

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: P776822

Luminaire Tested: HCDJBS4050CSD-HCD8TSQC-5000lm-3500K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776822  
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: HCDJBS4050CSD-HCD8TSQC-5000lm-3500K  
Description: 8 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

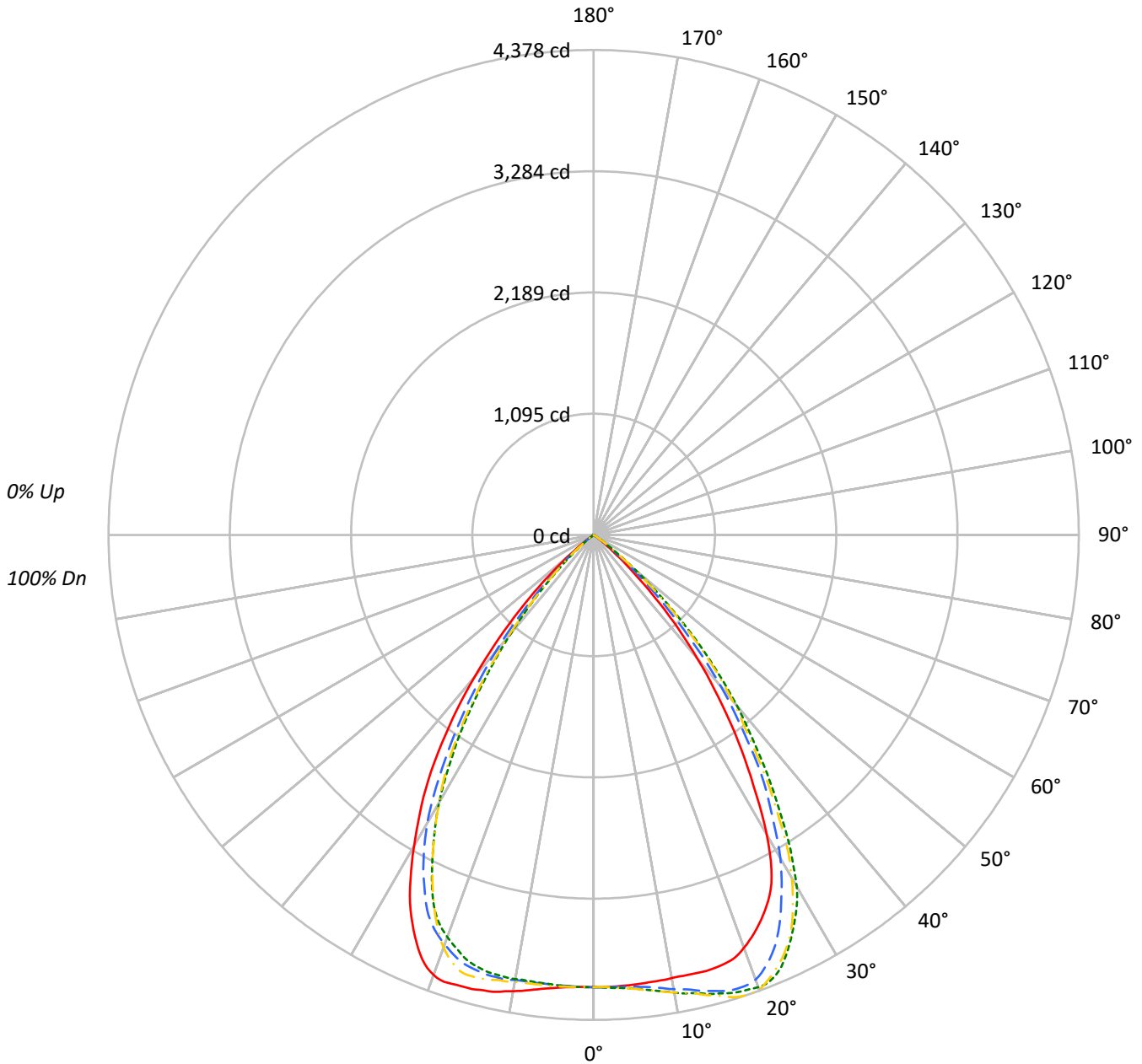
Lumens per Lamp: N/A  
Luminaire Lumens: 5486.9 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.17 / 1.07  
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P776822  
CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

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

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

	0°	90°	180°	270°
0°	97878	97878	97878	97878
5°	98126	98976	98807	98136
10°	98893	102153	101832	99134
15°	100883	106444	105344	100240
20°	101235	110860	107816	98538
25°	97738	109567	102392	91365
30°	86577	101529	89789	77244
35°	66451	82838	73435	57783
40°	45669	62954	52296	36385
45°	24019	40889	29936	17047
50°	8058	18469	11504	5525
55°	573	4001	1263	138
60°	91	115	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: 41320 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	391.9	7.1
10°-20°	1178.5	21.5
20°-30°	1718.5	31.3
30°-40°	1480.8	27.0
40°-50°	651.1	11.9
50°-60°	64.9	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°	3288.9	59.9
0°-40°	4769.7	86.9
0°-60°	5485.6	100.0
0°-90°	5486.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5486.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	4082	4082	4082	4082	4082	
5°	4077	4112	4105	4077	4077	389
15°	4064	4288	4244	4038	4064	1146
25°	3694	4141	3870	3453	3694	1677
35°	2270	2830	2509	1974	2270	1408
45°	708	1206	883	503	708	566
55°	14	96	30	3	14	46
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	



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CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9
0.5°	4082.8	4084.7	4085.6	4082.3	4083.7	4081.4	4079.5	4080.4	4081.9	4083.3	4083.3
1°	4082.8	4085.2	4086.1	4084.7	4085.2	4082.8	4080.0	4080.9	4082.3	4083.3	4083.3
1.5°	4082.8	4084.7	4085.6	4086.1	4088.0	4085.2	4081.4	4082.3	4082.3	4082.8	4082.3
2°	4081.9	4083.3	4085.2	4087.5	4090.8	4088.5	4085.2	4084.7	4083.7	4082.8	4081.9
2.5°	4081.9	4083.3	4085.6	4087.5	4093.2	4093.2	4088.5	4087.5	4086.6	4083.3	4080.4
3°	4080.4	4082.8	4086.1	4088.9	4095.1	4094.6	4093.2	4092.7	4088.5	4083.7	4079.5
3.5°	4079.5	4081.9	4087.5	4091.8	4097.4	4097.9	4096.9	4096.5	4091.3	4085.2	4078.6
4°	4078.1	4080.4	4088.9	4095.1	4101.7	4102.6	4101.7	4102.1	4095.5	4086.1	4077.6
4.5°	4077.6	4080.4	4091.3	4099.3	4106.4	4108.3	4107.3	4106.8	4100.2	4088.0	4075.7
5°	4076.7	4080.4	4094.1	4105.0	4112.0	4113.4	4113.9	4113.9	4105.0	4089.9	4075.7
5.5°	4075.7	4082.3	4097.9	4111.6	4117.7	4119.6	4120.0	4121.9	4111.1	4092.2	4075.3
6°	4074.3	4083.3	4102.1	4117.7	4124.3	4126.2	4127.6	4129.5	4117.2	4095.5	4075.3
6.5°	4072.4	4084.7	4107.8	4125.2	4131.8	4132.8	4135.6	4137.5	4124.8	4100.2	4075.7
7°	4070.5	4086.1	4113.9	4133.7	4139.9	4139.9	4143.2	4146.5	4132.8	4104.5	4075.7
7.5°	4069.1	4088.0	4121.0	4143.6	4147.9	4147.9	4150.2	4154.5	4140.8	4109.7	4075.7
8°	4068.6	4090.8	4128.1	4153.5	4156.4	4156.4	4159.7	4164.8	4149.8	4114.4	4076.2
8.5°	4067.7	4095.5	4136.1	4163.9	4165.3	4166.3	4168.6	4174.3	4158.7	4119.1	4077.1
9°	4066.8	4100.7	4145.5	4175.7	4175.7	4175.7	4177.1	4184.7	4167.2	4124.3	4077.6
9.5°	4064.4	4105.0	4155.9	4186.5	4184.7	4185.6	4185.6	4194.1	4175.2	4129.0	4077.6
10°	4061.6	4109.2	4164.4	4198.3	4195.5	4196.4	4195.0	4202.1	4182.3	4133.7	4080.0
10.5°	4059.7	4112.5	4171.9	4208.7	4205.9	4206.8	4204.0	4209.6	4189.4	4140.3	4085.6
11°	4059.7	4116.7	4179.0	4216.7	4215.8	4216.2	4212.0	4216.7	4196.9	4149.8	4090.3
11.5°	4061.6	4122.9	4186.5	4224.3	4223.3	4224.3	4219.5	4224.7	4208.2	4158.2	4091.8
12°	4062.5	4130.9	4196.9	4232.8	4229.0	4232.8	4229.0	4236.5	4217.2	4166.3	4090.3
12.5°	4062.5	4138.9	4209.6	4242.2	4236.5	4241.7	4240.3	4247.8	4224.3	4167.7	4088.0
13°	4062.0	4143.6	4222.4	4254.0	4246.4	4252.6	4254.4	4256.8	4227.6	4170.0	4087.5
13.5°	4063.0	4146.5	4234.2	4264.8	4259.2	4264.8	4270.0	4262.0	4229.9	4174.8	4086.1
14°	4064.9	4148.8	4242.7	4272.4	4271.4	4278.5	4282.7	4265.3	4234.2	4179.5	4082.8
14.5°	4065.3	4152.1	4252.1	4276.6	4280.9	4288.9	4293.1	4270.5	4239.4	4182.8	4077.1
15°	4063.9	4154.5	4262.9	4280.4	4287.9	4295.9	4304.4	4278.5	4243.6	4185.1	4071.0
15.5°	4060.2	4154.5	4273.8	4287.9	4295.5	4301.1	4319.5	4285.1	4244.5	4185.6	4063.9
16°	4056.4	4150.7	4283.7	4294.5	4304.9	4308.7	4336.5	4289.3	4245.0	4187.5	4057.8
16.5°	4052.1	4145.0	4290.3	4297.4	4314.8	4317.6	4351.6	4290.8	4246.0	4188.9	4050.7
17°	4047.4	4138.4	4294.5	4297.4	4322.4	4323.8	4362.9	4288.9	4247.8	4190.3	4040.8
17.5°	4042.2	4132.8	4296.9	4295.9	4327.1	4326.6	4370.0	4287.0	4249.7	4188.4	4028.1
18°	4034.7	4126.7	4296.9	4294.1	4330.4	4326.1	4373.8	4285.6	4252.6	4179.9	4010.6
18.5°	4022.0	4120.5	4295.0	4291.7	4333.7	4326.1	4376.1	4283.2	4253.5	4166.3	3991.3
19°	4005.5	4112.5	4291.7	4289.8	4337.4	4328.0	4378.0	4280.4	4249.7	4145.0	3972.9
19.5°	3987.1	4102.1	4285.6	4287.5	4340.7	4331.3	4375.2	4272.8	4239.8	4122.4	3953.6
20°	3967.3	4088.5	4273.3	4283.7	4344.5	4334.6	4367.6	4260.6	4225.2	4097.4	3932.8
20.5°	3945.6	4073.4	4254.9	4276.6	4345.9	4335.6	4352.5	4246.4	4209.2	4070.1	3911.1
21°	3922.0	4057.3	4231.3	4264.8	4342.6	4331.8	4331.8	4229.9	4187.5	4038.0	3888.5



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CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3845.6	3998.4	4146.9	4215.8	4299.2	4313.4	4263.9	4178.5	4093.6	3931.0	3808.3
23°	3817.3	3971.5	4114.9	4198.3	4276.6	4301.6	4237.9	4156.8	4054.5	3890.4	3775.8
23.5°	3788.1	3940.4	4078.6	4176.2	4249.3	4286.5	4210.1	4132.8	4012.5	3848.0	3739.5
24°	3758.4	3905.0	4038.9	4152.6	4216.2	4265.8	4180.9	4104.5	3965.8	3802.7	3697.5
24.5°	3727.2	3864.5	3994.1	4125.7	4179.0	4240.8	4150.2	4072.0	3919.2	3754.6	3651.3
25°	3694.2	3821.1	3947.0	4093.2	4141.3	4209.2	4115.8	4033.3	3870.1	3702.2	3598.5
25.5°	3658.9	3774.9	3895.1	4055.9	4101.2	4172.9	4078.6	3990.4	3821.6	3650.4	3546.2
26°	3621.6	3725.8	3841.4	4012.5	4059.7	4131.4	4036.1	3942.3	3767.3	3591.9	3493.3
26.5°	3579.2	3674.4	3784.8	3964.4	4015.4	4084.2	3991.3	3889.0	3711.7	3533.0	3440.5
27°	3532.5	3617.4	3726.8	3909.3	3972.0	4032.3	3940.4	3830.0	3654.6	3474.5	3387.7
27.5°	3477.3	3557.5	3669.7	3847.5	3928.1	3979.1	3887.6	3769.2	3587.2	3416.0	3325.0
28°	3417.4	3494.8	3612.2	3779.1	3882.4	3916.8	3828.6	3705.5	3519.7	3357.5	3263.2
28.5°	3351.9	3430.2	3556.1	3707.0	3835.2	3852.7	3766.4	3645.2	3452.3	3295.3	3200.5
29°	3281.1	3366.5	3496.2	3634.8	3785.2	3786.2	3704.6	3576.3	3384.9	3231.2	3135.0
29.5°	3205.2	3300.5	3434.9	3562.7	3729.6	3716.9	3643.3	3507.0	3317.0	3166.5	3068.9
30°	3126.9	3235.4	3370.3	3489.1	3666.9	3642.4	3573.5	3437.7	3242.9	3097.2	3000.6
30.5°	3040.6	3171.3	3299.5	3417.4	3588.1	3567.8	3503.7	3368.8	3170.3	3027.9	2929.4
31°	2952.9	3108.5	3224.1	3345.3	3509.4	3493.3	3434.4	3289.6	3100.5	2955.3	2849.7
31.5°	2862.9	3042.1	3147.2	3274.1	3430.6	3418.8	3364.6	3209.5	3028.4	2882.2	2765.7
32°	2776.6	2968.0	3070.8	3204.7	3351.9	3343.9	3277.4	3126.9	2957.6	2808.6	2680.4
32.5°	2688.4	2889.7	2996.3	3132.6	3266.5	3272.7	3187.8	3046.3	2888.3	2736.0	2596.9
33°	2604.0	2807.2	2925.1	3057.6	3176.5	3195.8	3095.3	2966.6	2818.5	2661.5	2509.7
33.5°	2519.6	2719.5	2854.8	2981.7	3087.8	3118.9	3004.3	2882.7	2744.0	2584.2	2426.2
34°	2437.0	2628.0	2786.0	2904.8	2999.6	3032.2	2918.5	2798.3	2669.0	2503.5	2340.8
34.5°	2354.0	2541.3	2712.4	2824.2	2913.8	2940.2	2832.2	2715.3	2591.2	2417.2	2259.3
35°	2270.1	2455.0	2634.2	2742.6	2829.9	2843.5	2746.4	2636.0	2508.7	2330.5	2174.9
35.5°	2190.4	2371.0	2551.6	2661.5	2745.9	2748.3	2656.3	2554.0	2422.4	2243.7	2094.7
36°	2103.2	2289.0	2463.4	2579.0	2661.0	2650.7	2568.1	2474.3	2337.1	2158.3	2011.2
36.5°	2015.9	2205.5	2370.5	2495.0	2573.8	2555.9	2476.7	2391.8	2253.6	2078.7	1929.2
37°	1932.0	2120.1	2282.4	2409.2	2488.4	2462.5	2389.9	2311.6	2172.5	1999.9	1846.2
37.5°	1849.9	2038.6	2198.4	2329.1	2404.5	2377.6	2307.4	2233.3	2094.2	1920.2	1764.6
38°	1771.2	1957.9	2116.8	2247.0	2322.0	2298.9	2231.0	2158.3	2011.7	1839.6	1685.4
38.5°	1698.1	1875.9	2038.6	2167.8	2241.8	2223.9	2157.9	2077.7	1927.3	1758.9	1608.0
39°	1618.9	1792.4	1957.9	2086.7	2165.4	2152.2	2087.1	1996.6	1841.9	1678.8	1532.6
39.5°	1539.2	1710.4	1875.4	1999.0	2089.5	2080.5	2015.0	1909.8	1755.2	1594.8	1455.7
40°	1459.0	1629.7	1790.1	1904.2	2011.2	2010.7	1941.9	1825.9	1670.7	1510.4	1377.4
40.5°	1379.3	1549.6	1706.1	1812.7	1931.5	1936.2	1866.0	1741.5	1583.5	1424.1	1297.7
41°	1299.6	1468.9	1618.4	1726.9	1848.5	1860.8	1789.1	1661.3	1501.9	1339.2	1217.6
41.5°	1223.2	1388.3	1530.7	1645.8	1766.0	1786.3	1711.8	1581.6	1421.8	1256.7	1137.4
42°	1148.7	1308.1	1442.5	1565.1	1681.6	1709.4	1632.1	1504.3	1341.6	1174.2	1056.8
42.5°	1075.6	1226.5	1354.8	1484.5	1599.1	1632.1	1552.4	1425.1	1262.4	1095.4	978.0
43°	999.2	1144.5	1267.1	1404.3	1519.4	1551.0	1470.3	1346.3	1182.2	1019.5	901.6
43.5°	924.3	1060.5	1186.0	1323.2	1438.3	1468.4	1387.8	1266.6	1103.0	945.0	826.2



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CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	708.3	824.3	954.0	1089.3	1205.8	1218.5	1148.3	1038.4	882.8	731.9	619.2
45.5°	640.4	753.1	884.7	1014.3	1127.0	1136.0	1068.6	965.3	813.4	666.8	558.3
46°	575.3	686.6	814.9	940.8	1047.8	1054.4	990.8	892.7	749.3	605.5	501.7
46.5°	513.1	622.0	747.4	866.7	972.4	974.7	914.8	820.0	684.2	546.5	456.0
47°	454.6	561.2	682.4	796.0	897.9	895.5	839.9	749.8	623.4	494.2	410.3
47.5°	400.4	504.6	619.6	726.2	825.7	820.5	765.3	681.4	563.5	449.4	364.0
48°	351.8	452.7	558.3	661.1	754.5	749.3	696.5	616.8	507.4	404.1	318.3
48.5°	310.3	404.1	501.3	599.8	682.8	680.0	629.1	554.6	457.4	359.3	282.9
49°	274.4	359.3	448.9	540.9	614.4	613.0	564.9	501.7	407.9	314.5	250.9
49.5°	243.3	318.3	399.4	482.9	548.9	550.3	511.2	448.9	357.9	276.8	222.1
50°	216.0	281.1	353.2	425.8	495.1	497.0	456.9	396.1	308.4	243.3	195.2
50.5°	190.0	246.2	310.8	372.5	441.4	444.2	403.2	343.3	267.8	211.3	168.3
51°	165.5	213.6	270.7	323.0	388.1	390.9	349.4	290.5	231.5	181.6	143.4
51.5°	143.8	185.8	234.8	278.7	334.3	338.1	295.2	250.9	199.0	153.3	121.2
52°	122.1	158.4	201.4	239.6	281.5	284.8	253.7	214.1	168.3	127.3	99.0
52.5°	100.4	135.8	170.7	203.2	241.4	241.9	215.5	181.6	139.6	104.2	80.2
53°	78.8	113.2	146.2	171.2	204.7	204.7	181.6	151.4	114.1	84.4	61.8
53.5°	57.1	90.1	122.1	146.2	172.1	171.2	150.4	124.0	92.9	65.1	42.9
54°	33.5	67.4	98.1	121.7	141.5	140.1	123.1	100.9	72.1	45.7	24.5
54.5°	17.0	43.4	74.0	96.7	114.1	114.1	99.5	82.1	50.9	26.4	6.6
55°	13.7	23.1	50.0	72.1	95.7	92.9	80.6	62.7	30.2	7.5	4.7
55.5°	10.4	19.3	27.4	47.2	77.8	72.1	61.8	43.9	9.9	5.2	3.8
56°	7.1	15.1	12.3	24.5	59.4	51.4	43.4	25.0	5.7	4.2	3.3
56.5°	4.2	11.3	9.4	10.4	41.5	30.2	24.5	6.1	4.7	3.8	2.8
57°	3.8	7.5	7.5	8.0	23.1	9.4	6.1	4.7	3.8	3.3	2.4
57.5°	3.3	3.8	5.7	6.6	5.2	5.2	4.7	4.2	3.3	2.8	2.4
58°	2.8	3.3	3.3	4.7	4.2	4.2	3.8	3.8	2.8	2.4	1.9
58.5°	2.8	2.8	2.8	3.3	3.3	3.3	3.3	3.3	2.8	2.4	1.9
59°	2.4	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.4	1.9	1.9
59.5°	2.4	2.4	2.4	2.4	2.8	2.8	2.8	2.4	2.4	1.9	1.4
60°	1.9	1.9	1.9	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.4
60.5°	1.9	1.9	1.9	1.9	1.9	2.4	2.4	2.4	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: P776822

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**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: P776822

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**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: P776822

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4081.9	4081.9	4081.9	4081.9	4081.9	4081.9
0.5°	4080.9	4083.7	4080.9	4079.5	4080.4	4082.8
1°	4080.9	4083.3	4081.9	4080.0	4081.9	4082.8
1.5°	4080.4	4083.3	4082.3	4080.9	4081.9	4082.8
2°	4079.5	4082.8	4082.8	4082.3	4082.3	4081.9
2.5°	4077.6	4081.9	4083.7	4083.7	4082.8	4081.9
3°	4076.2	4080.9	4084.7	4086.1	4083.7	4080.4
3.5°	4074.3	4080.4	4086.1	4086.6	4083.7	4079.5
4°	4072.4	4080.0	4086.6	4088.5	4083.7	4078.1
4.5°	4070.1	4078.1	4087.5	4088.9	4083.3	4077.6
5°	4068.2	4077.1	4087.5	4088.9	4082.8	4076.7
5.5°	4066.8	4075.7	4086.6	4088.9	4080.9	4075.7
6°	4064.9	4074.3	4086.1	4088.0	4080.4	4074.3
6.5°	4061.6	4072.9	4086.1	4088.0	4079.5	4072.4
7°	4059.2	4072.0	4086.6	4088.5	4078.6	4070.5
7.5°	4055.9	4070.5	4088.5	4090.3	4078.1	4069.1
8°	4052.6	4070.1	4088.5	4091.3	4078.6	4068.6
8.5°	4048.8	4068.6	4088.0	4091.3	4078.1	4067.7
9°	4044.1	4067.2	4088.5	4091.3	4076.2	4066.8
9.5°	4040.4	4068.6	4092.2	4092.2	4074.8	4064.4
10°	4038.9	4071.5	4097.4	4096.9	4074.8	4061.6
10.5°	4039.9	4073.4	4102.1	4102.6	4077.1	4059.7
11°	4038.9	4072.4	4105.4	4106.4	4080.4	4059.7
11.5°	4036.1	4069.6	4106.8	4108.7	4080.9	4061.6
12°	4032.3	4066.3	4109.2	4109.7	4079.0	4062.5
12.5°	4031.9	4064.9	4114.9	4115.3	4077.1	4062.5
13°	4031.9	4063.9	4122.4	4122.4	4076.2	4062.0
13.5°	4030.9	4061.6	4129.0	4127.6	4076.2	4063.0
14°	4028.1	4055.9	4131.4	4130.9	4073.4	4064.9
14.5°	4022.9	4047.0	4132.8	4131.8	4067.7	4065.3
15°	4018.2	4038.0	4133.3	4132.8	4060.2	4063.9
15.5°	4012.5	4029.0	4133.3	4133.3	4053.6	4060.2
16°	4006.9	4019.1	4130.9	4132.8	4046.0	4056.4
16.5°	4001.2	4006.9	4123.4	4128.5	4038.5	4052.1
17°	3990.4	3989.9	4109.2	4118.2	4028.1	4047.4
17.5°	3974.8	3969.6	4088.5	4102.1	4013.9	4042.2
18°	3955.5	3947.9	4062.5	4080.9	3997.4	4034.7
18.5°	3932.8	3927.7	4033.8	4056.9	3978.6	4022.0
19°	3910.2	3906.4	4001.2	4029.0	3959.7	4005.5
19.5°	3886.2	3884.7	3964.9	3997.9	3941.3	3987.1
20°	3859.7	3861.6	3924.8	3961.6	3922.5	3967.3
20.5°	3832.9	3838.5	3881.0	3922.5	3902.7	3945.6
21°	3803.2	3812.6	3832.9	3877.7	3882.4	3922.0



TEST NUMBER: P776822

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3713.1	3716.4	3679.1	3730.1	3810.7	3845.6
23°	3680.6	3673.5	3622.6	3675.4	3780.5	3817.3
23.5°	3647.1	3625.4	3566.4	3618.8	3746.6	3788.1
24°	3612.2	3571.6	3508.0	3561.2	3705.5	3758.4
24.5°	3578.2	3515.0	3448.1	3501.8	3658.4	3727.2
25°	3534.4	3453.3	3385.8	3441.9	3604.6	3694.2
25.5°	3490.5	3390.1	3327.4	3381.6	3547.6	3658.9
26°	3447.1	3326.4	3268.4	3318.9	3486.7	3621.6
26.5°	3402.8	3261.8	3203.3	3256.6	3424.0	3579.2
27°	3341.0	3195.3	3139.7	3193.0	3358.9	3532.5
27.5°	3274.1	3129.8	3076.5	3127.4	3293.4	3477.3
28°	3197.2	3065.2	3010.9	3060.4	3227.4	3417.4
28.5°	3120.8	3000.6	2943.0	2995.8	3161.4	3351.9
29°	3043.0	2933.1	2873.2	2930.3	3093.9	3281.1
29.5°	2965.7	2865.7	2803.9	2862.4	3021.8	3205.2
30°	2884.1	2789.8	2737.0	2795.0	2948.7	3126.9
30.5°	2800.6	2711.5	2669.5	2724.7	2871.8	3040.6
31°	2716.7	2631.3	2601.6	2657.7	2792.6	2952.9
31.5°	2632.3	2551.2	2533.7	2590.3	2709.1	2862.9
32°	2548.3	2465.3	2463.4	2520.5	2625.7	2776.6
32.5°	2463.9	2383.8	2393.2	2446.0	2540.8	2688.4
33°	2379.5	2303.6	2317.3	2368.2	2455.9	2604.0
33.5°	2299.3	2224.8	2233.3	2288.0	2370.5	2519.6
34°	2218.2	2144.7	2145.1	2204.1	2294.2	2437.0
34.5°	2136.2	2062.6	2054.1	2117.3	2213.5	2354.0
35°	2050.8	1974.0	1969.7	2029.6	2131.9	2270.1
35.5°	1965.0	1886.7	1884.4	1942.8	2046.6	2190.4
36°	1882.0	1800.4	1803.3	1858.4	1962.2	2103.2
36.5°	1800.4	1712.7	1718.8	1775.9	1870.7	2015.9
37°	1723.6	1634.4	1635.9	1695.7	1787.2	1932.0
37.5°	1649.1	1556.2	1553.3	1613.2	1705.6	1849.9
38°	1571.7	1477.4	1470.3	1530.7	1627.8	1771.2
38.5°	1491.1	1399.1	1387.8	1448.2	1549.6	1698.1
39°	1407.1	1320.8	1304.8	1365.6	1471.3	1618.9
39.5°	1327.9	1241.6	1226.1	1283.1	1393.0	1539.2
40°	1249.6	1162.4	1147.3	1206.3	1314.7	1459.0
40.5°	1177.0	1089.3	1068.6	1129.4	1235.5	1379.3
41°	1103.9	1017.6	996.9	1053.5	1161.9	1299.6
41.5°	1032.7	946.0	921.9	979.0	1086.0	1223.2
42°	958.2	877.1	855.4	907.3	1013.9	1148.7
42.5°	885.6	809.7	789.4	838.0	942.2	1075.6
43°	813.9	742.7	727.6	772.4	873.8	999.2
43.5°	745.1	676.7	668.7	710.2	804.5	924.3



TEST NUMBER: P776822

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	553.6	502.7	509.8	541.4	605.5	708.3
45.5°	501.7	451.3	463.1	492.3	546.1	640.4
46°	450.3	403.2	419.2	445.6	489.5	575.3
46.5°	398.9	359.3	376.8	401.8	435.3	513.1
47°	347.5	319.7	338.6	361.2	386.2	454.6
47.5°	296.1	283.4	301.8	321.6	341.9	400.4
48°	264.1	250.9	267.8	285.8	302.3	351.8
48.5°	236.3	222.1	235.8	252.3	267.4	310.3
49°	211.3	196.2	205.1	221.2	236.7	274.4
49.5°	187.2	171.2	176.8	192.4	208.4	243.3
50°	164.6	148.1	153.3	164.1	183.0	216.0
50.5°	141.5	125.4	129.7	141.0	158.9	190.0
51°	119.3	102.3	105.6	117.9	137.7	165.5
51.5°	99.0	79.7	82.1	94.8	116.0	143.8
52°	80.2	56.6	58.5	72.1	94.8	122.1
52.5°	61.8	32.5	34.9	49.0	73.1	100.4
53°	43.4	15.6	17.0	26.9	48.6	78.8
53.5°	24.5	12.3	13.7	11.8	27.4	57.1
54°	6.6	9.0	9.9	9.9	12.7	33.5
54.5°	4.7	6.1	6.6	7.5	10.4	17.0
55°	3.8	3.3	3.3	5.7	8.0	13.7
55.5°	3.3	2.8	2.8	3.3	6.1	10.4
56°	2.8	2.4	2.8	3.3	3.8	7.1
56.5°	2.4	2.4	2.4	2.8	3.3	4.2
57°	2.4	1.9	2.4	2.4	2.8	3.8
57.5°	1.9	1.9	1.9	2.4	2.8	3.3
58°	1.9	1.9	1.9	2.4	2.4	2.8
58.5°	1.9	1.4	1.9	1.9	2.4	2.8
59°	1.4	1.4	1.4	1.9	2.4	2.4
59.5°	1.4	1.4	1.4	1.9	1.9	2.4
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: P776822

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**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: P776822

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

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



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Scaled Data Report





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

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Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	3897.5	4040.8	4204.9	4248.3	4332.7	4326.6	4310.6	4214.8	4161.5	4004.0	3864.0
22°	3872.5	4021.5	4177.1	4232.3	4317.6	4320.5	4287.9	4197.9	4129.5	3968.7	3838.1



44°	850.2	979.0	1105.8	1242.1	1360.9	1385.9	1306.7	1188.8	1027.5	871.4	754.0
44.5°	778.6	899.3	1029.0	1163.8	1284.1	1302.5	1226.1	1111.0	954.0	799.3	684.7



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°	3774.4	3783.8	3784.8	3830.0	3860.2	3897.5
22°	3743.3	3752.2	3732.0	3781.0	3836.6	3872.5



44°	680.0	614.9	612.6	651.2	734.7	850.2
44.5°	616.3	557.9	559.7	594.6	669.1	778.6

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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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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)