

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: P776401

Luminaire Tested: HCDJBS3040CSD-HCD6TRMB-4000lm-3000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776401  
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-3000K  
Description: 6 INCH ROUND MEDIUM MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2894.7 lumens  
Efficiency: N/A  
Efficacy: 75.2 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

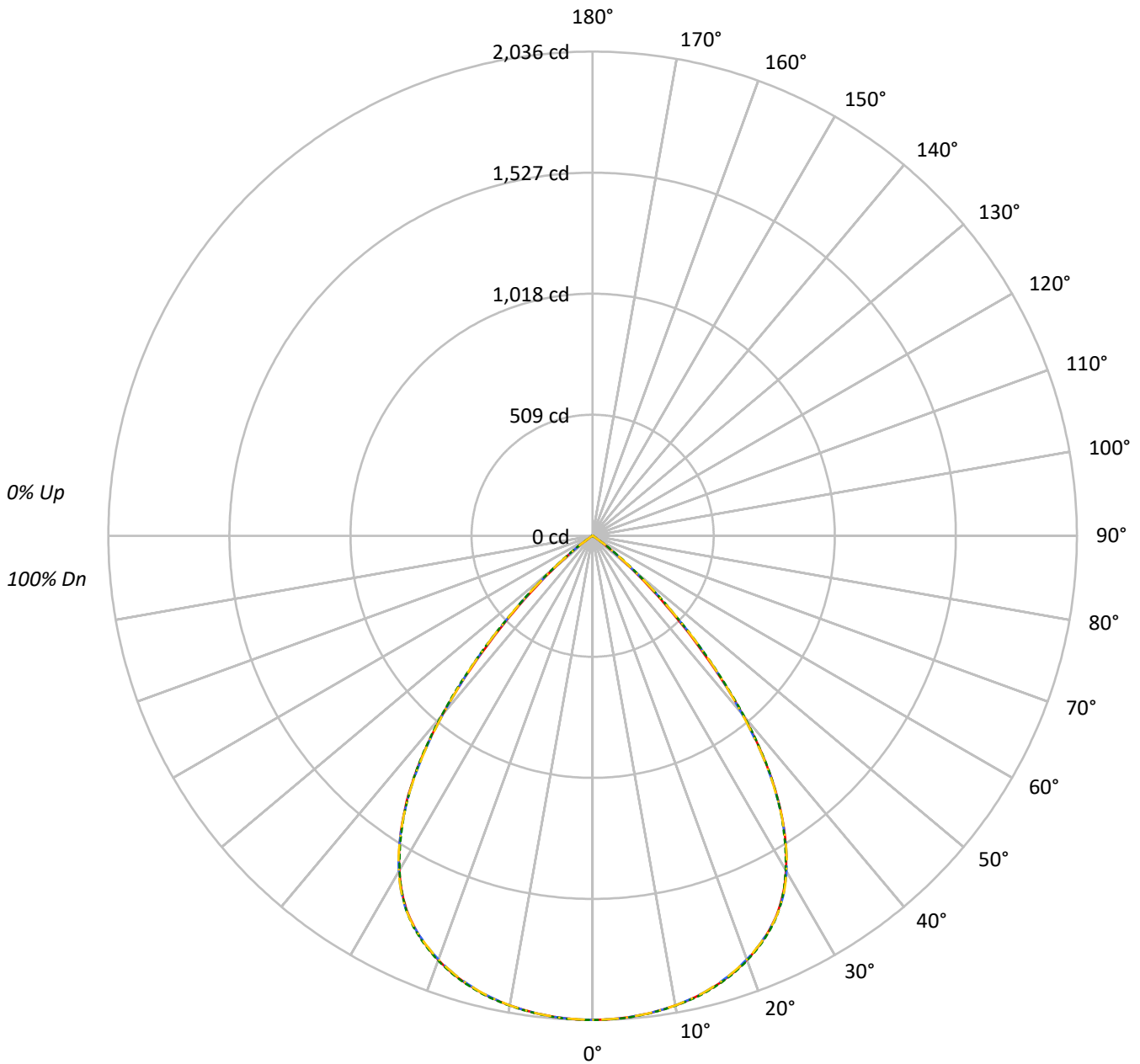
Input Watts (W): 38.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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

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

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

	0°	90°	180°	270°
0°	111603	111603	111603	111603
5°	111594	111638	111594	111638
10°	111621	111710	111621	111710
15°	111493	111629	111493	111629
20°	110726	110866	110726	110866
25°	108605	108817	108605	108817
30°	102883	102737	102883	102737
35°	91203	90915	91203	90915
40°	70339	70926	70339	70926
45°	42043	44136	42043	44136
50°	17381	19991	17381	19991
55°	3364	3966	3364	3966
60°	252	252	252	252
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: 44229 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	192.9	6.7
10°-20°	553.9	19.1
20°-30°	822.5	28.4
30°-40°	833.7	28.8
40°-50°	436.3	15.1
50°-60°	54.5	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°	1569.2	54.2
0°-40°	2402.9	83.0
0°-60°	2893.7	100.0
0°-90°	2894.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2894.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2036	2036	2036	2036	2036	
5°	2028	2029	2028	2029	2028	193
15°	1964	1967	1964	1967	1964	554
25°	1796	1799	1796	1799	1796	822
35°	1363	1358	1363	1358	1363	835
45°	542	569	542	569	542	425
55°	35	42	35	42	35	50
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°	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8
0.5°	2035.8	2035.4	2035.4	2035.4	2036.1	2035.4	2035.4	2035.4	2035.8	2035.4	2035.4
1°	2035.4	2035.4	2035.0	2035.0	2036.1	2035.0	2035.0	2035.4	2035.4	2035.4	2035.0
1.5°	2035.0	2035.0	2034.6	2034.6	2035.8	2034.6	2034.6	2035.0	2035.0	2035.0	2034.6
2°	2034.6	2034.2	2034.2	2034.2	2035.0	2034.2	2034.2	2034.2	2034.6	2034.2	2034.2
2.5°	2033.8	2033.4	2033.4	2033.4	2034.6	2033.4	2033.4	2033.4	2033.8	2033.4	2033.4
3°	2032.6	2032.6	2032.6	2032.6	2033.8	2032.6	2032.6	2032.6	2032.6	2032.6	2032.6
3.5°	2031.8	2031.8	2031.8	2031.5	2032.6	2031.5	2031.8	2031.8	2031.8	2031.8	2031.8
4°	2030.7	2030.7	2030.7	2030.7	2031.5	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7
4.5°	2029.1	2029.1	2029.1	2029.1	2030.3	2029.1	2029.1	2029.1	2029.1	2029.1	2029.1
5°	2027.9	2027.9	2027.9	2027.9	2028.7	2027.9	2027.9	2027.9	2027.9	2027.9	2027.9
5.5°	2026.4	2026.4	2026.4	2026.4	2027.5	2026.4	2026.4	2026.4	2026.4	2026.4	2026.4
6°	2024.8	2024.4	2024.4	2024.4	2025.6	2024.4	2024.4	2024.4	2024.8	2024.4	2024.4
6.5°	2022.8	2022.5	2022.8	2022.8	2024.0	2022.8	2022.8	2022.5	2022.8	2022.5	2022.8
7°	2020.9	2020.5	2020.5	2020.9	2021.7	2020.9	2020.5	2020.5	2020.9	2020.5	2020.5
7.5°	2018.5	2018.5	2018.5	2018.5	2019.7	2018.5	2018.5	2018.5	2018.5	2018.5	2018.5
8°	2016.2	2016.2	2016.2	2016.2	2017.4	2016.2	2016.2	2016.2	2016.2	2016.2	2016.2
8.5°	2013.8	2013.5	2013.5	2013.8	2015.0	2013.8	2013.5	2013.5	2013.8	2013.5	2013.5
9°	2011.1	2011.1	2011.1	2011.1	2012.3	2011.1	2011.1	2011.1	2011.1	2011.1	2011.1
9.5°	2008.4	2008.0	2008.0	2008.4	2009.5	2008.4	2008.0	2008.0	2008.4	2008.0	2008.0
10°	2005.2	2005.2	2004.8	2005.2	2006.8	2005.2	2004.8	2005.2	2005.2	2005.2	2004.8
10.5°	2002.5	2001.7	2001.7	2002.1	2003.7	2002.1	2001.7	2001.7	2002.5	2001.7	2001.7
11°	1999.0	1998.6	1998.2	1999.0	2000.5	1999.0	1998.2	1998.6	1999.0	1998.6	1998.2
11.5°	1995.5	1994.7	1994.7	1995.5	1997.0	1995.5	1994.7	1994.7	1995.5	1994.7	1994.7
12°	1991.5	1991.1	1990.8	1991.5	1993.5	1991.5	1990.8	1991.1	1991.5	1991.1	1990.8
12.5°	1987.6	1986.8	1986.5	1987.6	1989.6	1987.6	1986.5	1986.8	1987.6	1986.8	1986.5
13°	1983.7	1982.9	1982.2	1983.3	1985.7	1983.3	1982.2	1982.9	1983.7	1982.9	1982.2
13.5°	1979.0	1978.2	1977.8	1979.0	1981.4	1979.0	1977.8	1978.2	1979.0	1978.2	1977.8
14°	1974.7	1973.5	1972.8	1974.3	1976.7	1974.3	1972.8	1973.5	1974.7	1973.5	1972.8
14.5°	1969.6	1968.8	1968.1	1969.2	1972.0	1969.2	1968.1	1968.8	1969.6	1968.8	1968.1
15°	1964.5	1963.4	1962.6	1964.2	1966.9	1964.2	1962.6	1963.4	1964.5	1963.4	1962.6
15.5°	1959.1	1957.9	1957.1	1958.7	1961.4	1958.7	1957.1	1957.9	1959.1	1957.9	1957.1
16°	1953.6	1952.4	1951.2	1953.2	1955.9	1953.2	1951.2	1952.4	1953.6	1952.4	1951.2
16.5°	1947.7	1946.2	1945.4	1947.3	1950.1	1947.3	1945.4	1946.2	1947.7	1946.2	1945.4
17°	1941.5	1939.9	1939.1	1941.1	1943.8	1941.1	1939.1	1939.9	1941.5	1939.9	1939.1
17.5°	1934.8	1933.6	1932.5	1934.4	1937.5	1934.4	1932.5	1933.6	1934.8	1933.6	1932.5
18°	1928.2	1926.6	1925.4	1927.8	1930.5	1927.8	1925.4	1926.6	1928.2	1926.6	1925.4
18.5°	1920.7	1919.5	1918.4	1920.7	1923.5	1920.7	1918.4	1919.5	1920.7	1919.5	1918.4
19°	1913.7	1912.1	1910.9	1913.3	1916.0	1913.3	1910.9	1912.1	1913.7	1912.1	1910.9
19.5°	1905.9	1904.7	1903.1	1905.5	1908.6	1905.5	1903.1	1904.7	1905.9	1904.7	1903.1
20°	1898.0	1896.5	1895.3	1897.6	1900.4	1897.6	1895.3	1896.5	1898.0	1896.5	1895.3
20.5°	1889.4	1888.2	1887.1	1889.4	1892.2	1889.4	1887.1	1888.2	1889.4	1888.2	1887.1
21°	1880.8	1879.6	1878.5	1880.8	1883.2	1880.8	1878.5	1879.6	1880.8	1879.6	1878.5



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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°	1852.3	1851.1	1850.7	1852.6	1855.0	1852.6	1850.7	1851.1	1852.3	1851.1	1850.7
23°	1841.7	1840.9	1840.5	1842.9	1844.4	1842.9	1840.5	1840.9	1841.7	1840.9	1840.5
23.5°	1830.7	1830.3	1830.3	1832.3	1833.9	1832.3	1830.3	1830.3	1830.7	1830.3	1830.3
24°	1819.8	1819.4	1819.8	1820.9	1822.9	1820.9	1819.8	1819.4	1819.8	1819.4	1819.8
24.5°	1808.0	1808.0	1808.4	1809.6	1811.2	1809.6	1808.4	1808.0	1808.0	1808.0	1808.4
25°	1795.5	1795.9	1796.7	1797.5	1799.0	1797.5	1796.7	1795.9	1795.5	1795.9	1796.7
25.5°	1782.6	1783.0	1784.2	1784.2	1785.7	1784.2	1784.2	1783.0	1782.6	1783.0	1784.2
26°	1768.5	1769.3	1770.5	1770.5	1772.0	1770.5	1770.5	1769.3	1768.5	1769.3	1770.5
26.5°	1754.0	1755.2	1756.8	1756.0	1756.8	1756.0	1756.8	1755.2	1754.0	1755.2	1756.8
27°	1738.4	1740.0	1741.5	1740.3	1741.1	1740.3	1741.5	1740.0	1738.4	1740.0	1741.5
27.5°	1722.0	1723.9	1725.5	1723.9	1723.9	1723.9	1725.5	1723.9	1722.0	1723.9	1725.5
28°	1704.4	1706.7	1708.7	1706.3	1705.1	1706.3	1708.7	1706.7	1704.4	1706.7	1708.7
28.5°	1686.0	1688.7	1690.7	1687.9	1686.0	1687.9	1690.7	1688.7	1686.0	1688.7	1690.7
29°	1666.8	1669.5	1671.5	1668.7	1666.0	1668.7	1671.5	1669.5	1666.8	1669.5	1671.5
29.5°	1646.4	1649.6	1651.5	1648.4	1644.9	1648.4	1651.5	1649.6	1646.4	1649.6	1651.5
30°	1625.3	1627.7	1630.0	1626.5	1623.0	1626.5	1630.0	1627.7	1625.3	1627.7	1630.0
30.5°	1603.4	1605.8	1607.7	1603.8	1599.9	1603.8	1607.7	1605.8	1603.4	1605.8	1607.7
31°	1580.3	1582.3	1584.2	1580.7	1576.4	1580.7	1584.2	1582.3	1580.3	1582.3	1584.2
31.5°	1556.5	1557.6	1559.6	1555.7	1551.8	1555.7	1559.6	1557.6	1556.5	1557.6	1559.6
32°	1531.8	1531.8	1533.8	1529.8	1526.7	1529.8	1533.8	1531.8	1531.8	1531.8	1533.8
32.5°	1506.0	1505.6	1506.8	1502.9	1500.5	1502.9	1506.8	1505.6	1506.0	1505.6	1506.8
33°	1479.4	1477.8	1479.0	1475.1	1474.3	1475.1	1479.0	1477.8	1479.4	1477.8	1479.0
33.5°	1452.4	1449.6	1450.0	1446.5	1446.1	1446.5	1450.0	1449.6	1452.4	1449.6	1450.0
34°	1423.4	1420.3	1420.3	1416.4	1418.3	1416.4	1420.3	1420.3	1423.4	1420.3	1420.3
34.5°	1393.7	1390.2	1389.4	1385.5	1389.0	1385.5	1389.4	1390.2	1393.7	1390.2	1389.4
35°	1362.8	1358.9	1357.3	1354.6	1358.5	1354.6	1357.3	1358.9	1362.8	1358.9	1357.3
35.5°	1330.3	1327.2	1324.4	1322.9	1327.2	1322.9	1324.4	1327.2	1330.3	1327.2	1324.4
36°	1296.7	1294.3	1290.4	1289.6	1294.7	1289.6	1290.4	1294.3	1296.7	1294.3	1290.4
36.5°	1261.8	1259.9	1255.2	1255.6	1261.4	1255.6	1255.2	1259.9	1261.8	1259.9	1255.2
37°	1225.4	1224.3	1218.8	1220.7	1226.2	1220.7	1218.8	1224.3	1225.4	1224.3	1218.8
37.5°	1187.9	1187.5	1180.8	1184.4	1189.4	1184.4	1180.8	1187.5	1187.9	1187.5	1180.8
38°	1149.5	1149.1	1141.7	1146.8	1151.9	1146.8	1141.7	1149.1	1149.5	1149.1	1141.7
38.5°	1109.6	1109.2	1101.0	1108.1	1113.2	1108.1	1101.0	1109.2	1109.6	1109.2	1101.0
39°	1068.9	1067.8	1059.9	1068.9	1073.6	1068.9	1059.9	1067.8	1068.9	1067.8	1059.9
39.5°	1027.1	1025.1	1018.1	1028.2	1032.9	1028.2	1018.1	1025.1	1027.1	1025.1	1018.1
40°	982.9	981.3	975.4	986.0	991.1	986.0	975.4	981.3	982.9	981.3	975.4
40.5°	939.0	937.1	933.2	943.3	947.6	943.3	933.2	937.1	939.0	937.1	933.2
41°	894.0	892.9	892.1	900.7	904.6	900.7	892.1	892.9	894.0	892.9	892.1
41.5°	849.4	848.3	851.0	858.0	861.6	858.0	851.0	848.3	849.4	848.3	851.0
42°	804.1	804.4	810.3	815.0	819.3	815.0	810.3	804.4	804.1	804.4	810.3
42.5°	759.1	761.0	769.2	773.1	777.1	773.1	769.2	761.0	759.1	761.0	769.2
43°	714.1	718.0	728.1	731.7	734.4	731.7	728.1	718.0	714.1	718.0	728.1
43.5°	669.8	675.3	687.1	690.6	692.1	690.6	687.1	675.3	669.8	675.3	687.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	542.3	550.1	565.8	570.5	569.3	570.5	565.8	550.1	542.3	550.1	565.8
45.5°	502.0	510.2	526.6	532.9	529.8	532.9	526.6	510.2	502.0	510.2	526.6
46°	462.5	472.3	489.5	495.7	491.0	495.7	489.5	472.3	462.5	472.3	489.5
46.5°	426.5	435.1	452.3	458.2	453.9	458.2	452.3	435.1	426.5	435.1	452.3
47°	390.5	398.7	415.5	422.2	417.5	422.2	415.5	398.7	390.5	398.7	415.5
47.5°	355.7	363.5	379.1	386.6	383.0	386.6	379.1	363.5	355.7	363.5	379.1
48°	321.2	329.4	344.7	352.9	350.6	352.9	344.7	329.4	321.2	329.4	344.7
48.5°	288.4	297.4	311.8	320.8	318.9	320.8	311.8	297.4	288.4	297.4	311.8
49°	258.2	266.8	280.1	289.9	290.3	289.9	280.1	266.8	258.2	266.8	280.1
49.5°	230.5	237.1	249.6	260.6	262.1	260.6	249.6	237.1	230.5	237.1	249.6
50°	203.8	209.7	220.3	232.0	234.4	232.0	220.3	209.7	203.8	209.7	220.3
50.5°	178.8	183.5	192.5	204.6	207.4	204.6	192.5	183.5	178.8	183.5	192.5
51°	155.7	160.0	168.6	179.2	181.9	179.2	168.6	160.0	155.7	160.0	168.6
51.5°	135.0	138.5	145.9	155.3	159.6	155.3	145.9	138.5	135.0	138.5	145.9
52°	115.4	118.6	124.8	133.0	137.7	133.0	124.8	118.6	115.4	118.6	124.8
52.5°	99.0	99.8	104.5	112.3	116.6	112.3	104.5	99.8	99.0	99.8	104.5
53°	83.7	83.3	87.3	94.7	97.8	94.7	87.3	83.3	83.7	83.3	87.3
53.5°	68.9	69.6	72.8	79.4	80.6	79.4	72.8	69.6	68.9	69.6	72.8
54°	56.0	57.1	59.1	65.0	65.0	65.0	59.1	57.1	56.0	57.1	59.1
54.5°	45.0	45.8	46.6	51.6	51.3	51.6	46.6	45.8	45.0	45.8	46.6
55°	35.2	34.8	35.6	39.9	41.5	39.9	35.6	34.8	35.2	34.8	35.6
55.5°	25.8	25.8	27.0	29.7	32.1	29.7	27.0	25.8	25.8	25.8	27.0
56°	17.2	18.4	20.3	22.7	24.6	22.7	20.3	18.4	17.2	18.4	20.3
56.5°	11.7	12.1	14.9	16.0	17.6	16.0	14.9	12.1	11.7	12.1	14.9
57°	9.4	8.6	9.8	10.6	10.6	10.6	9.8	8.6	9.4	8.6	9.8
57.5°	7.4	6.7	7.0	7.8	7.0	7.8	7.0	6.7	7.4	6.7	7.0
58°	5.9	5.5	5.9	6.3	5.1	6.3	5.9	5.5	5.9	5.5	5.9
58.5°	3.9	4.3	4.7	5.1	4.3	5.1	4.7	4.3	3.9	4.3	4.7
59°	3.5	3.5	3.5	3.9	3.5	3.9	3.5	3.5	3.5	3.5	3.5
59.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
60°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3000K

**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: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2035.8	2035.8	2035.8	2035.8	2035.8	2035.8
0.5°	2035.4	2036.1	2035.4	2035.4	2035.4	2035.8
1°	2035.0	2036.1	2035.0	2035.0	2035.4	2035.4
1.5°	2034.6	2035.8	2034.6	2034.6	2035.0	2035.0
2°	2034.2	2035.0	2034.2	2034.2	2034.2	2034.6
2.5°	2033.4	2034.6	2033.4	2033.4	2033.4	2033.8
3°	2032.6	2033.8	2032.6	2032.6	2032.6	2032.6
3.5°	2031.5	2032.6	2031.5	2031.8	2031.8	2031.8
4°	2030.7	2031.5	2030.7	2030.7	2030.7	2030.7
4.5°	2029.1	2030.3	2029.1	2029.1	2029.1	2029.1
5°	2027.9	2028.7	2027.9	2027.9	2027.9	2027.9
5.5°	2026.4	2027.5	2026.4	2026.4	2026.4	2026.4
6°	2024.4	2025.6	2024.4	2024.4	2024.4	2024.8
6.5°	2022.8	2024.0	2022.8	2022.8	2022.5	2022.8
7°	2020.9	2021.7	2020.9	2020.5	2020.5	2020.9
7.5°	2018.5	2019.7	2018.5	2018.5	2018.5	2018.5
8°	2016.2	2017.4	2016.2	2016.2	2016.2	2016.2
8.5°	2013.8	2015.0	2013.8	2013.5	2013.5	2013.8
9°	2011.1	2012.3	2011.1	2011.1	2011.1	2011.1
9.5°	2008.4	2009.5	2008.4	2008.0	2008.0	2008.4
10°	2005.2	2006.8	2005.2	2004.8	2005.2	2005.2
10.5°	2002.1	2003.7	2002.1	2001.7	2001.7	2002.5
11°	1999.0	2000.5	1999.0	1998.2	1998.6	1999.0
11.5°	1995.5	1997.0	1995.5	1994.7	1994.7	1995.5
12°	1991.5	1993.5	1991.5	1990.8	1991.1	1991.5
12.5°	1987.6	1989.6	1987.6	1986.5	1986.8	1987.6
13°	1983.3	1985.7	1983.3	1982.2	1982.9	1983.7
13.5°	1979.0	1981.4	1979.0	1977.8	1978.2	1979.0
14°	1974.3	1976.7	1974.3	1972.8	1973.5	1974.7
14.5°	1969.2	1972.0	1969.2	1968.1	1968.8	1969.6
15°	1964.2	1966.9	1964.2	1962.6	1963.4	1964.5
15.5°	1958.7	1961.4	1958.7	1957.1	1957.9	1959.1
16°	1953.2	1955.9	1953.2	1951.2	1952.4	1953.6
16.5°	1947.3	1950.1	1947.3	1945.4	1946.2	1947.7
17°	1941.1	1943.8	1941.1	1939.1	1939.9	1941.5
17.5°	1934.4	1937.5	1934.4	1932.5	1933.6	1934.8
18°	1927.8	1930.5	1927.8	1925.4	1926.6	1928.2
18.5°	1920.7	1923.5	1920.7	1918.4	1919.5	1920.7
19°	1913.3	1916.0	1913.3	1910.9	1912.1	1913.7
19.5°	1905.5	1908.6	1905.5	1903.1	1904.7	1905.9
20°	1897.6	1900.4	1897.6	1895.3	1896.5	1898.0
20.5°	1889.4	1892.2	1889.4	1887.1	1888.2	1889.4
21°	1880.8	1883.2	1880.8	1878.5	1879.6	1880.8



TEST NUMBER: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1852.6	1855.0	1852.6	1850.7	1851.1	1852.3
23°	1842.9	1844.4	1842.9	1840.5	1840.9	1841.7
23.5°	1832.3	1833.9	1832.3	1830.3	1830.3	1830.7
24°	1820.9	1822.9	1820.9	1819.8	1819.4	1819.8
24.5°	1809.6	1811.2	1809.6	1808.4	1808.0	1808.0
25°	1797.5	1799.0	1797.5	1796.7	1795.9	1795.5
25.5°	1784.2	1785.7	1784.2	1784.2	1783.0	1782.6
26°	1770.5	1772.0	1770.5	1770.5	1769.3	1768.5
26.5°	1756.0	1756.8	1756.0	1756.8	1755.2	1754.0
27°	1740.3	1741.1	1740.3	1741.5	1740.0	1738.4
27.5°	1723.9	1723.9	1723.9	1725.5	1723.9	1722.0
28°	1706.3	1705.1	1706.3	1708.7	1706.7	1704.4
28.5°	1687.9	1686.0	1687.9	1690.7	1688.7	1686.0
29°	1668.7	1666.0	1668.7	1671.5	1669.5	1666.8
29.5°	1648.4	1644.9	1648.4	1651.5	1649.6	1646.4
30°	1626.5	1623.0	1626.5	1630.0	1627.7	1625.3
30.5°	1603.8	1599.9	1603.8	1607.7	1605.8	1603.4
31°	1580.7	1576.4	1580.7	1584.2	1582.3	1580.3
31.5°	1555.7	1551.8	1555.7	1559.6	1557.6	1556.5
32°	1529.8	1526.7	1529.8	1533.8	1531.8	1531.8
32.5°	1502.9	1500.5	1502.9	1506.8	1505.6	1506.0
33°	1475.1	1474.3	1475.1	1479.0	1477.8	1479.4
33.5°	1446.5	1446.1	1446.5	1450.0	1449.6	1452.4
34°	1416.4	1418.3	1416.4	1420.3	1420.3	1423.4
34.5°	1385.5	1389.0	1385.5	1389.4	1390.2	1393.7
35°	1354.6	1358.5	1354.6	1357.3	1358.9	1362.8
35.5°	1322.9	1327.2	1322.9	1324.4	1327.2	1330.3
36°	1289.6	1294.7	1289.6	1290.4	1294.3	1296.7
36.5°	1255.6	1261.4	1255.6	1255.2	1259.9	1261.8
37°	1220.7	1226.2	1220.7	1218.8	1224.3	1225.4
37.5°	1184.4	1189.4	1184.4	1180.8	1187.5	1187.9
38°	1146.8	1151.9	1146.8	1141.7	1149.1	1149.5
38.5°	1108.1	1113.2	1108.1	1101.0	1109.2	1109.6
39°	1068.9	1073.6	1068.9	1059.9	1067.8	1068.9
39.5°	1028.2	1032.9	1028.2	1018.1	1025.1	1027.1
40°	986.0	991.1	986.0	975.4	981.3	982.9
40.5°	943.3	947.6	943.3	933.2	937.1	939.0
41°	900.7	904.6	900.7	892.1	892.9	894.0
41.5°	858.0	861.6	858.0	851.0	848.3	849.4
42°	815.0	819.3	815.0	810.3	804.4	804.1
42.5°	773.1	777.1	773.1	769.2	761.0	759.1
43°	731.7	734.4	731.7	728.1	718.0	714.1
43.5°	690.6	692.1	690.6	687.1	675.3	669.8



TEST NUMBER: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	570.5	569.3	570.5	565.8	550.1	542.3
45.5°	532.9	529.8	532.9	526.6	510.2	502.0
46°	495.7	491.0	495.7	489.5	472.3	462.5
46.5°	458.2	453.9	458.2	452.3	435.1	426.5
47°	422.2	417.5	422.2	415.5	398.7	390.5
47.5°	386.6	383.0	386.6	379.1	363.5	355.7
48°	352.9	350.6	352.9	344.7	329.4	321.2
48.5°	320.8	318.9	320.8	311.8	297.4	288.4
49°	289.9	290.3	289.9	280.1	266.8	258.2
49.5°	260.6	262.1	260.6	249.6	237.1	230.5
50°	232.0	234.4	232.0	220.3	209.7	203.8
50.5°	204.6	207.4	204.6	192.5	183.5	178.8
51°	179.2	181.9	179.2	168.6	160.0	155.7
51.5°	155.3	159.6	155.3	145.9	138.5	135.0
52°	133.0	137.7	133.0	124.8	118.6	115.4
52.5°	112.3	116.6	112.3	104.5	99.8	99.0
53°	94.7	97.8	94.7	87.3	83.3	83.7
53.5°	79.4	80.6	79.4	72.8	69.6	68.9
54°	65.0	65.0	65.0	59.1	57.1	56.0
54.5°	51.6	51.3	51.6	46.6	45.8	45.0
55°	39.9	41.5	39.9	35.6	34.8	35.2
55.5°	29.7	32.1	29.7	27.0	25.8	25.8
56°	22.7	24.6	22.7	20.3	18.4	17.2
56.5°	16.0	17.6	16.0	14.9	12.1	11.7
57°	10.6	10.6	10.6	9.8	8.6	9.4
57.5°	7.8	7.0	7.8	7.0	6.7	7.4
58°	6.3	5.1	6.3	5.9	5.5	5.9
58.5°	5.1	4.3	5.1	4.7	4.3	3.9
59°	3.9	3.5	3.9	3.5	3.5	3.5
59.5°	2.7	2.7	2.7	2.7	2.7	2.7
60°	2.3	2.3	2.3	2.3	2.3	2.3
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: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3000K

**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: P776401

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRMB-4000lm-3000K

**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°	1871.8	1870.2	1869.5	1871.8	1874.2	1871.8	1869.5	1870.2	1871.8	1870.2	1869.5
22°	1862.0	1861.2	1860.1	1862.4	1864.4	1862.4	1860.1	1861.2	1862.0	1861.2	1860.1



44°	626.0	633.1	646.0	649.9	650.7	649.9	646.0	633.1	626.0	633.1	646.0
44.5°	583.8	591.2	605.7	610.0	609.6	610.0	605.7	591.2	583.8	591.2	605.7



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°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.4	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°	1871.8	1874.2	1871.8	1869.5	1870.2	1871.8
22°	1862.4	1864.4	1862.4	1860.1	1861.2	1862.0



44°	649.9	650.7	649.9	646.0	633.1	626.0
44.5°	610.0	609.6	610.0	605.7	591.2	583.8

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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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Scaled Data Report



(END OF REPORT)