	1542.1	1424.6	1341.2	1264.5	1239.3	1237.3
35°	1928.3	1985.6	1957.9	1843.9	1661.0	1513.0	1397.0	1316.0	1240.3	1215.0	1211.1
35.5°	1889.5	1946.3	1919.1	1808.0	1628.0	1483.4	1370.8	1290.2	1216.0	1190.8	1186.4
36°	1850.2	1907.0	1880.8	1772.1	1595.4	1453.8	1344.1	1265.5	1191.2	1166.5	1161.2
36.5°	1812.8	1868.1	1842.4	1735.7	1562.5	1424.2	1316.9	1240.7	1167.0	1142.2	1136.4
37°	1774.5	1828.4	1804.1	1700.7	1531.4	1396.0	1289.8	1216.0	1142.2	1118.0	1111.7
37.5°	1737.6	1789.5	1766.7	1665.3	1498.4	1366.4	1263.1	1191.2	1118.9	1094.7	1087.4
38°	1700.3	1751.7	1727.9	1628.9	1467.3	1337.8	1237.3	1167.5	1094.7	1070.9	1063.1
38.5°	1664.4	1713.8	1691.0	1595.0	1435.8	1309.2	1210.2	1142.7	1070.9	1047.1	1040.3
39°	1628.4	1676.5	1653.7	1559.5	1404.8	1281.5	1184.0	1118.9	1047.6	1023.8	1016.6
39.5°	1593.5	1640.1	1618.7	1526.5	1372.7	1252.9	1157.8	1094.7	1023.8	1001.0	993.3
40°	1558.1	1604.2	1582.3	1491.1	1342.2	1224.7	1132.5	1070.9	1000.1	977.7	970.5
40.5°	1524.6	1569.2	1546.9	1459.1	1312.1	1196.1	1106.8	1046.2	977.3	954.9	948.6
41°	1491.1	1533.3	1512.0	1425.6	1281.5	1169.9	1082.1	1022.9	954.5	932.6	926.3
41.5°	1457.6	1500.3	1478.0	1392.6	1251.4	1141.8	1057.3	999.1	931.6	910.3	905.0
42°	1425.6	1466.4	1444.1	1359.6	1222.8	1115.1	1033.1	976.8	908.8	888.9	884.6
42.5°	1394.6	1433.4	1411.5	1329.5	1194.2	1089.3	1008.8	953.5	887.0	868.1	864.2
43°	1363.5	1401.8	1379.5	1298.5	1165.5	1063.6	985.5	931.2	864.7	847.2	843.3
43.5°	1333.4	1370.3	1347.0	1267.9	1137.4	1037.9	961.7	908.4	842.9	827.3	823.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1246.1	1279.1	1255.3	1178.6	1055.9	964.6	893.8	844.8	779.8	770.6	765.2
45.5°	1217.9	1250.4	1225.7	1150.0	1029.7	940.9	872.4	824.9	759.4	752.6	746.8
46°	1190.8	1222.3	1197.1	1122.3	1003.9	918.1	851.1	805.0	740.0	734.2	728.3
46.5°	1164.1	1194.2	1168.4	1094.7	978.7	894.8	830.7	785.1	721.1	716.2	709.9
47°	1137.9	1166.5	1141.3	1067.5	953.5	872.0	809.9	765.7	703.1	699.2	691.9
47.5°	1112.6	1139.8	1113.6	1041.3	929.2	850.1	789.5	746.8	686.1	682.7	674.5
48°	1086.9	1113.1	1086.4	1014.1	905.0	827.8	769.6	728.3	671.1	666.2	658.0
48.5°	1061.7	1087.9	1060.7	989.4	881.7	806.9	749.7	709.9	658.0	650.2	641.0
49°	1037.9	1062.7	1035.0	964.6	858.9	786.1	730.8	692.4	646.3	634.7	625.0
49.5°	1014.1	1037.9	1010.3	940.4	836.5	765.7	711.4	675.0	635.7	620.1	609.0
50°	990.8	1014.1	986.0	916.1	814.7	745.8	692.9	658.0	626.0	606.5	593.4
50.5°	968.0	989.9	961.2	892.3	792.9	725.9	675.0	641.5	616.2	593.0	577.4
51°	945.2	966.6	937.5	869.5	771.5	707.0	657.0	625.5	605.1	580.8	562.9
51.5°	922.9	943.8	914.7	847.2	751.6	688.5	640.0	609.9	592.0	569.7	548.8
52°	901.1	921.0	891.9	824.4	731.2	670.1	622.6	594.9	577.4	556.6	534.2
52.5°	879.7	898.7	869.5	803.1	711.4	652.2	606.1	580.3	563.4	543.5	520.2
53°	858.9	877.3	847.2	782.2	691.9	634.2	589.6	566.8	549.8	530.4	506.6
53.5°	837.5	855.5	825.9	760.8	673.0	616.7	573.5	552.7	535.7	517.3	493.0
54°	817.1	834.6	804.5	740.5	654.6	599.7	558.0	540.1	522.1	504.6	479.9
54.5°	796.8	813.3	783.2	720.6	635.7	583.3	542.5	528.4	509.5	492.0	467.3
55°	776.9	793.4	763.8	700.7	618.2	567.2	527.9	516.3	496.4	480.4	455.1
55.5°	757.0	773.0	743.4	681.8	600.7	550.7	513.4	504.2	484.3	467.3	443.0
56°	737.6	753.1	723.5	662.3	583.7	534.7	498.8	491.5	471.6	455.1	431.4
56.5°	718.6	733.7	704.1	643.9	567.2	519.7	484.7	479.4	459.5	444.0	420.7
57°	700.2	714.7	685.1	626.0	550.3	504.2	471.2	467.3	447.4	432.8	410.0
57.5°	680.8	695.3	666.7	608.0	534.2	489.6	458.1	455.6	436.2	421.2	399.8
58°	662.8	676.4	647.8	590.5	518.2	475.0	445.4	444.0	424.6	410.5	389.2
58.5°	644.9	658.0	629.8	573.1	503.7	461.0	432.8	432.3	413.9	399.8	379.0
59°	626.9	640.5	612.4	556.1	488.1	446.9	420.7	421.2	402.7	389.2	368.3
59.5°	609.5	621.6	594.4	539.6	473.1	433.3	409.5	410.5	392.1	378.5	358.6
60°	592.5	605.1	577.4	523.6	458.1	420.2	398.4	399.8	381.4	367.8	348.9
60.5°	575.5	587.6	560.4	507.1	444.5	408.1	387.2	389.2	370.7	357.6	339.2
61°	558.5	570.6	543.9	492.0	430.4	395.5	376.1	378.5	360.5	347.9	329.5
61.5°	542.0	553.2	527.0	476.5	417.3	382.8	364.9	367.8	350.3	337.7	320.3
62°	526.0	537.6	511.4	461.5	404.2	370.2	355.2	357.6	340.6	328.0	311.0
62.5°	510.5	521.1	495.9	446.9	391.1	358.1	345.0	347.9	330.4	318.3	301.8
63°	494.5	505.1	479.9	432.3	378.0	346.5	335.3	337.7	321.2	309.6	292.6
63.5°	478.9	489.1	464.9	418.3	364.9	335.3	325.6	328.0	311.5	299.9	283.9
64°	463.9	473.6	449.8	404.2	352.3	324.1	316.9	318.3	302.3	291.1	275.1
64.5°	448.8	458.5	435.3	390.6	340.6	313.5	307.6	309.1	293.1	281.9	266.9
65°	433.8	444.0	420.7	377.0	329.0	302.8	298.9	300.4	283.9	273.2	258.1
65.5°	418.8	428.5	406.1	364.4	317.3	292.6	289.7	291.1	274.2	264.5	249.9
66°	403.2	414.4	392.6	351.8	306.2	282.4	281.4	281.9	264.9	255.7	242.1



TEST NUMBER: P776584

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	358.6	371.2	351.8	314.4	274.2	254.3	255.7	255.7	237.3	230.0	218.4
68°	344.0	357.1	338.7	302.8	264.0	245.0	248.0	247.0	228.5	221.8	210.6
68.5°	329.0	343.1	326.1	291.6	253.8	236.3	239.7	238.2	219.8	213.0	203.3
69°	314.9	329.0	313.9	280.0	244.1	227.6	231.9	230.0	211.1	205.3	196.0
69.5°	300.8	315.4	301.8	269.3	234.4	219.8	223.7	221.3	202.3	197.0	188.8
70°	286.8	301.8	289.7	258.1	224.7	211.6	216.4	213.0	194.1	189.2	181.5
70.5°	273.7	288.7	278.0	247.5	215.4	203.8	208.7	205.3	186.3	181.5	174.7
71°	260.1	276.1	266.4	237.3	206.7	196.5	201.4	197.0	178.1	173.2	167.4
71.5°	247.0	263.0	255.2	227.1	198.0	189.2	194.1	189.2	170.3	165.9	160.6
72°	233.9	250.9	244.6	217.4	189.7	182.0	186.8	181.5	162.6	158.7	153.8
72.5°	221.8	239.2	233.4	208.2	181.5	175.2	180.0	173.7	154.8	150.9	147.0
73°	209.6	227.1	222.7	198.9	173.7	167.9	172.7	166.4	147.0	144.1	140.7
73.5°	197.0	215.9	212.5	189.2	165.9	161.6	165.9	158.7	139.7	136.8	134.4
74°	185.4	204.3	201.9	180.5	158.7	155.3	159.2	151.9	132.5	129.6	128.1
74.5°	173.2	193.1	192.2	174.2	151.4	149.0	152.8	144.6	125.7	122.8	121.3
75°	162.6	182.4	182.4	165.9	144.1	142.7	146.1	137.8	118.9	116.0	115.5
75.5°	151.9	171.8	172.3	157.7	137.3	136.8	139.7	131.0	112.1	109.7	109.2
76°	141.2	162.6	163.5	149.0	131.0	131.0	133.4	124.2	105.3	102.9	103.4
76.5°	130.5	152.8	154.8	140.7	124.2	125.2	127.1	117.4	98.5	96.6	97.5
77°	120.3	143.1	146.5	133.0	118.4	119.4	120.8	111.1	92.2	90.3	91.7
77.5°	110.1	133.4	137.8	125.7	112.1	114.0	114.5	104.8	85.9	84.4	86.4
78°	100.4	124.2	129.1	118.9	106.3	108.7	109.2	98.5	80.1	78.1	81.0
78.5°	91.2	116.0	120.8	112.1	100.4	102.9	102.9	92.2	73.8	72.3	75.2
79°	82.0	107.2	113.1	105.3	94.6	97.5	97.5	85.9	67.9	66.5	69.9
79.5°	73.8	99.0	105.3	98.5	89.3	92.7	91.7	80.1	62.1	61.1	65.0
80°	65.5	90.7	97.5	92.2	84.4	87.3	86.4	74.2	56.8	55.3	59.7
80.5°	58.2	83.5	90.3	86.4	79.1	82.5	81.0	68.9	50.9	50.0	54.8
81°	50.9	76.2	83.5	80.5	74.2	77.6	75.7	63.1	46.1	45.1	50.0
81.5°	44.2	69.4	76.7	74.7	69.4	72.8	70.4	57.7	40.8	40.3	45.6
82°	37.4	62.6	69.9	69.4	64.5	67.9	65.5	52.4	35.9	35.4	41.2
82.5°	31.1	55.8	63.6	64.1	60.2	63.1	60.2	47.6	30.6	30.6	36.9
83°	25.7	49.5	57.7	58.7	55.8	58.7	55.3	42.7	25.2	25.7	32.5
83.5°	20.9	43.7	51.9	53.9	51.4	54.3	50.9	37.8	20.9	21.8	28.1
84°	17.0	37.4	46.6	49.0	47.1	49.5	46.6	33.0	16.5	18.4	24.3
84.5°	14.6	32.0	41.2	44.6	43.2	45.6	42.2	28.1	12.6	15.5	20.9
85°	12.6	26.7	36.4	40.3	39.3	41.2	38.3	24.3	10.2	13.1	17.0
85.5°	10.2	21.8	32.0	35.9	35.4	37.4	34.0	20.9	8.7	10.7	13.6
86°	8.2	17.5	27.7	32.0	31.5	33.0	29.6	18.0	7.3	8.7	9.7
86.5°	6.8	14.6	23.8	27.7	27.7	28.6	25.7	15.5	5.8	6.3	6.8
87°	5.8	11.6	19.9	24.3	24.3	24.7	21.8	12.6	4.4	4.4	3.9
87.5°	4.4	8.7	17.0	20.9	20.9	20.9	18.0	10.2	2.9	2.4	1.5
88°	3.4	5.8	14.1	17.5	17.0	17.5	14.6	7.8	1.9	1.0	0.5
88.5°	2.4	3.9	10.7	14.1	13.6	13.6	11.2	5.3	0.5	0.5	0.0



TEST NUMBER: P776584

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	1.0	2.9	5.3	4.4	3.9	1.9	0.5	0.0	0.5	0.0



TEST NUMBER: P776584

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2859.5	2859.5	2859.5	2859.5	2859.5	2859.5
0.5°	2846.4	2857.1	2862.4	2870.2	2877.4	2868.2
1°	2835.7	2851.2	2862.9	2875.5	2887.6	2881.8
1.5°	2824.1	2844.9	2862.4	2880.8	2897.3	2894.9
2°	2812.4	2838.6	2860.9	2885.2	2906.5	2907.5
2.5°	2799.8	2830.9	2859.5	2889.1	2915.3	2919.6
3°	2786.7	2823.1	2856.6	2892.0	2923.0	2931.3
3.5°	2772.6	2814.4	2853.7	2894.9	2930.3	2942.5
4°	2758.6	2805.1	2849.3	2896.4	2936.1	2952.6
4.5°	2744.0	2794.9	2844.9	2897.3	2942.0	2962.3
5°	2728.5	2784.3	2839.6	2897.8	2947.8	2971.1
5.5°	2712.5	2773.6	2833.3	2897.3	2952.2	2979.3
6°	2696.4	2761.5	2827.0	2896.4	2955.6	2987.1
6.5°	2679.9	2748.8	2819.7	2894.4	2958.5	2993.9
7°	2662.0	2735.7	2811.4	2891.5	2960.9	3000.2
7.5°	2644.5	2722.2	2802.7	2888.1	2962.8	3006.0
8°	2626.6	2708.6	2793.5	2884.2	2963.3	3010.4
8.5°	2607.6	2693.5	2783.3	2879.9	2963.3	3014.8
9°	2588.7	2678.0	2772.6	2874.5	2962.8	3018.2
9.5°	2568.8	2662.0	2761.5	2868.2	2961.9	3021.1
10°	2548.9	2646.0	2749.8	2861.4	2959.9	3023.0
10.5°	2528.6	2629.0	2737.7	2854.1	2957.5	3024.0
11°	2508.2	2612.0	2724.1	2845.9	2954.1	3024.5
11.5°	2487.3	2594.1	2710.0	2837.2	2949.7	3024.5
12°	2466.0	2575.1	2696.4	2827.9	2944.9	3023.5
12.5°	2444.6	2556.7	2681.9	2817.8	2939.5	3022.0
13°	2422.8	2537.8	2666.4	2807.1	2933.7	3019.6
13.5°	2400.0	2518.4	2650.3	2796.4	2926.9	3016.2
14°	2377.2	2498.0	2633.8	2783.8	2919.2	3012.8
14.5°	2354.4	2478.6	2618.3	2771.7	2911.9	3008.4
15°	2332.5	2458.7	2601.8	2760.0	2902.7	3003.6
15.5°	2309.7	2439.3	2586.8	2749.8	2895.4	2997.3
16°	2287.4	2419.4	2571.7	2740.6	2889.6	2990.5
16.5°	2264.6	2400.0	2556.7	2729.9	2883.7	2985.2
17°	2241.8	2380.1	2539.2	2717.3	2876.9	2980.8
17.5°	2218.5	2358.7	2519.3	2701.3	2867.7	2976.9
18°	2195.2	2335.9	2498.0	2684.3	2854.6	2973.0
18.5°	2170.9	2312.1	2475.2	2664.9	2839.1	2965.7
19°	2145.7	2286.4	2451.4	2644.5	2821.6	2956.5
19.5°	2120.0	2260.7	2427.1	2622.2	2803.7	2943.9
20°	2093.8	2234.0	2402.4	2598.9	2782.8	2929.8
20.5°	2066.6	2207.8	2375.7	2574.6	2761.5	2913.8
21°	2039.9	2179.7	2348.5	2548.4	2737.7	2894.9

TEST NUMBER: P776584

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1956.5	2094.8	2264.6	2465.5	2658.1	2826.0
23°	1928.3	2065.6	2235.0	2436.4	2628.5	2798.8
23.5°	1899.2	2036.0	2204.4	2405.3	2597.9	2770.7
24°	1870.6	2006.0	2174.3	2374.2	2565.4	2741.6
24.5°	1841.5	1975.9	2142.8	2341.3	2532.9	2710.5
25°	1812.8	1945.8	2111.3	2308.3	2498.5	2678.5
25.5°	1783.7	1915.7	2078.7	2274.8	2464.5	2646.0
26°	1754.6	1885.1	2046.2	2240.3	2429.1	2612.5
26.5°	1726.0	1854.1	2014.7	2205.9	2394.1	2577.6
27°	1696.9	1823.0	1981.2	2170.4	2358.2	2543.1
27.5°	1667.7	1792.0	1948.2	2135.0	2320.9	2507.7
28°	1638.6	1760.9	1913.8	2098.6	2283.5	2470.3
28.5°	1610.0	1729.4	1880.8	2062.7	2247.1	2433.4
29°	1580.9	1699.3	1847.8	2026.8	2210.2	2396.1
29.5°	1551.8	1668.2	1813.8	1989.9	2172.4	2357.7
30°	1523.1	1637.2	1779.8	1955.5	2134.5	2319.9
30.5°	1494.5	1606.1	1745.9	1919.1	2096.7	2281.1
31°	1465.9	1576.0	1712.4	1882.7	2059.8	2241.8
31.5°	1437.7	1545.0	1679.4	1847.3	2022.5	2203.4
32°	1408.6	1514.4	1645.9	1811.9	1984.1	2163.7
32.5°	1381.5	1484.3	1612.9	1776.0	1946.8	2123.9
33°	1353.3	1453.8	1579.9	1742.5	1909.4	2084.6
33.5°	1325.2	1423.7	1547.9	1707.5	1872.0	2044.8
34°	1298.0	1394.1	1515.4	1673.1	1836.6	2006.0
34.5°	1270.8	1364.5	1483.8	1639.1	1799.2	1967.1
35°	1243.7	1335.4	1452.3	1605.6	1763.3	1928.3
35.5°	1217.0	1305.8	1420.8	1572.2	1727.4	1889.5
36°	1190.8	1278.1	1391.2	1540.6	1692.5	1850.2
36.5°	1164.6	1249.5	1360.6	1506.6	1658.0	1812.8
37°	1138.4	1221.8	1332.0	1475.6	1622.6	1774.5
37.5°	1113.6	1193.7	1301.9	1444.1	1588.7	1737.6
38°	1088.4	1167.0	1273.3	1413.5	1554.7	1700.3
38.5°	1064.1	1140.3	1244.6	1381.9	1521.2	1664.4
39°	1040.3	1114.1	1217.0	1352.8	1489.7	1628.4
39.5°	1015.6	1087.9	1189.8	1323.2	1457.2	1593.5
40°	991.8	1063.1	1162.1	1294.1	1425.1	1558.1
40.5°	969.0	1037.9	1135.9	1264.5	1394.1	1524.6
41°	946.2	1014.1	1109.7	1236.9	1363.5	1491.1
41.5°	923.4	989.9	1084.5	1208.7	1333.4	1457.6
42°	902.0	966.6	1059.3	1182.0	1303.8	1425.6
42.5°	880.2	943.3	1034.0	1155.3	1274.7	1394.6
43°	859.3	921.5	1009.8	1129.1	1246.1	1363.5
43.5°	838.5	898.7	985.5	1102.9	1218.4	1333.4



TEST NUMBER: P776584

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	779.3	835.1	916.1	1028.2	1137.9	1246.1
45.5°	760.4	814.2	894.3	1003.9	1112.2	1217.9
46°	741.4	794.3	872.0	980.2	1086.9	1190.8
46.5°	723.0	774.4	851.1	956.9	1061.7	1164.1
47°	704.6	755.0	829.3	933.6	1037.4	1137.9
47.5°	687.1	736.1	808.9	911.3	1013.2	1112.6
48°	669.6	717.7	788.5	888.9	989.9	1086.9
48.5°	652.6	699.2	768.1	867.1	966.6	1061.7
49°	635.2	681.3	748.7	846.2	944.3	1037.9
49.5°	618.7	663.3	729.3	825.4	921.9	1014.1
50°	602.7	645.8	709.9	804.0	899.6	990.8
50.5°	586.6	628.9	691.5	783.7	878.3	968.0
51°	571.1	611.9	673.0	764.2	856.9	945.2
51.5°	555.6	594.9	655.1	744.3	836.5	922.9
52°	540.1	579.4	637.1	725.4	815.2	901.1
52.5°	525.0	563.4	620.1	706.5	795.3	879.7
53°	510.5	547.8	602.7	687.6	775.4	858.9
53.5°	495.9	532.3	586.2	669.6	755.5	837.5
54°	481.8	516.8	569.7	651.2	736.1	817.1
54.5°	468.3	502.2	553.7	633.2	717.7	796.8
55°	454.7	487.7	537.6	615.8	698.3	776.9
55.5°	441.1	473.6	522.1	598.8	680.3	757.0
56°	428.5	459.5	506.1	581.8	661.9	737.6
56.5°	416.3	445.9	491.5	565.3	643.9	718.6
57°	404.2	431.9	476.5	548.8	626.0	700.2
57.5°	392.1	419.2	461.9	532.8	608.5	680.8
58°	379.9	405.7	447.9	516.8	591.0	662.8
58.5°	367.8	393.0	434.3	501.7	574.5	644.9
59°	356.6	380.4	420.2	486.2	557.5	626.9
59.5°	345.5	368.3	407.1	471.2	541.5	609.5
60°	335.3	356.2	393.5	456.6	525.0	592.5
60.5°	324.6	344.5	380.9	442.0	509.5	575.5
61°	314.4	333.4	367.8	428.0	493.0	558.5
61.5°	304.2	321.7	355.7	413.9	478.4	542.0
62°	294.5	310.5	343.5	399.8	463.4	526.0
62.5°	284.8	299.9	331.4	386.7	448.4	510.5
63°	275.6	289.7	319.8	373.1	433.3	494.5
63.5°	266.4	279.5	308.6	360.5	419.2	478.9
64°	257.7	269.3	297.0	347.4	405.2	463.9
64.5°	249.4	259.6	286.3	334.8	391.1	448.8
65°	241.2	250.4	275.6	322.7	377.5	433.8
65.5°	233.4	240.7	265.4	310.5	364.4	418.8
66°	225.6	231.5	254.7	298.4	351.3	403.2



TEST NUMBER: P776584

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	203.3	205.7	225.1	264.5	311.5	358.6
68°	196.5	197.5	215.9	253.8	298.9	344.0
68.5°	189.2	189.7	207.2	243.1	286.3	329.0
69°	182.4	182.0	198.5	232.4	273.7	314.9
69.5°	175.7	173.7	189.2	222.7	261.5	300.8
70°	168.9	166.9	181.0	213.0	249.9	286.8
70.5°	162.6	160.6	173.2	203.3	238.2	273.7
71°	156.2	153.8	165.9	193.6	226.6	260.1
71.5°	149.5	147.0	158.2	184.4	215.4	247.0
72°	143.6	140.7	150.4	175.7	204.3	233.9
72.5°	137.8	134.4	142.7	166.9	193.6	221.8
73°	131.0	128.1	135.9	158.7	183.4	209.6
73.5°	125.2	122.3	128.6	149.9	172.3	197.0
74°	119.4	116.5	121.8	141.7	163.0	185.4
74.5°	114.0	110.6	115.5	133.4	153.8	173.2
75°	108.2	104.8	109.2	125.7	144.6	162.6
75.5°	102.9	99.5	102.9	117.9	135.4	151.9
76°	97.5	94.1	97.0	110.1	126.6	141.2
76.5°	92.2	88.8	90.7	103.4	117.9	130.5
77°	86.9	83.9	85.4	96.1	109.7	120.3
77.5°	82.0	79.1	79.6	89.3	101.4	110.1
78°	76.7	74.2	74.2	83.0	93.7	100.4
78.5°	71.8	69.4	69.4	76.2	85.9	91.2
79°	67.0	65.0	64.5	70.4	78.6	82.0
79.5°	62.1	60.2	59.2	64.1	71.3	73.8
80°	57.3	55.8	54.8	58.7	64.5	65.5
80.5°	52.9	51.9	50.0	53.4	57.7	58.2
81°	48.5	47.6	46.1	48.0	51.4	50.9
81.5°	44.2	43.2	41.7	42.7	45.1	44.2
82°	39.8	39.3	37.4	38.3	39.3	37.4
82.5°	35.4	35.4	33.5	34.0	33.5	31.1
83°	31.5	31.5	29.6	29.6	28.1	25.7
83.5°	27.2	27.2	25.7	25.7	23.8	20.9
84°	23.3	23.8	22.3	21.8	19.4	17.0
84.5°	19.4	19.9	18.9	18.4	16.5	14.6
85°	15.5	16.5	16.0	15.5	13.1	12.6
85.5°	11.6	13.6	12.6	12.6	10.2	10.2
86°	8.2	10.2	9.7	9.7	7.3	8.2
86.5°	4.9	6.8	6.3	6.8	5.3	6.8
87°	2.4	3.4	3.9	4.9	3.9	5.8
87.5°	0.5	1.0	1.5	2.4	2.4	4.4
88°	0.0	0.0	0.0	0.5	1.5	3.4
88.5°	0.0	0.0	0.0	0.0	0.5	2.4



TEST NUMBER: P776584

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

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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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°	2873.1	2910.9	2836.2	2677.0	2462.1	2276.2	2122.9	2011.3	1918.1	1901.1	1935.6
22°	2849.8	2891.5	2817.3	2656.2	2439.3	2252.5	2098.1	1986.1	1892.4	1875.9	1908.9



44°	1303.3	1338.8	1315.5	1235.9	1110.2	1013.2	938.9	887.0	821.5	808.4	804.0
44.5°	1274.2	1308.7	1285.9	1207.7	1083.0	988.4	916.1	865.2	801.1	790.0	784.6



66.5°	388.2	400.3	378.5	338.7	295.0	272.7	272.7	273.7	255.7	247.0	233.9
67°	373.1	385.3	365.4	326.6	284.3	263.5	264.0	264.5	246.5	238.7	226.1



89°	1.5	2.9	7.8	11.2	10.2	10.2	7.8	3.4	0.0	0.5	0.0
89.5°	0.5	1.9	4.9	8.2	7.3	6.8	4.4	1.5	0.0	0.5	0.0

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21.5°	2012.7	2151.5	2321.4	2522.2	2712.9	2873.1
22°	1985.1	2123.9	2293.2	2494.6	2685.8	2849.8



44°	818.6	876.8	962.2	1077.2	1190.8	1303.3
44.5°	798.7	855.5	939.4	1052.5	1164.1	1274.2

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66.5°	217.9	222.7	244.6	286.8	337.7	388.2
67°	210.6	214.0	234.9	275.6	324.6	373.1

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89°	0.0	0.0	0.0	0.0	0.5	1.5
89.5°	0.0	0.0	0.0	0.0	0.0	0.5

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Scaled Data Report



(END OF REPORT)