

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: P776362

Luminaire Tested: HCDJBL3040CSD-HCD62TRC-4000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776362
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B055-HCD62TRC)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD62TRC-4000lm-3500K
Description: 6 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

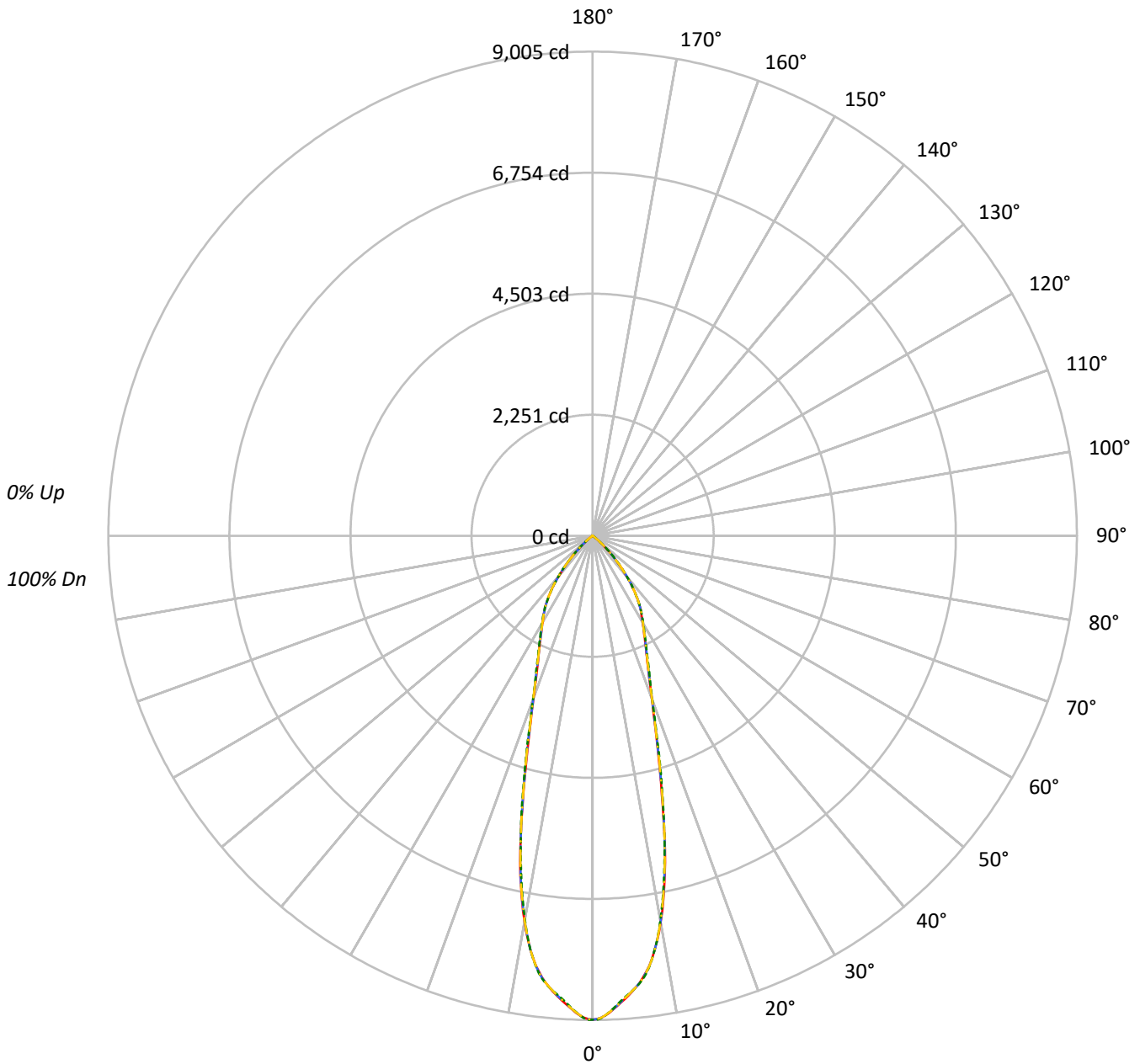
Lumens per Lamp: N/A
Luminaire Lumens: 4606.9 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 0.53 / 0.54 / 0.57
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

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					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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94	94	94		
	2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88	88	88	88	88	88		
	3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84	82	82	82	82	82	82		
	4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77	77	77	77	77	77		
	5	94	86	80	76	92	85	80	76	83	79	75	81	77	74	80	77	74	72	72	72	72	72	72		
	6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68	68	68	68	68	68		
	7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64	64	64	64	64	64		
	8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61	61	61	61	61	61		
	9	78	69	63	59	77	68	63	59	67	63	59	67	62	59	66	62	59	57	57	57	57	57	57		
	10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	55	55	55	55	55	55		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	493371	493371	493371	493371
5°	467955	467427	467955	467427
10°	405865	403544	405865	403544
15°	282306	285620	282306	285620
20°	187348	189343	187348	189343
25°	142405	144426	142405	144426
30°	117752	119183	117752	119183
35°	98544	98625	98544	98625
40°	70189	71298	70189	71298
45°	39361	41299	39361	41299
50°	13390	15940	13390	15940
55°	946	2055	946	2055
60°	175	175	175	175
65°	104	104	104	104
70°	64	64	64	64
75°	85	85	85	85
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 41299 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	776.1	16.8
10°-20°	1381.3	30.0
20°-30°	1102.9	23.9
30°-40°	902.9	19.6
40°-50°	407.7	8.9
50°-60°	34.9	0.8
60°-70°	0.8	0.0
70°-80°	0.2	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°	3260.3	70.8
0°-40°	4163.2	90.4
0°-60°	4605.8	100.0
0°-90°	4606.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4606.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	9000	9000	9000	9000	9000	
5°	8504	8494	8504	8494	8504	776
15°	4974	5033	4974	5033	4974	1379
25°	2354	2388	2354	2388	2354	1097
35°	1472	1474	1472	1474	1472	901
45°	508	533	508	533	508	400
55°	10	22	10	22	10	31
65°	1	1	1	1	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8
0.5°	8989.1	8989.1	8989.1	8990.7	9004.6	8990.7	8989.1	8989.1	8989.1	8989.1	8989.1
1°	8965.2	8965.2	8964.0	8964.4	8974.0	8964.4	8964.0	8965.2	8965.2	8965.2	8964.0
1.5°	8926.3	8925.9	8922.7	8920.7	8926.7	8920.7	8922.7	8925.9	8926.3	8925.9	8922.7
2°	8877.0	8874.6	8870.2	8865.4	8866.2	8865.4	8870.2	8874.6	8877.0	8874.6	8870.2
2.5°	8818.1	8816.5	8810.2	8802.2	8799.8	8802.2	8810.2	8816.5	8818.1	8816.5	8810.2
3°	8756.1	8754.1	8747.0	8736.2	8731.9	8736.2	8747.0	8754.1	8756.1	8754.1	8747.0
3.5°	8694.1	8691.3	8683.0	8672.2	8666.7	8672.2	8683.0	8691.3	8694.1	8691.3	8683.0
4°	8632.5	8628.1	8620.1	8611.8	8606.2	8611.8	8620.1	8628.1	8632.5	8628.1	8620.1
4.5°	8568.9	8564.9	8558.9	8553.4	8549.0	8553.4	8558.9	8564.9	8568.9	8564.9	8558.9
5°	8503.7	8500.9	8497.3	8494.9	8494.1	8494.9	8497.3	8500.9	8503.7	8500.9	8497.3
5.5°	8433.3	8431.7	8431.7	8433.3	8436.5	8433.3	8431.7	8431.7	8433.3	8431.7	8431.7
6°	8357.0	8357.0	8359.4	8365.7	8369.3	8365.7	8359.4	8357.0	8357.0	8357.0	8359.4
6.5°	8271.9	8273.9	8278.6	8285.4	8290.2	8285.4	8278.6	8273.9	8271.9	8273.9	8278.6
7°	8175.3	8179.3	8183.6	8190.8	8196.4	8190.8	8183.6	8179.3	8175.3	8179.3	8183.6
7.5°	8066.0	8067.5	8073.1	8078.3	8081.5	8078.3	8073.1	8067.5	8066.0	8067.5	8073.1
8°	7941.1	7941.9	7945.1	7948.3	7949.9	7948.3	7945.1	7941.9	7941.1	7941.9	7945.1
8.5°	7798.4	7798.4	7798.8	7798.0	7795.2	7798.0	7798.8	7798.4	7798.4	7798.4	7798.8
9°	7642.2	7641.8	7638.2	7632.6	7630.2	7632.6	7638.2	7641.8	7642.2	7641.8	7638.2
9.5°	7472.0	7470.8	7461.7	7453.7	7447.4	7453.7	7461.7	7470.8	7472.0	7470.8	7461.7
10°	7291.1	7287.2	7274.0	7259.3	7249.4	7259.3	7274.0	7287.2	7291.1	7287.2	7274.0
10.5°	7098.7	7090.4	7075.7	7057.8	7043.5	7057.8	7075.7	7090.4	7098.7	7090.4	7075.7
11°	6893.2	6886.0	6866.9	6852.2	6839.1	6852.2	6866.9	6886.0	6893.2	6886.0	6866.9
11.5°	6680.1	6673.7	6657.4	6636.0	6625.6	6636.0	6657.4	6673.7	6680.1	6673.7	6657.4
12°	6459.4	6454.3	6434.4	6414.5	6401.0	6414.5	6434.4	6454.3	6459.4	6454.3	6434.4
12.5°	6227.7	6218.9	6203.0	6183.9	6172.0	6183.9	6203.0	6218.9	6227.7	6218.9	6203.0
13°	5985.2	5980.8	5966.1	5955.0	5947.8	5955.0	5966.1	5980.8	5985.2	5980.8	5966.1
13.5°	5725.2	5728.3	5724.8	5720.8	5717.2	5720.8	5724.8	5728.3	5725.2	5728.3	5724.8
14°	5468.3	5473.9	5478.3	5483.8	5488.2	5483.8	5478.3	5473.9	5468.3	5473.9	5478.3
14.5°	5213.9	5222.7	5237.4	5251.7	5262.0	5251.7	5237.4	5222.7	5213.9	5222.7	5237.4
15°	4974.2	4981.3	5001.2	5019.9	5032.6	5019.9	5001.2	4981.3	4974.2	4981.3	5001.2
15.5°	4747.6	4757.1	4774.6	4795.3	4810.8	4795.3	4774.6	4757.1	4747.6	4757.1	4774.6
16°	4537.3	4543.2	4558.7	4583.4	4601.3	4583.4	4558.7	4543.2	4537.3	4543.2	4558.7
16.5°	4335.7	4340.5	4359.2	4381.4	4398.5	4381.4	4359.2	4340.5	4335.7	4340.5	4359.2
17°	4142.9	4148.1	4164.8	4187.0	4204.9	4187.0	4164.8	4148.1	4142.9	4148.1	4164.8
17.5°	3960.0	3965.2	3981.5	3999.8	4015.7	3999.8	3981.5	3965.2	3960.0	3965.2	3981.5
18°	3789.5	3793.9	3805.0	3822.5	3838.4	3822.5	3805.0	3793.9	3789.5	3793.9	3805.0
18.5°	3629.7	3630.9	3642.0	3663.5	3668.2	3663.5	3642.0	3630.9	3629.7	3630.9	3642.0
19°	3476.2	3479.4	3495.7	3516.0	3516.8	3516.0	3495.7	3479.4	3476.2	3479.4	3495.7
19.5°	3334.3	3343.0	3357.7	3375.2	3376.8	3375.2	3357.7	3343.0	3334.3	3343.0	3357.7
20°	3211.4	3213.4	3225.7	3243.6	3245.6	3243.6	3225.7	3213.4	3211.4	3213.4	3225.7
20.5°	3093.8	3096.9	3103.3	3119.2	3123.2	3119.2	3103.3	3096.9	3093.8	3096.9	3103.3
21°	2980.1	2985.2	2999.5	3009.1	3014.6	3009.1	2999.5	2985.2	2980.1	2985.2	2999.5



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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°	2699.4	2702.6	2720.1	2736.0	2751.1	2736.0	2720.1	2702.6	2699.4	2702.6	2720.1
23°	2621.9	2625.0	2636.2	2655.3	2672.4	2655.3	2636.2	2625.0	2621.9	2625.0	2636.2
23.5°	2548.7	2551.1	2561.8	2576.1	2595.2	2576.1	2561.8	2551.1	2548.7	2551.1	2561.8
24°	2479.5	2481.9	2491.5	2506.6	2519.3	2506.6	2491.5	2481.9	2479.5	2481.9	2491.5
24.5°	2415.5	2416.7	2424.3	2440.6	2450.9	2440.6	2424.3	2416.7	2415.5	2416.7	2424.3
25°	2354.3	2355.5	2361.5	2378.2	2387.7	2378.2	2361.5	2355.5	2354.3	2355.5	2361.5
25.5°	2295.5	2296.3	2302.6	2318.5	2327.3	2318.5	2302.6	2296.3	2295.5	2296.3	2302.6
26°	2239.0	2239.8	2245.8	2261.7	2270.4	2261.7	2245.8	2239.8	2239.0	2239.8	2245.8
26.5°	2183.8	2185.0	2190.5	2205.6	2214.4	2205.6	2190.5	2185.0	2183.8	2185.0	2190.5
27°	2132.1	2133.3	2138.0	2152.8	2162.7	2152.8	2138.0	2133.3	2132.1	2133.3	2138.0
27.5°	2083.2	2084.0	2088.3	2101.9	2111.4	2101.9	2088.3	2084.0	2083.2	2084.0	2088.3
28°	2035.9	2036.3	2041.0	2053.4	2062.1	2053.4	2041.0	2036.3	2035.9	2036.3	2041.0
28.5°	1990.2	1990.2	1994.9	2006.1	2015.2	2006.1	1994.9	1990.2	1990.2	1990.2	1994.9
29°	1946.0	1945.6	1949.6	1960.7	1969.1	1960.7	1949.6	1945.6	1946.0	1945.6	1949.6
29.5°	1901.9	1901.9	1906.7	1916.2	1924.6	1916.2	1906.7	1901.9	1901.9	1901.9	1906.7
30°	1860.2	1860.2	1864.9	1874.1	1882.8	1874.1	1864.9	1860.2	1860.2	1860.2	1864.9
30.5°	1820.0	1820.0	1824.4	1833.1	1841.5	1833.1	1824.4	1820.0	1820.0	1820.0	1824.4
31°	1781.8	1781.4	1786.6	1794.6	1802.9	1794.6	1786.6	1781.4	1781.8	1781.4	1786.6
31.5°	1745.3	1744.5	1748.8	1756.0	1764.3	1756.0	1748.8	1744.5	1745.3	1744.5	1748.8
32°	1710.3	1709.5	1713.5	1719.4	1725.4	1719.4	1713.5	1709.5	1710.3	1709.5	1713.5
32.5°	1675.3	1674.9	1676.5	1681.3	1685.2	1681.3	1676.5	1674.9	1675.3	1674.9	1676.5
33°	1639.1	1637.9	1637.9	1641.5	1645.1	1641.5	1637.9	1637.9	1639.1	1637.9	1637.9
33.5°	1600.5	1598.6	1599.0	1600.5	1605.7	1600.5	1599.0	1598.6	1600.5	1598.6	1599.0
34°	1559.6	1557.6	1557.6	1556.4	1562.0	1556.4	1557.6	1557.6	1559.6	1557.6	1557.6
34.5°	1517.1	1514.7	1515.5	1513.9	1518.7	1513.9	1515.5	1514.7	1517.1	1514.7	1515.5
35°	1472.5	1471.7	1471.3	1471.3	1473.7	1471.3	1471.3	1471.7	1472.5	1471.7	1471.3
35.5°	1427.2	1426.0	1425.6	1428.0	1428.0	1428.0	1425.6	1426.0	1427.2	1426.0	1425.6
36°	1380.7	1380.3	1380.3	1383.1	1381.1	1383.1	1380.3	1380.3	1380.7	1380.3	1380.3
36.5°	1332.2	1333.8	1333.8	1337.8	1334.6	1337.8	1333.8	1333.8	1332.2	1333.8	1333.8
37°	1283.3	1285.7	1287.3	1290.9	1286.9	1290.9	1287.3	1285.7	1283.3	1285.7	1287.3
37.5°	1235.2	1236.8	1242.0	1242.8	1239.6	1242.8	1242.0	1236.8	1235.2	1236.8	1242.0
38°	1186.7	1187.1	1193.5	1192.7	1192.3	1192.7	1193.5	1187.1	1186.7	1187.1	1193.5
38.5°	1137.4	1136.6	1144.2	1142.2	1143.8	1142.2	1144.2	1136.6	1137.4	1136.6	1144.2
39°	1085.7	1086.5	1094.9	1091.3	1095.7	1091.3	1094.9	1086.5	1085.7	1086.5	1094.9
39.5°	1033.2	1035.6	1045.2	1041.2	1046.0	1041.2	1045.2	1035.6	1033.2	1035.6	1045.2
40°	980.8	985.1	995.1	991.5	996.3	991.5	995.1	985.1	980.8	985.1	995.1
40.5°	930.7	935.0	944.2	943.4	946.6	943.4	944.2	935.0	930.7	935.0	944.2
41°	881.4	885.4	893.3	894.9	896.9	894.9	893.3	885.4	881.4	885.4	893.3
41.5°	832.9	836.5	842.4	847.6	848.4	847.6	842.4	836.5	832.9	836.5	842.4
42°	784.8	787.6	792.3	799.9	800.7	799.9	792.3	787.6	784.8	787.6	792.3
42.5°	737.9	739.8	743.0	753.0	755.0	753.0	743.0	739.8	737.9	739.8	743.0
43°	690.6	692.1	694.5	705.7	709.2	705.7	694.5	692.1	690.6	692.1	694.5
43.5°	644.0	644.4	647.6	658.7	663.9	658.7	647.6	644.4	644.0	644.4	647.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	507.7	508.9	514.4	526.4	532.7	526.4	514.4	508.9	507.7	508.9	514.4
45.5°	465.5	467.1	472.7	485.0	490.6	485.0	472.7	467.1	465.5	467.1	472.7
46°	425.8	426.2	432.1	443.7	450.0	443.7	432.1	426.2	425.8	426.2	432.1
46.5°	386.4	387.2	392.4	403.1	411.1	403.1	392.4	387.2	386.4	387.2	392.4
47°	348.3	349.1	355.0	365.4	373.3	365.4	355.0	349.1	348.3	349.1	355.0
47.5°	310.5	312.9	320.0	328.8	338.3	328.8	320.0	312.9	310.5	312.9	320.0
48°	276.3	277.9	286.2	295.0	303.3	295.0	286.2	277.9	276.3	277.9	286.2
48.5°	243.3	244.9	254.0	263.2	271.9	263.2	254.0	244.9	243.3	244.9	254.0
49°	212.7	214.3	223.8	233.0	243.3	233.0	223.8	214.3	212.7	214.3	223.8
49.5°	183.7	186.9	195.6	204.7	215.1	204.7	195.6	186.9	183.7	186.9	195.6
50°	157.0	160.6	169.8	178.1	186.9	178.1	169.8	160.6	157.0	160.6	169.8
50.5°	132.4	138.0	145.9	153.1	158.6	153.1	145.9	138.0	132.4	138.0	145.9
51°	110.9	116.5	123.6	129.6	132.8	129.6	123.6	116.5	110.9	116.5	123.6
51.5°	93.4	97.4	102.6	108.9	111.3	108.9	102.6	97.4	93.4	97.4	102.6
52°	77.5	81.1	85.1	90.6	91.8	90.6	85.1	81.1	77.5	81.1	85.1
52.5°	63.6	65.2	70.0	74.7	73.9	74.7	70.0	65.2	63.6	65.2	70.0
53°	49.7	52.5	55.7	59.6	58.8	59.6	55.7	52.5	49.7	52.5	55.7
53.5°	35.8	39.8	42.9	45.7	45.3	45.7	42.9	39.8	35.8	39.8	42.9
54°	25.8	27.4	31.0	34.6	37.4	34.6	31.0	27.4	25.8	27.4	31.0
54.5°	16.3	18.3	22.3	24.6	29.4	24.6	22.3	18.3	16.3	18.3	22.3
55°	9.9	11.5	15.1	17.1	21.5	17.1	15.1	11.5	9.9	11.5	15.1
55.5°	7.2	7.2	8.7	10.7	13.9	10.7	8.7	7.2	7.2	7.2	8.7
56°	5.2	4.8	5.6	6.8	7.2	6.8	5.6	4.8	5.2	4.8	5.6
56.5°	3.6	3.2	4.0	5.2	4.0	5.2	4.0	3.2	3.6	3.2	4.0
57°	2.0	2.8	2.8	3.6	2.4	3.6	2.8	2.8	2.0	2.8	2.8
57.5°	2.0	2.0	2.0	2.8	2.0	2.8	2.0	2.0	2.0	2.0	2.0
58°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
58.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
59°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
59.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
60°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
60.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
61°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
61.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
62°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
62.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
63°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
63.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
64°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
64.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
65.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
66°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.8	0.8	0.8	0.8	0.4	0.8	0.8	0.8	0.8	0.8	0.8
68°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
68.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
69°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
69.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
70.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4
76°	0.0	0.0	0.0	0.0	0.0	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	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: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-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: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	8999.8	8999.8	8999.8	8999.8	8999.8	8999.8
0.5°	8990.7	9004.6	8990.7	8989.1	8989.1	8989.1
1°	8964.4	8974.0	8964.4	8964.0	8965.2	8965.2
1.5°	8920.7	8926.7	8920.7	8922.7	8925.9	8926.3
2°	8865.4	8866.2	8865.4	8870.2	8874.6	8877.0
2.5°	8802.2	8799.8	8802.2	8810.2	8816.5	8818.1
3°	8736.2	8731.9	8736.2	8747.0	8754.1	8756.1
3.5°	8672.2	8666.7	8672.2	8683.0	8691.3	8694.1
4°	8611.8	8606.2	8611.8	8620.1	8628.1	8632.5
4.5°	8553.4	8549.0	8553.4	8558.9	8564.9	8568.9
5°	8494.9	8494.1	8494.9	8497.3	8500.9	8503.7
5.5°	8433.3	8436.5	8433.3	8431.7	8431.7	8433.3
6°	8365.7	8369.3	8365.7	8359.4	8357.0	8357.0
6.5°	8285.4	8290.2	8285.4	8278.6	8273.9	8271.9
7°	8190.8	8196.4	8190.8	8183.6	8179.3	8175.3
7.5°	8078.3	8081.5	8078.3	8073.1	8067.5	8066.0
8°	7948.3	7949.9	7948.3	7945.1	7941.9	7941.1
8.5°	7798.0	7795.2	7798.0	7798.8	7798.4	7798.4
9°	7632.6	7630.2	7632.6	7638.2	7641.8	7642.2
9.5°	7453.7	7447.4	7453.7	7461.7	7470.8	7472.0
10°	7259.3	7249.4	7259.3	7274.0	7287.2	7291.1
10.5°	7057.8	7043.5	7057.8	7075.7	7090.4	7098.7
11°	6852.2	6839.1	6852.2	6866.9	6886.0	6893.2
11.5°	6636.0	6625.6	6636.0	6657.4	6673.7	6680.1
12°	6414.5	6401.0	6414.5	6434.4	6454.3	6459.4
12.5°	6183.9	6172.0	6183.9	6203.0	6218.9	6227.7
13°	5955.0	5947.8	5955.0	5966.1	5980.8	5985.2
13.5°	5720.8	5717.2	5720.8	5724.8	5728.3	5725.2
14°	5483.8	5488.2	5483.8	5478.3	5473.9	5468.3
14.5°	5251.7	5262.0	5251.7	5237.4	5222.7	5213.9
15°	5019.9	5032.6	5019.9	5001.2	4981.3	4974.2
15.5°	4795.3	4810.8	4795.3	4774.6	4757.1	4747.6
16°	4583.4	4601.3	4583.4	4558.7	4543.2	4537.3
16.5°	4381.4	4398.5	4381.4	4359.2	4340.5	4335.7
17°	4187.0	4204.9	4187.0	4164.8	4148.1	4142.9
17.5°	3999.8	4015.7	3999.8	3981.5	3965.2	3960.0
18°	3822.5	3838.4	3822.5	3805.0	3793.9	3789.5
18.5°	3663.5	3668.2	3663.5	3642.0	3630.9	3629.7
19°	3516.0	3516.8	3516.0	3495.7	3479.4	3476.2
19.5°	3375.2	3376.8	3375.2	3357.7	3343.0	3334.3
20°	3243.6	3245.6	3243.6	3225.7	3213.4	3211.4
20.5°	3119.2	3123.2	3119.2	3103.3	3096.9	3093.8
21°	3009.1	3014.6	3009.1	2999.5	2985.2	2980.1

TEST NUMBER: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2736.0	2751.1	2736.0	2720.1	2702.6	2699.4
23°	2655.3	2672.4	2655.3	2636.2	2625.0	2621.9
23.5°	2576.1	2595.2	2576.1	2561.8	2551.1	2548.7
24°	2506.6	2519.3	2506.6	2491.5	2481.9	2479.5
24.5°	2440.6	2450.9	2440.6	2424.3	2416.7	2415.5
25°	2378.2	2387.7	2378.2	2361.5	2355.5	2354.3
25.5°	2318.5	2327.3	2318.5	2302.6	2296.3	2295.5
26°	2261.7	2270.4	2261.7	2245.8	2239.8	2239.0
26.5°	2205.6	2214.4	2205.6	2190.5	2185.0	2183.8
27°	2152.8	2162.7	2152.8	2138.0	2133.3	2132.1
27.5°	2101.9	2111.4	2101.9	2088.3	2084.0	2083.2
28°	2053.4	2062.1	2053.4	2041.0	2036.3	2035.9
28.5°	2006.1	2015.2	2006.1	1994.9	1990.2	1990.2
29°	1960.7	1969.1	1960.7	1949.6	1945.6	1946.0
29.5°	1916.2	1924.6	1916.2	1906.7	1901.9	1901.9
30°	1874.1	1882.8	1874.1	1864.9	1860.2	1860.2
30.5°	1833.1	1841.5	1833.1	1824.4	1820.0	1820.0
31°	1794.6	1802.9	1794.6	1786.6	1781.4	1781.8
31.5°	1756.0	1764.3	1756.0	1748.8	1744.5	1745.3
32°	1719.4	1725.4	1719.4	1713.5	1709.5	1710.3
32.5°	1681.3	1685.2	1681.3	1676.5	1674.9	1675.3
33°	1641.5	1645.1	1641.5	1637.9	1637.9	1639.1
33.5°	1600.5	1605.7	1600.5	1599.0	1598.6	1600.5
34°	1556.4	1562.0	1556.4	1557.6	1557.6	1559.6
34.5°	1513.9	1518.7	1513.9	1515.5	1514.7	1517.1
35°	1471.3	1473.7	1471.3	1471.3	1471.7	1472.5
35.5°	1428.0	1428.0	1428.0	1425.6	1426.0	1427.2
36°	1383.1	1381.1	1383.1	1380.3	1380.3	1380.7
36.5°	1337.8	1334.6	1337.8	1333.8	1333.8	1332.2
37°	1290.9	1286.9	1290.9	1287.3	1285.7	1283.3
37.5°	1242.8	1239.6	1242.8	1242.0	1236.8	1235.2
38°	1192.7	1192.3	1192.7	1193.5	1187.1	1186.7
38.5°	1142.2	1143.8	1142.2	1144.2	1136.6	1137.4
39°	1091.3	1095.7	1091.3	1094.9	1086.5	1085.7
39.5°	1041.2	1046.0	1041.2	1045.2	1035.6	1033.2
40°	991.5	996.3	991.5	995.1	985.1	980.8
40.5°	943.4	946.6	943.4	944.2	935.0	930.7
41°	894.9	896.9	894.9	893.3	885.4	881.4
41.5°	847.6	848.4	847.6	842.4	836.5	832.9
42°	799.9	800.7	799.9	792.3	787.6	784.8
42.5°	753.0	755.0	753.0	743.0	739.8	737.9
43°	705.7	709.2	705.7	694.5	692.1	690.6
43.5°	658.7	663.9	658.7	647.6	644.4	644.0



TEST NUMBER: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	526.4	532.7	526.4	514.4	508.9	507.7
45.5°	485.0	490.6	485.0	472.7	467.1	465.5
46°	443.7	450.0	443.7	432.1	426.2	425.8
46.5°	403.1	411.1	403.1	392.4	387.2	386.4
47°	365.4	373.3	365.4	355.0	349.1	348.3
47.5°	328.8	338.3	328.8	320.0	312.9	310.5
48°	295.0	303.3	295.0	286.2	277.9	276.3
48.5°	263.2	271.9	263.2	254.0	244.9	243.3
49°	233.0	243.3	233.0	223.8	214.3	212.7
49.5°	204.7	215.1	204.7	195.6	186.9	183.7
50°	178.1	186.9	178.1	169.8	160.6	157.0
50.5°	153.1	158.6	153.1	145.9	138.0	132.4
51°	129.6	132.8	129.6	123.6	116.5	110.9
51.5°	108.9	111.3	108.9	102.6	97.4	93.4
52°	90.6	91.8	90.6	85.1	81.1	77.5
52.5°	74.7	73.9	74.7	70.0	65.2	63.6
53°	59.6	58.8	59.6	55.7	52.5	49.7
53.5°	45.7	45.3	45.7	42.9	39.8	35.8
54°	34.6	37.4	34.6	31.0	27.4	25.8
54.5°	24.6	29.4	24.6	22.3	18.3	16.3
55°	17.1	21.5	17.1	15.1	11.5	9.9
55.5°	10.7	13.9	10.7	8.7	7.2	7.2
56°	6.8	7.2	6.8	5.6	4.8	5.2
56.5°	5.2	4.0	5.2	4.0	3.2	3.6
57°	3.6	2.4	3.6	2.8	2.8	2.0
57.5°	2.8	2.0	2.8	2.0	2.0	2.0
58°	2.0	2.0	2.0	2.0	2.0	2.0
58.5°	1.6	1.6	1.6	1.6	1.6	1.6
59°	1.6	1.6	1.6	1.6	1.6	1.6
59.5°	1.6	1.6	1.6	1.6	1.6	1.6
60°	1.6	1.6	1.6	1.6	1.6	1.6
60.5°	1.2	1.2	1.2	1.2	1.2	1.2
61°	1.2	1.2	1.2	1.2	1.2	1.2
61.5°	1.2	1.2	1.2	1.2	1.2	1.2
62°	1.2	1.2	1.2	1.2	1.2	1.2
62.5°	1.2	1.2	1.2	1.2	1.2	1.2
63°	1.2	1.2	1.2	1.2	1.2	1.2
63.5°	0.8	0.8	0.8	0.8	0.8	0.8
64°	0.8	0.8	0.8	0.8	0.8	0.8
64.5°	0.8	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8	0.8
65.5°	0.8	0.8	0.8	0.8	0.8	0.8
66°	0.8	0.8	0.8	0.8	0.8	0.8



TEST NUMBER: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.8	0.4	0.8	0.8	0.8	0.8
68°	0.4	0.4	0.4	0.4	0.4	0.4
68.5°	0.4	0.4	0.4	0.4	0.4	0.4
69°	0.4	0.4	0.4	0.4	0.4	0.4
69.5°	0.4	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4	0.4
70.5°	0.4	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.4	0.4	0.4	0.4	0.4	0.0
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: P776362

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRC-4000lm-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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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
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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Peachtree City, GA 30269

Scaled Data Report





21.5°	2872.7	2884.2	2901.3	2911.7	2914.9	2911.7	2901.3	2884.2	2872.7	2884.2	2901.3
22°	2784.5	2790.8	2807.9	2821.8	2831.4	2821.8	2807.9	2790.8	2784.5	2790.8	2807.9



44°	596.7	597.9	601.5	612.6	619.4	612.6	601.5	597.9	596.7	597.9	601.5
44.5°	551.8	553.0	556.6	569.3	575.7	569.3	556.6	553.0	551.8	553.0	556.6



66.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
67°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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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Scaled Data Report





21.5°	2911.7	2914.9	2911.7	2901.3	2884.2	2872.7
22°	2821.8	2831.4	2821.8	2807.9	2790.8	2784.5



44°	612.6	619.4	612.6	601.5	597.9	596.7
44.5°	569.3	575.7	569.3	556.6	553.0	551.8

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Peachtree City, GA 30269

Scaled Data Report



66.5°	0.8	0.8	0.8	0.8	0.8	0.8
67°	0.8	0.8	0.8	0.8	0.8	0.8

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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)