

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: P776227

Luminaire Tested: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776227
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156A001)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD42TRMW-3000lm-3500K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2962.8 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

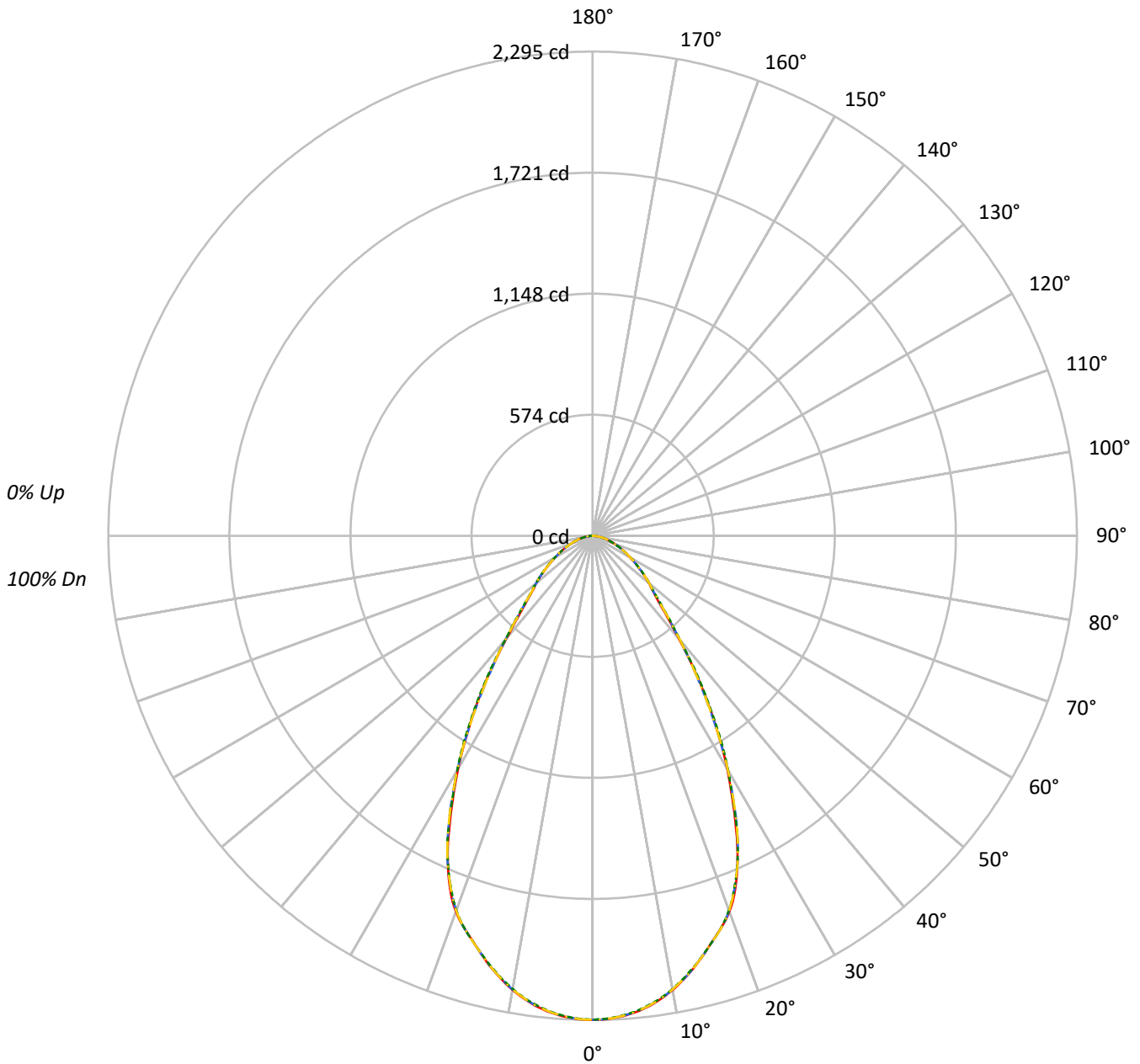
Input Watts (W): 28.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89								
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80								
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71								
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64								
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	62	57	78	68	61	56	67	60	56	65	60	55	64	59	55	53								
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49								
8	71	60	52	48	70	59	52	47	58	52	47	57	51	47	56	51	47	45								
9	67	56	49	44	66	55	48	44	54	48	44	53	48	44	52	47	43	42								
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	288762	288762	288762	288762
5°	286720	286101	286720	286101
10°	279326	278687	279326	278687
15°	266963	266637	266963	266637
20°	253844	252934	253844	252934
25°	225300	226022	225300	226022
30°	185369	186342	185369	186342
35°	143802	145353	143802	145353
40°	104453	106260	104453	106260
45°	79076	81051	79076	81051
50°	68114	68643	68114	68643
55°	59197	59878	59197	59878
60°	51749	52202	51749	52202
65°	45472	45859	45472	45859
70°	40144	40365	40144	40365
75°	35253	35253	35253	35253
80°	30512	30294	30512	30294
85°	24403	24403	24403	24403

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 81051 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.8	7.2
10°-20°	575.6	19.4
20°-30°	737.1	24.9
30°-40°	584.1	19.7
40°-50°	357.6	12.1
50°-60°	244.5	8.3
60°-70°	153.0	5.2
70°-80°	77.6	2.6
80°-90°	19.6	0.7
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°	1526.5	51.5
0°-40°	2110.5	71.2
0°-60°	2712.7	91.6
0°-90°	2962.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2962.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2294	2294	2294	2294	2294	
5°	2270	2265	2270	2265	2270	214
15°	2049	2046	2049	2046	2049	576
25°	1622	1628	1622	1628	1622	735
35°	936	946	936	946	936	583
45°	444	455	444	455	444	353
55°	270	273	270	273	270	243
65°	153	154	153	154	153	152
75°	72	72	72	72	72	78
85°	17	17	17	17	17	19
90°	0	1	0	1	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°	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5
0.5°	2294.8	2294.5	2293.9	2293.6	2292.7	2293.6	2293.9	2294.5	2294.8	2294.5	2293.9
1°	2293.9	2293.6	2293.3	2293.0	2291.8	2293.0	2293.3	2293.6	2293.9	2293.6	2293.3
1.5°	2292.7	2292.1	2292.1	2291.5	2290.5	2291.5	2292.1	2292.1	2292.7	2292.1	2292.1
2°	2290.8	2290.5	2289.9	2289.6	2288.4	2289.6	2289.9	2290.5	2290.8	2290.5	2289.9
2.5°	2288.7	2288.1	2287.5	2287.2	2285.6	2287.2	2287.5	2288.1	2288.7	2288.1	2287.5
3°	2285.6	2285.0	2284.4	2283.8	2282.2	2283.8	2284.4	2285.0	2285.6	2285.0	2284.4
3.5°	2282.2	2281.6	2280.7	2280.1	2279.2	2280.1	2280.7	2281.6	2282.2	2281.6	2280.7
4°	2278.2	2277.9	2276.7	2276.1	2274.6	2276.1	2276.7	2277.9	2278.2	2277.9	2276.7
4.5°	2273.9	2273.3	2272.1	2271.5	2269.6	2271.5	2272.1	2273.3	2273.9	2273.3	2272.1
5°	2269.6	2268.7	2267.5	2266.9	2264.7	2266.9	2267.5	2268.7	2269.6	2268.7	2267.5
5.5°	2265.0	2262.9	2261.3	2260.7	2258.9	2260.7	2261.3	2262.9	2265.0	2262.9	2261.3
6°	2258.0	2256.7	2255.2	2254.3	2251.8	2254.3	2255.2	2256.7	2258.0	2256.7	2255.2
6.5°	2250.9	2250.0	2248.1	2247.2	2244.8	2247.2	2248.1	2250.0	2250.9	2250.0	2248.1
7°	2243.5	2242.3	2241.4	2239.8	2237.7	2239.8	2241.4	2242.3	2243.5	2242.3	2241.4
7.5°	2235.2	2234.0	2232.8	2232.2	2230.0	2232.2	2232.8	2234.0	2235.2	2234.0	2232.8
8°	2226.3	2225.4	2224.2	2223.2	2222.0	2223.2	2224.2	2225.4	2226.3	2225.4	2224.2
8.5°	2217.1	2215.9	2214.6	2213.7	2212.5	2213.7	2214.6	2215.9	2217.1	2215.9	2214.6
9°	2207.3	2206.3	2204.8	2203.9	2202.7	2203.9	2204.8	2206.3	2207.3	2206.3	2204.8
9.5°	2196.5	2195.9	2194.4	2193.4	2192.2	2193.4	2194.4	2195.9	2196.5	2195.9	2194.4
10°	2185.8	2184.8	2183.6	2182.4	2180.8	2182.4	2183.6	2184.8	2185.8	2184.8	2183.6
10.5°	2173.8	2173.2	2171.6	2170.7	2169.5	2170.7	2171.6	2173.2	2173.8	2173.2	2171.6
11°	2161.8	2161.2	2159.9	2158.7	2157.2	2158.7	2159.9	2161.2	2161.8	2161.2	2159.9
11.5°	2149.2	2148.6	2147.3	2146.1	2144.9	2146.1	2147.3	2148.6	2149.2	2148.6	2147.3
12°	2136.3	2135.7	2134.7	2133.2	2132.0	2133.2	2134.7	2135.7	2136.3	2135.7	2134.7
12.5°	2122.8	2122.1	2121.2	2119.7	2118.1	2119.7	2121.2	2122.1	2122.8	2122.1	2121.2
13°	2108.9	2108.3	2107.4	2106.2	2104.6	2106.2	2107.4	2108.3	2108.9	2108.3	2107.4
13.5°	2094.5	2093.9	2093.3	2092.0	2090.8	2092.0	2093.3	2093.9	2094.5	2093.9	2093.3
14°	2079.7	2079.4	2078.8	2077.6	2076.4	2077.6	2078.8	2079.4	2079.7	2079.4	2078.8
14.5°	2064.4	2064.1	2063.8	2062.5	2061.3	2062.5	2063.8	2064.1	2064.4	2064.1	2063.8
15°	2049.0	2049.0	2048.4	2047.8	2046.5	2047.8	2048.4	2049.0	2049.0	2049.0	2048.4
15.5°	2033.0	2033.0	2033.6	2033.0	2032.4	2033.0	2033.6	2033.0	2033.0	2033.0	2033.6
16°	2017.7	2018.0	2018.9	2018.6	2018.0	2018.6	2018.9	2018.0	2017.7	2018.0	2018.9
16.5°	2002.3	2002.9	2004.1	2004.1	2003.8	2004.1	2004.1	2002.9	2002.3	2002.9	2004.1
17°	1987.9	1988.5	1989.7	1989.4	1989.7	1989.4	1989.7	1988.5	1987.9	1988.5	1989.7
17.5°	1973.7	1974.3	1975.3	1975.0	1974.6	1975.0	1975.3	1974.3	1973.7	1974.3	1975.3
18°	1959.9	1960.2	1960.8	1960.2	1959.6	1960.2	1960.8	1960.2	1959.9	1960.2	1960.8
18.5°	1945.1	1945.1	1945.1	1944.5	1943.6	1944.5	1945.1	1945.1	1945.1	1945.1	1945.1
19°	1930.1	1929.2	1928.6	1927.6	1926.7	1927.6	1928.6	1929.2	1930.1	1929.2	1928.6
19.5°	1913.5	1912.3	1910.4	1909.8	1908.9	1909.8	1910.4	1912.3	1913.5	1912.3	1910.4
20°	1895.4	1893.8	1890.4	1890.8	1888.6	1890.8	1890.4	1893.8	1895.4	1893.8	1890.4
20.5°	1875.4	1872.9	1868.9	1870.2	1867.7	1870.2	1868.9	1872.9	1875.4	1872.9	1868.9
21°	1854.5	1850.8	1846.2	1847.7	1844.7	1847.7	1846.2	1850.8	1854.5	1850.8	1846.2



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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°	1778.0	1774.3	1771.2	1770.9	1769.4	1770.9	1771.2	1774.3	1778.0	1774.3	1771.2
23°	1748.8	1745.7	1745.1	1742.9	1742.3	1742.9	1745.1	1745.7	1748.8	1745.7	1745.1
23.5°	1719.0	1716.2	1717.7	1714.1	1715.6	1714.1	1717.7	1716.2	1719.0	1716.2	1717.7
24°	1687.9	1685.8	1689.5	1684.6	1687.3	1684.6	1689.5	1685.8	1687.9	1685.8	1689.5
24.5°	1656.0	1655.1	1659.7	1654.8	1658.4	1654.8	1659.7	1655.1	1656.0	1655.1	1659.7
25°	1622.5	1623.1	1628.6	1624.9	1627.7	1624.9	1628.6	1623.1	1622.5	1623.1	1628.6
25.5°	1587.8	1591.8	1596.7	1595.1	1595.8	1595.1	1596.7	1591.8	1587.8	1591.8	1596.7
26°	1552.1	1559.2	1563.8	1564.1	1561.6	1564.1	1563.8	1559.2	1552.1	1559.2	1563.8
26.5°	1515.6	1526.0	1529.7	1531.8	1526.3	1531.8	1529.7	1526.0	1515.6	1526.0	1529.7
27°	1479.9	1491.6	1495.3	1498.7	1490.4	1498.7	1495.3	1491.6	1479.9	1491.6	1495.3
27.5°	1444.9	1455.9	1460.2	1464.5	1453.8	1464.5	1460.2	1455.9	1444.9	1455.9	1460.2
28°	1409.8	1420.3	1424.6	1428.9	1417.2	1428.9	1424.6	1420.3	1409.8	1420.3	1424.6
28.5°	1375.7	1384.0	1388.9	1392.6	1381.9	1392.6	1388.9	1384.0	1375.7	1384.0	1388.9
29°	1341.9	1347.5	1353.3	1355.8	1348.4	1355.8	1353.3	1347.5	1341.9	1347.5	1353.3
29.5°	1308.7	1311.5	1318.0	1318.9	1315.5	1318.9	1318.0	1311.5	1308.7	1311.5	1318.0
30°	1275.6	1274.6	1281.7	1282.0	1282.3	1282.0	1281.7	1274.6	1275.6	1274.6	1281.7
30.5°	1241.1	1239.0	1245.8	1246.4	1251.0	1246.4	1245.8	1239.0	1241.1	1239.0	1245.8
31°	1207.0	1202.4	1209.5	1210.7	1217.8	1210.7	1209.5	1202.4	1207.0	1202.4	1209.5
31.5°	1172.0	1167.4	1173.2	1175.4	1184.3	1175.4	1173.2	1167.4	1172.0	1167.4	1173.2
32°	1136.4	1132.1	1137.3	1140.7	1149.9	1140.7	1137.3	1132.1	1136.4	1132.1	1137.3
32.5°	1101.9	1098.3	1101.9	1106.2	1115.5	1106.2	1101.9	1098.3	1101.9	1098.3	1101.9
33°	1067.2	1064.5	1065.7	1071.8	1080.4	1071.8	1065.7	1064.5	1067.2	1064.5	1065.7
33.5°	1036.2	1030.6	1029.7	1037.4	1045.1	1037.4	1029.7	1030.6	1036.2	1030.6	1029.7
34°	1002.7	996.8	994.1	1003.6	1011.6	1003.6	994.1	996.8	1002.7	996.8	994.1
34.5°	969.5	963.4	959.4	969.5	978.4	969.5	959.4	963.4	969.5	963.4	959.4
35°	936.0	930.8	926.5	936.6	946.1	936.6	926.5	930.8	936.0	930.8	926.5
35.5°	903.4	898.5	893.9	904.0	914.5	904.0	893.9	898.5	903.4	898.5	893.9
36°	871.5	866.2	862.3	872.7	883.5	872.7	862.3	866.2	871.5	866.2	862.3
36.5°	839.8	835.2	831.5	841.7	851.8	841.7	831.5	835.2	839.8	835.2	831.5
37°	807.9	804.5	801.4	811.6	820.5	811.6	801.4	804.5	807.9	804.5	801.4
37.5°	776.8	774.7	772.5	782.7	789.1	782.7	772.5	774.7	776.8	774.7	772.5
38°	746.1	745.8	744.9	754.4	758.1	754.4	744.9	745.8	746.1	745.8	744.9
38.5°	717.2	717.8	718.4	726.7	728.3	726.7	718.4	717.8	717.2	717.8	718.4
39°	689.3	690.8	692.0	700.0	699.7	700.0	692.0	690.8	689.3	690.8	692.0
39.5°	661.9	664.7	666.8	673.6	672.7	673.6	666.8	664.7	661.9	664.7	666.8
40°	635.8	638.9	642.5	648.1	646.8	648.1	642.5	638.9	635.8	638.9	642.5
40.5°	611.2	614.3	619.2	623.2	622.9	623.2	619.2	614.3	611.2	614.3	619.2
41°	587.5	590.6	597.1	599.8	600.8	599.8	597.1	590.6	587.5	590.6	597.1
41.5°	565.1	568.5	575.9	577.4	580.2	577.4	575.9	568.5	565.1	568.5	575.9
42°	544.2	547.6	555.6	556.5	560.2	556.5	555.6	547.6	544.2	547.6	555.6
42.5°	524.5	527.9	536.5	536.8	540.8	536.8	536.5	527.9	524.5	527.9	536.5
43°	505.8	509.5	517.8	518.4	522.1	518.4	517.8	509.5	505.8	509.5	517.8
43.5°	488.6	492.3	500.3	500.6	504.0	500.6	500.3	492.3	488.6	492.3	500.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	444.3	447.4	452.3	453.9	455.4	453.9	452.3	447.4	444.3	447.4	452.3
45.5°	431.4	433.9	438.5	440.0	441.3	440.0	438.5	433.9	431.4	433.9	438.5
46°	419.1	421.3	425.3	427.4	428.1	427.4	425.3	421.3	419.1	421.3	425.3
46.5°	407.8	409.6	412.7	415.1	415.8	415.1	412.7	409.6	407.8	409.6	412.7
47°	397.0	398.2	401.3	403.8	404.7	403.8	401.3	398.2	397.0	398.2	401.3
47.5°	386.9	387.8	390.6	393.3	394.6	393.3	390.6	387.8	386.9	387.8	390.6
48°	377.4	378.6	381.3	383.8	385.0	383.8	381.3	378.6	377.4	378.6	381.3
48.5°	369.7	370.3	372.4	374.9	375.8	374.9	372.4	370.3	369.7	370.3	372.4
49°	362.3	362.6	364.4	366.3	367.2	366.3	364.4	362.6	362.3	362.6	364.4
49.5°	355.2	355.5	356.8	358.3	358.6	358.3	356.8	355.5	355.2	355.5	356.8
50°	347.9	348.2	349.1	350.3	350.6	350.3	349.1	348.2	347.9	348.2	349.1
50.5°	340.5	340.8	341.4	342.6	342.6	342.6	341.4	340.8	340.5	340.8	341.4
51°	332.2	332.8	333.7	334.9	334.9	334.9	333.7	332.8	332.2	332.8	333.7
51.5°	324.2	324.5	325.7	327.3	327.6	327.3	325.7	324.5	324.2	324.5	325.7
52°	315.9	316.5	317.7	319.3	319.6	319.3	317.7	316.5	315.9	316.5	317.7
52.5°	307.6	308.2	309.7	311.0	311.6	311.0	309.7	308.2	307.6	308.2	309.7
53°	299.9	300.5	301.8	303.0	303.6	303.0	301.8	300.5	299.9	300.5	301.8
53.5°	291.9	292.5	293.8	295.3	295.9	295.3	293.8	292.5	291.9	292.5	293.8
54°	284.6	284.9	286.1	287.3	287.9	287.3	286.1	284.9	284.6	284.9	286.1
54.5°	277.2	277.5	278.7	279.9	280.6	279.9	278.7	277.5	277.2	277.5	278.7
55°	269.8	270.4	271.6	272.6	272.9	272.6	271.6	270.4	269.8	270.4	271.6
55.5°	262.7	263.3	264.6	265.5	265.8	265.5	264.6	263.3	262.7	263.3	264.6
56°	256.0	256.6	257.5	258.4	258.7	258.4	257.5	256.6	256.0	256.6	257.5
56.5°	249.2	249.8	250.7	251.7	252.0	251.7	250.7	249.8	249.2	249.8	250.7
57°	242.5	243.1	244.0	244.9	245.2	244.9	244.0	243.1	242.5	243.1	244.0
57.5°	235.7	236.6	237.5	238.1	238.8	238.1	237.5	236.6	235.7	236.6	237.5
58°	229.9	230.2	231.1	232.0	232.3	232.0	231.1	230.2	229.9	230.2	231.1
58.5°	223.7	224.0	224.9	225.6	225.9	225.6	224.9	224.0	223.7	224.0	224.9
59°	217.6	217.9	218.5	219.1	219.7	219.1	218.5	217.9	217.6	217.9	218.5
59.5°	211.4	211.7	212.3	213.3	213.6	213.3	212.3	211.7	211.4	211.7	212.3
60°	205.6	205.9	206.5	207.1	207.4	207.1	206.5	205.9	205.6	205.9	206.5
60.5°	199.7	200.0	200.7	201.3	201.6	201.3	200.7	200.0	199.7	200.0	200.7
61°	194.2	194.5	195.1	195.7	196.1	195.7	195.1	194.5	194.2	194.5	195.1
61.5°	188.7	189.0	189.6	190.2	190.5	190.2	189.6	189.0	188.7	189.0	189.6
62°	183.5	183.5	184.1	184.7	184.7	184.7	184.1	183.5	183.5	183.5	184.1
62.5°	177.9	178.2	178.5	179.1	179.5	179.1	178.5	177.9	177.9	178.2	178.5
63°	172.7	173.0	173.3	173.9	173.9	173.9	173.3	173.0	172.7	173.0	173.3
63.5°	167.5	167.8	168.1	168.7	169.0	168.7	168.1	167.8	167.5	167.8	168.1
64°	162.6	162.9	163.2	163.5	163.8	163.5	163.2	162.9	162.6	162.9	163.2
64.5°	157.6	157.9	158.3	158.6	158.9	158.6	158.3	157.9	157.6	157.9	158.3
65°	152.7	153.0	153.3	153.6	154.0	153.6	153.3	153.0	152.7	153.0	153.3
65.5°	148.1	148.1	148.4	149.0	149.0	149.0	148.4	148.1	148.1	148.1	148.4
66°	143.2	143.5	143.8	144.1	144.4	144.1	143.8	143.5	143.2	143.5	143.8



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	129.7	130.0	130.3	130.6	130.6	130.6	130.3	130.0	129.7	130.0	130.3
68°	125.4	125.7	126.0	126.3	126.3	126.3	126.0	125.7	125.4	125.7	126.0
68.5°	121.1	121.4	121.7	121.7	122.0	121.7	121.7	121.4	121.1	121.4	121.7
69°	117.1	117.1	117.1	117.7	117.7	117.7	117.1	117.1	117.1	117.1	117.1
69.5°	112.8	113.1	113.1	113.4	113.7	113.4	113.1	113.1	112.8	113.1	113.1
70°	109.1	109.4	109.1	109.4	109.7	109.4	109.1	109.4	109.1	109.4	109.1
70.5°	105.1	105.4	105.4	105.4	105.7	105.4	105.4	105.4	105.1	105.4	105.4
71°	101.4	101.4	101.4	101.4	101.7	101.4	101.4	101.4	101.4	101.4	101.4
71.5°	97.4	97.4	97.7	97.7	97.7	97.7	97.7	97.4	97.4	97.4	97.7
72°	93.7	93.7	93.7	94.0	94.0	94.0	93.7	93.7	93.7	93.7	93.7
72.5°	90.0	90.0	90.0	90.3	90.3	90.3	90.0	90.0	90.0	90.0	90.0
73°	86.3	86.3	86.3	86.7	86.7	86.7	86.3	86.3	86.3	86.3	86.3
73.5°	82.7	82.7	83.0	83.0	83.0	83.0	83.0	82.7	82.7	82.7	83.0
74°	79.3	79.3	79.3	79.6	79.6	79.6	79.3	79.3	79.3	79.3	79.3
74.5°	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
75°	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
75.5°	69.1	69.1	69.1	69.1	69.4	69.1	69.1	69.1	69.1	69.1	69.1
76°	66.1	65.8	65.8	66.1	66.1	66.1	65.8	65.8	66.1	65.8	65.8
76.5°	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
77°	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
77.5°	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5
78°	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
78.5°	50.7	50.7	50.4	50.4	50.7	50.4	50.4	50.7	50.7	50.7	50.4
79°	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6
79.5°	44.9	44.9	44.6	44.9	44.9	44.9	44.6	44.9	44.9	44.9	44.6
80°	42.1	42.1	41.8	41.8	41.8	41.8	41.8	42.1	42.1	42.1	41.8
80.5°	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
81°	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6
81.5°	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
82°	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3
82.5°	28.9	28.9	28.9	28.9	28.6	28.9	28.9	28.9	28.9	28.9	28.9
83°	26.4	26.4	26.4	26.1	26.1	26.1	26.4	26.4	26.4	26.4	26.4
83.5°	24.0	24.0	24.0	23.7	23.7	23.7	24.0	24.0	24.0	24.0	24.0
84°	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
84.5°	19.4	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.4	19.1	19.1
85°	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
85.5°	14.7	14.4	14.7	14.4	14.7	14.4	14.7	14.4	14.7	14.4	14.7
86°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
86.5°	10.4	10.1	10.1	10.1	10.4	10.1	10.1	10.1	10.4	10.1	10.1
87°	8.3	8.3	8.3	8.0	8.3	8.0	8.3	8.3	8.3	8.3	8.3
87.5°	6.1	6.1	6.1	6.1	6.5	6.1	6.1	6.1	6.1	6.1	6.1
88°	4.0	4.3	4.3	4.6	4.6	4.6	4.3	4.3	4.0	4.3	4.3
88.5°	2.5	2.5	2.8	3.1	3.7	3.1	2.8	2.5	2.5	2.5	2.8



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-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	0.3	0.6	0.9	0.6	0.3	0.0	0.0	0.0	0.3



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2294.5	2294.5	2294.5	2294.5	2294.5	2294.5
0.5°	2293.6	2292.7	2293.6	2293.9	2294.5	2294.8
1°	2293.0	2291.8	2293.0	2293.3	2293.6	2293.9
1.5°	2291.5	2290.5	2291.5	2292.1	2292.1	2292.7
2°	2289.6	2288.4	2289.6	2289.9	2290.5	2290.8
2.5°	2287.2	2285.6	2287.2	2287.5	2288.1	2288.7
3°	2283.8	2282.2	2283.8	2284.4	2285.0	2285.6
3.5°	2280.1	2279.2	2280.1	2280.7	2281.6	2282.2
4°	2276.1	2274.6	2276.1	2276.7	2277.9	2278.2
4.5°	2271.5	2269.6	2271.5	2272.1	2273.3	2273.9
5°	2266.9	2264.7	2266.9	2267.5	2268.7	2269.6
5.5°	2260.7	2258.9	2260.7	2261.3	2262.9	2265.0
6°	2254.3	2251.8	2254.3	2255.2	2256.7	2258.0
6.5°	2247.2	2244.8	2247.2	2248.1	2250.0	2250.9
7°	2239.8	2237.7	2239.8	2241.4	2242.3	2243.5
7.5°	2232.2	2230.0	2232.2	2232.8	2234.0	2235.2
8°	2223.2	2222.0	2223.2	2224.2	2225.4	2226.3
8.5°	2213.7	2212.5	2213.7	2214.6	2215.9	2217.1
9°	2203.9	2202.7	2203.9	2204.8	2206.3	2207.3
9.5°	2193.4	2192.2	2193.4	2194.4	2195.9	2196.5
10°	2182.4	2180.8	2182.4	2183.6	2184.8	2185.8
10.5°	2170.7	2169.5	2170.7	2171.6	2173.2	2173.8
11°	2158.7	2157.2	2158.7	2159.9	2161.2	2161.8
11.5°	2146.1	2144.9	2146.1	2147.3	2148.6	2149.2
12°	2133.2	2132.0	2133.2	2134.7	2135.7	2136.3
12.5°	2119.7	2118.1	2119.7	2121.2	2122.1	2122.8
13°	2106.2	2104.6	2106.2	2107.4	2108.3	2108.9
13.5°	2092.0	2090.8	2092.0	2093.3	2093.9	2094.5
14°	2077.6	2076.4	2077.6	2078.8	2079.4	2079.7
14.5°	2062.5	2061.3	2062.5	2063.8	2064.1	2064.4
15°	2047.8	2046.5	2047.8	2048.4	2049.0	2049.0
15.5°	2033.0	2032.4	2033.0	2033.6	2033.0	2033.0
16°	2018.6	2018.0	2018.6	2018.9	2018.0	2017.7
16.5°	2004.1	2003.8	2004.1	2004.1	2002.9	2002.3
17°	1989.4	1989.7	1989.4	1989.7	1988.5	1987.9
17.5°	1975.0	1974.6	1975.0	1975.3	1974.3	1973.7
18°	1960.2	1959.6	1960.2	1960.8	1960.2	1959.9
18.5°	1944.5	1943.6	1944.5	1945.1	1945.1	1945.1
19°	1927.6	1926.7	1927.6	1928.6	1929.2	1930.1
19.5°	1909.8	1908.9	1909.8	1910.4	1912.3	1913.5
20°	1890.8	1888.6	1890.8	1890.4	1893.8	1895.4
20.5°	1870.2	1867.7	1870.2	1868.9	1872.9	1875.4
21°	1847.7	1844.7	1847.7	1846.2	1850.8	1854.5



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1770.9	1769.4	1770.9	1771.2	1774.3	1778.0
23°	1742.9	1742.3	1742.9	1745.1	1745.7	1748.8
23.5°	1714.1	1715.6	1714.1	1717.7	1716.2	1719.0
24°	1684.6	1687.3	1684.6	1689.5	1685.8	1687.9
24.5°	1654.8	1658.4	1654.8	1659.7	1655.1	1656.0
25°	1624.9	1627.7	1624.9	1628.6	1623.1	1622.5
25.5°	1595.1	1595.8	1595.1	1596.7	1591.8	1587.8
26°	1564.1	1561.6	1564.1	1563.8	1559.2	1552.1
26.5°	1531.8	1526.3	1531.8	1529.7	1526.0	1515.6
27°	1498.7	1490.4	1498.7	1495.3	1491.6	1479.9
27.5°	1464.5	1453.8	1464.5	1460.2	1455.9	1444.9
28°	1428.9	1417.2	1428.9	1424.6	1420.3	1409.8
28.5°	1392.6	1381.9	1392.6	1388.9	1384.0	1375.7
29°	1355.8	1348.4	1355.8	1353.3	1347.5	1341.9
29.5°	1318.9	1315.5	1318.9	1318.0	1311.5	1308.7
30°	1282.0	1282.3	1282.0	1281.7	1274.6	1275.6
30.5°	1246.4	1251.0	1246.4	1245.8	1239.0	1241.1
31°	1210.7	1217.8	1210.7	1209.5	1202.4	1207.0
31.5°	1175.4	1184.3	1175.4	1173.2	1167.4	1172.0
32°	1140.7	1149.9	1140.7	1137.3	1132.1	1136.4
32.5°	1106.2	1115.5	1106.2	1101.9	1098.3	1101.9
33°	1071.8	1080.4	1071.8	1065.7	1064.5	1067.2
33.5°	1037.4	1045.1	1037.4	1029.7	1030.6	1036.2
34°	1003.6	1011.6	1003.6	994.1	996.8	1002.7
34.5°	969.5	978.4	969.5	959.4	963.4	969.5
35°	936.6	946.1	936.6	926.5	930.8	936.0
35.5°	904.0	914.5	904.0	893.9	898.5	903.4
36°	872.7	883.5	872.7	862.3	866.2	871.5
36.5°	841.7	851.8	841.7	831.5	835.2	839.8
37°	811.6	820.5	811.6	801.4	804.5	807.9
37.5°	782.7	789.1	782.7	772.5	774.7	776.8
38°	754.4	758.1	754.4	744.9	745.8	746.1
38.5°	726.7	728.3	726.7	718.4	717.8	717.2
39°	700.0	699.7	700.0	692.0	690.8	689.3
39.5°	673.6	672.7	673.6	666.8	664.7	661.9
40°	648.1	646.8	648.1	642.5	638.9	635.8
40.5°	623.2	622.9	623.2	619.2	614.3	611.2
41°	599.8	600.8	599.8	597.1	590.6	587.5
41.5°	577.4	580.2	577.4	575.9	568.5	565.1
42°	556.5	560.2	556.5	555.6	547.6	544.2
42.5°	536.8	540.8	536.8	536.5	527.9	524.5
43°	518.4	522.1	518.4	517.8	509.5	505.8
43.5°	500.6	504.0	500.6	500.3	492.3	488.6



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	453.9	455.4	453.9	452.3	447.4	444.3
45.5°	440.0	441.3	440.0	438.5	433.9	431.4
46°	427.4	428.1	427.4	425.3	421.3	419.1
46.5°	415.1	415.8	415.1	412.7	409.6	407.8
47°	403.8	404.7	403.8	401.3	398.2	397.0
47.5°	393.3	394.6	393.3	390.6	387.8	386.9
48°	383.8	385.0	383.8	381.3	378.6	377.4
48.5°	374.9	375.8	374.9	372.4	370.3	369.7
49°	366.3	367.2	366.3	364.4	362.6	362.3
49.5°	358.3	358.6	358.3	356.8	355.5	355.2
50°	350.3	350.6	350.3	349.1	348.2	347.9
50.5°	342.6	342.6	342.6	341.4	340.8	340.5
51°	334.9	334.9	334.9	333.7	332.8	332.2
51.5°	327.3	327.6	327.3	325.7	324.5	324.2
52°	319.3	319.6	319.3	317.7	316.5	315.9
52.5°	311.0	311.6	311.0	309.7	308.2	307.6
53°	303.0	303.6	303.0	301.8	300.5	299.9
53.5°	295.3	295.9	295.3	293.8	292.5	291.9
54°	287.3	287.9	287.3	286.1	284.9	284.6
54.5°	279.9	280.6	279.9	278.7	277.5	277.2
55°	272.6	272.9	272.6	271.6	270.4	269.8
55.5°	265.5	265.8	265.5	264.6	263.3	262.7
56°	258.4	258.7	258.4	257.5	256.6	256.0
56.5°	251.7	252.0	251.7	250.7	249.8	249.2
57°	244.9	245.2	244.9	244.0	243.1	242.5
57.5°	238.1	238.8	238.1	237.5	236.6	235.7
58°	232.0	232.3	232.0	231.1	230.2	229.9
58.5°	225.6	225.9	225.6	224.9	224.0	223.7
59°	219.1	219.7	219.1	218.5	217.9	217.6
59.5°	213.3	213.6	213.3	212.3	211.7	211.4
60°	207.1	207.4	207.1	206.5	205.9	205.6
60.5°	201.3	201.6	201.3	200.7	200.0	199.7
61°	195.7	196.1	195.7	195.1	194.5	194.2
61.5°	190.2	190.5	190.2	189.6	189.0	188.7
62°	184.7	184.7	184.7	184.1	183.5	183.5
62.5°	179.1	179.5	179.1	178.5	178.2	177.9
63°	173.9	173.9	173.9	173.3	173.0	172.7
63.5°	168.7	169.0	168.7	168.1	167.8	167.5
64°	163.5	163.8	163.5	163.2	162.9	162.6
64.5°	158.6	158.9	158.6	158.3	157.9	157.6
65°	153.6	154.0	153.6	153.3	153.0	152.7
65.5°	149.0	149.0	149.0	148.4	148.1	148.1
66°	144.1	144.4	144.1	143.8	143.5	143.2



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	130.6	130.6	130.6	130.3	130.0	129.7
68°	126.3	126.3	126.3	126.0	125.7	125.4
68.5°	121.7	122.0	121.7	121.7	121.4	121.1
69°	117.7	117.7	117.7	117.1	117.1	117.1
69.5°	113.4	113.7	113.4	113.1	113.1	112.8
70°	109.4	109.7	109.4	109.1	109.4	109.1
70.5°	105.4	105.7	105.4	105.4	105.4	105.1
71°	101.4	101.7	101.4	101.4	101.4	101.4
71.5°	97.7	97.7	97.7	97.7	97.4	97.4
72°	94.0	94.0	94.0	93.7	93.7	93.7
72.5°	90.3	90.3	90.3	90.0	90.0	90.0
73°	86.7	86.7	86.7	86.3	86.3	86.3
73.5°	83.0	83.0	83.0	83.0	82.7	82.7
74°	79.6	79.6	79.6	79.3	79.3	79.3
74.5°	75.9	75.9	75.9	75.9	75.9	75.9
75°	72.5	72.5	72.5	72.5	72.5	72.5
75.5°	69.1	69.4	69.1	69.1	69.1	69.1
76°	66.1	66.1	66.1	65.8	65.8	66.1
76.5°	62.7	62.7	62.7	62.7	62.7	62.7
77°	59.6	59.6	59.6	59.6	59.6	59.6
77.5°	56.5	56.5	56.5	56.5	56.5	56.5
78°	53.5	53.5	53.5	53.5	53.5	53.5
78.5°	50.4	50.7	50.4	50.4	50.7	50.7
79°	47.6	47.6	47.6	47.6	47.6	47.6
79.5°	44.9	44.9	44.9	44.6	44.9	44.9
80°	41.8	41.8	41.8	41.8	42.1	42.1
80.5°	39.3	39.3	39.3	39.3	39.3	39.3
81°	36.6	36.6	36.6	36.6	36.6	36.6
81.5°	33.8	33.8	33.8	33.8	33.8	33.8
82°	31.3	31.3	31.3	31.3	31.3	31.3
82.5°	28.9	28.6	28.9	28.9	28.9	28.9
83°	26.1	26.1	26.1	26.4	26.4	26.4
83.5°	23.7	23.7	23.7	24.0	24.0	24.0
84°	21.5	21.5	21.5	21.5	21.5	21.5
84.5°	19.1	19.1	19.1	19.1	19.1	19.4
85°	16.9	16.9	16.9	16.9	16.9	16.9
85.5°	14.4	14.7	14.4	14.7	14.4	14.7
86°	12.3	12.3	12.3	12.3	12.3	12.3
86.5°	10.1	10.4	10.1	10.1	10.1	10.4
87°	8.0	8.3	8.0	8.3	8.3	8.3
87.5°	6.1	6.5	6.1	6.1	6.1	6.1
88°	4.6	4.6	4.6	4.3	4.3	4.0
88.5°	3.1	3.7	3.1	2.8	2.5	2.5



TEST NUMBER: P776227

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.6	0.9	0.6	0.3	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°

Signify Classified - Internal
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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	1830.2	1827.1	1821.9	1823.5	1820.4	1823.5	1821.9	1827.1	1830.2	1827.1	1821.9
22°	1804.7	1801.6	1797.0	1797.6	1794.6	1797.6	1797.0	1801.6	1804.7	1801.6	1797.0



44°	472.6	476.3	483.4	484.0	487.1	484.0	483.4	476.3	472.6	476.3	483.4
44.5°	457.9	461.5	467.7	468.6	470.8	468.6	467.7	461.5	457.9	461.5	467.7



66.5°	138.6	138.9	139.2	139.5	139.8	139.5	139.2	138.9	138.6	138.9	139.2
67°	134.3	134.3	134.6	134.9	135.2	134.9	134.6	134.3	134.3	134.3	134.6



89°	0.9	1.2	1.8	2.2	2.5	2.2	1.8	1.2	0.9	1.2	1.8
89.5°	0.0	0.3	0.9	1.2	1.5	1.2	0.9	0.3	0.0	0.3	0.9

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Scaled Data Report





21.5°	1823.5	1820.4	1823.5	1821.9	1827.1	1830.2
22°	1797.6	1794.6	1797.6	1797.0	1801.6	1804.7



44°	484.0	487.1	484.0	483.4	476.3	472.6
44.5°	468.6	470.8	468.6	467.7	461.5	457.9



66.5°	139.5	139.8	139.5	139.2	138.9	138.6
67°	134.9	135.2	134.9	134.6	134.3	134.3



89°	2.2	2.5	2.2	1.8	1.2	0.9
89.5°	1.2	1.5	1.2	0.9	0.3	0.0

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)