

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: P776693

Luminaire Tested: HCDJBS4050CSD-HCD62TRMW-5000lm-4000K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776693  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B057-HCD62TRMW)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD62TRMW-5000lm-4000K  
Description: 6 INCH ROUND NARROW MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

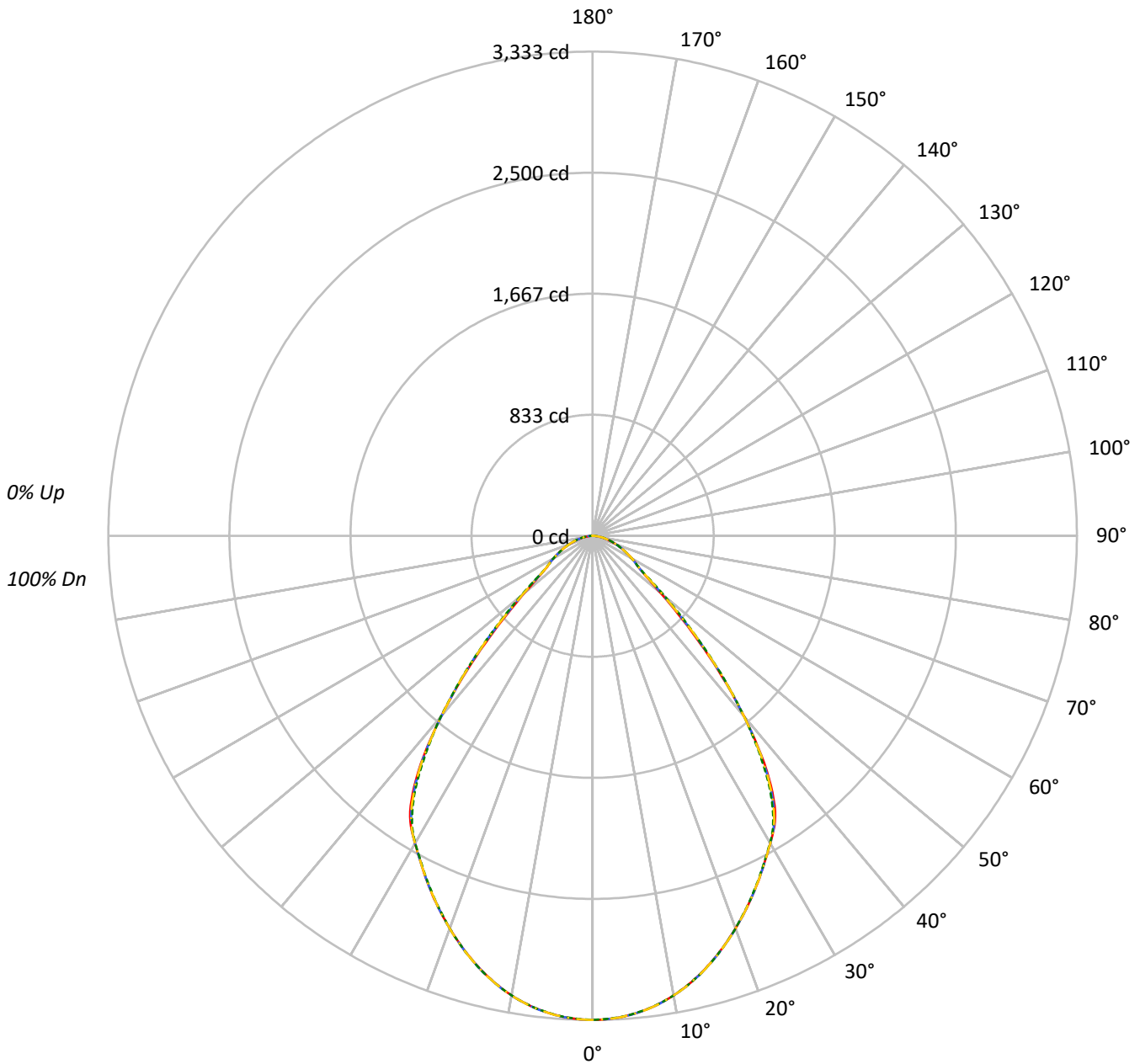
Lumens per Lamp: N/A  
Luminaire Lumens: 5305.6 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.11 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

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					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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52				
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47				
8	69	58	51	45	68	57	50	45	56	50	45	55	49	45	54	49	45	43				
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	40				
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36				

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

	0°	90°	180°	270°
0°	182705	182705	182705	182705
5°	181746	181664	181746	181664
10°	178843	178843	178843	178843
15°	173951	174036	173951	174036
20°	167793	167735	167793	167735
25°	161132	160866	161132	160866
30°	154790	154549	154790	154549
35°	144353	142238	144353	142238
40°	115867	116003	115867	116003
45°	81070	83520	81070	83520
50°	51828	55214	51828	55214
55°	37705	38297	37705	38297
60°	34230	34076	34230	34076
65°	30769	30639	30769	30639
70°	27280	27665	27280	27665
75°	23807	25015	23807	25015
80°	19636	22193	19636	22193
85°	12014	18367	12014	18367

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 83520 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	312.4	5.9
10°-20°	862.0	16.2
20°-30°	1225.7	23.1
30°-40°	1310.3	24.7
40°-50°	828.0	15.6
50°-60°	376.8	7.1
60°-70°	236.0	4.4
70°-80°	124.0	2.3
80°-90°	30.5	0.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2400.1	45.2
0°-40°	3710.4	69.9
0°-60°	4915.2	92.6
0°-90°	5305.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5305.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3333	3333	3333	3333	3333	
5°	3303	3301	3303	3301	3303	312
15°	3065	3066	3065	3066	3065	862
25°	2664	2660	2664	2660	2664	1226
35°	2157	2125	2157	2125	2157	1316
45°	1046	1077	1046	1077	1046	816
55°	394	401	394	401	394	372
65°	237	236	237	236	237	236
75°	112	118	112	118	112	120
85°	19	29	19	29	19	26
90°	0	1	0	1	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°	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8
0.5°	3332.3	3332.8	3332.3	3332.3	3330.9	3332.3	3332.3	3332.8	3332.3	3332.8	3332.3
1°	3331.4	3331.8	3331.8	3331.4	3329.9	3331.4	3331.8	3331.8	3331.4	3331.8	3331.8
1.5°	3329.9	3330.4	3329.9	3329.9	3328.5	3329.9	3329.9	3330.4	3329.9	3330.4	3329.9
2°	3328.0	3328.0	3328.0	3328.0	3326.1	3328.0	3328.0	3328.0	3328.0	3328.0	3328.0
2.5°	3325.2	3325.2	3325.6	3325.2	3323.7	3325.2	3325.6	3325.2	3325.2	3325.2	3325.6
3°	3321.8	3322.3	3322.3	3322.3	3320.4	3322.3	3322.3	3322.3	3321.8	3322.3	3322.3
3.5°	3318.0	3318.0	3318.5	3318.5	3316.5	3318.5	3318.5	3318.0	3318.0	3318.0	3318.5
4°	3313.7	3313.7	3313.7	3313.7	3312.2	3313.7	3313.7	3313.7	3313.7	3313.7	3313.7
4.5°	3308.4	3308.9	3308.9	3308.9	3307.0	3308.9	3308.9	3308.9	3308.4	3308.9	3308.9
5°	3302.7	3303.2	3303.2	3303.2	3301.2	3303.2	3303.2	3303.2	3302.7	3303.2	3303.2
5.5°	3296.5	3296.9	3296.9	3296.9	3295.0	3296.9	3296.9	3296.9	3296.5	3296.9	3296.9
6°	3289.8	3289.8	3289.8	3289.8	3288.3	3289.8	3289.8	3289.8	3289.8	3289.8	3289.8
6.5°	3282.1	3282.1	3282.6	3282.6	3281.2	3282.6	3282.6	3282.1	3282.1	3282.1	3282.6
7°	3274.0	3274.5	3274.5	3274.5	3273.0	3274.5	3274.5	3274.5	3274.0	3274.5	3274.5
7.5°	3265.4	3265.4	3265.9	3265.9	3264.4	3265.9	3265.9	3265.4	3265.4	3265.4	3265.9
8°	3255.8	3256.3	3256.8	3256.8	3255.3	3256.8	3256.8	3256.3	3255.8	3256.3	3256.8
8.5°	3245.8	3246.3	3246.7	3246.7	3245.3	3246.7	3246.7	3246.3	3245.8	3246.3	3246.7
9°	3235.3	3235.7	3236.2	3236.7	3235.3	3236.7	3236.2	3235.7	3235.3	3235.7	3236.2
9.5°	3224.3	3224.7	3225.2	3225.7	3224.3	3225.7	3225.2	3224.7	3224.3	3224.7	3225.2
10°	3212.8	3212.8	3213.3	3214.2	3212.8	3214.2	3213.3	3212.8	3212.8	3212.8	3213.3
10.5°	3200.4	3200.4	3201.3	3201.8	3200.4	3201.8	3201.3	3200.4	3200.4	3200.4	3201.3
11°	3187.4	3187.4	3188.4	3189.4	3187.4	3189.4	3188.4	3187.4	3187.4	3187.4	3188.4
11.5°	3173.6	3174.1	3175.0	3176.0	3174.5	3176.0	3175.0	3174.1	3173.6	3174.1	3175.0
12°	3159.7	3160.2	3161.1	3162.1	3160.7	3162.1	3161.1	3160.2	3159.7	3160.2	3161.1
12.5°	3145.4	3145.8	3146.3	3147.3	3146.3	3147.3	3146.3	3145.8	3145.4	3145.8	3146.3
13°	3130.1	3130.5	3131.5	3132.5	3131.5	3132.5	3131.5	3130.5	3130.1	3130.5	3131.5
13.5°	3114.8	3115.2	3116.2	3117.2	3115.7	3117.2	3116.2	3115.2	3114.8	3115.2	3116.2
14°	3098.5	3099.5	3100.4	3100.9	3099.9	3100.9	3100.4	3099.5	3098.5	3099.5	3100.4
14.5°	3082.2	3082.7	3083.7	3084.6	3083.7	3084.6	3083.7	3082.7	3082.2	3082.7	3083.7
15°	3065.0	3066.0	3066.9	3067.9	3066.5	3067.9	3066.9	3066.0	3065.0	3066.0	3066.9
15.5°	3047.8	3048.3	3049.3	3050.2	3048.8	3050.2	3049.3	3048.3	3047.8	3048.3	3049.3
16°	3029.6	3030.6	3031.6	3032.5	3031.1	3032.5	3031.6	3030.6	3029.6	3030.6	3031.6
16.5°	3012.0	3012.4	3013.4	3014.3	3012.9	3014.3	3013.4	3012.4	3012.0	3012.4	3013.4
17°	2993.3	2993.8	2994.7	2995.7	2994.3	2995.7	2994.7	2993.8	2993.3	2993.8	2994.7
17.5°	2974.7	2974.7	2975.6	2976.6	2975.1	2976.6	2975.6	2974.7	2974.7	2974.7	2975.6
18°	2955.1	2956.0	2956.5	2957.0	2955.5	2957.0	2956.5	2956.0	2955.1	2956.0	2956.5
18.5°	2935.4	2936.4	2936.9	2937.4	2935.9	2937.4	2936.9	2936.4	2935.4	2936.4	2936.9
19°	2915.8	2916.8	2917.3	2917.3	2916.3	2917.3	2917.3	2916.8	2915.8	2916.8	2917.3
19.5°	2896.2	2896.7	2897.2	2897.7	2896.2	2897.7	2897.2	2896.7	2896.2	2896.7	2897.2
20°	2876.2	2876.6	2877.1	2877.1	2875.2	2877.1	2877.1	2876.6	2876.2	2876.6	2877.1
20.5°	2856.1	2856.1	2856.1	2856.1	2854.6	2856.1	2856.1	2856.1	2856.1	2856.1	2856.1
21°	2834.6	2835.0	2835.5	2835.0	2833.6	2835.0	2835.5	2835.0	2834.6	2835.0	2835.5



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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°	2772.4	2772.4	2771.9	2771.4	2769.5	2771.4	2771.9	2772.4	2772.4	2772.4	2771.9
23°	2750.9	2750.9	2750.4	2749.9	2748.0	2749.9	2750.4	2750.9	2750.9	2750.9	2750.4
23.5°	2729.4	2729.4	2728.9	2727.9	2726.5	2727.9	2728.9	2729.4	2729.4	2729.4	2728.9
24°	2707.8	2707.8	2707.4	2705.9	2704.0	2705.9	2707.4	2707.8	2707.8	2707.8	2707.4
24.5°	2686.3	2685.8	2685.4	2683.9	2682.0	2683.9	2685.4	2685.8	2686.3	2685.8	2685.4
25°	2663.9	2663.9	2663.4	2661.9	2659.5	2661.9	2663.4	2663.9	2663.9	2663.9	2663.4
25.5°	2641.9	2641.9	2641.4	2639.5	2637.6	2639.5	2641.4	2641.9	2641.9	2641.9	2641.4
26°	2619.9	2619.9	2619.4	2617.9	2615.6	2617.9	2619.4	2619.9	2619.9	2619.9	2619.4
26.5°	2597.4	2597.4	2596.9	2595.0	2593.1	2595.0	2596.9	2597.4	2597.4	2597.4	2596.9
27°	2574.9	2575.4	2574.9	2573.0	2570.6	2573.0	2574.9	2575.4	2574.9	2575.4	2574.9
27.5°	2552.9	2552.9	2552.4	2551.0	2548.6	2551.0	2552.4	2552.9	2552.9	2552.9	2552.4
28°	2530.0	2530.9	2530.4	2529.0	2527.1	2529.0	2530.4	2530.9	2530.0	2530.9	2530.4
28.5°	2508.4	2509.4	2508.9	2507.5	2505.6	2507.5	2508.9	2509.4	2508.4	2509.4	2508.9
29°	2486.9	2487.9	2487.4	2486.5	2484.1	2486.5	2487.4	2487.9	2486.9	2487.9	2487.4
29.5°	2465.9	2466.4	2466.4	2464.9	2463.0	2464.9	2466.4	2466.4	2465.9	2466.4	2466.4
30°	2445.3	2445.3	2445.3	2443.4	2441.5	2443.4	2445.3	2445.3	2445.3	2445.3	2445.3
30.5°	2424.3	2424.8	2423.8	2422.4	2420.0	2422.4	2423.8	2424.8	2424.3	2424.8	2423.8
31°	2403.7	2403.7	2402.8	2400.4	2397.5	2400.4	2402.8	2403.7	2403.7	2403.7	2402.8
31.5°	2381.7	2381.7	2379.8	2377.4	2373.6	2377.4	2379.8	2381.7	2381.7	2381.7	2379.8
32°	2359.3	2357.8	2354.5	2350.2	2344.9	2350.2	2354.5	2357.8	2359.3	2357.8	2354.5
32.5°	2334.9	2331.5	2326.3	2319.1	2312.9	2319.1	2326.3	2331.5	2334.9	2331.5	2326.3
33°	2307.1	2303.3	2294.2	2286.1	2279.4	2286.1	2294.2	2303.3	2307.1	2303.3	2294.2
33.5°	2275.1	2271.8	2259.3	2250.7	2244.0	2250.7	2259.3	2271.8	2275.1	2271.8	2259.3
34°	2238.8	2237.3	2222.5	2212.9	2207.2	2212.9	2222.5	2237.3	2238.8	2237.3	2222.5
34.5°	2199.1	2196.7	2183.3	2172.8	2167.5	2172.8	2183.3	2196.7	2199.1	2196.7	2183.3
35°	2157.0	2153.2	2141.7	2130.2	2125.4	2130.2	2141.7	2153.2	2157.0	2153.2	2141.7
35.5°	2112.5	2107.3	2098.2	2086.2	2080.0	2086.2	2098.2	2107.3	2112.5	2107.3	2098.2
36°	2065.2	2058.5	2052.8	2040.8	2033.2	2040.8	2052.8	2058.5	2065.2	2058.5	2052.8
36.5°	2015.5	2008.3	2004.5	1993.0	1983.4	1993.0	2004.5	2008.3	2015.5	2008.3	2004.5
37°	1963.3	1956.6	1953.8	1943.3	1933.7	1943.3	1953.8	1956.6	1963.3	1956.6	1953.8
37.5°	1908.8	1904.0	1901.2	1892.6	1883.0	1892.6	1901.2	1904.0	1908.8	1904.0	1901.2
38°	1852.4	1849.5	1846.7	1840.9	1832.8	1840.9	1846.7	1849.5	1852.4	1849.5	1846.7
38.5°	1794.5	1794.5	1789.8	1787.9	1780.7	1787.9	1789.8	1794.5	1794.5	1794.5	1789.8
39°	1737.2	1738.1	1733.3	1732.9	1730.0	1732.9	1733.3	1738.1	1737.2	1738.1	1733.3
39.5°	1678.4	1679.8	1675.0	1676.4	1676.0	1676.4	1675.0	1679.8	1678.4	1679.8	1675.0
40°	1619.1	1621.9	1617.6	1620.0	1621.0	1620.0	1617.6	1621.9	1619.1	1621.9	1617.6
40.5°	1558.8	1563.1	1560.2	1564.1	1565.0	1564.1	1560.2	1563.1	1558.8	1563.1	1560.2
41°	1500.0	1504.8	1503.8	1507.2	1510.5	1507.2	1503.8	1504.8	1500.0	1504.8	1503.8
41.5°	1441.7	1445.0	1447.9	1452.2	1453.6	1452.2	1447.9	1445.0	1441.7	1445.0	1447.9
42°	1383.3	1386.2	1391.9	1395.8	1399.6	1395.8	1391.9	1386.2	1383.3	1386.2	1391.9
42.5°	1325.5	1328.3	1336.5	1341.2	1344.6	1341.2	1336.5	1328.3	1325.5	1328.3	1336.5
43°	1267.6	1271.4	1282.0	1286.3	1289.6	1286.3	1282.0	1271.4	1267.6	1271.4	1282.0
43.5°	1210.7	1214.1	1227.0	1231.3	1234.1	1231.3	1227.0	1214.1	1210.7	1214.1	1227.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1045.7	1051.5	1065.8	1074.0	1077.3	1074.0	1065.8	1051.5	1045.7	1051.5	1065.8
45.5°	992.7	999.8	1014.7	1023.7	1027.1	1023.7	1014.7	999.8	992.7	999.8	1014.7
46°	942.0	950.1	964.5	975.0	979.3	975.0	964.5	950.1	942.0	950.1	964.5
46.5°	892.7	901.8	915.7	927.6	932.4	927.6	915.7	901.8	892.7	901.8	915.7
47°	844.9	855.0	868.3	881.3	886.5	881.3	868.3	855.0	844.9	855.0	868.3
47.5°	799.5	809.1	823.4	836.8	841.6	836.8	823.4	809.1	799.5	809.1	823.4
48°	756.5	766.0	780.4	794.2	799.5	794.2	780.4	766.0	756.5	766.0	780.4
48.5°	716.3	724.4	738.8	753.1	758.8	753.1	738.8	724.4	716.3	724.4	738.8
49°	677.6	685.2	699.1	714.4	719.6	714.4	699.1	685.2	677.6	685.2	699.1
49.5°	641.2	647.9	662.3	676.6	682.8	676.6	662.3	647.9	641.2	647.9	662.3
50°	607.7	612.5	627.4	641.7	647.4	641.7	627.4	612.5	607.7	612.5	627.4
50.5°	576.7	580.0	594.8	608.2	614.0	608.2	594.8	580.0	576.7	580.0	594.8
51°	548.0	550.8	564.2	576.2	582.9	576.2	564.2	550.8	548.0	550.8	564.2
51.5°	521.2	523.6	536.0	547.0	553.2	547.0	536.0	523.6	521.2	523.6	536.0
52°	496.8	499.2	510.7	519.8	525.0	519.8	510.7	499.2	496.8	499.2	510.7
52.5°	474.3	476.3	486.3	493.9	498.7	493.9	486.3	476.3	474.3	476.3	486.3
53°	453.8	457.1	464.3	470.5	474.3	470.5	464.3	457.1	453.8	457.1	464.3
53.5°	437.5	439.4	444.2	449.5	452.3	449.5	444.2	439.4	437.5	439.4	444.2
54°	422.2	422.7	426.0	429.9	432.3	429.9	426.0	422.7	422.2	422.7	426.0
54.5°	408.4	408.4	409.8	412.7	415.5	412.7	409.8	408.4	408.4	408.4	409.8
55°	394.5	395.0	396.9	398.8	400.7	398.8	396.9	395.0	394.5	395.0	396.9
55.5°	381.6	383.5	385.4	386.8	390.2	386.8	385.4	383.5	381.6	383.5	385.4
56°	372.5	373.4	374.9	375.8	379.7	375.8	374.9	373.4	372.5	373.4	374.9
56.5°	364.8	364.8	364.8	365.8	369.1	365.8	364.8	364.8	364.8	364.8	364.8
57°	357.7	357.7	356.7	356.2	358.6	356.2	356.7	357.7	357.7	357.7	356.7
57.5°	351.0	350.5	349.5	348.6	348.1	348.6	349.5	350.5	351.0	350.5	349.5
58°	343.8	343.3	342.4	341.4	340.5	341.4	342.4	343.3	343.8	343.3	342.4
58.5°	336.1	335.7	334.7	333.8	333.3	333.8	334.7	335.7	336.1	335.7	334.7
59°	328.5	328.0	327.5	326.6	325.6	326.6	327.5	328.0	328.5	328.0	327.5
59.5°	320.4	320.4	319.4	318.9	318.5	318.9	319.4	320.4	320.4	320.4	319.4
60°	312.2	312.2	311.8	311.3	310.8	311.3	311.8	312.2	312.2	312.2	311.8
60.5°	304.1	304.1	303.6	303.2	302.7	303.2	303.6	304.1	304.1	304.1	303.6
61°	296.5	296.5	296.0	295.5	295.0	295.5	296.0	296.5	296.5	296.5	296.0
61.5°	288.8	288.8	288.3	287.9	287.4	287.9	288.3	288.8	288.8	288.8	288.3
62°	281.2	281.2	280.7	280.2	279.7	280.2	280.7	281.2	281.2	281.2	280.7
62.5°	273.5	273.5	273.0	272.6	272.1	272.6	273.0	273.5	273.5	273.5	273.0
63°	266.3	265.9	265.9	264.9	264.9	264.9	265.9	265.9	266.3	265.9	265.9
63.5°	258.7	258.7	258.2	257.7	257.7	257.7	258.2	258.7	258.7	258.7	258.2
64°	251.5	251.5	251.0	250.6	250.1	250.6	251.0	251.5	251.5	251.5	251.0
64.5°	244.3	244.3	243.9	243.4	243.4	243.4	243.9	244.3	244.3	244.3	243.9
65°	237.2	237.6	237.2	236.7	236.2	236.7	237.2	237.6	237.2	237.6	237.2
65.5°	230.0	230.5	230.5	230.0	229.5	230.0	230.5	230.5	230.0	230.5	230.5
66°	223.3	223.8	223.3	222.8	222.8	222.8	223.3	223.8	223.3	223.8	223.3





TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	202.7	203.7	203.7	203.2	203.2	203.2	203.7	203.7	202.7	203.7	203.7
68°	196.0	197.0	197.5	197.0	197.0	197.0	197.5	197.0	196.0	197.0	197.5
68.5°	189.8	190.8	191.3	190.8	190.8	190.8	191.3	190.8	189.8	190.8	191.3
69°	183.1	184.6	185.0	185.0	184.6	185.0	185.0	184.6	183.1	184.6	185.0
69.5°	176.4	178.4	179.3	178.8	178.8	178.8	179.3	178.4	176.4	178.4	179.3
70°	170.2	171.7	173.1	173.1	172.6	173.1	173.1	171.7	170.2	171.7	173.1
70.5°	164.0	165.9	167.4	166.9	166.9	166.9	167.4	165.9	164.0	165.9	167.4
71°	158.3	160.2	161.6	161.6	161.1	161.6	161.6	160.2	158.3	160.2	161.6
71.5°	152.1	154.0	155.9	155.9	155.4	155.9	155.9	154.0	152.1	154.0	155.9
72°	146.3	148.2	150.1	150.1	149.7	150.1	150.1	148.2	146.3	148.2	150.1
72.5°	140.6	142.5	144.9	144.4	144.4	144.4	144.9	142.5	140.6	142.5	144.9
73°	134.4	136.8	139.1	139.1	138.7	139.1	139.1	136.8	134.4	136.8	139.1
73.5°	128.6	131.0	133.9	133.9	133.4	133.9	133.9	131.0	128.6	131.0	133.9
74°	123.4	125.3	128.1	128.6	128.1	128.6	128.1	125.3	123.4	125.3	128.1
74.5°	117.6	120.0	122.9	123.4	122.9	123.4	122.9	120.0	117.6	120.0	122.9
75°	112.4	114.3	117.6	118.1	118.1	118.1	117.6	114.3	112.4	114.3	117.6
75.5°	107.1	109.0	112.8	112.8	112.8	112.8	112.8	109.0	107.1	109.0	112.8
76°	101.8	103.8	107.6	108.1	108.1	108.1	107.6	103.8	101.8	103.8	107.6
76.5°	96.6	98.5	102.3	103.3	102.8	103.3	102.3	98.5	96.6	98.5	102.3
77°	91.3	93.7	97.5	98.5	98.0	98.5	97.5	93.7	91.3	93.7	97.5
77.5°	86.1	88.5	92.8	93.7	93.2	93.7	92.8	88.5	86.1	88.5	92.8
78°	81.3	83.7	87.5	88.9	88.5	88.9	87.5	83.7	81.3	83.7	87.5
78.5°	76.5	78.4	82.7	84.2	84.2	84.2	82.7	78.4	76.5	78.4	82.7
79°	71.7	73.6	77.9	79.4	79.4	79.4	77.9	73.6	71.7	73.6	77.9
79.5°	66.9	68.9	73.6	75.1	75.1	75.1	73.6	68.9	66.9	68.9	73.6
80°	62.2	64.1	68.9	70.3	70.3	70.3	68.9	64.1	62.2	64.1	68.9
80.5°	57.9	59.8	64.6	66.0	66.0	66.0	64.6	59.8	57.9	59.8	64.6
81°	53.1	55.0	59.8	61.7	61.7	61.7	59.8	55.0	53.1	55.0	59.8
81.5°	48.8	50.2	55.5	57.4	57.4	57.4	55.5	50.2	48.8	50.2	55.5
82°	44.5	45.9	51.2	53.1	53.1	53.1	51.2	45.9	44.5	45.9	51.2
82.5°	39.7	41.6	46.9	49.3	49.3	49.3	46.9	41.6	39.7	41.6	46.9
83°	35.4	37.3	42.6	44.9	44.9	44.9	42.6	37.3	35.4	37.3	42.6
83.5°	31.1	33.0	38.7	41.1	40.6	41.1	38.7	33.0	31.1	33.0	38.7
84°	27.3	28.7	34.9	36.8	36.8	36.8	34.9	28.7	27.3	28.7	34.9
84.5°	23.0	24.4	31.1	33.0	33.0	33.0	31.1	24.4	23.0	24.4	31.1
85°	19.1	20.6	27.3	29.2	29.2	29.2	27.3	20.6	19.1	20.6	27.3
85.5°	15.3	17.2	23.4	25.3	25.3	25.3	23.4	17.2	15.3	17.2	23.4
86°	12.4	13.9	20.1	21.5	21.5	21.5	20.1	13.9	12.4	13.9	20.1
86.5°	10.0	11.5	16.3	17.7	18.2	17.7	16.3	11.5	10.0	11.5	16.3
87°	7.7	9.1	13.4	14.3	14.3	14.3	13.4	9.1	7.7	9.1	13.4
87.5°	5.7	6.7	10.0	11.0	11.0	11.0	10.0	6.7	5.7	6.7	10.0
88°	3.8	4.8	7.2	7.7	8.1	7.7	7.2	4.8	3.8	4.8	7.2
88.5°	1.9	2.9	4.8	5.7	6.2	5.7	4.8	2.9	1.9	2.9	4.8



TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.5	0.5	1.0	1.4	1.0	0.5	0.5	0.0	0.5	0.5



TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3332.8	3332.8	3332.8	3332.8	3332.8	3332.8
0.5°	3332.3	3330.9	3332.3	3332.3	3332.8	3332.3
1°	3331.4	3329.9	3331.4	3331.8	3331.8	3331.4
1.5°	3329.9	3328.5	3329.9	3329.9	3330.4	3329.9
2°	3328.0	3326.1	3328.0	3328.0	3328.0	3328.0
2.5°	3325.2	3323.7	3325.2	3325.6	3325.2	3325.2
3°	3322.3	3320.4	3322.3	3322.3	3322.3	3321.8
3.5°	3318.5	3316.5	3318.5	3318.5	3318.0	3318.0
4°	3313.7	3312.2	3313.7	3313.7	3313.7	3313.7
4.5°	3308.9	3307.0	3308.9	3308.9	3308.9	3308.4
5°	3303.2	3301.2	3303.2	3303.2	3303.2	3302.7
5.5°	3296.9	3295.0	3296.9	3296.9	3296.9	3296.5
6°	3289.8	3288.3	3289.8	3289.8	3289.8	3289.8
6.5°	3282.6	3281.2	3282.6	3282.6	3282.1	3282.1
7°	3274.5	3273.0	3274.5	3274.5	3274.5	3274.0
7.5°	3265.9	3264.4	3265.9	3265.9	3265.4	3265.4
8°	3256.8	3255.3	3256.8	3256.8	3256.3	3255.8
8.5°	3246.7	3245.3	3246.7	3246.7	3246.3	3245.8
9°	3236.7	3235.3	3236.7	3236.2	3235.7	3235.3
9.5°	3225.7	3224.3	3225.7	3225.2	3224.7	3224.3
10°	3214.2	3212.8	3214.2	3213.3	3212.8	3212.8
10.5°	3201.8	3200.4	3201.8	3201.3	3200.4	3200.4
11°	3189.4	3187.4	3189.4	3188.4	3187.4	3187.4
11.5°	3176.0	3174.5	3176.0	3175.0	3174.1	3173.6
12°	3162.1	3160.7	3162.1	3161.1	3160.2	3159.7
12.5°	3147.3	3146.3	3147.3	3146.3	3145.8	3145.4
13°	3132.5	3131.5	3132.5	3131.5	3130.5	3130.1
13.5°	3117.2	3115.7	3117.2	3116.2	3115.2	3114.8
14°	3100.9	3099.9	3100.9	3100.4	3099.5	3098.5
14.5°	3084.6	3083.7	3084.6	3083.7	3082.7	3082.2
15°	3067.9	3066.5	3067.9	3066.9	3066.0	3065.0
15.5°	3050.2	3048.8	3050.2	3049.3	3048.3	3047.8
16°	3032.5	3031.1	3032.5	3031.6	3030.6	3029.6
16.5°	3014.3	3012.9	3014.3	3013.4	3012.4	3012.0
17°	2995.7	2994.3	2995.7	2994.7	2993.8	2993.3
17.5°	2976.6	2975.1	2976.6	2975.6	2974.7	2974.7
18°	2957.0	2955.5	2957.0	2956.5	2956.0	2955.1
18.5°	2937.4	2935.9	2937.4	2936.9	2936.4	2935.4
19°	2917.3	2916.3	2917.3	2917.3	2916.8	2915.8
19.5°	2897.7	2896.2	2897.7	2897.2	2896.7	2896.2
20°	2877.1	2875.2	2877.1	2877.1	2876.6	2876.2
20.5°	2856.1	2854.6	2856.1	2856.1	2856.1	2856.1
21°	2835.0	2833.6	2835.0	2835.5	2835.0	2834.6



TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2771.4	2769.5	2771.4	2771.9	2772.4	2772.4
23°	2749.9	2748.0	2749.9	2750.4	2750.9	2750.9
23.5°	2727.9	2726.5	2727.9	2728.9	2729.4	2729.4
24°	2705.9	2704.0	2705.9	2707.4	2707.8	2707.8
24.5°	2683.9	2682.0	2683.9	2685.4	2685.8	2686.3
25°	2661.9	2659.5	2661.9	2663.4	2663.9	2663.9
25.5°	2639.5	2637.6	2639.5	2641.4	2641.9	2641.9
26°	2617.9	2615.6	2617.9	2619.4	2619.9	2619.9
26.5°	2595.0	2593.1	2595.0	2596.9	2597.4	2597.4
27°	2573.0	2570.6	2573.0	2574.9	2575.4	2574.9
27.5°	2551.0	2548.6	2551.0	2552.4	2552.9	2552.9
28°	2529.0	2527.1	2529.0	2530.4	2530.9	2530.0
28.5°	2507.5	2505.6	2507.5	2508.9	2509.4	2508.4
29°	2486.5	2484.1	2486.5	2487.4	2487.9	2486.9
29.5°	2464.9	2463.0	2464.9	2466.4	2466.4	2465.9
30°	2443.4	2441.5	2443.4	2445.3	2445.3	2445.3
30.5°	2422.4	2420.0	2422.4	2423.8	2424.8	2424.3
31°	2400.4	2397.5	2400.4	2402.8	2403.7	2403.7
31.5°	2377.4	2373.6	2377.4	2379.8	2381.7	2381.7
32°	2350.2	2344.9	2350.2	2354.5	2357.8	2359.3
32.5°	2319.1	2312.9	2319.1	2326.3	2331.5	2334.9
33°	2286.1	2279.4	2286.1	2294.2	2303.3	2307.1
33.5°	2250.7	2244.0	2250.7	2259.3	2271.8	2275.1
34°	2212.9	2207.2	2212.9	2222.5	2237.3	2238.8
34.5°	2172.8	2167.5	2172.8	2183.3	2196.7	2199.1
35°	2130.2	2125.4	2130.2	2141.7	2153.2	2157.0
35.5°	2086.2	2080.0	2086.2	2098.2	2107.3	2112.5
36°	2040.8	2033.2	2040.8	2052.8	2058.5	2065.2
36.5°	1993.0	1983.4	1993.0	2004.5	2008.3	2015.5
37°	1943.3	1933.7	1943.3	1953.8	1956.6	1963.3
37.5°	1892.6	1883.0	1892.6	1901.2	1904.0	1908.8
38°	1840.9	1832.8	1840.9	1846.7	1849.5	1852.4
38.5°	1787.9	1780.7	1787.9	1789.8	1794.5	1794.5
39°	1732.9	1730.0	1732.9	1733.3	1738.1	1737.2
39.5°	1676.4	1676.0	1676.4	1675.0	1679.8	1678.4
40°	1620.0	1621.0	1620.0	1617.6	1621.9	1619.1
40.5°	1564.1	1565.0	1564.1	1560.2	1563.1	1558.8
41°	1507.2	1510.5	1507.2	1503.8	1504.8	1500.0
41.5°	1452.2	1453.6	1452.2	1447.9	1445.0	1441.7
42°	1395.8	1399.6	1395.8	1391.9	1386.2	1383.3
42.5°	1341.2	1344.6	1341.2	1336.5	1328.3	1325.5
43°	1286.3	1289.6	1286.3	1282.0	1271.4	1267.6
43.5°	1231.3	1234.1	1231.3	1227.0	1214.1	1210.7

TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1074.0	1077.3	1074.0	1065.8	1051.5	1045.7
45.5°	1023.7	1027.1	1023.7	1014.7	999.8	992.7
46°	975.0	979.3	975.0	964.5	950.1	942.0
46.5°	927.6	932.4	927.6	915.7	901.8	892.7
47°	881.3	886.5	881.3	868.3	855.0	844.9
47.5°	836.8	841.6	836.8	823.4	809.1	799.5
48°	794.2	799.5	794.2	780.4	766.0	756.5
48.5°	753.1	758.8	753.1	738.8	724.4	716.3
49°	714.4	719.6	714.4	699.1	685.2	677.6
49.5°	676.6	682.8	676.6	662.3	647.9	641.2
50°	641.7	647.4	641.7	627.4	612.5	607.7
50.5°	608.2	614.0	608.2	594.8	580.0	576.7
51°	576.2	582.9	576.2	564.2	550.8	548.0
51.5°	547.0	553.2	547.0	536.0	523.6	521.2
52°	519.8	525.0	519.8	510.7	499.2	496.8
52.5°	493.9	498.7	493.9	486.3	476.3	474.3
53°	470.5	474.3	470.5	464.3	457.1	453.8
53.5°	449.5	452.3	449.5	444.2	439.4	437.5
54°	429.9	432.3	429.9	426.0	422.7	422.2
54.5°	412.7	415.5	412.7	409.8	408.4	408.4
55°	398.8	400.7	398.8	396.9	395.0	394.5
55.5°	386.8	390.2	386.8	385.4	383.5	381.6
56°	375.8	379.7	375.8	374.9	373.4	372.5
56.5°	365.8	369.1	365.8	364.8	364.8	364.8
57°	356.2	358.6	356.2	356.7	357.7	357.7
57.5°	348.6	348.1	348.6	349.5	350.5	351.0
58°	341.4	340.5	341.4	342.4	343.3	343.8
58.5°	333.8	333.3	333.8	334.7	335.7	336.1
59°	326.6	325.6	326.6	327.5	328.0	328.5
59.5°	318.9	318.5	318.9	319.4	320.4	320.4
60°	311.3	310.8	311.3	311.8	312.2	312.2
60.5°	303.2	302.7	303.2	303.6	304.1	304.1
61°	295.5	295.0	295.5	296.0	296.5	296.5
61.5°	287.9	287.4	287.9	288.3	288.8	288.8
62°	280.2	279.7	280.2	280.7	281.2	281.2
62.5°	272.6	272.1	272.6	273.0	273.5	273.5
63°	264.9	264.9	264.9	265.9	265.9	266.3
63.5°	257.7	257.7	257.7	258.2	258.7	258.7
64°	250.6	250.1	250.6	251.0	251.5	251.5
64.5°	243.4	243.4	243.4	243.9	244.3	244.3
65°	236.7	236.2	236.7	237.2	237.6	237.2
65.5°	230.0	229.5	230.0	230.5	230.5	230.0
66°	222.8	222.8	222.8	223.3	223.8	223.3



TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	203.2	203.2	203.2	203.7	203.7	202.7
68°	197.0	197.0	197.0	197.5	197.0	196.0
68.5°	190.8	190.8	190.8	191.3	190.8	189.8
69°	185.0	184.6	185.0	185.0	184.6	183.1
69.5°	178.8	178.8	178.8	179.3	178.4	176.4
70°	173.1	172.6	173.1	173.1	171.7	170.2
70.5°	166.9	166.9	166.9	167.4	165.9	164.0
71°	161.6	161.1	161.6	161.6	160.2	158.3
71.5°	155.9	155.4	155.9	155.9	154.0	152.1
72°	150.1	149.7	150.1	150.1	148.2	146.3
72.5°	144.4	144.4	144.4	144.9	142.5	140.6
73°	139.1	138.7	139.1	139.1	136.8	134.4
73.5°	133.9	133.4	133.9	133.9	131.0	128.6
74°	128.6	128.1	128.6	128.1	125.3	123.4
74.5°	123.4	122.9	123.4	122.9	120.0	117.6
75°	118.1	118.1	118.1	117.6	114.3	112.4
75.5°	112.8	112.8	112.8	112.8	109.0	107.1
76°	108.1	108.1	108.1	107.6	103.8	101.8
76.5°	103.3	102.8	103.3	102.3	98.5	96.6
77°	98.5	98.0	98.5	97.5	93.7	91.3
77.5°	93.7	93.2	93.7	92.8	88.5	86.1
78°	88.9	88.5	88.9	87.5	83.7	81.3
78.5°	84.2	84.2	84.2	82.7	78.4	76.5
79°	79.4	79.4	79.4	77.9	73.6	71.7
79.5°	75.1	75.1	75.1	73.6	68.9	66.9
80°	70.3	70.3	70.3	68.9	64.1	62.2
80.5°	66.0	66.0	66.0	64.6	59.8	57.9
81°	61.7	61.7	61.7	59.8	55.0	53.1
81.5°	57.4	57.4	57.4	55.5	50.2	48.8
82°	53.1	53.1	53.1	51.2	45.9	44.5
82.5°	49.3	49.3	49.3	46.9	41.6	39.7
83°	44.9	44.9	44.9	42.6	37.3	35.4
83.5°	41.1	40.6	41.1	38.7	33.0	31.1
84°	36.8	36.8	36.8	34.9	28.7	27.3
84.5°	33.0	33.0	33.0	31.1	24.4	23.0
85°	29.2	29.2	29.2	27.3	20.6	19.1
85.5°	25.3	25.3	25.3	23.4	17.2	15.3
86°	21.5	21.5	21.5	20.1	13.9	12.4
86.5°	17.7	18.2	17.7	16.3	11.5	10.0
87°	14.3	14.3	14.3	13.4	9.1	7.7
87.5°	11.0	11.0	11.0	10.0	6.7	5.7
88°	7.7	8.1	7.7	7.2	4.8	3.8
88.5°	5.7	6.2	5.7	4.8	2.9	1.9



TEST NUMBER: P776693

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	1.0	1.4	1.0	0.5	0.5	0.0



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Cooper Lighting Solutions Photometric Lab  
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Peachtree City, GA 30269

Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2814.0	2814.5	2814.0	2814.0	2812.6	2814.0	2814.0	2814.5	2814.0	2814.5	2814.0
22°	2793.4	2793.4	2793.4	2792.5	2791.0	2792.5	2793.4	2793.4	2793.4	2793.4	2793.4



44°	1154.3	1157.6	1172.0	1178.2	1181.1	1178.2	1172.0	1157.6	1154.3	1157.6	1172.0
44.5°	1098.8	1104.1	1117.9	1125.6	1128.5	1125.6	1117.9	1104.1	1098.8	1104.1	1117.9



66.5°	216.1	217.1	217.1	216.6	216.1	216.6	217.1	217.1	216.1	217.1	217.1
67°	209.4	210.4	210.4	209.9	209.4	209.9	210.4	210.4	209.4	210.4	210.4



89°	1.0	1.4	2.9	3.8	4.3	3.8	2.9	1.4	1.0	1.4	2.9
89.5°	0.5	0.5	1.4	2.4	2.9	2.4	1.4	0.5	0.5	0.5	1.4



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21.5°	2814.0	2812.6	2814.0	2814.0	2814.5	2814.0
22°	2792.5	2791.0	2792.5	2793.4	2793.4	2793.4



44°	1178.2	1181.1	1178.2	1172.0	1157.6	1154.3
44.5°	1125.6	1128.5	1125.6	1117.9	1104.1	1098.8

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66.5°	216.6	216.1	216.6	217.1	217.1	216.1
67°	209.9	209.4	209.9	210.4	210.4	209.4



89°	3.8	4.3	3.8	2.9	1.4	1.0
89.5°	2.4	2.9	2.4	1.4	0.5	0.5

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)