

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: P776726

Luminaire Tested: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776726
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: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K
Description: 6 INCH SQUARE MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

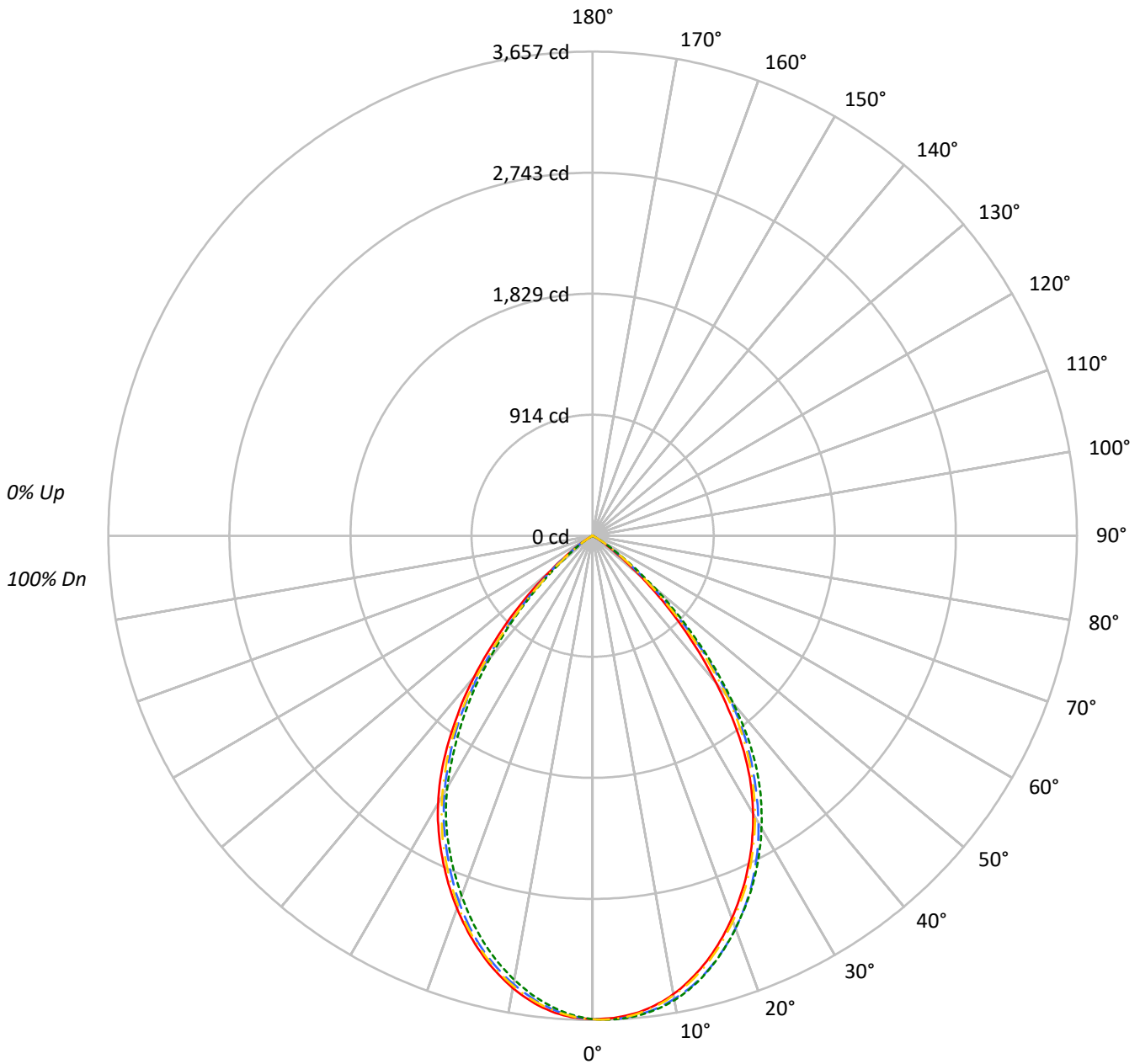
Lumens per Lamp: N/A
Luminaire Lumens: 4591.9 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.06
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92					92			
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77					77			
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	78	75	72	70					70			
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	64					64			
6	83	73	67	62	82	73	66	62	71	65	61	69	64	61	68	64	60	59					59			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55	54					54			
8	74	63	57	52	73	63	56	52	62	56	52	61	55	51	59	55	51	50					50			
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46					46			
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	48	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	200165	200165	200165	200165
5°	199279	200489	198376	196373
10°	195682	198265	193071	189620
15°	188809	192646	185012	180381
20°	179350	184157	174700	168750
25°	167750	174046	162378	155670
30°	153410	161392	147789	138996
35°	133210	144728	126598	115134
40°	103845	118307	99808	86491
45°	71201	85877	68472	55595
50°	39214	51913	37508	27308
55°	14996	22795	16219	11632
60°	1974	5833	3903	1535
65°	259	467	363	259
70°	64	128	128	128
75°	85	85	85	85
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 85877 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.9	7.4
10°-20°	924.1	20.1
20°-30°	1250.1	27.2
30°-40°	1200.1	26.1
40°-50°	698.9	15.2
50°-60°	172.0	3.7
60°-70°	5.5	0.1
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	2515.0	54.8
0°-40°	3715.2	80.9
0°-60°	4586.1	99.9
0°-90°	4591.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4591.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3651	3651	3651	3651	3651	
5°	3621	3643	3605	3568	3621	342
15°	3327	3394	3260	3178	3327	933
25°	2773	2877	2684	2574	2773	1271
35°	1990	2163	1892	1720	1990	1225
45°	918	1108	883	717	918	709
55°	157	238	170	122	157	162
65°	2	4	3	2	2	4
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	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°	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3
0.5°	3650.5	3650.9	3653.7	3656.1	3652.5	3654.1	3654.9	3653.3	3649.7	3648.1	3648.5
1°	3649.7	3651.3	3655.3	3658.1	3654.9	3655.7	3655.7	3652.9	3648.1	3644.9	3645.3
1.5°	3648.5	3651.3	3655.7	3659.3	3656.1	3656.9	3655.3	3651.7	3646.5	3641.7	3640.9
2°	3646.5	3650.9	3655.7	3659.3	3656.9	3656.9	3654.9	3649.7	3642.5	3637.7	3635.7
2.5°	3646.5	3649.3	3654.5	3658.5	3656.1	3655.7	3652.9	3646.9	3639.3	3632.5	3629.3
3°	3640.5	3646.9	3653.3	3657.3	3655.3	3654.5	3650.1	3642.5	3633.7	3626.5	3622.1
3.5°	3636.9	3644.1	3650.9	3655.3	3653.3	3651.3	3646.5	3638.1	3628.1	3619.7	3615.3
4°	3632.5	3640.9	3647.7	3652.5	3650.5	3648.5	3642.5	3632.1	3621.7	3612.5	3605.7
4.5°	3626.9	3636.9	3643.7	3648.9	3647.3	3644.5	3636.9	3625.7	3614.5	3603.3	3596.5
5°	3621.3	3631.7	3639.3	3644.9	3643.3	3639.7	3630.9	3618.5	3604.9	3593.7	3586.1
5.5°	3616.1	3625.7	3634.5	3639.7	3638.9	3634.5	3623.7	3610.1	3594.9	3583.3	3574.5
6°	3606.9	3618.9	3628.5	3634.1	3633.7	3628.1	3615.7	3600.1	3584.5	3572.1	3562.5
6.5°	3598.9	3612.1	3621.7	3628.1	3627.3	3620.9	3608.1	3589.3	3572.9	3560.1	3548.9
7°	3589.7	3603.7	3613.7	3621.3	3620.5	3613.7	3598.1	3578.5	3560.9	3546.9	3536.1
7.5°	3579.3	3594.5	3605.3	3612.9	3612.5	3605.3	3588.1	3565.7	3546.9	3532.5	3520.9
8°	3568.1	3584.5	3596.5	3603.7	3604.1	3596.5	3577.3	3552.9	3532.9	3517.7	3506.1
8.5°	3556.5	3573.7	3586.5	3594.1	3594.9	3586.1	3565.3	3539.3	3518.1	3502.5	3489.7
9°	3543.7	3561.7	3576.1	3583.7	3584.5	3575.3	3553.3	3524.9	3502.1	3486.5	3474.0
9.5°	3529.7	3549.7	3564.1	3572.5	3573.7	3564.1	3539.3	3509.3	3486.5	3469.2	3456.4
10°	3515.3	3536.5	3552.5	3560.5	3561.7	3551.3	3525.3	3493.7	3468.4	3452.0	3438.4
10.5°	3499.7	3522.1	3539.3	3547.7	3548.5	3538.1	3510.5	3476.4	3450.8	3434.0	3420.0
11°	3483.7	3507.7	3526.5	3534.1	3534.9	3523.3	3494.9	3459.2	3432.0	3415.2	3401.2
11.5°	3466.8	3492.1	3511.3	3519.3	3520.1	3508.5	3478.8	3441.2	3412.0	3396.0	3381.6
12°	3448.0	3475.6	3496.9	3503.7	3504.5	3492.1	3461.2	3422.4	3392.4	3376.0	3361.2
12.5°	3429.6	3458.4	3480.1	3488.1	3488.1	3475.2	3443.2	3403.2	3372.0	3355.2	3340.8
13°	3410.8	3441.2	3464.0	3472.0	3472.0	3458.0	3425.6	3383.6	3351.2	3334.0	3319.6
13.5°	3390.4	3422.0	3446.4	3453.6	3452.8	3438.8	3405.6	3362.8	3328.8	3312.4	3297.6
14°	3370.4	3403.2	3428.0	3435.6	3434.0	3420.0	3386.0	3341.6	3306.8	3289.6	3274.8
14.5°	3348.8	3382.8	3408.8	3416.8	3413.6	3399.2	3365.6	3319.2	3284.0	3265.5	3251.5
15°	3326.8	3362.8	3388.8	3397.2	3394.4	3378.8	3343.6	3296.8	3259.9	3241.1	3227.5
15.5°	3304.0	3341.2	3368.4	3377.6	3372.8	3357.6	3321.2	3273.6	3235.5	3217.5	3202.7
16°	3280.8	3318.8	3347.2	3355.6	3351.6	3335.6	3299.2	3249.9	3211.1	3192.3	3176.7
16.5°	3256.7	3296.4	3324.8	3334.0	3329.2	3312.4	3275.6	3225.5	3185.9	3165.9	3150.3
17°	3232.3	3273.2	3302.8	3312.0	3305.6	3289.2	3251.9	3200.7	3159.5	3138.7	3123.5
17.5°	3206.7	3249.5	3279.6	3289.6	3282.4	3265.1	3227.1	3174.3	3133.5	3111.5	3095.1
18°	3181.5	3224.7	3255.9	3265.5	3257.5	3240.7	3202.7	3148.7	3105.5	3083.5	3066.3
18.5°	3155.5	3199.5	3231.1	3241.5	3232.7	3215.9	3176.7	3121.5	3078.3	3054.6	3037.8
19°	3128.7	3173.9	3207.1	3217.1	3207.9	3190.7	3150.3	3094.3	3050.6	3026.6	3007.0
19.5°	3101.5	3147.5	3181.1	3191.9	3182.7	3164.3	3123.5	3066.3	3023.4	2996.2	2976.2
20°	3074.3	3121.1	3155.9	3166.3	3156.7	3137.1	3097.1	3039.0	2994.6	2966.2	2945.4
20.5°	3045.8	3093.1	3129.5	3138.7	3129.1	3110.7	3069.1	3010.2	2965.4	2935.8	2914.6
21°	3017.4	3065.1	3102.7	3112.3	3102.3	3083.1	3040.2	2981.8	2936.6	2905.8	2883.8



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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°	2929.8	2977.8	3018.2	3027.4	3022.2	2997.0	2953.0	2896.2	2845.3	2811.3	2783.3
23°	2899.8	2947.4	2988.6	2998.2	2993.8	2966.6	2924.2	2865.4	2812.9	2778.5	2749.7
23.5°	2869.4	2916.2	2958.6	2968.2	2965.4	2936.2	2895.0	2834.5	2781.3	2744.9	2714.9
24°	2837.7	2885.4	2927.0	2937.4	2937.0	2905.8	2863.8	2803.3	2748.9	2711.7	2680.5
24.5°	2805.7	2853.8	2895.8	2906.6	2908.6	2880.2	2831.3	2771.7	2717.7	2678.1	2645.3
25°	2773.3	2821.7	2863.8	2875.0	2877.4	2848.6	2798.5	2740.1	2684.5	2644.5	2611.2
25.5°	2740.9	2787.7	2831.3	2842.1	2846.1	2816.1	2765.7	2707.3	2651.7	2610.0	2576.0
26°	2708.5	2755.3	2797.7	2810.1	2815.3	2784.5	2732.5	2675.3	2618.8	2576.0	2541.2
26.5°	2674.1	2722.1	2763.3	2776.9	2784.1	2750.9	2698.1	2642.1	2585.6	2541.6	2505.6
27°	2640.5	2686.9	2729.3	2743.3	2752.5	2718.5	2664.5	2609.2	2550.8	2507.2	2470.4
27.5°	2605.2	2651.3	2693.7	2709.3	2719.3	2684.5	2630.4	2575.6	2517.6	2472.0	2434.0
28°	2570.4	2615.6	2656.9	2674.1	2686.1	2650.9	2596.0	2541.2	2482.8	2434.8	2396.3
28.5°	2534.8	2579.6	2620.0	2638.9	2653.3	2616.4	2561.2	2507.2	2448.0	2397.1	2357.5
29°	2498.4	2542.8	2582.4	2602.8	2619.6	2582.0	2525.2	2471.6	2411.5	2359.9	2318.7
29.5°	2461.2	2504.4	2543.6	2566.4	2584.4	2547.6	2489.2	2434.4	2373.5	2321.1	2277.5
30°	2423.5	2465.6	2504.8	2529.2	2549.6	2512.4	2452.4	2397.1	2334.7	2281.9	2236.7
30.5°	2385.1	2426.4	2465.6	2490.0	2514.0	2476.0	2415.1	2358.3	2296.3	2240.7	2195.0
31°	2345.9	2386.3	2423.9	2452.4	2479.2	2439.6	2376.7	2319.5	2255.1	2199.4	2152.6
31.5°	2305.5	2345.5	2384.3	2412.7	2441.6	2402.7	2337.9	2279.5	2213.0	2157.8	2109.8
32°	2263.5	2303.1	2342.3	2372.3	2404.3	2365.1	2299.1	2238.7	2169.8	2115.0	2065.8
32.5°	2222.3	2262.7	2300.7	2331.1	2366.7	2326.3	2259.1	2197.0	2126.2	2071.4	2022.6
33°	2179.0	2219.9	2259.5	2290.7	2328.3	2287.1	2218.7	2153.4	2081.4	2026.2	1979.3
33.5°	2134.6	2177.0	2219.1	2249.5	2287.9	2247.5	2177.8	2109.4	2035.4	1980.9	1935.7
34°	2087.8	2133.0	2176.2	2207.8	2248.3	2206.6	2136.2	2065.0	1988.9	1936.1	1891.3
34.5°	2040.2	2089.8	2133.4	2165.8	2205.0	2163.8	2095.0	2019.4	1939.7	1888.1	1845.7
35°	1990.5	2044.6	2089.8	2121.8	2162.6	2121.4	2052.6	1972.5	1891.7	1840.1	1800.5
35.5°	1940.9	1999.3	2048.2	2078.2	2117.8	2078.6	2010.2	1926.1	1844.1	1792.5	1754.0
36°	1887.7	1953.7	2002.5	2034.6	2073.0	2035.0	1966.5	1879.3	1796.1	1744.0	1706.0
36.5°	1834.5	1905.3	1959.7	1990.9	2025.0	1989.7	1921.3	1831.7	1747.2	1694.8	1656.4
37°	1779.6	1856.1	1914.1	1944.9	1976.1	1942.9	1874.9	1784.4	1696.8	1645.2	1604.4
37.5°	1725.2	1804.9	1867.3	1897.7	1925.7	1894.9	1828.1	1735.6	1649.2	1594.8	1553.5
38°	1668.8	1752.4	1818.5	1846.9	1873.7	1844.5	1779.2	1687.2	1599.2	1543.1	1499.9
38.5°	1615.2	1700.0	1769.6	1799.3	1818.9	1793.7	1729.6	1638.4	1549.5	1491.1	1446.7
39°	1559.1	1645.6	1718.0	1747.2	1764.8	1741.2	1678.0	1589.2	1498.7	1438.7	1393.5
39.5°	1505.1	1591.2	1665.6	1695.2	1709.2	1686.8	1625.6	1538.3	1448.3	1385.9	1338.2
40°	1451.1	1533.5	1610.8	1641.2	1653.2	1629.6	1571.9	1486.3	1394.7	1331.4	1283.0
40.5°	1397.5	1477.5	1557.9	1586.0	1598.0	1572.3	1518.3	1434.3	1342.2	1277.8	1226.6
41°	1343.0	1424.7	1503.9	1529.5	1542.7	1513.9	1460.7	1381.9	1288.6	1224.6	1170.6
41.5°	1289.4	1369.8	1448.7	1473.5	1489.5	1456.3	1404.3	1330.2	1235.0	1173.8	1115.3
42°	1235.4	1314.6	1391.9	1440.3	1435.1	1398.3	1347.0	1275.4	1181.0	1120.5	1060.9
42.5°	1181.4	1259.8	1335.0	1379.5	1382.7	1340.6	1290.6	1221.4	1130.9	1068.9	1008.5
43°	1126.5	1204.6	1278.2	1317.4	1329.4	1283.8	1234.6	1166.2	1079.3	1017.7	958.1
43.5°	1072.9	1151.3	1221.8	1255.8	1273.0	1228.2	1178.6	1112.5	1030.9	967.3	908.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	918.4	991.7	1050.9	1083.7	1107.7	1063.3	1012.1	952.1	883.2	820.0	768.0
45.5°	869.6	938.4	994.9	1030.5	1053.3	1008.1	957.7	902.0	834.8	773.2	723.9
46°	819.2	886.8	939.2	977.3	1000.9	955.3	904.8	850.4	787.6	726.7	681.1
46.5°	769.6	835.6	884.0	924.4	950.1	903.2	851.6	800.4	739.6	683.9	639.9
47°	721.1	784.8	831.2	871.2	899.2	852.4	800.4	749.6	693.1	639.5	599.5
47.5°	673.9	734.7	780.4	819.6	848.8	802.8	750.4	701.5	648.3	598.7	561.5
48°	627.9	686.3	730.3	768.8	799.2	756.0	701.9	653.1	605.1	558.7	525.0
48.5°	583.9	639.5	681.1	719.5	750.4	710.7	655.5	607.1	562.7	521.4	490.6
49°	540.7	593.5	634.7	671.1	701.9	665.5	609.9	561.9	520.2	484.2	457.4
49.5°	499.0	548.7	589.1	624.3	653.9	621.9	567.9	519.0	479.4	449.0	424.6
50°	459.8	504.2	545.1	577.1	608.7	578.3	526.2	478.2	439.8	415.8	394.6
50.5°	421.0	461.0	501.8	532.3	564.3	537.1	487.0	439.4	402.6	386.6	367.0
51°	384.6	421.0	461.8	489.0	521.0	496.6	449.8	403.0	370.2	357.8	339.4
51.5°	348.6	383.0	422.6	448.2	480.6	458.2	414.2	372.2	338.2	328.6	312.1
52°	314.9	347.4	385.8	409.4	441.4	420.6	384.6	341.4	305.7	299.7	284.5
52.5°	282.9	312.9	349.8	371.4	403.4	388.6	354.6	310.1	273.7	270.9	258.9
53°	253.3	281.7	316.6	335.8	369.4	356.2	324.6	279.3	248.5	246.1	236.1
53.5°	225.3	252.9	284.1	302.5	335.4	324.2	294.5	253.3	225.7	223.7	213.7
54°	200.5	226.1	254.9	272.1	300.9	291.7	264.5	229.7	205.3	202.5	193.3
54.5°	177.7	200.9	226.1	243.3	267.3	259.7	240.1	208.1	186.9	182.1	172.5
55°	156.9	178.5	200.5	217.3	238.5	234.9	216.9	188.9	169.7	163.7	153.7
55.5°	136.9	156.5	176.1	192.9	212.5	209.3	194.9	169.7	152.9	145.3	135.3
56°	121.3	136.5	154.5	170.1	188.5	186.9	173.7	152.5	136.9	128.5	118.5
56.5°	105.2	120.5	135.7	148.5	166.5	165.3	153.7	136.1	121.7	112.5	102.4
57°	89.6	104.8	119.3	131.3	146.1	145.3	135.3	120.1	106.9	97.6	88.0
57.5°	74.0	88.8	102.4	114.5	126.5	126.1	117.7	104.8	93.2	84.0	74.4
58°	59.2	72.8	86.0	97.2	108.9	108.5	101.6	90.8	80.0	70.0	59.6
58.5°	44.8	57.2	69.6	80.4	92.8	92.4	86.8	77.2	66.0	59.6	50.8
59°	32.8	43.2	54.0	63.6	77.2	78.0	72.0	62.4	56.0	49.2	41.6
59.5°	24.0	31.6	39.6	47.6	65.2	67.2	60.8	52.8	46.0	38.4	32.8
60°	18.0	22.8	28.8	34.8	53.2	56.4	50.0	43.2	35.6	28.0	24.0
60.5°	13.2	17.2	20.8	24.8	41.2	45.6	38.8	33.6	25.6	17.6	14.8
61°	11.2	14.8	15.6	18.4	29.2	34.8	27.6	24.0	16.0	13.6	11.6
61.5°	9.2	12.4	13.2	13.6	17.2	24.0	16.8	14.4	12.0	10.8	9.2
62°	7.2	10.0	10.8	11.6	12.8	13.2	12.8	10.8	9.2	8.4	7.6
62.5°	5.2	7.6	8.4	9.6	10.0	10.0	9.6	8.8	7.2	6.8	6.0
63°	4.4	5.6	6.4	7.6	8.0	8.0	7.6	6.8	6.0	5.6	5.2
63.5°	3.6	4.4	5.2	5.6	6.4	6.4	6.0	5.6	4.8	4.8	4.4
64°	2.8	3.6	4.4	4.8	5.2	5.2	5.2	4.8	4.0	4.0	3.6
64.5°	2.4	3.2	3.6	4.0	4.4	4.4	4.0	4.0	3.2	3.2	3.2
65°	2.0	2.8	3.2	3.2	3.6	3.6	3.6	3.2	2.8	2.8	2.8
65.5°	2.0	2.4	2.4	2.8	3.2	2.8	2.8	2.8	2.4	2.4	2.4
66°	1.6	2.0	2.4	2.4	2.4	2.4	2.4	2.4	2.0	2.0	2.0



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.2	1.2
68°	0.8	1.2	1.2	1.2	1.6	1.2	1.6	1.2	1.2	1.2	1.2
68.5°	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
69°	0.8	0.8	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	1.2	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70.5°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
71°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
71.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.4
77°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3651.3	3651.3	3651.3	3651.3	3651.3	3651.3
0.5°	3650.1	3645.7	3648.1	3650.1	3651.3	3650.5
1°	3646.1	3640.9	3643.7	3646.9	3648.9	3649.7
1.5°	3640.9	3635.3	3638.9	3642.5	3646.9	3648.5
2°	3634.5	3628.5	3632.5	3637.7	3642.5	3646.5
2.5°	3627.7	3620.9	3624.9	3632.1	3638.5	3646.5
3°	3619.7	3612.1	3617.3	3624.9	3634.5	3640.5
3.5°	3610.9	3602.5	3608.1	3618.1	3628.9	3636.9
4°	3601.7	3592.5	3598.5	3610.1	3623.3	3632.5
4.5°	3591.3	3580.9	3588.1	3601.3	3616.1	3626.9
5°	3579.7	3568.5	3576.5	3591.3	3608.5	3621.3
5.5°	3567.3	3556.1	3564.1	3580.9	3599.7	3616.1
6°	3554.1	3542.5	3551.7	3570.1	3590.9	3606.9
6.5°	3540.1	3527.3	3537.7	3557.7	3580.9	3598.9
7°	3525.7	3512.9	3523.3	3544.9	3570.5	3589.7
7.5°	3510.1	3496.5	3508.1	3532.1	3558.9	3579.3
8°	3494.5	3479.3	3492.5	3517.7	3546.5	3568.1
8.5°	3477.6	3461.6	3475.6	3502.5	3532.5	3556.5
9°	3460.8	3444.0	3458.0	3486.9	3518.5	3543.7
9.5°	3442.0	3425.2	3440.4	3470.0	3503.3	3529.7
10°	3423.6	3406.4	3421.6	3453.2	3487.7	3515.3
10.5°	3404.0	3385.6	3402.8	3435.2	3471.2	3499.7
11°	3384.0	3364.8	3382.8	3416.0	3454.0	3483.7
11.5°	3363.6	3344.0	3362.0	3396.4	3436.0	3466.8
12°	3342.0	3321.6	3340.8	3376.4	3416.8	3448.0
12.5°	3320.4	3299.6	3319.2	3355.2	3397.2	3429.6
13°	3297.6	3276.4	3296.4	3334.0	3377.6	3410.8
13.5°	3274.4	3252.7	3272.8	3311.6	3356.4	3390.4
14°	3249.9	3228.7	3248.7	3289.6	3335.2	3370.4
14.5°	3225.1	3203.9	3224.3	3266.3	3312.8	3348.8
15°	3199.5	3178.3	3199.1	3242.3	3291.2	3326.8
15.5°	3174.7	3151.5	3173.1	3217.5	3266.7	3304.0
16°	3147.9	3125.5	3147.1	3193.1	3243.1	3280.8
16.5°	3121.1	3097.5	3119.9	3168.3	3219.1	3256.7
17°	3093.1	3070.3	3092.7	3142.3	3194.3	3232.3
17.5°	3065.9	3041.4	3064.7	3114.7	3167.5	3206.7
18°	3037.8	3012.2	3036.6	3087.5	3141.1	3181.5
18.5°	3008.6	2982.6	3008.2	3059.5	3114.3	3155.5
19°	2979.8	2953.8	2978.2	3030.6	3086.3	3128.7
19.5°	2950.6	2923.8	2949.4	3002.2	3058.3	3101.5
20°	2921.4	2892.6	2920.2	2972.2	3029.4	3074.3
20.5°	2892.6	2862.2	2890.2	2941.8	2999.4	3045.8
21°	2861.4	2831.3	2859.8	2911.4	2969.4	3017.4



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2765.7	2737.7	2765.7	2814.9	2875.4	2929.8
23°	2732.9	2705.3	2732.9	2782.1	2842.9	2899.8
23.5°	2700.5	2673.3	2701.7	2749.3	2810.1	2869.4
24°	2666.9	2640.5	2668.1	2715.7	2776.5	2837.7
24.5°	2633.2	2607.6	2635.7	2681.3	2743.7	2805.7
25°	2599.6	2573.6	2601.6	2646.9	2710.1	2773.3
25.5°	2565.2	2540.0	2568.0	2612.4	2675.7	2740.9
26°	2531.6	2506.0	2532.4	2576.0	2641.7	2708.5
26.5°	2496.4	2470.8	2496.4	2541.2	2606.8	2674.1
27°	2460.4	2434.8	2460.0	2503.2	2571.6	2640.5
27.5°	2423.5	2398.7	2422.3	2466.0	2535.6	2605.2
28°	2385.9	2359.1	2382.7	2428.0	2498.8	2570.4
28.5°	2346.7	2319.9	2345.1	2389.5	2461.6	2534.8
29°	2307.5	2279.5	2304.7	2350.7	2423.9	2498.4
29.5°	2267.5	2238.7	2263.5	2310.3	2385.5	2461.2
30°	2225.9	2195.8	2221.5	2270.3	2347.1	2423.5
30.5°	2183.4	2150.2	2179.0	2229.1	2306.7	2385.1
31°	2140.2	2104.6	2134.2	2187.8	2266.3	2345.9
31.5°	2096.2	2058.2	2089.4	2147.0	2225.5	2305.5
32°	2051.8	2010.6	2042.6	2103.0	2184.2	2263.5
32.5°	2005.4	1963.3	1996.1	2061.0	2142.2	2222.3
33°	1958.1	1914.1	1948.5	2017.8	2098.2	2179.0
33.5°	1910.1	1865.7	1900.9	1974.1	2054.6	2134.6
34°	1861.7	1817.3	1853.7	1928.9	2009.4	2087.8
34.5°	1812.1	1768.4	1805.3	1881.3	1964.1	2040.2
35°	1763.2	1720.4	1756.0	1833.7	1916.1	1990.5
35.5°	1714.0	1672.0	1708.8	1784.8	1868.5	1940.9
36°	1663.6	1624.4	1660.8	1735.2	1816.9	1887.7
36.5°	1613.6	1575.9	1612.4	1684.4	1764.4	1834.5
37°	1562.7	1526.7	1563.1	1628.4	1710.4	1779.6
37.5°	1511.5	1476.3	1513.1	1575.9	1657.6	1725.2
38°	1459.9	1426.7	1461.5	1520.3	1600.0	1668.8
38.5°	1406.7	1372.3	1407.9	1466.7	1543.1	1615.2
39°	1355.0	1317.8	1354.2	1435.9	1484.3	1559.1
39.5°	1302.2	1263.0	1300.6	1373.5	1417.9	1505.1
40°	1249.0	1208.6	1246.6	1310.6	1362.6	1451.1
40.5°	1196.2	1156.1	1193.0	1248.2	1307.4	1397.5
41°	1143.7	1105.7	1136.9	1185.8	1252.6	1343.0
41.5°	1093.7	1055.7	1082.9	1130.5	1197.4	1289.4
42°	1040.9	1007.3	1030.1	1074.9	1141.7	1235.4
42.5°	990.1	958.1	979.3	1020.1	1087.3	1181.4
43°	940.0	909.6	928.8	965.7	1031.7	1126.5
43.5°	889.2	860.8	877.2	912.4	978.1	1072.9



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	748.0	717.1	728.7	758.4	826.4	918.4
45.5°	702.7	672.3	679.9	710.3	779.6	869.6
46°	658.7	628.3	633.5	664.3	733.1	819.2
46.5°	617.9	583.9	587.9	619.9	689.1	769.6
47°	575.5	541.9	544.7	576.7	644.3	721.1
47.5°	536.7	500.6	503.4	535.9	602.7	673.9
48°	499.4	461.0	463.4	496.6	560.3	627.9
48.5°	463.4	422.2	426.2	459.4	519.8	583.9
49°	429.4	386.6	390.6	424.2	479.8	540.7
49.5°	397.0	352.2	357.0	390.2	442.6	499.0
50°	368.2	320.2	326.6	358.6	405.4	459.8
50.5°	339.8	291.3	297.3	328.2	371.0	421.0
51°	310.9	265.3	271.3	300.1	338.6	384.6
51.5°	282.5	241.7	246.9	272.9	307.7	348.6
52°	258.1	220.5	224.9	248.5	278.9	314.9
52.5°	234.5	201.3	204.1	225.3	251.7	282.9
53°	212.1	182.9	185.7	202.9	225.7	253.3
53.5°	192.1	166.1	167.7	181.7	201.7	225.3
54°	172.9	150.1	150.9	162.5	179.7	200.5
54.5°	154.5	135.7	136.5	144.1	159.3	177.7
55°	137.7	121.7	122.1	128.9	138.9	156.9
55.5°	120.9	107.7	108.1	113.7	123.3	136.9
56°	105.7	93.6	93.6	98.4	107.7	121.3
56.5°	91.6	79.6	79.2	83.6	92.0	105.2
57°	78.4	65.2	64.8	68.4	76.4	89.6
57.5°	64.0	50.8	50.8	53.6	61.6	74.0
58°	54.4	38.8	38.4	40.8	47.2	59.2
58.5°	44.8	29.2	28.4	30.0	35.2	44.8
59°	35.2	21.6	21.2	22.4	26.0	32.8
59.5°	25.6	16.4	16.0	16.8	19.2	24.0
60°	16.0	14.0	13.6	14.4	14.4	18.0
60.5°	12.4	11.2	11.2	12.0	12.4	13.2
61°	10.0	8.8	8.4	10.0	10.0	11.2
61.5°	8.0	6.4	6.0	7.6	8.0	9.2
62°	6.4	5.2	5.2	5.2	6.0	7.2
62.5°	5.2	4.4	4.0	4.4	4.8	5.2
63°	4.4	3.6	3.6	3.6	4.0	4.4
63.5°	3.6	3.2	2.8	2.8	3.2	3.6
64°	3.2	2.8	2.4	2.4	2.8	2.8
64.5°	2.8	2.4	2.0	2.0	2.4	2.4
65°	2.4	2.0	1.6	2.0	2.0	2.0
65.5°	2.0	1.6	1.6	1.6	1.6	2.0
66°	1.6	1.6	1.2	1.2	1.6	1.6



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.2	1.2	0.8	0.8	1.2	1.2
68°	1.2	0.8	0.8	0.8	0.8	0.8
68.5°	0.8	0.8	0.8	0.8	0.8	0.8
69°	0.8	0.8	0.8	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.4	0.4	0.4	0.4
70.5°	0.8	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.0	0.0	0.4
75.5°	0.4	0.0	0.0	0.0	0.0	0.0
76°	0.4	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776726

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-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





21.5°	2988.2	3036.2	3075.5	3084.7	3075.9	3055.0	3011.4	2953.4	2907.8	2875.8	2850.6
22°	2959.4	3007.4	3046.6	3056.2	3048.6	3027.4	2982.2	2924.6	2876.2	2843.7	2817.7



44°	1019.7	1097.7	1165.0	1193.4	1217.4	1173.4	1121.7	1057.3	979.7	916.4	860.4
44.5°	968.5	1044.9	1107.7	1138.5	1162.2	1118.5	1067.7	1004.5	932.8	868.8	814.8



66.5°	1.2	1.6	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6
67°	1.2	1.6	1.6	1.6	2.0	2.0	2.0	1.6	1.6	1.6	1.6



89°	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0

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21.5°	2829.3	2800.5	2828.5	2879.4	2938.2	2988.2
22°	2797.7	2768.9	2797.3	2847.8	2907.0	2959.4



44°	841.2	811.6	826.8	860.0	926.8	1019.7
44.5°	794.8	763.6	778.0	808.8	876.4	968.5

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66.5°	1.6	1.2	1.2	1.2	1.2	1.2
67°	1.2	1.2	1.2	1.2	1.2	1.2

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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)