

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: P776795

Luminaire Tested: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776795
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-HCD8TRC-5000lm-2700K
Description: 8 INCH ROUND MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

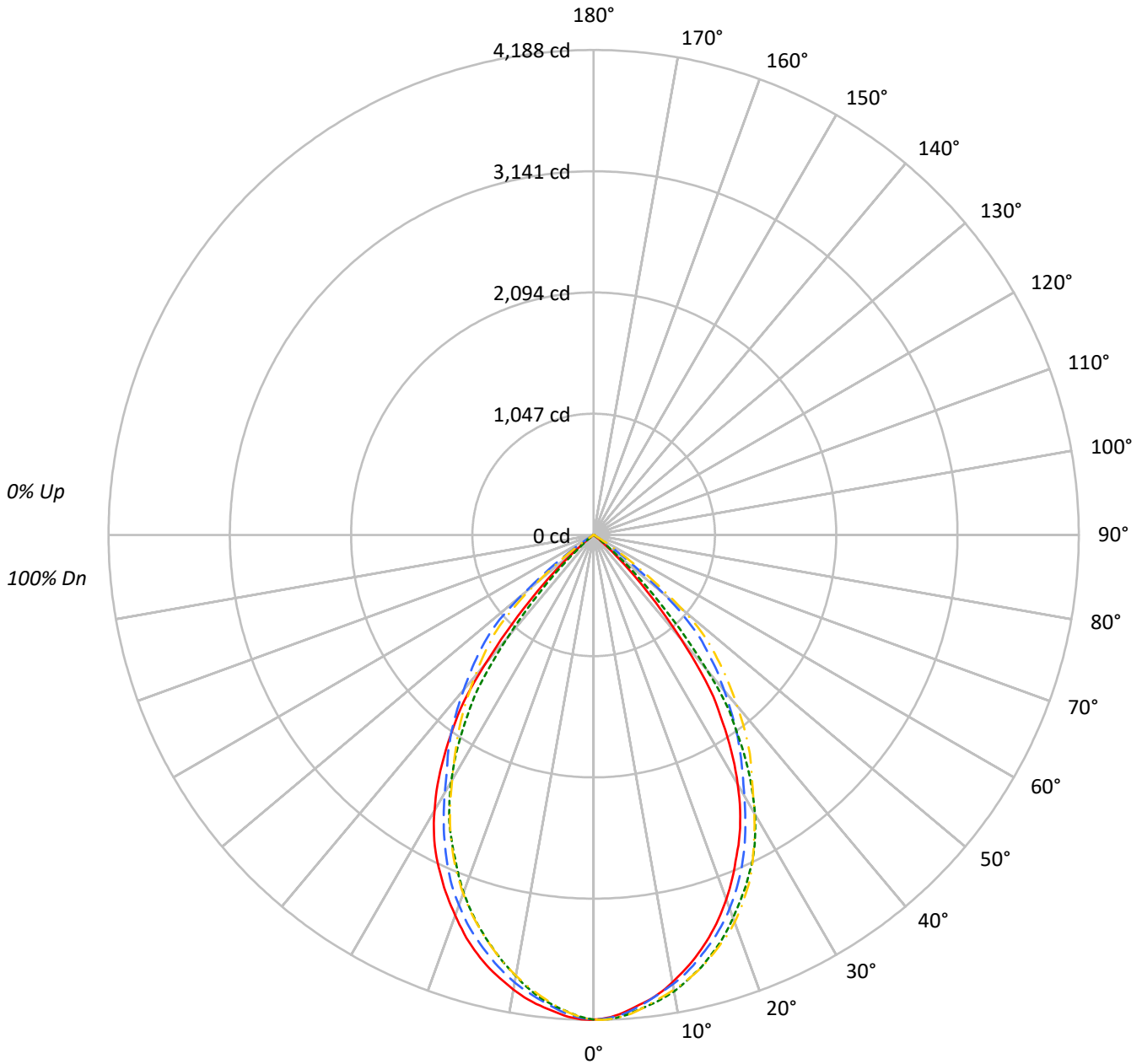
Lumens per Lamp: N/A
Luminaire Lumens: 4967.7 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1 / 1.05
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	89	85	82	87	83	80	85	82	79	78					78			
4	95	86	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71					71			
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65					65			
6	84	74	68	63	83	73	67	63	72	66	62	70	66	62	69	65	61	60					60			
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55					55			
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	52	51					51			
9	71	60	54	49	70	60	54	49	59	53	49	58	53	49	57	52	49	47					47			
10	67	56	50	46	66	56	50	46	55	50	46	54	49	45	54	49	45	44					44			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	127751	127751	127751	127751
5°	125447	126523	126397	124831
10°	121568	124027	123605	119959
15°	116065	119984	119494	113846
20°	108792	114299	113558	106673
25°	99607	107621	106655	97856
30°	87721	98103	96897	86758
35°	71116	83005	81630	70587
40°	46705	60531	58080	46052
45°	20509	31096	29166	20055
50°	4484	9029	8055	4332
55°	580	873	798	559
60°	470	696	641	446
65°	397	592	527	361
70°	321	491	446	286
75°	271	425	377	271
80°	246	404	316	246
85°	175	315	315	175

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°

Vertical Angle: 45°

Luminance: 65162 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.3	7.8
10°-20°	1039.6	20.9
20°-30°	1398.4	28.1
30°-40°	1321.3	26.6
40°-50°	709.1	14.3
50°-60°	102.6	2.1
60°-70°	6.7	0.1
70°-80°	3.1	0.1
80°-90°	0.7	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°	2824.2	56.9
0°-40°	4145.5	83.4
0°-60°	4957.2	99.8
0°-90°	4967.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4967.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4184	4184	4184	4184	4184	
5°	4093	4128	4124	4073	4093	386
15°	3672	3796	3781	3602	3672	1029
25°	2957	3195	3166	2905	2957	1351
35°	1908	2227	2190	1894	1908	1168
45°	475	720	676	464	475	394
55°	11	16	15	10	11	18
65°	6	8	7	5	6	5
75°	2	4	3	2	2	3
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°	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4
0.5°	4184.0	4184.4	4184.0	4184.9	4185.8	4186.7	4187.2	4188.5	4187.6	4185.3	4181.7
1°	4179.9	4181.2	4181.7	4184.4	4186.7	4187.6	4188.5	4188.5	4186.7	4182.6	4177.1
1.5°	4173.5	4176.7	4177.6	4181.2	4184.9	4186.7	4187.2	4187.2	4183.5	4178.5	4172.1
2°	4166.2	4170.8	4172.1	4176.7	4182.2	4183.5	4184.0	4184.0	4179.4	4172.6	4164.8
2.5°	4157.5	4163.0	4164.8	4170.8	4177.6	4179.0	4179.9	4179.4	4173.5	4164.8	4156.2
3°	4146.6	4153.0	4156.2	4162.6	4170.8	4173.0	4173.5	4172.6	4166.7	4156.6	4145.7
3.5°	4134.8	4141.6	4145.7	4153.0	4162.6	4165.3	4165.7	4164.4	4157.5	4146.1	4133.8
4°	4120.2	4128.4	4134.3	4142.5	4152.5	4155.7	4156.6	4155.3	4147.1	4134.3	4120.2
4.5°	4107.4	4115.6	4121.1	4128.8	4140.7	4144.8	4146.1	4143.9	4135.7	4121.5	4105.6
5°	4093.3	4103.3	4106.0	4115.2	4128.4	4132.0	4133.8	4132.0	4124.3	4107.9	4090.1
5.5°	4079.1	4088.7	4090.5	4099.7	4116.1	4119.3	4119.7	4119.3	4113.8	4094.2	4075.0
6°	4064.6	4073.7	4074.6	4086.0	4105.1	4106.9	4105.1	4108.3	4101.9	4081.0	4059.5
6.5°	4051.8	4059.5	4057.7	4071.4	4094.2	4095.1	4090.5	4095.5	4091.0	4066.8	4043.6
7°	4037.7	4045.9	4040.4	4056.8	4082.8	4082.8	4074.6	4083.2	4079.6	4053.2	4028.5
7.5°	4020.8	4030.4	4023.1	4043.1	4072.3	4070.9	4059.5	4069.6	4065.9	4038.1	4012.6
8°	4003.9	4014.0	4006.7	4029.0	4060.0	4058.6	4045.9	4055.0	4052.2	4022.6	3995.7
8.5°	3986.2	3996.2	3989.8	4014.0	4046.8	4045.9	4030.8	4039.5	4037.7	4005.8	3978.9
9°	3965.2	3977.0	3973.4	3996.6	4031.3	4030.8	4017.6	4024.0	4021.3	3989.3	3962.0
9.5°	3943.8	3956.5	3956.5	3979.8	4016.7	4015.8	4003.5	4006.2	4004.8	3972.5	3943.8
10°	3921.4	3935.1	3939.7	3962.0	4000.7	4000.3	3988.4	3988.0	3987.1	3954.2	3924.6
10.5°	3898.2	3912.3	3921.4	3944.2	3983.4	3983.9	3973.8	3969.3	3968.4	3936.0	3904.1
11°	3874.9	3887.2	3902.7	3924.2	3965.6	3965.6	3957.4	3950.1	3948.3	3915.5	3883.1
11.5°	3852.6	3862.6	3882.7	3904.1	3945.1	3947.0	3940.1	3929.2	3929.2	3895.0	3861.3
12°	3829.4	3838.5	3860.8	3882.2	3924.2	3926.4	3922.8	3908.2	3910.5	3874.0	3838.9
12.5°	3805.6	3814.3	3838.0	3860.3	3904.1	3904.6	3905.0	3887.2	3891.3	3854.4	3815.7
13°	3781.0	3789.2	3816.1	3837.6	3884.5	3882.7	3887.2	3868.1	3872.7	3834.4	3793.3
13.5°	3754.1	3764.6	3791.1	3816.1	3865.4	3862.6	3868.1	3848.5	3850.8	3815.2	3768.3
14°	3727.2	3738.6	3767.4	3794.7	3844.4	3842.6	3848.5	3829.8	3827.5	3794.7	3742.7
14.5°	3699.4	3711.3	3741.8	3773.3	3820.2	3821.6	3827.1	3808.8	3804.7	3771.9	3717.2
15°	3672.1	3683.0	3717.2	3750.5	3796.1	3799.7	3804.7	3786.5	3780.6	3747.8	3690.8
15.5°	3643.4	3655.7	3690.8	3725.4	3771.0	3775.6	3781.0	3763.3	3756.4	3723.1	3665.3
16°	3614.2	3627.0	3667.1	3699.9	3746.8	3751.4	3757.3	3741.4	3730.9	3697.6	3639.3
16.5°	3583.7	3598.7	3640.6	3673.9	3722.2	3725.9	3734.1	3716.8	3704.9	3672.1	3613.7
17°	3552.2	3569.1	3612.8	3647.0	3695.8	3701.7	3710.8	3692.6	3678.5	3644.7	3585.5
17.5°	3520.3	3540.4	3583.7	3619.7	3669.4	3675.7	3688.0	3667.5	3649.8	3616.9	3558.6
18°	3487.0	3509.4	3557.2	3591.9	3640.6	3649.8	3666.2	3642.0	3619.2	3587.3	3528.1
18.5°	3452.8	3477.5	3527.1	3563.6	3611.5	3622.0	3641.1	3615.1	3588.7	3556.8	3497.1
19°	3418.7	3445.5	3496.6	3533.5	3581.4	3593.2	3615.1	3586.4	3558.6	3525.3	3465.6
19.5°	3384.0	3413.2	3465.1	3501.6	3549.5	3564.1	3586.9	3556.8	3526.2	3493.9	3433.2
20°	3348.5	3379.0	3433.2	3469.7	3518.0	3533.5	3558.1	3526.7	3495.2	3461.5	3400.4
20.5°	3312.4	3344.8	3399.1	3436.4	3487.0	3502.5	3527.1	3495.7	3464.2	3427.8	3367.6
21°	3274.2	3310.2	3364.0	3402.7	3455.6	3470.6	3497.1	3464.7	3432.8	3394.0	3334.8



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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°	3156.6	3199.4	3257.8	3297.9	3361.2	3376.7	3397.7	3369.9	3338.4	3293.3	3228.1
23°	3114.2	3159.3	3219.0	3261.9	3329.3	3345.3	3363.5	3338.0	3307.0	3257.3	3189.4
23.5°	3073.1	3120.1	3181.2	3227.7	3297.9	3313.8	3329.3	3306.1	3269.6	3221.3	3149.7
24°	3033.0	3077.7	3141.1	3192.1	3262.3	3278.7	3295.1	3270.1	3234.0	3184.8	3108.7
24.5°	2994.7	3037.6	3099.6	3157.0	3228.1	3245.0	3255.9	3234.0	3199.4	3147.9	3067.2
25°	2956.9	2998.4	3058.1	3120.5	3194.8	3209.4	3215.8	3197.6	3166.1	3110.5	3023.9
25.5°	2916.3	2960.1	3015.3	3083.6	3162.9	3173.0	3173.9	3159.3	3132.4	3075.0	2981.1
26°	2874.4	2924.5	2972.0	3046.7	3127.8	3137.9	3131.9	3122.4	3096.8	3040.8	2937.3
26.5°	2831.6	2887.6	2928.2	3010.2	3089.6	3104.1	3086.8	3086.4	3058.6	3006.6	2893.1
27°	2786.4	2848.9	2882.2	2975.6	3050.4	3072.2	3041.2	3052.6	3018.4	2972.0	2848.9
27.5°	2740.4	2808.3	2836.6	2941.4	3009.8	3038.0	2997.0	3018.4	2977.4	2935.5	2803.8
28°	2691.6	2765.0	2788.7	2904.5	2967.4	3002.0	2952.8	2982.9	2934.6	2896.7	2758.2
28.5°	2643.3	2722.6	2742.2	2866.7	2923.6	2964.7	2908.1	2943.7	2890.8	2857.1	2712.6
29°	2592.3	2678.9	2694.8	2825.2	2877.6	2925.0	2865.3	2905.9	2844.8	2815.6	2666.1
29.5°	2541.2	2633.7	2647.4	2783.7	2830.6	2884.4	2818.8	2863.9	2796.5	2772.3	2617.3
30°	2488.3	2586.3	2601.4	2740.4	2782.8	2842.0	2774.6	2821.1	2748.6	2727.6	2568.1
30.5°	2434.5	2536.6	2555.8	2695.3	2732.6	2797.4	2728.1	2776.9	2698.0	2680.2	2521.1
31°	2376.2	2487.0	2510.7	2648.8	2682.0	2751.8	2682.0	2731.7	2648.3	2632.8	2476.0
31.5°	2324.2	2437.7	2468.7	2600.9	2629.2	2704.4	2635.1	2683.4	2595.4	2583.6	2432.7
32°	2266.3	2387.1	2426.8	2552.6	2576.3	2656.1	2591.3	2636.0	2543.0	2534.4	2392.6
32.5°	2209.8	2334.7	2385.3	2504.3	2522.1	2606.8	2548.5	2586.3	2486.0	2484.2	2353.4
33°	2149.2	2282.8	2343.8	2455.5	2466.9	2556.7	2508.8	2536.2	2430.4	2433.6	2316.9
33.5°	2092.7	2229.4	2301.9	2405.4	2409.5	2505.6	2470.5	2484.7	2371.2	2379.8	2279.6
34°	2030.7	2175.2	2261.8	2354.3	2350.2	2455.1	2433.6	2432.3	2311.5	2327.4	2242.2
34.5°	1970.5	2119.6	2221.7	2301.9	2288.2	2400.8	2396.2	2379.8	2249.9	2271.4	2202.5
35°	1908.1	2063.0	2181.1	2250.8	2227.1	2345.7	2359.3	2326.1	2190.2	2216.2	2164.2
35.5°	1851.1	2006.1	2140.1	2197.5	2166.5	2290.0	2320.1	2272.3	2127.8	2159.7	2122.8
36°	1792.7	1949.1	2096.3	2142.8	2105.0	2234.4	2279.6	2216.2	2067.1	2102.7	2082.2
36.5°	1736.7	1890.7	2053.0	2087.7	2044.8	2175.2	2238.1	2159.2	2008.8	2044.4	2039.8
37°	1663.7	1834.7	2009.3	2031.1	1986.5	2115.9	2195.2	2102.2	1950.0	1987.4	1997.4
37.5°	1582.2	1779.5	1966.0	1975.1	1930.9	2056.7	2150.6	2045.3	1881.2	1929.0	1954.1
38°	1500.6	1725.3	1921.3	1918.5	1860.2	1998.3	2105.9	1988.7	1809.2	1873.0	1912.2
38.5°	1419.4	1670.1	1877.1	1863.4	1783.6	1941.8	2061.7	1931.8	1727.1	1817.8	1870.2
39°	1337.8	1595.4	1835.1	1811.9	1702.0	1887.1	2017.5	1878.9	1641.0	1763.6	1828.8
39.5°	1256.2	1519.7	1792.3	1758.6	1610.0	1835.6	1971.9	1825.1	1548.0	1701.1	1786.4
40°	1171.9	1444.0	1751.3	1708.9	1518.8	1770.4	1927.7	1770.0	1457.3	1631.4	1745.3
40.5°	1088.0	1368.4	1708.4	1650.1	1428.5	1700.2	1884.4	1711.6	1369.3	1556.2	1704.8
41°	1011.0	1292.7	1667.8	1576.2	1341.9	1624.5	1841.1	1643.2	1284.5	1476.9	1664.7
41.5°	934.0	1212.5	1645.5	1501.9	1259.0	1541.1	1799.1	1570.8	1202.9	1394.8	1625.9
42°	863.3	1135.4	1601.3	1427.6	1175.6	1456.3	1755.8	1493.3	1119.5	1314.1	1586.3
42.5°	794.5	1058.4	1556.6	1353.8	1098.1	1372.9	1715.3	1414.4	1041.1	1238.0	1548.4
43°	727.9	981.4	1512.4	1279.5	1014.2	1293.2	1674.7	1336.5	960.4	1162.8	1510.6
43.5°	659.1	908.0	1467.7	1204.3	937.2	1216.1	1633.2	1259.9	883.4	1091.2	1471.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	475.0	709.3	1350.6	994.6	720.2	989.1	1509.2	1043.8	675.5	874.7	1354.7
45.5°	418.9	644.5	1311.9	924.4	656.4	914.8	1467.3	971.4	612.2	807.3	1316.9
46°	367.4	583.0	1269.5	858.8	590.3	843.7	1426.3	899.8	550.6	739.8	1278.6
46.5°	316.3	522.8	1219.3	790.8	531.5	776.3	1386.2	831.0	492.3	680.5	1234.4
47°	269.4	466.8	1161.4	727.5	478.6	710.6	1348.8	764.0	441.2	617.6	1191.5
47.5°	225.6	412.5	1102.2	664.6	426.2	645.9	1300.9	700.1	390.2	560.2	1141.4
48°	189.2	361.0	1043.4	607.2	373.8	584.4	1253.5	637.7	338.7	501.9	1092.1
48.5°	157.3	312.2	986.9	547.9	320.9	525.1	1199.3	578.0	288.1	451.3	1026.1
49°	135.8	266.7	921.2	492.7	268.9	472.7	1134.1	519.2	245.2	400.2	955.4
49.5°	115.3	224.3	854.7	438.0	227.5	421.2	1066.6	468.6	206.5	349.6	879.7
50°	94.4	186.0	782.2	386.5	190.1	369.2	992.8	417.5	169.6	299.0	805.9
50.5°	73.8	152.2	709.3	335.9	155.9	317.7	919.8	366.9	137.2	256.2	735.7
51°	57.4	131.7	638.1	291.3	125.4	265.7	846.0	316.3	108.5	217.0	667.8
51.5°	41.5	111.2	571.6	248.4	99.8	225.2	774.4	265.7	90.3	181.4	602.1
52°	26.0	90.3	508.7	209.2	83.4	187.8	702.0	224.3	71.6	146.8	537.4
52.5°	16.0	69.7	449.4	173.7	67.0	152.7	635.0	186.0	53.3	116.2	483.6
53°	14.1	53.8	392.5	147.7	50.1	122.6	568.0	151.8	34.6	89.8	429.4
53.5°	13.2	38.7	339.1	122.2	33.7	97.1	505.0	120.3	16.9	74.3	375.6
54°	12.3	23.7	290.4	96.2	17.8	80.2	449.9	93.0	16.0	58.8	321.4
54.5°	11.4	13.2	246.1	70.2	16.9	63.8	394.7	77.0	15.5	43.3	267.6
55°	10.9	12.3	206.0	44.7	16.4	47.4	340.0	61.1	15.0	27.8	226.5
55.5°	10.5	11.4	170.5	26.0	15.5	31.0	284.9	44.7	14.6	12.8	189.2
56°	10.0	10.9	146.3	14.1	15.0	14.6	239.8	28.7	14.1	12.3	155.0
56.5°	10.0	10.0	122.6	13.2	14.6	13.7	198.3	13.2	13.7	11.9	125.4
57°	9.6	9.6	98.5	12.8	14.1	13.2	161.4	12.8	13.2	11.4	99.4
57.5°	9.1	9.6	74.8	12.3	13.7	12.8	128.5	12.3	12.8	11.4	78.4
58°	8.7	9.1	51.1	11.9	13.2	12.3	100.3	12.3	12.3	10.9	66.1
58.5°	8.7	8.7	39.2	11.4	12.8	11.9	77.0	11.9	11.9	10.5	54.2
59°	8.2	8.7	30.1	10.9	12.3	11.9	64.7	11.4	11.4	10.0	41.9
59.5°	8.2	8.2	23.2	10.5	11.9	11.4	52.9	10.9	10.9	10.0	30.1
60°	7.7	8.2	17.8	10.5	11.4	10.9	41.5	10.5	10.5	9.6	18.2
60.5°	7.3	7.7	15.0	10.0	10.9	10.5	29.6	10.5	10.5	9.1	13.7
61°	7.3	7.7	12.8	9.6	10.9	10.0	17.8	10.0	10.0	9.1	10.0
61.5°	6.8	7.3	10.5	9.6	10.5	10.0	13.2	9.6	9.6	8.7	8.2
62°	6.8	7.3	7.7	9.1	10.0	9.6	10.5	9.6	9.1	8.2	7.3
62.5°	6.4	6.8	7.7	8.7	9.6	9.1	8.7	9.1	9.1	8.2	7.3
63°	6.4	6.8	7.3	8.7	9.6	9.1	8.2	8.7	8.7	7.7	6.8
63.5°	5.9	6.4	7.3	8.2	9.1	8.7	8.2	8.7	8.2	7.7	6.8
64°	5.9	6.4	6.8	8.2	8.7	8.7	7.7	8.2	8.2	7.3	6.4
64.5°	5.5	5.9	6.8	7.7	8.7	8.2	7.7	7.7	7.7	7.3	6.4
65°	5.5	5.9	6.4	7.3	8.2	7.7	7.3	7.7	7.3	6.8	5.9
65.5°	5.0	5.9	6.4	7.3	7.7	7.7	7.3	7.3	7.3	6.8	5.9
66°	5.0	5.5	5.9	6.8	7.7	7.3	6.8	7.3	6.8	6.4	5.5



TEST NUMBER: P776795

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	4.6	5.0	5.5	6.4	6.8	6.8	6.4	6.4	5.9	5.9	5.0
68°	4.1	4.6	5.5	5.9	6.4	6.4	5.9	5.9	5.9	5.5	5.0
68.5°	4.1	4.6	5.0	5.9	6.4	6.4	5.9	5.9	5.5	5.5	4.6
69°	4.1	4.1	5.0	5.5	5.9	5.9	5.5	5.5	5.5	5.0	4.6
69.5°	3.6	4.1	4.6	5.5	5.9	5.9	5.5	5.5	5.0	5.0	4.6
70°	3.6	4.1	4.6	5.0	5.5	5.5	5.0	5.0	5.0	4.6	4.1
70.5°	3.6	3.6	4.1	5.0	5.5	5.5	5.0	5.0	5.0	4.6	4.1
71°	3.2	3.6	4.1	4.6	5.5	5.0	4.6	4.6	4.6	4.6	3.6
71.5°	3.2	3.6	4.1	4.6	5.0	5.0	4.6	4.6	4.6	4.1	3.6
72°	3.2	3.2	3.6	4.6	5.0	4.6	4.1	4.6	4.1	4.1	3.6
72.5°	3.2	3.2	3.6	4.1	4.6	4.6	4.1	4.1	4.1	3.6	3.2
73°	2.7	3.2	3.2	4.1	4.6	4.6	3.6	4.1	4.1	3.6	3.2
73.5°	2.7	3.2	3.2	3.6	4.1	4.1	3.6	3.6	3.6	3.6	2.7
74°	2.7	2.7	3.2	3.6	4.1	4.1	3.6	3.6	3.6	3.2	2.7
74.5°	2.7	2.7	2.7	3.6	4.1	4.1	3.2	3.6	3.6	3.2	2.7
75°	2.3	2.7	2.7	3.2	3.6	3.6	3.2	3.2	3.2	3.2	2.3
75.5°	2.3	2.3	2.7	3.2	3.6	3.6	2.7	3.2	3.2	2.7	2.3
76°	2.3	2.3	2.3	3.2	3.6	3.2	2.7	3.2	3.2	2.7	2.3
76.5°	2.3	2.3	2.3	2.7	3.2	3.2	2.7	2.7	2.7	2.7	2.3
77°	1.8	2.3	2.3	2.7	3.2	3.2	2.3	2.7	2.7	2.3	1.8
77.5°	1.8	1.8	1.8	2.7	3.2	2.7	2.3	2.7	2.7	2.3	1.8
78°	1.8	1.8	1.8	2.3	2.7	2.7	2.3	2.3	2.3	2.3	1.8
78.5°	1.8	1.8	1.8	2.3	2.7	2.7	1.8	2.3	2.3	2.3	1.8
79°	1.8	1.8	1.8	2.3	2.7	2.3	1.8	2.3	2.3	1.8	1.4
79.5°	1.4	1.4	1.4	2.3	2.3	2.3	1.8	1.8	2.3	1.8	1.4
80°	1.4	1.4	1.4	1.8	2.3	2.3	1.8	1.8	1.8	1.8	1.4
80.5°	1.4	1.4	1.4	1.8	2.3	1.8	1.4	1.8	1.8	1.4	1.4
81°	1.4	1.4	1.4	1.8	1.8	1.8	1.4	1.4	1.8	1.4	0.9
81.5°	0.9	1.4	0.9	1.4	1.8	1.8	1.4	1.4	1.8	1.4	0.9
82°	0.9	0.9	0.9	1.4	1.8	1.8	1.4	1.4	1.4	1.4	0.9
82.5°	0.9	0.9	0.9	1.4	1.8	1.4	0.9	1.4	1.4	0.9	0.9
83°	0.9	0.9	0.9	0.9	1.4	1.4	0.9	0.9	1.4	0.9	0.9
83.5°	0.9	0.9	0.9	0.9	1.4	1.4	0.9	0.9	1.4	0.9	0.5
84°	0.5	0.5	0.5	0.9	1.4	0.9	0.9	0.9	0.9	0.9	0.5
84.5°	0.5	0.5	0.5	0.9	1.4	0.9	0.9	0.9	0.9	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.9	0.9	0.5	0.5	0.9	0.5	0.5
85.5°	0.5	0.5	0.5	0.5	0.9	0.9	0.5	0.5	0.9	0.5	0.5
86°	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5
86.5°	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.5	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.5	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: P776795
CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

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: P776795

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4184.4	4184.4	4184.4	4184.4	4184.4	4184.4
0.5°	4180.8	4178.1	4179.0	4179.9	4182.2	4184.0
1°	4175.8	4172.1	4171.2	4173.5	4177.1	4179.9
1.5°	4168.5	4163.0	4162.6	4164.8	4169.8	4173.5
2°	4159.8	4153.0	4151.2	4154.4	4160.3	4166.2
2.5°	4149.8	4140.7	4138.9	4142.5	4149.8	4157.5
3°	4137.5	4127.5	4126.1	4129.3	4137.9	4146.6
3.5°	4124.3	4114.2	4110.6	4115.2	4123.8	4134.8
4°	4111.0	4101.0	4097.4	4098.3	4108.8	4120.2
4.5°	4098.3	4087.8	4082.3	4081.4	4092.4	4107.4
5°	4084.6	4073.2	4066.8	4065.0	4076.4	4093.3
5.5°	4070.0	4057.3	4050.0	4046.8	4059.5	4079.1
6°	4054.1	4042.2	4033.1	4028.1	4041.3	4064.6
6.5°	4038.1	4024.4	4015.8	4009.9	4024.0	4051.8
7°	4021.7	4006.7	3995.7	3990.7	4007.6	4037.7
7.5°	4003.0	3985.7	3975.2	3970.7	3989.3	4020.8
8°	3983.0	3964.7	3953.8	3951.5	3970.7	4003.9
8.5°	3961.1	3941.9	3930.1	3929.6	3951.1	3986.2
9°	3938.7	3918.2	3906.4	3908.7	3930.5	3965.2
9.5°	3915.0	3894.5	3880.9	3887.2	3909.1	3943.8
10°	3890.9	3869.5	3856.2	3864.9	3886.3	3921.4
10.5°	3866.7	3843.9	3829.4	3842.1	3862.6	3898.2
11°	3841.2	3818.9	3802.5	3818.4	3838.5	3874.9
11.5°	3815.7	3794.3	3775.6	3793.8	3814.3	3852.6
12°	3790.6	3768.7	3750.5	3768.3	3789.2	3829.4
12.5°	3766.4	3741.4	3724.1	3742.3	3765.1	3805.6
13°	3741.8	3714.0	3698.5	3715.9	3740.5	3781.0
13.5°	3714.9	3686.2	3669.4	3688.5	3716.3	3754.1
14°	3689.4	3658.0	3640.6	3659.8	3691.2	3727.2
14.5°	3661.6	3630.2	3611.5	3632.0	3664.8	3699.4
15°	3634.7	3601.9	3583.7	3604.2	3637.0	3672.1
15.5°	3606.5	3572.7	3554.0	3575.9	3608.3	3643.4
16°	3579.1	3542.6	3524.9	3547.2	3579.6	3614.2
16.5°	3550.8	3513.5	3494.8	3517.6	3550.4	3583.7
17°	3522.1	3482.5	3465.1	3488.9	3520.3	3552.2
17.5°	3492.5	3450.6	3434.6	3457.9	3489.8	3520.3
18°	3462.9	3417.7	3402.7	3426.9	3457.9	3487.0
18.5°	3431.0	3385.8	3371.3	3395.4	3425.0	3452.8
19°	3399.1	3352.1	3338.0	3361.7	3391.8	3418.7
19.5°	3367.1	3317.9	3304.7	3328.9	3357.1	3384.0
20°	3335.2	3283.3	3270.1	3294.7	3320.7	3348.5
20.5°	3302.9	3246.8	3236.3	3259.6	3284.6	3312.4
21°	3268.2	3209.9	3201.7	3223.6	3247.7	3274.2

TEST NUMBER: P776795

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3157.5	3092.7	3090.5	3113.3	3133.3	3156.6
23°	3119.6	3052.2	3052.2	3073.6	3093.2	3114.2
23.5°	3079.1	3015.7	3011.2	3035.3	3053.1	3073.1
24°	3038.5	2978.8	2970.6	2993.4	3012.1	3033.0
24.5°	2996.1	2941.9	2932.8	2952.4	2968.8	2994.7
25°	2956.5	2904.9	2895.4	2909.5	2924.5	2956.9
25.5°	2917.7	2867.6	2860.7	2868.0	2883.5	2916.3
26°	2881.7	2828.8	2823.8	2822.9	2843.0	2874.4
26.5°	2846.6	2788.3	2787.3	2778.2	2805.1	2831.6
27°	2811.5	2745.9	2750.9	2732.2	2766.4	2786.4
27.5°	2774.6	2701.2	2712.1	2684.8	2725.8	2740.4
28°	2736.7	2654.7	2672.9	2636.5	2684.8	2691.6
28.5°	2696.6	2608.2	2631.5	2589.1	2642.4	2643.3
29°	2655.6	2560.8	2588.6	2540.3	2598.2	2592.3
29.5°	2612.3	2510.7	2544.8	2492.4	2552.1	2541.2
30°	2569.0	2461.0	2498.8	2444.1	2505.2	2488.3
30.5°	2523.4	2409.0	2451.9	2398.5	2457.3	2434.5
31°	2478.3	2355.7	2403.1	2352.9	2408.1	2376.2
31.5°	2430.0	2301.4	2354.3	2308.7	2358.0	2324.2
32°	2383.5	2247.2	2304.6	2264.1	2306.9	2266.3
32.5°	2334.7	2189.8	2254.9	2222.6	2255.4	2209.8
33°	2285.0	2132.8	2202.5	2181.1	2203.9	2149.2
33.5°	2235.3	2074.0	2148.3	2141.4	2151.9	2092.7
34°	2184.7	2013.8	2095.0	2101.8	2100.0	2030.7
34.5°	2131.4	1953.6	2037.5	2060.3	2045.3	1970.5
35°	2079.5	1893.9	1981.0	2018.4	1991.5	1908.1
35.5°	2026.6	1837.4	1924.0	1976.4	1937.7	1851.1
36°	1973.2	1782.7	1867.0	1932.2	1883.0	1792.7
36.5°	1918.1	1726.6	1809.2	1888.9	1828.8	1736.7
37°	1863.4	1655.5	1754.0	1846.5	1773.6	1663.7
37.5°	1809.2	1572.1	1699.3	1803.7	1718.9	1582.2
38°	1755.8	1488.7	1651.4	1760.8	1664.7	1500.6
38.5°	1705.7	1405.8	1577.1	1717.5	1606.3	1419.4
39°	1659.2	1322.3	1502.4	1677.0	1548.0	1337.8
39.5°	1608.6	1238.9	1427.6	1630.0	1489.2	1256.2
40°	1544.3	1155.5	1353.3	1592.6	1430.8	1171.9
40.5°	1470.5	1073.0	1279.0	1554.8	1372.0	1088.0
41°	1395.7	994.1	1204.3	1517.0	1302.3	1011.0
41.5°	1321.4	917.6	1127.7	1479.1	1233.0	934.0
42°	1249.4	847.4	1051.1	1440.8	1164.6	863.3
42.5°	1176.5	780.4	975.5	1402.1	1093.1	794.5
43°	1102.6	712.9	903.4	1364.3	1022.0	727.9
43.5°	1027.4	645.9	835.1	1325.5	951.8	659.1



TEST NUMBER: P776795

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	820.0	464.5	645.4	1215.7	758.9	475.0
45.5°	756.2	410.7	584.4	1172.4	698.8	418.9
46°	692.8	358.7	527.4	1125.0	639.5	367.4
46.5°	631.3	309.0	471.3	1065.3	578.4	316.3
47°	571.6	262.1	418.9	1007.8	522.8	269.4
47.5°	513.3	220.6	366.5	952.7	467.2	225.6
48°	462.7	184.6	317.7	895.2	415.3	189.2
48.5°	412.1	154.1	272.1	833.7	363.7	157.3
49°	361.9	132.6	230.2	762.6	317.3	135.8
49.5°	311.3	111.7	192.8	691.9	270.3	115.3
50°	260.7	91.2	159.5	627.7	228.4	94.4
50.5°	219.2	70.7	138.6	565.2	190.1	73.8
51°	182.3	54.2	118.1	507.8	157.7	57.4
51.5°	150.4	38.3	97.1	452.2	137.2	41.5
52°	124.0	23.2	76.6	399.8	116.7	26.0
52.5°	101.6	13.7	55.6	350.5	96.2	16.0
53°	83.0	12.8	39.7	304.5	75.7	14.1
53.5°	68.8	12.3	24.6	260.7	55.6	13.2
54°	54.7	11.4	13.7	222.4	39.7	12.3
54.5°	40.1	10.9	12.8	187.3	25.1	11.4
55°	26.0	10.5	11.4	155.4	14.1	10.9
55.5°	11.9	10.0	10.5	132.2	12.8	10.5
56°	9.6	9.6	9.6	108.9	11.4	10.0
56.5°	9.6	9.6	9.1	85.7	10.0	10.0
57°	9.1	9.1	8.7	62.4	9.1	9.6
57.5°	8.7	8.7	8.7	47.4	8.7	9.1
58°	8.7	8.7	8.2	36.0	8.2	8.7
58.5°	8.2	8.2	8.2	26.4	8.2	8.7
59°	8.2	7.7	7.7	19.6	7.7	8.2
59.5°	7.7	7.7	7.7	17.3	7.7	8.2
60°	7.7	7.3	7.3	14.6	7.3	7.7
60.5°	7.3	7.3	7.3	11.9	7.3	7.3
61°	7.3	6.8	6.8	9.1	6.8	7.3
61.5°	6.8	6.8	6.8	6.8	6.8	6.8
62°	6.8	6.4	6.4	6.4	6.4	6.8
62.5°	6.4	6.4	6.4	6.4	6.4	6.4
63°	6.4	5.9	5.9	5.9	6.4	6.4
63.5°	5.9	5.5	5.9	5.9	5.9	5.9
64°	5.9	5.5	5.5	5.9	5.9	5.9
64.5°	5.5	5.0	5.5	5.5	5.5	5.5
65°	5.5	5.0	5.5	5.5	5.5	5.5
65.5°	5.5	5.0	5.0	5.0	5.5	5.0
66°	5.0	4.6	5.0	5.0	5.0	5.0



TEST NUMBER: P776795
 CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	4.6	4.1	4.6	4.6	4.6	4.6
68°	4.1	4.1	4.1	4.6	4.6	4.1
68.5°	4.1	3.6	4.1	4.1	4.1	4.1
69°	4.1	3.6	4.1	4.1	4.1	4.1
69.5°	3.6	3.6	3.6	4.1	4.1	3.6
70°	3.6	3.2	3.6	3.6	3.6	3.6
70.5°	3.6	3.2	3.6	3.6	3.6	3.6
71°	3.2	3.2	3.2	3.2	3.6	3.2
71.5°	3.2	3.2	3.2	3.2	3.2	3.2
72°	3.2	2.7	3.2	3.2	3.2	3.2
72.5°	3.2	2.7	2.7	2.7	3.2	3.2
73°	2.7	2.7	2.7	2.7	3.2	2.7
73.5°	2.7	2.7	2.7	2.7	2.7	2.7
74°	2.7	2.3	2.7	2.3	2.7	2.7
74.5°	2.3	2.3	2.3	2.3	2.7	2.7
75°	2.3	2.3	2.3	2.3	2.3	2.3
75.5°	2.3	2.3	2.3	2.3	2.3	2.3
76°	2.3	1.8	2.3	1.8	2.3	2.3
76.5°	2.3	1.8	1.8	1.8	2.3	2.3
77°	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	1.8	1.8	1.8	1.8	1.8	1.8
78°	1.8	1.8	1.8	1.4	1.8	1.8
78.5°	1.8	1.8	1.8	1.4	1.8	1.8
79°	1.4	1.4	1.4	1.4	1.8	1.8
79.5°	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4
80.5°	1.4	1.4	1.4	0.9	1.4	1.4
81°	1.4	1.4	1.4	0.9	1.4	1.4
81.5°	0.9	0.9	0.9	0.9	0.9	0.9
82°	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9
83°	0.9	0.9	0.9	0.5	0.9	0.9
83.5°	0.9	0.9	0.9	0.5	0.5	0.9
84°	0.5	0.9	0.5	0.5	0.5	0.5
84.5°	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.5	0.5
85.5°	0.5	0.5	0.5	0.5	0.5	0.5
86°	0.5	0.5	0.5	0.5	0.5	0.5
86.5°	0.5	0.5	0.5	0.0	0.0	0.5
87°	0.0	0.5	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: P776795
CATALOG NUMBER: HCDJBL54050CSD-HCD8TRC-5000lm-2700K

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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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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°	3236.3	3273.7	3329.3	3367.6	3424.1	3439.2	3466.1	3433.2	3401.3	3360.3	3302.0
22°	3197.6	3237.2	3293.8	3332.1	3392.7	3407.7	3432.3	3401.3	3369.9	3327.0	3266.0



44°	594.4	840.5	1428.1	1134.1	858.8	1140.5	1592.2	1186.0	809.1	1016.9	1433.1
44.5°	532.4	774.0	1388.0	1063.4	790.4	1066.2	1550.2	1115.4	740.3	946.3	1393.9



66.5°	4.6	5.5	5.9	6.8	7.3	7.3	6.4	6.8	6.4	6.4	5.5
67°	4.6	5.0	5.9	6.4	6.8	6.8	6.4	6.4	6.4	5.9	5.5



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°	3232.7	3172.5	3164.3	3188.5	3210.8	3236.3
22°	3195.3	3132.4	3126.9	3151.1	3172.5	3197.6



44°	954.5	583.5	771.7	1287.2	883.4	594.4
44.5°	886.1	521.5	707.9	1248.9	820.0	532.4

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66.5°	5.0	4.6	4.6	5.0	5.0	4.6
67°	4.6	4.1	4.6	4.6	4.6	4.6

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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)