

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: P776486

Luminaire Tested: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776486  
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-HCD8TRC-4000lm-3000K  
Description: 8 INCH ROUND MEDIUM SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

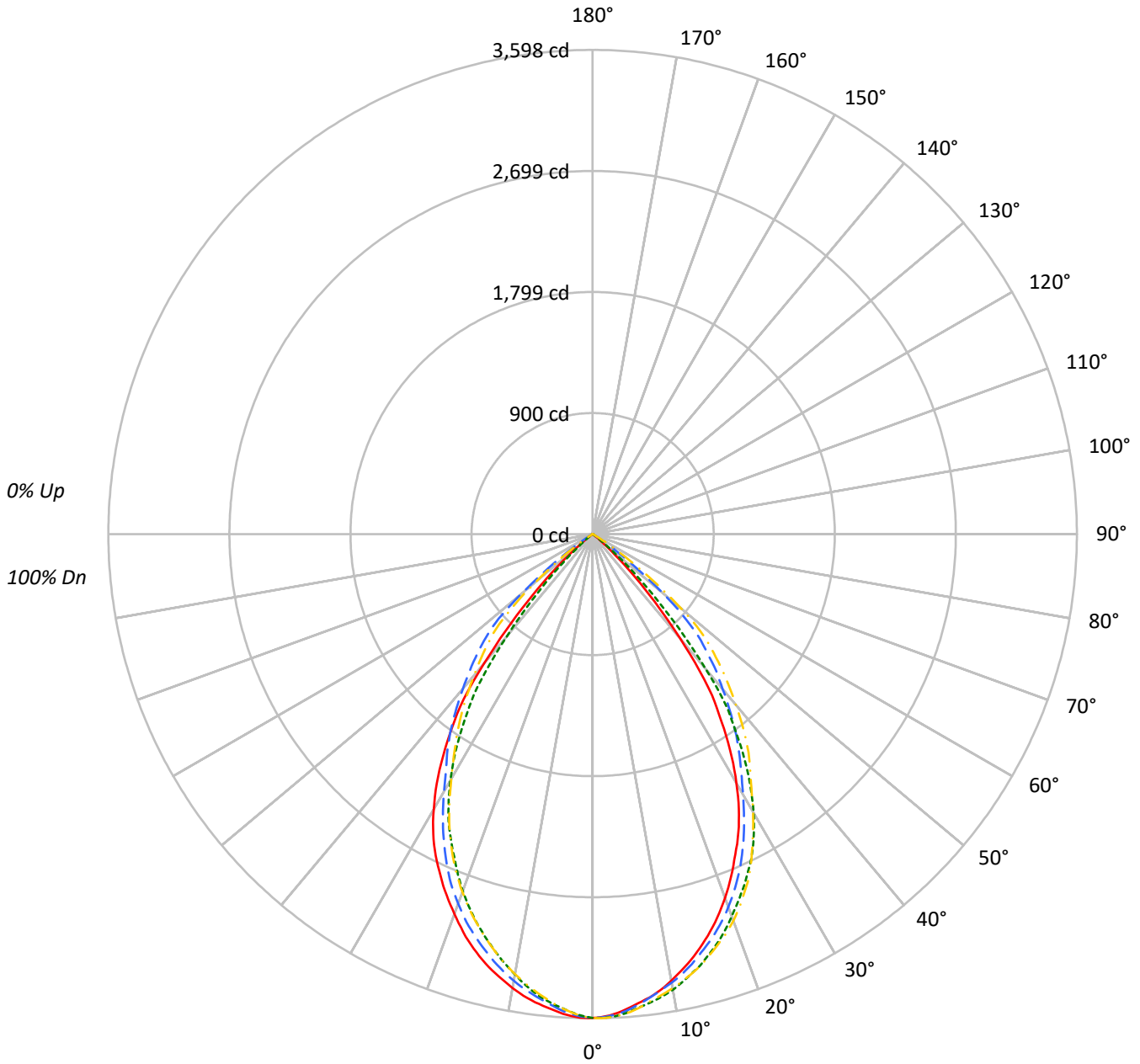
Lumens per Lamp: N/A  
Luminaire Lumens: 4267.8 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 1.05  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 38.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



TEST NUMBER: P776486  
CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

### 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92								
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85								
3	101	94	88	84	99	92	87	83	89	85	82	87	83	80	85	82	79	78								
4	95	86	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71								
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65								
6	84	74	68	63	83	73	67	63	72	66	62	70	66	62	69	65	61	60								
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55								
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	52	51								
9	71	60	54	49	70	60	54	49	59	53	49	58	53	49	57	52	49	47								
10	67	56	50	46	66	56	50	46	55	50	46	54	49	45	54	49	45	44								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	109753	109753	109753	109753
5°	107770	108695	108588	107243
10°	104440	106551	106189	103057
15°	99711	103078	102657	97806
20°	93463	98193	97560	91644
25°	85574	92459	91627	84068
30°	75361	84280	83244	74533
35°	61094	71310	70128	60643
40°	40125	52002	49894	39564
45°	17616	26713	25055	17227
50°	3852	7756	6920	3719
55°	500	751	687	479
60°	409	598	550	385
65°	340	506	455	311
70°	277	420	384	241
75°	236	366	318	236
80°	211	352	281	211
85°	140	280	280	140

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 135°  
 Vertical Angle: 45°  
 Luminance: 55982 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	331.8	7.8
10°-20°	893.1	20.9
20°-30°	1201.3	28.1
30°-40°	1135.1	26.6
40°-50°	609.2	14.3
50°-60°	88.2	2.1
60°-70°	5.8	0.1
70°-80°	2.6	0.1
80°-90°	0.6	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°	2426.3	56.9
0°-40°	3561.4	83.4
0°-60°	4258.8	99.8
0°-90°	4267.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4267.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3595	3595	3595	3595	3595	
5°	3516	3547	3543	3499	3516	331
15°	3155	3261	3248	3094	3155	884
25°	2540	2745	2720	2496	2540	1160
35°	1639	1913	1882	1627	1639	1004
45°	408	619	580	399	408	339
55°	9	14	13	9	9	15
65°	5	7	6	4	5	5
75°	2	3	3	2	2	2
85°	0	1	1	0	0	1
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°	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9
0.5°	3594.5	3594.9	3594.5	3595.2	3596.0	3596.8	3597.2	3598.4	3597.6	3595.6	3592.5
1°	3590.9	3592.1	3592.5	3594.9	3596.8	3597.6	3598.4	3598.4	3596.8	3593.3	3588.6
1.5°	3585.5	3588.2	3589.0	3592.1	3595.2	3596.8	3597.2	3597.2	3594.1	3589.8	3584.3
2°	3579.2	3583.1	3584.3	3588.2	3592.9	3594.1	3594.5	3594.5	3590.5	3584.7	3578.0
2.5°	3571.7	3576.4	3578.0	3583.1	3589.0	3590.2	3590.9	3590.5	3585.5	3578.0	3570.6
3°	3562.3	3567.8	3570.6	3576.1	3583.1	3585.1	3585.5	3584.7	3579.6	3571.0	3561.6
3.5°	3552.2	3558.0	3561.6	3567.8	3576.1	3578.4	3578.8	3577.6	3571.7	3562.0	3551.4
4°	3539.6	3546.7	3551.8	3558.8	3567.4	3570.2	3571.0	3569.8	3562.7	3551.8	3539.6
4.5°	3528.7	3535.7	3540.4	3547.1	3557.3	3560.8	3562.0	3560.0	3553.0	3540.8	3527.1
5°	3516.5	3525.1	3527.5	3535.3	3546.7	3549.8	3551.4	3549.8	3543.2	3529.1	3513.8
5.5°	3504.4	3512.6	3514.2	3522.0	3536.1	3538.9	3539.2	3538.9	3534.2	3517.3	3500.9
6°	3491.9	3499.7	3500.5	3510.3	3526.7	3528.3	3526.7	3529.5	3524.0	3506.0	3487.6
6.5°	3480.9	3487.6	3486.0	3497.7	3517.3	3518.1	3514.2	3518.5	3514.6	3493.8	3473.8
7°	3468.8	3475.8	3471.1	3485.2	3507.5	3507.5	3500.5	3507.9	3504.8	3482.1	3460.9
7.5°	3454.3	3462.5	3456.2	3473.5	3498.5	3497.3	3487.6	3496.2	3493.0	3469.1	3447.2
8°	3439.8	3448.4	3442.1	3461.3	3487.9	3486.8	3475.8	3483.6	3481.3	3455.8	3432.7
8.5°	3424.5	3433.1	3427.6	3448.4	3476.6	3475.8	3462.9	3470.3	3468.8	3441.3	3418.2
9°	3406.5	3416.7	3413.5	3433.5	3463.3	3462.9	3451.5	3457.0	3454.7	3427.2	3403.8
9.5°	3388.1	3399.1	3399.1	3419.0	3450.7	3450.0	3439.4	3441.7	3440.6	3412.8	3388.1
10°	3368.9	3380.6	3384.6	3403.8	3437.0	3436.6	3426.5	3426.1	3425.3	3397.1	3371.6
10.5°	3348.9	3361.1	3368.9	3388.5	3422.2	3422.5	3413.9	3410.0	3409.2	3381.4	3354.0
11°	3329.0	3339.5	3352.8	3371.3	3406.9	3406.9	3399.8	3393.6	3392.0	3363.8	3336.0
11.5°	3309.8	3318.4	3335.6	3354.0	3389.3	3390.8	3385.0	3375.6	3375.6	3346.2	3317.2
12°	3289.8	3297.6	3316.8	3335.2	3371.3	3373.2	3370.1	3357.5	3359.5	3328.2	3298.0
12.5°	3269.4	3276.9	3297.2	3316.4	3354.0	3354.4	3354.8	3339.5	3343.1	3311.3	3278.1
13°	3248.3	3255.3	3278.4	3296.8	3337.2	3335.6	3339.5	3323.1	3327.0	3294.1	3258.9
13.5°	3225.2	3234.2	3256.9	3278.4	3320.7	3318.4	3323.1	3306.2	3308.2	3277.7	3237.3
14°	3202.1	3211.9	3236.5	3260.0	3302.7	3301.2	3306.2	3290.2	3288.2	3260.0	3215.4
14.5°	3178.2	3188.4	3214.6	3241.6	3282.0	3283.1	3287.8	3272.2	3268.7	3240.5	3193.5
15°	3154.7	3164.1	3193.5	3222.1	3261.2	3264.3	3268.7	3253.0	3247.9	3219.7	3170.8
15.5°	3130.0	3140.6	3170.8	3200.5	3239.7	3243.6	3248.3	3233.0	3227.1	3198.6	3148.8
16°	3105.0	3115.9	3150.4	3178.6	3218.9	3222.8	3227.9	3214.2	3205.2	3176.6	3126.5
16.5°	3078.7	3091.7	3127.7	3156.3	3197.8	3200.9	3208.0	3193.1	3182.9	3154.7	3104.6
17°	3051.7	3066.2	3103.8	3133.2	3175.1	3180.2	3188.0	3172.3	3160.2	3131.2	3080.3
17.5°	3024.3	3041.5	3078.7	3109.7	3152.3	3157.8	3168.4	3150.8	3135.5	3107.3	3057.2
18°	2995.7	3014.9	3056.0	3085.8	3127.7	3135.5	3149.6	3128.9	3109.3	3081.9	3031.0
18.5°	2966.3	2987.5	3030.2	3061.5	3102.6	3111.6	3128.1	3105.7	3083.0	3055.6	3004.3
19°	2937.0	2960.1	3003.9	3035.7	3076.8	3087.0	3105.7	3081.1	3057.2	3028.6	2977.3
19.5°	2907.2	2932.3	2976.9	3008.2	3049.4	3061.9	3081.5	3055.6	3029.4	3001.6	2949.5
20°	2876.7	2902.9	2949.5	2980.8	3022.3	3035.7	3056.8	3029.8	3002.8	2973.8	2921.3
20.5°	2845.7	2873.5	2920.1	2952.2	2995.7	3009.0	3030.2	3003.2	2976.1	2944.8	2893.1
21°	2812.8	2843.8	2890.0	2923.3	2968.7	2981.6	3004.3	2976.5	2949.1	2915.8	2864.9



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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°	2711.8	2748.6	2798.7	2833.2	2887.6	2900.9	2919.0	2895.1	2868.0	2829.3	2773.3
23°	2675.4	2714.2	2765.5	2802.3	2860.2	2873.9	2889.6	2867.7	2841.0	2798.3	2740.0
23.5°	2640.1	2680.5	2732.9	2772.9	2833.2	2846.9	2860.2	2840.2	2808.9	2767.4	2705.9
24°	2605.7	2644.1	2698.5	2742.3	2802.7	2816.8	2830.8	2809.3	2778.4	2736.1	2670.7
24.5°	2572.8	2609.6	2662.9	2712.2	2773.3	2787.8	2797.2	2778.4	2748.6	2704.4	2635.0
25°	2540.3	2575.9	2627.2	2680.9	2744.7	2757.2	2762.7	2747.0	2720.0	2672.3	2597.8
25.5°	2505.4	2543.0	2590.4	2649.1	2717.3	2725.9	2726.7	2714.2	2691.0	2641.7	2561.0
26°	2469.4	2512.5	2553.2	2617.4	2687.1	2695.7	2690.7	2682.4	2660.5	2612.3	2523.4
26.5°	2432.6	2480.8	2515.6	2586.1	2654.2	2666.8	2651.9	2651.5	2627.6	2583.0	2485.5
27°	2393.8	2447.5	2476.1	2556.3	2620.6	2639.4	2612.7	2622.5	2593.1	2553.2	2447.5
27.5°	2354.3	2412.6	2436.9	2527.0	2585.7	2610.0	2574.7	2593.1	2557.9	2521.9	2408.7
28°	2312.4	2375.4	2395.8	2495.2	2549.3	2579.1	2536.8	2562.6	2521.1	2488.6	2369.5
28.5°	2270.9	2339.0	2355.8	2462.7	2511.7	2546.9	2498.4	2528.9	2483.5	2454.5	2330.4
29°	2227.0	2301.4	2315.1	2427.1	2472.1	2512.9	2461.6	2496.4	2444.0	2418.9	2290.4
29.5°	2183.1	2262.6	2274.4	2391.5	2431.8	2478.0	2421.6	2460.4	2402.4	2381.7	2248.5
30°	2137.7	2221.9	2234.8	2354.3	2390.7	2441.6	2383.6	2423.6	2361.3	2343.3	2206.3
30.5°	2091.5	2179.2	2195.7	2315.5	2347.6	2403.2	2343.7	2385.6	2317.9	2302.6	2165.9
31°	2041.4	2136.5	2156.9	2275.6	2304.2	2364.1	2304.2	2346.8	2275.2	2261.9	2127.1
31.5°	1996.7	2094.3	2120.9	2234.4	2258.7	2323.3	2263.8	2305.3	2229.7	2219.6	2089.9
32°	1947.0	2050.8	2084.9	2192.9	2213.3	2281.8	2226.2	2264.6	2184.7	2177.3	2055.5
32.5°	1898.5	2005.8	2049.2	2151.4	2166.7	2239.5	2189.4	2221.9	2135.8	2134.2	2021.8
33°	1846.4	1961.1	2013.6	2109.5	2119.3	2196.5	2155.3	2178.8	2088.0	2090.7	1990.5
33.5°	1797.8	1915.3	1977.6	2066.5	2070.0	2152.6	2122.5	2134.6	2037.1	2044.5	1958.4
34°	1744.6	1868.7	1943.1	2022.6	2019.1	2109.1	2090.7	2089.6	1985.8	1999.5	1926.3
34.5°	1692.9	1820.9	1908.6	1977.6	1965.8	2062.5	2058.6	2044.5	1932.9	1951.3	1892.2
35°	1639.2	1772.4	1873.8	1933.7	1913.3	2015.2	2026.9	1998.3	1881.6	1903.9	1859.3
35.5°	1590.3	1723.4	1838.5	1887.9	1861.3	1967.4	1993.2	1952.1	1828.0	1855.4	1823.7
36°	1540.1	1674.5	1801.0	1840.9	1808.4	1919.6	1958.4	1903.9	1775.9	1806.4	1788.8
36.5°	1492.0	1624.3	1763.7	1793.5	1756.7	1868.7	1922.7	1855.0	1725.8	1756.3	1752.4
37°	1429.3	1576.2	1726.2	1745.0	1706.6	1817.8	1885.9	1806.0	1675.2	1707.4	1716.0
37.5°	1359.2	1528.8	1689.0	1696.8	1658.8	1766.9	1847.6	1757.1	1616.1	1657.2	1678.8
38°	1289.1	1482.2	1650.6	1648.2	1598.1	1716.8	1809.2	1708.5	1554.2	1609.1	1642.7
38.5°	1219.4	1434.8	1612.6	1600.8	1532.3	1668.2	1771.2	1659.6	1483.8	1561.7	1606.7
39°	1149.3	1370.6	1576.6	1556.6	1462.2	1621.2	1733.2	1614.2	1409.7	1515.1	1571.1
39.5°	1079.2	1305.6	1539.8	1510.8	1383.1	1577.0	1694.0	1568.0	1329.9	1461.4	1534.7
40°	1006.8	1240.6	1504.5	1468.1	1304.8	1521.0	1656.1	1520.6	1251.9	1401.5	1499.4
40.5°	934.7	1175.6	1467.7	1417.6	1227.3	1460.7	1618.9	1470.4	1176.4	1336.9	1464.6
41°	868.6	1110.6	1432.8	1354.1	1152.9	1395.6	1581.7	1411.7	1103.5	1268.8	1430.1
41.5°	802.4	1041.6	1413.7	1290.3	1081.6	1324.0	1545.6	1349.4	1033.4	1198.3	1396.8
42°	741.7	975.5	1375.7	1226.5	1009.9	1251.1	1508.4	1282.9	961.8	1129.0	1362.8
42.5°	682.6	909.3	1337.3	1163.0	943.4	1179.5	1473.6	1215.1	894.4	1063.6	1330.3
43°	625.4	843.1	1299.3	1099.2	871.3	1111.0	1438.7	1148.2	825.1	999.0	1297.7
43.5°	566.2	780.1	1260.9	1034.6	805.1	1044.8	1403.1	1082.4	758.9	937.5	1264.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	408.0	609.3	1160.3	854.5	618.7	849.8	1296.6	896.8	580.3	751.5	1163.8
45.5°	359.9	553.7	1127.0	794.2	563.9	785.9	1260.5	834.5	525.9	693.5	1131.3
46°	315.6	500.9	1090.6	737.8	507.1	724.8	1225.3	773.0	473.0	635.6	1098.4
46.5°	271.8	449.2	1047.5	679.4	456.6	666.9	1190.8	713.9	422.9	584.7	1060.4
47°	231.4	401.0	997.8	625.0	411.2	610.5	1158.7	656.3	379.1	530.6	1023.6
47.5°	193.8	354.4	946.9	570.9	366.1	554.9	1117.6	601.5	335.2	481.3	980.6
48°	162.5	310.1	896.4	521.6	321.1	502.0	1076.9	547.8	291.0	431.1	938.3
48.5°	135.1	268.2	847.8	470.7	275.7	451.1	1030.3	496.5	247.5	387.7	881.5
49°	116.7	229.1	791.4	423.3	231.0	406.1	974.3	446.0	210.7	343.8	820.8
49.5°	99.1	192.7	734.2	376.3	195.4	361.8	916.3	402.6	177.4	300.4	755.8
50°	81.1	159.8	672.0	332.1	163.3	317.2	852.9	358.7	145.7	256.9	692.3
50.5°	63.4	130.8	609.3	288.6	133.9	272.9	790.2	315.2	117.9	220.1	632.0
51°	49.3	113.2	548.2	250.2	107.7	228.3	726.8	271.8	93.2	186.4	573.7
51.5°	35.6	95.5	491.1	213.4	85.8	193.4	665.3	228.3	77.5	155.9	517.3
52°	22.3	77.5	437.0	179.7	71.7	161.3	603.1	192.7	61.5	126.1	461.7
52.5°	13.7	59.9	386.1	149.2	57.6	131.2	545.5	159.8	45.8	99.9	415.5
53°	12.1	46.2	337.2	126.9	43.1	105.3	487.9	130.4	29.8	77.1	368.9
53.5°	11.4	33.3	291.3	104.9	29.0	83.4	433.9	103.4	14.5	63.8	322.7
54°	10.6	20.4	249.4	82.6	15.3	68.9	386.5	79.9	13.7	50.5	276.1
54.5°	9.8	11.4	211.5	60.3	14.5	54.8	339.1	66.2	13.3	37.2	229.9
55°	9.4	10.6	177.0	38.4	14.1	40.7	292.1	52.5	12.9	23.9	194.6
55.5°	9.0	9.8	146.5	22.3	13.3	26.6	244.7	38.4	12.5	11.0	162.5
56°	8.6	9.4	125.7	12.1	12.9	12.5	206.0	24.7	12.1	10.6	133.1
56.5°	8.6	8.6	105.3	11.4	12.5	11.7	170.3	11.4	11.7	10.2	107.7
57°	8.2	8.2	84.6	11.0	12.1	11.4	138.6	11.0	11.4	9.8	85.4
57.5°	7.8	8.2	64.2	10.6	11.7	11.0	110.4	10.6	11.0	9.8	67.4
58°	7.4	7.8	43.9	10.2	11.4	10.6	86.2	10.6	10.6	9.4	56.8
58.5°	7.4	7.4	33.7	9.8	11.0	10.2	66.2	10.2	10.2	9.0	46.6
59°	7.0	7.4	25.8	9.4	10.6	10.2	55.6	9.8	9.8	8.6	36.0
59.5°	7.0	7.0	20.0	9.0	10.2	9.8	45.4	9.4	9.4	8.6	25.8
60°	6.7	7.0	15.3	9.0	9.8	9.4	35.6	9.0	9.0	8.2	15.7
60.5°	6.3	6.7	12.9	8.6	9.4	9.0	25.5	9.0	9.0	7.8	11.7
61°	6.3	6.7	11.0	8.2	9.4	8.6	15.3	8.6	8.6	7.8	8.6
61.5°	5.9	6.3	9.0	8.2	9.0	8.6	11.4	8.2	8.2	7.4	7.0
62°	5.9	6.3	6.7	7.8	8.6	8.2	9.0	8.2	7.8	7.0	6.3
62.5°	5.5	5.9	6.7	7.4	8.2	7.8	7.4	7.8	7.8	7.0	6.3
63°	5.5	5.9	6.3	7.4	8.2	7.8	7.0	7.4	7.4	6.7	5.9
63.5°	5.1	5.5	6.3	7.0	7.8	7.4	7.0	7.4	7.0	6.7	5.9
64°	5.1	5.5	5.9	7.0	7.4	7.4	6.7	7.0	7.0	6.3	5.5
64.5°	4.7	5.1	5.9	6.7	7.4	7.0	6.7	6.7	6.7	6.3	5.5
65°	4.7	5.1	5.5	6.3	7.0	6.7	6.3	6.7	6.3	5.9	5.1
65.5°	4.3	5.1	5.5	6.3	6.7	6.7	6.3	6.3	6.3	5.9	5.1
66°	4.3	4.7	5.1	5.9	6.7	6.3	5.9	6.3	5.9	5.5	4.7





TEST NUMBER: P776486

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	3.9	4.3	4.7	5.5	5.9	5.9	5.5	5.5	5.1	5.1	4.3
68°	3.5	3.9	4.7	5.1	5.5	5.5	5.1	5.1	5.1	4.7	4.3
68.5°	3.5	3.9	4.3	5.1	5.5	5.5	5.1	5.1	4.7	4.7	3.9
69°	3.5	3.5	4.3	4.7	5.1	5.1	4.7	4.7	4.7	4.3	3.9
69.5°	3.1	3.5	3.9	4.7	5.1	5.1	4.7	4.7	4.3	4.3	3.9
70°	3.1	3.5	3.9	4.3	4.7	4.7	4.3	4.3	4.3	3.9	3.5
70.5°	3.1	3.1	3.5	4.3	4.7	4.7	4.3	4.3	4.3	3.9	3.5
71°	2.7	3.1	3.5	3.9	4.7	4.3	3.9	3.9	3.9	3.9	3.1
71.5°	2.7	3.1	3.5	3.9	4.3	4.3	3.9	3.9	3.9	3.5	3.1
72°	2.7	2.7	3.1	3.9	4.3	3.9	3.5	3.9	3.5	3.5	3.1
72.5°	2.7	2.7	3.1	3.5	3.9	3.9	3.5	3.5	3.5	3.1	2.7
73°	2.3	2.7	2.7	3.5	3.9	3.9	3.1	3.5	3.5	3.1	2.7
73.5°	2.3	2.7	2.7	3.1	3.5	3.5	3.1	3.1	3.1	3.1	2.3
74°	2.3	2.3	2.7	3.1	3.5	3.5	3.1	3.1	3.1	2.7	2.3
74.5°	2.3	2.3	2.3	3.1	3.5	3.5	2.7	3.1	3.1	2.7	2.3
75°	2.0	2.3	2.3	2.7	3.1	3.1	2.7	2.7	2.7	2.7	2.0
75.5°	2.0	2.0	2.3	2.7	3.1	3.1	2.3	2.7	2.7	2.3	2.0
76°	2.0	2.0	2.0	2.7	3.1	2.7	2.3	2.7	2.7	2.3	2.0
76.5°	2.0	2.0	2.0	2.3	2.7	2.7	2.3	2.3	2.3	2.3	2.0
77°	1.6	2.0	2.0	2.3	2.7	2.7	2.0	2.3	2.3	2.0	1.6
77.5°	1.6	1.6	1.6	2.3	2.7	2.3	2.0	2.3	2.3	2.0	1.6
78°	1.6	1.6	1.6	2.0	2.3	2.3	2.0	2.0	2.0	2.0	1.6
78.5°	1.6	1.6	1.6	2.0	2.3	2.3	1.6	2.0	2.0	2.0	1.6
79°	1.6	1.6	1.6	2.0	2.3	2.0	1.6	2.0	2.0	1.6	1.2
79.5°	1.2	1.2	1.2	2.0	2.0	2.0	1.6	1.6	2.0	1.6	1.2
80°	1.2	1.2	1.2	1.6	2.0	2.0	1.6	1.6	1.6	1.6	1.2
80.5°	1.2	1.2	1.2	1.6	2.0	1.6	1.2	1.6	1.6	1.2	1.2
81°	1.2	1.2	1.2	1.6	1.6	1.6	1.2	1.2	1.6	1.2	0.8
81.5°	0.8	1.2	0.8	1.2	1.6	1.6	1.2	1.2	1.6	1.2	0.8
82°	0.8	0.8	0.8	1.2	1.6	1.6	1.2	1.2	1.2	1.2	0.8
82.5°	0.8	0.8	0.8	1.2	1.6	1.2	0.8	1.2	1.2	0.8	0.8
83°	0.8	0.8	0.8	0.8	1.2	1.2	0.8	0.8	1.2	0.8	0.8
83.5°	0.8	0.8	0.8	0.8	1.2	1.2	0.8	0.8	1.2	0.8	0.4
84°	0.4	0.4	0.4	0.8	1.2	0.8	0.8	0.8	0.8	0.8	0.4
84.5°	0.4	0.4	0.4	0.8	1.2	0.8	0.8	0.8	0.8	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.8	0.8	0.4	0.4	0.8	0.4	0.4
85.5°	0.4	0.4	0.4	0.4	0.8	0.8	0.4	0.4	0.8	0.4	0.4
86°	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4
86.5°	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.4	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.4	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: P776486  
CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-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: P776486

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3594.9	3594.9	3594.9	3594.9	3594.9	3594.9
0.5°	3591.7	3589.4	3590.2	3590.9	3592.9	3594.5
1°	3587.4	3584.3	3583.5	3585.5	3588.6	3590.9
1.5°	3581.1	3576.4	3576.1	3578.0	3582.3	3585.5
2°	3573.7	3567.8	3566.3	3569.0	3574.1	3579.2
2.5°	3565.1	3557.3	3555.7	3558.8	3565.1	3571.7
3°	3554.5	3545.9	3544.7	3547.5	3554.9	3562.3
3.5°	3543.2	3534.5	3531.4	3535.3	3542.8	3552.2
4°	3531.8	3523.2	3520.1	3520.8	3529.8	3539.6
4.5°	3520.8	3511.8	3507.1	3506.4	3515.7	3528.7
5°	3509.1	3499.3	3493.8	3492.3	3502.0	3516.5
5.5°	3496.6	3485.6	3479.3	3476.6	3487.6	3504.4
6°	3482.9	3472.7	3464.8	3460.5	3471.9	3491.9
6.5°	3469.1	3457.4	3450.0	3444.9	3457.0	3480.9
7°	3455.1	3442.1	3432.7	3428.4	3442.9	3468.8
7.5°	3439.0	3424.1	3415.1	3411.2	3427.2	3454.3
8°	3421.8	3406.1	3396.7	3394.7	3411.2	3439.8
8.5°	3403.0	3386.5	3376.3	3375.9	3394.4	3424.5
9°	3383.8	3366.2	3356.0	3357.9	3376.7	3406.5
9.5°	3363.4	3345.8	3334.0	3339.5	3358.3	3388.1
10°	3342.7	3324.3	3312.9	3320.3	3338.7	3368.9
10.5°	3321.9	3302.3	3289.8	3300.8	3318.4	3348.9
11°	3300.0	3280.8	3266.7	3280.4	3297.6	3329.0
11.5°	3278.1	3259.6	3243.6	3259.3	3276.9	3309.8
12°	3256.5	3237.7	3222.1	3237.3	3255.3	3289.8
12.5°	3235.8	3214.2	3199.3	3215.0	3234.6	3269.4
13°	3214.6	3190.7	3177.4	3192.3	3213.4	3248.3
13.5°	3191.5	3166.8	3152.3	3168.8	3192.7	3225.2
14°	3169.6	3142.6	3127.7	3144.1	3171.1	3202.1
14.5°	3145.7	3118.7	3102.6	3120.2	3148.4	3178.2
15°	3122.6	3094.4	3078.7	3096.3	3124.5	3154.7
15.5°	3098.3	3069.3	3053.3	3072.1	3099.9	3130.0
16°	3074.8	3043.5	3028.2	3047.4	3075.2	3105.0
16.5°	3050.5	3018.4	3002.4	3021.9	3050.1	3078.7
17°	3025.9	2991.8	2976.9	2997.3	3024.3	3051.7
17.5°	3000.4	2964.4	2950.7	2970.6	2998.1	3024.3
18°	2975.0	2936.2	2923.3	2944.0	2970.6	2995.7
18.5°	2947.5	2908.8	2896.2	2917.0	2942.5	2966.3
19°	2920.1	2879.8	2867.7	2888.0	2913.9	2937.0
19.5°	2892.7	2850.4	2839.1	2859.8	2884.1	2907.2
20°	2865.3	2820.7	2809.3	2830.5	2852.8	2876.7
20.5°	2837.5	2789.3	2780.3	2800.3	2821.8	2845.7
21°	2807.7	2757.6	2750.6	2769.4	2790.1	2812.8



TEST NUMBER: P776486

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2712.6	2657.0	2655.0	2674.6	2691.8	2711.8
23°	2680.1	2622.1	2622.1	2640.5	2657.4	2675.4
23.5°	2645.2	2590.8	2586.9	2607.6	2622.9	2640.1
24°	2610.4	2559.1	2552.0	2571.6	2587.7	2605.7
24.5°	2574.0	2527.4	2519.5	2536.4	2550.5	2572.8
25°	2539.9	2495.6	2487.4	2499.6	2512.5	2540.3
25.5°	2506.6	2463.5	2457.7	2463.9	2477.2	2505.4
26°	2475.7	2430.2	2425.9	2425.2	2442.4	2469.4
26.5°	2445.5	2395.4	2394.6	2386.8	2409.9	2432.6
27°	2415.4	2359.0	2363.3	2347.2	2376.6	2393.8
27.5°	2383.6	2320.6	2330.0	2306.5	2341.7	2354.3
28°	2351.1	2280.7	2296.3	2265.0	2306.5	2312.4
28.5°	2316.7	2240.7	2260.7	2224.3	2270.1	2270.9
29°	2281.4	2200.0	2223.9	2182.4	2232.1	2227.0
29.5°	2244.2	2156.9	2186.3	2141.2	2192.5	2183.1
30°	2207.0	2114.2	2146.7	2099.7	2152.2	2137.7
30.5°	2167.9	2069.6	2106.4	2060.6	2111.1	2091.5
31°	2129.1	2023.8	2064.5	2021.4	2068.8	2041.4
31.5°	2087.6	1977.2	2022.6	1983.4	2025.7	1996.7
32°	2047.7	1930.6	1979.9	1945.1	1981.9	1947.0
32.5°	2005.8	1881.2	1937.2	1909.4	1937.6	1898.5
33°	1963.1	1832.3	1892.2	1873.8	1893.4	1846.4
33.5°	1920.4	1781.8	1845.6	1839.7	1848.7	1797.8
34°	1876.9	1730.1	1799.8	1805.6	1804.1	1744.6
34.5°	1831.1	1678.4	1750.4	1770.0	1757.1	1692.9
35°	1786.5	1627.1	1701.9	1734.0	1710.9	1639.2
35.5°	1741.0	1578.5	1652.9	1698.0	1664.7	1590.3
36°	1695.2	1531.5	1604.0	1660.0	1617.7	1540.1
36.5°	1647.8	1483.4	1554.2	1622.8	1571.1	1492.0
37°	1600.8	1422.3	1506.9	1586.4	1523.7	1429.3
37.5°	1554.2	1350.6	1459.9	1549.5	1476.7	1359.2
38°	1508.4	1279.0	1418.8	1512.7	1430.1	1289.1
38.5°	1465.4	1207.7	1354.9	1475.5	1380.0	1219.4
39°	1425.4	1136.0	1290.7	1440.7	1329.9	1149.3
39.5°	1381.9	1064.4	1226.5	1400.3	1279.3	1079.2
40°	1326.7	992.7	1162.6	1368.2	1229.2	1006.8
40.5°	1263.3	921.8	1098.8	1335.7	1178.7	934.7
41°	1199.1	854.1	1034.6	1303.2	1118.8	868.6
41.5°	1135.2	788.3	968.8	1270.7	1059.3	802.4
42°	1073.4	728.0	903.0	1237.8	1000.5	741.7
42.5°	1010.7	670.4	838.0	1204.5	939.0	682.6
43°	947.3	612.5	776.1	1172.0	878.0	625.4
43.5°	882.7	554.9	717.4	1138.8	817.7	566.2



TEST NUMBER: P776486

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	704.5	399.0	554.5	1044.4	652.0	408.0
45.5°	649.7	352.8	502.0	1007.2	600.3	359.9
46°	595.2	308.2	453.1	966.5	549.4	315.6
46.5°	542.4	265.5	404.9	915.2	496.9	271.8
47°	491.1	225.2	359.9	865.8	449.2	231.4
47.5°	440.9	189.5	314.8	818.4	401.4	193.8
48°	397.5	158.6	272.9	769.1	356.7	162.5
48.5°	354.0	132.4	233.8	716.2	312.5	135.1
49°	310.9	114.0	197.8	655.1	272.6	116.7
49.5°	267.5	95.9	165.6	594.4	232.2	99.1
50°	224.0	78.3	137.1	539.2	196.2	81.1
50.5°	188.4	60.7	119.0	485.6	163.3	63.4
51°	156.6	46.6	101.4	436.2	135.5	49.3
51.5°	129.2	32.9	83.4	388.5	117.9	35.6
52°	106.5	20.0	65.8	343.4	100.2	22.3
52.5°	87.3	11.7	47.8	301.1	82.6	13.7
53°	71.3	11.0	34.1	261.6	65.0	12.1
53.5°	59.1	10.6	21.1	224.0	47.8	11.4
54°	47.0	9.8	11.7	191.1	34.1	10.6
54.5°	34.5	9.4	11.0	160.9	21.5	9.8
55°	22.3	9.0	9.8	133.5	12.1	9.4
55.5°	10.2	8.6	9.0	113.6	11.0	9.0
56°	8.2	8.2	8.2	93.6	9.8	8.6
56.5°	8.2	8.2	7.8	73.6	8.6	8.6
57°	7.8	7.8	7.4	53.6	7.8	8.2
57.5°	7.4	7.4	7.4	40.7	7.4	7.8
58°	7.4	7.4	7.0	30.9	7.0	7.4
58.5°	7.0	7.0	7.0	22.7	7.0	7.4
59°	7.0	6.7	6.7	16.8	6.7	7.0
59.5°	6.7	6.7	6.7	14.9	6.7	7.0
60°	6.7	6.3	6.3	12.5	6.3	6.7
60.5°	6.3	6.3	6.3	10.2	6.3	6.3
61°	6.3	5.9	5.9	7.8	5.9	6.3
61.5°	5.9	5.9	5.9	5.9	5.9	5.9
62°	5.9	5.5	5.5	5.5	5.5	5.9
62.5°	5.5	5.5	5.5	5.5	5.5	5.5
63°	5.5	5.1	5.1	5.1	5.5	5.5
63.5°	5.1	4.7	5.1	5.1	5.1	5.1
64°	5.1	4.7	4.7	5.1	5.1	5.1
64.5°	4.7	4.3	4.7	4.7	4.7	4.7
65°	4.7	4.3	4.7	4.7	4.7	4.7
65.5°	4.7	4.3	4.3	4.3	4.7	4.3
66°	4.3	3.9	4.3	4.3	4.3	4.3



TEST NUMBER: P776486

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	3.9	3.5	3.9	3.9	3.9	3.9
68°	3.5	3.5	3.5	3.9	3.9	3.5
68.5°	3.5	3.1	3.5	3.5	3.5	3.5
69°	3.5	3.1	3.5	3.5	3.5	3.5
69.5°	3.1	3.1	3.1	3.5	3.5	3.1
70°	3.1	2.7	3.1	3.1	3.1	3.1
70.5°	3.1	2.7	3.1	3.1	3.1	3.1
71°	2.7	2.7	2.7	2.7	3.1	2.7
71.5°	2.7	2.7	2.7	2.7	2.7	2.7
72°	2.7	2.3	2.7	2.7	2.7	2.7
72.5°	2.7	2.3	2.3	2.3	2.7	2.7
73°	2.3	2.3	2.3	2.3	2.7	2.3
73.5°	2.3	2.3	2.3	2.3	2.3	2.3
74°	2.3	2.0	2.3	2.0	2.3	2.3
74.5°	2.0	2.0	2.0	2.0	2.3	2.3
75°	2.0	2.0	2.0	2.0	2.0	2.0
75.5°	2.0	2.0	2.0	2.0	2.0	2.0
76°	2.0	1.6	2.0	1.6	2.0	2.0
76.5°	2.0	1.6	1.6	1.6	2.0	2.0
77°	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.6	1.6	1.6	1.6	1.6	1.6
78°	1.6	1.6	1.6	1.2	1.6	1.6
78.5°	1.6	1.6	1.6	1.2	1.6	1.6
79°	1.2	1.2	1.2	1.2	1.6	1.6
79.5°	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2	1.2	1.2
80.5°	1.2	1.2	1.2	0.8	1.2	1.2
81°	1.2	1.2	1.2	0.8	1.2	1.2
81.5°	0.8	0.8	0.8	0.8	0.8	0.8
82°	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8
83°	0.8	0.8	0.8	0.4	0.8	0.8
83.5°	0.8	0.8	0.8	0.4	0.4	0.8
84°	0.4	0.8	0.4	0.4	0.4	0.4
84.5°	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.4	0.4
85.5°	0.4	0.4	0.4	0.4	0.4	0.4
86°	0.4	0.4	0.4	0.4	0.4	0.4
86.5°	0.4	0.4	0.4	0.0	0.0	0.4
87°	0.0	0.4	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: P776486  
CATALOG NUMBER: HCDJBL3040CSD-HCD8TRC-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0



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Scaled Data Report





— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - 135°-315°

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Scaled Data Report



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Scaled Data Report





21.5°	2780.3	2812.4	2860.2	2893.1	2941.7	2954.6	2977.7	2949.5	2922.1	2886.8	2836.7
22°	2747.0	2781.1	2829.7	2862.6	2914.6	2927.6	2948.7	2922.1	2895.1	2858.3	2805.8



44°	510.6	722.1	1226.9	974.3	737.8	979.8	1367.8	1018.9	695.1	873.7	1231.2
44.5°	457.4	664.9	1192.4	913.6	679.0	915.9	1331.8	958.2	636.0	813.0	1197.5



66.5°	3.9	4.7	5.1	5.9	6.3	6.3	5.5	5.9	5.5	5.5	4.7
67°	3.9	4.3	5.1	5.5	5.9	5.9	5.5	5.5	5.5	5.1	4.7



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°	2777.2	2725.5	2718.5	2739.2	2758.4	2780.3
22°	2745.1	2691.0	2686.3	2707.1	2725.5	2747.0



44°	820.0	501.2	663.0	1105.9	758.9	510.6
44.5°	761.3	448.0	608.1	1073.0	704.5	457.4

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66.5°	4.3	3.9	3.9	4.3	4.3	3.9
67°	3.9	3.5	3.9	3.9	3.9	3.9

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Peachtree City, GA 30269

Scaled Data Report



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)