

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: P776429

Luminaire Tested: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B015-HCD6TSQMB)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K
Description: 6 INCH SQUARE MEDIUM MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

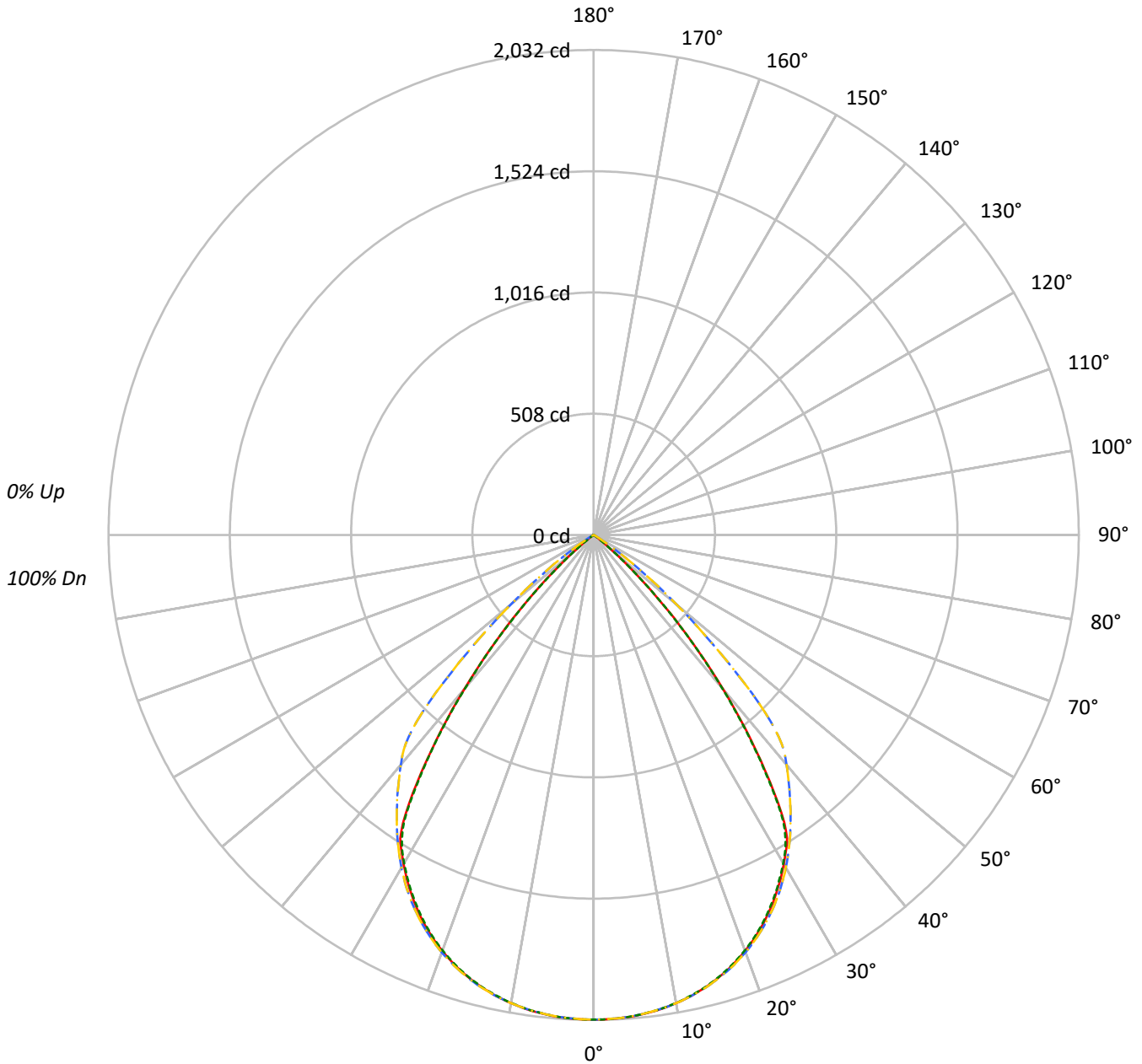
Lumens per Lamp: N/A
Luminaire Lumens: 2930.2 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.23
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92					92			
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	87	83	98	91	86	82	89	84	81	86	83	80	84	81	78	77					77			
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	74	71	70					70			
5	88	79	72	67	87	78	72	67	76	71	66	74	70	66	73	69	65	64					64			
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	69	58	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	87433	87433	87433	87433
5°	87395	87361	87395	87361
10°	87099	87046	87099	87046
15°	86359	86287	86359	86287
20°	84985	84870	84985	84870
25°	82652	82438	82652	82438
30°	79178	78930	79178	78930
35°	69302	68850	69302	68850
40°	47319	47021	47319	47021
45°	24636	24660	24636	24660
50°	7181	7100	7181	7100
55°	218	278	218	278
60°	69	69	69	69
65°	41	41	41	41
70°	50	50	50	50
75°	0	67	0	67
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 56969 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.0	6.6
10°-20°	546.1	18.6
20°-30°	801.5	27.4
30°-40°	850.5	29.0
40°-50°	474.8	16.2
50°-60°	64.2	2.2
60°-70°	0.7	0.0
70°-80°	0.2	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1539.7	52.5
0°-40°	2390.2	81.6
0°-60°	2929.2	100.0
0°-90°	2930.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2930.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2031	2031	2031	2031	2031	
5°	2022	2021	2022	2021	2022	192
15°	1937	1936	1937	1936	1937	546
25°	1740	1735	1740	1735	1740	799
35°	1318	1310	1318	1310	1318	796
45°	405	405	405	405	405	323
55°	3	4	3	4	3	18
65°	0	0	0	0	0	0
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°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7
0.5°	2031.5	2030.7	2030.7	2030.3	2030.7	2030.3	2030.7	2030.7	2031.5	2030.7	2030.7
1°	2031.1	2030.7	2030.3	2030.3	2030.7	2030.3	2030.3	2030.7	2031.1	2030.7	2030.3
1.5°	2030.7	2029.9	2029.9	2029.9	2029.9	2029.9	2029.9	2029.9	2030.7	2029.9	2029.9
2°	2029.9	2029.5	2029.0	2029.0	2029.5	2029.0	2029.0	2029.5	2029.9	2029.5	2029.0
2.5°	2029.0	2028.6	2028.2	2028.2	2028.6	2028.2	2028.2	2028.6	2029.0	2028.6	2028.2
3°	2028.2	2027.4	2027.4	2027.4	2027.4	2027.4	2027.4	2027.4	2028.2	2027.4	2027.4
3.5°	2027.0	2026.6	2026.2	2026.2	2026.2	2026.2	2026.2	2026.6	2027.0	2026.6	2026.2
4°	2025.8	2025.0	2024.5	2024.5	2025.0	2024.5	2024.5	2025.0	2025.8	2025.0	2024.5
4.5°	2024.1	2023.3	2023.3	2022.9	2023.3	2022.9	2023.3	2023.3	2024.1	2023.3	2023.3
5°	2022.1	2021.7	2021.3	2021.3	2021.3	2021.3	2021.3	2021.7	2022.1	2021.7	2021.3
5.5°	2020.0	2019.6	2019.2	2019.2	2019.2	2019.2	2019.2	2019.6	2020.0	2019.6	2019.2
6°	2018.0	2017.6	2017.2	2016.8	2017.2	2016.8	2017.2	2017.6	2018.0	2017.6	2017.2
6.5°	2015.5	2015.1	2014.7	2014.7	2014.7	2014.7	2014.7	2015.1	2015.5	2015.1	2014.7
7°	2013.1	2012.7	2012.3	2011.9	2011.9	2011.9	2012.3	2012.7	2013.1	2012.7	2012.3
7.5°	2010.2	2009.8	2009.4	2009.0	2009.0	2009.0	2009.4	2009.8	2010.2	2009.8	2009.4
8°	2007.0	2006.5	2006.5	2006.1	2006.1	2006.1	2006.5	2006.5	2007.0	2006.5	2006.5
8.5°	2003.7	2003.3	2003.3	2002.9	2002.5	2002.9	2003.3	2003.3	2003.7	2003.3	2003.3
9°	2000.0	2000.0	1999.6	1999.2	1998.8	1999.2	1999.6	2000.0	2000.0	2000.0	1999.6
9.5°	1996.3	1996.3	1995.9	1995.5	1995.1	1995.5	1995.9	1996.3	1996.3	1996.3	1995.9
10°	1992.2	1992.2	1992.2	1991.4	1991.0	1991.4	1992.2	1992.2	1992.2	1992.2	1992.2
10.5°	1988.1	1988.1	1988.1	1987.3	1986.9	1987.3	1988.1	1988.1	1988.1	1988.1	1988.1
11°	1983.2	1983.6	1983.6	1982.8	1982.0	1982.8	1983.6	1983.6	1983.2	1983.6	1983.6
11.5°	1978.7	1979.1	1979.1	1977.9	1977.1	1977.9	1979.1	1979.1	1978.7	1979.1	1979.1
12°	1973.8	1974.2	1974.2	1973.0	1972.2	1973.0	1974.2	1974.2	1973.8	1974.2	1974.2
12.5°	1968.5	1968.9	1969.3	1967.7	1966.9	1967.7	1969.3	1968.9	1968.5	1968.9	1969.3
13°	1962.8	1963.6	1964.0	1962.4	1961.1	1962.4	1964.0	1963.6	1962.8	1963.6	1964.0
13.5°	1957.0	1957.9	1958.3	1956.6	1955.4	1956.6	1958.3	1957.9	1957.0	1957.9	1958.3
14°	1950.5	1951.7	1952.5	1950.5	1949.3	1950.5	1952.5	1951.7	1950.5	1951.7	1952.5
14.5°	1944.4	1945.6	1946.4	1944.4	1942.7	1944.4	1946.4	1945.6	1944.4	1945.6	1946.4
15°	1937.4	1939.0	1939.9	1937.8	1935.8	1937.8	1939.9	1939.0	1937.4	1939.0	1939.9
15.5°	1930.9	1932.1	1933.3	1930.9	1928.8	1930.9	1933.3	1932.1	1930.9	1932.1	1933.3
16°	1923.5	1925.1	1926.4	1923.9	1921.5	1923.9	1926.4	1925.1	1923.5	1925.1	1926.4
16.5°	1916.1	1917.8	1919.0	1916.5	1914.1	1916.5	1919.0	1917.8	1916.1	1917.8	1919.0
17°	1908.0	1910.4	1911.6	1908.8	1905.9	1908.8	1911.6	1910.4	1908.0	1910.4	1911.6
17.5°	1900.2	1902.2	1903.9	1901.0	1897.7	1901.0	1903.9	1902.2	1900.2	1902.2	1903.9
18°	1891.6	1894.0	1895.7	1892.4	1889.1	1892.4	1895.7	1894.0	1891.6	1894.0	1895.7
18.5°	1883.0	1885.9	1887.5	1884.2	1880.5	1884.2	1887.5	1885.9	1883.0	1885.9	1887.5
19°	1874.0	1876.9	1878.9	1874.8	1871.1	1874.8	1878.9	1876.9	1874.0	1876.9	1878.9
19.5°	1864.6	1867.9	1869.9	1865.8	1862.1	1865.8	1869.9	1867.9	1864.6	1867.9	1869.9
20°	1854.8	1858.5	1860.9	1856.4	1852.3	1856.4	1860.9	1858.5	1854.8	1858.5	1860.9
20.5°	1845.0	1849.0	1851.5	1846.6	1842.1	1846.6	1851.5	1849.0	1845.0	1849.0	1851.5
21°	1834.7	1838.8	1841.7	1836.8	1831.5	1836.8	1841.7	1838.8	1834.7	1838.8	1841.7



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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°	1801.6	1806.9	1810.2	1804.5	1797.9	1804.5	1810.2	1806.9	1801.6	1806.9	1810.2
23°	1790.1	1795.5	1799.1	1793.0	1786.0	1793.0	1799.1	1795.5	1790.1	1795.5	1799.1
23.5°	1778.3	1784.0	1788.1	1781.1	1773.8	1781.1	1788.1	1784.0	1778.3	1784.0	1788.1
24°	1765.6	1772.1	1776.2	1768.9	1761.5	1768.9	1776.2	1772.1	1765.6	1772.1	1776.2
24.5°	1752.9	1759.5	1764.4	1756.6	1748.8	1756.6	1764.4	1759.5	1752.9	1759.5	1764.4
25°	1739.8	1746.8	1751.7	1743.5	1735.3	1743.5	1751.7	1746.8	1739.8	1746.8	1751.7
25.5°	1726.7	1733.7	1739.4	1730.4	1721.8	1730.4	1739.4	1733.7	1726.7	1733.7	1739.4
26°	1713.2	1720.6	1726.3	1717.3	1707.9	1717.3	1726.3	1720.6	1713.2	1720.6	1726.3
26.5°	1699.3	1706.7	1712.8	1703.4	1694.0	1703.4	1712.8	1706.7	1699.3	1706.7	1712.8
27°	1684.6	1693.2	1699.3	1689.5	1679.7	1689.5	1699.3	1693.2	1684.6	1693.2	1699.3
27.5°	1669.9	1678.9	1685.4	1674.8	1665.4	1674.8	1685.4	1678.9	1669.9	1678.9	1685.4
28°	1655.1	1664.1	1671.1	1660.5	1649.8	1660.5	1671.1	1664.1	1655.1	1664.1	1671.1
28.5°	1640.0	1649.4	1656.4	1645.7	1634.7	1645.7	1656.4	1649.4	1640.0	1649.4	1656.4
29°	1624.5	1634.7	1641.2	1630.6	1619.1	1630.6	1641.2	1634.7	1624.5	1634.7	1641.2
29.5°	1608.9	1619.1	1626.1	1615.5	1603.6	1615.5	1626.1	1619.1	1608.9	1619.1	1626.1
30°	1592.6	1603.6	1610.1	1599.9	1587.6	1599.9	1610.1	1603.6	1592.6	1603.6	1610.1
30.5°	1576.6	1588.1	1594.2	1584.4	1571.3	1584.4	1594.2	1588.1	1576.6	1588.1	1594.2
31°	1559.8	1572.1	1577.8	1568.4	1554.5	1568.4	1577.8	1572.1	1559.8	1572.1	1577.8
31.5°	1543.1	1556.1	1561.1	1552.1	1537.3	1552.1	1561.1	1556.1	1543.1	1556.1	1561.1
32°	1525.9	1539.4	1544.3	1535.7	1515.6	1535.7	1544.3	1539.4	1525.9	1539.4	1544.3
32.5°	1507.9	1522.6	1527.1	1518.9	1493.6	1518.9	1527.1	1522.6	1507.9	1522.6	1527.1
33°	1478.8	1505.8	1509.5	1502.1	1469.4	1502.1	1509.5	1505.8	1478.8	1505.8	1509.5
33.5°	1447.3	1489.1	1491.9	1485.0	1436.7	1485.0	1491.9	1489.1	1447.3	1489.1	1491.9
34°	1408.9	1471.9	1473.9	1464.1	1400.3	1464.1	1473.9	1471.9	1408.9	1471.9	1473.9
34.5°	1364.3	1453.5	1455.9	1441.2	1356.9	1441.2	1455.9	1453.5	1364.3	1453.5	1455.9
35°	1318.5	1426.1	1437.9	1417.9	1309.9	1417.9	1437.9	1426.1	1318.5	1426.1	1437.9
35.5°	1272.7	1399.1	1419.9	1388.4	1262.4	1388.4	1419.9	1399.1	1272.7	1399.1	1419.9
36°	1225.2	1362.6	1401.5	1355.7	1215.4	1355.7	1401.5	1362.6	1225.2	1362.6	1401.5
36.5°	1177.3	1324.2	1383.5	1316.0	1169.2	1316.0	1383.5	1324.2	1177.3	1324.2	1383.5
37°	1128.7	1280.4	1365.5	1273.9	1121.7	1273.9	1365.5	1280.4	1128.7	1280.4	1365.5
37.5°	1081.6	1236.7	1347.1	1229.3	1075.1	1229.3	1347.1	1236.7	1081.6	1236.7	1347.1
38°	1032.5	1191.7	1329.1	1183.9	1028.0	1183.9	1329.1	1191.7	1032.5	1191.7	1329.1
38.5°	985.1	1146.7	1310.7	1139.3	980.6	1139.3	1310.7	1146.7	985.1	1146.7	1310.7
39°	937.6	1100.8	1293.1	1095.1	932.3	1095.1	1293.1	1100.8	937.6	1100.8	1293.1
39.5°	890.2	1055.8	1275.1	1050.9	884.4	1050.9	1275.1	1055.8	890.2	1055.8	1275.1
40°	841.9	1010.0	1257.1	1006.3	836.6	1006.3	1257.1	1010.0	841.9	1010.0	1257.1
40.5°	794.8	965.0	1239.1	961.3	789.9	961.3	1239.1	965.0	794.8	965.0	1239.1
41°	749.0	920.0	1220.7	916.8	743.7	916.8	1220.7	920.0	749.0	920.0	1220.7
41.5°	703.2	875.0	1200.2	871.3	699.5	871.3	1200.2	875.0	703.2	875.0	1200.2
42°	657.4	830.0	1177.3	826.3	654.9	826.3	1177.3	830.0	657.4	830.0	1177.3
42.5°	613.6	785.8	1147.5	781.8	610.8	781.8	1147.5	785.8	613.6	785.8	1147.5
43°	569.8	741.3	1113.5	738.0	567.8	738.0	1113.5	741.3	569.8	741.3	1113.5
43.5°	527.3	697.9	1077.1	695.0	524.9	695.0	1077.1	697.9	527.3	697.9	1077.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	404.6	571.5	935.6	569.8	405.0	569.8	935.6	571.5	404.6	571.5	935.6
45.5°	367.8	530.6	882.4	529.4	367.8	529.4	882.4	530.6	367.8	530.6	882.4
46°	331.8	490.5	829.6	489.3	331.8	489.3	829.6	490.5	331.8	490.5	829.6
46.5°	296.2	451.2	777.7	450.0	295.4	450.0	777.7	451.2	296.2	451.2	777.7
47°	261.4	412.8	725.7	412.8	260.2	412.8	725.7	412.8	261.4	412.8	725.7
47.5°	227.9	376.4	676.2	376.8	228.3	376.8	676.2	376.4	227.9	376.4	676.2
48°	198.4	341.2	628.3	341.2	198.4	341.2	628.3	341.2	198.4	341.2	628.3
48.5°	171.4	306.8	582.1	306.4	171.0	306.4	582.1	306.8	171.4	306.8	582.1
49°	148.9	272.9	537.1	272.4	145.2	272.4	537.1	272.9	148.9	272.9	537.1
49.5°	127.6	240.1	493.4	240.1	125.2	240.1	493.4	240.1	127.6	240.1	493.4
50°	107.2	210.3	450.8	210.3	106.0	210.3	450.8	210.3	107.2	210.3	450.8
50.5°	88.4	184.1	409.9	181.6	87.5	181.6	409.9	184.1	88.4	184.1	409.9
51°	72.4	159.1	373.1	155.5	72.4	155.5	373.1	159.1	72.4	159.1	373.1
51.5°	58.1	137.5	337.1	134.2	56.9	134.2	337.1	137.5	58.1	137.5	337.1
52°	46.2	116.2	301.9	113.7	43.8	113.7	301.9	116.2	46.2	116.2	301.9
52.5°	34.8	96.5	267.5	94.1	31.1	94.1	267.5	96.5	34.8	96.5	267.5
53°	23.3	79.0	235.6	77.3	19.2	77.3	235.6	79.0	23.3	79.0	235.6
53.5°	15.5	63.0	206.6	60.5	11.5	60.5	206.6	63.0	15.5	63.0	206.6
54°	7.4	50.7	179.6	47.0	6.5	47.0	179.6	50.7	7.4	50.7	179.6
54.5°	4.5	38.9	156.3	34.8	4.9	34.8	156.3	38.9	4.5	38.9	156.3
55°	2.9	27.0	134.2	22.9	3.7	22.9	134.2	27.0	2.9	27.0	134.2
55.5°	1.2	17.2	113.7	15.5	2.5	15.5	113.7	17.2	1.2	17.2	113.7
56°	0.8	7.4	94.9	11.5	1.2	11.5	94.9	7.4	0.8	7.4	94.9
56.5°	0.8	3.7	76.9	7.0	0.8	7.0	76.9	3.7	0.8	3.7	76.9
57°	0.8	2.0	62.6	3.7	0.8	3.7	62.6	2.0	0.8	2.0	62.6
57.5°	0.8	1.6	50.3	1.6	0.8	1.6	50.3	1.6	0.8	1.6	50.3
58°	0.8	0.8	40.5	0.8	0.8	0.8	40.5	0.8	0.8	0.8	40.5
58.5°	0.8	0.8	31.5	0.8	0.8	0.8	31.5	0.8	0.8	0.8	31.5
59°	0.8	0.8	23.3	0.8	0.8	0.8	23.3	0.8	0.8	0.8	23.3
59.5°	0.8	0.8	17.2	0.8	0.8	0.8	17.2	0.8	0.8	0.8	17.2
60°	0.8	0.8	11.9	0.8	0.8	0.8	11.9	0.8	0.8	0.8	11.9
60.5°	0.8	0.8	8.2	0.8	0.8	0.8	8.2	0.8	0.8	0.8	8.2
61°	0.8	0.8	5.3	0.8	0.8	0.8	5.3	0.8	0.8	0.8	5.3
61.5°	0.8	0.8	3.3	0.8	0.8	0.8	3.3	0.8	0.8	0.8	3.3
62°	0.4	0.4	1.6	0.8	0.8	0.8	1.6	0.4	0.4	0.4	1.6
62.5°	0.4	0.4	1.2	0.4	0.4	0.4	1.2	0.4	0.4	0.4	1.2
63°	0.4	0.4	0.8	0.4	0.4	0.4	0.8	0.4	0.4	0.4	0.8
63.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
64°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
64.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
65.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
66°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

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°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.0	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.0
75°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.4	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: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

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: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7
0.5°	2030.3	2030.7	2030.3	2030.7	2030.7	2031.5
1°	2030.3	2030.7	2030.3	2030.3	2030.7	2031.1
1.5°	2029.9	2029.9	2029.9	2029.9	2029.9	2030.7
2°	2029.0	2029.5	2029.0	2029.0	2029.5	2029.9
2.5°	2028.2	2028.6	2028.2	2028.2	2028.6	2029.0
3°	2027.4	2027.4	2027.4	2027.4	2027.4	2028.2
3.5°	2026.2	2026.2	2026.2	2026.2	2026.6	2027.0
4°	2024.5	2025.0	2024.5	2024.5	2025.0	2025.8
4.5°	2022.9	2023.3	2022.9	2023.3	2023.3	2024.1
5°	2021.3	2021.3	2021.3	2021.3	2021.7	2022.1
5.5°	2019.2	2019.2	2019.2	2019.2	2019.6	2020.0
6°	2016.8	2017.2	2016.8	2017.2	2017.6	2018.0
6.5°	2014.7	2014.7	2014.7	2014.7	2015.1	2015.5
7°	2011.9	2011.9	2011.9	2012.3	2012.7	2013.1
7.5°	2009.0	2009.0	2009.0	2009.4	2009.8	2010.2
8°	2006.1	2006.1	2006.1	2006.5	2006.5	2007.0
8.5°	2002.9	2002.5	2002.9	2003.3	2003.3	2003.7
9°	1999.2	1998.8	1999.2	1999.6	2000.0	2000.0
9.5°	1995.5	1995.1	1995.5	1995.9	1996.3	1996.3
10°	1991.4	1991.0	1991.4	1992.2	1992.2	1992.2
10.5°	1987.3	1986.9	1987.3	1988.1	1988.1	1988.1
11°	1982.8	1982.0	1982.8	1983.6	1983.6	1983.2
11.5°	1977.9	1977.1	1977.9	1979.1	1979.1	1978.7
12°	1973.0	1972.2	1973.0	1974.2	1974.2	1973.8
12.5°	1967.7	1966.9	1967.7	1969.3	1968.9	1968.5
13°	1962.4	1961.1	1962.4	1964.0	1963.6	1962.8
13.5°	1956.6	1955.4	1956.6	1958.3	1957.9	1957.0
14°	1950.5	1949.3	1950.5	1952.5	1951.7	1950.5
14.5°	1944.4	1942.7	1944.4	1946.4	1945.6	1944.4
15°	1937.8	1935.8	1937.8	1939.9	1939.0	1937.4
15.5°	1930.9	1928.8	1930.9	1933.3	1932.1	1930.9
16°	1923.9	1921.5	1923.9	1926.4	1925.1	1923.5
16.5°	1916.5	1914.1	1916.5	1919.0	1917.8	1916.1
17°	1908.8	1905.9	1908.8	1911.6	1910.4	1908.0
17.5°	1901.0	1897.7	1901.0	1903.9	1902.2	1900.2
18°	1892.4	1889.1	1892.4	1895.7	1894.0	1891.6
18.5°	1884.2	1880.5	1884.2	1887.5	1885.9	1883.0
19°	1874.8	1871.1	1874.8	1878.9	1876.9	1874.0
19.5°	1865.8	1862.1	1865.8	1869.9	1867.9	1864.6
20°	1856.4	1852.3	1856.4	1860.9	1858.5	1854.8
20.5°	1846.6	1842.1	1846.6	1851.5	1849.0	1845.0
21°	1836.8	1831.5	1836.8	1841.7	1838.8	1834.7

TEST NUMBER: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1804.5	1797.9	1804.5	1810.2	1806.9	1801.6
23°	1793.0	1786.0	1793.0	1799.1	1795.5	1790.1
23.5°	1781.1	1773.8	1781.1	1788.1	1784.0	1778.3
24°	1768.9	1761.5	1768.9	1776.2	1772.1	1765.6
24.5°	1756.6	1748.8	1756.6	1764.4	1759.5	1752.9
25°	1743.5	1735.3	1743.5	1751.7	1746.8	1739.8
25.5°	1730.4	1721.8	1730.4	1739.4	1733.7	1726.7
26°	1717.3	1707.9	1717.3	1726.3	1720.6	1713.2
26.5°	1703.4	1694.0	1703.4	1712.8	1706.7	1699.3
27°	1689.5	1679.7	1689.5	1699.3	1693.2	1684.6
27.5°	1674.8	1665.4	1674.8	1685.4	1678.9	1669.9
28°	1660.5	1649.8	1660.5	1671.1	1664.1	1655.1
28.5°	1645.7	1634.7	1645.7	1656.4	1649.4	1640.0
29°	1630.6	1619.1	1630.6	1641.2	1634.7	1624.5
29.5°	1615.5	1603.6	1615.5	1626.1	1619.1	1608.9
30°	1599.9	1587.6	1599.9	1610.1	1603.6	1592.6
30.5°	1584.4	1571.3	1584.4	1594.2	1588.1	1576.6
31°	1568.4	1554.5	1568.4	1577.8	1572.1	1559.8
31.5°	1552.1	1537.3	1552.1	1561.1	1556.1	1543.1
32°	1535.7	1515.6	1535.7	1544.3	1539.4	1525.9
32.5°	1518.9	1493.6	1518.9	1527.1	1522.6	1507.9
33°	1502.1	1469.4	1502.1	1509.5	1505.8	1478.8
33.5°	1485.0	1436.7	1485.0	1491.9	1489.1	1447.3
34°	1464.1	1400.3	1464.1	1473.9	1471.9	1408.9
34.5°	1441.2	1356.9	1441.2	1455.9	1453.5	1364.3
35°	1417.9	1309.9	1417.9	1437.9	1426.1	1318.5
35.5°	1388.4	1262.4	1388.4	1419.9	1399.1	1272.7
36°	1355.7	1215.4	1355.7	1401.5	1362.6	1225.2
36.5°	1316.0	1169.2	1316.0	1383.5	1324.2	1177.3
37°	1273.9	1121.7	1273.9	1365.5	1280.4	1128.7
37.5°	1229.3	1075.1	1229.3	1347.1	1236.7	1081.6
38°	1183.9	1028.0	1183.9	1329.1	1191.7	1032.5
38.5°	1139.3	980.6	1139.3	1310.7	1146.7	985.1
39°	1095.1	932.3	1095.1	1293.1	1100.8	937.6
39.5°	1050.9	884.4	1050.9	1275.1	1055.8	890.2
40°	1006.3	836.6	1006.3	1257.1	1010.0	841.9
40.5°	961.3	789.9	961.3	1239.1	965.0	794.8
41°	916.8	743.7	916.8	1220.7	920.0	749.0
41.5°	871.3	699.5	871.3	1200.2	875.0	703.2
42°	826.3	654.9	826.3	1177.3	830.0	657.4
42.5°	781.8	610.8	781.8	1147.5	785.8	613.6
43°	738.0	567.8	738.0	1113.5	741.3	569.8
43.5°	695.0	524.9	695.0	1077.1	697.9	527.3



TEST NUMBER: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	569.8	405.0	569.8	935.6	571.5	404.6
45.5°	529.4	367.8	529.4	882.4	530.6	367.8
46°	489.3	331.8	489.3	829.6	490.5	331.8
46.5°	450.0	295.4	450.0	777.7	451.2	296.2
47°	412.8	260.2	412.8	725.7	412.8	261.4
47.5°	376.8	228.3	376.8	676.2	376.4	227.9
48°	341.2	198.4	341.2	628.3	341.2	198.4
48.5°	306.4	171.0	306.4	582.1	306.8	171.4
49°	272.4	145.2	272.4	537.1	272.9	148.9
49.5°	240.1	125.2	240.1	493.4	240.1	127.6
50°	210.3	106.0	210.3	450.8	210.3	107.2
50.5°	181.6	87.5	181.6	409.9	184.1	88.4
51°	155.5	72.4	155.5	373.1	159.1	72.4
51.5°	134.2	56.9	134.2	337.1	137.5	58.1
52°	113.7	43.8	113.7	301.9	116.2	46.2
52.5°	94.1	31.1	94.1	267.5	96.5	34.8
53°	77.3	19.2	77.3	235.6	79.0	23.3
53.5°	60.5	11.5	60.5	206.6	63.0	15.5
54°	47.0	6.5	47.0	179.6	50.7	7.4
54.5°	34.8	4.9	34.8	156.3	38.9	4.5
55°	22.9	3.7	22.9	134.2	27.0	2.9
55.5°	15.5	2.5	15.5	113.7	17.2	1.2
56°	11.5	1.2	11.5	94.9	7.4	0.8
56.5°	7.0	0.8	7.0	76.9	3.7	0.8
57°	3.7	0.8	3.7	62.6	2.0	0.8
57.5°	1.6	0.8	1.6	50.3	1.6	0.8
58°	0.8	0.8	0.8	40.5	0.8	0.8
58.5°	0.8	0.8	0.8	31.5	0.8	0.8
59°	0.8	0.8	0.8	23.3	0.8	0.8
59.5°	0.8	0.8	0.8	17.2	0.8	0.8
60°	0.8	0.8	0.8	11.9	0.8	0.8
60.5°	0.8	0.8	0.8	8.2	0.8	0.8
61°	0.8	0.8	0.8	5.3	0.8	0.8
61.5°	0.8	0.8	0.8	3.3	0.8	0.8
62°	0.8	0.8	0.8	1.6	0.4	0.4
62.5°	0.4	0.4	0.4	1.2	0.4	0.4
63°	0.4	0.4	0.4	0.8	0.4	0.4
63.5°	0.4	0.4	0.4	0.4	0.4	0.4
64°	0.4	0.4	0.4	0.4	0.4	0.4
64.5°	0.4	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4	0.4
65.5°	0.4	0.4	0.4	0.4	0.4	0.4
66°	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

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	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.0	0.4	0.4
75°	0.4	0.4	0.4	0.0	0.0	0.0
75.5°	0.4	0.4	0.4	0.0	0.0	0.0
76°	0.0	0.4	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: P776429

CATALOG NUMBER: HCDJBL3040CSD-HCD6TSQMB-4000lm-5000K

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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Signify Classified - Internal
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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Scaled Data Report



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Scaled Data Report





21.5°	1824.1	1828.6	1831.5	1826.1	1820.4	1826.1	1831.5	1828.6	1824.1	1828.6	1831.5
22°	1813.0	1818.0	1820.8	1815.5	1809.4	1815.5	1820.8	1818.0	1813.0	1818.0	1820.8



44°	485.2	654.5	1032.9	652.5	483.1	652.5	1032.9	654.5	485.2	654.5	1032.9
44.5°	444.7	612.8	985.1	611.2	443.0	611.2	985.1	612.8	444.7	612.8	985.1



66.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
67°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



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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21.5°	1826.1	1820.4	1826.1	1831.5	1828.6	1824.1
22°	1815.5	1809.4	1815.5	1820.8	1818.0	1813.0



44°	652.5	483.1	652.5	1032.9	654.5	485.2
44.5°	611.2	443.0	611.2	985.1	612.8	444.7

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66.5°	0.4	0.4	0.4	0.4	0.4	0.4
67°	0.4	0.4	0.4	0.4	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)