

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: P776821

Luminaire Tested: HCDJBS4050CSD-HCD8TSQC-5000lm-3000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776821  
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-HCD8TSQC-5000lm-3000K  
Description: 8 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

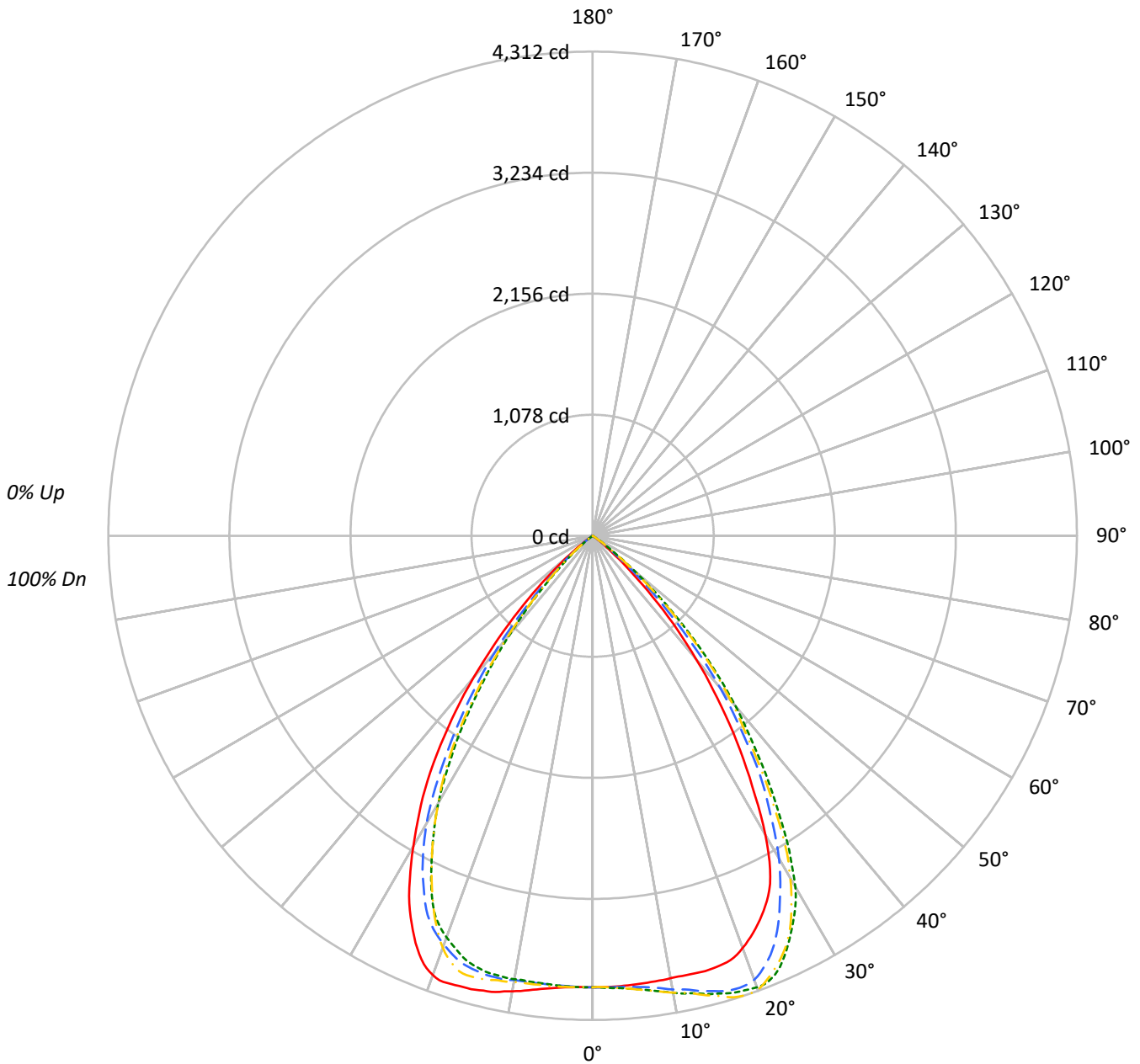
Lumens per Lamp: N/A  
Luminaire Lumens: 5404.5 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.07  
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')  
CIE Type: Direct

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				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	100	100	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85	85	85	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	82	80	78	78	78	78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	74	72	72	72	72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66	66	66	66
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	62	61	61	61	61
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	66	61	58	56	56	56	56
8	76	65	59	54	74	65	59	54	64	58	54	62	57	54	61	57	53	52	52	52	52
9	71	61	55	50	70	61	54	50	60	54	50	59	54	50	58	53	50	48	48	48	48
10	68	57	51	47	67	57	51	47	56	50	47	55	50	46	54	50	46	45	45	45	45

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

	0°	90°	180°	270°
0°	96408	96408	96408	96408
5°	96653	97491	97322	96663
10°	97408	100619	100303	97644
15°	99369	104845	103763	98736
20°	99714	109196	106198	97060
25°	96273	107922	100855	89992
30°	85279	100003	88441	76084
35°	65453	81593	72332	56914
40°	44984	62008	51513	35840
45°	23659	40276	29485	16789
50°	7935	18193	11333	5439
55°	564	3942	1242	138
60°	91	110	91	67
65°	51	51	51	28
70°	35	35	35	35
75°	46	46	46	0
80°	0	0	0	0
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 112.5°  
 Vertical Angle: 45°  
 Luminance: 40700 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	386.0	7.1
10°-20°	1160.8	21.5
20°-30°	1692.7	31.3
30°-40°	1458.5	27.0
40°-50°	641.3	11.9
50°-60°	63.9	1.2
60°-70°	1.0	0.0
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°	3239.5	59.9
0°-40°	4698.1	86.9
0°-60°	5403.2	100.0
0°-90°	5404.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5404.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	4021	4021	4021	4021	4021	
5°	4016	4050	4043	4016	4016	383
15°	4003	4224	4180	3977	4003	1129
25°	3639	4079	3812	3401	3639	1652
35°	2236	2787	2471	1944	2236	1387
45°	698	1188	870	495	698	557
55°	14	94	30	3	14	45
65°	1	1	1	0	1	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	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°	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6
0.5°	4021.5	4023.4	4024.3	4021.0	4022.4	4020.1	4018.2	4019.2	4020.6	4022.0	4022.0
1°	4021.5	4023.8	4024.7	4023.4	4023.8	4021.5	4018.7	4019.6	4021.0	4022.0	4022.0
1.5°	4021.5	4023.4	4024.3	4024.7	4026.6	4023.8	4020.1	4021.0	4021.0	4021.5	4021.0
2°	4020.6	4022.0	4023.8	4026.1	4029.4	4027.1	4023.8	4023.4	4022.4	4021.5	4020.6
2.5°	4020.6	4022.0	4024.3	4026.1	4031.7	4031.7	4027.1	4026.1	4025.2	4022.0	4019.2
3°	4019.2	4021.5	4024.7	4027.5	4033.6	4033.1	4031.7	4031.2	4027.1	4022.4	4018.2
3.5°	4018.2	4020.6	4026.1	4030.3	4035.9	4036.4	4035.4	4035.0	4029.9	4023.8	4017.3
4°	4016.8	4019.2	4027.5	4033.6	4040.1	4041.0	4040.1	4040.5	4034.0	4024.7	4016.4
4.5°	4016.4	4019.2	4029.9	4037.7	4044.7	4046.6	4045.6	4045.2	4038.7	4026.6	4014.5
5°	4015.5	4019.2	4032.6	4043.3	4050.3	4051.7	4052.1	4052.1	4043.3	4028.5	4014.5
5.5°	4014.5	4021.0	4036.4	4049.8	4055.9	4057.7	4058.2	4060.0	4049.4	4030.8	4014.1
6°	4013.1	4022.0	4040.5	4055.9	4062.4	4064.2	4065.6	4067.5	4055.4	4034.0	4014.1
6.5°	4011.3	4023.4	4046.1	4063.3	4069.8	4070.7	4073.5	4075.4	4062.8	4038.7	4014.5
7°	4009.4	4024.7	4052.1	4071.7	4077.7	4077.7	4080.9	4084.2	4070.7	4042.9	4014.5
7.5°	4008.0	4026.6	4059.1	4081.4	4085.6	4085.6	4087.9	4092.1	4078.6	4048.0	4014.5
8°	4007.6	4029.4	4066.1	4091.2	4094.0	4094.0	4097.2	4102.3	4087.4	4052.6	4015.0
8.5°	4006.6	4034.0	4074.0	4101.4	4102.8	4103.7	4106.0	4111.6	4096.3	4057.3	4015.9
9°	4005.7	4039.1	4083.3	4113.0	4113.0	4113.0	4114.4	4121.8	4104.6	4062.4	4016.4
9.5°	4003.4	4043.3	4093.5	4123.7	4121.8	4122.8	4122.8	4131.1	4112.5	4067.0	4016.4
10°	4000.6	4047.5	4101.8	4135.3	4132.5	4133.4	4132.0	4139.0	4119.5	4071.7	4018.7
10.5°	3998.7	4050.8	4109.3	4145.5	4142.7	4143.7	4140.9	4146.4	4126.5	4078.2	4024.3
11°	3998.7	4054.9	4116.2	4153.4	4152.5	4152.9	4148.8	4153.4	4133.9	4087.4	4028.9
11.5°	4000.6	4061.0	4123.7	4160.8	4159.9	4160.8	4156.2	4161.3	4145.0	4095.8	4030.3
12°	4001.5	4068.9	4133.9	4169.2	4165.5	4169.2	4165.5	4172.9	4153.9	4103.7	4028.9
12.5°	4001.5	4076.8	4146.4	4178.5	4172.9	4178.0	4176.6	4184.1	4160.8	4105.1	4026.6
13°	4001.1	4081.4	4159.0	4190.1	4182.7	4188.7	4190.6	4192.9	4164.1	4107.4	4026.1
13.5°	4002.0	4084.2	4170.6	4200.8	4195.2	4200.8	4205.9	4198.0	4166.4	4112.1	4024.7
14°	4003.8	4086.5	4179.0	4208.2	4207.3	4214.3	4218.4	4201.2	4170.6	4116.7	4021.5
14.5°	4004.3	4089.8	4188.2	4212.4	4216.6	4224.5	4228.7	4206.4	4175.7	4120.0	4015.9
15°	4002.9	4092.1	4198.9	4216.1	4223.5	4231.4	4239.8	4214.3	4179.9	4122.3	4009.9
15.5°	3999.2	4092.1	4209.6	4223.5	4231.0	4236.5	4254.7	4220.8	4180.8	4122.8	4002.9
16°	3995.5	4088.4	4219.4	4230.0	4240.3	4244.0	4271.4	4224.9	4181.3	4124.6	3996.9
16.5°	3991.3	4082.8	4225.9	4232.8	4250.0	4252.8	4286.2	4226.3	4182.2	4126.0	3989.9
17°	3986.7	4076.3	4230.0	4232.8	4257.5	4258.8	4297.4	4224.5	4184.1	4127.4	3980.2
17.5°	3981.5	4070.7	4232.4	4231.4	4262.1	4261.6	4304.4	4222.6	4185.9	4125.5	3967.6
18°	3974.1	4064.7	4232.4	4229.6	4265.3	4261.2	4308.1	4221.2	4188.7	4117.2	3950.4
18.5°	3961.6	4058.7	4230.5	4227.3	4268.6	4261.2	4310.4	4218.9	4189.6	4103.7	3931.4
19°	3945.3	4050.8	4227.3	4225.4	4272.3	4263.0	4312.3	4216.1	4185.9	4082.8	3913.3
19.5°	3927.2	4040.5	4221.2	4223.1	4275.6	4266.3	4309.5	4208.7	4176.2	4060.5	3894.2
20°	3907.7	4027.1	4209.1	4219.4	4279.3	4269.5	4302.0	4196.6	4161.8	4035.9	3873.8
20.5°	3886.3	4012.2	4191.0	4212.4	4280.7	4270.5	4287.2	4182.7	4146.0	4009.0	3852.4
21°	3863.1	3996.4	4167.8	4200.8	4277.4	4266.7	4266.7	4166.4	4124.6	3977.4	3830.1



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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°	3787.9	3938.4	4084.7	4152.5	4234.7	4248.6	4199.9	4115.8	4032.2	3871.9	3751.2
23°	3760.0	3911.9	4053.1	4135.3	4212.4	4237.0	4174.3	4094.4	3993.6	3832.0	3719.1
23.5°	3731.2	3881.2	4017.3	4113.5	4185.5	4222.1	4146.9	4070.7	3952.3	3790.2	3683.3
24°	3701.9	3846.4	3978.3	4090.2	4152.9	4201.7	4118.1	4042.9	3906.3	3745.6	3642.0
24.5°	3671.3	3806.4	3934.2	4063.8	4116.2	4177.1	4087.9	4010.8	3860.3	3698.2	3596.5
25°	3638.8	3763.7	3887.7	4031.7	4079.1	4146.0	4054.0	3972.7	3812.0	3646.7	3544.5
25.5°	3603.9	3718.2	3836.6	3995.0	4039.6	4110.2	4017.3	3930.5	3764.2	3595.6	3492.9
26°	3567.2	3669.9	3783.7	3952.3	3998.7	4069.3	3975.5	3883.1	3710.8	3538.0	3440.9
26.5°	3525.4	3619.3	3727.9	3904.9	3955.1	4022.9	3931.4	3830.6	3655.9	3479.9	3388.9
27°	3479.4	3563.0	3670.8	3850.6	3912.3	3971.8	3881.2	3772.5	3599.7	3422.3	3336.8
27.5°	3425.1	3504.1	3614.6	3789.7	3869.1	3919.3	3829.2	3712.6	3533.3	3364.7	3275.1
28°	3366.1	3442.3	3557.9	3722.4	3824.1	3858.0	3771.1	3649.9	3466.9	3307.1	3214.2
28.5°	3301.5	3378.6	3502.7	3651.3	3777.6	3794.8	3709.8	3590.5	3400.5	3245.8	3152.4
29°	3231.9	3315.9	3443.7	3580.2	3728.4	3729.3	3649.0	3522.6	3334.1	3182.6	3087.9
29.5°	3157.1	3250.9	3383.3	3509.2	3673.6	3661.1	3588.6	3454.4	3267.2	3119.0	3022.9
30°	3080.0	3186.8	3319.7	3436.7	3611.8	3587.7	3519.9	3386.1	3194.2	3050.7	2955.5
30.5°	2995.0	3123.6	3250.0	3366.1	3534.3	3514.3	3451.1	3318.3	3122.7	2982.4	2885.4
31°	2908.6	3061.9	3175.7	3295.0	3456.7	3440.9	3382.8	3240.2	3054.0	2910.9	2806.9
31.5°	2819.9	2996.4	3100.0	3224.9	3379.1	3367.5	3314.1	3161.3	2982.9	2838.9	2724.2
32°	2734.9	2923.5	3024.7	3156.6	3301.5	3293.6	3228.2	3080.0	2913.2	2766.5	2640.1
32.5°	2648.0	2846.4	2951.3	3085.6	3217.5	3223.5	3139.9	3000.6	2845.0	2694.9	2557.9
33°	2564.9	2765.1	2881.2	3011.7	3128.8	3147.8	3048.9	2922.1	2776.2	2621.5	2472.0
33.5°	2481.7	2678.7	2812.0	2936.9	3041.4	3072.1	2959.2	2839.4	2702.8	2545.4	2389.8
34°	2400.4	2588.6	2744.2	2861.2	2954.6	2986.6	2874.7	2756.2	2629.0	2465.9	2305.7
34.5°	2318.7	2503.1	2671.7	2781.8	2870.0	2896.1	2789.7	2674.5	2552.3	2380.9	2225.3
35°	2236.0	2418.1	2594.6	2701.4	2787.4	2800.8	2705.1	2596.5	2471.0	2295.5	2142.2
35.5°	2157.5	2335.4	2513.3	2621.5	2704.7	2707.0	2616.4	2515.6	2386.0	2210.0	2063.2
36°	2071.6	2254.6	2426.5	2540.3	2621.1	2610.9	2529.6	2437.1	2302.0	2125.9	1981.0
36.5°	1985.7	2172.4	2335.0	2457.6	2535.1	2517.5	2439.5	2355.9	2219.8	2047.4	1900.2
37°	1903.0	2088.3	2248.1	2373.0	2451.1	2425.5	2354.0	2276.9	2139.9	1969.9	1818.5
37.5°	1822.2	2008.0	2165.4	2294.1	2368.4	2341.9	2272.7	2199.8	2062.8	1891.4	1738.1
38°	1744.6	1928.5	2085.1	2213.3	2287.1	2264.4	2197.5	2125.9	1981.5	1811.9	1660.1
38.5°	1672.6	1847.7	2008.0	2135.2	2208.2	2190.5	2125.5	2046.5	1898.3	1732.5	1583.9
39°	1594.6	1765.5	1928.5	2055.3	2132.9	2119.9	2055.8	1966.6	1814.3	1653.6	1509.6
39.5°	1516.1	1684.7	1847.2	1968.9	2058.1	2049.3	1984.7	1881.2	1728.8	1570.9	1433.9
40°	1437.1	1605.3	1763.2	1875.6	1981.0	1980.6	1912.7	1798.5	1645.7	1487.7	1356.8
40.5°	1358.6	1526.3	1680.5	1785.5	1902.5	1907.2	1838.0	1715.3	1559.7	1402.7	1278.3
41°	1280.1	1446.9	1594.1	1700.9	1820.8	1832.8	1762.2	1636.4	1479.4	1319.1	1199.3
41.5°	1204.9	1367.4	1507.7	1621.0	1739.5	1759.5	1686.1	1557.9	1400.4	1237.8	1120.3
42°	1131.5	1288.5	1420.9	1541.6	1656.3	1683.8	1607.6	1481.7	1321.5	1156.6	1040.9
42.5°	1059.5	1208.1	1334.5	1462.2	1575.1	1607.6	1529.1	1403.7	1243.4	1079.0	963.3
43°	984.2	1127.3	1248.1	1383.2	1496.6	1527.7	1448.3	1326.1	1164.5	1004.2	888.1
43.5°	910.4	1044.6	1168.2	1303.3	1416.7	1446.4	1367.0	1247.6	1086.4	930.8	813.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	697.7	811.9	939.6	1073.0	1187.7	1200.2	1131.0	1022.8	869.5	720.9	609.9
45.5°	630.8	741.8	871.4	999.1	1110.1	1118.9	1052.5	950.8	801.2	656.8	549.9
46°	566.7	676.3	802.6	926.6	1032.1	1038.6	975.9	879.3	738.1	596.4	494.2
46.5°	505.4	612.7	736.2	853.7	957.8	960.1	901.1	807.7	674.0	538.3	449.2
47°	447.8	552.7	672.1	784.0	884.4	882.1	827.2	738.5	614.0	486.8	404.1
47.5°	394.3	497.0	610.3	715.3	813.3	808.2	753.9	671.2	555.1	442.7	358.6
48°	346.5	445.9	549.9	651.2	743.2	738.1	686.0	607.5	499.8	398.1	313.5
48.5°	305.6	398.1	493.7	590.8	672.6	669.8	619.6	546.2	450.5	353.9	278.7
49°	270.3	353.9	442.2	532.8	605.2	603.8	556.5	494.2	401.8	309.8	247.1
49.5°	239.7	313.5	393.4	475.6	540.7	542.1	503.5	442.2	352.5	272.7	218.8
50°	212.7	276.8	347.9	419.4	487.7	489.6	450.1	390.2	303.8	239.7	192.3
50.5°	187.2	242.5	306.1	366.9	434.8	437.5	397.1	338.1	263.8	208.1	165.8
51°	163.0	210.4	266.6	318.2	382.3	385.1	344.2	286.1	228.1	178.8	141.2
51.5°	141.7	183.0	231.3	274.5	329.3	333.0	290.8	247.1	196.0	151.0	119.4
52°	120.3	156.1	198.3	236.0	277.3	280.5	249.9	210.9	165.8	125.4	97.5
52.5°	98.9	133.8	168.1	200.2	237.8	238.3	212.3	178.8	137.5	102.7	79.0
53°	77.6	111.5	144.0	168.6	201.6	201.6	178.8	149.1	112.4	83.1	60.8
53.5°	56.2	88.7	120.3	144.0	169.5	168.6	148.2	122.2	91.5	64.1	42.3
54°	33.0	66.4	96.6	119.8	139.3	138.0	121.2	99.4	71.1	45.1	24.2
54.5°	16.7	42.7	72.9	95.2	112.4	112.4	98.0	80.8	50.2	26.0	6.5
55°	13.5	22.8	49.2	71.1	94.3	91.5	79.4	61.8	29.7	7.4	4.6
55.5°	10.2	19.0	26.9	46.4	76.6	71.1	60.8	43.2	9.8	5.1	3.7
56°	7.0	14.9	12.1	24.2	58.5	50.6	42.7	24.6	5.6	4.2	3.3
56.5°	4.2	11.1	9.3	10.2	40.9	29.7	24.2	6.0	4.6	3.7	2.8
57°	3.7	7.4	7.4	7.9	22.8	9.3	6.0	4.6	3.7	3.3	2.3
57.5°	3.3	3.7	5.6	6.5	5.1	5.1	4.6	4.2	3.3	2.8	2.3
58°	2.8	3.3	3.3	4.6	4.2	4.2	3.7	3.7	2.8	2.3	1.9
58.5°	2.8	2.8	2.8	3.3	3.3	3.3	3.3	3.3	2.8	2.3	1.9
59°	2.3	2.3	2.8	2.8	2.8	2.8	2.8	2.8	2.3	1.9	1.9
59.5°	2.3	2.3	2.3	2.3	2.8	2.8	2.8	2.3	2.3	1.9	1.4
60°	1.9	1.9	1.9	2.3	2.3	2.3	2.3	2.3	1.9	1.9	1.4
60.5°	1.9	1.9	1.9	1.9	1.9	2.3	2.3	2.3	1.9	1.4	1.4
61°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4
61.5°	1.4	1.9	1.4	1.4	1.9	1.9	1.9	1.9	1.4	1.4	1.4
62°	1.4	1.4	1.4	1.4	1.4	1.9	1.9	1.9	1.4	1.4	0.9
62.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9
63°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9
63.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9
64°	0.9	1.4	0.9	0.9	1.4	1.4	1.4	1.4	0.9	0.9	0.9
64.5°	0.9	0.9	0.9	0.9	0.9	1.4	1.4	1.4	0.9	0.9	0.9
65°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
65.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
66°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5





TEST NUMBER: P776821

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5
68°	0.9	0.9	0.5	0.5	0.9	0.9	0.9	0.9	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.9	0.9	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0
74.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0
75.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	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	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: P776821

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P776821

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4020.6	4020.6	4020.6	4020.6	4020.6	4020.6
0.5°	4019.6	4022.4	4019.6	4018.2	4019.2	4021.5
1°	4019.6	4022.0	4020.6	4018.7	4020.6	4021.5
1.5°	4019.2	4022.0	4021.0	4019.6	4020.6	4021.5
2°	4018.2	4021.5	4021.5	4021.0	4021.0	4020.6
2.5°	4016.4	4020.6	4022.4	4022.4	4021.5	4020.6
3°	4015.0	4019.6	4023.4	4024.7	4022.4	4019.2
3.5°	4013.1	4019.2	4024.7	4025.2	4022.4	4018.2
4°	4011.3	4018.7	4025.2	4027.1	4022.4	4016.8
4.5°	4009.0	4016.8	4026.1	4027.5	4022.0	4016.4
5°	4007.1	4015.9	4026.1	4027.5	4021.5	4015.5
5.5°	4005.7	4014.5	4025.2	4027.5	4019.6	4014.5
6°	4003.8	4013.1	4024.7	4026.6	4019.2	4013.1
6.5°	4000.6	4011.7	4024.7	4026.6	4018.2	4011.3
7°	3998.3	4010.8	4025.2	4027.1	4017.3	4009.4
7.5°	3995.0	4009.4	4027.1	4028.9	4016.8	4008.0
8°	3991.8	4009.0	4027.1	4029.9	4017.3	4007.6
8.5°	3988.1	4007.6	4026.6	4029.9	4016.8	4006.6
9°	3983.4	4006.2	4027.1	4029.9	4015.0	4005.7
9.5°	3979.7	4007.6	4030.8	4030.8	4013.6	4003.4
10°	3978.3	4010.3	4035.9	4035.4	4013.6	4000.6
10.5°	3979.2	4012.2	4040.5	4041.0	4015.9	3998.7
11°	3978.3	4011.3	4043.8	4044.7	4019.2	3998.7
11.5°	3975.5	4008.5	4045.2	4047.0	4019.6	4000.6
12°	3971.8	4005.2	4047.5	4048.0	4017.8	4001.5
12.5°	3971.3	4003.8	4053.1	4053.5	4015.9	4001.5
13°	3971.3	4002.9	4060.5	4060.5	4015.0	4001.1
13.5°	3970.4	4000.6	4067.0	4065.6	4015.0	4002.0
14°	3967.6	3995.0	4069.3	4068.9	4012.2	4003.8
14.5°	3962.5	3986.2	4070.7	4069.8	4006.6	4004.3
15°	3957.9	3977.4	4071.2	4070.7	3999.2	4002.9
15.5°	3952.3	3968.5	4071.2	4071.2	3992.7	3999.2
16°	3946.7	3958.8	4068.9	4070.7	3985.3	3995.5
16.5°	3941.1	3946.7	4061.4	4066.5	3977.8	3991.3
17°	3930.5	3930.0	4047.5	4056.3	3967.6	3986.7
17.5°	3915.1	3910.0	4027.1	4040.5	3953.7	3981.5
18°	3896.1	3888.7	4001.5	4019.6	3937.4	3974.1
18.5°	3873.8	3868.7	3973.2	3995.9	3918.8	3961.6
19°	3851.5	3847.8	3941.1	3968.5	3900.3	3945.3
19.5°	3827.8	3826.4	3905.4	3937.9	3882.1	3927.2
20°	3801.8	3803.7	3865.9	3902.1	3863.6	3907.7
20.5°	3775.3	3780.9	3822.7	3863.6	3844.1	3886.3
21°	3746.1	3755.3	3775.3	3819.4	3824.1	3863.1

TEST NUMBER: P776821

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3657.3	3660.6	3623.9	3674.1	3753.5	3787.9
23°	3625.3	3618.3	3568.2	3620.2	3723.8	3760.0
23.5°	3592.3	3570.9	3512.9	3564.4	3690.3	3731.2
24°	3557.9	3518.0	3455.3	3507.8	3649.9	3701.9
24.5°	3524.5	3462.3	3396.3	3449.2	3603.5	3671.3
25°	3481.3	3401.4	3335.0	3390.3	3550.5	3638.8
25.5°	3438.1	3339.2	3277.4	3330.8	3494.3	3603.9
26°	3395.4	3276.5	3219.3	3269.0	3434.4	3567.2
26.5°	3351.7	3212.8	3155.2	3207.7	3372.6	3525.4
27°	3290.9	3147.3	3092.5	3145.0	3308.5	3479.4
27.5°	3224.9	3082.8	3030.3	3080.5	3243.9	3425.1
28°	3149.2	3019.1	2965.7	3014.5	3178.9	3366.1
28.5°	3073.9	2955.5	2898.8	2950.9	3113.9	3301.5
29°	2997.3	2889.1	2830.1	2886.3	3047.5	3231.9
29.5°	2921.1	2822.7	2761.8	2819.4	2976.4	3157.1
30°	2840.8	2747.9	2695.9	2753.0	2904.4	3080.0
30.5°	2758.6	2670.8	2629.4	2683.8	2828.7	2995.0
31°	2675.9	2591.8	2562.6	2617.8	2750.7	2908.6
31.5°	2592.7	2512.9	2495.7	2551.4	2668.5	2819.9
32°	2510.1	2428.3	2426.5	2482.7	2586.2	2734.9
32.5°	2426.9	2348.0	2357.3	2409.3	2502.6	2648.0
33°	2343.8	2269.0	2282.5	2332.6	2419.0	2564.9
33.5°	2264.8	2191.4	2199.8	2253.7	2335.0	2481.7
34°	2184.9	2112.5	2112.9	2171.0	2259.7	2400.4
34.5°	2104.1	2031.6	2023.3	2085.5	2180.3	2318.7
35°	2020.0	1944.3	1940.1	1999.1	2099.9	2236.0
35.5°	1935.5	1858.4	1856.1	1913.7	2015.9	2157.5
36°	1853.8	1773.4	1776.2	1830.5	1932.7	2071.6
36.5°	1773.4	1687.0	1693.0	1749.2	1842.6	1985.7
37°	1697.7	1609.9	1611.3	1670.3	1760.4	1903.0
37.5°	1624.3	1532.8	1530.0	1589.0	1680.0	1822.2
38°	1548.1	1455.2	1448.3	1507.7	1603.4	1744.6
38.5°	1468.7	1378.1	1367.0	1426.4	1526.3	1672.6
39°	1386.0	1301.0	1285.2	1345.1	1449.2	1594.6
39.5°	1308.0	1223.0	1207.7	1263.9	1372.1	1516.1
40°	1230.9	1145.0	1130.1	1188.1	1295.0	1437.1
40.5°	1159.3	1073.0	1052.5	1112.4	1216.9	1358.6
41°	1087.4	1002.4	981.9	1037.7	1144.5	1280.1
41.5°	1017.2	931.8	908.1	964.3	1069.7	1204.9
42°	943.8	863.9	842.6	893.7	998.6	1131.5
42.5°	872.3	797.5	777.5	825.4	928.0	1059.5
43°	801.7	731.6	716.7	760.8	860.7	984.2
43.5°	733.9	666.5	658.6	699.5	792.4	910.4



TEST NUMBER: P776821

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	545.3	495.1	502.1	533.2	596.4	697.7
45.5°	494.2	444.5	456.1	484.9	537.9	630.8
46°	443.6	397.1	412.9	438.9	482.1	566.7
46.5°	393.0	353.9	371.1	395.7	428.7	505.4
47°	342.3	314.9	333.5	355.8	380.4	447.8
47.5°	291.7	279.2	297.3	316.8	336.8	394.3
48°	260.1	247.1	263.8	281.5	297.7	346.5
48.5°	232.7	218.8	232.2	248.5	263.4	305.6
49°	208.1	193.2	202.1	217.8	233.2	270.3
49.5°	184.4	168.6	174.2	189.5	205.3	239.7
50°	162.1	145.8	151.0	161.6	180.2	212.7
50.5°	139.3	123.6	127.7	138.9	156.5	187.2
51°	117.5	100.8	104.0	116.1	135.6	163.0
51.5°	97.5	78.5	80.8	93.4	114.3	141.7
52°	79.0	55.7	57.6	71.1	93.4	120.3
52.5°	60.8	32.0	34.4	48.3	72.0	98.9
53°	42.7	15.3	16.7	26.5	47.8	77.6
53.5°	24.2	12.1	13.5	11.6	26.9	56.2
54°	6.5	8.8	9.8	9.8	12.5	33.0
54.5°	4.6	6.0	6.5	7.4	10.2	16.7
55°	3.7	3.3	3.3	5.6	7.9	13.5
55.5°	3.3	2.8	2.8	3.3	6.0	10.2
56°	2.8	2.3	2.8	3.3	3.7	7.0
56.5°	2.3	2.3	2.3	2.8	3.3	4.2
57°	2.3	1.9	2.3	2.3	2.8	3.7
57.5°	1.9	1.9	1.9	2.3	2.8	3.3
58°	1.9	1.9	1.9	2.3	2.3	2.8
58.5°	1.9	1.4	1.9	1.9	2.3	2.8
59°	1.4	1.4	1.4	1.9	2.3	2.3
59.5°	1.4	1.4	1.4	1.9	1.9	2.3
60°	1.4	1.4	1.4	1.4	1.9	1.9
60.5°	1.4	1.4	1.4	1.4	1.9	1.9
61°	1.4	0.9	1.4	1.4	1.4	1.9
61.5°	0.9	0.9	0.9	1.4	1.4	1.4
62°	0.9	0.9	0.9	1.4	1.4	1.4
62.5°	0.9	0.9	0.9	0.9	1.4	1.4
63°	0.9	0.9	0.9	0.9	1.4	1.4
63.5°	0.9	0.9	0.9	0.9	0.9	1.4
64°	0.9	0.9	0.9	0.9	0.9	0.9
64.5°	0.9	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.5	0.9	0.9	0.9	0.9
65.5°	0.5	0.5	0.5	0.9	0.9	0.9
66°	0.5	0.5	0.5	0.9	0.9	0.9



TEST NUMBER: P776821

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.5	0.5	0.5	0.5	0.5	0.9
68°	0.5	0.5	0.5	0.5	0.5	0.9
68.5°	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.0	0.0	0.5	0.5	0.5	0.5
74°	0.0	0.0	0.0	0.5	0.5	0.5
74.5°	0.0	0.0	0.0	0.5	0.5	0.5
75°	0.0	0.0	0.0	0.0	0.5	0.5
75.5°	0.0	0.0	0.0	0.0	0.0	0.5
76°	0.0	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: P776821

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

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

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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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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Scaled Data Report





21.5°	3839.0	3980.2	4141.8	4184.5	4267.7	4261.6	4245.8	4151.5	4099.1	3943.9	3806.0
22°	3814.3	3961.1	4114.4	4168.7	4252.8	4255.6	4223.5	4134.8	4067.5	3909.1	3780.4



44°	837.5	964.3	1089.2	1223.4	1340.5	1365.1	1287.1	1171.0	1012.1	858.4	742.7
44.5°	766.9	885.8	1013.5	1146.3	1264.8	1282.9	1207.7	1094.3	939.6	787.3	674.4



66.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5
67°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5



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°	3717.7	3727.0	3727.9	3772.5	3802.3	3839.0
22°	3687.1	3695.9	3675.9	3724.2	3779.0	3814.3



44°	669.8	605.7	603.4	641.5	723.7	837.5
44.5°	607.1	549.5	551.3	585.7	659.1	766.9

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Scaled Data Report



66.5°	0.5	0.5	0.5	0.9	0.9	0.9
67°	0.5	0.5	0.5	0.5	0.9	0.9

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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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Scaled Data Report



(END OF REPORT)