

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: P776598

Luminaire Tested: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776598
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-HCD4TRC-5000lm-4000K
Description: 4 INCH ROUND MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

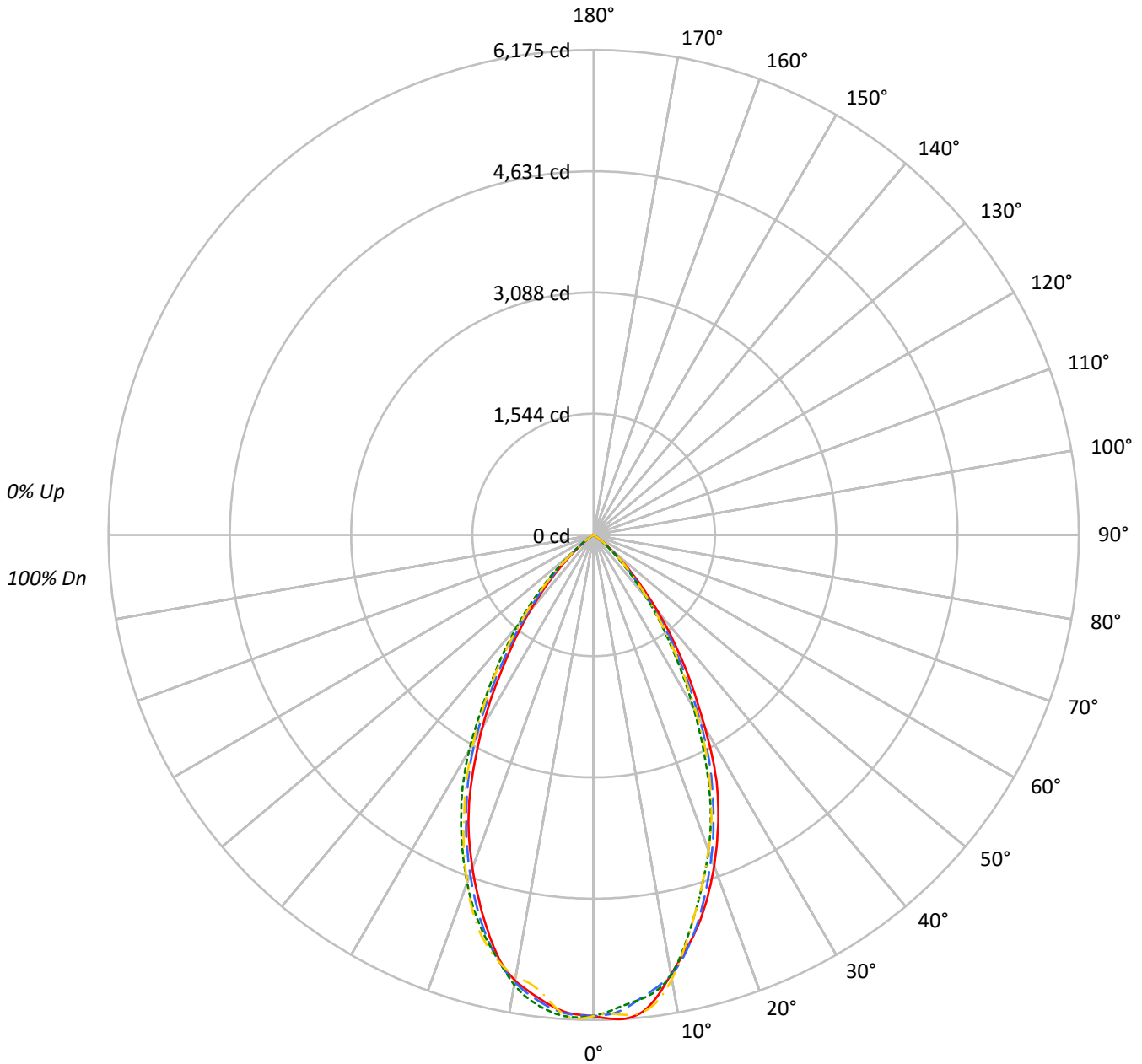
Lumens per Lamp: N/A
Luminaire Lumens: 5573.3 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.88
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					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	100	100	100	100		
	1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	98	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86	86	86	86	86	86		
	3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80	80	80	80	80	80		
	4	97	89	83	79	95	88	82	78	85	81	77	83	80	76	82	78	76	74	74	74	74	74	74		
	5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	69	69	69	69	69	69		
	6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64	64	64	64	64	64		
	7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60	60	60	60	60	60		
	8	78	68	62	58	77	68	62	58	67	61	57	66	61	57	65	60	57	56	56	56	56	56	56		
	9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	53	52	52	52	52	52	52		
	10	71	61	55	51	70	60	54	51	59	54	50	59	54	50	58	53	50	49	49	49	49	49	49		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	771006	771006	771006	771006
5°	776250	753460	761255	770742
10°	725918	726276	736129	743336
15°	670169	649531	679328	691797
20°	600192	572576	604424	630700
25°	519989	479997	520461	554468
30°	411586	368558	411528	460472
35°	303873	263222	300186	347382
40°	207509	173551	205702	247989
45°	122022	94774	120153	155055
50°	51903	42153	55917	75222
55°	10488	10290	17750	22161
60°	1686	2039	1938	2643
65°	983	1132	983	1578
70°	515	699	699	883
75°	243	486	486	681
80°	0	362	362	362
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°
 Vertical Angle: 45°
 Luminance: 155055 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	567.1	10.2
10°-20°	1441.8	25.9
20°-30°	1691.3	30.3
30°-40°	1238.1	22.2
40°-50°	546.2	9.8
50°-60°	83.4	1.5
60°-70°	4.2	0.1
70°-80°	1.1	0.0
80°-90°	0.1	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°	3700.3	66.4
0°-40°	4938.4	88.6
0°-60°	5568.0	99.9
0°-90°	5573.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5573.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6126	6126	6126	6126	6126	
5°	6145	5964	6026	6101	6145	571
15°	5144	4985	5214	5310	5144	1432
25°	3745	3457	3748	3993	3745	1696
35°	1978	1713	1954	2261	1978	1237
45°	686	532	675	871	686	539
55°	48	47	81	101	48	69
65°	3	4	3	5	3	3
75°	0	1	1	1	0	1
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°	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4
0.5°	6137.9	6129.7	6121.6	6120.2	6111.1	6111.1	6115.9	6119.2	6122.6	6124.0	6124.9
1°	6147.9	6132.6	6117.8	6110.1	6098.2	6099.1	6107.2	6113.0	6117.8	6121.1	6124.5
1.5°	6157.0	6135.9	6112.5	6097.2	6081.9	6089.5	6101.5	6110.1	6114.4	6117.3	6122.6
2°	6165.1	6137.9	6104.9	6080.9	6063.7	6080.0	6101.5	6112.0	6111.1	6112.5	6118.7
2.5°	6171.4	6136.9	6092.9	6058.9	6045.0	6071.8	6105.8	6116.3	6104.9	6103.9	6113.9
3°	6174.7	6131.6	6077.6	6035.0	6025.9	6067.1	6113.0	6120.6	6096.2	6091.0	6106.8
3.5°	6174.2	6122.1	6057.0	6009.2	6008.7	6063.7	6122.1	6124.5	6082.4	6073.8	6098.6
4°	6169.4	6107.2	6032.6	5981.4	5992.4	6061.3	6128.8	6124.9	6066.1	6052.7	6087.1
4.5°	6159.9	6086.7	6004.4	5955.6	5978.1	6058.4	6131.6	6122.1	6047.4	6027.3	6071.8
5°	6144.6	6061.8	5975.7	5931.2	5964.2	6053.2	6128.8	6113.0	6025.9	5999.1	6053.7
5.5°	6122.1	6033.1	5947.4	5908.2	5950.3	6044.1	6119.7	6100.1	6002.5	5968.0	6032.6
6°	6093.8	6000.1	5919.7	5888.6	5936.0	6029.7	6103.4	6080.9	5978.5	5938.4	6010.1
6.5°	6057.5	5965.1	5892.9	5869.9	5919.7	6012.0	6080.9	6058.0	5953.2	5908.2	5986.7
7°	6014.4	5926.9	5868.0	5851.8	5900.1	5987.2	6051.7	6028.8	5928.3	5882.4	5962.3
7.5°	5966.6	5885.7	5840.8	5833.6	5877.6	5954.6	6016.8	5996.2	5902.0	5856.1	5936.9
8°	5914.4	5842.2	5814.0	5814.0	5850.8	5916.3	5971.8	5958.0	5874.7	5832.6	5910.1
8.5°	5859.4	5793.4	5785.7	5791.5	5818.7	5872.8	5922.1	5916.3	5847.9	5812.5	5882.9
9°	5799.1	5745.1	5755.6	5765.2	5779.5	5820.2	5866.6	5870.4	5819.7	5794.3	5851.8
9.5°	5738.8	5695.8	5722.6	5734.5	5735.0	5762.8	5807.7	5819.2	5792.0	5775.7	5819.2
10°	5680.5	5646.0	5686.2	5699.1	5683.3	5700.6	5741.2	5764.7	5760.4	5755.6	5782.9
10.5°	5624.0	5595.3	5645.6	5656.6	5626.9	5631.7	5673.3	5705.4	5725.5	5734.1	5746.0
11°	5569.5	5544.6	5600.6	5603.9	5566.6	5559.9	5599.6	5643.2	5685.3	5710.1	5704.9
11.5°	5516.4	5491.5	5548.9	5551.8	5496.8	5488.6	5525.5	5576.2	5641.7	5680.0	5661.8
12°	5463.3	5437.4	5492.9	5490.1	5425.5	5404.4	5443.7	5505.8	5592.9	5645.6	5615.9
12.5°	5411.1	5381.9	5435.5	5421.2	5353.2	5326.9	5368.1	5433.1	5539.3	5603.4	5565.2
13°	5360.4	5326.9	5373.3	5351.3	5280.5	5257.1	5289.6	5360.4	5477.6	5554.6	5513.0
13.5°	5309.7	5267.1	5311.1	5285.3	5206.3	5173.8	5212.6	5286.7	5415.4	5503.0	5459.0
14°	5256.1	5205.9	5246.5	5211.6	5131.2	5100.6	5135.5	5212.1	5351.8	5443.7	5403.0
14.5°	5200.1	5143.2	5181.0	5138.9	5057.1	5029.3	5062.8	5140.3	5284.3	5381.9	5344.6
15°	5143.7	5079.6	5112.1	5065.7	4985.3	4954.2	4985.3	5068.6	5214.0	5318.3	5282.9
15.5°	5084.3	5012.6	5042.7	4991.5	4913.1	4880.5	4914.0	4996.8	5145.6	5253.7	5220.7
16°	5023.6	4946.6	4971.0	4917.4	4841.3	4810.2	4838.4	4926.9	5075.3	5184.8	5157.5
16.5°	4957.6	4876.7	4899.2	4844.6	4768.6	4740.4	4766.7	4860.0	5006.8	5115.9	5093.0
17°	4894.4	4807.8	4825.0	4770.5	4699.7	4668.6	4694.9	4788.2	4937.9	5046.5	5026.5
17.5°	4826.9	4736.0	4751.8	4696.8	4628.4	4599.7	4626.5	4719.8	4864.7	4975.3	4957.1
18°	4759.5	4665.2	4676.7	4623.6	4556.6	4528.4	4551.4	4652.3	4795.4	4903.5	4887.7
18.5°	4690.6	4592.0	4602.1	4549.9	4485.3	4459.0	4480.6	4583.9	4727.4	4828.4	4815.9
19°	4622.2	4520.7	4524.6	4474.8	4416.0	4389.7	4410.7	4513.6	4656.1	4756.6	4744.2
19.5°	4551.8	4447.5	4451.9	4401.1	4345.6	4323.2	4344.2	4447.1	4585.3	4681.0	4671.0
20°	4481.5	4377.2	4375.3	4328.4	4275.3	4254.3	4272.9	4379.1	4513.1	4606.4	4597.8
20.5°	4410.2	4304.5	4300.7	4254.7	4205.5	4186.3	4203.5	4309.3	4441.8	4530.8	4523.6
21°	4338.9	4229.9	4225.1	4180.1	4130.8	4115.5	4134.6	4241.3	4369.1	4456.6	4448.5



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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°	4121.7	4002.6	3985.9	3940.4	3895.9	3892.1	3918.9	4030.4	4150.9	4232.3	4225.6
23°	4048.5	3923.2	3904.0	3857.6	3811.7	3810.3	3839.0	3954.3	4078.2	4158.1	4152.4
23.5°	3973.4	3845.2	3821.8	3772.0	3723.2	3732.3	3760.0	3877.3	3998.3	4079.6	4074.4
24°	3897.3	3765.3	3740.4	3684.9	3634.2	3648.1	3676.8	3794.0	3916.5	4000.7	3993.5
24.5°	3822.7	3686.4	3657.6	3594.5	3545.2	3563.9	3593.1	3709.3	3830.8	3919.4	3914.6
25°	3744.7	3604.1	3575.4	3506.0	3456.7	3479.7	3509.8	3624.6	3748.1	3837.1	3839.0
25.5°	3667.7	3524.2	3493.1	3415.1	3367.7	3395.0	3426.1	3540.4	3658.1	3753.8	3755.7
26°	3588.3	3443.3	3410.3	3323.2	3274.4	3301.7	3342.4	3455.7	3567.7	3670.1	3677.3
26.5°	3504.5	3359.6	3326.1	3231.4	3180.2	3214.1	3257.7	3371.1	3477.8	3586.8	3598.8
27°	3413.6	3272.0	3240.9	3140.5	3087.4	3118.9	3168.2	3279.7	3387.3	3503.1	3520.3
27.5°	3321.3	3185.9	3149.5	3051.0	2994.5	3025.6	3084.5	3185.0	3291.6	3419.9	3441.9
28°	3226.6	3094.5	3057.7	2961.5	2900.3	2932.8	2990.7	3088.3	3196.0	3336.6	3362.9
28.5°	3128.5	3000.3	2966.8	2871.1	2807.9	2839.0	2898.8	2993.6	3104.6	3246.2	3277.3
29°	3028.5	2906.5	2874.0	2783.1	2716.6	2745.3	2806.5	2897.4	3013.7	3155.8	3189.3
29.5°	2928.0	2809.9	2780.2	2695.0	2626.1	2651.5	2711.3	2807.0	2923.2	3064.4	3098.4
30°	2832.3	2713.7	2689.3	2607.5	2536.2	2557.2	2614.2	2711.3	2831.9	2971.6	3006.0
30.5°	2738.6	2616.6	2598.9	2520.4	2445.8	2465.9	2522.3	2617.5	2741.0	2878.3	2912.7
31°	2646.7	2517.1	2508.4	2430.0	2358.7	2373.5	2428.5	2528.5	2649.1	2788.3	2818.5
31.5°	2557.7	2423.3	2420.9	2342.9	2271.6	2284.5	2337.2	2441.0	2557.7	2699.3	2726.1
32°	2468.7	2333.3	2334.3	2256.3	2186.0	2202.7	2246.7	2352.0	2469.7	2610.4	2633.3
32.5°	2386.0	2244.3	2249.1	2168.3	2102.7	2117.6	2162.5	2267.8	2379.3	2523.3	2541.0
33°	2305.6	2157.7	2165.9	2081.2	2020.0	2035.7	2075.9	2183.1	2290.3	2435.7	2450.6
33.5°	2223.8	2072.1	2083.6	2001.3	1939.1	1959.7	1993.6	2100.3	2202.7	2352.0	2356.3
34°	2141.0	1990.3	2001.8	1921.4	1862.1	1876.0	1912.8	2020.0	2117.6	2268.7	2265.9
34.5°	2057.8	1911.4	1922.8	1842.0	1786.5	1799.9	1832.9	1940.1	2033.8	2186.0	2178.8
35°	1977.9	1833.4	1842.5	1766.9	1713.3	1731.0	1755.9	1862.1	1953.9	2104.2	2094.6
35.5°	1899.9	1758.3	1762.6	1706.6	1641.0	1655.4	1681.2	1787.4	1876.9	2021.4	2009.0
36°	1820.0	1714.2	1709.9	1633.4	1572.1	1577.9	1609.5	1711.4	1804.7	1940.1	1927.1
36.5°	1745.3	1636.3	1630.0	1560.7	1504.2	1511.4	1539.6	1640.6	1731.9	1859.2	1847.2
37°	1675.0	1557.8	1549.7	1487.5	1436.7	1441.1	1470.2	1567.8	1660.7	1779.8	1772.1
37.5°	1605.2	1479.3	1468.8	1414.7	1371.2	1372.6	1405.2	1495.6	1592.7	1703.2	1695.6
38°	1535.3	1401.3	1388.4	1347.3	1305.7	1307.6	1341.1	1430.5	1521.9	1626.2	1623.3
38.5°	1465.0	1334.8	1315.2	1280.8	1240.6	1243.5	1277.9	1365.5	1455.4	1554.4	1551.6
39°	1395.1	1271.2	1250.6	1213.3	1177.9	1183.7	1216.7	1295.6	1386.5	1482.2	1481.2
39.5°	1328.1	1208.1	1185.1	1148.2	1115.7	1123.8	1154.9	1232.9	1319.5	1412.3	1410.4
40°	1263.1	1144.4	1122.4	1084.1	1056.4	1065.5	1096.1	1171.7	1252.1	1342.0	1343.5
40.5°	1198.5	1083.7	1057.3	1020.0	994.7	1009.5	1039.6	1109.5	1190.4	1275.0	1277.4
41°	1133.9	1025.8	999.9	959.3	938.7	954.0	984.6	1050.2	1125.3	1208.5	1212.8
41.5°	1072.7	967.9	942.0	900.9	881.3	900.9	932.0	992.3	1063.1	1143.9	1148.2
42°	1011.4	911.9	886.1	844.0	826.7	849.7	880.3	936.8	1003.8	1079.8	1087.5
42.5°	953.0	857.4	829.6	788.9	773.2	799.5	831.0	882.7	946.3	1019.1	1026.7
43°	896.1	802.3	779.4	737.3	721.5	751.1	784.6	829.1	890.8	958.3	968.4
43.5°	841.6	750.2	729.1	686.6	672.2	703.8	737.7	778.9	834.9	899.9	911.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	685.6	604.7	589.0	545.4	532.5	574.1	607.6	637.8	675.1	738.2	754.5
45.5°	636.8	558.8	545.9	503.3	491.4	534.9	566.9	593.3	625.3	688.9	705.2
46°	589.0	516.2	505.2	462.6	456.4	496.1	527.7	551.2	578.0	641.1	656.4
46.5°	541.6	475.1	466.5	424.9	421.5	461.7	489.9	511.4	530.6	595.7	610.5
47°	495.7	435.4	429.2	389.4	386.1	427.2	456.4	472.7	487.5	551.2	567.9
47.5°	451.6	397.6	393.3	356.0	351.2	392.8	423.4	438.2	452.6	509.1	525.3
48°	411.5	361.2	359.3	325.3	316.7	358.3	389.9	403.8	417.7	473.2	483.7
48.5°	371.3	326.8	327.3	296.6	289.0	324.4	356.4	369.4	382.7	437.3	446.9
49°	333.5	294.7	296.6	268.9	263.1	295.2	322.9	334.9	347.3	400.9	410.0
49.5°	298.5	264.1	267.9	244.0	238.7	267.0	292.3	304.8	312.9	365.0	373.2
50°	265.1	234.9	239.7	220.6	215.3	240.2	264.6	275.6	285.6	329.2	336.8
50.5°	234.9	207.2	213.9	198.1	193.3	214.8	237.3	249.3	260.3	298.5	305.2
51°	206.2	181.3	189.5	176.1	172.7	190.4	211.9	224.9	235.9	269.8	275.6
51.5°	178.9	160.8	165.5	157.9	153.1	167.9	187.1	200.9	212.9	243.5	245.9
52°	157.9	140.2	145.9	139.7	134.0	146.9	165.1	178.5	191.4	218.6	218.6
52.5°	137.3	119.6	126.8	121.5	115.3	126.8	142.6	156.9	170.8	194.7	192.3
53°	116.7	99.0	107.6	102.9	98.1	107.6	122.5	136.8	151.7	172.2	168.4
53.5°	96.2	78.5	88.5	85.2	81.8	90.4	103.8	117.2	131.6	151.2	145.4
54°	75.6	63.6	72.7	69.9	67.9	74.6	86.1	99.5	112.9	131.1	124.4
54.5°	60.8	50.7	58.8	56.5	57.4	63.2	70.8	82.8	95.7	111.5	105.3
55°	47.8	37.8	45.9	43.5	46.9	51.7	59.3	68.4	80.9	94.3	87.1
55.5°	34.9	26.3	33.5	31.6	36.4	40.2	48.3	57.4	69.4	78.5	71.3
56°	23.9	17.7	23.0	22.0	25.8	28.7	37.3	46.4	58.4	66.0	60.3
56.5°	15.8	15.3	15.8	15.8	15.8	17.7	26.3	35.4	46.9	54.1	48.8
57°	13.9	13.4	14.4	14.4	13.4	13.4	15.3	24.9	35.4	42.1	37.8
57.5°	12.0	11.0	12.4	12.9	12.0	12.0	12.0	13.9	24.4	30.1	26.8
58°	10.0	9.1	11.0	11.5	11.0	10.5	10.5	11.0	12.9	18.2	15.8
58.5°	8.6	8.1	9.6	10.0	10.0	10.0	9.6	9.6	10.5	12.9	12.0
59°	7.7	7.7	8.6	9.1	9.1	9.1	8.6	8.6	9.1	10.5	10.5
59.5°	7.2	7.2	8.1	8.6	8.6	8.6	8.1	8.1	8.1	9.1	9.6
60°	6.7	6.2	7.2	7.7	8.1	7.7	7.7	7.2	7.7	8.1	8.6
60.5°	6.2	5.7	6.7	7.2	7.7	7.2	6.7	6.7	7.2	7.7	8.1
61°	5.7	5.7	6.2	6.7	6.7	6.7	6.2	6.2	6.2	7.2	7.2
61.5°	5.3	5.3	5.7	6.2	6.7	6.2	5.7	5.7	5.7	6.2	6.7
62°	4.8	4.8	5.3	5.7	6.2	5.7	5.7	5.3	5.3	5.7	6.2
62.5°	4.3	4.3	5.3	5.7	5.7	5.3	5.3	5.3	5.3	5.7	5.7
63°	4.3	4.3	4.8	5.3	5.3	5.3	4.8	4.8	4.8	5.3	5.3
63.5°	3.8	3.8	4.3	4.8	4.8	4.8	4.3	4.3	4.3	4.8	5.3
64°	3.8	3.8	4.3	4.3	4.8	4.3	4.3	4.3	4.3	4.3	4.8
64.5°	3.3	3.3	3.8	4.3	4.3	4.3	3.8	3.8	3.8	4.3	4.3
65°	3.3	3.3	3.8	3.8	3.8	3.8	3.8	3.3	3.3	3.8	4.3
65.5°	2.9	2.9	3.3	3.8	3.8	3.8	3.3	3.3	3.3	3.8	3.8
66°	2.9	2.9	3.3	3.3	3.3	3.3	3.3	2.9	2.9	3.3	3.3



TEST NUMBER: P776598

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	2.4	2.4	2.4	2.9	2.9	2.9	2.9	2.4	2.4	2.9	2.9
68°	1.9	1.9	2.4	2.9	2.9	2.4	2.4	2.4	2.4	2.4	2.9
68.5°	1.9	1.9	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
69°	1.9	1.9	1.9	2.4	2.4	2.4	1.9	1.9	1.9	2.4	2.4
69.5°	1.4	1.4	1.9	2.4	2.4	1.9	1.9	1.9	1.9	1.9	2.4
70°	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
70.5°	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.9	1.9
71°	1.4	1.4	1.4	1.9	1.9	1.9	1.4	1.4	1.4	1.9	1.9
71.5°	1.0	1.0	1.4	1.4	1.9	1.4	1.4	1.4	1.4	1.4	1.9
72°	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
73°	1.0	1.0	1.0	1.4	1.4	1.4	1.0	1.0	1.0	1.4	1.4
73.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.0	1.0	1.0	1.0	1.4
74°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
74.5°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75.5°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
76°	0.5	0.5	0.5	1.0	1.0	1.0	1.0	0.5	0.5	1.0	1.0
76.5°	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0
77°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
78°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
78.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
79°	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5	0.5
81°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5
81.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5
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: P776598
CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

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: P776598

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	6126.4	6126.4	6126.4	6126.4	6126.4	6126.4
0.5°	6132.1	6131.6	6135.9	6140.7	6141.2	6137.9
1°	6135.5	6138.8	6146.0	6152.7	6153.7	6147.9
1.5°	6137.4	6144.1	6152.2	6159.9	6163.7	6157.0
2°	6138.8	6147.0	6152.7	6162.3	6170.9	6165.1
2.5°	6139.8	6146.5	6147.4	6157.5	6173.3	6171.4
3°	6139.3	6143.1	6133.6	6142.6	6170.4	6174.7
3.5°	6138.8	6137.4	6112.0	6120.2	6160.8	6174.2
4°	6138.3	6128.3	6084.3	6086.2	6145.0	6169.4
4.5°	6135.9	6116.3	6049.4	6046.0	6122.6	6159.9
5°	6132.1	6101.0	6007.7	6001.0	6092.9	6144.6
5.5°	6127.8	6082.8	5965.6	5952.7	6058.4	6122.1
6°	6121.1	6062.3	5923.0	5907.3	6025.0	6093.8
6.5°	6109.6	6040.7	5881.9	5865.2	5990.0	6057.5
7°	6092.9	6017.3	5846.5	5828.8	5948.4	6014.4
7.5°	6070.9	5992.4	5817.8	5798.2	5909.6	5966.6
8°	6039.8	5964.2	5793.4	5772.8	5868.5	5914.4
8.5°	6002.5	5934.0	5772.8	5753.7	5825.9	5859.4
9°	5960.4	5899.1	5754.2	5735.0	5781.9	5799.1
9.5°	5911.6	5859.9	5739.8	5717.8	5739.3	5738.8
10°	5855.6	5816.8	5721.1	5700.1	5694.8	5680.5
10.5°	5801.0	5769.0	5701.1	5681.4	5650.8	5624.0
11°	5742.7	5719.2	5678.6	5659.4	5605.4	5569.5
11.5°	5681.9	5667.1	5652.3	5634.1	5561.3	5516.4
12°	5625.0	5615.4	5619.7	5603.4	5516.9	5463.3
12.5°	5570.0	5563.3	5585.3	5568.0	5472.4	5411.1
13°	5513.5	5511.1	5548.4	5532.2	5429.8	5360.4
13.5°	5457.5	5460.9	5507.8	5492.0	5383.4	5309.7
14°	5403.5	5410.2	5465.2	5449.9	5335.5	5256.1
14.5°	5348.9	5361.4	5421.6	5406.3	5285.8	5200.1
15°	5293.4	5309.7	5372.8	5359.4	5234.1	5143.7
15.5°	5238.4	5259.5	5322.6	5311.6	5178.1	5084.3
16°	5179.1	5205.9	5269.5	5258.5	5121.2	5023.6
16.5°	5120.7	5151.3	5215.4	5201.1	5062.8	4957.6
17°	5056.1	5093.4	5158.0	5141.8	5001.1	4894.4
17.5°	4993.4	5035.1	5095.8	5077.6	4937.5	4826.9
18°	4926.5	4973.3	5029.3	5010.2	4871.9	4759.5
18.5°	4860.0	4909.7	4962.8	4938.9	4801.6	4690.6
19°	4789.6	4842.7	4892.0	4864.3	4733.7	4622.2
19.5°	4720.3	4778.6	4820.7	4788.2	4663.8	4551.8
20°	4648.0	4709.3	4749.4	4713.6	4592.5	4481.5
20.5°	4578.2	4642.7	4671.9	4636.1	4520.3	4410.2
21°	4505.9	4571.5	4598.7	4557.6	4448.0	4338.9



TEST NUMBER: P776598

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	4293.0	4361.9	4372.9	4317.4	4224.6	4121.7
23°	4218.9	4290.6	4294.0	4237.0	4149.0	4048.5
23.5°	4144.7	4216.5	4213.6	4154.3	4068.6	3973.4
24°	4072.9	4143.3	4134.6	4068.1	3991.1	3897.3
24.5°	3999.7	4068.6	4052.8	3983.9	3909.8	3822.7
25°	3923.7	3993.0	3968.2	3900.7	3832.8	3744.7
25.5°	3850.0	3917.4	3887.8	3818.4	3748.6	3667.7
26°	3776.3	3840.9	3808.4	3738.5	3670.6	3588.3
26.5°	3698.3	3764.8	3727.5	3656.7	3589.2	3504.5
27°	3619.9	3687.3	3648.1	3577.3	3506.9	3413.6
27.5°	3541.9	3607.9	3566.3	3496.4	3417.5	3321.3
28°	3463.4	3524.6	3483.5	3414.1	3336.6	3226.6
28.5°	3385.4	3438.0	3401.2	3329.9	3248.1	3128.5
29°	3297.9	3351.4	3317.5	3247.1	3156.7	3028.5
29.5°	3207.4	3261.5	3234.7	3160.6	3066.3	2928.0
30°	3112.2	3168.7	3147.6	3072.5	2973.0	2832.3
30.5°	3015.1	3074.0	3056.7	2982.1	2875.4	2738.6
31°	2925.2	2976.4	2967.3	2891.7	2781.6	2646.7
31.5°	2825.2	2877.8	2875.9	2801.7	2685.0	2557.7
32°	2721.3	2783.1	2785.9	2714.6	2593.1	2468.7
32.5°	2630.4	2689.8	2693.6	2626.6	2502.2	2386.0
33°	2536.2	2599.8	2607.0	2542.4	2412.3	2305.6
33.5°	2441.9	2508.0	2513.2	2457.7	2327.6	2223.8
34°	2353.0	2425.7	2427.1	2372.1	2245.8	2141.0
34.5°	2268.3	2342.9	2344.3	2288.4	2165.9	2057.8
35°	2186.5	2261.1	2258.2	2206.5	2086.5	1977.9
35.5°	2106.1	2180.7	2175.5	2123.8	2010.4	1899.9
36°	2026.7	2101.8	2096.0	2042.9	1933.8	1820.0
36.5°	1947.2	2024.3	2016.1	1960.2	1860.2	1745.3
37°	1869.3	1946.3	1935.3	1878.8	1786.5	1675.0
37.5°	1792.2	1869.3	1861.1	1802.3	1708.0	1605.2
38°	1716.2	1791.3	1782.7	1727.6	1637.2	1535.3
38.5°	1641.0	1716.6	1700.4	1654.9	1567.4	1465.0
39°	1566.9	1647.7	1631.5	1581.7	1497.0	1395.1
39.5°	1496.1	1578.4	1562.6	1509.0	1426.7	1328.1
40°	1427.2	1509.5	1494.2	1435.8	1356.8	1263.1
40.5°	1359.7	1440.6	1425.3	1363.1	1290.8	1198.5
41°	1298.5	1371.7	1356.4	1294.6	1225.8	1133.9
41.5°	1232.5	1306.1	1288.0	1227.7	1162.1	1072.7
42°	1170.7	1242.0	1220.5	1162.6	1099.4	1011.4
42.5°	1110.0	1177.0	1155.4	1100.4	1038.7	953.0
43°	1054.0	1113.3	1090.4	1038.7	977.9	896.1
43.5°	993.7	1050.6	1027.2	976.5	917.6	841.6



TEST NUMBER: P776598

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	830.6	871.2	849.7	804.7	745.4	685.6
45.5°	775.5	814.8	792.8	750.7	691.8	636.8
46°	725.3	760.2	738.2	697.6	640.6	589.0
46.5°	674.6	707.1	686.6	646.8	590.4	541.6
47°	626.8	655.5	634.9	597.6	542.5	495.7
47.5°	578.4	605.2	585.6	549.7	495.7	451.6
48°	533.5	557.4	536.8	503.3	452.6	411.5
48.5°	489.4	511.0	491.8	460.7	411.9	371.3
49°	449.7	467.4	448.8	417.7	372.2	333.5
49.5°	410.5	425.3	407.6	377.5	334.9	298.5
50°	370.8	384.2	365.5	338.3	300.9	265.1
50.5°	331.6	345.9	329.2	301.9	267.0	234.9
51°	297.6	310.0	293.8	268.4	235.9	206.2
51.5°	265.5	276.1	261.7	236.3	207.6	178.9
52°	234.4	244.5	229.6	205.7	179.9	157.9
52.5°	206.2	215.3	201.4	178.9	158.8	137.3
53°	180.4	187.1	174.2	157.9	137.3	116.7
53.5°	155.5	162.7	153.6	136.4	116.3	96.2
54°	132.0	142.1	133.0	115.3	94.7	75.6
54.5°	112.0	121.5	112.4	94.3	73.7	60.8
55°	92.8	101.0	91.9	73.2	59.8	47.8
55.5°	75.6	79.9	71.3	58.8	46.4	34.9
56°	64.1	65.1	57.4	46.4	34.0	23.9
56.5°	52.6	52.1	45.5	33.5	22.5	15.8
57°	41.1	39.2	32.5	23.0	15.3	13.9
57.5°	29.7	28.2	22.5	15.8	13.9	12.0
58°	18.2	19.6	16.3	13.9	12.0	10.0
58.5°	13.9	17.2	14.8	12.4	10.0	8.6
59°	12.0	15.3	12.9	10.5	8.6	7.7
59.5°	11.0	12.9	11.5	9.1	7.7	7.2
60°	10.0	10.5	9.6	8.1	7.2	6.7
60.5°	9.1	9.6	9.1	7.7	6.7	6.2
61°	8.6	9.1	8.1	7.2	6.2	5.7
61.5°	7.7	8.1	7.7	6.7	5.7	5.3
62°	7.2	7.7	7.2	6.2	5.3	4.8
62.5°	6.7	7.2	6.7	5.7	4.8	4.3
63°	6.2	6.7	6.2	5.3	4.8	4.3
63.5°	5.7	6.2	5.7	4.8	4.3	3.8
64°	5.3	5.7	5.3	4.3	3.8	3.8
64.5°	5.3	5.3	4.8	4.3	3.8	3.3
65°	4.8	5.3	4.8	3.8	3.3	3.3
65.5°	4.3	4.8	4.3	3.8	3.3	2.9
66°	4.3	4.3	3.8	3.3	2.9	2.9



TEST NUMBER: P776598

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	3.3	3.8	3.3	2.9	2.4	2.4
68°	3.3	3.3	2.9	2.4	2.4	1.9
68.5°	2.9	3.3	2.9	2.4	1.9	1.9
69°	2.9	2.9	2.9	2.4	1.9	1.9
69.5°	2.4	2.9	2.4	1.9	1.9	1.4
70°	2.4	2.4	2.4	1.9	1.4	1.4
70.5°	2.4	2.4	2.4	1.9	1.4	1.4
71°	1.9	2.4	1.9	1.9	1.4	1.4
71.5°	1.9	1.9	1.9	1.4	1.4	1.0
72°	1.9	1.9	1.9	1.4	1.4	1.0
72.5°	1.9	1.9	1.4	1.4	1.0	1.0
73°	1.4	1.4	1.4	1.4	1.0	1.0
73.5°	1.4	1.4	1.4	1.0	1.0	1.0
74°	1.4	1.4	1.4	1.0	1.0	1.0
74.5°	1.4	1.4	1.4	1.0	1.0	0.5
75°	1.0	1.4	1.0	1.0	1.0	0.5
75.5°	1.0	1.0	1.0	1.0	0.5	0.5
76°	1.0	1.0	1.0	1.0	0.5	0.5
76.5°	1.0	1.0	1.0	0.5	0.5	0.5
77°	1.0	1.0	1.0	0.5	0.5	0.5
77.5°	1.0	1.0	1.0	0.5	0.5	0.5
78°	1.0	1.0	0.5	0.5	0.5	0.5
78.5°	0.5	0.5	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.0
80°	0.5	0.5	0.5	0.5	0.0	0.0
80.5°	0.5	0.5	0.5	0.5	0.0	0.0
81°	0.5	0.5	0.5	0.5	0.0	0.0
81.5°	0.5	0.5	0.5	0.0	0.0	0.0
82°	0.5	0.5	0.5	0.0	0.0	0.0
82.5°	0.5	0.5	0.5	0.0	0.0	0.0
83°	0.5	0.5	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: P776598

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRC-5000lm-4000K

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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Scaled Data Report





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

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Scaled Data Report





21.5°	4267.7	4155.7	4147.1	4101.2	4055.2	4044.7	4068.6	4172.9	4295.9	4380.1	4374.8
22°	4195.9	4079.2	4068.6	4020.8	3976.8	3969.6	3995.4	4103.6	4223.6	4306.9	4300.2



44°	788.0	700.0	680.3	636.8	624.8	659.3	692.8	730.1	779.4	844.0	857.8
44.5°	735.4	651.6	633.9	589.9	577.5	615.7	649.2	682.7	726.7	790.4	804.7



66.5°	2.4	2.4	2.9	3.3	3.3	3.3	2.9	2.9	2.9	3.3	3.3
67°	2.4	2.4	2.9	2.9	3.3	2.9	2.9	2.9	2.9	2.9	3.3



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°	4434.6	4502.6	4524.1	4478.6	4374.3	4267.7
22°	4362.4	4431.3	4447.5	4399.7	4301.6	4195.9



44°	937.7	989.9	966.0	917.6	857.8	788.0
44.5°	882.7	930.1	908.1	860.7	802.3	735.4

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66.5°	3.8	4.3	3.8	3.3	2.9	2.4
67°	3.8	3.8	3.3	2.9	2.4	2.4

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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)