

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: P776285

Luminaire Tested: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776285
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: HCDJBL3040CSD-HCD4TRC-4000lm-2700K
Description: 4 INCH ROUND MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

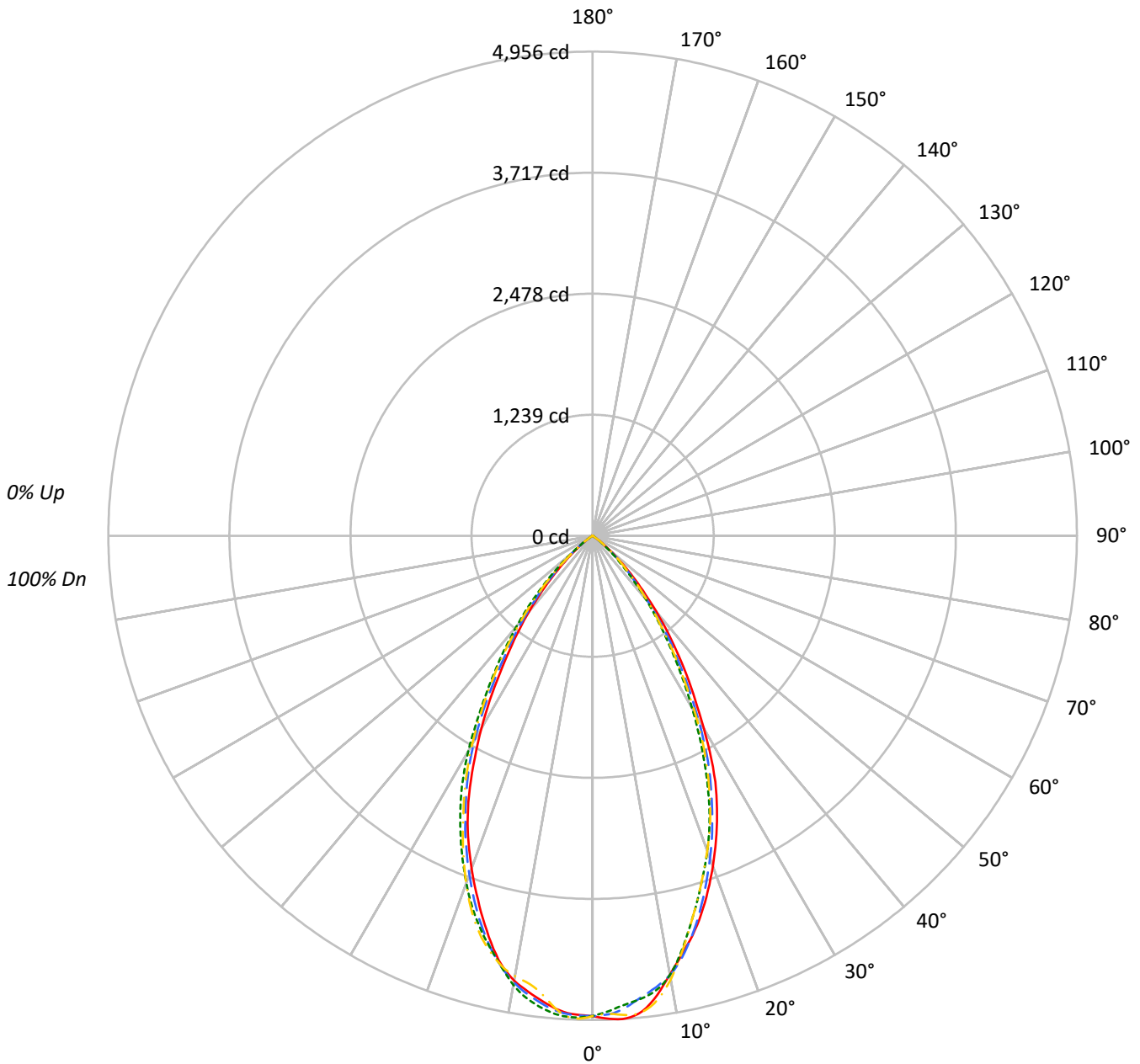
Lumens per Lamp: N/A
Luminaire Lumens: 4473.1 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.88
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	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	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93		
2	108	103	98	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86		
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80		
4	97	89	83	79	95	88	82	78	85	81	77	83	80	76	82	78	76	74		
5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	69		
6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64		
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60		
8	78	68	62	58	77	68	62	58	67	61	57	66	61	57	65	60	57	56		
9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	53	52		
10	71	61	55	51	70	60	54	51	59	54	50	59	54	50	58	53	50	49		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	618803	618803	618803	618803
5°	623012	604719	610972	618590
10°	582613	582907	590804	596593
15°	537873	521314	545222	555228
20°	481707	459542	485109	506189
25°	417343	385239	417718	445018
30°	330339	295796	330281	369575
35°	243879	211262	240929	278800
40°	166536	139281	165090	199032
45°	97942	76068	96429	124443
50°	41644	33832	44874	60361
55°	8425	8250	14240	17772
60°	1359	1636	1535	2114
65°	804	923	804	1251
70°	442	552	552	699
75°	194	389	389	583
80°	0	290	290	290
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°
 Vertical Angle: 45°
 Luminance: 124443 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.2	10.2
10°-20°	1157.2	25.9
20°-30°	1357.4	30.3
30°-40°	993.7	22.2
40°-50°	438.4	9.8
50°-60°	67.0	1.5
60°-70°	3.4	0.1
70°-80°	0.9	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°	2969.8	66.4
0°-40°	3963.5	88.6
0°-60°	4468.8	99.9
0°-90°	4473.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4473.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4917	4917	4917	4917	4917	
5°	4932	4787	4836	4897	4932	458
15°	4128	4001	4185	4262	4128	1150
25°	3006	2774	3008	3205	3006	1361
35°	1587	1375	1568	1815	1587	993
45°	550	427	542	699	550	433
55°	38	38	65	81	38	55
65°	3	3	3	4	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°	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0
0.5°	4926.2	4919.7	4913.1	4912.0	4904.7	4904.7	4908.5	4911.2	4913.9	4915.1	4915.8
1°	4934.3	4922.0	4910.1	4903.9	4894.3	4895.1	4901.6	4906.2	4910.1	4912.8	4915.4
1.5°	4941.6	4924.7	4905.8	4893.6	4881.3	4887.4	4897.0	4903.9	4907.4	4909.7	4913.9
2°	4948.1	4926.2	4899.7	4880.5	4866.7	4879.7	4897.0	4905.5	4904.7	4905.8	4910.8
2.5°	4953.1	4925.4	4890.1	4862.8	4851.7	4873.2	4900.5	4908.9	4899.7	4898.9	4907.0
3°	4955.8	4921.2	4877.8	4843.6	4836.3	4869.4	4906.2	4912.4	4892.8	4888.6	4901.2
3.5°	4955.4	4913.5	4861.3	4822.9	4822.5	4866.7	4913.5	4915.4	4881.7	4874.7	4894.7
4°	4951.5	4901.6	4841.7	4800.6	4809.5	4864.8	4918.9	4915.8	4868.6	4857.8	4885.5
4.5°	4943.9	4885.1	4819.1	4779.9	4797.9	4862.5	4921.2	4913.5	4853.6	4837.5	4873.2
5°	4931.6	4865.1	4796.0	4760.3	4786.8	4858.2	4918.9	4906.2	4836.3	4814.8	4858.6
5.5°	4913.5	4842.1	4773.4	4741.9	4775.7	4850.9	4911.6	4895.9	4817.5	4789.9	4841.7
6°	4890.9	4815.6	4751.1	4726.1	4764.2	4839.4	4898.5	4880.5	4798.3	4766.1	4823.7
6.5°	4861.7	4787.6	4729.6	4711.2	4751.1	4825.2	4880.5	4862.1	4778.0	4741.9	4804.9
7°	4827.1	4756.9	4709.6	4696.6	4735.4	4805.2	4857.1	4838.6	4758.0	4721.1	4785.3
7.5°	4788.7	4723.8	4687.7	4682.0	4717.3	4779.1	4829.0	4812.5	4736.9	4700.0	4764.9
8°	4746.9	4688.9	4666.2	4666.2	4695.8	4748.4	4792.9	4781.8	4715.0	4681.2	4743.4
8.5°	4702.7	4649.7	4643.6	4648.2	4670.1	4713.5	4753.0	4748.4	4693.5	4665.1	4721.5
9°	4654.3	4610.9	4619.4	4627.1	4638.6	4671.2	4708.5	4711.5	4670.8	4650.5	4696.6
9.5°	4605.9	4571.4	4592.9	4602.5	4602.9	4625.1	4661.2	4670.5	4648.6	4635.5	4670.5
10°	4559.1	4531.5	4563.7	4574.1	4561.4	4575.2	4607.9	4626.7	4623.2	4619.4	4641.3
10.5°	4513.8	4490.8	4531.1	4539.9	4516.1	4519.9	4553.3	4579.1	4595.2	4602.1	4611.7
11°	4470.0	4450.0	4495.0	4497.7	4467.7	4462.3	4494.2	4529.1	4562.9	4582.9	4578.7
11.5°	4427.4	4407.4	4453.5	4455.8	4411.6	4405.1	4434.7	4475.4	4528.0	4558.7	4544.1
12°	4384.8	4364.0	4408.6	4406.3	4354.4	4337.5	4369.0	4418.9	4488.8	4531.1	4507.3
12.5°	4342.9	4319.5	4362.5	4351.0	4296.5	4275.3	4308.4	4360.6	4445.8	4497.3	4466.6
13°	4302.2	4275.3	4312.6	4294.9	4238.1	4219.3	4245.4	4302.2	4396.3	4458.1	4424.7
13.5°	4261.5	4227.3	4262.7	4241.9	4178.6	4152.5	4183.6	4243.1	4346.4	4416.6	4381.3
14°	4218.5	4178.2	4210.8	4182.8	4118.3	4093.7	4121.7	4183.2	4295.3	4369.0	4336.4
14.5°	4173.6	4127.9	4158.2	4124.4	4058.8	4036.5	4063.4	4125.6	4241.2	4319.5	4289.5
15°	4128.3	4076.8	4102.9	4065.7	4001.2	3976.2	4001.2	4068.0	4184.7	4268.4	4240.0
15.5°	4080.6	4023.1	4047.2	4006.2	3943.2	3917.1	3943.9	4010.4	4129.8	4216.6	4190.1
16°	4031.9	3970.1	3989.6	3946.6	3885.6	3860.6	3883.3	3954.3	4073.4	4161.3	4139.4
16.5°	3978.9	3914.0	3932.0	3888.3	3827.2	3804.6	3825.7	3900.6	4018.4	4106.0	4087.6
17°	3928.2	3858.7	3872.5	3828.8	3771.9	3747.0	3768.1	3843.0	3963.1	4050.3	4034.2
17.5°	3874.1	3801.1	3813.8	3769.6	3714.7	3691.7	3713.2	3788.1	3904.4	3993.1	3978.5
18°	3819.9	3744.3	3753.5	3710.9	3657.1	3634.5	3652.9	3733.9	3848.7	3935.5	3922.8
18.5°	3764.6	3685.5	3693.6	3651.7	3599.9	3578.8	3596.1	3679.0	3794.2	3875.2	3865.2
19°	3709.7	3628.3	3631.4	3591.4	3544.2	3523.1	3540.0	3622.6	3737.0	3817.6	3807.6
19.5°	3653.3	3569.6	3573.0	3532.3	3487.8	3469.7	3486.6	3569.2	3680.1	3756.9	3748.9
20°	3596.8	3513.1	3511.6	3473.9	3431.3	3414.4	3429.4	3514.7	3622.2	3697.0	3690.1
20.5°	3539.6	3454.7	3451.7	3414.8	3375.3	3359.9	3373.7	3458.6	3565.0	3636.4	3630.6
21°	3482.4	3394.8	3391.0	3354.9	3315.4	3303.1	3318.4	3404.1	3506.6	3576.9	3570.3

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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°	3308.1	3212.5	3199.0	3162.5	3126.8	3123.7	3145.3	3234.7	3331.5	3396.8	3391.4
23°	3249.3	3148.7	3133.3	3096.1	3059.2	3058.1	3081.1	3173.7	3273.1	3337.2	3332.6
23.5°	3189.0	3086.1	3067.3	3027.4	2988.2	2995.5	3017.8	3111.8	3209.0	3274.3	3270.0
24°	3128.0	3022.0	3002.0	2957.5	2916.8	2927.9	2951.0	3045.0	3143.3	3210.9	3205.2
24.5°	3068.1	2958.6	2935.6	2884.9	2845.4	2860.3	2883.8	2977.1	3074.6	3145.6	3141.8
25°	3005.5	2892.6	2869.5	2813.9	2774.3	2792.8	2816.9	2909.1	3008.2	3079.6	3081.1
25.5°	2943.7	2828.5	2803.5	2740.9	2702.9	2724.8	2749.7	2841.5	2936.0	3012.8	3014.3
26°	2879.9	2763.6	2737.1	2667.2	2628.0	2649.9	2682.5	2773.6	2863.4	2945.6	2951.3
26.5°	2812.7	2696.4	2669.5	2593.5	2552.4	2579.6	2614.6	2705.6	2791.2	2878.8	2888.4
27°	2739.8	2626.1	2601.1	2520.5	2477.9	2503.2	2542.8	2632.2	2718.6	2811.6	2825.4
27.5°	2665.7	2557.0	2527.8	2448.7	2403.4	2428.3	2475.6	2556.2	2641.8	2744.8	2762.4
28°	2589.6	2483.6	2454.1	2376.9	2327.7	2353.9	2400.3	2478.6	2565.0	2677.9	2699.1
28.5°	2510.9	2408.0	2381.1	2304.3	2253.6	2278.6	2326.6	2402.6	2491.7	2605.4	2630.3
29°	2430.6	2332.7	2306.6	2233.7	2180.3	2203.3	2252.5	2325.4	2418.7	2532.8	2559.7
29.5°	2350.0	2255.2	2231.4	2163.0	2107.7	2128.1	2176.1	2252.9	2346.2	2459.4	2486.7
30°	2273.2	2178.0	2158.4	2092.7	2035.5	2052.4	2098.1	2176.1	2272.8	2385.0	2412.6
30.5°	2198.0	2100.0	2085.8	2022.9	1963.0	1979.1	2024.4	2100.8	2199.9	2310.1	2337.7
31°	2124.2	2020.2	2013.3	1950.3	1893.1	1905.0	1949.1	2029.4	2126.1	2237.9	2262.1
31.5°	2052.8	1944.9	1943.0	1880.4	1823.2	1833.5	1875.8	1959.1	2052.8	2166.5	2188.0
32°	1981.4	1872.7	1873.5	1810.9	1754.4	1767.9	1803.2	1887.7	1982.2	2095.0	2113.5
32.5°	1915.0	1801.3	1805.1	1740.2	1687.6	1699.5	1735.6	1820.1	1909.6	2025.2	2039.4
33°	1850.4	1731.8	1738.3	1670.4	1621.2	1633.9	1666.1	1752.1	1838.2	1954.9	1966.8
33.5°	1784.8	1663.1	1672.3	1606.2	1556.3	1572.8	1600.1	1685.7	1767.9	1887.7	1891.1
34°	1718.4	1597.4	1606.6	1542.1	1494.5	1505.6	1535.2	1621.2	1699.5	1820.9	1818.6
34.5°	1651.5	1534.0	1543.3	1478.4	1433.8	1444.6	1471.1	1557.1	1632.3	1754.4	1748.7
35°	1587.4	1471.4	1478.7	1418.1	1375.1	1389.3	1409.2	1494.5	1568.2	1688.8	1681.1
35.5°	1524.8	1411.2	1414.6	1369.7	1317.1	1328.6	1349.3	1434.6	1506.4	1622.4	1612.4
36°	1460.7	1375.8	1372.4	1310.9	1261.8	1266.4	1291.7	1373.5	1448.4	1557.1	1546.7
36.5°	1400.8	1313.2	1308.3	1252.6	1207.3	1213.0	1235.7	1316.7	1390.0	1492.2	1482.6
37°	1344.3	1250.3	1243.7	1193.8	1153.1	1156.6	1180.0	1258.3	1332.8	1428.4	1422.3
37.5°	1288.3	1187.3	1178.8	1135.5	1100.5	1101.7	1127.8	1200.3	1278.3	1367.0	1360.9
38°	1232.2	1124.7	1114.3	1081.3	1047.9	1049.4	1076.3	1148.1	1221.5	1305.2	1302.9
38.5°	1175.8	1071.3	1055.6	1027.9	995.7	998.0	1025.6	1095.9	1168.1	1247.6	1245.3
39°	1119.7	1020.3	1003.7	973.8	945.4	950.0	976.5	1039.8	1112.8	1189.6	1188.8
39.5°	1066.0	969.6	951.1	921.6	895.5	902.0	926.9	989.5	1059.0	1133.5	1132.0
40°	1013.7	918.5	900.8	870.1	847.8	855.1	879.7	940.4	1004.9	1077.1	1078.2
40.5°	961.9	869.7	848.6	818.7	798.3	810.2	834.4	890.5	955.4	1023.3	1025.3
41°	910.1	823.3	802.5	769.9	753.4	765.7	790.2	842.9	903.1	970.0	973.4
41.5°	860.9	776.8	756.1	723.1	707.3	723.1	748.0	796.4	853.2	918.1	921.6
42°	811.8	731.9	711.1	677.4	663.5	682.0	706.5	751.9	805.6	866.7	872.8
42.5°	764.9	688.1	665.8	633.2	620.5	641.6	667.0	708.5	759.5	817.9	824.0
43°	719.2	643.9	625.5	591.7	579.1	602.9	629.7	665.5	715.0	769.1	777.2
43.5°	675.4	602.1	585.2	551.0	539.5	564.8	592.1	625.1	670.1	722.3	731.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	550.3	485.4	472.7	437.7	427.4	460.8	487.7	511.9	541.8	592.5	605.6
45.5°	511.1	448.5	438.1	404.0	394.4	429.3	455.0	476.1	501.9	552.9	566.0
46°	472.7	414.3	405.5	371.3	366.3	398.2	423.5	442.4	463.9	514.5	526.8
46.5°	434.7	381.3	374.4	341.0	338.3	370.5	393.2	410.5	425.8	478.1	490.0
47°	397.8	349.4	344.4	312.6	309.9	342.9	366.3	379.4	391.3	442.4	455.8
47.5°	362.5	319.1	315.6	285.7	281.8	315.3	339.8	351.7	363.3	408.6	421.6
48°	330.2	289.9	288.4	261.1	254.2	287.6	313.0	324.1	335.2	379.8	388.2
48.5°	298.0	262.3	262.6	238.1	231.9	260.3	286.1	296.4	307.2	351.0	358.6
49°	267.6	236.5	238.1	215.8	211.2	236.9	259.2	268.8	278.8	321.8	329.1
49.5°	239.6	212.0	215.0	195.8	191.6	214.3	234.6	244.6	251.1	293.0	299.5
50°	212.7	188.5	192.4	177.0	172.8	192.8	212.3	221.2	229.2	264.2	270.3
50.5°	188.5	166.3	171.6	159.0	155.1	172.4	190.5	200.1	208.9	239.6	245.0
51°	165.5	145.5	152.1	141.3	138.6	152.8	170.1	180.5	189.3	216.6	221.2
51.5°	143.6	129.0	132.9	126.7	122.9	134.8	150.1	161.3	170.9	195.5	197.4
52°	126.7	112.5	117.1	112.1	107.5	117.9	132.5	143.2	153.6	175.5	175.5
52.5°	110.2	96.0	101.8	97.5	92.5	101.8	114.4	125.9	137.1	156.3	154.4
53°	93.7	79.5	86.4	82.6	78.7	86.4	98.3	109.8	121.7	138.2	135.2
53.5°	77.2	63.0	71.0	68.4	65.7	72.6	83.3	94.1	105.6	121.3	116.7
54°	60.7	51.1	58.4	56.1	54.5	59.9	69.1	79.9	90.6	105.2	99.8
54.5°	48.8	40.7	47.2	45.3	46.1	50.7	56.8	66.4	76.8	89.5	84.5
55°	38.4	30.3	36.9	34.9	37.6	41.5	47.6	54.9	64.9	75.6	69.9
55.5°	28.0	21.1	26.9	25.3	29.2	32.3	38.8	46.1	55.7	63.0	57.2
56°	19.2	14.2	18.4	17.7	20.7	23.0	30.0	37.2	46.8	53.0	48.4
56.5°	12.7	12.3	12.7	12.7	12.7	14.2	21.1	28.4	37.6	43.4	39.2
57°	11.1	10.8	11.5	11.5	10.8	10.8	12.3	20.0	28.4	33.8	30.3
57.5°	9.6	8.8	10.0	10.4	9.6	9.6	9.6	11.1	19.6	24.2	21.5
58°	8.1	7.3	8.8	9.2	8.8	8.4	8.4	8.8	10.4	14.6	12.7
58.5°	6.9	6.5	7.7	8.1	8.1	8.1	7.7	7.7	8.4	10.4	9.6
59°	6.1	6.1	6.9	7.3	7.3	7.3	6.9	6.9	7.3	8.4	8.4
59.5°	5.8	5.8	6.5	6.9	6.9	6.9	6.5	6.5	6.5	7.3	7.7
60°	5.4	5.0	5.8	6.1	6.5	6.1	6.1	5.8	6.1	6.5	6.9
60.5°	5.0	4.6	5.4	5.8	6.1	5.8	5.4	5.4	5.8	6.1	6.5
61°	4.6	4.6	5.0	5.4	5.4	5.4	5.0	5.0	5.0	5.8	5.8
61.5°	4.2	4.2	4.6	5.0	5.4	5.0	4.6	4.6	4.6	5.0	5.4
62°	3.8	3.8	4.2	4.6	5.0	4.6	4.6	4.2	4.2	4.6	5.0
62.5°	3.5	3.5	4.2	4.6	4.6	4.2	4.2	4.2	4.2	4.6	4.6
63°	3.5	3.5	3.8	4.2	4.2	4.2	3.8	3.8	3.8	4.2	4.2
63.5°	3.1	3.1	3.5	3.8	3.8	3.8	3.5	3.5	3.5	3.8	4.2
64°	3.1	3.1	3.5	3.5	3.8	3.5	3.5	3.5	3.5	3.5	3.8
64.5°	2.7	2.7	3.1	3.5	3.5	3.5	3.1	3.1	3.1	3.5	3.5
65°	2.7	2.7	3.1	3.1	3.1	3.1	3.1	2.7	2.7	3.1	3.5
65.5°	2.3	2.3	2.7	3.1	3.1	3.1	2.7	2.7	2.7	3.1	3.1
66°	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.3	2.3	2.7	2.7



TEST NUMBER: P776285

CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.9	1.9	1.9	2.3	2.3	2.3	2.3	1.9	1.9	2.3	2.3
68°	1.5	1.5	1.9	2.3	2.3	1.9	1.9	1.9	1.9	1.9	2.3
68.5°	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
69°	1.5	1.5	1.5	1.9	1.9	1.9	1.5	1.5	1.5	1.9	1.9
69.5°	1.2	1.2	1.5	1.9	1.9	1.5	1.5	1.5	1.5	1.5	1.9
70°	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70.5°	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.2	1.2	1.5	1.5
71°	1.2	1.2	1.2	1.5	1.5	1.5	1.2	1.2	1.2	1.5	1.5
71.5°	0.8	0.8	1.2	1.2	1.5	1.2	1.2	1.2	1.2	1.2	1.5
72°	0.8	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
72.5°	0.8	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
73°	0.8	0.8	0.8	1.2	1.2	1.2	0.8	0.8	0.8	1.2	1.2
73.5°	0.8	0.8	0.8	1.2	1.2	1.2	0.8	0.8	0.8	0.8	1.2
74°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
74.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
75.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
76°	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.4	0.4	0.8	0.8
76.5°	0.4	0.4	0.4	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.8
77°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
78°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
78.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
79°	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
79.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4
81°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4
81.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.4
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: P776285
CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-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: P776285

CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4917.0	4917.0	4917.0	4917.0	4917.0	4917.0
0.5°	4921.6	4921.2	4924.7	4928.5	4928.9	4926.2
1°	4924.3	4927.0	4932.7	4938.1	4938.9	4934.3
1.5°	4925.8	4931.2	4937.7	4943.9	4946.9	4941.6
2°	4927.0	4933.5	4938.1	4945.8	4952.7	4948.1
2.5°	4927.7	4933.1	4933.9	4941.9	4954.6	4953.1
3°	4927.3	4930.4	4922.7	4930.0	4952.3	4955.8
3.5°	4927.0	4925.8	4905.5	4912.0	4944.6	4955.4
4°	4926.6	4918.5	4883.2	4884.7	4932.0	4951.5
4.5°	4924.7	4908.9	4855.2	4852.5	4913.9	4943.9
5°	4921.6	4896.6	4821.7	4816.4	4890.1	4931.6
5.5°	4918.1	4882.0	4788.0	4777.6	4862.5	4913.5
6°	4912.8	4865.5	4753.8	4741.1	4835.6	4890.9
6.5°	4903.5	4848.2	4720.8	4707.3	4807.5	4861.7
7°	4890.1	4829.4	4692.3	4678.1	4774.1	4827.1
7.5°	4872.4	4809.5	4669.3	4653.6	4743.0	4788.7
8°	4847.5	4786.8	4649.7	4633.2	4710.0	4746.9
8.5°	4817.5	4762.6	4633.2	4617.9	4675.8	4702.7
9°	4783.7	4734.6	4618.2	4602.9	4640.5	4654.3
9.5°	4744.6	4703.1	4606.7	4589.1	4606.3	4605.9
10°	4699.6	4668.5	4591.7	4574.8	4570.6	4559.1
10.5°	4655.9	4630.1	4575.6	4559.9	4535.3	4513.8
11°	4609.0	4590.2	4557.6	4542.2	4498.8	4470.0
11.5°	4560.3	4548.3	4536.4	4521.9	4463.5	4427.4
12°	4514.6	4506.9	4510.3	4497.3	4427.8	4384.8
12.5°	4470.4	4465.0	4482.7	4468.9	4392.1	4342.9
13°	4425.1	4423.2	4453.1	4440.1	4357.9	4302.2
13.5°	4380.2	4382.8	4420.5	4407.8	4320.6	4261.5
14°	4336.8	4342.1	4386.3	4374.0	4282.2	4218.5
14.5°	4293.0	4303.0	4351.4	4339.1	4242.3	4173.6
15°	4248.5	4261.5	4312.2	4301.4	4200.8	4128.3
15.5°	4204.3	4221.2	4271.9	4263.0	4155.9	4080.6
16°	4156.7	4178.2	4229.3	4220.4	4110.2	4031.9
16.5°	4109.8	4134.4	4185.9	4174.3	4063.4	3978.9
17°	4058.0	4087.9	4139.8	4126.7	4013.8	3928.2
17.5°	4007.7	4041.1	4089.9	4075.3	3962.8	3874.1
18°	3953.9	3991.6	4036.5	4021.1	3910.2	3819.9
18.5°	3900.6	3940.5	3983.1	3963.9	3853.7	3764.6
19°	3844.1	3886.7	3926.3	3904.0	3799.2	3709.7
19.5°	3788.4	3835.3	3869.1	3843.0	3743.1	3653.3
20°	3730.5	3779.6	3811.9	3783.1	3685.9	3596.8
20.5°	3674.4	3726.2	3749.7	3720.9	3627.9	3539.6
21°	3616.4	3669.0	3690.9	3657.9	3569.9	3482.4

TEST NUMBER: P776285

CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3445.5	3500.8	3509.7	3465.1	3390.6	3308.1
23°	3386.0	3443.6	3446.3	3400.6	3330.0	3249.3
23.5°	3326.5	3384.1	3381.8	3334.2	3265.4	3189.0
24°	3268.9	3325.3	3318.4	3265.1	3203.2	3128.0
24.5°	3210.1	3265.4	3252.8	3197.5	3138.0	3068.1
25°	3149.1	3204.8	3184.8	3130.7	3076.1	3005.5
25.5°	3090.0	3144.1	3120.3	3064.6	3008.6	2943.7
26°	3030.8	3082.7	3056.6	3000.5	2946.0	2879.9
26.5°	2968.2	3021.6	2991.7	2934.8	2880.7	2812.7
27°	2905.3	2959.4	2927.9	2871.1	2814.6	2739.8
27.5°	2842.7	2895.7	2862.3	2806.2	2742.8	2665.7
28°	2779.7	2828.8	2795.8	2740.1	2677.9	2589.6
28.5°	2717.1	2759.3	2729.8	2672.6	2606.9	2510.9
29°	2646.8	2689.8	2662.6	2606.1	2533.6	2430.6
29.5°	2574.3	2617.7	2596.1	2536.6	2461.0	2350.0
30°	2497.8	2543.2	2526.3	2466.0	2386.1	2273.2
30.5°	2419.9	2467.1	2453.3	2393.4	2307.8	2198.0
31°	2347.7	2388.8	2381.5	2320.8	2232.5	2124.2
31.5°	2267.5	2309.7	2308.2	2248.6	2154.9	2052.8
32°	2184.1	2233.7	2236.0	2178.8	2081.2	1981.4
32.5°	2111.2	2158.8	2161.9	2108.1	2008.3	1915.0
33°	2035.5	2086.6	2092.4	2040.5	1936.1	1850.4
33.5°	1959.9	2012.9	2017.1	1972.6	1868.1	1784.8
34°	1888.5	1946.8	1948.0	1903.8	1802.4	1718.4
34.5°	1820.5	1880.4	1881.5	1836.6	1738.3	1651.5
35°	1754.8	1814.7	1812.4	1771.0	1674.6	1587.4
35.5°	1690.3	1750.2	1746.0	1704.5	1613.5	1524.8
36°	1626.6	1686.9	1682.3	1639.6	1552.1	1460.7
36.5°	1562.8	1624.7	1618.1	1573.2	1492.9	1400.8
37°	1500.2	1562.1	1553.2	1507.9	1433.8	1344.3
37.5°	1438.4	1500.2	1493.7	1446.5	1370.8	1288.3
38°	1377.4	1437.7	1430.7	1386.6	1314.0	1232.2
38.5°	1317.1	1377.8	1364.7	1328.2	1257.9	1175.8
39°	1257.6	1322.5	1309.4	1269.5	1201.5	1119.7
39.5°	1200.7	1266.8	1254.1	1211.1	1145.1	1066.0
40°	1145.4	1211.5	1199.2	1152.4	1089.0	1013.7
40.5°	1091.3	1156.2	1143.9	1094.0	1036.0	961.9
41°	1042.1	1100.9	1088.6	1039.1	983.8	910.1
41.5°	989.2	1048.3	1033.7	985.3	932.7	860.9
42°	939.6	996.8	979.6	933.1	882.4	811.8
42.5°	890.9	944.6	927.3	883.2	833.6	764.9
43°	845.9	893.5	875.1	833.6	784.9	719.2
43.5°	797.5	843.2	824.4	783.7	736.5	675.4



TEST NUMBER: P776285

CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	666.6	699.2	682.0	645.9	598.3	550.3
45.5°	622.4	653.9	636.3	602.5	555.2	511.1
46°	582.1	610.2	592.5	559.9	514.2	472.7
46.5°	541.4	567.5	551.0	519.2	473.8	434.7
47°	503.0	526.1	509.6	479.6	435.4	397.8
47.5°	464.2	485.7	470.0	441.2	397.8	362.5
48°	428.1	447.3	430.8	404.0	363.3	330.2
48.5°	392.8	410.1	394.7	369.8	330.6	298.0
49°	360.9	375.2	360.2	335.2	298.7	267.6
49.5°	329.5	341.4	327.2	303.0	268.8	239.6
50°	297.6	308.3	293.4	271.5	241.5	212.7
50.5°	266.1	277.6	264.2	242.3	214.3	188.5
51°	238.8	248.8	235.8	215.4	189.3	165.5
51.5°	213.1	221.6	210.0	189.7	166.7	143.6
52°	188.2	196.2	184.3	165.1	144.4	126.7
52.5°	165.5	172.8	161.7	143.6	127.5	110.2
53°	144.8	150.1	139.8	126.7	110.2	93.7
53.5°	124.8	130.6	123.3	109.4	93.3	77.2
54°	106.0	114.0	106.7	92.5	76.0	60.7
54.5°	89.9	97.5	90.2	75.6	59.1	48.8
55°	74.5	81.0	73.7	58.8	48.0	38.4
55.5°	60.7	64.1	57.2	47.2	37.2	28.0
56°	51.5	52.2	46.1	37.2	27.3	19.2
56.5°	42.2	41.9	36.5	26.9	18.0	12.7
57°	33.0	31.5	26.1	18.4	12.3	11.1
57.5°	23.8	22.7	18.0	12.7	11.1	9.6
58°	14.6	15.7	13.1	11.1	9.6	8.1
58.5°	11.1	13.8	11.9	10.0	8.1	6.9
59°	9.6	12.3	10.4	8.4	6.9	6.1
59.5°	8.8	10.4	9.2	7.3	6.1	5.8
60°	8.1	8.4	7.7	6.5	5.8	5.4
60.5°	7.3	7.7	7.3	6.1	5.4	5.0
61°	6.9	7.3	6.5	5.8	5.0	4.6
61.5°	6.1	6.5	6.1	5.4	4.6	4.2
62°	5.8	6.1	5.8	5.0	4.2	3.8
62.5°	5.4	5.8	5.4	4.6	3.8	3.5
63°	5.0	5.4	5.0	4.2	3.8	3.5
63.5°	4.6	5.0	4.6	3.8	3.5	3.1
64°	4.2	4.6	4.2	3.5	3.1	3.1
64.5°	4.2	4.2	3.8	3.5	3.1	2.7
65°	3.8	4.2	3.8	3.1	2.7	2.7
65.5°	3.5	3.8	3.5	3.1	2.7	2.3
66°	3.5	3.5	3.1	2.7	2.3	2.3



TEST NUMBER: P776285
 CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	2.7	3.1	2.7	2.3	1.9	1.9
68°	2.7	2.7	2.3	1.9	1.9	1.5
68.5°	2.3	2.7	2.3	1.9	1.5	1.5
69°	2.3	2.3	2.3	1.9	1.5	1.5
69.5°	1.9	2.3	1.9	1.5	1.5	1.2
70°	1.9	1.9	1.9	1.5	1.2	1.2
70.5°	1.9	1.9	1.9	1.5	1.2	1.2
71°	1.5	1.9	1.5	1.5	1.2	1.2
71.5°	1.5	1.5	1.5	1.2	1.2	0.8
72°	1.5	1.5	1.5	1.2	1.2	0.8
72.5°	1.5	1.5	1.2	1.2	0.8	0.8
73°	1.2	1.2	1.2	1.2	0.8	0.8
73.5°	1.2	1.2	1.2	0.8	0.8	0.8
74°	1.2	1.2	1.2	0.8	0.8	0.8
74.5°	1.2	1.2	1.2	0.8	0.8	0.4
75°	0.8	1.2	0.8	0.8	0.8	0.4
75.5°	0.8	0.8	0.8	0.8	0.4	0.4
76°	0.8	0.8	0.8	0.8	0.4	0.4
76.5°	0.8	0.8	0.8	0.4	0.4	0.4
77°	0.8	0.8	0.8	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.4	0.4	0.4
78°	0.8	0.8	0.4	0.4	0.4	0.4
78.5°	0.4	0.4	0.4	0.4	0.4	0.4
79°	0.4	0.4	0.4	0.4	0.4	0.4
79.5°	0.4	0.4	0.4	0.4	0.4	0.0
80°	0.4	0.4	0.4	0.4	0.0	0.0
80.5°	0.4	0.4	0.4	0.4	0.0	0.0
81°	0.4	0.4	0.4	0.4	0.0	0.0
81.5°	0.4	0.4	0.4	0.0	0.0	0.0
82°	0.4	0.4	0.4	0.0	0.0	0.0
82.5°	0.4	0.4	0.4	0.0	0.0	0.0
83°	0.4	0.4	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: P776285
CATALOG NUMBER: HCDJBL3040CSD-HCD4TRC-4000lm-2700K

CANDELA DISTRIBUTION (continued):

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



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1121 Highway 74 South
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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°	3425.2	3335.3	3328.4	3291.6	3254.7	3246.2	3265.4	3349.2	3447.8	3515.4	3511.2
22°	3367.6	3273.9	3265.4	3227.0	3191.7	3186.0	3206.7	3293.5	3389.9	3456.7	3451.3



44°	632.4	561.8	546.0	511.1	501.5	529.1	556.0	586.0	625.5	677.4	688.5
44.5°	590.2	523.0	508.8	473.5	463.5	494.2	521.1	548.0	583.3	634.3	645.9



66.5°	1.9	1.9	2.3	2.7	2.7	2.7	2.3	2.3	2.3	2.7	2.7
67°	1.9	1.9	2.3	2.3	2.7	2.3	2.3	2.3	2.3	2.3	2.7



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°	3559.2	3613.7	3631.0	3594.5	3510.8	3425.2
22°	3501.2	3556.5	3569.6	3531.2	3452.4	3367.6



44°	752.6	794.5	775.3	736.5	688.5	632.4
44.5°	708.5	746.5	728.8	690.8	643.9	590.2



66.5°	3.1	3.5	3.1	2.7	2.3	1.9
67°	3.1	3.1	2.7	2.3	1.9	1.9

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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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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)