

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: P776409

Luminaire Tested: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776409
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: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K
Description: 6 INCH ROUND MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

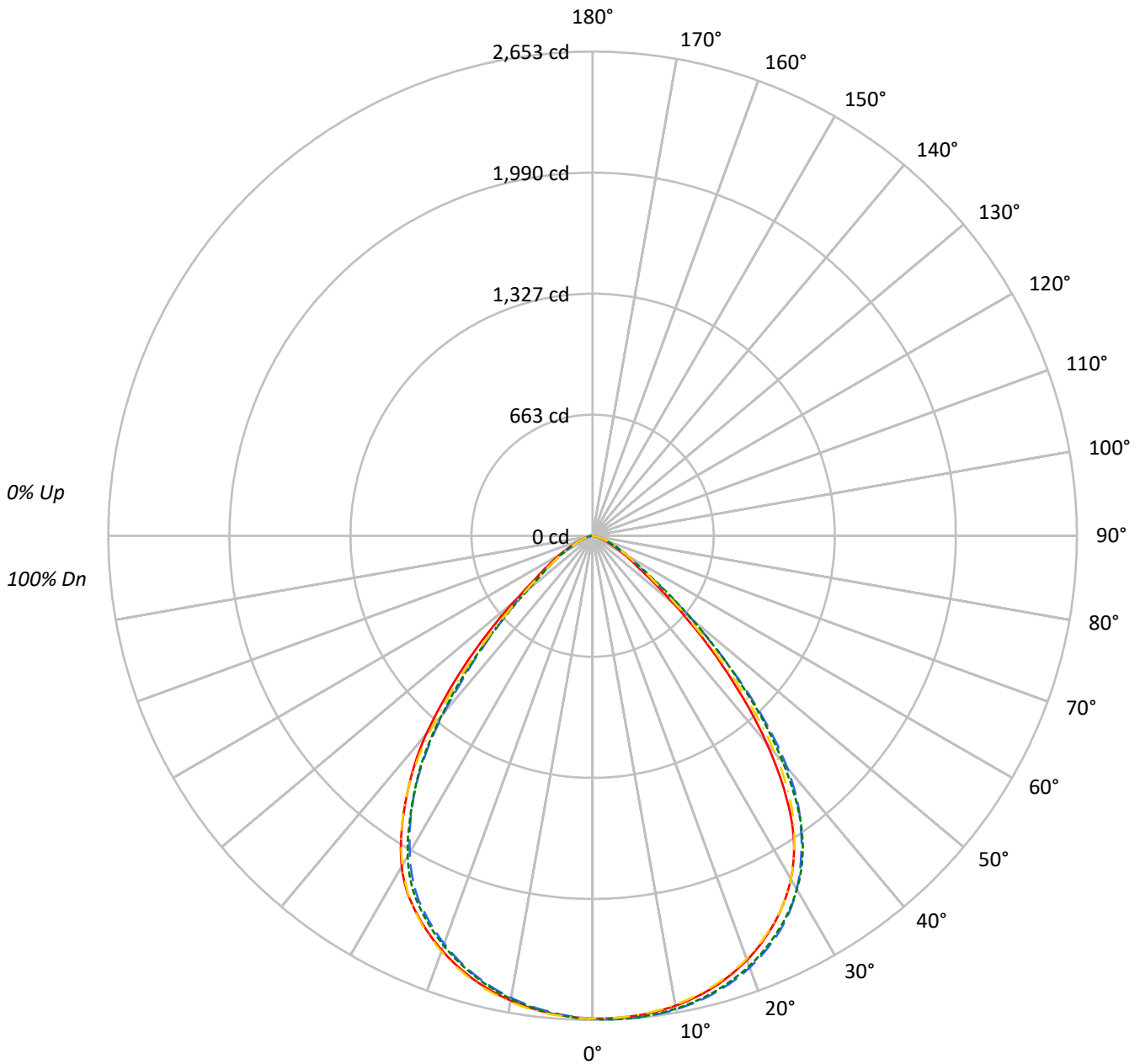
Lumens per Lamp: N/A
Luminaire Lumens: 4421.8 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.18
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
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					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	112	109	106	103	109	106	104	101	102	100	98	99	97	95	95	94	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65					65			
5	85	75	68	62	83	74	67	62	72	66	62	70	65	61	69	64	60	59					59			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	44					44			
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	145082	145082	145082	145082
5°	145344	145861	144557	144464
10°	145566	146451	143952	143401
15°	145324	146743	142839	141772
20°	144300	146330	140957	139335
25°	141994	144867	138087	135764
30°	137546	141636	132394	128279
35°	127027	133973	119692	113642
40°	106156	116103	101440	92223
45°	78155	89505	74923	65348
50°	50156	60339	48203	40323
55°	29982	36395	31502	27325
60°	21117	24757	22827	19867
65°	14424	17563	16072	14217
70°	9906	12710	11204	10290
75°	6841	9447	7964	7456
80°	4641	7229	5683	5304
85°	2076	5661	3334	3082

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 92203 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.5	5.7
10°-20°	716.2	16.2
20°-30°	1063.4	24.0
30°-40°	1141.1	25.8
40°-50°	764.8	17.3
50°-60°	311.3	7.0
60°-70°	124.3	2.8
70°-80°	42.5	1.0
80°-90°	7.8	0.2
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°	2030.1	45.9
0°-40°	3171.2	71.7
0°-60°	4247.2	96.1
0°-90°	4421.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4421.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2646	2646	2646	2646	2646	
5°	2641	2651	2627	2625	2641	251
15°	2561	2586	2517	2498	2561	722
25°	2348	2395	2283	2244	2348	1079
35°	1898	2002	1788	1698	1898	1168
45°	1008	1154	966	843	1008	778
55°	314	381	330	286	314	303
65°	111	135	124	110	111	115
75°	32	45	38	35	32	36
85°	3	9	5	5	3	5
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°	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5
0.5°	2645.3	2646.5	2648.1	2649.4	2649.8	2649.4	2646.1	2643.6	2644.0	2644.0	2645.3
1°	2646.1	2647.7	2649.4	2650.6	2651.0	2650.2	2646.1	2643.2	2642.8	2642.4	2643.2
1.5°	2646.1	2648.5	2650.6	2651.8	2651.4	2650.2	2646.1	2642.4	2642.0	2640.4	2641.2
2°	2645.7	2648.9	2651.4	2652.6	2651.8	2650.6	2645.7	2641.6	2640.4	2638.3	2638.7
2.5°	2645.3	2649.4	2651.8	2653.0	2652.2	2650.6	2645.3	2640.4	2638.7	2636.3	2636.3
3°	2644.9	2649.4	2652.2	2653.4	2652.2	2650.2	2644.4	2639.1	2637.1	2633.8	2633.8
3.5°	2644.4	2649.4	2652.6	2653.4	2652.2	2649.8	2643.2	2637.5	2634.6	2630.9	2630.5
4°	2643.6	2649.4	2652.2	2653.4	2651.8	2648.9	2642.0	2635.4	2632.2	2628.1	2627.7
4.5°	2642.4	2648.5	2652.2	2653.4	2651.4	2648.1	2640.8	2633.8	2629.7	2624.8	2624.4
5°	2641.2	2648.1	2651.8	2652.6	2650.6	2646.9	2638.7	2631.4	2626.9	2621.5	2620.7
5.5°	2639.9	2646.9	2651.0	2652.2	2649.8	2645.3	2637.1	2628.9	2624.0	2617.9	2616.6
6°	2637.9	2646.1	2650.2	2651.4	2648.5	2643.6	2635.0	2626.0	2620.7	2614.2	2613.0
6.5°	2635.9	2644.4	2648.9	2650.2	2646.9	2642.0	2632.6	2623.2	2617.5	2610.1	2608.5
7°	2633.8	2643.2	2647.7	2648.9	2645.7	2639.9	2629.7	2619.9	2613.8	2605.6	2604.0
7.5°	2631.4	2641.2	2646.1	2647.3	2643.6	2637.5	2627.3	2616.6	2609.7	2601.1	2599.0
8°	2628.5	2639.1	2644.4	2645.7	2641.6	2635.0	2624.0	2613.0	2605.6	2596.2	2594.1
8.5°	2625.6	2637.1	2642.4	2643.6	2639.5	2632.6	2620.7	2608.9	2600.7	2591.3	2588.8
9°	2622.0	2634.6	2640.4	2641.6	2636.7	2629.3	2617.5	2604.8	2596.2	2586.0	2582.7
9.5°	2618.7	2631.8	2637.5	2639.1	2633.8	2626.5	2613.4	2600.3	2591.3	2580.2	2577.0
10°	2615.0	2628.9	2635.0	2636.3	2630.9	2623.2	2609.3	2595.8	2586.0	2574.1	2571.2
10.5°	2610.9	2625.2	2631.8	2633.4	2627.3	2619.1	2605.2	2590.5	2580.6	2568.0	2564.7
11°	2606.4	2622.0	2628.5	2630.1	2624.0	2615.4	2600.7	2585.6	2574.5	2561.8	2557.7
11.5°	2601.9	2617.9	2624.8	2626.9	2619.9	2610.9	2595.8	2579.8	2568.4	2554.9	2550.8
12°	2596.6	2613.8	2621.1	2622.8	2616.2	2606.0	2590.5	2574.1	2561.8	2547.5	2543.4
12.5°	2591.3	2608.9	2617.0	2618.7	2611.7	2601.5	2585.1	2568.0	2555.3	2540.2	2535.7
13°	2586.0	2604.4	2613.0	2614.6	2606.8	2596.2	2579.4	2561.4	2547.9	2532.4	2527.9
13.5°	2580.2	2599.5	2608.0	2609.7	2601.9	2590.9	2573.3	2554.9	2540.6	2524.2	2519.3
14°	2574.1	2594.5	2603.1	2604.8	2597.0	2585.1	2567.1	2547.5	2533.2	2515.6	2510.3
14.5°	2567.6	2588.4	2597.8	2599.9	2591.3	2579.0	2560.2	2540.2	2525.0	2507.0	2501.3
15°	2560.6	2582.7	2592.1	2594.5	2585.6	2572.9	2553.2	2532.4	2516.8	2498.0	2491.9
15.5°	2553.7	2576.1	2586.0	2588.8	2579.0	2566.3	2546.3	2525.0	2507.8	2488.2	2482.1
16°	2545.9	2569.6	2579.8	2582.3	2572.5	2559.4	2538.9	2516.4	2499.3	2478.4	2471.9
16.5°	2538.1	2562.6	2573.3	2575.7	2565.9	2552.0	2531.2	2507.8	2489.9	2468.6	2461.6
17°	2529.5	2555.7	2566.7	2569.2	2558.6	2544.7	2523.0	2498.8	2480.0	2458.0	2451.0
17.5°	2521.3	2547.9	2559.4	2561.8	2551.2	2536.5	2514.4	2489.9	2470.2	2446.9	2439.5
18°	2512.3	2539.7	2551.6	2554.5	2543.0	2528.3	2505.4	2480.0	2460.0	2435.9	2428.1
18.5°	2502.9	2531.6	2543.8	2546.3	2534.8	2519.7	2496.0	2470.2	2449.8	2424.4	2416.2
19°	2493.5	2522.6	2535.2	2538.1	2526.3	2510.7	2486.6	2460.0	2438.7	2413.0	2404.0
19.5°	2483.7	2513.6	2526.7	2529.5	2517.7	2501.3	2476.8	2449.8	2427.7	2400.7	2391.3
20°	2473.5	2504.2	2517.7	2520.9	2508.3	2491.5	2466.5	2438.7	2416.2	2388.4	2378.6
20.5°	2462.9	2494.4	2507.8	2511.5	2498.8	2481.7	2455.9	2427.7	2404.4	2374.9	2365.5
21°	2451.4	2484.1	2498.4	2501.7	2488.6	2471.0	2444.9	2416.2	2392.1	2362.3	2351.6



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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°	2415.8	2451.0	2466.1	2470.6	2456.7	2437.9	2410.1	2379.4	2354.1	2320.1	2308.7
23°	2402.7	2439.1	2455.1	2459.2	2444.9	2425.6	2397.4	2366.7	2340.2	2305.4	2293.5
23.5°	2389.2	2426.9	2442.8	2447.3	2433.0	2413.0	2384.3	2353.7	2326.7	2290.7	2278.0
24°	2375.7	2414.2	2431.0	2435.5	2420.7	2400.3	2371.2	2339.8	2312.4	2275.5	2262.1
24.5°	2361.8	2400.7	2417.5	2422.8	2408.1	2387.6	2358.2	2325.9	2297.6	2260.0	2246.1
25°	2347.5	2387.2	2404.8	2410.1	2395.0	2374.1	2344.3	2311.5	2282.9	2244.1	2229.7
25.5°	2332.4	2373.7	2390.9	2396.2	2381.5	2360.2	2329.9	2297.2	2267.8	2227.3	2212.6
26°	2317.3	2359.4	2377.0	2382.7	2367.6	2346.3	2315.6	2282.1	2251.8	2209.7	2194.2
26.5°	2301.3	2344.3	2361.4	2368.4	2353.3	2331.2	2300.1	2266.6	2235.5	2190.5	2174.5
27°	2285.4	2328.3	2346.7	2353.3	2338.1	2316.0	2284.1	2249.8	2218.3	2170.4	2153.7
27.5°	2267.4	2312.4	2330.4	2337.7	2322.6	2300.5	2267.4	2232.2	2200.3	2150.0	2131.6
28°	2250.6	2295.2	2313.2	2321.4	2306.6	2284.1	2249.8	2213.8	2180.7	2128.3	2108.3
28.5°	2231.4	2277.2	2294.4	2304.2	2291.1	2267.4	2231.8	2195.0	2160.2	2105.8	2084.1
29°	2213.0	2258.4	2276.4	2286.2	2273.5	2250.2	2212.6	2174.5	2138.9	2080.9	2058.0
29.5°	2192.9	2239.1	2256.7	2267.4	2255.9	2231.8	2192.9	2153.7	2116.0	2055.9	2031.4
30°	2172.9	2219.1	2236.7	2248.1	2237.5	2213.4	2171.7	2131.2	2091.5	2030.2	2004.0
30.5°	2150.4	2197.8	2215.0	2228.1	2219.1	2192.9	2150.0	2107.5	2066.6	2003.2	1976.2
31°	2128.7	2175.8	2193.8	2207.2	2199.1	2172.5	2127.9	2083.3	2039.6	1974.5	1946.7
31.5°	2104.6	2153.3	2170.8	2184.8	2178.2	2151.2	2104.2	2058.0	2011.8	1945.1	1918.5
32°	2079.6	2129.1	2146.7	2162.7	2156.9	2128.3	2080.5	2030.6	1982.7	1915.2	1888.7
32.5°	2053.1	2104.2	2122.6	2138.5	2134.0	2105.4	2055.1	2002.8	1952.0	1883.7	1858.8
33°	2026.5	2078.4	2097.6	2114.4	2110.3	2081.3	2029.3	1973.7	1921.0	1851.8	1827.3
33.5°	1997.0	2052.7	2072.3	2089.1	2085.4	2055.5	2003.2	1944.3	1888.7	1818.7	1796.6
34°	1965.5	2025.3	2046.9	2062.9	2059.6	2030.2	1976.2	1913.2	1855.9	1784.0	1762.7
34.5°	1932.0	1998.3	2020.3	2036.7	2031.4	2001.1	1948.4	1880.5	1822.8	1749.6	1730.4
35°	1898.1	1968.4	1992.9	2008.5	2001.9	1972.9	1918.9	1848.2	1788.5	1714.4	1695.2
35.5°	1862.5	1939.0	1965.1	1980.3	1971.7	1943.0	1889.5	1816.7	1755.3	1678.4	1659.2
36°	1824.0	1907.9	1937.3	1951.2	1939.4	1913.2	1858.4	1782.3	1721.0	1641.6	1620.8
36.5°	1784.4	1876.8	1907.1	1921.8	1905.0	1880.1	1825.7	1749.6	1686.6	1604.0	1582.3
37°	1744.3	1842.9	1876.8	1890.7	1869.0	1846.1	1790.9	1714.8	1650.6	1566.0	1541.0
37.5°	1702.6	1808.1	1843.7	1857.6	1831.0	1809.7	1755.3	1681.7	1615.1	1528.3	1498.9
38°	1660.0	1770.9	1811.0	1824.0	1790.9	1773.7	1718.5	1645.3	1578.7	1486.6	1456.4
38.5°	1616.7	1733.2	1775.4	1788.0	1750.4	1733.2	1680.5	1610.6	1541.4	1444.5	1412.6
39°	1573.3	1693.2	1738.2	1751.2	1709.5	1692.3	1640.8	1572.1	1502.6	1401.2	1365.6
39.5°	1528.8	1650.2	1698.9	1712.0	1666.6	1649.0	1599.5	1534.1	1460.9	1358.6	1318.5
40°	1483.4	1604.8	1658.8	1670.3	1622.4	1603.6	1556.6	1491.5	1417.5	1311.2	1269.9
40.5°	1437.6	1558.2	1615.9	1626.1	1579.5	1555.7	1511.6	1449.0	1372.1	1265.0	1220.4
41°	1390.5	1510.4	1570.5	1579.9	1534.9	1507.9	1465.4	1403.2	1325.5	1219.6	1171.7
41.5°	1342.7	1462.1	1525.5	1532.0	1490.3	1459.6	1416.7	1357.8	1279.3	1174.2	1122.2
42°	1293.6	1413.0	1477.6	1482.5	1443.7	1410.2	1366.0	1308.3	1231.8	1126.7	1076.0
42.5°	1244.1	1365.6	1429.4	1433.5	1397.9	1359.4	1316.9	1260.5	1187.3	1082.2	1031.0
43°	1195.0	1317.7	1378.3	1385.2	1350.9	1311.6	1267.4	1211.0	1142.7	1036.3	986.9
43.5°	1147.2	1270.3	1328.8	1336.1	1301.0	1260.9	1218.3	1162.3	1098.5	992.6	943.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1008.1	1125.9	1175.4	1189.3	1154.5	1112.0	1068.7	1021.2	966.4	862.5	820.4
45.5°	963.5	1077.7	1123.1	1141.0	1105.9	1063.7	1020.0	975.0	922.7	822.0	782.4
46°	918.2	1030.2	1071.1	1093.2	1060.5	1015.9	970.5	929.2	879.7	782.4	745.6
46.5°	872.8	983.2	1021.6	1045.8	1014.7	970.1	923.5	883.4	836.8	744.7	709.2
47°	827.8	934.9	971.7	997.1	969.3	925.1	876.0	836.8	794.6	706.3	675.2
47.5°	785.2	889.1	923.5	949.2	923.1	881.3	831.5	792.6	754.2	671.5	642.5
48°	743.1	843.3	876.0	903.0	878.1	839.2	787.7	749.7	714.5	637.2	611.4
48.5°	701.8	798.7	831.5	857.2	834.3	798.7	746.8	707.9	676.0	604.5	580.3
49°	662.5	755.0	787.3	811.8	791.4	757.8	706.3	667.5	636.8	572.6	551.7
49.5°	625.3	711.6	744.7	768.9	748.8	717.8	668.3	629.0	600.0	542.3	523.9
50°	588.1	669.9	701.8	725.5	707.5	679.3	630.6	593.0	565.2	513.7	497.3
50.5°	552.9	629.4	662.1	683.4	667.0	641.7	596.3	558.7	530.9	486.7	472.0
51°	519.0	590.2	623.3	641.7	629.4	605.7	563.2	526.4	499.0	461.3	447.8
51.5°	486.7	552.5	586.1	603.7	592.2	571.3	532.5	496.5	469.5	436.8	424.5
52°	456.0	517.4	550.1	566.4	557.4	537.0	502.6	467.9	442.9	413.5	402.8
52.5°	427.0	484.6	516.1	530.4	522.3	504.7	474.8	441.7	418.0	391.8	382.4
53°	399.6	454.0	483.8	496.1	489.5	475.2	448.2	418.0	396.7	372.2	364.8
53.5°	375.0	425.3	453.1	465.0	458.5	447.0	423.7	395.9	377.1	355.0	346.8
54°	352.1	398.3	424.9	435.6	429.0	420.4	401.2	375.8	361.1	337.4	329.2
54.5°	332.1	374.2	397.1	408.2	401.6	395.9	379.9	359.5	345.2	320.2	311.6
55°	313.7	352.1	371.8	382.8	380.8	375.8	361.9	343.5	329.6	303.1	293.6
55.5°	296.5	332.1	348.9	359.9	360.3	356.2	344.4	327.2	313.7	288.3	279.3
56°	281.4	312.9	327.6	338.6	339.5	336.6	326.4	310.8	297.7	274.8	266.2
56.5°	267.9	295.3	308.8	319.0	318.6	317.0	308.4	294.5	284.2	262.2	254.8
57°	256.4	279.7	291.6	301.0	298.1	297.3	290.8	281.0	271.6	251.9	244.6
57.5°	245.4	266.2	276.1	284.6	283.0	282.6	276.5	267.9	259.7	241.3	234.3
58°	234.8	254.8	263.4	270.3	269.1	268.7	263.8	256.8	249.5	231.1	224.1
58.5°	224.1	243.8	252.3	258.5	258.1	257.7	253.2	246.6	238.8	220.8	213.5
59°	213.1	233.1	241.7	247.8	247.0	247.0	242.5	236.0	228.6	210.6	203.7
59.5°	202.9	222.1	230.7	237.2	236.4	236.4	232.3	225.3	218.0	200.8	194.3
60°	192.6	211.4	219.6	226.2	225.8	225.3	221.3	215.5	208.2	191.4	185.3
60.5°	182.4	200.8	209.0	215.5	214.7	214.7	211.0	205.3	198.8	182.4	176.3
61°	173.0	191.0	198.8	204.9	204.5	204.5	201.2	195.9	189.4	173.8	167.7
61.5°	164.0	181.2	188.9	194.7	193.9	194.7	191.4	186.5	179.9	165.6	159.9
62°	155.4	172.2	179.1	184.9	184.4	184.9	182.4	177.5	171.0	157.5	152.1
62.5°	146.8	163.6	170.1	175.5	175.0	175.9	173.4	168.9	162.4	149.7	144.8
63°	139.5	155.0	161.5	166.5	166.5	166.9	164.8	160.7	154.2	141.9	137.4
63.5°	132.5	146.0	153.4	158.3	157.9	158.7	156.6	153.0	146.0	134.6	130.9
64°	125.1	139.1	146.4	150.1	150.1	150.5	148.9	145.6	138.2	127.6	124.3
64.5°	118.2	132.1	139.1	143.1	142.7	143.1	141.5	137.8	130.9	121.1	118.2
65°	111.2	125.1	132.1	136.2	135.4	136.2	134.6	130.9	123.9	114.9	112.1
65.5°	104.7	118.2	125.1	129.2	128.4	129.2	127.6	124.3	117.4	108.8	106.7
66°	99.0	111.7	118.2	122.7	121.9	122.7	121.5	117.8	110.8	102.7	101.0



TEST NUMBER: P776409

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	83.0	94.5	100.6	103.9	103.9	104.7	103.9	100.2	93.7	87.1	86.3
68°	78.5	89.6	95.3	98.6	98.6	99.4	98.6	94.9	88.3	82.2	81.8
68.5°	73.6	84.2	90.0	93.2	93.2	94.1	93.2	90.0	83.4	77.7	77.3
69°	69.5	79.8	85.5	88.3	88.3	89.2	88.7	85.1	78.9	73.2	73.2
69.5°	65.4	75.3	80.6	83.4	83.8	84.2	83.8	80.2	74.4	69.1	69.1
70°	61.8	70.8	76.5	79.3	79.3	80.2	79.3	76.1	69.9	65.4	65.4
70.5°	58.1	67.1	72.0	74.8	74.8	75.7	75.3	71.6	65.8	61.3	61.8
71°	54.4	63.0	68.3	70.8	71.2	71.6	71.2	67.9	62.2	58.1	58.5
71.5°	51.1	59.3	64.6	67.1	67.1	67.9	67.5	63.8	58.5	54.4	55.2
72°	47.9	56.0	60.9	63.4	63.4	64.2	63.8	60.1	55.2	51.1	51.9
72.5°	45.0	52.8	57.3	59.7	59.7	60.5	60.1	56.8	51.9	48.3	49.1
73°	42.1	49.5	54.0	56.4	56.4	57.3	56.8	53.2	48.7	45.4	46.2
73.5°	39.7	46.2	51.1	53.2	53.6	54.0	53.6	50.3	45.8	42.5	43.4
74°	37.2	43.4	47.9	50.3	50.3	51.1	50.3	47.0	42.9	39.7	40.9
74.5°	34.8	40.9	45.0	47.4	47.4	47.9	47.4	44.2	40.1	37.2	38.0
75°	32.3	38.4	42.5	44.6	44.6	45.4	44.6	41.7	37.6	35.2	35.6
75.5°	30.3	36.0	39.7	41.7	42.1	42.5	42.1	38.9	35.2	32.7	33.5
76°	28.2	33.5	37.2	39.3	39.7	40.1	39.3	36.4	33.1	30.7	31.5
76.5°	26.2	31.1	35.2	36.8	37.2	37.6	36.8	34.4	31.1	28.2	29.4
77°	24.1	29.0	32.7	34.8	34.8	35.2	34.8	32.3	28.6	26.2	27.4
77.5°	22.5	27.0	30.7	32.3	32.7	33.1	32.7	29.9	26.6	24.1	25.4
78°	20.9	24.9	28.6	30.3	30.7	31.1	30.7	27.8	24.5	22.5	23.3
78.5°	19.2	23.3	26.6	28.2	28.6	29.0	28.2	25.8	22.9	20.9	21.7
79°	17.6	21.7	24.5	26.6	26.6	27.0	26.2	23.7	21.3	19.2	20.0
79.5°	16.0	20.0	22.9	24.5	24.5	24.9	24.5	22.1	19.6	17.6	18.4
80°	14.7	18.4	21.3	22.9	22.9	23.3	22.5	20.0	18.0	16.0	16.8
80.5°	13.5	16.8	19.6	21.3	21.3	21.7	20.9	18.4	16.4	14.7	15.5
81°	12.3	15.1	18.0	19.6	19.6	20.0	19.2	17.2	15.1	13.1	13.9
81.5°	10.6	13.9	16.4	18.0	18.0	18.4	18.0	15.5	13.5	11.9	12.7
82°	9.8	12.7	15.1	16.8	16.8	16.8	16.4	13.9	12.3	10.6	11.5
82.5°	8.6	11.0	13.9	15.1	15.1	15.5	15.1	12.7	11.0	9.4	10.2
83°	7.4	9.8	12.7	13.9	13.9	14.3	13.5	11.5	9.8	8.2	9.0
83.5°	6.5	8.6	11.5	12.7	12.7	13.1	12.3	10.2	8.6	7.0	7.8
84°	5.3	7.8	9.8	11.5	11.5	11.9	11.0	9.0	7.4	5.7	7.0
84.5°	4.5	6.5	9.0	10.2	10.2	10.6	9.8	7.8	6.5	4.9	6.1
85°	3.3	5.3	7.8	9.0	9.0	9.4	8.6	6.5	5.3	3.7	4.9
85.5°	2.5	4.5	7.0	8.2	8.2	8.2	7.8	5.7	4.5	3.3	4.1
86°	2.0	3.7	5.7	7.0	7.0	7.4	6.5	4.9	3.3	2.5	3.3
86.5°	1.6	2.9	4.9	6.1	6.1	6.1	5.7	4.1	2.9	2.0	2.5
87°	1.2	2.5	4.1	4.9	4.9	5.3	4.9	3.3	2.0	1.6	1.6
87.5°	0.8	2.0	3.3	4.1	4.1	4.1	4.1	2.9	1.6	1.2	1.2
88°	0.4	1.2	2.5	3.3	3.3	3.3	2.9	2.0	1.2	0.4	0.4
88.5°	0.0	0.8	1.6	2.5	2.5	2.5	2.0	1.6	0.8	0.0	0.0



TEST NUMBER: P776409
CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776409

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2646.5	2646.5	2646.5	2646.5	2646.5	2646.5
0.5°	2646.1	2647.3	2647.7	2645.3	2644.0	2645.3
1°	2644.4	2645.7	2646.5	2644.9	2644.0	2646.1
1.5°	2642.4	2643.6	2645.3	2644.0	2643.6	2646.1
2°	2639.9	2642.0	2643.2	2642.8	2642.8	2645.7
2.5°	2637.5	2639.5	2641.6	2641.6	2642.0	2645.3
3°	2634.6	2637.1	2639.5	2639.9	2641.2	2644.9
3.5°	2631.8	2634.6	2637.1	2638.3	2639.9	2644.4
4°	2628.9	2631.4	2634.6	2636.3	2638.7	2643.6
4.5°	2625.2	2628.5	2631.8	2633.8	2637.1	2642.4
5°	2621.5	2625.2	2628.5	2631.4	2635.0	2641.2
5.5°	2617.5	2621.1	2625.2	2628.9	2633.0	2639.9
6°	2613.4	2617.5	2621.5	2625.6	2630.5	2637.9
6.5°	2609.3	2613.4	2617.9	2622.8	2628.1	2635.9
7°	2604.0	2608.5	2613.8	2619.1	2624.8	2633.8
7.5°	2599.5	2604.0	2609.7	2615.4	2622.0	2631.4
8°	2594.1	2598.6	2605.2	2611.3	2618.7	2628.5
8.5°	2588.8	2593.7	2600.3	2607.2	2615.4	2625.6
9°	2583.1	2588.0	2595.0	2602.7	2611.3	2622.0
9.5°	2577.0	2582.3	2589.6	2597.8	2607.2	2618.7
10°	2570.8	2576.1	2583.9	2592.9	2602.7	2615.0
10.5°	2564.3	2570.0	2578.2	2587.2	2598.2	2610.9
11°	2556.9	2563.1	2571.6	2581.5	2593.3	2606.4
11.5°	2550.0	2556.1	2565.1	2575.3	2588.0	2601.9
12°	2542.2	2548.7	2557.7	2569.2	2582.3	2596.6
12.5°	2534.8	2541.0	2550.8	2562.6	2576.6	2591.3
13°	2526.3	2533.2	2543.0	2555.7	2570.4	2586.0
13.5°	2517.7	2525.0	2535.2	2548.3	2563.9	2580.2
14°	2508.7	2516.4	2527.1	2540.6	2556.9	2574.1
14.5°	2499.7	2507.0	2518.5	2532.8	2550.0	2567.6
15°	2490.3	2498.0	2509.9	2524.6	2542.6	2560.6
15.5°	2480.4	2488.6	2500.5	2516.0	2534.4	2553.7
16°	2470.2	2478.4	2490.7	2507.0	2526.7	2545.9
16.5°	2460.0	2468.6	2480.9	2498.0	2518.1	2538.1
17°	2449.0	2458.0	2471.0	2488.2	2509.1	2529.5
17.5°	2438.3	2446.9	2460.4	2478.4	2499.7	2521.3
18°	2426.1	2435.9	2449.8	2468.6	2490.3	2512.3
18.5°	2414.6	2424.4	2438.7	2457.5	2480.0	2502.9
19°	2402.3	2412.6	2427.3	2446.5	2469.8	2493.5
19.5°	2389.7	2400.7	2415.4	2435.5	2459.6	2483.7
20°	2376.6	2388.4	2403.6	2424.0	2448.5	2473.5
20.5°	2363.5	2375.7	2391.3	2412.1	2437.1	2462.9
21°	2350.0	2362.7	2378.2	2399.5	2425.2	2451.4

TEST NUMBER: P776409

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2307.0	2321.4	2337.7	2360.2	2387.6	2415.8
23°	2291.9	2306.6	2323.4	2346.3	2373.7	2402.7
23.5°	2276.4	2291.1	2309.1	2332.0	2359.8	2389.2
24°	2260.8	2276.0	2293.5	2316.9	2345.5	2375.7
24.5°	2244.9	2260.4	2278.4	2301.7	2330.8	2361.8
25°	2228.5	2244.5	2262.5	2286.2	2315.6	2347.5
25.5°	2211.3	2227.7	2246.5	2270.2	2300.1	2332.4
26°	2192.5	2210.5	2228.5	2253.1	2284.1	2317.3
26.5°	2173.3	2191.7	2210.1	2234.7	2267.8	2301.3
27°	2152.4	2172.5	2190.1	2215.8	2250.6	2285.4
27.5°	2130.4	2150.8	2169.6	2196.2	2232.2	2267.4
28°	2107.5	2129.1	2147.9	2174.5	2213.8	2250.6
28.5°	2083.7	2104.6	2125.0	2153.3	2193.8	2231.4
29°	2058.4	2080.1	2101.3	2131.2	2173.3	2213.0
29.5°	2032.6	2053.5	2076.4	2107.9	2152.0	2192.9
30°	2004.8	2026.5	2050.2	2082.9	2129.5	2172.9
30.5°	1976.2	1995.8	2022.8	2058.8	2106.6	2150.4
31°	1946.3	1966.8	1993.4	2032.6	2081.7	2128.7
31.5°	1916.5	1934.9	1963.9	2006.4	2056.3	2104.6
32°	1884.2	1901.7	1933.2	1978.2	2030.2	2079.6
32.5°	1851.4	1867.0	1901.7	1951.2	2002.8	2053.1
33°	1817.5	1835.5	1869.4	1922.6	1973.7	2026.5
33.5°	1782.3	1801.5	1835.9	1892.3	1944.7	1997.0
34°	1747.6	1767.2	1802.8	1859.6	1914.4	1965.5
34.5°	1712.0	1731.6	1768.4	1827.7	1882.1	1932.0
35°	1675.2	1698.1	1734.5	1793.8	1848.6	1898.1
35.5°	1638.4	1663.7	1700.5	1758.6	1814.2	1862.5
36°	1600.3	1628.5	1664.5	1719.3	1777.4	1824.0
36.5°	1562.3	1591.3	1629.0	1682.5	1739.0	1784.4
37°	1522.6	1553.3	1591.3	1642.5	1697.3	1744.3
37.5°	1482.1	1514.4	1551.7	1601.6	1655.5	1702.6
38°	1440.4	1473.1	1510.8	1558.2	1609.3	1660.0
38.5°	1396.2	1429.4	1468.2	1513.2	1564.3	1616.7
39°	1351.3	1383.6	1424.5	1465.8	1514.0	1573.3
39.5°	1305.5	1336.1	1377.0	1417.5	1465.4	1528.8
40°	1258.8	1288.7	1330.0	1367.6	1414.2	1483.4
40.5°	1213.0	1242.1	1280.5	1317.7	1364.8	1437.6
41°	1166.4	1196.3	1231.8	1267.0	1314.9	1390.5
41.5°	1119.8	1151.7	1183.2	1217.1	1264.6	1342.7
42°	1074.4	1107.5	1134.9	1167.2	1213.8	1293.6
42.5°	1029.0	1063.3	1086.7	1117.3	1165.6	1244.1
43°	984.0	1020.0	1040.0	1066.6	1116.5	1195.0
43.5°	939.0	974.2	993.4	1018.4	1068.2	1147.2



TEST NUMBER: P776409

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	813.5	842.9	855.6	876.8	930.0	1008.1
45.5°	774.2	800.0	811.4	832.7	887.5	963.5
46°	736.2	759.1	767.6	790.1	845.8	918.2
46.5°	697.3	719.0	725.1	749.7	804.5	872.8
47°	661.7	679.7	684.6	708.8	764.0	827.8
47.5°	627.8	640.5	646.2	671.5	724.3	785.2
48°	595.9	603.2	609.0	635.1	685.4	743.1
48.5°	563.2	567.7	574.2	600.4	649.0	701.8
49°	533.7	534.1	541.1	567.7	612.2	662.5
49.5°	505.5	502.2	510.0	536.6	577.5	625.3
50°	478.9	472.8	481.0	506.3	543.1	588.1
50.5°	452.7	445.0	453.6	477.7	511.6	552.9
51°	429.8	420.8	428.2	451.5	481.0	519.0
51.5°	407.3	399.2	405.7	427.0	452.7	486.7
52°	386.1	379.5	384.8	403.7	426.6	456.0
52.5°	368.5	361.5	365.2	381.6	401.6	427.0
53°	351.3	344.8	347.6	361.1	378.3	399.6
53.5°	334.1	328.8	330.5	341.9	356.2	375.0
54°	316.5	314.1	314.9	323.9	336.2	352.1
54.5°	299.4	299.8	300.2	307.1	317.8	332.1
55°	284.6	285.9	285.9	291.6	301.0	313.7
55.5°	271.6	272.8	272.8	276.9	285.1	296.5
56°	259.7	260.9	260.9	264.2	270.7	281.4
56.5°	249.1	250.7	250.3	253.2	258.9	267.9
57°	238.8	240.1	240.1	242.5	248.2	256.4
57.5°	228.6	229.8	229.4	231.9	237.6	245.4
58°	218.4	219.6	219.2	221.3	227.0	234.8
58.5°	208.2	209.4	208.6	211.0	215.9	224.1
59°	198.8	199.6	199.2	200.8	205.3	213.1
59.5°	189.4	190.6	189.8	191.0	195.5	202.9
60°	179.9	181.2	180.4	182.0	186.1	192.6
60.5°	171.8	172.6	171.8	173.0	176.7	182.4
61°	163.6	164.4	163.2	164.4	167.7	173.0
61.5°	155.4	156.2	155.4	156.6	159.5	164.0
62°	148.0	148.9	147.6	148.9	151.7	155.4
62.5°	140.7	142.3	140.7	141.9	144.4	146.8
63°	133.7	135.8	134.1	135.4	137.4	139.5
63.5°	127.2	128.8	127.6	128.4	130.5	132.5
64°	121.1	122.3	121.1	121.9	123.5	125.1
64.5°	114.9	115.3	114.5	114.9	116.6	118.2
65°	109.2	109.6	108.8	109.2	110.4	111.2
65.5°	103.5	103.9	103.1	103.5	104.3	104.7
66°	98.2	98.6	97.7	98.2	98.6	99.0



TEST NUMBER: P776409

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	83.8	84.2	83.4	83.4	83.4	83.0
68°	79.3	79.8	78.9	79.3	78.5	78.5
68.5°	75.3	75.7	74.8	74.8	74.4	73.6
69°	71.2	71.6	70.8	71.2	69.9	69.5
69.5°	67.5	67.9	67.1	67.1	66.3	65.4
70°	63.8	64.2	63.4	63.4	62.2	61.8
70.5°	60.1	60.5	59.7	59.7	58.5	58.1
71°	56.8	57.3	56.4	56.4	55.2	54.4
71.5°	53.6	54.0	53.2	53.2	51.9	51.1
72°	50.7	50.7	50.3	50.3	48.7	47.9
72.5°	47.9	47.9	47.4	47.4	45.8	45.0
73°	45.0	45.0	44.6	44.6	42.9	42.1
73.5°	42.1	42.5	41.7	41.7	40.1	39.7
74°	39.7	39.7	39.3	39.3	37.6	37.2
74.5°	37.2	37.2	36.8	36.8	35.2	34.8
75°	35.2	35.2	34.8	34.4	33.1	32.3
75.5°	33.1	32.7	32.3	32.3	30.7	30.3
76°	31.1	30.7	30.3	29.9	28.6	28.2
76.5°	29.0	28.6	28.2	28.2	26.6	26.2
77°	27.0	27.0	26.6	26.2	24.5	24.1
77.5°	24.9	24.9	24.5	24.1	22.9	22.5
78°	22.9	23.3	22.9	22.5	20.9	20.9
78.5°	21.3	21.7	21.3	20.9	19.2	19.2
79°	19.6	20.0	19.6	19.2	18.0	17.6
79.5°	18.4	18.4	18.0	17.6	16.4	16.0
80°	16.8	16.8	16.8	16.0	14.7	14.7
80.5°	15.1	15.5	15.1	14.7	13.5	13.5
81°	13.9	14.3	13.9	13.5	12.3	12.3
81.5°	12.7	13.1	12.7	12.3	10.6	10.6
82°	11.5	11.9	11.5	11.0	9.4	9.8
82.5°	10.2	10.2	10.2	9.8	8.2	8.6
83°	9.0	9.4	9.0	8.6	7.0	7.4
83.5°	8.2	8.2	7.8	7.4	6.1	6.5
84°	7.0	7.0	7.0	6.5	5.3	5.3
84.5°	6.1	6.1	5.7	5.7	4.1	4.5
85°	4.9	4.9	4.9	4.9	3.7	3.3
85.5°	4.1	4.1	4.1	3.7	2.9	2.5
86°	3.3	3.3	3.3	2.9	2.5	2.0
86.5°	2.5	2.5	2.0	2.0	1.6	1.6
87°	1.2	1.6	1.2	1.2	1.2	1.2
87.5°	0.4	0.8	0.4	0.8	0.8	0.8
88°	0.0	0.0	0.0	0.0	0.4	0.4
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776409

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMW-4000lm-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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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°	2440.0	2473.5	2487.8	2491.9	2478.4	2460.4	2433.8	2404.4	2379.8	2348.3	2337.7
22°	2428.1	2462.5	2477.6	2481.3	2467.8	2449.4	2422.0	2392.1	2367.2	2334.4	2323.4



44°	1100.1	1222.4	1277.2	1287.5	1251.5	1211.4	1167.6	1114.1	1054.8	947.2	901.4
44.5°	1053.9	1173.4	1226.5	1238.4	1202.0	1161.9	1116.5	1067.8	1010.2	905.1	860.9



66.5°	93.2	105.9	111.7	115.7	115.3	116.1	115.3	111.7	104.7	97.3	96.1
67°	87.9	99.8	105.9	109.6	109.6	110.4	109.2	105.9	99.0	92.0	91.2



89°	0.0	0.4	0.8	1.6	1.6	1.2	0.8	0.4	0.0	0.0
89.5°	0.0	0.0	0.4	0.8	0.8	0.8	0.4	0.0	0.0	0.0

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21.5°	2336.1	2349.2	2365.1	2386.8	2413.0	2440.0
22°	2321.8	2335.3	2351.2	2373.7	2400.7	2428.1



44°	896.5	929.6	947.2	970.9	1020.8	1100.1
44.5°	854.8	886.3	900.6	923.9	975.0	1053.9

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66.5°	93.2	93.7	92.8	93.2	93.2	93.2
67°	88.3	88.7	87.9	88.3	88.3	87.9

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89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)