

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: P776794

Luminaire Tested: HCDJBS4050CSD-HCD82TRMW-5000lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B064-HCD82TRMW)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD82TRMW-5000lm-5000K
Description: 8 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

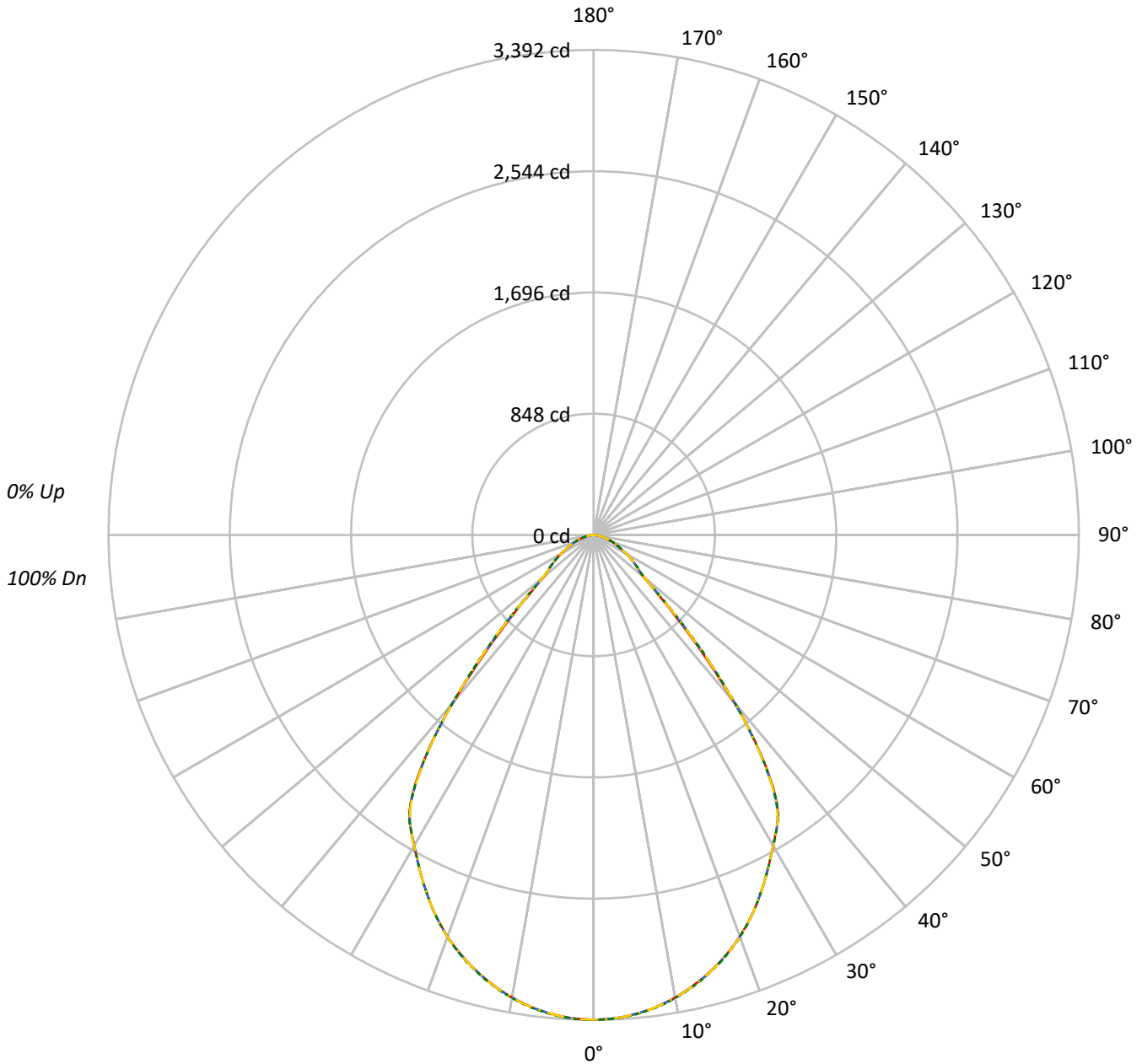
Lumens per Lamp: N/A
Luminaire Lumens: 5112.6 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.12
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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									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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	105	99	93	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81																			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72																			
4	91	82	75	70	89	81	74	70	79	73	69	76	72	68	74	70	67	65																			
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59																			
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	55	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45																			
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42																			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	103507	103507	103507	103507
5°	103084	103173	103084	103173
10°	101836	101988	101836	101988
15°	99838	99990	99838	99990
20°	97102	97196	97102	97196
25°	93072	93089	93072	93089
30°	88514	88514	88514	88514
35°	82230	82066	82230	82066
40°	60774	61491	60774	61491
45°	35728	37473	35728	37473
50°	21867	22143	21867	22143
55°	18742	18768	18742	18768
60°	15986	16132	15986	16132
65°	13574	13892	13574	13892
70°	11533	12051	11533	12051
75°	9626	10369	9626	10369
80°	7683	8703	7683	8703
85°	4764	6621	4764	6621

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 37766 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.6	6.2
10°-20°	889.4	17.4
20°-30°	1270.0	24.8
30°-40°	1326.1	25.9
40°-50°	688.8	13.5
50°-60°	315.8	6.2
60°-70°	191.5	3.7
70°-80°	91.8	1.8
80°-90°	20.6	0.4
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°	2478.0	48.5
0°-40°	3804.2	74.4
0°-60°	4808.7	94.1
0°-90°	5112.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5112.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3390	3390	3390	3390	3390	
5°	3364	3366	3364	3366	3364	319
15°	3159	3164	3159	3164	3159	889
25°	2763	2763	2763	2763	2763	1270
35°	2206	2202	2206	2202	2206	1328
45°	828	868	828	868	828	673
55°	352	353	352	353	352	315
65°	188	192	188	192	188	188
75°	82	88	82	88	82	88
85°	14	19	14	19	14	18
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°	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3
0.5°	3389.8	3388.9	3389.8	3389.8	3391.8	3389.8	3389.8	3388.9	3389.8	3388.9	3389.8
1°	3389.4	3388.4	3389.4	3389.4	3390.8	3389.4	3389.4	3388.4	3389.4	3388.4	3389.4
1.5°	3387.9	3386.9	3387.9	3387.9	3389.8	3387.9	3387.9	3386.9	3387.9	3386.9	3387.9
2°	3386.0	3385.0	3386.0	3386.0	3387.9	3386.0	3386.0	3385.0	3386.0	3385.0	3386.0
2.5°	3383.5	3382.6	3383.5	3384.0	3385.5	3384.0	3383.5	3382.6	3383.5	3382.6	3383.5
3°	3380.6	3379.6	3380.6	3381.1	3383.0	3381.1	3380.6	3379.6	3380.6	3379.6	3380.6
3.5°	3377.2	3376.2	3377.2	3377.7	3379.6	3377.7	3377.2	3376.2	3377.2	3376.2	3377.2
4°	3372.8	3372.4	3373.3	3373.8	3375.8	3373.8	3373.3	3372.4	3372.8	3372.4	3373.3
4.5°	3368.5	3368.0	3369.0	3369.4	3371.4	3369.4	3369.0	3368.0	3368.5	3368.0	3369.0
5°	3363.6	3362.6	3363.6	3364.6	3366.5	3364.6	3363.6	3362.6	3363.6	3362.6	3363.6
5.5°	3357.8	3357.3	3358.3	3359.2	3361.2	3359.2	3358.3	3357.3	3357.8	3357.3	3358.3
6°	3352.0	3351.0	3352.4	3353.4	3354.9	3353.4	3352.4	3351.0	3352.0	3351.0	3352.4
6.5°	3345.2	3344.7	3346.1	3347.1	3348.6	3347.1	3346.1	3344.7	3345.2	3344.7	3346.1
7°	3338.4	3337.4	3338.8	3339.8	3341.8	3339.8	3338.8	3337.4	3338.4	3337.4	3338.8
7.5°	3330.6	3329.6	3331.6	3332.5	3334.5	3332.5	3331.6	3329.6	3330.6	3329.6	3331.6
8°	3322.3	3321.8	3323.3	3324.3	3326.7	3324.3	3323.3	3321.8	3322.3	3321.8	3323.3
8.5°	3313.6	3313.1	3315.0	3316.0	3318.0	3316.0	3315.0	3313.1	3313.6	3313.1	3315.0
9°	3304.9	3304.4	3305.8	3307.3	3309.2	3307.3	3305.8	3304.4	3304.9	3304.4	3305.8
9.5°	3294.7	3294.7	3296.1	3297.6	3299.5	3297.6	3296.1	3294.7	3294.7	3294.7	3296.1
10°	3284.9	3284.5	3286.4	3287.9	3289.8	3287.9	3286.4	3284.5	3284.9	3284.5	3286.4
10.5°	3274.3	3273.8	3275.7	3277.2	3279.6	3277.2	3275.7	3273.8	3274.3	3273.8	3275.7
11°	3263.1	3263.1	3264.5	3266.5	3268.4	3266.5	3264.5	3263.1	3263.1	3263.1	3264.5
11.5°	3251.9	3251.4	3253.4	3254.8	3256.8	3254.8	3253.4	3251.4	3251.9	3251.4	3253.4
12°	3239.8	3239.8	3241.2	3243.2	3245.1	3243.2	3241.2	3239.8	3239.8	3239.8	3241.2
12.5°	3227.1	3227.1	3229.1	3231.0	3232.5	3231.0	3229.1	3227.1	3227.1	3227.1	3229.1
13°	3214.5	3214.5	3216.5	3217.9	3219.9	3217.9	3216.5	3214.5	3214.5	3214.5	3216.5
13.5°	3200.9	3200.9	3202.9	3205.3	3206.3	3205.3	3202.9	3200.9	3200.9	3200.9	3202.9
14°	3187.8	3187.3	3189.3	3191.2	3192.7	3191.2	3189.3	3187.3	3187.8	3187.3	3189.3
14.5°	3173.2	3173.2	3175.2	3177.1	3178.6	3177.1	3175.2	3173.2	3173.2	3173.2	3175.2
15°	3158.7	3159.2	3161.1	3162.6	3163.5	3162.6	3161.1	3159.2	3158.7	3159.2	3161.1
15.5°	3143.6	3144.1	3146.0	3147.5	3148.5	3147.5	3146.0	3144.1	3143.6	3144.1	3146.0
16°	3128.6	3128.6	3130.5	3132.0	3132.9	3132.0	3130.5	3128.6	3128.6	3128.6	3130.5
16.5°	3113.0	3113.0	3115.0	3115.9	3117.4	3115.9	3115.0	3113.0	3113.0	3113.0	3115.0
17°	3096.5	3096.5	3098.4	3099.9	3100.9	3099.9	3098.4	3096.5	3096.5	3096.5	3098.4
17.5°	3079.5	3080.0	3081.9	3082.9	3083.9	3082.9	3081.9	3080.0	3079.5	3080.0	3081.9
18°	3062.5	3062.5	3064.5	3065.4	3066.4	3065.4	3064.5	3062.5	3062.5	3062.5	3064.5
18.5°	3045.0	3045.0	3047.0	3047.5	3048.4	3047.5	3047.0	3045.0	3045.0	3045.0	3047.0
19°	3026.6	3026.6	3028.5	3029.5	3030.0	3029.5	3028.5	3026.6	3026.6	3026.6	3028.5
19.5°	3007.6	3008.1	3009.6	3010.5	3011.0	3010.5	3009.6	3008.1	3007.6	3008.1	3009.6
20°	2988.7	2988.7	2990.1	2990.6	2991.6	2990.6	2990.1	2988.7	2988.7	2988.7	2990.1
20.5°	2968.8	2968.8	2970.2	2970.2	2971.2	2970.2	2970.2	2968.8	2968.8	2968.8	2970.2
21°	2948.4	2948.4	2949.8	2949.8	2950.3	2949.8	2949.8	2948.4	2948.4	2948.4	2949.8



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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°	2882.8	2882.8	2883.8	2883.3	2884.3	2883.3	2883.8	2882.8	2882.8	2882.8	2883.8
23°	2860.0	2860.0	2860.5	2860.5	2861.0	2860.5	2860.5	2860.0	2860.0	2860.0	2860.5
23.5°	2836.7	2836.7	2837.2	2836.7	2837.2	2836.7	2837.2	2836.7	2836.7	2836.7	2837.2
24°	2812.9	2812.4	2812.9	2812.4	2812.9	2812.4	2812.9	2812.4	2812.9	2812.4	2812.9
24.5°	2787.6	2787.6	2788.6	2788.1	2788.1	2788.1	2788.6	2787.6	2787.6	2787.6	2788.6
25°	2762.9	2762.9	2763.4	2763.4	2763.4	2763.4	2763.4	2762.9	2762.9	2762.9	2763.4
25.5°	2738.1	2737.6	2738.6	2738.1	2738.1	2738.1	2738.6	2737.6	2738.1	2737.6	2738.6
26°	2712.8	2712.4	2712.8	2713.3	2712.8	2713.3	2712.8	2712.4	2712.8	2712.4	2712.8
26.5°	2687.1	2687.6	2687.6	2687.6	2687.6	2687.6	2687.6	2687.6	2687.1	2687.6	2687.6
27°	2661.8	2661.8	2662.3	2662.3	2661.8	2662.3	2662.3	2661.8	2661.8	2661.8	2662.3
27.5°	2636.1	2636.1	2637.1	2637.1	2636.1	2637.1	2637.1	2636.1	2636.1	2636.1	2637.1
28°	2610.9	2610.9	2611.8	2611.3	2611.3	2611.3	2611.8	2610.9	2610.9	2610.9	2611.8
28.5°	2585.6	2585.6	2586.6	2586.1	2585.6	2586.1	2586.6	2585.6	2585.6	2585.6	2586.6
29°	2559.9	2560.8	2561.3	2560.8	2560.8	2561.3	2560.8	2559.9	2560.8	2560.8	2561.3
29.5°	2535.1	2535.6	2536.6	2536.6	2535.6	2536.6	2536.6	2535.6	2535.1	2535.6	2536.6
30°	2510.8	2511.3	2511.8	2511.8	2510.8	2511.8	2511.8	2510.8	2511.3	2511.3	2511.8
30.5°	2486.5	2487.5	2488.0	2487.5	2486.0	2487.5	2488.0	2487.5	2486.5	2487.5	2488.0
31°	2462.7	2463.2	2464.2	2463.7	2463.2	2463.7	2464.2	2463.2	2462.7	2463.2	2464.2
31.5°	2439.9	2439.9	2440.4	2439.9	2438.9	2439.9	2440.4	2439.9	2439.9	2439.9	2440.4
32°	2416.1	2416.1	2416.1	2415.6	2415.6	2415.6	2416.1	2416.1	2416.1	2416.1	2416.1
32.5°	2392.3	2390.4	2389.9	2389.4	2391.8	2389.4	2389.9	2390.4	2392.3	2390.4	2389.9
33°	2366.1	2361.2	2360.3	2358.8	2367.1	2358.8	2360.3	2361.2	2366.1	2361.2	2360.3
33.5°	2334.0	2326.8	2327.2	2324.3	2335.0	2324.3	2327.2	2326.8	2334.0	2326.8	2327.2
34°	2295.7	2287.4	2290.3	2284.5	2297.1	2284.5	2290.3	2287.4	2295.7	2287.4	2290.3
34.5°	2254.4	2242.7	2247.6	2241.8	2253.4	2241.8	2247.6	2242.7	2254.4	2242.7	2247.6
35°	2206.3	2195.6	2198.1	2194.2	2201.9	2194.2	2198.1	2195.6	2206.3	2195.6	2198.1
35.5°	2152.4	2146.6	2143.7	2140.3	2145.6	2140.3	2143.7	2146.6	2152.4	2146.6	2143.7
36°	2093.2	2094.1	2085.4	2081.5	2089.8	2081.5	2085.4	2094.1	2093.2	2094.1	2085.4
36.5°	2031.0	2035.4	2023.7	2019.3	2028.1	2019.3	2023.7	2035.4	2031.0	2035.4	2023.7
37°	1966.9	1970.8	1960.1	1954.3	1964.9	1954.3	1960.1	1970.8	1966.9	1970.8	1960.1
37.5°	1900.3	1900.3	1893.1	1887.7	1897.4	1887.7	1893.1	1900.3	1900.3	1900.3	1893.1
38°	1830.9	1826.0	1824.6	1820.2	1829.4	1820.2	1824.6	1826.0	1830.9	1826.0	1824.6
38.5°	1758.5	1749.8	1753.7	1750.3	1759.5	1750.3	1753.7	1749.8	1758.5	1749.8	1753.7
39°	1682.8	1674.5	1680.4	1679.9	1689.6	1679.9	1680.4	1674.5	1682.8	1674.5	1680.4
39.5°	1605.6	1599.7	1606.5	1608.5	1617.2	1608.5	1606.5	1599.7	1605.6	1599.7	1606.5
40°	1524.9	1526.4	1533.2	1538.5	1542.9	1538.5	1533.2	1526.4	1524.9	1526.4	1533.2
40.5°	1444.3	1451.6	1458.9	1468.1	1468.6	1468.1	1458.9	1451.6	1444.3	1451.6	1458.9
41°	1366.1	1378.3	1387.5	1398.2	1394.8	1398.2	1387.5	1378.3	1366.1	1378.3	1387.5
41.5°	1288.9	1303.0	1316.1	1328.7	1321.5	1328.7	1316.1	1303.0	1288.9	1303.0	1316.1
42°	1215.1	1229.7	1245.2	1258.8	1251.0	1258.8	1245.2	1229.7	1215.1	1229.7	1245.2
42.5°	1143.7	1157.8	1174.8	1190.8	1181.6	1190.8	1174.8	1157.8	1143.7	1157.8	1174.8
43°	1074.3	1088.3	1107.3	1123.3	1115.5	1123.3	1107.3	1088.3	1074.3	1088.3	1107.3
43.5°	1008.2	1020.8	1041.2	1058.7	1050.5	1058.7	1041.2	1020.8	1008.2	1020.8	1041.2



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CATALOG NUMBER: HCDJBL4050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	827.5	836.3	858.6	874.7	867.9	874.7	858.6	836.3	827.5	836.3	858.6
45.5°	774.6	782.4	803.8	818.8	813.5	818.8	803.8	782.4	774.6	782.4	803.8
46°	724.6	733.3	751.8	765.9	761.5	765.9	751.8	733.3	724.6	733.3	751.8
46.5°	678.9	688.7	701.8	716.3	712.9	716.3	701.8	688.7	678.9	688.7	701.8
47°	636.2	647.4	656.6	670.7	667.3	670.7	656.6	647.4	636.2	647.4	656.6
47.5°	598.3	610.0	614.8	628.4	624.5	628.4	614.8	610.0	598.3	610.0	614.8
48°	564.3	574.5	577.4	591.0	585.7	591.0	577.4	574.5	564.3	574.5	577.4
48.5°	533.7	542.0	544.4	556.1	549.8	556.1	544.4	542.0	533.7	542.0	544.4
49°	506.0	512.4	514.8	524.5	518.7	524.5	514.8	512.4	506.0	512.4	514.8
49.5°	482.3	486.6	489.5	496.8	490.0	496.8	489.5	486.6	482.3	486.6	489.5
50°	460.4	464.3	467.7	472.5	466.2	472.5	467.7	464.3	460.4	464.3	467.7
50.5°	442.4	445.3	448.3	452.1	445.8	452.1	448.3	445.3	442.4	445.3	448.3
51°	427.4	430.3	431.7	434.7	429.3	434.7	431.7	430.3	427.4	430.3	431.7
51.5°	414.7	417.2	418.6	419.6	416.2	419.6	418.6	417.2	414.7	417.2	418.6
52°	405.0	406.0	407.0	407.5	405.5	407.5	407.0	406.0	405.0	406.0	407.0
52.5°	395.8	396.3	396.8	396.8	396.8	396.8	396.8	396.3	395.8	396.3	396.8
53°	387.1	387.5	387.5	387.5	388.0	387.5	387.5	387.5	387.1	387.5	387.5
53.5°	378.8	378.8	378.8	378.3	379.3	378.3	378.8	378.8	378.8	378.8	378.8
54°	370.1	370.1	370.1	369.6	370.6	369.6	370.1	370.1	370.1	370.1	370.1
54.5°	361.3	361.3	361.3	360.8	361.8	360.8	361.3	361.3	361.3	361.3	361.3
55°	352.1	352.1	352.1	352.1	352.6	352.1	352.1	352.1	352.1	352.1	352.1
55.5°	342.9	342.9	343.4	342.9	343.4	342.9	343.4	342.9	342.9	342.9	343.4
56°	333.6	333.6	334.1	334.1	334.1	334.1	334.1	333.6	333.6	333.6	334.1
56.5°	324.4	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.4	324.9	324.9
57°	315.2	315.7	315.7	315.7	315.7	315.7	315.7	315.7	315.2	315.7	315.7
57.5°	306.0	306.4	306.9	306.9	306.9	306.9	306.9	306.4	306.0	306.4	306.9
58°	296.7	297.7	297.7	298.2	298.2	298.2	297.7	297.7	296.7	297.7	297.7
58.5°	287.5	289.0	289.0	289.4	289.4	289.4	289.0	289.0	287.5	289.0	289.0
59°	278.8	280.2	280.7	280.7	280.7	280.7	280.7	280.2	278.8	280.2	280.7
59.5°	270.5	272.0	272.4	272.4	272.4	272.4	272.4	272.0	270.5	272.0	272.4
60°	261.8	263.7	264.2	264.7	264.2	264.7	264.2	263.7	261.8	263.7	264.2
60.5°	253.5	255.5	256.4	256.4	256.4	256.4	256.4	255.5	253.5	255.5	256.4
61°	245.7	247.7	248.7	248.7	248.7	248.7	248.7	247.7	245.7	247.7	248.7
61.5°	238.0	239.9	240.9	241.4	241.4	241.4	240.9	239.9	238.0	239.9	240.9
62°	230.2	232.1	233.6	233.6	233.6	233.6	233.6	232.1	230.2	232.1	233.6
62.5°	222.9	224.9	226.3	226.3	226.3	226.3	226.3	224.9	222.9	224.9	226.3
63°	215.1	217.6	219.5	219.5	219.5	219.5	219.5	217.6	215.1	217.6	219.5
63.5°	208.3	210.8	212.2	212.7	212.7	212.7	212.2	210.8	208.3	210.8	212.2
64°	201.5	203.5	205.4	205.9	205.9	205.9	205.4	203.5	201.5	203.5	205.4
64.5°	194.7	196.7	199.1	199.1	199.1	199.1	199.1	196.7	194.7	196.7	199.1
65°	187.9	189.9	192.3	192.8	192.3	192.8	192.3	189.9	187.9	189.9	192.3
65.5°	181.6	183.6	186.0	186.5	186.5	186.5	186.0	183.6	181.6	183.6	186.0
66°	175.3	177.3	179.7	180.2	180.2	180.2	179.7	177.3	175.3	177.3	179.7



TEST NUMBER: P776794

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	156.9	159.3	161.7	162.7	162.2	162.7	161.7	159.3	156.9	159.3	161.7
68°	151.0	153.5	156.4	156.9	156.9	156.9	156.4	153.5	151.0	153.5	156.4
68.5°	145.7	147.6	150.6	151.0	151.0	151.0	150.6	147.6	145.7	147.6	150.6
69°	139.9	142.3	145.2	145.7	145.7	145.7	145.2	142.3	139.9	142.3	145.2
69.5°	134.5	136.5	139.9	140.4	140.4	140.4	139.9	136.5	134.5	136.5	139.9
70°	129.2	131.1	134.5	135.0	135.0	135.0	134.5	131.1	129.2	131.1	134.5
70.5°	123.8	125.8	129.2	129.7	129.7	129.7	129.2	125.8	123.8	125.8	129.2
71°	119.0	120.9	123.8	124.8	124.8	124.8	123.8	120.9	119.0	120.9	123.8
71.5°	113.6	115.6	119.0	120.0	119.5	120.0	119.0	115.6	113.6	115.6	119.0
72°	108.8	110.7	114.1	115.1	114.6	115.1	114.1	110.7	108.8	110.7	114.1
72.5°	103.9	105.9	109.3	110.2	109.8	110.2	109.3	105.9	103.9	105.9	109.3
73°	99.1	101.0	104.4	105.4	105.4	105.4	104.4	101.0	99.1	101.0	104.4
73.5°	94.7	96.6	100.0	101.0	101.0	101.0	100.0	96.6	94.7	96.6	100.0
74°	90.3	92.3	95.2	96.6	96.2	96.6	95.2	92.3	90.3	92.3	95.2
74.5°	86.0	87.4	90.8	92.3	91.8	92.3	90.8	87.4	86.0	87.4	90.8
75°	81.6	83.0	86.4	87.9	87.9	87.9	86.4	83.0	81.6	83.0	86.4
75.5°	77.2	79.2	82.1	83.5	83.5	83.5	82.1	79.2	77.2	79.2	82.1
76°	73.3	74.8	78.2	79.6	79.2	79.6	78.2	74.8	73.3	74.8	78.2
76.5°	69.0	70.9	73.8	75.3	75.3	75.3	73.8	70.9	69.0	70.9	73.8
77°	65.1	67.0	69.9	71.4	71.4	71.4	69.9	67.0	65.1	67.0	69.9
77.5°	61.7	63.1	66.0	67.5	67.5	67.5	66.0	63.1	61.7	63.1	66.0
78°	57.8	59.2	62.2	64.1	63.6	64.1	62.2	59.2	57.8	59.2	62.2
78.5°	53.9	55.4	58.8	60.2	60.2	60.2	58.8	55.4	53.9	55.4	58.8
79°	50.5	52.0	54.9	56.8	56.3	56.8	54.9	52.0	50.5	52.0	54.9
79.5°	47.1	48.1	51.5	52.9	52.9	52.9	51.5	48.1	47.1	48.1	51.5
80°	43.7	44.7	48.1	49.5	49.5	49.5	48.1	44.7	43.7	44.7	48.1
80.5°	40.3	41.3	44.7	46.1	46.1	46.1	44.7	41.3	40.3	41.3	44.7
81°	36.9	37.9	41.3	42.7	42.7	42.7	41.3	37.9	36.9	37.9	41.3
81.5°	34.0	34.5	37.9	39.8	39.8	39.8	37.9	34.5	34.0	34.5	37.9
82°	30.6	31.6	34.5	36.4	36.4	36.4	34.5	31.6	30.6	31.6	34.5
82.5°	27.7	28.2	31.6	33.5	33.5	33.5	31.6	28.2	27.7	28.2	31.6
83°	24.8	25.3	28.7	30.6	30.1	30.6	28.7	25.3	24.8	25.3	28.7
83.5°	21.9	22.3	25.7	27.2	27.2	27.2	25.7	22.3	21.9	22.3	25.7
84°	18.9	19.4	22.8	24.3	24.3	24.3	22.8	19.4	18.9	19.4	22.8
84.5°	16.0	16.5	19.9	21.9	21.9	21.9	19.9	16.5	16.0	16.5	19.9
85°	13.6	14.1	17.5	18.9	18.9	18.9	17.5	14.1	13.6	14.1	17.5
85.5°	11.2	11.7	15.1	16.0	16.0	16.0	15.1	11.7	11.2	11.7	15.1
86°	8.7	9.7	12.6	13.6	13.6	13.6	12.6	9.7	8.7	9.7	12.6
86.5°	6.8	7.8	10.2	11.2	11.2	11.2	10.2	7.8	6.8	7.8	10.2
87°	5.3	5.8	7.8	8.7	8.7	8.7	7.8	5.8	5.3	5.8	7.8
87.5°	3.9	4.4	5.8	6.8	6.3	6.8	5.8	4.4	3.9	4.4	5.8
88°	2.4	2.9	4.4	4.9	3.9	4.9	4.4	2.9	2.4	2.9	4.4
88.5°	1.5	1.9	2.9	3.4	2.4	3.4	2.9	1.9	1.5	1.9	2.9



TEST NUMBER: P776794

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRMW-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	0.5	0.5	0.0	0.5	0.5	0.0	0.0	0.0	0.5



TEST NUMBER: P776794

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3390.3	3390.3	3390.3	3390.3	3390.3	3390.3
0.5°	3389.8	3391.8	3389.8	3389.8	3388.9	3389.8
1°	3389.4	3390.8	3389.4	3389.4	3388.4	3389.4
1.5°	3387.9	3389.8	3387.9	3387.9	3386.9	3387.9
2°	3386.0	3387.9	3386.0	3386.0	3385.0	3386.0
2.5°	3384.0	3385.5	3384.0	3383.5	3382.6	3383.5
3°	3381.1	3383.0	3381.1	3380.6	3379.6	3380.6
3.5°	3377.7	3379.6	3377.7	3377.2	3376.2	3377.2
4°	3373.8	3375.8	3373.8	3373.3	3372.4	3372.8
4.5°	3369.4	3371.4	3369.4	3369.0	3368.0	3368.5
5°	3364.6	3366.5	3364.6	3363.6	3362.6	3363.6
5.5°	3359.2	3361.2	3359.2	3358.3	3357.3	3357.8
6°	3353.4	3354.9	3353.4	3352.4	3351.0	3352.0
6.5°	3347.1	3348.6	3347.1	3346.1	3344.7	3345.2
7°	3339.8	3341.8	3339.8	3338.8	3337.4	3338.4
7.5°	3332.5	3334.5	3332.5	3331.6	3329.6	3330.6
8°	3324.3	3326.7	3324.3	3323.3	3321.8	3322.3
8.5°	3316.0	3318.0	3316.0	3315.0	3313.1	3313.6
9°	3307.3	3309.2	3307.3	3305.8	3304.4	3304.9
9.5°	3297.6	3299.5	3297.6	3296.1	3294.7	3294.7
10°	3287.9	3289.8	3287.9	3286.4	3284.5	3284.9
10.5°	3277.2	3279.6	3277.2	3275.7	3273.8	3274.3
11°	3266.5	3268.4	3266.5	3264.5	3263.1	3263.1
11.5°	3254.8	3256.8	3254.8	3253.4	3251.4	3251.9
12°	3243.2	3245.1	3243.2	3241.2	3239.8	3239.8
12.5°	3231.0	3232.5	3231.0	3229.1	3227.1	3227.1
13°	3217.9	3219.9	3217.9	3216.5	3214.5	3214.5
13.5°	3205.3	3206.3	3205.3	3202.9	3200.9	3200.9
14°	3191.2	3192.7	3191.2	3189.3	3187.3	3187.8
14.5°	3177.1	3178.6	3177.1	3175.2	3173.2	3173.2
15°	3162.6	3163.5	3162.6	3161.1	3159.2	3158.7
15.5°	3147.5	3148.5	3147.5	3146.0	3144.1	3143.6
16°	3132.0	3132.9	3132.0	3130.5	3128.6	3128.6
16.5°	3115.9	3117.4	3115.9	3115.0	3113.0	3113.0
17°	3099.9	3100.9	3099.9	3098.4	3096.5	3096.5
17.5°	3082.9	3083.9	3082.9	3081.9	3080.0	3079.5
18°	3065.4	3066.4	3065.4	3064.5	3062.5	3062.5
18.5°	3047.5	3048.4	3047.5	3047.0	3045.0	3045.0
19°	3029.5	3030.0	3029.5	3028.5	3026.6	3026.6
19.5°	3010.5	3011.0	3010.5	3009.6	3008.1	3007.6
20°	2990.6	2991.6	2990.6	2990.1	2988.7	2988.7
20.5°	2970.2	2971.2	2970.2	2970.2	2968.8	2968.8
21°	2949.8	2950.3	2949.8	2949.8	2948.4	2948.4



TEST NUMBER: P776794

CATALOG NUMBER: HCDJBLS4050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2883.3	2884.3	2883.3	2883.8	2882.8	2882.8
23°	2860.5	2861.0	2860.5	2860.5	2860.0	2860.0
23.5°	2836.7	2837.2	2836.7	2837.2	2836.7	2836.7
24°	2812.4	2812.9	2812.4	2812.9	2812.4	2812.9
24.5°	2788.1	2788.1	2788.1	2788.6	2787.6	2787.6
25°	2763.4	2763.4	2763.4	2763.4	2762.9	2762.9
25.5°	2738.1	2738.1	2738.1	2738.6	2737.6	2738.1
26°	2713.3	2712.8	2713.3	2712.8	2712.4	2712.8
26.5°	2687.6	2687.6	2687.6	2687.6	2687.6	2687.1
27°	2662.3	2661.8	2662.3	2662.3	2661.8	2661.8
27.5°	2637.1	2636.1	2637.1	2637.1	2636.1	2636.1
28°	2611.3	2611.3	2611.3	2611.8	2610.9	2610.9
28.5°	2586.1	2585.6	2586.1	2586.6	2585.6	2585.6
29°	2560.8	2560.8	2560.8	2561.3	2560.8	2559.9
29.5°	2536.6	2535.6	2536.6	2536.6	2535.6	2535.1
30°	2511.8	2510.8	2511.8	2511.8	2511.3	2510.8
30.5°	2487.5	2486.0	2487.5	2488.0	2487.5	2486.5
31°	2463.7	2463.2	2463.7	2464.2	2463.2	2462.7
31.5°	2439.9	2438.9	2439.9	2440.4	2439.9	2439.9
32°	2415.6	2415.6	2415.6	2416.1	2416.1	2416.1
32.5°	2389.4	2391.8	2389.4	2389.9	2390.4	2392.3
33°	2358.8	2367.1	2358.8	2360.3	2361.2	2366.1
33.5°	2324.3	2335.0	2324.3	2327.2	2326.8	2334.0
34°	2284.5	2297.1	2284.5	2290.3	2287.4	2295.7
34.5°	2241.8	2253.4	2241.8	2247.6	2242.7	2254.4
35°	2194.2	2201.9	2194.2	2198.1	2195.6	2206.3
35.5°	2140.3	2145.6	2140.3	2143.7	2146.6	2152.4
36°	2081.5	2089.8	2081.5	2085.4	2094.1	2093.2
36.5°	2019.3	2028.1	2019.3	2023.7	2035.4	2031.0
37°	1954.3	1964.9	1954.3	1960.1	1970.8	1966.9
37.5°	1887.7	1897.4	1887.7	1893.1	1900.3	1900.3
38°	1820.2	1829.4	1820.2	1824.6	1826.0	1830.9
38.5°	1750.3	1759.5	1750.3	1753.7	1749.8	1758.5
39°	1679.9	1689.6	1679.9	1680.4	1674.5	1682.8
39.5°	1608.5	1617.2	1608.5	1606.5	1599.7	1605.6
40°	1538.5	1542.9	1538.5	1533.2	1526.4	1524.9
40.5°	1468.1	1468.6	1468.1	1458.9	1451.6	1444.3
41°	1398.2	1394.8	1398.2	1387.5	1378.3	1366.1
41.5°	1328.7	1321.5	1328.7	1316.1	1303.0	1288.9
42°	1258.8	1251.0	1258.8	1245.2	1229.7	1215.1
42.5°	1190.8	1181.6	1190.8	1174.8	1157.8	1143.7
43°	1123.3	1115.5	1123.3	1107.3	1088.3	1074.3
43.5°	1058.7	1050.5	1058.7	1041.2	1020.8	1008.2

TEST NUMBER: P776794

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	874.7	867.9	874.7	858.6	836.3	827.5
45.5°	818.8	813.5	818.8	803.8	782.4	774.6
46°	765.9	761.5	765.9	751.8	733.3	724.6
46.5°	716.3	712.9	716.3	701.8	688.7	678.9
47°	670.7	667.3	670.7	656.6	647.4	636.2
47.5°	628.4	624.5	628.4	614.8	610.0	598.3
48°	591.0	585.7	591.0	577.4	574.5	564.3
48.5°	556.1	549.8	556.1	544.4	542.0	533.7
49°	524.5	518.7	524.5	514.8	512.4	506.0
49.5°	496.8	490.0	496.8	489.5	486.6	482.3
50°	472.5	466.2	472.5	467.7	464.3	460.4
50.5°	452.1	445.8	452.1	448.3	445.3	442.4
51°	434.7	429.3	434.7	431.7	430.3	427.4
51.5°	419.6	416.2	419.6	418.6	417.2	414.7
52°	407.5	405.5	407.5	407.0	406.0	405.0
52.5°	396.8	396.8	396.8	396.8	396.3	395.8
53°	387.5	388.0	387.5	387.5	387.5	387.1
53.5°	378.3	379.3	378.3	378.8	378.8	378.8
54°	369.6	370.6	369.6	370.1	370.1	370.1
54.5°	360.8	361.8	360.8	361.3	361.3	361.3
55°	352.1	352.6	352.1	352.1	352.1	352.1
55.5°	342.9	343.4	342.9	343.4	342.9	342.9
56°	334.1	334.1	334.1	334.1	333.6	333.6
56.5°	324.9	324.9	324.9	324.9	324.9	324.4
57°	315.7	315.7	315.7	315.7	315.7	315.2
57.5°	306.9	306.9	306.9	306.9	306.4	306.0
58°	298.2	298.2	298.2	297.7	297.7	296.7
58.5°	289.4	289.4	289.4	289.0	289.0	287.5
59°	280.7	280.7	280.7	280.7	280.2	278.8
59.5°	272.4	272.4	272.4	272.4	272.0	270.5
60°	264.7	264.2	264.7	264.2	263.7	261.8
60.5°	256.4	256.4	256.4	256.4	255.5	253.5
61°	248.7	248.7	248.7	248.7	247.7	245.7
61.5°	241.4	241.4	241.4	240.9	239.9	238.0
62°	233.6	233.6	233.6	233.6	232.1	230.2
62.5°	226.3	226.3	226.3	226.3	224.9	222.9
63°	219.5	219.5	219.5	219.5	217.6	215.1
63.5°	212.7	212.7	212.7	212.2	210.8	208.3
64°	205.9	205.9	205.9	205.4	203.5	201.5
64.5°	199.1	199.1	199.1	199.1	196.7	194.7
65°	192.8	192.3	192.8	192.3	189.9	187.9
65.5°	186.5	186.5	186.5	186.0	183.6	181.6
66°	180.2	180.2	180.2	179.7	177.3	175.3



TEST NUMBER: P776794

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	162.7	162.2	162.7	161.7	159.3	156.9
68°	156.9	156.9	156.9	156.4	153.5	151.0
68.5°	151.0	151.0	151.0	150.6	147.6	145.7
69°	145.7	145.7	145.7	145.2	142.3	139.9
69.5°	140.4	140.4	140.4	139.9	136.5	134.5
70°	135.0	135.0	135.0	134.5	131.1	129.2
70.5°	129.7	129.7	129.7	129.2	125.8	123.8
71°	124.8	124.8	124.8	123.8	120.9	119.0
71.5°	120.0	119.5	120.0	119.0	115.6	113.6
72°	115.1	114.6	115.1	114.1	110.7	108.8
72.5°	110.2	109.8	110.2	109.3	105.9	103.9
73°	105.4	105.4	105.4	104.4	101.0	99.1
73.5°	101.0	101.0	101.0	100.0	96.6	94.7
74°	96.6	96.2	96.6	95.2	92.3	90.3
74.5°	92.3	91.8	92.3	90.8	87.4	86.0
75°	87.9	87.9	87.9	86.4	83.0	81.6
75.5°	83.5	83.5	83.5	82.1	79.2	77.2
76°	79.6	79.2	79.6	78.2	74.8	73.3
76.5°	75.3	75.3	75.3	73.8	70.9	69.0
77°	71.4	71.4	71.4	69.9	67.0	65.1
77.5°	67.5	67.5	67.5	66.0	63.1	61.7
78°	64.1	63.6	64.1	62.2	59.2	57.8
78.5°	60.2	60.2	60.2	58.8	55.4	53.9
79°	56.8	56.3	56.8	54.9	52.0	50.5
79.5°	52.9	52.9	52.9	51.5	48.1	47.1
80°	49.5	49.5	49.5	48.1	44.7	43.7
80.5°	46.1	46.1	46.1	44.7	41.3	40.3
81°	42.7	42.7	42.7	41.3	37.9	36.9
81.5°	39.8	39.8	39.8	37.9	34.5	34.0
82°	36.4	36.4	36.4	34.5	31.6	30.6
82.5°	33.5	33.5	33.5	31.6	28.2	27.7
83°	30.6	30.1	30.6	28.7	25.3	24.8
83.5°	27.2	27.2	27.2	25.7	22.3	21.9
84°	24.3	24.3	24.3	22.8	19.4	18.9
84.5°	21.9	21.9	21.9	19.9	16.5	16.0
85°	18.9	18.9	18.9	17.5	14.1	13.6
85.5°	16.0	16.0	16.0	15.1	11.7	11.2
86°	13.6	13.6	13.6	12.6	9.7	8.7
86.5°	11.2	11.2	11.2	10.2	7.8	6.8
87°	8.7	8.7	8.7	7.8	5.8	5.3
87.5°	6.8	6.3	6.8	5.8	4.4	3.9
88°	4.9	3.9	4.9	4.4	2.9	2.4
88.5°	3.4	2.4	3.4	2.9	1.9	1.5



TEST NUMBER: P776794

CATALOG NUMBER: HCDJBL54050CSD-HCD82TRMW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.5	0.0	0.5	0.5	0.0	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°	2927.0	2927.5	2928.5	2928.5	2929.0	2928.5	2928.5	2927.5	2927.0	2927.5	2928.5
22°	2905.6	2905.6	2906.1	2906.1	2907.1	2906.1	2906.1	2905.6	2905.6	2905.6	2906.1



44°	945.1	955.8	978.1	994.6	987.3	994.6	978.1	955.8	945.1	955.8	978.1
44.5°	885.3	894.1	916.9	933.9	926.1	933.9	916.9	894.1	885.3	894.1	916.9



66.5°	168.5	170.9	173.4	173.9	174.3	173.9	173.4	170.9	168.5	170.9	173.4
67°	162.7	164.6	167.5	168.5	168.5	168.5	167.5	164.6	162.7	164.6	167.5



89°	0.5	1.0	1.5	2.4	1.5	2.4	1.5	1.0	0.5	1.0	1.5
89.5°	0.0	0.5	1.0	1.5	0.5	1.5	1.0	0.5	0.0	0.5	1.0

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21.5°	2928.5	2929.0	2928.5	2928.5	2927.5	2927.0
22°	2906.1	2907.1	2906.1	2906.1	2905.6	2905.6



44°	994.6	987.3	994.6	978.1	955.8	945.1
44.5°	933.9	926.1	933.9	916.9	894.1	885.3

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66.5°	173.9	174.3	173.9	173.4	170.9	168.5
67°	168.5	168.5	168.5	167.5	164.6	162.7

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89°	2.4	1.5	2.4	1.5	1.0	0.5
89.5°	1.5	0.5	1.5	1.0	0.5	0.0

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)