

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: P776729

Luminaire Tested: HCDJBS4050CSD-HCD6TSQH-5000lm-5000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776729  
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-5000K  
Description: 6 INCH SQUARE MEDIUM HAZE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

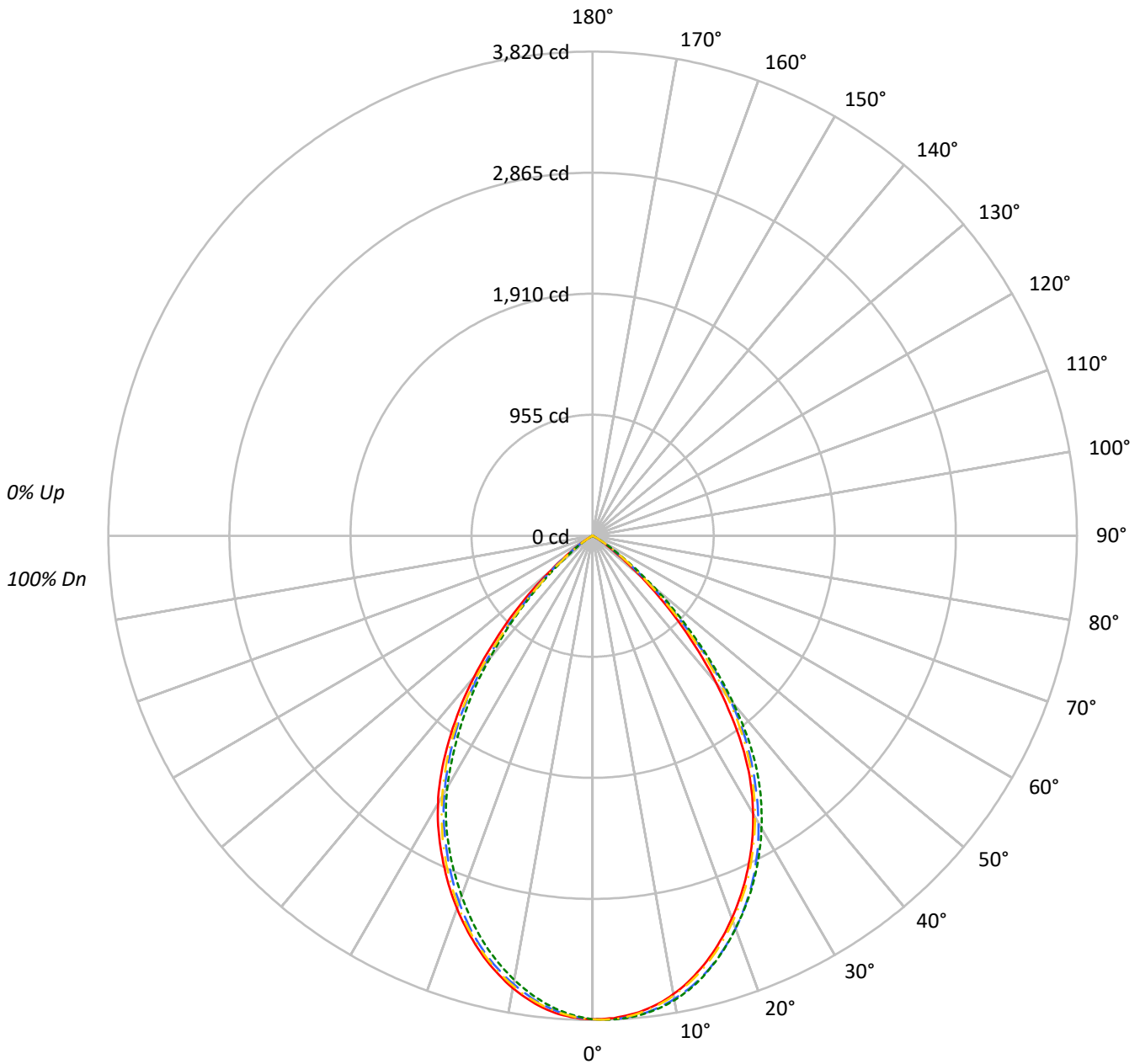
Lumens per Lamp: N/A  
Luminaire Lumens: 4797.3 lumens  
Efficiency: N/A  
Efficacy: 99.9 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.06  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (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



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

### 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	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°	209117	209117	209117	209117
5°	208188	209454	207247	205156
10°	204433	207133	201705	198098
15°	197249	201261	193287	188446
20°	187365	192394	182512	176293
25°	175250	181825	169637	162632
30°	160271	168608	154397	145212
35°	139173	151199	132260	120281
40°	108489	123596	104267	90355
45°	74388	89722	71535	58084
50°	40971	54233	39188	28528
55°	15665	23818	16946	12148
60°	2061	6096	4079	1601
65°	272	493	376	272
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: 89722 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	356.1	7.4
10°-20°	965.4	20.1
20°-30°	1306.0	27.2
30°-40°	1253.8	26.1
40°-50°	730.2	15.2
50°-60°	179.7	3.7
60°-70°	5.8	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°	2627.5	54.8
0°-40°	3881.3	80.9
0°-60°	4791.2	99.9
0°-90°	4797.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4797.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3815	3815	3815	3815	3815	
5°	3783	3806	3766	3728	3783	358
15°	3476	3546	3406	3320	3476	975
25°	2897	3006	2804	2689	2897	1328
35°	2080	2259	1976	1797	2080	1280
45°	960	1157	923	749	960	741
55°	164	249	177	127	164	169
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



TEST NUMBER: P776729

CATALOG NUMBER: HCDJBL4050CSD-HCD6TSQH-5000lm-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6
0.5°	3813.8	3814.2	3817.1	3819.6	3815.9	3817.5	3818.4	3816.7	3812.9	3811.3	3811.7
1°	3812.9	3814.6	3818.8	3821.7	3818.4	3819.2	3819.2	3816.3	3811.3	3807.9	3808.3
1.5°	3811.7	3814.6	3819.2	3823.0	3819.6	3820.5	3818.8	3815.0	3809.6	3804.6	3803.7
2°	3809.6	3814.2	3819.2	3823.0	3820.5	3820.5	3818.4	3812.9	3805.4	3800.4	3798.3
2.5°	3809.6	3812.5	3817.9	3822.1	3819.6	3819.2	3816.3	3810.0	3802.1	3795.0	3791.6
3°	3803.3	3810.0	3816.7	3820.9	3818.8	3817.9	3813.3	3805.4	3796.2	3788.7	3784.1
3.5°	3799.6	3807.1	3814.2	3818.8	3816.7	3814.6	3809.6	3800.8	3790.4	3781.6	3777.0
4°	3795.0	3803.7	3810.8	3815.9	3813.8	3811.7	3805.4	3794.5	3783.7	3774.0	3766.9
4.5°	3789.1	3799.6	3806.7	3812.1	3810.4	3807.5	3799.6	3787.8	3776.1	3764.4	3757.3
5°	3783.2	3794.1	3802.1	3807.9	3806.2	3802.5	3793.3	3780.3	3766.1	3754.4	3746.5
5.5°	3777.8	3787.8	3797.0	3802.5	3801.6	3797.0	3785.8	3771.5	3755.7	3743.5	3734.3
6°	3768.2	3780.7	3790.8	3796.6	3796.2	3790.4	3777.4	3761.1	3744.8	3731.8	3721.8
6.5°	3759.8	3773.6	3783.7	3790.4	3789.5	3782.8	3769.4	3749.8	3732.7	3719.3	3707.6
7°	3750.2	3764.9	3775.3	3783.2	3782.4	3775.3	3759.0	3738.5	3720.1	3705.5	3694.2
7.5°	3739.3	3755.2	3766.5	3774.5	3774.0	3766.5	3748.5	3725.1	3705.5	3690.4	3678.3
8°	3727.6	3744.8	3757.3	3764.9	3765.3	3757.3	3737.3	3711.8	3690.8	3675.0	3662.8
8.5°	3715.5	3733.5	3746.9	3754.8	3755.7	3746.5	3724.7	3697.5	3675.4	3659.1	3645.7
9°	3702.1	3721.0	3736.0	3743.9	3744.8	3735.2	3712.2	3682.5	3658.7	3642.4	3629.4
9.5°	3687.5	3708.4	3723.5	3732.2	3733.5	3723.5	3697.5	3666.2	3642.4	3624.4	3611.0
10°	3672.5	3694.6	3711.3	3719.7	3721.0	3710.1	3682.9	3649.9	3623.5	3606.4	3592.2
10.5°	3656.1	3679.6	3697.5	3706.3	3707.2	3696.3	3667.4	3631.9	3605.1	3587.6	3572.9
11°	3639.4	3664.5	3684.2	3692.1	3692.9	3680.8	3651.1	3613.9	3585.5	3567.9	3553.3
11.5°	3621.9	3648.2	3668.3	3676.6	3677.5	3665.3	3634.4	3595.1	3564.6	3547.9	3532.8
12°	3602.2	3631.1	3653.2	3660.3	3661.2	3648.2	3616.0	3575.5	3544.1	3527.0	3511.5
12.5°	3583.0	3613.1	3635.7	3644.0	3644.0	3630.6	3597.2	3555.4	3522.8	3505.2	3490.2
13°	3563.3	3595.1	3618.9	3627.3	3627.3	3612.7	3578.8	3534.9	3501.0	3483.1	3468.0
13.5°	3542.0	3575.0	3600.5	3608.1	3607.2	3592.6	3557.9	3513.2	3477.6	3460.5	3445.0
14°	3521.1	3555.4	3581.3	3589.3	3587.6	3572.9	3537.4	3491.0	3454.6	3436.7	3421.2
14.5°	3498.5	3534.1	3561.2	3569.6	3566.3	3551.2	3516.1	3467.6	3430.8	3411.6	3396.9
15°	3475.5	3513.2	3540.3	3549.1	3546.2	3529.9	3493.1	3444.2	3405.7	3386.1	3371.9
15.5°	3451.7	3490.6	3519.0	3528.6	3523.6	3507.7	3469.7	3419.9	3380.2	3361.4	3345.9
16°	3427.5	3467.2	3496.9	3505.6	3501.5	3484.7	3446.7	3395.3	3354.7	3335.1	3318.8
16.5°	3402.4	3443.8	3473.4	3483.1	3478.0	3460.5	3422.0	3369.8	3328.4	3307.5	3291.2
17°	3376.9	3419.5	3450.5	3460.1	3453.4	3436.2	3397.4	3343.8	3300.8	3279.0	3263.1
17.5°	3350.1	3394.8	3426.2	3436.7	3429.1	3411.2	3371.4	3316.2	3273.6	3250.6	3233.5
18°	3323.8	3368.9	3401.5	3411.6	3403.2	3385.6	3345.9	3289.5	3244.3	3221.3	3203.4
18.5°	3296.6	3342.6	3375.6	3386.5	3377.3	3359.7	3318.8	3261.1	3215.9	3191.2	3173.7
19°	3268.6	3315.8	3350.5	3361.0	3351.4	3333.4	3291.2	3232.6	3187.1	3162.0	3141.5
19.5°	3240.2	3288.2	3323.4	3334.6	3325.0	3305.8	3263.1	3203.4	3158.6	3130.2	3109.3
20°	3211.7	3260.6	3297.0	3307.9	3297.9	3277.4	3235.6	3174.9	3128.5	3098.8	3077.1
20.5°	3182.0	3231.4	3269.4	3279.0	3269.0	3249.8	3206.3	3144.8	3098.0	3067.1	3044.9
21°	3152.4	3202.1	3241.4	3251.4	3241.0	3220.9	3176.2	3115.1	3067.9	3035.7	3012.7



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

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3060.8	3111.0	3153.2	3162.8	3157.4	3131.0	3085.0	3025.7	2972.6	2937.0	2907.8
23°	3029.4	3079.2	3122.3	3132.3	3127.7	3099.3	3054.9	2993.5	2938.7	2902.8	2872.7
23.5°	2997.7	3046.6	3090.9	3100.9	3098.0	3067.5	3024.4	2961.3	2905.7	2867.6	2836.3
24°	2964.6	3014.4	3057.9	3068.7	3068.3	3035.7	2991.8	2928.7	2871.8	2832.9	2800.3
24.5°	2931.2	2981.4	3025.3	3036.5	3038.6	3009.0	2957.9	2895.7	2839.2	2797.8	2763.5
25°	2897.3	2947.9	2991.8	3003.5	3006.0	2975.9	2923.7	2862.6	2804.5	2762.7	2728.0
25.5°	2863.5	2912.4	2957.9	2969.2	2973.4	2942.1	2889.4	2828.3	2770.2	2726.7	2691.2
26°	2829.6	2878.5	2922.8	2935.8	2941.2	2909.0	2854.7	2794.9	2735.9	2691.2	2654.8
26.5°	2793.6	2843.8	2886.9	2901.1	2908.6	2873.9	2818.7	2760.2	2701.2	2655.3	2617.6
27°	2758.5	2807.0	2851.3	2866.0	2875.6	2840.0	2783.6	2725.9	2664.9	2619.3	2580.8
27.5°	2721.7	2769.8	2814.1	2830.4	2840.9	2804.5	2748.1	2690.8	2630.2	2582.5	2542.8
28°	2685.4	2732.6	2775.7	2793.6	2806.2	2769.4	2712.1	2654.8	2593.8	2543.6	2503.5
28.5°	2648.1	2695.0	2737.2	2756.8	2771.9	2733.4	2675.7	2619.3	2557.4	2504.3	2462.9
29°	2610.1	2656.5	2697.9	2719.2	2736.8	2697.5	2638.1	2582.1	2519.4	2465.4	2422.4
29.5°	2571.2	2616.4	2657.3	2681.2	2700.0	2661.5	2600.5	2543.2	2479.7	2424.9	2379.3
30°	2531.9	2575.8	2616.8	2642.3	2663.6	2624.7	2562.0	2504.3	2439.1	2383.9	2336.7
30.5°	2491.8	2534.8	2575.8	2601.3	2626.4	2586.7	2523.1	2463.8	2399.0	2340.9	2293.2
31°	2450.8	2493.0	2532.3	2562.0	2590.0	2548.6	2483.0	2423.2	2355.9	2297.8	2248.9
31.5°	2408.6	2450.4	2490.9	2520.6	2550.7	2510.2	2442.4	2381.4	2312.0	2254.3	2204.1
32°	2364.7	2406.1	2447.0	2478.4	2511.9	2470.9	2401.9	2338.8	2266.9	2209.6	2158.2
32.5°	2321.6	2363.8	2403.6	2435.3	2472.6	2430.3	2360.1	2295.3	2221.3	2164.0	2113.0
33°	2276.5	2319.1	2360.5	2393.1	2432.4	2389.4	2317.9	2249.7	2174.5	2116.8	2067.8
33.5°	2230.1	2274.4	2318.3	2350.1	2390.2	2348.0	2275.2	2203.7	2126.4	2069.5	2022.3
34°	2181.1	2228.4	2273.5	2306.6	2348.8	2305.3	2231.7	2157.3	2077.9	2022.7	1975.9
34.5°	2131.4	2183.2	2228.8	2262.7	2303.6	2260.6	2188.7	2109.7	2026.5	1972.5	1928.2
35°	2079.6	2136.0	2183.2	2216.7	2259.3	2216.3	2144.4	2060.7	1976.3	1922.4	1881.0
35.5°	2027.7	2088.7	2139.8	2171.1	2212.5	2171.5	2100.0	2012.2	1926.5	1872.6	1832.5
36°	1972.1	2041.1	2092.1	2125.5	2165.7	2126.0	2054.5	1963.3	1876.4	1822.0	1782.3
36.5°	1916.5	1990.5	2047.4	2080.0	2115.5	2078.7	2007.2	1913.6	1825.4	1770.6	1730.5
37°	1859.2	1939.1	1999.7	2031.9	2064.5	2029.8	1958.7	1864.2	1772.7	1718.7	1676.1
37.5°	1802.4	1885.6	1950.8	1982.6	2011.8	1979.6	1909.8	1813.2	1722.9	1666.1	1623.0
38°	1743.4	1830.8	1899.8	1929.5	1957.5	1927.0	1858.8	1762.6	1670.7	1612.1	1567.0
38.5°	1687.4	1776.0	1848.8	1879.7	1900.2	1873.9	1807.0	1711.6	1618.8	1557.8	1511.4
39°	1628.9	1719.2	1794.8	1825.4	1843.8	1819.1	1753.0	1660.2	1565.7	1503.0	1455.8
39.5°	1572.4	1662.3	1740.1	1771.0	1785.6	1762.2	1698.3	1607.1	1513.0	1447.8	1398.1
40°	1516.0	1602.1	1682.8	1714.6	1727.1	1702.4	1642.2	1552.8	1457.0	1391.0	1340.4
40.5°	1460.0	1543.6	1627.6	1656.9	1669.4	1642.7	1586.2	1498.4	1402.3	1334.9	1281.4
41°	1403.1	1488.4	1571.2	1597.9	1611.7	1581.6	1526.0	1443.6	1346.2	1279.3	1222.9
41.5°	1347.1	1431.1	1513.5	1539.4	1556.1	1521.4	1467.1	1389.7	1290.2	1226.2	1165.2
42°	1290.6	1373.4	1454.1	1504.7	1499.3	1460.8	1407.3	1332.4	1233.8	1170.6	1108.3
42.5°	1234.2	1316.1	1394.7	1441.1	1444.5	1400.6	1348.3	1276.0	1181.5	1116.7	1053.6
43°	1176.9	1258.4	1335.4	1376.3	1388.9	1341.2	1289.8	1218.3	1127.6	1063.2	1000.9
43.5°	1120.9	1202.8	1276.4	1311.9	1329.9	1283.1	1231.3	1162.3	1077.0	1010.5	949.1



TEST NUMBER: P776729

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

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	959.5	1036.0	1097.9	1132.2	1157.3	1110.9	1057.3	994.6	922.7	856.7	802.3
45.5°	908.5	980.4	1039.4	1076.6	1100.4	1053.2	1000.5	942.4	872.1	807.7	756.3
46°	855.8	926.5	981.2	1021.0	1045.6	998.0	945.3	888.4	822.8	759.2	711.6
46.5°	804.0	873.0	923.5	965.8	992.5	943.6	889.7	836.2	772.6	714.5	668.5
47°	753.4	819.9	868.4	910.2	939.4	890.5	836.2	783.1	724.1	668.1	626.3
47.5°	704.1	767.6	815.3	856.2	886.8	838.7	783.9	732.9	677.3	625.5	586.6
48°	656.0	717.0	763.0	803.1	834.9	789.8	733.3	682.3	632.1	583.6	548.5
48.5°	610.0	668.1	711.6	751.7	783.9	742.5	684.8	634.2	587.8	544.8	512.6
49°	564.8	620.0	663.1	701.1	733.3	695.3	637.2	587.0	543.5	505.9	477.9
49.5°	521.4	573.2	615.4	652.2	683.2	649.7	593.3	542.3	500.9	469.1	443.6
50°	480.4	526.8	569.4	602.9	635.9	604.1	549.8	499.6	459.5	434.4	412.2
50.5°	439.8	481.6	524.3	556.1	589.5	561.1	508.8	459.1	420.6	403.9	383.4
51°	401.8	439.8	482.5	510.9	544.3	518.8	469.9	421.0	386.7	373.8	354.5
51.5°	364.2	400.1	441.5	468.3	502.1	478.7	432.7	388.8	353.3	343.2	326.1
52°	329.0	362.9	403.0	427.7	461.1	439.4	401.8	356.6	319.4	313.1	297.3
52.5°	295.6	326.9	365.4	388.0	421.4	406.0	370.4	324.0	286.0	283.0	270.5
53°	264.6	294.3	330.7	350.8	385.9	372.1	339.1	291.8	259.6	257.1	246.7
53.5°	235.4	264.2	296.8	316.1	350.4	338.6	307.7	264.6	235.8	233.7	223.3
54°	209.5	236.2	266.3	284.3	314.4	304.8	276.4	240.0	214.5	211.6	201.9
54.5°	185.6	209.9	236.2	254.2	279.3	271.3	250.9	217.4	195.2	190.2	180.2
55°	163.9	186.5	209.5	227.0	249.2	245.4	226.6	197.3	177.3	171.0	160.5
55.5°	143.0	163.5	184.0	201.5	222.0	218.7	203.6	177.3	159.7	151.8	141.3
56°	126.7	142.6	161.4	177.7	196.9	195.2	181.4	159.3	143.0	134.2	123.8
56.5°	110.0	125.8	141.7	155.1	173.9	172.7	160.5	142.1	127.1	117.5	107.0
57°	93.7	109.5	124.6	137.1	152.6	151.8	141.3	125.4	111.6	102.0	92.0
57.5°	77.3	92.8	107.0	119.6	132.1	131.7	122.9	109.5	97.4	87.8	77.8
58°	61.9	76.1	89.9	101.6	113.7	113.3	106.2	94.9	83.6	73.2	62.3
58.5°	46.8	59.8	72.7	84.0	97.0	96.6	90.7	80.7	69.0	62.3	53.1
59°	34.3	45.2	56.4	66.5	80.7	81.5	75.3	65.2	58.5	51.4	43.5
59.5°	25.1	33.0	41.4	49.8	68.1	70.2	63.5	55.2	48.1	40.1	34.3
60°	18.8	23.8	30.1	36.4	55.6	58.9	52.3	45.2	37.2	29.3	25.1
60.5°	13.8	18.0	21.7	25.9	43.1	47.7	40.6	35.1	26.8	18.4	15.5
61°	11.7	15.5	16.3	19.2	30.5	36.4	28.8	25.1	16.7	14.2	12.1
61.5°	9.6	13.0	13.8	14.2	18.0	25.1	17.6	15.1	12.5	11.3	9.6
62°	7.5	10.5	11.3	12.1	13.4	13.8	13.4	11.3	9.6	8.8	7.9
62.5°	5.4	7.9	8.8	10.0	10.5	10.5	10.0	9.2	7.5	7.1	6.3
63°	4.6	5.9	6.7	7.9	8.4	8.4	7.9	7.1	6.3	5.9	5.4
63.5°	3.8	4.6	5.4	5.9	6.7	6.7	6.3	5.9	5.0	5.0	4.6
64°	2.9	3.8	4.6	5.0	5.4	5.4	5.4	5.0	4.2	4.2	3.8
64.5°	2.5	3.3	3.8	4.2	4.6	4.6	4.2	4.2	3.3	3.3	3.3
65°	2.1	2.9	3.3	3.3	3.8	3.8	3.8	3.3	2.9	2.9	2.9
65.5°	2.1	2.5	2.5	2.9	3.3	2.9	2.9	2.9	2.5	2.5	2.5
66°	1.7	2.1	2.5	2.5	2.5	2.5	2.5	2.5	2.1	2.1	2.1





TEST NUMBER: P776729

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

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3
68°	0.8	1.3	1.3	1.3	1.7	1.3	1.7	1.3	1.3	1.3	1.3
68.5°	0.8	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
69°	0.8	0.8	1.3	1.3	1.3	1.3	1.3	1.3	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	1.3	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: P776729

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-5000lm-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: P776729

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6
0.5°	3813.3	3808.7	3811.3	3813.3	3814.6	3813.8
1°	3809.2	3803.7	3806.7	3810.0	3812.1	3812.9
1.5°	3803.7	3797.9	3801.6	3805.4	3810.0	3811.7
2°	3797.0	3790.8	3795.0	3800.4	3805.4	3809.6
2.5°	3789.9	3782.8	3787.0	3794.5	3801.2	3809.6
3°	3781.6	3773.6	3779.1	3787.0	3797.0	3803.3
3.5°	3772.4	3763.6	3769.4	3779.9	3791.2	3799.6
4°	3762.8	3753.1	3759.4	3771.5	3785.3	3795.0
4.5°	3751.9	3741.0	3748.5	3762.3	3777.8	3789.1
5°	3739.8	3728.1	3736.4	3751.9	3769.9	3783.2
5.5°	3726.8	3715.1	3723.5	3741.0	3760.7	3777.8
6°	3713.0	3700.9	3710.5	3729.7	3751.5	3768.2
6.5°	3698.4	3685.0	3695.9	3716.8	3741.0	3759.8
7°	3683.3	3669.9	3680.8	3703.4	3730.1	3750.2
7.5°	3667.0	3652.8	3664.9	3690.0	3718.0	3739.3
8°	3650.7	3634.8	3648.6	3675.0	3705.1	3727.6
8.5°	3633.2	3616.4	3631.1	3659.1	3690.4	3715.5
9°	3615.6	3598.0	3612.7	3642.8	3675.8	3702.1
9.5°	3595.9	3578.4	3594.3	3625.2	3659.9	3687.5
10°	3576.7	3558.7	3574.6	3607.7	3643.6	3672.5
10.5°	3556.2	3537.0	3555.0	3588.8	3626.5	3656.1
11°	3535.3	3515.3	3534.1	3568.8	3608.5	3639.4
11.5°	3514.0	3493.5	3512.3	3548.3	3589.7	3621.9
12°	3491.4	3470.1	3490.2	3527.4	3569.6	3602.2
12.5°	3468.8	3447.1	3467.6	3505.2	3549.1	3583.0
13°	3445.0	3422.9	3443.8	3483.1	3528.6	3563.3
13.5°	3420.8	3398.2	3419.1	3459.6	3506.5	3542.0
14°	3395.3	3373.1	3394.0	3436.7	3484.3	3521.1
14.5°	3369.3	3347.2	3368.5	3412.4	3460.9	3498.5
15°	3342.6	3320.4	3342.2	3387.3	3438.3	3475.5
15.5°	3316.7	3292.4	3315.0	3361.4	3412.8	3451.7
16°	3288.7	3265.2	3287.8	3335.9	3388.2	3427.5
16.5°	3260.6	3236.0	3259.4	3310.0	3363.1	3402.4
17°	3231.4	3207.5	3231.0	3282.8	3337.2	3376.9
17.5°	3202.9	3177.4	3201.7	3254.0	3309.1	3350.1
18°	3173.7	3146.9	3172.4	3225.5	3281.5	3323.8
18.5°	3143.2	3116.0	3142.7	3196.3	3253.5	3296.6
19°	3113.1	3085.9	3111.4	3166.2	3224.3	3268.6
19.5°	3082.5	3054.5	3081.3	3136.5	3195.0	3240.2
20°	3052.0	3021.9	3050.8	3105.1	3164.9	3211.7
20.5°	3021.9	2990.1	3019.4	3073.3	3133.5	3182.0
21°	2989.3	2957.9	2987.6	3041.6	3102.2	3152.4

TEST NUMBER: P776729

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2889.4	2860.1	2889.4	2940.8	3003.9	3060.8
23°	2855.1	2826.3	2855.1	2906.5	2970.1	3029.4
23.5°	2821.2	2792.8	2822.5	2872.2	2935.8	2997.7
24°	2786.1	2758.5	2787.4	2837.1	2900.7	2964.6
24.5°	2751.0	2724.2	2753.5	2801.2	2866.4	2931.2
25°	2715.9	2688.7	2718.0	2765.2	2831.3	2897.3
25.5°	2679.9	2653.6	2682.8	2729.3	2795.3	2863.5
26°	2644.8	2618.0	2645.6	2691.2	2759.8	2829.6
26.5°	2608.0	2581.3	2608.0	2654.8	2723.4	2793.6
27°	2570.4	2543.6	2570.0	2615.1	2686.6	2758.5
27.5°	2531.9	2506.0	2530.7	2576.2	2649.0	2721.7
28°	2492.6	2464.6	2489.3	2536.5	2610.5	2685.4
28.5°	2451.6	2423.6	2450.0	2496.4	2571.6	2648.1
29°	2410.7	2381.4	2407.7	2455.8	2532.3	2610.1
29.5°	2368.9	2338.8	2364.7	2413.6	2492.2	2571.2
30°	2325.4	2294.0	2320.8	2371.8	2452.1	2531.9
30.5°	2281.1	2246.4	2276.5	2328.7	2409.8	2491.8
31°	2235.9	2198.7	2229.6	2285.7	2367.6	2450.8
31.5°	2189.9	2150.2	2182.8	2243.0	2325.0	2408.6
32°	2143.5	2100.5	2133.9	2197.0	2281.9	2364.7
32.5°	2095.0	2051.1	2085.4	2153.1	2238.0	2321.6
33°	2045.7	1999.7	2035.7	2108.0	2192.0	2276.5
33.5°	1995.5	1949.1	1985.9	2062.4	2146.4	2230.1
34°	1944.9	1898.5	1936.6	2015.2	2099.2	2181.1
34.5°	1893.1	1847.5	1886.0	1965.4	2052.0	2131.4
35°	1842.1	1797.3	1834.6	1915.7	2001.8	2079.6
35.5°	1790.7	1746.8	1785.2	1864.7	1952.0	2027.7
36°	1738.0	1697.0	1735.1	1812.8	1898.1	1972.1
36.5°	1685.7	1646.4	1684.5	1759.7	1843.3	1916.5
37°	1632.6	1595.0	1633.0	1701.2	1786.9	1859.2
37.5°	1579.1	1542.3	1580.8	1646.4	1731.7	1802.4
38°	1525.2	1490.5	1526.8	1588.3	1671.5	1743.4
38.5°	1469.6	1433.6	1470.8	1532.3	1612.1	1687.4
39°	1415.6	1376.8	1414.8	1500.1	1550.7	1628.9
39.5°	1360.4	1319.5	1358.8	1434.9	1481.3	1572.4
40°	1304.8	1262.6	1302.3	1369.2	1423.6	1516.0
40.5°	1249.7	1207.8	1246.3	1304.0	1365.9	1460.0
41°	1194.9	1155.2	1187.8	1238.8	1308.6	1403.1
41.5°	1142.6	1102.9	1131.3	1181.1	1250.9	1347.1
42°	1087.4	1052.3	1076.1	1123.0	1192.8	1290.6
42.5°	1034.3	1000.9	1023.1	1065.7	1135.9	1234.2
43°	982.1	950.3	970.4	1008.8	1077.8	1176.9
43.5°	929.0	899.3	916.4	953.2	1021.8	1120.9

TEST NUMBER: P776729

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	781.4	749.2	761.3	792.3	863.3	959.5
45.5°	734.2	702.4	710.3	742.1	814.4	908.5
46°	688.2	656.4	661.8	694.0	765.9	855.8
46.5°	645.5	610.0	614.2	647.6	719.9	804.0
47°	601.2	566.1	569.0	602.5	673.1	753.4
47.5°	560.7	523.0	526.0	559.8	629.6	704.1
48°	521.8	481.6	484.1	518.8	585.3	656.0
48.5°	484.1	441.1	445.3	480.0	543.1	610.0
49°	448.6	403.9	408.1	443.2	501.3	564.8
49.5°	414.7	367.9	372.9	407.6	462.4	521.4
50°	384.6	334.5	341.2	374.6	423.5	480.4
50.5°	355.0	304.4	310.6	342.8	387.6	439.8
51°	324.9	277.2	283.5	313.6	353.7	401.8
51.5°	295.2	252.5	258.0	285.1	321.5	364.2
52°	269.7	230.4	235.0	259.6	291.4	329.0
52.5°	245.0	210.3	213.2	235.4	263.0	295.6
53°	221.6	191.1	194.0	212.0	235.8	264.6
53.5°	200.7	173.5	175.2	189.8	210.7	235.4
54°	180.6	156.8	157.6	169.7	187.7	209.5
54.5°	161.4	141.7	142.6	150.5	166.4	185.6
55°	143.8	127.1	127.5	134.6	145.1	163.9
55.5°	126.3	112.5	112.9	118.7	128.8	143.0
56°	110.4	97.8	97.8	102.8	112.5	126.7
56.5°	95.7	83.2	82.8	87.4	96.2	110.0
57°	81.9	68.1	67.7	71.5	79.9	93.7
57.5°	66.9	53.1	53.1	56.0	64.4	77.3
58°	56.9	40.6	40.1	42.6	49.3	61.9
58.5°	46.8	30.5	29.7	31.4	36.8	46.8
59°	36.8	22.6	22.2	23.4	27.2	34.3
59.5°	26.8	17.1	16.7	17.6	20.1	25.1
60°	16.7	14.6	14.2	15.1	15.1	18.8
60.5°	13.0	11.7	11.7	12.5	13.0	13.8
61°	10.5	9.2	8.8	10.5	10.5	11.7
61.5°	8.4	6.7	6.3	7.9	8.4	9.6
62°	6.7	5.4	5.4	5.4	6.3	7.5
62.5°	5.4	4.6	4.2	4.6	5.0	5.4
63°	4.6	3.8	3.8	3.8	4.2	4.6
63.5°	3.8	3.3	2.9	2.9	3.3	3.8
64°	3.3	2.9	2.5	2.5	2.9	2.9
64.5°	2.9	2.5	2.1	2.1	2.5	2.5
65°	2.5	2.1	1.7	2.1	2.1	2.1
65.5°	2.1	1.7	1.7	1.7	1.7	2.1
66°	1.7	1.7	1.3	1.3	1.7	1.7



TEST NUMBER: P776729

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.3	1.3	0.8	0.8	1.3	1.3
68°	1.3	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: P776729

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQH-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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Scaled Data Report





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

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Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	3121.8	3172.0	3213.0	3222.6	3213.4	3191.7	3146.1	3085.5	3037.8	3004.4	2978.0
22°	3091.7	3141.9	3182.9	3192.9	3185.0	3162.8	3115.6	3055.4	3004.8	2970.9	2943.7



44°	1065.3	1146.8	1217.0	1246.7	1271.8	1225.8	1171.9	1104.6	1023.5	957.4	898.9
44.5°	1011.8	1091.6	1157.3	1189.5	1214.1	1168.5	1115.4	1049.4	974.6	907.7	851.2



66.5°	1.3	1.7	2.1	2.1	2.1	2.1	2.1	2.1	1.7	1.7	1.7
67°	1.3	1.7	1.7	1.7	2.1	2.1	2.1	1.7	1.7	1.7	1.7



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°	2955.9	2925.8	2955.0	3008.1	3069.6	3121.8
22°	2922.8	2892.7	2922.4	2975.1	3037.0	3091.7



44°	878.8	847.9	863.8	898.5	968.3	1065.3
44.5°	830.3	797.7	812.8	844.9	915.6	1011.8



66.5°	1.7	1.3	1.3	1.3	1.3	1.3
67°	1.3	1.3	1.3	1.3	1.3	1.3

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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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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)