

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: P776226

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

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776226  
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-3000K  
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

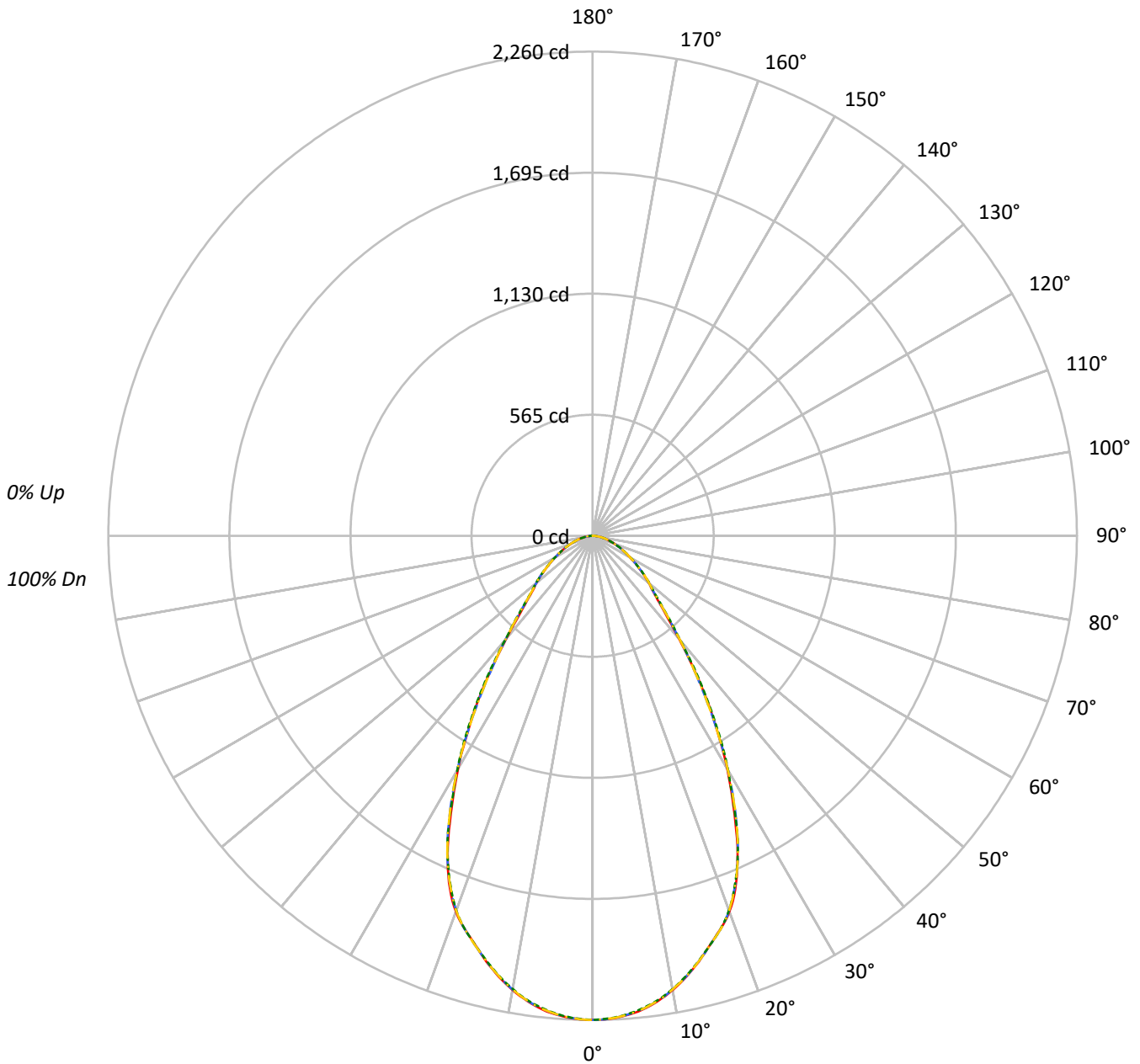
Lumens per Lamp: N/A  
Luminaire Lumens: 2918.4 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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								
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°	284433	284433	284433	284433
5°	282425	281805	282425	281805
10°	275122	274508	275122	274508
15°	262950	262637	262950	262637
20°	250027	249130	250027	249130
25°	221912	222634	221912	222634
30°	182579	183552	182579	183552
35°	141651	143172	141651	143172
40°	102875	104666	102875	104666
45°	77901	79841	77901	79841
50°	67077	67625	67077	67625
55°	58298	58978	58298	58978
60°	50969	51422	50969	51422
65°	44787	45144	44787	45144
70°	39519	39776	39519	39776
75°	34718	34718	34718	34718
80°	30077	29859	30077	29859
85°	23970	23970	23970	23970

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 79841 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.6	7.2
10°-20°	566.9	19.4
20°-30°	726.0	24.9
30°-40°	575.3	19.7
40°-50°	352.3	12.1
50°-60°	240.8	8.3
60°-70°	150.7	5.2
70°-80°	76.4	2.6
80°-90°	19.3	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°	1503.5	51.5
0°-40°	2078.9	71.2
0°-60°	2671.9	91.6
0°-90°	2918.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2918.4	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2260	2260	2260	2260	2260	
5°	2236	2231	2236	2231	2236	211
15°	2018	2016	2018	2016	2018	567
25°	1598	1603	1598	1603	1598	724
35°	922	932	922	932	922	575
45°	438	449	438	449	438	348
55°	266	269	266	269	266	239
65°	150	152	150	152	150	150
75°	71	71	71	71	71	76
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°	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1
0.5°	2260.4	2260.1	2259.5	2259.2	2258.3	2259.2	2259.5	2260.1	2260.4	2260.1	2259.5
1°	2259.5	2259.2	2258.9	2258.6	2257.4	2258.6	2258.9	2259.2	2259.5	2259.2	2258.9
1.5°	2258.3	2257.7	2257.7	2257.1	2256.1	2257.1	2257.7	2257.7	2258.3	2257.7	2257.7
2°	2256.4	2256.1	2255.5	2255.2	2254.0	2255.2	2255.5	2256.1	2256.4	2256.1	2255.5
2.5°	2254.3	2253.7	2253.1	2252.8	2251.3	2252.8	2253.1	2253.7	2254.3	2253.7	2253.1
3°	2251.3	2250.7	2250.1	2249.5	2248.0	2249.5	2250.1	2250.7	2251.3	2250.7	2250.1
3.5°	2248.0	2247.4	2246.5	2245.9	2244.9	2245.9	2246.5	2247.4	2248.0	2247.4	2246.5
4°	2244.0	2243.7	2242.5	2241.9	2240.4	2241.9	2242.5	2243.7	2244.0	2243.7	2242.5
4.5°	2239.8	2239.2	2238.0	2237.4	2235.6	2237.4	2238.0	2239.2	2239.8	2239.2	2238.0
5°	2235.6	2234.7	2233.4	2232.8	2230.7	2232.8	2233.4	2234.7	2235.6	2234.7	2233.4
5.5°	2231.0	2228.9	2227.4	2226.8	2225.0	2226.8	2227.4	2228.9	2231.0	2228.9	2227.4
6°	2224.1	2222.9	2221.3	2220.4	2218.0	2220.4	2221.3	2222.9	2224.1	2222.9	2221.3
6.5°	2217.1	2216.2	2214.4	2213.5	2211.0	2213.5	2214.4	2216.2	2217.1	2216.2	2214.4
7°	2209.8	2208.6	2207.7	2206.2	2204.1	2206.2	2207.7	2208.6	2209.8	2208.6	2207.7
7.5°	2201.7	2200.5	2199.2	2198.6	2196.5	2198.6	2199.2	2200.5	2201.7	2200.5	2199.2
8°	2192.9	2192.0	2190.8	2189.9	2188.6	2189.9	2190.8	2192.0	2192.9	2192.0	2190.8
8.5°	2183.8	2182.6	2181.4	2180.5	2179.3	2180.5	2181.4	2182.6	2183.8	2182.6	2181.4
9°	2174.1	2173.2	2171.7	2170.8	2169.6	2170.8	2171.7	2173.2	2174.1	2173.2	2171.7
9.5°	2163.5	2162.9	2161.4	2160.5	2159.3	2160.5	2161.4	2162.9	2163.5	2162.9	2161.4
10°	2152.9	2152.0	2150.8	2149.6	2148.1	2149.6	2150.8	2152.0	2152.9	2152.0	2150.8
10.5°	2141.1	2140.5	2139.0	2138.1	2136.9	2138.1	2139.0	2140.5	2141.1	2140.5	2139.0
11°	2129.3	2128.7	2127.5	2126.3	2124.8	2126.3	2127.5	2128.7	2129.3	2128.7	2127.5
11.5°	2116.9	2116.3	2115.1	2113.9	2112.7	2113.9	2115.1	2116.3	2116.9	2116.3	2115.1
12°	2104.2	2103.6	2102.7	2101.2	2100.0	2101.2	2102.7	2103.6	2104.2	2103.6	2102.7
12.5°	2090.9	2090.3	2089.4	2087.9	2086.3	2087.9	2089.4	2090.3	2090.9	2090.3	2089.4
13°	2077.3	2076.7	2075.8	2074.5	2073.0	2074.5	2075.8	2076.7	2077.3	2076.7	2075.8
13.5°	2063.0	2062.4	2061.8	2060.6	2059.4	2060.6	2061.8	2062.4	2063.0	2062.4	2061.8
14°	2048.5	2048.2	2047.6	2046.4	2045.2	2046.4	2047.6	2048.2	2048.5	2048.2	2047.6
14.5°	2033.4	2033.1	2032.8	2031.6	2030.3	2031.6	2032.8	2033.1	2033.4	2033.1	2032.8
15°	2018.2	2018.2	2017.6	2017.0	2015.8	2017.0	2017.6	2018.2	2018.2	2018.2	2017.6
15.5°	2002.5	2002.5	2003.1	2002.5	2001.9	2002.5	2003.1	2002.5	2002.5	2002.5	2003.1
16°	1987.4	1987.7	1988.6	1988.3	1987.7	1988.3	1988.6	1987.7	1987.4	1987.7	1988.6
16.5°	1972.2	1972.8	1974.1	1974.1	1973.7	1974.1	1974.1	1972.8	1972.2	1972.8	1974.1
17°	1958.0	1958.6	1959.8	1959.5	1959.8	1959.5	1959.8	1958.6	1958.0	1958.6	1959.8
17.5°	1944.1	1944.7	1945.6	1945.3	1945.0	1945.3	1945.6	1944.7	1944.1	1944.7	1945.6
18°	1930.5	1930.8	1931.4	1930.8	1930.2	1930.8	1931.4	1930.8	1930.5	1930.8	1931.4
18.5°	1915.9	1915.9	1915.9	1915.3	1914.4	1915.3	1915.9	1915.9	1915.9	1915.9	1915.9
19°	1901.1	1900.2	1899.6	1898.7	1897.8	1898.7	1899.6	1900.2	1901.1	1900.2	1899.6
19.5°	1884.8	1883.6	1881.7	1881.1	1880.2	1881.1	1881.7	1883.6	1884.8	1883.6	1881.7
20°	1866.9	1865.4	1862.1	1862.4	1860.2	1862.4	1862.1	1865.4	1866.9	1865.4	1862.1
20.5°	1847.2	1844.8	1840.9	1842.1	1839.7	1842.1	1840.9	1844.8	1847.2	1844.8	1840.9
21°	1826.6	1823.0	1818.5	1820.0	1817.0	1820.0	1818.5	1823.0	1826.6	1823.0	1818.5



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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°	1751.3	1747.7	1744.6	1744.3	1742.8	1744.3	1744.6	1747.7	1751.3	1747.7	1744.6
23°	1722.5	1719.5	1718.9	1716.8	1716.2	1716.8	1718.9	1719.5	1722.5	1719.5	1718.9
23.5°	1693.2	1690.4	1692.0	1688.3	1689.8	1688.3	1692.0	1690.4	1693.2	1690.4	1692.0
24°	1662.6	1660.5	1664.1	1659.3	1662.0	1659.3	1664.1	1660.5	1662.6	1660.5	1664.1
24.5°	1631.1	1630.2	1634.8	1629.9	1633.5	1629.9	1634.8	1630.2	1631.1	1630.2	1634.8
25°	1598.1	1598.7	1604.2	1600.5	1603.3	1600.5	1604.2	1598.7	1598.1	1598.7	1604.2
25.5°	1563.9	1567.9	1572.7	1571.2	1571.8	1571.2	1572.7	1567.9	1563.9	1567.9	1572.7
26°	1528.8	1535.8	1540.3	1540.6	1538.2	1540.6	1540.3	1535.8	1528.8	1535.8	1540.3
26.5°	1492.8	1503.1	1506.7	1508.8	1503.4	1508.8	1506.7	1503.1	1492.8	1503.1	1506.7
27°	1457.7	1469.2	1472.8	1476.1	1468.0	1476.1	1472.8	1469.2	1457.7	1469.2	1472.8
27.5°	1423.2	1434.1	1438.3	1442.6	1432.0	1442.6	1438.3	1434.1	1423.2	1434.1	1438.3
28°	1388.7	1399.0	1403.2	1407.4	1395.9	1407.4	1403.2	1399.0	1388.7	1399.0	1403.2
28.5°	1355.1	1363.3	1368.1	1371.7	1361.1	1371.7	1368.1	1363.3	1355.1	1363.3	1368.1
29°	1321.8	1327.2	1333.0	1335.4	1328.1	1335.4	1333.0	1327.2	1321.8	1327.2	1333.0
29.5°	1289.1	1291.8	1298.2	1299.1	1295.8	1299.1	1298.2	1291.8	1289.1	1291.8	1298.2
30°	1256.4	1255.5	1262.5	1262.8	1263.1	1262.8	1262.5	1255.5	1256.4	1255.5	1262.5
30.5°	1222.5	1220.4	1227.0	1227.7	1232.2	1227.7	1227.0	1220.4	1222.5	1220.4	1227.0
31°	1188.9	1184.4	1191.3	1192.5	1199.5	1192.5	1191.3	1184.4	1188.9	1184.4	1191.3
31.5°	1154.4	1149.9	1155.6	1157.7	1166.5	1157.7	1155.6	1149.9	1154.4	1149.9	1155.6
32°	1119.3	1115.1	1120.2	1123.5	1132.6	1123.5	1120.2	1115.1	1119.3	1115.1	1120.2
32.5°	1085.4	1081.8	1085.4	1089.6	1098.7	1089.6	1085.4	1081.8	1085.4	1081.8	1085.4
33°	1051.2	1048.5	1049.7	1055.7	1064.2	1055.7	1049.7	1048.5	1051.2	1048.5	1049.7
33.5°	1020.6	1015.2	1014.3	1021.8	1029.4	1021.8	1014.3	1015.2	1020.6	1015.2	1014.3
34°	987.6	981.9	979.2	988.5	996.4	988.5	979.2	981.9	987.6	981.9	979.2
34.5°	954.9	948.9	945.0	954.9	963.7	954.9	945.0	948.9	954.9	948.9	945.0
35°	922.0	916.8	912.6	922.6	931.9	922.6	912.6	916.8	922.0	916.8	912.6
35.5°	889.9	885.0	880.5	890.5	900.8	890.5	880.5	885.0	889.9	885.0	880.5
36°	858.4	853.2	849.3	859.6	870.2	859.6	849.3	853.2	858.4	853.2	849.3
36.5°	827.2	822.7	819.0	829.0	839.0	829.0	819.0	822.7	827.2	822.7	819.0
37°	795.7	792.4	789.4	799.4	808.1	799.4	789.4	792.4	795.7	792.4	789.4
37.5°	765.2	763.0	760.9	770.9	777.3	770.9	760.9	763.0	765.2	763.0	760.9
38°	734.9	734.6	733.7	743.1	746.7	743.1	733.7	734.6	734.9	734.6	733.7
38.5°	706.4	707.1	707.7	715.8	717.3	715.8	707.7	707.1	706.4	707.1	707.7
39°	678.9	680.4	681.6	689.5	689.2	689.5	681.6	680.4	678.9	680.4	681.6
39.5°	652.0	654.7	656.8	663.5	662.6	663.5	656.8	654.7	652.0	654.7	656.8
40°	626.2	629.3	632.9	638.3	637.1	638.3	632.9	629.3	626.2	629.3	632.9
40.5°	602.0	605.0	609.9	613.8	613.5	613.8	609.9	605.0	602.0	605.0	609.9
41°	578.7	581.7	588.1	590.8	591.7	590.8	588.1	581.7	578.7	581.7	588.1
41.5°	556.6	560.0	567.2	568.7	571.5	568.7	567.2	560.0	556.6	560.0	567.2
42°	536.0	539.4	547.2	548.1	551.8	548.1	547.2	539.4	536.0	539.4	547.2
42.5°	516.7	520.0	528.5	528.8	532.7	528.8	528.5	520.0	516.7	520.0	528.5
43°	498.2	501.8	510.0	510.6	514.2	510.6	510.0	501.8	498.2	501.8	510.0
43.5°	481.3	484.9	492.8	493.1	496.4	493.1	492.8	484.9	481.3	484.9	492.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	437.7	440.7	445.5	447.1	448.6	447.1	445.5	440.7	437.7	440.7	445.5
45.5°	425.0	427.4	431.9	433.4	434.6	433.4	431.9	427.4	425.0	427.4	431.9
46°	412.8	415.0	418.9	421.0	421.6	421.0	418.9	415.0	412.8	415.0	418.9
46.5°	401.7	403.5	406.5	408.9	409.5	408.9	406.5	403.5	401.7	403.5	406.5
47°	391.1	392.3	395.3	397.7	398.6	397.7	395.3	392.3	391.1	392.3	395.3
47.5°	381.1	382.0	384.7	387.4	388.6	387.4	384.7	382.0	381.1	382.0	384.7
48°	371.7	372.9	375.6	378.0	379.3	378.0	375.6	372.9	371.7	372.9	375.6
48.5°	364.1	364.7	366.8	369.3	370.2	369.3	366.8	364.7	364.1	364.7	366.8
49°	356.9	357.2	359.0	360.8	361.7	360.8	359.0	357.2	356.9	357.2	359.0
49.5°	349.9	350.2	351.4	352.9	353.2	352.9	351.4	350.2	349.9	350.2	351.4
50°	342.6	342.9	343.8	345.1	345.4	345.1	343.8	342.9	342.6	342.9	343.8
50.5°	335.4	335.7	336.3	337.5	337.5	337.5	336.3	335.7	335.4	335.7	336.3
51°	327.2	327.8	328.7	329.9	329.9	329.9	328.7	327.8	327.2	327.8	328.7
51.5°	319.3	319.6	320.8	322.3	322.7	322.3	320.8	319.6	319.3	319.6	320.8
52°	311.2	311.8	313.0	314.5	314.8	314.5	313.0	311.8	311.2	311.8	313.0
52.5°	303.0	303.6	305.1	306.3	306.9	306.3	305.1	303.6	303.0	303.6	305.1
53°	295.4	296.0	297.2	298.4	299.0	298.4	297.2	296.0	295.4	296.0	297.2
53.5°	287.5	288.1	289.4	290.9	291.5	290.9	289.4	288.1	287.5	288.1	289.4
54°	280.3	280.6	281.8	283.0	283.6	283.0	281.8	280.6	280.3	280.6	281.8
54.5°	273.0	273.3	274.5	275.7	276.3	275.7	274.5	273.3	273.0	273.3	274.5
55°	265.7	266.4	267.6	268.5	268.8	268.5	267.6	266.4	265.7	266.4	267.6
55.5°	258.8	259.4	260.6	261.5	261.8	261.5	260.6	259.4	258.8	259.4	260.6
56°	252.1	252.7	253.6	254.6	254.9	254.6	253.6	252.7	252.1	252.7	253.6
56.5°	245.5	246.1	247.0	247.9	248.2	247.9	247.0	246.1	245.5	246.1	247.0
57°	238.8	239.4	240.3	241.2	241.5	241.2	240.3	239.4	238.8	239.4	240.3
57.5°	232.2	233.1	234.0	234.6	235.2	234.6	234.0	233.1	232.2	233.1	234.0
58°	226.4	226.7	227.6	228.5	228.8	228.5	227.6	226.7	226.4	226.7	227.6
58.5°	220.3	220.7	221.6	222.2	222.5	222.2	221.6	220.7	220.3	220.7	221.6
59°	214.3	214.6	215.2	215.8	216.4	215.8	215.2	214.6	214.3	214.6	215.2
59.5°	208.2	208.5	209.1	210.1	210.4	210.1	209.1	208.5	208.2	208.5	209.1
60°	202.5	202.8	203.4	204.0	204.3	204.0	203.4	202.8	202.5	202.8	203.4
60.5°	196.7	197.0	197.6	198.3	198.6	198.3	197.6	197.0	196.7	197.0	197.6
61°	191.3	191.6	192.2	192.8	193.1	192.8	192.2	191.6	191.3	191.6	192.2
61.5°	185.8	186.1	186.8	187.4	187.7	187.4	186.8	186.1	185.8	186.1	186.8
62°	180.7	180.7	181.3	181.9	181.9	181.9	181.3	180.7	180.7	180.7	181.3
62.5°	175.2	175.6	175.9	176.5	176.8	176.5	175.9	175.6	175.2	175.6	175.9
63°	170.1	170.4	170.7	171.3	171.3	171.3	170.7	170.4	170.1	170.4	170.7
63.5°	165.0	165.3	165.6	166.2	166.5	166.2	165.6	165.3	165.0	165.3	165.6
64°	160.1	160.4	160.7	161.0	161.3	161.0	160.7	160.4	160.1	160.4	160.7
64.5°	155.3	155.6	155.9	156.2	156.5	156.2	155.9	155.6	155.3	155.6	155.9
65°	150.4	150.7	151.0	151.3	151.6	151.3	151.0	150.7	150.4	150.7	151.0
65.5°	145.9	145.9	146.2	146.8	146.8	146.8	146.2	145.9	145.9	145.9	146.2
66°	141.0	141.3	141.7	142.0	142.3	142.0	141.7	141.3	141.0	141.3	141.7





TEST NUMBER: P776226

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

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	127.7	128.0	128.3	128.6	128.6	128.6	128.3	128.0	127.7	128.0	128.3
68°	123.5	123.8	124.1	124.4	124.4	124.4	124.1	123.8	123.5	123.8	124.1
68.5°	119.3	119.6	119.9	119.9	120.2	119.9	119.9	119.6	119.3	119.6	119.9
69°	115.3	115.3	115.3	115.9	115.9	115.9	115.3	115.3	115.3	115.3	115.3
69.5°	111.1	111.4	111.4	111.7	112.0	111.7	111.4	111.4	111.1	111.4	111.4
70°	107.4	107.8	107.4	107.8	108.1	107.8	107.4	107.8	107.4	107.8	107.4
70.5°	103.5	103.8	103.8	103.8	104.1	103.8	103.8	103.8	103.5	103.8	103.8
71°	99.9	99.9	99.9	99.9	100.2	99.9	99.9	99.9	99.9	99.9	99.9
71.5°	95.9	95.9	96.3	96.3	96.3	96.3	96.3	95.9	95.9	95.9	96.3
72°	92.3	92.3	92.3	92.6	92.6	92.6	92.3	92.3	92.3	92.3	92.3
72.5°	88.7	88.7	88.7	89.0	89.0	89.0	88.7	88.7	88.7	88.7	88.7
73°	85.1	85.1	85.1	85.4	85.4	85.4	85.1	85.1	85.1	85.1	85.1
73.5°	81.4	81.4	81.7	81.7	81.7	81.7	81.7	81.4	81.4	81.4	81.7
74°	78.1	78.1	78.1	78.4	78.4	78.4	78.1	78.1	78.1	78.1	78.1
74.5°	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
75°	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
75.5°	68.1	68.1	68.1	68.1	68.4	68.1	68.1	68.1	68.1	68.1	68.1
76°	65.1	64.8	64.8	65.1	65.1	65.1	64.8	64.8	65.1	64.8	64.8
76.5°	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
77°	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
77.5°	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
78°	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7
78.5°	49.9	49.9	49.6	49.6	49.9	49.6	49.6	49.9	49.9	49.9	49.6
79°	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9
79.5°	44.2	44.2	43.9	44.2	44.2	44.2	43.9	44.2	44.2	44.2	43.9
80°	41.5	41.5	41.2	41.2	41.2	41.2	41.2	41.5	41.5	41.5	41.2
80.5°	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
81°	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
81.5°	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
82°	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9
82.5°	28.5	28.5	28.5	28.5	28.1	28.5	28.5	28.5	28.5	28.5	28.5
83°	26.0	26.0	26.0	25.7	25.7	25.7	26.0	26.0	26.0	26.0	26.0
83.5°	23.6	23.6	23.6	23.3	23.3	23.3	23.6	23.6	23.6	23.6	23.6
84°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
84.5°	19.1	18.8	18.8	18.8	18.8	18.8	18.8	18.8	19.1	18.8	18.8
85°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
85.5°	14.5	14.2	14.5	14.2	14.5	14.2	14.5	14.2	14.5	14.2	14.5
86°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
86.5°	10.3	10.0	10.0	10.0	10.3	10.0	10.0	10.0	10.3	10.0	10.0
87°	8.2	8.2	8.2	7.9	8.2	7.9	8.2	8.2	8.2	8.2	8.2
87.5°	6.1	6.1	6.1	6.1	6.4	6.1	6.1	6.1	6.1	6.1	6.1
88°	3.9	4.2	4.2	4.5	4.5	4.5	4.2	4.2	3.9	4.2	4.2
88.5°	2.4	2.4	2.7	3.0	3.6	3.0	2.7	2.4	2.4	2.4	2.7



TEST NUMBER: P776226

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

**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: P776226

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2260.1	2260.1	2260.1	2260.1	2260.1	2260.1
0.5°	2259.2	2258.3	2259.2	2259.5	2260.1	2260.4
1°	2258.6	2257.4	2258.6	2258.9	2259.2	2259.5
1.5°	2257.1	2256.1	2257.1	2257.7	2257.7	2258.3
2°	2255.2	2254.0	2255.2	2255.5	2256.1	2256.4
2.5°	2252.8	2251.3	2252.8	2253.1	2253.7	2254.3
3°	2249.5	2248.0	2249.5	2250.1	2250.7	2251.3
3.5°	2245.9	2244.9	2245.9	2246.5	2247.4	2248.0
4°	2241.9	2240.4	2241.9	2242.5	2243.7	2244.0
4.5°	2237.4	2235.6	2237.4	2238.0	2239.2	2239.8
5°	2232.8	2230.7	2232.8	2233.4	2234.7	2235.6
5.5°	2226.8	2225.0	2226.8	2227.4	2228.9	2231.0
6°	2220.4	2218.0	2220.4	2221.3	2222.9	2224.1
6.5°	2213.5	2211.0	2213.5	2214.4	2216.2	2217.1
7°	2206.2	2204.1	2206.2	2207.7	2208.6	2209.8
7.5°	2198.6	2196.5	2198.6	2199.2	2200.5	2201.7
8°	2189.9	2188.6	2189.9	2190.8	2192.0	2192.9
8.5°	2180.5	2179.3	2180.5	2181.4	2182.6	2183.8
9°	2170.8	2169.6	2170.8	2171.7	2173.2	2174.1
9.5°	2160.5	2159.3	2160.5	2161.4	2162.9	2163.5
10°	2149.6	2148.1	2149.6	2150.8	2152.0	2152.9
10.5°	2138.1	2136.9	2138.1	2139.0	2140.5	2141.1
11°	2126.3	2124.8	2126.3	2127.5	2128.7	2129.3
11.5°	2113.9	2112.7	2113.9	2115.1	2116.3	2116.9
12°	2101.2	2100.0	2101.2	2102.7	2103.6	2104.2
12.5°	2087.9	2086.3	2087.9	2089.4	2090.3	2090.9
13°	2074.5	2073.0	2074.5	2075.8	2076.7	2077.3
13.5°	2060.6	2059.4	2060.6	2061.8	2062.4	2063.0
14°	2046.4	2045.2	2046.4	2047.6	2048.2	2048.5
14.5°	2031.6	2030.3	2031.6	2032.8	2033.1	2033.4
15°	2017.0	2015.8	2017.0	2017.6	2018.2	2018.2
15.5°	2002.5	2001.9	2002.5	2003.1	2002.5	2002.5
16°	1988.3	1987.7	1988.3	1988.6	1987.7	1987.4
16.5°	1974.1	1973.7	1974.1	1974.1	1972.8	1972.2
17°	1959.5	1959.8	1959.5	1959.8	1958.6	1958.0
17.5°	1945.3	1945.0	1945.3	1945.6	1944.7	1944.1
18°	1930.8	1930.2	1930.8	1931.4	1930.8	1930.5
18.5°	1915.3	1914.4	1915.3	1915.9	1915.9	1915.9
19°	1898.7	1897.8	1898.7	1899.6	1900.2	1901.1
19.5°	1881.1	1880.2	1881.1	1881.7	1883.6	1884.8
20°	1862.4	1860.2	1862.4	1862.1	1865.4	1866.9
20.5°	1842.1	1839.7	1842.1	1840.9	1844.8	1847.2
21°	1820.0	1817.0	1820.0	1818.5	1823.0	1826.6



TEST NUMBER: P776226

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1744.3	1742.8	1744.3	1744.6	1747.7	1751.3
23°	1716.8	1716.2	1716.8	1718.9	1719.5	1722.5
23.5°	1688.3	1689.8	1688.3	1692.0	1690.4	1693.2
24°	1659.3	1662.0	1659.3	1664.1	1660.5	1662.6
24.5°	1629.9	1633.5	1629.9	1634.8	1630.2	1631.1
25°	1600.5	1603.3	1600.5	1604.2	1598.7	1598.1
25.5°	1571.2	1571.8	1571.2	1572.7	1567.9	1563.9
26°	1540.6	1538.2	1540.6	1540.3	1535.8	1528.8
26.5°	1508.8	1503.4	1508.8	1506.7	1503.1	1492.8
27°	1476.1	1468.0	1476.1	1472.8	1469.2	1457.7
27.5°	1442.6	1432.0	1442.6	1438.3	1434.1	1423.2
28°	1407.4	1395.9	1407.4	1403.2	1399.0	1388.7
28.5°	1371.7	1361.1	1371.7	1368.1	1363.3	1355.1
29°	1335.4	1328.1	1335.4	1333.0	1327.2	1321.8
29.5°	1299.1	1295.8	1299.1	1298.2	1291.8	1289.1
30°	1262.8	1263.1	1262.8	1262.5	1255.5	1256.4
30.5°	1227.7	1232.2	1227.7	1227.0	1220.4	1222.5
31°	1192.5	1199.5	1192.5	1191.3	1184.4	1188.9
31.5°	1157.7	1166.5	1157.7	1155.6	1149.9	1154.4
32°	1123.5	1132.6	1123.5	1120.2	1115.1	1119.3
32.5°	1089.6	1098.7	1089.6	1085.4	1081.8	1085.4
33°	1055.7	1064.2	1055.7	1049.7	1048.5	1051.2
33.5°	1021.8	1029.4	1021.8	1014.3	1015.2	1020.6
34°	988.5	996.4	988.5	979.2	981.9	987.6
34.5°	954.9	963.7	954.9	945.0	948.9	954.9
35°	922.6	931.9	922.6	912.6	916.8	922.0
35.5°	890.5	900.8	890.5	880.5	885.0	889.9
36°	859.6	870.2	859.6	849.3	853.2	858.4
36.5°	829.0	839.0	829.0	819.0	822.7	827.2
37°	799.4	808.1	799.4	789.4	792.4	795.7
37.5°	770.9	777.3	770.9	760.9	763.0	765.2
38°	743.1	746.7	743.1	733.7	734.6	734.9
38.5°	715.8	717.3	715.8	707.7	707.1	706.4
39°	689.5	689.2	689.5	681.6	680.4	678.9
39.5°	663.5	662.6	663.5	656.8	654.7	652.0
40°	638.3	637.1	638.3	632.9	629.3	626.2
40.5°	613.8	613.5	613.8	609.9	605.0	602.0
41°	590.8	591.7	590.8	588.1	581.7	578.7
41.5°	568.7	571.5	568.7	567.2	560.0	556.6
42°	548.1	551.8	548.1	547.2	539.4	536.0
42.5°	528.8	532.7	528.8	528.5	520.0	516.7
43°	510.6	514.2	510.6	510.0	501.8	498.2
43.5°	493.1	496.4	493.1	492.8	484.9	481.3



TEST NUMBER: P776226

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	447.1	448.6	447.1	445.5	440.7	437.7
45.5°	433.4	434.6	433.4	431.9	427.4	425.0
46°	421.0	421.6	421.0	418.9	415.0	412.8
46.5°	408.9	409.5	408.9	406.5	403.5	401.7
47°	397.7	398.6	397.7	395.3	392.3	391.1
47.5°	387.4	388.6	387.4	384.7	382.0	381.1
48°	378.0	379.3	378.0	375.6	372.9	371.7
48.5°	369.3	370.2	369.3	366.8	364.7	364.1
49°	360.8	361.7	360.8	359.0	357.2	356.9
49.5°	352.9	353.2	352.9	351.4	350.2	349.9
50°	345.1	345.4	345.1	343.8	342.9	342.6
50.5°	337.5	337.5	337.5	336.3	335.7	335.4
51°	329.9	329.9	329.9	328.7	327.8	327.2
51.5°	322.3	322.7	322.3	320.8	319.6	319.3
52°	314.5	314.8	314.5	313.0	311.8	311.2
52.5°	306.3	306.9	306.3	305.1	303.6	303.0
53°	298.4	299.0	298.4	297.2	296.0	295.4
53.5°	290.9	291.5	290.9	289.4	288.1	287.5
54°	283.0	283.6	283.0	281.8	280.6	280.3
54.5°	275.7	276.3	275.7	274.5	273.3	273.0
55°	268.5	268.8	268.5	267.6	266.4	265.7
55.5°	261.5	261.8	261.5	260.6	259.4	258.8
56°	254.6	254.9	254.6	253.6	252.7	252.1
56.5°	247.9	248.2	247.9	247.0	246.1	245.5
57°	241.2	241.5	241.2	240.3	239.4	238.8
57.5°	234.6	235.2	234.6	234.0	233.1	232.2
58°	228.5	228.8	228.5	227.6	226.7	226.4
58.5°	222.2	222.5	222.2	221.6	220.7	220.3
59°	215.8	216.4	215.8	215.2	214.6	214.3
59.5°	210.1	210.4	210.1	209.1	208.5	208.2
60°	204.0	204.3	204.0	203.4	202.8	202.5
60.5°	198.3	198.6	198.3	197.6	197.0	196.7
61°	192.8	193.1	192.8	192.2	191.6	191.3
61.5°	187.4	187.7	187.4	186.8	186.1	185.8
62°	181.9	181.9	181.9	181.3	180.7	180.7
62.5°	176.5	176.8	176.5	175.9	175.6	175.2
63°	171.3	171.3	171.3	170.7	170.4	170.1
63.5°	166.2	166.5	166.2	165.6	165.3	165.0
64°	161.0	161.3	161.0	160.7	160.4	160.1
64.5°	156.2	156.5	156.2	155.9	155.6	155.3
65°	151.3	151.6	151.3	151.0	150.7	150.4
65.5°	146.8	146.8	146.8	146.2	145.9	145.9
66°	142.0	142.3	142.0	141.7	141.3	141.0



TEST NUMBER: P776226

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

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	128.6	128.6	128.6	128.3	128.0	127.7
68°	124.4	124.4	124.4	124.1	123.8	123.5
68.5°	119.9	120.2	119.9	119.9	119.6	119.3
69°	115.9	115.9	115.9	115.3	115.3	115.3
69.5°	111.7	112.0	111.7	111.4	111.4	111.1
70°	107.8	108.1	107.8	107.4	107.8	107.4
70.5°	103.8	104.1	103.8	103.8	103.8	103.5
71°	99.9	100.2	99.9	99.9	99.9	99.9
71.5°	96.3	96.3	96.3	96.3	95.9	95.9
72°	92.6	92.6	92.6	92.3	92.3	92.3
72.5°	89.0	89.0	89.0	88.7	88.7	88.7
73°	85.4	85.4	85.4	85.1	85.1	85.1
73.5°	81.7	81.7	81.7	81.7	81.4	81.4
74°	78.4	78.4	78.4	78.1	78.1	78.1
74.5°	74.8	74.8	74.8	74.8	74.8	74.8
75°	71.4	71.4	71.4	71.4	71.4	71.4
75.5°	68.1	68.4	68.1	68.1	68.1	68.1
76°	65.1	65.1	65.1	64.8	64.8	65.1
76.5°	61.7	61.7	61.7	61.7	61.7	61.7
77°	58.7	58.7	58.7	58.7	58.7	58.7
77.5°	55.7	55.7	55.7	55.7	55.7	55.7
78°	52.7	52.7	52.7	52.7	52.7	52.7
78.5°	49.6	49.9	49.6	49.6	49.9	49.9
79°	46.9	46.9	46.9	46.9	46.9	46.9
79.5°	44.2	44.2	44.2	43.9	44.2	44.2
80°	41.2	41.2	41.2	41.2	41.5	41.5
80.5°	38.7	38.7	38.7	38.7	38.7	38.7
81°	36.0	36.0	36.0	36.0	36.0	36.0
81.5°	33.3	33.3	33.3	33.3	33.3	33.3
82°	30.9	30.9	30.9	30.9	30.9	30.9
82.5°	28.5	28.1	28.5	28.5	28.5	28.5
83°	25.7	25.7	25.7	26.0	26.0	26.0
83.5°	23.3	23.3	23.3	23.6	23.6	23.6
84°	21.2	21.2	21.2	21.2	21.2	21.2
84.5°	18.8	18.8	18.8	18.8	18.8	19.1
85°	16.6	16.6	16.6	16.6	16.6	16.6
85.5°	14.2	14.5	14.2	14.5	14.2	14.5
86°	12.1	12.1	12.1	12.1	12.1	12.1
86.5°	10.0	10.3	10.0	10.0	10.0	10.3
87°	7.9	8.2	7.9	8.2	8.2	8.2
87.5°	6.1	6.4	6.1	6.1	6.1	6.1
88°	4.5	4.5	4.5	4.2	4.2	3.9
88.5°	3.0	3.6	3.0	2.7	2.4	2.4



TEST NUMBER: P776226

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

**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



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Peachtree City, GA 30269

Scaled Data Report





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

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Scaled Data Report



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Scaled Data Report





21.5°	1802.7	1799.7	1794.6	1796.1	1793.1	1796.1	1794.6	1799.7	1802.7	1799.7	1794.6
22°	1777.6	1774.6	1770.0	1770.7	1767.6	1770.7	1770.0	1774.6	1777.6	1774.6	1770.0



44°	465.5	469.1	476.1	476.7	479.7	476.7	476.1	469.1	465.5	469.1	476.1
44.5°	451.0	454.6	460.7	461.6	463.7	461.6	460.7	454.6	451.0	454.6	460.7



66.5°	136.5	136.8	137.1	137.4	137.7	137.4	137.1	136.8	136.5	136.8	137.1
67°	132.3	132.3	132.6	132.9	133.2	132.9	132.6	132.3	132.3	132.3	132.6



89°	0.9	1.2	1.8	2.1	2.4	2.1	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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21.5°	1796.1	1793.1	1796.1	1794.6	1799.7	1802.7
22°	1770.7	1767.6	1770.7	1770.0	1774.6	1777.6



44°	476.7	479.7	476.7	476.1	469.1	465.5
44.5°	461.6	463.7	461.6	460.7	454.6	451.0



66.5°	137.4	137.7	137.4	137.1	136.8	136.5
67°	132.9	133.2	132.9	132.6	132.3	132.3

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89°	2.1	2.4	2.1	1.8	1.2	0.9
89.5°	1.2	1.5	1.2	0.9	0.3	0.0

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)