

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: P776402

Luminaire Tested: HCDJBS3040CSD-HCD6TRMB-4000lm-3500K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776402  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B001-HCD6TRMB)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL3040CSD-HCD6TRMB-4000lm-3500K  
Description: 6 INCH ROUND MEDIUM MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2938.9 lumens  
Efficiency: N/A  
Efficacy: 76.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

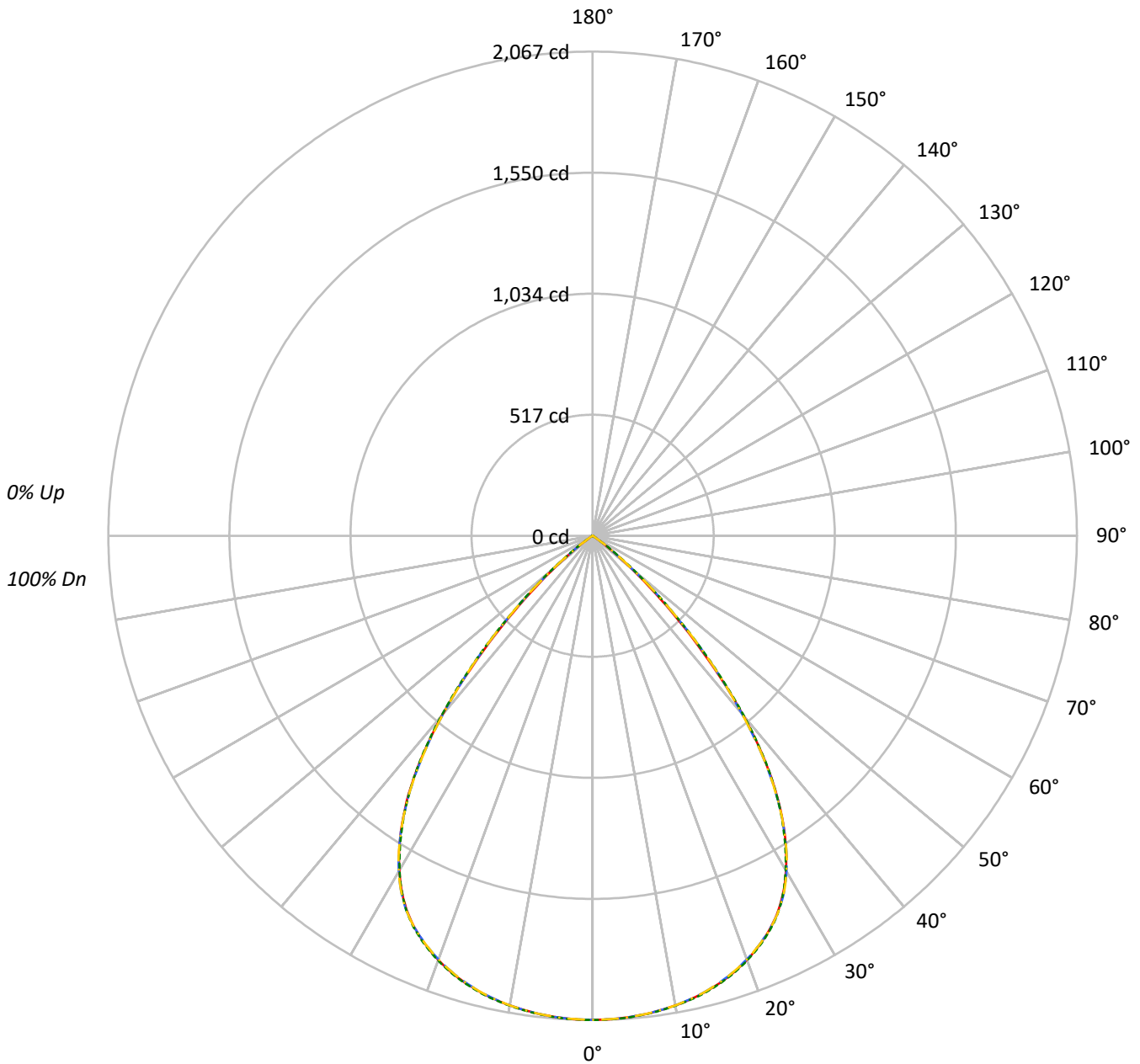
Input Watts (W): 38.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	113	110	107	105	110	108	105	103	104	102	100		100	98	97		96	95	94	92
2	107	101	97	93	104	99	95	92	96	93	90		93	90	88		90	88	86	84
3	100	93	88	83	98	92	87	83	89	85	81		87	83	80		84	81	79	77
4	94	86	80	75	92	85	79	75	83	78	74		80	76	73		79	75	72	70
5	89	79	73	68	87	78	72	68	77	71	67		75	70	66		73	69	66	64
6	83	73	67	62	82	73	66	62	71	65	61		70	65	61		68	64	60	59
7	79	68	61	57	77	67	61	56	66	60	56		65	60	56		64	59	56	54
8	74	63	57	52	73	63	56	52	62	56	52		60	55	51		59	55	51	50
9	70	59	52	48	69	58	52	48	57	52	48		57	51	47		56	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44		53	48	44		52	47	44	42

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	113302	113302	113302	113302
5°	113295	113339	113295	113339
10°	113325	113414	113325	113414
15°	113196	113332	113196	113332
20°	112418	112552	112418	112552
25°	110262	110480	110262	110480
30°	104453	104301	104453	104301
35°	92595	92300	92595	92300
40°	71405	72006	71405	72006
45°	42687	44811	42687	44811
50°	17654	20289	17654	20289
55°	3422	4024	3422	4024
60°	263	263	263	263
65°	104	104	104	104
70°	64	64	64	64
75°	0	0	0	0
80°	0	0	0	0
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 44904 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.8	6.7
10°-20°	562.3	19.1
20°-30°	835.0	28.4
30°-40°	846.4	28.8
40°-50°	442.9	15.1
50°-60°	55.3	1.9
60°-70°	0.9	0.0
70°-80°	0.1	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°	1593.1	54.2
0°-40°	2439.5	83.0
0°-60°	2937.8	100.0
0°-90°	2938.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2938.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2067	2067	2067	2067	2067	
5°	2059	2060	2059	2060	2059	196
15°	1994	1997	1994	1997	1994	562
25°	1823	1826	1823	1826	1823	835
35°	1384	1379	1384	1379	1384	848
45°	551	578	551	578	551	432
55°	36	42	36	42	36	51
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°	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8
0.5°	2066.8	2066.4	2066.4	2066.4	2067.2	2066.4	2066.4	2066.4	2066.8	2066.4	2066.4
1°	2066.4	2066.4	2066.0	2066.0	2067.2	2066.0	2066.0	2066.4	2066.4	2066.4	2066.0
1.5°	2066.0	2066.0	2065.6	2065.6	2066.8	2065.6	2065.6	2066.0	2066.0	2066.0	2065.6
2°	2065.6	2065.2	2065.2	2065.2	2066.0	2065.2	2065.2	2065.2	2065.6	2065.2	2065.2
2.5°	2064.8	2064.4	2064.4	2064.4	2065.6	2064.4	2064.4	2064.4	2064.8	2064.4	2064.4
3°	2063.6	2063.6	2063.6	2063.6	2064.8	2063.6	2063.6	2063.6	2063.6	2063.6	2063.6
3.5°	2062.8	2062.8	2062.8	2062.4	2063.6	2062.4	2062.8	2062.8	2062.8	2062.8	2062.8
4°	2061.6	2061.6	2061.6	2061.6	2062.4	2061.6	2061.6	2061.6	2061.6	2061.6	2061.6
4.5°	2060.0	2060.0	2060.0	2060.0	2061.2	2060.0	2060.0	2060.0	2060.0	2060.0	2060.0
5°	2058.8	2058.8	2058.8	2058.8	2059.6	2058.8	2058.8	2058.8	2058.8	2058.8	2058.8
5.5°	2057.3	2057.3	2057.3	2057.3	2058.4	2057.3	2057.3	2057.3	2057.3	2057.3	2057.3
6°	2055.7	2055.3	2055.3	2055.3	2056.5	2055.3	2055.3	2055.3	2055.7	2055.3	2055.3
6.5°	2053.7	2053.3	2053.7	2053.7	2054.9	2053.7	2053.7	2053.3	2053.7	2053.3	2053.7
7°	2051.7	2051.3	2051.3	2051.7	2052.5	2051.7	2051.3	2051.3	2051.7	2051.3	2051.3
7.5°	2049.3	2049.3	2049.3	2049.3	2050.5	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3
8°	2046.9	2046.9	2046.9	2046.9	2048.1	2046.9	2046.9	2046.9	2046.9	2046.9	2046.9
8.5°	2044.5	2044.1	2044.1	2044.5	2045.7	2044.5	2044.1	2044.1	2044.5	2044.1	2044.1
9°	2041.8	2041.8	2041.8	2041.8	2043.0	2041.8	2041.8	2041.8	2041.8	2041.8	2041.8
9.5°	2039.0	2038.6	2038.6	2039.0	2040.2	2039.0	2038.6	2038.6	2039.0	2038.6	2038.6
10°	2035.8	2035.8	2035.4	2035.8	2037.4	2035.8	2035.4	2035.8	2035.8	2035.8	2035.4
10.5°	2033.0	2032.2	2032.2	2032.6	2034.2	2032.6	2032.2	2032.2	2033.0	2032.2	2032.2
11°	2029.4	2029.1	2028.7	2029.4	2031.0	2029.4	2028.7	2029.1	2029.4	2029.1	2028.7
11.5°	2025.9	2025.1	2025.1	2025.9	2027.5	2025.9	2025.1	2025.1	2025.9	2025.1	2025.1
12°	2021.9	2021.5	2021.1	2021.9	2023.9	2021.9	2021.1	2021.5	2021.9	2021.5	2021.1
12.5°	2017.9	2017.1	2016.7	2017.9	2019.9	2017.9	2016.7	2017.1	2017.9	2017.1	2016.7
13°	2014.0	2013.2	2012.4	2013.6	2015.9	2013.6	2012.4	2013.2	2014.0	2013.2	2012.4
13.5°	2009.2	2008.4	2008.0	2009.2	2011.6	2009.2	2008.0	2008.4	2009.2	2008.4	2008.0
14°	2004.8	2003.6	2002.8	2004.4	2006.8	2004.4	2002.8	2003.6	2004.8	2003.6	2002.8
14.5°	1999.7	1998.9	1998.1	1999.3	2002.0	1999.3	1998.1	1998.9	1999.7	1998.9	1998.1
15°	1994.5	1993.3	1992.5	1994.1	1996.9	1994.1	1992.5	1993.3	1994.5	1993.3	1992.5
15.5°	1988.9	1987.7	1986.9	1988.5	1991.3	1988.5	1986.9	1987.7	1988.9	1987.7	1986.9
16°	1983.4	1982.2	1981.0	1983.0	1985.8	1983.0	1981.0	1982.2	1983.4	1982.2	1981.0
16.5°	1977.4	1975.8	1975.0	1977.0	1979.8	1977.0	1975.0	1975.8	1977.4	1975.8	1975.0
17°	1971.1	1969.5	1968.7	1970.7	1973.4	1970.7	1968.7	1969.5	1971.1	1969.5	1968.7
17.5°	1964.3	1963.1	1961.9	1963.9	1967.1	1963.9	1961.9	1963.1	1964.3	1963.1	1961.9
18°	1957.5	1956.0	1954.8	1957.2	1959.9	1957.2	1954.8	1956.0	1957.5	1956.0	1954.8
18.5°	1950.0	1948.8	1947.6	1950.0	1952.8	1950.0	1947.6	1948.8	1950.0	1948.8	1947.6
19°	1942.9	1941.3	1940.1	1942.5	1945.2	1942.5	1940.1	1941.3	1942.9	1941.3	1940.1
19.5°	1934.9	1933.7	1932.1	1934.5	1937.7	1934.5	1932.1	1933.7	1934.9	1933.7	1932.1
20°	1927.0	1925.4	1924.2	1926.6	1929.3	1926.6	1924.2	1925.4	1927.0	1925.4	1924.2
20.5°	1918.2	1917.0	1915.8	1918.2	1921.0	1918.2	1915.8	1917.0	1918.2	1917.0	1915.8
21°	1909.5	1908.3	1907.1	1909.5	1911.9	1909.5	1907.1	1908.3	1909.5	1908.3	1907.1



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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°	1880.5	1879.3	1878.9	1880.9	1883.3	1880.9	1878.9	1879.3	1880.5	1879.3	1878.9
23°	1869.8	1869.0	1868.6	1871.0	1872.5	1871.0	1868.6	1869.0	1869.8	1869.0	1868.6
23.5°	1858.6	1858.2	1858.2	1860.2	1861.8	1860.2	1858.2	1858.2	1858.6	1858.2	1858.2
24°	1847.5	1847.1	1847.5	1848.7	1850.7	1848.7	1847.5	1847.1	1847.5	1847.1	1847.5
24.5°	1835.6	1835.6	1836.0	1837.2	1838.8	1837.2	1836.0	1835.6	1835.6	1835.6	1836.0
25°	1822.9	1823.3	1824.1	1824.9	1826.5	1824.9	1824.1	1823.3	1822.9	1823.3	1824.1
25.5°	1809.8	1810.2	1811.4	1811.4	1813.0	1811.4	1811.4	1810.2	1809.8	1810.2	1811.4
26°	1795.5	1796.3	1797.5	1797.5	1799.1	1797.5	1797.5	1796.3	1795.5	1796.3	1797.5
26.5°	1780.8	1782.0	1783.6	1782.8	1783.6	1782.8	1783.6	1782.0	1780.8	1782.0	1783.6
27°	1764.9	1766.5	1768.1	1766.9	1767.7	1766.9	1768.1	1766.5	1764.9	1766.5	1768.1
27.5°	1748.2	1750.2	1751.8	1750.2	1750.2	1750.2	1751.8	1750.2	1748.2	1750.2	1751.8
28°	1730.3	1732.7	1734.7	1732.3	1731.1	1732.3	1734.7	1732.7	1730.3	1732.7	1734.7
28.5°	1711.7	1714.4	1716.4	1713.6	1711.7	1713.6	1716.4	1714.4	1711.7	1714.4	1716.4
29°	1692.2	1695.0	1697.0	1694.2	1691.4	1694.2	1697.0	1695.0	1692.2	1695.0	1697.0
29.5°	1671.5	1674.7	1676.7	1673.5	1670.0	1673.5	1676.7	1674.7	1671.5	1674.7	1676.7
30°	1650.1	1652.5	1654.9	1651.3	1647.7	1651.3	1654.9	1652.5	1650.1	1652.5	1654.9
30.5°	1627.8	1630.2	1632.2	1628.2	1624.3	1628.2	1632.2	1630.2	1627.8	1630.2	1632.2
31°	1604.4	1606.4	1608.4	1604.8	1600.4	1604.8	1608.4	1606.4	1604.4	1606.4	1608.4
31.5°	1580.2	1581.4	1583.4	1579.4	1575.4	1579.4	1583.4	1581.4	1580.2	1581.4	1583.4
32°	1555.2	1555.2	1557.1	1553.2	1550.0	1553.2	1557.1	1555.2	1555.2	1555.2	1557.1
32.5°	1528.9	1528.5	1529.7	1525.8	1523.4	1525.8	1529.7	1528.5	1528.9	1528.5	1529.7
33°	1501.9	1500.3	1501.5	1497.6	1496.8	1497.6	1501.5	1500.3	1501.9	1500.3	1501.5
33.5°	1474.5	1471.7	1472.1	1468.6	1468.2	1468.6	1472.1	1471.7	1474.5	1471.7	1472.1
34°	1445.1	1441.9	1441.9	1438.0	1440.0	1438.0	1441.9	1441.9	1445.1	1441.9	1441.9
34.5°	1414.9	1411.4	1410.6	1406.6	1410.2	1406.6	1410.6	1411.4	1414.9	1411.4	1410.6
35°	1383.6	1379.6	1378.0	1375.2	1379.2	1375.2	1378.0	1379.6	1383.6	1379.6	1378.0
35.5°	1350.6	1347.4	1344.6	1343.0	1347.4	1343.0	1344.6	1347.4	1350.6	1347.4	1344.6
36°	1316.4	1314.0	1310.1	1309.3	1314.4	1309.3	1310.1	1314.0	1316.4	1314.0	1310.1
36.5°	1281.1	1279.1	1274.3	1274.7	1280.7	1274.7	1274.3	1279.1	1281.1	1279.1	1274.3
37°	1244.1	1242.9	1237.4	1239.4	1244.9	1239.4	1237.4	1242.9	1244.1	1242.9	1237.4
37.5°	1206.0	1205.6	1198.8	1202.4	1207.6	1202.4	1198.8	1205.6	1206.0	1205.6	1198.8
38°	1167.1	1166.7	1159.1	1164.3	1169.4	1164.3	1159.1	1166.7	1167.1	1166.7	1159.1
38.5°	1126.5	1126.1	1117.8	1125.0	1130.1	1125.0	1117.8	1126.1	1126.5	1126.1	1117.8
39°	1085.2	1084.0	1076.1	1085.2	1090.0	1085.2	1076.1	1084.0	1085.2	1084.0	1076.1
39.5°	1042.7	1040.7	1033.6	1043.9	1048.7	1043.9	1033.6	1040.7	1042.7	1040.7	1033.6
40°	997.8	996.3	990.3	1001.0	1006.2	1001.0	990.3	996.3	997.8	996.3	990.3
40.5°	953.4	951.4	947.4	957.7	962.1	957.7	947.4	951.4	953.4	951.4	947.4
41°	907.7	906.5	905.7	914.4	918.4	914.4	905.7	906.5	907.7	906.5	905.7
41.5°	862.4	861.2	864.0	871.1	874.7	871.1	864.0	861.2	862.4	861.2	864.0
42°	816.3	816.7	822.7	827.4	831.8	827.4	822.7	816.7	816.3	816.7	822.7
42.5°	770.6	772.6	781.0	784.9	788.9	784.9	781.0	772.6	770.6	772.6	781.0
43°	724.9	728.9	739.2	742.8	745.6	742.8	739.2	728.9	724.9	728.9	739.2
43.5°	680.1	685.6	697.5	701.1	702.7	701.1	697.5	685.6	680.1	685.6	697.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	550.6	558.5	574.4	579.2	578.0	579.2	574.4	558.5	550.6	558.5	574.4
45.5°	509.6	518.0	534.7	541.0	537.8	541.0	534.7	518.0	509.6	518.0	534.7
46°	469.5	479.5	496.9	503.3	498.5	503.3	496.9	479.5	469.5	479.5	496.9
46.5°	433.0	441.7	459.2	465.2	460.8	465.2	459.2	441.7	433.0	441.7	459.2
47°	396.4	404.8	421.9	428.6	423.8	428.6	421.9	404.8	396.4	404.8	421.9
47.5°	361.1	369.0	384.9	392.5	388.9	392.5	384.9	369.0	361.1	369.0	384.9
48°	326.1	334.5	350.0	358.3	355.9	358.3	350.0	334.5	326.1	334.5	350.0
48.5°	292.8	301.9	316.6	325.7	323.7	325.7	316.6	301.9	292.8	301.9	316.6
49°	262.2	270.9	284.4	294.3	294.7	294.3	284.4	270.9	262.2	270.9	284.4
49.5°	234.0	240.7	253.4	264.6	266.1	264.6	253.4	240.7	234.0	240.7	253.4
50°	207.0	212.9	223.6	235.6	237.9	235.6	223.6	212.9	207.0	212.9	223.6
50.5°	181.5	186.3	195.4	207.8	210.5	207.8	195.4	186.3	181.5	186.3	195.4
51°	158.1	162.5	171.2	181.9	184.7	181.9	171.2	162.5	158.1	162.5	171.2
51.5°	137.0	140.6	148.2	157.7	162.1	157.7	148.2	140.6	137.0	140.6	148.2
52°	117.2	120.4	126.7	135.1	139.8	135.1	126.7	120.4	117.2	120.4	126.7
52.5°	100.5	101.3	106.1	114.0	118.4	114.0	106.1	101.3	100.5	101.3	106.1
53°	85.0	84.6	88.6	96.1	99.3	96.1	88.6	84.6	85.0	84.6	88.6
53.5°	69.9	70.7	73.9	80.6	81.8	80.6	73.9	70.7	69.9	70.7	73.9
54°	56.8	58.0	60.0	65.9	65.9	65.9	60.0	58.0	56.8	58.0	60.0
54.5°	45.7	46.5	47.3	52.4	52.0	52.4	47.3	46.5	45.7	46.5	47.3
55°	35.8	35.4	36.1	40.5	42.1	40.5	36.1	35.4	35.8	35.4	36.1
55.5°	26.2	26.2	27.4	30.2	32.6	30.2	27.4	26.2	26.2	26.2	27.4
56°	17.5	18.7	20.7	23.0	25.0	23.0	20.7	18.7	17.5	18.7	20.7
56.5°	11.9	12.3	15.1	16.3	17.9	16.3	15.1	12.3	11.9	12.3	15.1
57°	9.5	8.7	9.9	10.7	10.7	10.7	9.9	8.7	9.5	8.7	9.9
57.5°	7.5	6.8	7.2	7.9	7.2	7.9	7.2	6.8	7.5	6.8	7.2
58°	6.0	5.6	6.0	6.4	5.2	6.4	6.0	5.6	6.0	5.6	6.0
58.5°	4.0	4.4	4.8	5.2	4.4	5.2	4.8	4.4	4.0	4.4	4.8
59°	3.6	3.6	3.6	4.0	3.6	4.0	3.6	3.6	3.6	3.6	3.6
59.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
60°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
60.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
61°	1.6	1.6	1.6	2.0	1.6	2.0	1.6	1.6	1.6	1.6	1.6
61.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
62°	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.6	1.6
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°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
64°	0.8	0.8	0.8	0.8	1.2	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: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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°	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4
73.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.4
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-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: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2066.8	2066.8	2066.8	2066.8	2066.8	2066.8
0.5°	2066.4	2067.2	2066.4	2066.4	2066.4	2066.8
1°	2066.0	2067.2	2066.0	2066.0	2066.4	2066.4
1.5°	2065.6	2066.8	2065.6	2065.6	2066.0	2066.0
2°	2065.2	2066.0	2065.2	2065.2	2065.2	2065.6
2.5°	2064.4	2065.6	2064.4	2064.4	2064.4	2064.8
3°	2063.6	2064.8	2063.6	2063.6	2063.6	2063.6
3.5°	2062.4	2063.6	2062.4	2062.8	2062.8	2062.8
4°	2061.6	2062.4	2061.6	2061.6	2061.6	2061.6
4.5°	2060.0	2061.2	2060.0	2060.0	2060.0	2060.0
5°	2058.8	2059.6	2058.8	2058.8	2058.8	2058.8
5.5°	2057.3	2058.4	2057.3	2057.3	2057.3	2057.3
6°	2055.3	2056.5	2055.3	2055.3	2055.3	2055.7
6.5°	2053.7	2054.9	2053.7	2053.7	2053.3	2053.7
7°	2051.7	2052.5	2051.7	2051.3	2051.3	2051.7
7.5°	2049.3	2050.5	2049.3	2049.3	2049.3	2049.3
8°	2046.9	2048.1	2046.9	2046.9	2046.9	2046.9
8.5°	2044.5	2045.7	2044.5	2044.1	2044.1	2044.5
9°	2041.8	2043.0	2041.8	2041.8	2041.8	2041.8
9.5°	2039.0	2040.2	2039.0	2038.6	2038.6	2039.0
10°	2035.8	2037.4	2035.8	2035.4	2035.8	2035.8
10.5°	2032.6	2034.2	2032.6	2032.2	2032.2	2033.0
11°	2029.4	2031.0	2029.4	2028.7	2029.1	2029.4
11.5°	2025.9	2027.5	2025.9	2025.1	2025.1	2025.9
12°	2021.9	2023.9	2021.9	2021.1	2021.5	2021.9
12.5°	2017.9	2019.9	2017.9	2016.7	2017.1	2017.9
13°	2013.6	2015.9	2013.6	2012.4	2013.2	2014.0
13.5°	2009.2	2011.6	2009.2	2008.0	2008.4	2009.2
14°	2004.4	2006.8	2004.4	2002.8	2003.6	2004.8
14.5°	1999.3	2002.0	1999.3	1998.1	1998.9	1999.7
15°	1994.1	1996.9	1994.1	1992.5	1993.3	1994.5
15.5°	1988.5	1991.3	1988.5	1986.9	1987.7	1988.9
16°	1983.0	1985.8	1983.0	1981.0	1982.2	1983.4
16.5°	1977.0	1979.8	1977.0	1975.0	1975.8	1977.4
17°	1970.7	1973.4	1970.7	1968.7	1969.5	1971.1
17.5°	1963.9	1967.1	1963.9	1961.9	1963.1	1964.3
18°	1957.2	1959.9	1957.2	1954.8	1956.0	1957.5
18.5°	1950.0	1952.8	1950.0	1947.6	1948.8	1950.0
19°	1942.5	1945.2	1942.5	1940.1	1941.3	1942.9
19.5°	1934.5	1937.7	1934.5	1932.1	1933.7	1934.9
20°	1926.6	1929.3	1926.6	1924.2	1925.4	1927.0
20.5°	1918.2	1921.0	1918.2	1915.8	1917.0	1918.2
21°	1909.5	1911.9	1909.5	1907.1	1908.3	1909.5

TEST NUMBER: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1880.9	1883.3	1880.9	1878.9	1879.3	1880.5
23°	1871.0	1872.5	1871.0	1868.6	1869.0	1869.8
23.5°	1860.2	1861.8	1860.2	1858.2	1858.2	1858.6
24°	1848.7	1850.7	1848.7	1847.5	1847.1	1847.5
24.5°	1837.2	1838.8	1837.2	1836.0	1835.6	1835.6
25°	1824.9	1826.5	1824.9	1824.1	1823.3	1822.9
25.5°	1811.4	1813.0	1811.4	1811.4	1810.2	1809.8
26°	1797.5	1799.1	1797.5	1797.5	1796.3	1795.5
26.5°	1782.8	1783.6	1782.8	1783.6	1782.0	1780.8
27°	1766.9	1767.7	1766.9	1768.1	1766.5	1764.9
27.5°	1750.2	1750.2	1750.2	1751.8	1750.2	1748.2
28°	1732.3	1731.1	1732.3	1734.7	1732.7	1730.3
28.5°	1713.6	1711.7	1713.6	1716.4	1714.4	1711.7
29°	1694.2	1691.4	1694.2	1697.0	1695.0	1692.2
29.5°	1673.5	1670.0	1673.5	1676.7	1674.7	1671.5
30°	1651.3	1647.7	1651.3	1654.9	1652.5	1650.1
30.5°	1628.2	1624.3	1628.2	1632.2	1630.2	1627.8
31°	1604.8	1600.4	1604.8	1608.4	1606.4	1604.4
31.5°	1579.4	1575.4	1579.4	1583.4	1581.4	1580.2
32°	1553.2	1550.0	1553.2	1557.1	1555.2	1555.2
32.5°	1525.8	1523.4	1525.8	1529.7	1528.5	1528.9
33°	1497.6	1496.8	1497.6	1501.5	1500.3	1501.9
33.5°	1468.6	1468.2	1468.6	1472.1	1471.7	1474.5
34°	1438.0	1440.0	1438.0	1441.9	1441.9	1445.1
34.5°	1406.6	1410.2	1406.6	1410.6	1411.4	1414.9
35°	1375.2	1379.2	1375.2	1378.0	1379.6	1383.6
35.5°	1343.0	1347.4	1343.0	1344.6	1347.4	1350.6
36°	1309.3	1314.4	1309.3	1310.1	1314.0	1316.4
36.5°	1274.7	1280.7	1274.7	1274.3	1279.1	1281.1
37°	1239.4	1244.9	1239.4	1237.4	1242.9	1244.1
37.5°	1202.4	1207.6	1202.4	1198.8	1205.6	1206.0
38°	1164.3	1169.4	1164.3	1159.1	1166.7	1167.1
38.5°	1125.0	1130.1	1125.0	1117.8	1126.1	1126.5
39°	1085.2	1090.0	1085.2	1076.1	1084.0	1085.2
39.5°	1043.9	1048.7	1043.9	1033.6	1040.7	1042.7
40°	1001.0	1006.2	1001.0	990.3	996.3	997.8
40.5°	957.7	962.1	957.7	947.4	951.4	953.4
41°	914.4	918.4	914.4	905.7	906.5	907.7
41.5°	871.1	874.7	871.1	864.0	861.2	862.4
42°	827.4	831.8	827.4	822.7	816.7	816.3
42.5°	784.9	788.9	784.9	781.0	772.6	770.6
43°	742.8	745.6	742.8	739.2	728.9	724.9
43.5°	701.1	702.7	701.1	697.5	685.6	680.1



TEST NUMBER: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	579.2	578.0	579.2	574.4	558.5	550.6
45.5°	541.0	537.8	541.0	534.7	518.0	509.6
46°	503.3	498.5	503.3	496.9	479.5	469.5
46.5°	465.2	460.8	465.2	459.2	441.7	433.0
47°	428.6	423.8	428.6	421.9	404.8	396.4
47.5°	392.5	388.9	392.5	384.9	369.0	361.1
48°	358.3	355.9	358.3	350.0	334.5	326.1
48.5°	325.7	323.7	325.7	316.6	301.9	292.8
49°	294.3	294.7	294.3	284.4	270.9	262.2
49.5°	264.6	266.1	264.6	253.4	240.7	234.0
50°	235.6	237.9	235.6	223.6	212.9	207.0
50.5°	207.8	210.5	207.8	195.4	186.3	181.5
51°	181.9	184.7	181.9	171.2	162.5	158.1
51.5°	157.7	162.1	157.7	148.2	140.6	137.0
52°	135.1	139.8	135.1	126.7	120.4	117.2
52.5°	114.0	118.4	114.0	106.1	101.3	100.5
53°	96.1	99.3	96.1	88.6	84.6	85.0
53.5°	80.6	81.8	80.6	73.9	70.7	69.9
54°	65.9	65.9	65.9	60.0	58.0	56.8
54.5°	52.4	52.0	52.4	47.3	46.5	45.7
55°	40.5	42.1	40.5	36.1	35.4	35.8
55.5°	30.2	32.6	30.2	27.4	26.2	26.2
56°	23.0	25.0	23.0	20.7	18.7	17.5
56.5°	16.3	17.9	16.3	15.1	12.3	11.9
57°	10.7	10.7	10.7	9.9	8.7	9.5
57.5°	7.9	7.2	7.9	7.2	6.8	7.5
58°	6.4	5.2	6.4	6.0	5.6	6.0
58.5°	5.2	4.4	5.2	4.8	4.4	4.0
59°	4.0	3.6	4.0	3.6	3.6	3.6
59.5°	2.8	2.8	2.8	2.8	2.8	2.8
60°	2.4	2.4	2.4	2.4	2.4	2.4
60.5°	2.0	2.0	2.0	2.0	2.0	2.0
61°	2.0	1.6	2.0	1.6	1.6	1.6
61.5°	1.6	1.6	1.6	1.6	1.6	1.6
62°	1.6	1.6	1.6	1.6	1.6	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°	1.2	1.2	1.2	1.2	1.2	1.2
64°	0.8	1.2	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: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.4	0.4	0.4	0.4	0.4	0.4
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	0.0
73.5°	0.4	0.4	0.4	0.4	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	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: P776402

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-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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Scaled Data Report





21.5°	1900.3	1898.8	1898.0	1900.3	1902.7	1900.3	1898.0	1898.8	1900.3	1898.8	1898.0
22°	1890.4	1889.6	1888.4	1890.8	1892.8	1890.8	1888.4	1889.6	1890.4	1889.6	1888.4



44°	635.6	642.7	655.8	659.8	660.6	659.8	655.8	642.7	635.6	642.7	655.8
44.5°	592.7	600.2	614.9	619.3	618.9	619.3	614.9	600.2	592.7	600.2	614.9



66.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
67°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	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°	1900.3	1902.7	1900.3	1898.0	1898.8	1900.3
22°	1890.8	1892.8	1890.8	1888.4	1889.6	1890.4



44°	659.8	660.6	659.8	655.8	642.7	635.6
44.5°	619.3	618.9	619.3	614.9	600.2	592.7

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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	0.4	0.4

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Peachtree City, GA 30269

Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)