

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: P776600

Luminaire Tested: HCDJBL54050CSD-HCD4TRH-5000lm-2700K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776600
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-HCD4TRH-5000lm-2700K
Description: 4 INCH ROUND MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

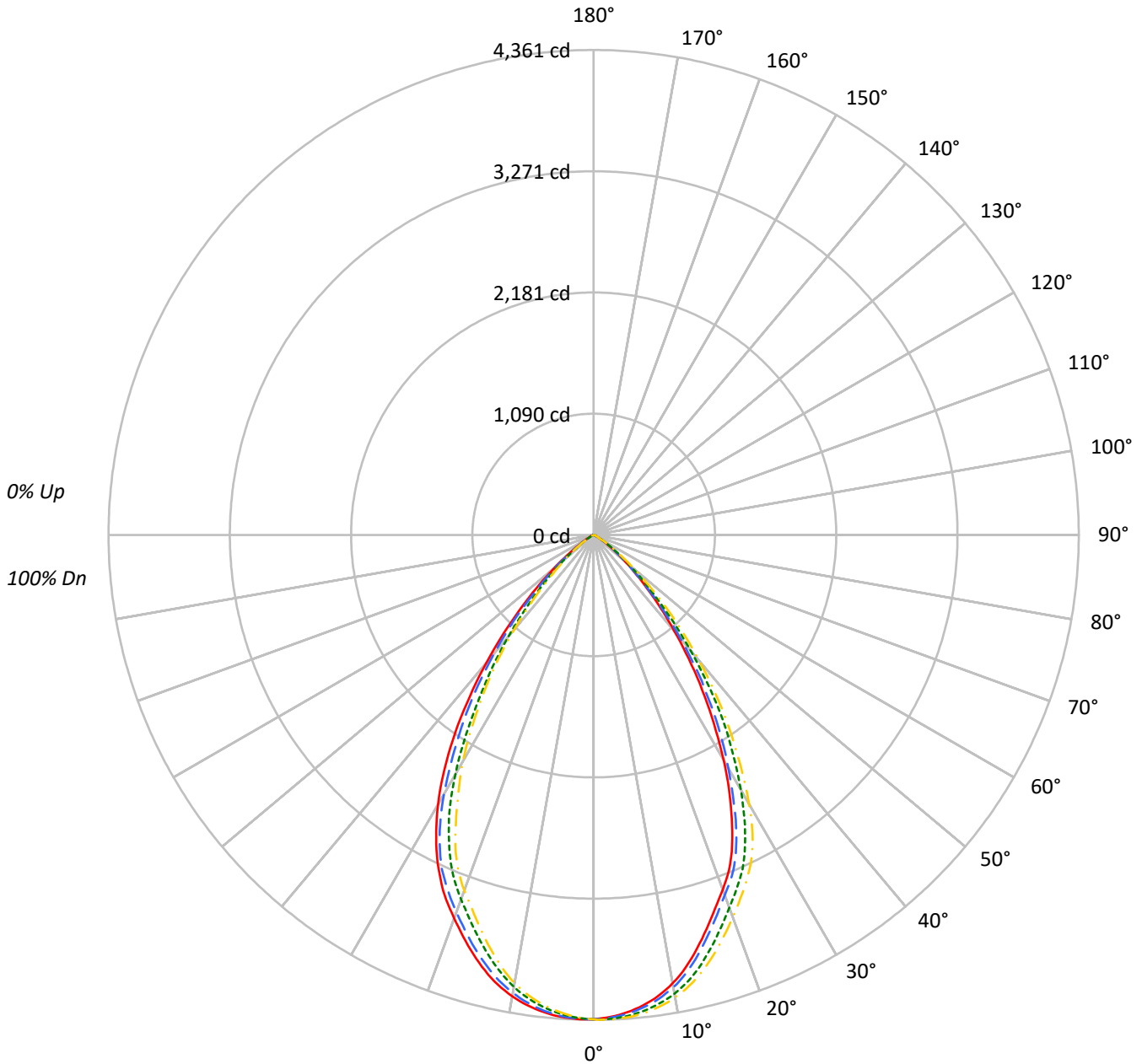
Lumens per Lamp: N/A
Luminaire Lumens: 4908.5 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 0.98
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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									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	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92																			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85																			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78																			
4	95	87	81	76	93	85	80	75	83	78	75	81	77	74	79	76	73	71																			
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65																			
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60																			
7	80	70	63	58	78	69	63	58	68	62	58	66	61	58	65	61	57	56																			
8	75	65	58	54	74	64	58	54	63	58	54	62	57	53	61	57	53	52																			
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	58	53	49	48																			
10	68	57	51	47	67	57	51	47	56	50	46	55	50	46	54	50	46	45																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	548214	548214	548214	548214
5°	540796	546038	547074	542703
10°	523177	535177	538372	527420
15°	489927	510421	518786	499256
20°	454466	477662	491283	466975
25°	409442	444629	458557	426911
30°	339654	384703	406617	361582
35°	261332	309588	332971	275896
40°	185478	221949	246576	195812
45°	120224	142205	161355	122253
50°	69524	82720	90043	66666
55°	34206	41710	42193	30696
60°	14347	16285	16738	11931
65°	7474	7742	8010	6254
70°	4379	4526	4857	3680
75°	2674	2869	2869	2237
80°	1305	1957	1667	1305
85°	722	1300	722	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 165004 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	406.5	8.3
10°-20°	1085.0	22.1
20°-30°	1422.1	29.0
30°-40°	1191.0	24.3
40°-50°	603.9	12.3
50°-60°	165.0	3.4
60°-70°	27.8	0.6
70°-80°	6.4	0.1
80°-90°	0.8	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°	2913.6	59.4
0°-40°	4104.6	83.6
0°-60°	4873.6	99.3
0°-90°	4908.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4908.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4356	4356	4356	4356	4356	
5°	4281	4322	4330	4296	4281	403
15°	3760	3918	3982	3832	3760	1053
25°	2949	3202	3302	3074	2949	1337
35°	1701	2015	2167	1796	1701	1059
45°	676	799	907	687	676	532
55°	156	190	192	140	156	151
65°	25	26	27	21	25	28
75°	6	6	6	5	6	6
85°	0	1	0	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°	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1
0.5°	4351.0	4351.5	4353.3	4356.5	4357.9	4359.2	4359.7	4359.2	4355.6	4354.7	4355.1
1°	4347.4	4347.9	4351.0	4354.7	4357.9	4359.7	4360.6	4360.2	4357.0	4355.1	4355.1
1.5°	4342.4	4344.2	4347.9	4352.4	4357.0	4359.7	4360.6	4360.6	4356.5	4354.7	4352.9
2°	4336.9	4339.6	4343.3	4349.2	4354.7	4358.3	4360.6	4360.2	4355.6	4352.9	4351.5
2.5°	4330.1	4333.3	4338.7	4344.7	4352.0	4357.0	4359.2	4358.3	4353.8	4350.1	4348.3
3°	4322.3	4326.4	4331.9	4339.6	4347.4	4353.3	4356.5	4356.5	4350.6	4346.9	4344.2
3.5°	4313.2	4318.2	4325.1	4332.4	4342.8	4349.7	4352.9	4352.4	4347.4	4342.8	4339.2
4°	4303.6	4309.1	4315.9	4324.6	4337.4	4344.7	4349.2	4348.3	4342.8	4337.8	4333.7
4.5°	4293.2	4298.6	4306.8	4316.4	4330.5	4339.2	4344.7	4343.7	4336.5	4331.4	4326.4
5°	4280.8	4288.1	4295.9	4305.9	4322.3	4332.8	4338.3	4337.4	4330.5	4324.6	4319.1
5.5°	4268.1	4274.9	4284.5	4295.4	4313.7	4325.1	4331.4	4330.1	4322.8	4316.4	4310.0
6°	4253.0	4261.2	4272.6	4284.0	4303.2	4316.4	4323.7	4322.8	4314.6	4307.7	4300.9
6.5°	4238.5	4248.0	4259.0	4272.2	4292.7	4307.3	4315.5	4313.7	4305.5	4297.3	4289.5
7°	4221.6	4231.6	4244.4	4259.0	4280.8	4296.8	4305.5	4304.5	4295.0	4286.8	4277.7
7.5°	4203.8	4213.8	4228.4	4244.4	4268.1	4285.4	4294.1	4293.2	4284.0	4274.5	4264.4
8°	4184.7	4196.1	4211.6	4228.9	4254.4	4272.6	4281.8	4279.9	4272.2	4261.7	4250.3
8.5°	4164.2	4176.0	4192.9	4211.6	4239.4	4258.5	4269.0	4268.1	4258.5	4247.6	4234.8
9°	4141.8	4154.6	4172.4	4193.3	4223.9	4243.9	4254.4	4253.5	4244.4	4232.5	4218.4
9.5°	4119.0	4132.3	4151.4	4173.7	4206.1	4227.5	4239.4	4238.5	4229.8	4216.6	4200.6
10°	4094.0	4108.6	4129.1	4152.8	4187.9	4210.2	4221.6	4222.1	4212.9	4199.7	4181.9
10.5°	4066.6	4082.1	4105.8	4130.0	4167.4	4190.6	4203.8	4205.2	4195.6	4180.6	4162.8
11°	4039.3	4055.2	4078.9	4106.3	4145.9	4170.5	4185.1	4185.6	4176.5	4161.4	4141.4
11.5°	4008.3	4026.5	4051.1	4080.3	4123.6	4149.6	4164.6	4166.0	4156.9	4140.5	4118.6
12°	3975.9	3994.6	4021.0	4052.9	4099.4	4125.9	4142.3	4144.6	4135.9	4118.6	4095.8
12.5°	3942.6	3961.8	3989.6	4022.9	4072.1	4101.3	4120.4	4123.1	4113.6	4095.3	4071.2
13°	3908.5	3928.5	3956.8	3993.2	4044.3	4076.2	4094.9	4098.5	4089.4	4070.3	4045.2
13.5°	3872.5	3892.5	3923.5	3959.5	4015.1	4047.5	4069.8	4073.9	4064.3	4044.7	4018.8
14°	3835.1	3857.0	3887.5	3925.8	3984.1	4019.2	4042.0	4046.6	4037.5	4018.3	3989.6
14.5°	3798.2	3818.7	3850.6	3890.2	3951.3	3989.1	4013.3	4020.1	4011.0	3990.5	3961.3
15°	3760.3	3782.2	3813.7	3855.6	3917.6	3958.1	3984.1	3990.0	3981.8	3960.9	3931.7
15.5°	3722.0	3744.4	3776.3	3819.1	3884.3	3925.8	3954.5	3961.8	3952.7	3932.2	3901.6
16°	3684.7	3706.5	3739.8	3782.2	3849.7	3893.9	3924.0	3931.7	3923.5	3901.6	3870.6
16.5°	3645.9	3668.7	3702.0	3746.7	3815.5	3861.1	3891.1	3902.5	3893.4	3871.5	3838.7
17°	3609.0	3630.4	3664.6	3708.8	3779.0	3827.8	3858.8	3870.6	3862.0	3840.5	3805.9
17.5°	3570.7	3593.1	3626.3	3672.4	3743.0	3792.7	3826.4	3837.8	3830.5	3807.7	3774.0
18°	3533.3	3556.1	3589.9	3635.9	3707.9	3759.0	3792.7	3805.0	3798.2	3775.8	3739.8
18.5°	3495.5	3518.3	3552.0	3598.5	3671.9	3724.3	3759.4	3774.0	3764.9	3743.5	3706.1
19°	3460.9	3482.7	3516.0	3562.5	3636.4	3688.8	3725.7	3738.4	3732.5	3710.6	3673.3
19.5°	3425.8	3447.7	3481.4	3527.0	3602.2	3654.6	3692.0	3705.6	3700.2	3678.3	3641.4
20°	3393.4	3413.9	3446.7	3492.8	3566.6	3619.9	3657.3	3673.7	3668.3	3646.4	3608.5
20.5°	3358.8	3380.2	3413.0	3458.1	3532.9	3585.3	3624.5	3640.9	3635.9	3614.5	3575.7
21°	3325.0	3346.0	3379.7	3423.9	3499.2	3552.0	3590.8	3606.7	3603.5	3582.1	3543.4



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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°	3203.8	3233.4	3273.1	3321.9	3395.7	3451.3	3491.9	3510.1	3504.2	3480.5	3439.9
23°	3159.6	3188.8	3231.6	3284.5	3361.0	3414.4	3458.6	3475.5	3468.2	3439.9	3403.4
23.5°	3110.4	3140.0	3187.4	3242.1	3326.0	3377.9	3423.0	3438.1	3426.7	3399.8	3367.0
24°	3057.9	3089.8	3139.1	3197.0	3290.9	3341.0	3387.0	3400.7	3385.2	3359.2	3330.1
24.5°	3002.8	3035.2	3088.5	3149.1	3247.6	3304.5	3351.5	3363.8	3343.7	3318.7	3293.6
25°	2948.6	2980.5	3036.1	3096.7	3202.0	3268.1	3315.9	3326.4	3302.3	3278.1	3248.5
25.5°	2889.8	2923.0	2980.5	3042.0	3154.1	3223.9	3279.9	3289.0	3260.8	3233.0	3202.4
26°	2832.8	2868.8	2923.0	2982.3	3103.1	3177.4	3237.5	3243.0	3213.4	3182.4	3154.1
26.5°	2773.1	2811.8	2862.0	2920.3	3051.6	3129.0	3192.4	3197.9	3165.5	3132.7	3103.1
27°	2714.7	2753.9	2799.5	2857.4	2998.2	3078.0	3145.0	3146.4	3115.4	3083.0	3050.2
27.5°	2653.7	2694.7	2733.0	2795.9	2944.5	3027.9	3095.3	3096.7	3064.8	3032.9	2994.6
28°	2593.5	2635.0	2669.1	2735.7	2887.9	2975.4	3040.6	3042.0	3013.7	2981.4	2937.6
28.5°	2530.1	2574.3	2604.9	2676.0	2827.8	2922.1	2983.2	2987.8	2963.6	2929.4	2878.8
29°	2467.2	2512.4	2540.6	2617.6	2768.1	2866.5	2924.4	2930.3	2909.8	2875.2	2818.2
29.5°	2403.0	2447.6	2479.5	2561.1	2706.5	2809.5	2861.0	2872.0	2855.1	2820.0	2755.3
30°	2337.3	2381.1	2419.4	2503.2	2647.3	2750.3	2794.9	2809.5	2798.1	2761.7	2688.3
30.5°	2269.9	2315.0	2359.2	2446.7	2579.8	2687.4	2725.7	2746.6	2740.7	2702.9	2621.3
31°	2204.2	2248.9	2299.5	2385.6	2516.5	2622.7	2659.1	2681.5	2680.1	2643.6	2554.3
31.5°	2139.1	2181.9	2239.8	2325.9	2453.6	2554.3	2588.5	2614.9	2619.0	2580.3	2485.5
32°	2074.3	2116.3	2179.2	2261.7	2394.8	2487.3	2520.1	2547.0	2556.1	2516.5	2418.9
32.5°	2012.8	2050.6	2117.6	2198.3	2330.0	2420.3	2452.6	2480.9	2495.0	2452.6	2352.4
33°	1951.3	1988.2	2056.6	2132.2	2267.6	2350.5	2387.0	2414.4	2430.3	2390.2	2286.3
33.5°	1888.4	1925.7	1993.7	2065.2	2206.1	2280.4	2321.4	2347.8	2367.0	2324.1	2222.0
34°	1826.8	1862.4	1928.9	1997.3	2145.9	2207.4	2256.7	2282.2	2300.4	2256.2	2158.2
34.5°	1764.4	1798.1	1864.2	1933.0	2079.3	2135.0	2192.4	2217.9	2235.2	2191.0	2095.3
35°	1701.0	1732.9	1800.9	1869.7	2015.1	2062.5	2126.8	2154.6	2167.3	2123.6	2031.5
35.5°	1642.7	1671.9	1738.4	1808.6	1948.5	1992.7	2062.0	2091.7	2101.7	2053.8	1968.6
36°	1583.4	1612.2	1676.9	1748.9	1885.6	1923.5	1996.8	2027.4	2031.9	1985.5	1905.7
36.5°	1523.3	1552.9	1634.5	1688.7	1813.6	1856.0	1931.7	1964.9	1963.6	1916.2	1841.4
37°	1463.6	1493.2	1571.6	1619.9	1746.6	1789.0	1864.7	1899.8	1894.3	1848.7	1776.2
37.5°	1403.9	1433.9	1509.1	1562.5	1677.3	1724.7	1797.2	1835.5	1828.7	1781.3	1711.1
38°	1344.1	1374.7	1446.7	1504.6	1611.7	1662.3	1730.7	1770.3	1761.2	1714.7	1645.0
38.5°	1288.1	1320.0	1383.8	1447.2	1542.4	1598.5	1665.5	1705.1	1695.1	1649.1	1580.7
39°	1234.3	1266.2	1325.9	1389.7	1478.2	1536.9	1600.8	1640.0	1630.8	1585.3	1517.8
39.5°	1181.0	1211.1	1268.0	1328.2	1412.1	1474.0	1537.4	1576.6	1566.6	1521.0	1456.3
40°	1129.0	1156.4	1210.6	1266.7	1351.0	1414.3	1474.0	1512.3	1500.9	1458.1	1393.8
40.5°	1077.0	1105.3	1155.0	1207.4	1286.7	1352.4	1413.0	1449.4	1437.6	1395.2	1336.4
41°	1027.4	1053.8	1098.9	1149.1	1227.9	1293.6	1353.7	1389.7	1374.2	1330.5	1275.8
41.5°	979.1	1006.4	1044.7	1093.0	1168.7	1234.3	1294.0	1329.1	1311.8	1268.9	1217.9
42°	932.6	958.5	992.3	1038.3	1112.1	1177.8	1236.1	1269.9	1248.9	1208.8	1159.5
42.5°	885.6	912.1	941.7	985.0	1056.5	1120.3	1179.1	1209.7	1188.7	1149.5	1102.6
43°	840.9	866.5	891.1	932.1	1002.3	1065.2	1122.6	1152.3	1129.5	1093.0	1046.1
43.5°	797.6	823.2	843.7	879.2	948.1	1011.0	1067.5	1096.2	1071.1	1034.7	990.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	675.5	699.2	710.1	729.7	799.0	858.7	910.2	927.1	906.6	874.2	829.1
45.5°	638.1	660.9	668.7	684.2	753.9	809.5	860.5	872.9	855.1	824.1	778.5
46°	601.2	624.0	628.5	638.6	709.2	763.5	813.6	821.8	805.4	773.9	730.2
46.5°	566.1	588.4	589.3	596.2	666.8	718.8	765.3	769.4	756.6	725.2	683.2
47°	531.0	552.9	552.9	557.0	626.3	675.0	718.8	721.1	708.8	680.5	637.2
47.5°	499.6	519.6	517.8	519.6	587.1	633.1	673.2	673.7	662.7	636.7	594.4
48°	468.1	488.2	484.5	485.0	549.7	593.4	630.4	629.0	618.5	591.2	553.3
48.5°	438.0	457.6	453.5	454.0	514.6	555.6	587.5	585.2	576.1	550.1	514.1
49°	408.9	428.0	423.0	424.8	481.3	518.7	546.5	544.2	535.6	511.4	476.3
49.5°	381.5	399.7	395.2	397.0	449.4	484.1	507.8	505.9	495.9	473.6	444.4
50°	355.1	372.4	369.2	371.9	422.5	451.2	470.4	469.5	459.9	442.1	413.0
50.5°	330.0	346.4	344.6	347.8	395.2	422.5	438.9	438.0	428.9	410.7	381.5
51°	305.8	321.3	321.3	325.4	368.3	393.8	407.5	406.6	397.5	378.8	350.1
51.5°	282.6	297.6	298.5	303.6	340.9	365.5	376.0	375.6	366.0	347.3	318.6
52°	261.2	275.3	277.1	283.1	314.0	336.8	344.6	344.1	334.6	315.9	291.7
52.5°	240.2	253.9	256.6	262.5	290.8	308.1	313.1	313.1	303.6	287.6	266.6
53°	220.6	232.9	236.6	242.9	268.0	284.0	287.6	287.2	278.0	263.0	243.9
53.5°	201.9	213.3	217.9	224.3	247.5	260.7	263.9	262.1	254.3	240.2	222.0
54°	184.6	195.1	200.1	206.0	227.4	237.9	241.6	239.3	232.0	219.2	202.4
54.5°	169.6	178.7	183.2	189.2	207.8	217.0	220.2	217.9	210.6	198.7	183.7
55°	155.9	163.2	167.7	173.2	190.1	197.8	200.1	198.7	192.3	181.0	168.2
55.5°	142.7	150.0	154.1	159.5	173.2	179.6	181.9	181.0	175.0	165.5	153.1
56°	129.0	136.7	140.4	145.4	157.7	163.2	165.5	164.5	159.5	150.9	137.7
56.5°	115.3	123.5	126.7	131.3	143.1	148.1	150.4	149.0	144.5	134.9	123.1
57°	101.6	109.8	113.0	117.1	128.1	133.1	135.4	133.5	129.9	121.2	109.8
57.5°	91.6	96.6	99.4	103.0	113.9	118.5	120.3	119.9	115.8	108.0	98.0
58°	83.0	87.1	89.3	92.1	101.6	105.3	107.1	106.7	103.5	96.6	87.5
58.5°	75.2	78.9	80.2	82.0	90.7	93.9	95.3	95.3	92.5	86.6	78.4
59°	68.4	71.6	72.5	73.8	80.7	83.0	84.8	84.8	82.5	77.9	70.6
59.5°	62.4	65.2	65.2	66.5	72.0	74.3	75.7	75.7	73.8	69.7	63.4
60°	57.0	59.3	59.7	60.2	64.7	66.5	67.5	67.9	66.5	62.9	57.4
60.5°	52.0	54.2	54.2	54.2	58.3	59.7	60.6	61.5	60.2	57.4	52.4
61°	47.4	49.7	49.7	49.2	52.9	54.2	54.7	55.6	54.2	52.0	47.4
61.5°	43.8	45.6	45.6	45.1	47.9	49.2	49.7	50.6	49.2	47.4	43.8
62°	40.1	41.9	41.5	41.5	43.8	44.7	45.1	46.0	45.1	43.3	40.6
62.5°	37.4	38.7	38.3	37.8	40.6	41.5	41.5	41.9	41.0	40.1	37.8
63°	34.2	36.0	35.6	34.6	37.4	38.3	38.7	39.2	38.3	37.4	34.6
63.5°	31.5	33.3	32.4	31.9	34.2	35.1	35.6	36.0	35.6	34.2	31.9
64°	29.2	30.5	30.1	29.6	31.5	31.9	32.8	33.3	32.8	31.5	28.7
64.5°	26.9	28.3	27.8	27.3	28.3	28.7	30.1	30.5	30.1	28.3	26.4
65°	25.1	26.4	26.0	25.1	26.0	26.4	26.9	27.3	26.9	26.4	24.6
65.5°	23.2	24.2	24.2	23.2	24.2	24.6	25.1	25.5	25.1	24.6	22.8
66°	21.4	22.8	22.3	21.9	22.3	22.8	23.2	23.7	23.2	22.8	21.4



TEST NUMBER: P776600

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	17.3	18.2	17.8	17.3	17.8	18.2	18.7	18.7	18.7	18.2	16.9
68°	16.0	16.9	16.9	16.4	16.4	16.9	17.3	17.3	17.3	16.9	16.0
68.5°	15.0	16.0	16.0	15.5	15.5	15.5	16.0	16.4	16.0	16.0	14.6
69°	14.1	14.6	14.6	14.1	14.6	14.6	15.0	15.0	15.0	14.6	13.7
69.5°	12.8	13.7	13.7	13.2	13.7	13.7	14.1	14.1	14.1	13.7	12.8
70°	11.9	12.8	12.8	12.3	12.3	12.8	13.2	13.2	13.2	12.8	11.9
70.5°	10.9	11.9	11.9	11.4	11.9	11.9	12.3	12.3	12.3	11.9	10.9
71°	10.5	10.9	10.9	10.5	10.9	10.9	11.4	11.4	11.4	10.9	10.5
71.5°	9.6	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5	10.0	9.6
72°	8.7	9.6	9.6	9.1	9.6	9.6	9.6	10.0	9.6	9.6	9.1
72.5°	8.2	8.7	8.7	8.7	8.7	9.1	9.1	9.1	9.1	8.7	8.2
73°	7.3	8.2	8.2	7.7	8.2	8.2	8.7	8.7	8.2	8.2	7.7
73.5°	6.8	7.3	7.3	7.3	7.7	7.7	7.7	7.7	7.7	7.3	7.3
74°	6.4	6.8	6.8	6.8	7.3	7.3	7.3	7.3	7.3	6.8	6.8
74.5°	5.9	6.4	6.4	6.4	6.4	6.8	6.8	6.8	6.8	6.4	5.9
75°	5.5	5.9	5.9	5.9	5.9	6.4	6.4	6.4	5.9	5.9	5.5
75.5°	5.0	5.5	5.5	5.5	5.5	5.9	5.9	5.9	5.5	5.5	5.0
76°	4.6	5.0	5.0	5.0	5.0	5.5	5.5	5.0	5.0	5.0	4.6
76.5°	4.1	4.6	4.6	4.6	5.0	5.0	5.0	5.0	4.6	4.6	4.6
77°	3.6	4.1	4.1	4.1	4.6	4.6	4.6	4.6	4.6	4.1	4.1
77.5°	3.2	3.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.6	3.6
78°	3.2	3.2	3.6	3.6	3.6	4.1	3.6	3.6	3.6	3.6	3.2
78.5°	2.7	3.2	3.2	3.2	3.6	3.6	3.6	3.2	3.2	3.2	3.2
79°	2.3	2.7	2.7	3.2	3.2	3.2	3.2	3.2	3.2	2.7	2.7
79.5°	2.3	2.3	2.7	2.7	2.7	3.2	2.7	2.7	2.7	2.3	2.7
80°	1.8	2.3	2.3	2.3	2.7	2.7	2.7	2.3	2.3	2.3	2.3
80.5°	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.8	1.8
81°	1.4	1.8	1.8	2.3	2.3	2.3	2.3	1.8	1.8	1.8	1.8
81.5°	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.4	1.8
82°	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.4	1.4	1.4	1.4
82.5°	0.9	0.9	1.4	1.4	1.4	1.8	1.4	1.4	1.4	0.9	1.4
83°	0.5	0.9	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9
83.5°	0.5	0.9	0.9	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.9
84°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.9
84.5°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.9
85°	0.5	0.5	0.5	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5
85.5°	0.0	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5
86°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
86.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5
87°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	0.5	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: P776600
CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-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: P776600

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4356.1	4356.1	4356.1	4356.1	4356.1	4356.1
0.5°	4355.1	4354.7	4355.1	4354.2	4353.3	4351.0
1°	4354.2	4352.0	4351.0	4349.7	4348.8	4347.4
1.5°	4352.0	4348.3	4346.0	4344.7	4344.2	4342.4
2°	4348.8	4343.7	4341.0	4339.2	4338.3	4336.9
2.5°	4344.2	4338.3	4333.7	4331.0	4330.5	4330.1
3°	4339.6	4331.4	4326.4	4322.8	4321.9	4322.3
3.5°	4334.2	4324.1	4317.3	4313.7	4312.8	4313.2
4°	4327.3	4315.5	4307.7	4302.7	4302.3	4303.6
4.5°	4319.6	4306.4	4297.3	4292.2	4290.9	4293.2
5°	4310.9	4295.9	4285.9	4279.9	4278.1	4280.8
5.5°	4300.9	4284.5	4272.2	4266.7	4265.4	4268.1
6°	4290.4	4272.2	4259.0	4251.7	4250.8	4253.0
6.5°	4278.6	4258.1	4244.4	4237.1	4235.3	4238.5
7°	4265.4	4243.5	4228.0	4220.2	4217.5	4221.6
7.5°	4250.8	4227.5	4211.1	4202.5	4199.7	4203.8
8°	4235.7	4210.2	4193.3	4183.3	4180.6	4184.7
8.5°	4218.9	4191.1	4173.3	4163.3	4160.1	4164.2
9°	4201.1	4171.0	4152.3	4140.9	4137.3	4141.8
9.5°	4181.5	4150.0	4130.4	4116.8	4114.0	4119.0
10°	4161.4	4127.2	4105.8	4092.6	4088.0	4094.0
10.5°	4139.6	4102.6	4080.3	4066.2	4062.1	4066.6
11°	4116.3	4077.6	4053.4	4037.0	4031.5	4039.3
11.5°	4092.1	4051.1	4023.8	4006.0	4001.9	4008.3
12°	4067.5	4022.4	3993.2	3974.1	3969.1	3975.9
12.5°	4040.2	3992.8	3961.3	3940.8	3934.4	3942.6
13°	4012.8	3962.2	3928.5	3906.2	3899.3	3908.5
13.5°	3983.7	3931.3	3895.7	3870.6	3864.2	3872.5
14°	3954.0	3898.9	3860.1	3835.1	3827.3	3835.1
14.5°	3922.1	3865.6	3826.0	3799.5	3790.4	3798.2
15°	3892.1	3831.9	3788.6	3761.7	3751.7	3760.3
15.5°	3859.2	3797.2	3753.9	3724.8	3713.8	3722.0
16°	3826.9	3763.1	3717.0	3686.5	3676.0	3684.7
16.5°	3793.1	3728.9	3683.3	3649.6	3639.1	3645.9
17°	3760.3	3692.4	3646.4	3610.8	3601.3	3609.0
17.5°	3726.1	3658.7	3610.4	3574.8	3563.0	3570.7
18°	3691.5	3623.1	3573.5	3537.4	3526.0	3533.3
18.5°	3657.3	3588.0	3539.3	3501.4	3490.0	3495.5
19°	3624.0	3553.4	3504.6	3468.2	3455.4	3460.9
19.5°	3590.8	3521.0	3470.9	3434.4	3420.8	3425.8
20°	3558.4	3486.8	3436.7	3400.2	3386.6	3393.4
20.5°	3524.2	3452.7	3402.5	3366.5	3351.9	3358.8
21°	3492.8	3418.0	3365.6	3329.1	3317.3	3325.0



TEST NUMBER: P776600

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3388.9	3305.0	3243.5	3207.4	3195.6	3203.8
23°	3353.8	3261.7	3198.8	3159.6	3149.6	3159.6
23.5°	3318.2	3218.8	3151.4	3109.9	3100.8	3110.4
24°	3283.1	3172.3	3101.7	3057.5	3047.5	3057.9
24.5°	3240.7	3124.5	3051.1	3000.1	2991.4	3002.8
25°	3197.0	3074.4	2999.6	2940.8	2934.9	2948.6
25.5°	3149.1	3023.3	2946.3	2879.3	2872.9	2889.8
26°	3100.3	2971.8	2891.6	2817.3	2812.3	2832.8
26.5°	3045.6	2918.5	2834.1	2757.1	2748.0	2773.1
27°	2989.6	2864.2	2775.8	2697.9	2683.3	2714.7
27.5°	2928.5	2806.3	2715.6	2638.6	2619.0	2653.7
28°	2866.1	2747.1	2653.7	2581.2	2556.6	2593.5
28.5°	2799.5	2686.0	2590.3	2524.7	2493.2	2530.1
29°	2730.7	2621.7	2526.9	2467.7	2434.4	2467.2
29.5°	2660.9	2556.1	2462.7	2409.3	2372.0	2403.0
30°	2592.6	2488.2	2399.3	2350.5	2312.7	2337.3
30.5°	2521.9	2420.3	2335.0	2288.1	2253.9	2269.9
31°	2455.4	2351.0	2274.9	2225.2	2193.8	2204.2
31.5°	2390.2	2280.4	2212.0	2159.6	2132.7	2139.1
32°	2325.9	2210.6	2150.0	2092.1	2071.6	2074.3
32.5°	2263.0	2140.0	2087.6	2025.6	2009.2	2012.8
33°	2197.4	2068.9	2023.3	1960.8	1946.3	1951.3
33.5°	2133.6	1997.3	1956.7	1896.6	1883.4	1888.4
34°	2069.3	1929.8	1892.0	1832.8	1820.0	1826.8
34.5°	2004.6	1862.4	1825.0	1768.9	1754.8	1764.4
35°	1938.5	1795.8	1758.5	1709.2	1693.3	1701.0
35.5°	1872.4	1733.4	1690.6	1650.9	1632.2	1642.7
36°	1805.9	1671.0	1616.3	1590.7	1574.8	1583.4
36.5°	1739.8	1609.9	1553.4	1531.0	1517.3	1523.3
37°	1673.7	1548.8	1490.0	1470.9	1459.9	1463.6
37.5°	1609.0	1488.2	1427.1	1411.1	1402.9	1403.9
38°	1546.1	1427.1	1363.7	1351.0	1345.5	1344.1
38.5°	1484.5	1366.5	1301.3	1290.8	1289.5	1288.1
39°	1423.5	1307.2	1243.4	1232.0	1233.8	1234.3
39.5°	1364.2	1248.4	1184.6	1173.2	1176.0	1181.0
40°	1304.9	1191.9	1126.7	1115.3	1119.9	1129.0
40.5°	1247.1	1135.4	1071.1	1058.8	1065.7	1077.0
41°	1190.1	1079.3	1016.9	1003.2	1012.8	1027.4
41.5°	1134.0	1024.6	963.1	949.9	960.8	979.1
42°	1078.4	973.1	912.1	897.9	909.3	932.6
42.5°	1025.1	920.7	862.8	846.9	861.0	885.6
43°	972.7	871.0	815.0	797.2	813.1	840.9
43.5°	921.2	822.3	768.5	748.0	767.1	797.6



TEST NUMBER: P776600

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	775.3	686.9	639.9	615.3	637.7	675.5
45.5°	729.7	644.5	601.2	575.2	597.6	638.1
46°	684.6	604.4	563.8	536.9	559.3	601.2
46.5°	640.4	566.1	527.4	500.9	523.3	566.1
47°	598.0	529.2	493.6	468.6	489.5	531.0
47.5°	556.1	492.7	461.3	438.5	457.2	499.6
48°	516.4	459.4	430.7	409.3	427.5	468.1
48.5°	480.0	428.0	401.6	382.4	399.3	438.0
49°	443.9	397.5	373.3	356.9	372.4	408.9
49.5°	413.0	368.7	346.9	334.1	348.7	381.5
50°	382.0	340.5	321.8	311.8	324.5	355.1
50.5°	351.0	314.0	297.6	289.9	302.6	330.0
51°	320.0	289.4	274.8	269.4	281.2	305.8
51.5°	294.0	265.7	253.4	250.2	260.7	282.6
52°	269.8	243.9	232.9	231.5	241.1	261.2
52.5°	246.1	222.0	213.8	213.3	222.9	240.2
53°	225.2	201.9	195.5	195.5	205.1	220.6
53.5°	205.1	183.7	178.7	179.6	188.2	201.9
54°	186.4	167.3	162.7	164.5	172.3	184.6
54.5°	170.0	153.6	149.5	151.3	159.5	169.6
55°	155.0	139.9	136.3	138.1	145.9	155.9
55.5°	139.9	125.8	122.6	124.9	132.2	142.7
56°	124.9	112.1	109.4	111.7	118.5	129.0
56.5°	111.7	98.5	96.2	98.5	104.8	115.3
57°	99.4	87.5	85.7	88.0	93.9	101.6
57.5°	88.4	78.4	77.0	79.3	84.8	91.6
58°	78.9	70.6	69.3	71.6	77.0	83.0
58.5°	71.1	63.4	62.9	64.7	69.7	75.2
59°	63.8	57.4	57.0	59.3	63.8	68.4
59.5°	57.9	52.0	51.5	53.8	57.9	62.4
60°	52.4	47.4	46.9	49.2	53.3	57.0
60.5°	47.9	43.3	42.8	45.1	48.8	52.0
61°	43.8	39.7	39.2	41.5	44.7	47.4
61.5°	40.6	36.5	36.0	38.3	41.5	43.8
62°	37.4	33.3	33.3	35.1	38.3	40.1
62.5°	34.6	30.5	30.5	32.4	35.1	37.4
63°	31.5	28.3	28.3	30.1	32.4	34.2
63.5°	28.7	26.0	26.4	27.8	30.1	31.5
64°	26.4	24.2	24.2	25.5	27.8	29.2
64.5°	24.6	22.3	22.3	23.7	25.5	26.9
65°	22.8	21.0	21.0	21.9	23.7	25.1
65.5°	21.0	19.1	19.6	20.5	22.3	23.2
66°	19.6	17.8	18.2	19.1	20.5	21.4



TEST NUMBER: P776600

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	15.5	14.6	14.6	15.5	16.4	17.3
68°	14.6	13.7	13.7	14.6	15.5	16.0
68.5°	13.7	12.8	12.8	13.2	14.1	15.0
69°	12.8	11.9	11.9	12.3	13.2	14.1
69.5°	11.9	10.9	10.9	11.4	12.3	12.8
70°	10.9	10.0	10.0	10.9	11.4	11.9
70.5°	10.5	9.6	9.6	10.0	10.5	10.9
71°	9.6	8.7	8.7	9.1	9.6	10.5
71.5°	9.1	8.2	8.2	8.7	9.1	9.6
72°	8.2	7.7	7.7	8.2	8.2	8.7
72.5°	7.7	6.8	6.8	7.3	7.7	8.2
73°	7.3	6.4	6.4	6.8	7.3	7.3
73.5°	6.8	5.9	5.9	6.4	6.4	6.8
74°	6.4	5.5	5.5	5.9	5.9	6.4
74.5°	5.9	5.0	5.0	5.5	5.5	5.9
75°	5.5	4.6	4.6	5.0	5.0	5.5
75.5°	5.0	4.6	4.6	4.6	4.6	5.0
76°	4.6	4.1	4.1	4.1	4.1	4.6
76.5°	4.1	3.6	3.6	3.6	3.6	4.1
77°	3.6	3.2	3.2	3.2	3.6	3.6
77.5°	3.6	3.2	3.2	3.2	3.2	3.2
78°	3.2	2.7	2.7	2.7	2.7	3.2
78.5°	2.7	2.7	2.7	2.7	2.7	2.7
79°	2.7	2.3	2.3	2.3	2.3	2.3
79.5°	2.3	2.3	2.3	2.3	1.8	2.3
80°	2.3	1.8	1.8	1.8	1.8	1.8
80.5°	1.8	1.8	1.8	1.8	1.4	1.8
81°	1.8	1.4	1.4	1.4	1.4	1.4
81.5°	1.4	1.4	1.4	1.4	1.4	1.4
82°	1.4	1.4	1.4	0.9	0.9	0.9
82.5°	1.4	0.9	0.9	0.9	0.9	0.9
83°	0.9	0.9	0.9	0.9	0.9	0.5
83.5°	0.9	0.9	0.9	0.9	0.5	0.5
84°	0.9	0.5	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	0.0	0.0
86°	0.5	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: P776600
CATALOG NUMBER: HCDJBL54050CSD-HCD4TRH-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

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

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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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°	3287.2	3310.9	3345.6	3390.2	3465.9	3518.3	3557.5	3574.4	3571.2	3549.3	3510.6
22°	3248.0	3275.4	3310.5	3356.9	3430.8	3485.5	3523.8	3542.0	3538.4	3515.6	3476.8



44°	755.3	779.9	797.6	828.6	897.0	958.5	1013.7	1038.3	1015.1	978.6	935.3
44.5°	715.1	738.8	753.0	778.5	847.8	906.6	961.3	981.3	959.9	926.6	882.0



66.5°	20.1	21.0	21.0	20.1	20.5	21.0	21.4	21.9	21.4	21.0	19.6
67°	18.7	19.6	19.1	18.7	19.1	19.6	20.1	20.1	20.1	19.6	18.2



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°	3459.5	3382.0	3327.3	3289.5	3279.9	3287.2
22°	3423.9	3343.7	3286.3	3249.8	3238.9	3248.0



44°	871.5	775.8	724.3	702.8	722.9	755.3
44.5°	823.6	730.6	681.0	658.2	680.0	715.1



66.5°	18.2	16.9	16.9	17.8	19.1	20.1
67°	16.9	15.5	16.0	16.9	17.8	18.7

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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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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)