

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: P776805

Luminaire Tested: HCDJBS4050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B022)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K
Description: 8 INCH ROUND MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

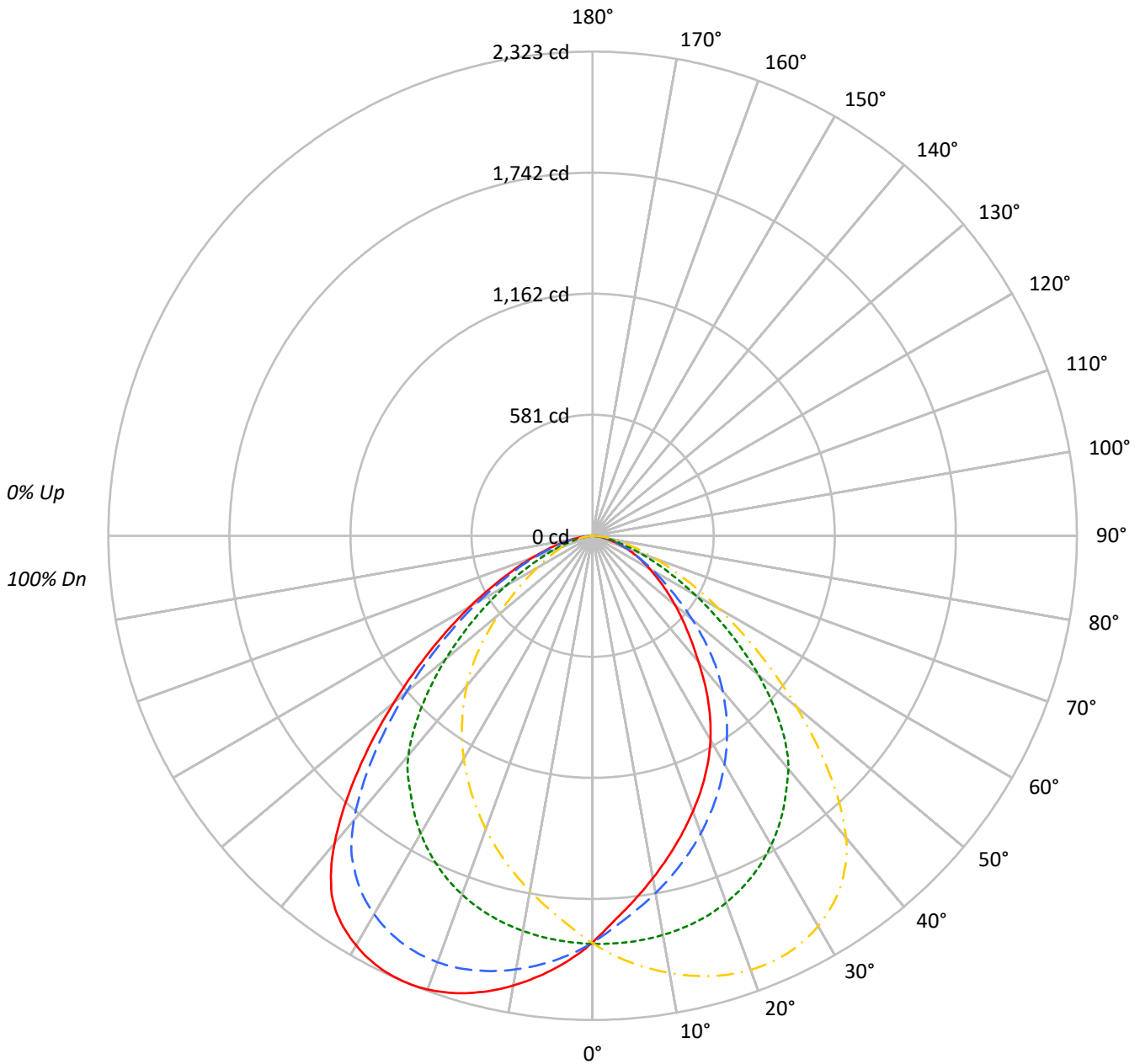
Lumens per Lamp: N/A
Luminaire Lumens: 4567.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.32
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 48
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



TEST NUMBER: P776805
CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87								
2	102	94	89	83	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65								
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57								
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50								
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44								
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39								
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35								
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32								
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	59632	59632	59632	59632
5°	55180	59973	63868	59691
10°	51691	60285	67914	59690
15°	48568	60626	71777	59675
20°	45716	60853	75249	59505
25°	42933	60821	78065	59025
30°	39854	60407	79993	58140
35°	36018	59480	80594	56625
40°	31537	58243	76736	54792
45°	27689	54929	68646	50067
50°	24485	49340	59105	43692
55°	21616	42242	49837	36589
60°	19149	34737	41362	29504
65°	17092	27856	33816	23117
70°	14568	21602	27547	17576
75°	11666	16396	22212	12905
80°	9055	12096	17476	8738
85°	6060	8617	11174	4939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 69829 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.2	4.1
10°-20°	536.7	11.8
20°-30°	821.5	18.0
30°-40°	972.7	21.3
40°-50°	893.3	19.6
50°-60°	624.7	13.7
60°-70°	350.0	7.7
70°-80°	151.1	3.3
80°-90°	31.9	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°	1543.4	33.8
0°-40°	2516.1	55.1
0°-60°	4034.0	88.3
0°-90°	4567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4567.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1953	1953	1953	1953	1953	
5°	1800	1957	2084	1948	1800	168
15°	1537	1918	2271	1888	1537	432
25°	1274	1806	2317	1752	1274	585
35°	966	1596	2162	1519	966	601
45°	641	1272	1590	1160	641	497
55°	406	794	936	687	406	365
65°	237	386	468	320	237	234
75°	99	139	188	109	99	107
85°	17	25	32	14	17	22
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°	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2
0.5°	1934.5	1935.9	1940.9	1947.7	1958.2	1962.3	1966.4	1966.4	1965.5	1963.7	1962.3
1°	1919.0	1921.8	1930.0	1941.8	1958.2	1968.3	1976.9	1980.1	1980.6	1977.8	1972.4
1.5°	1903.1	1906.7	1919.0	1935.9	1958.7	1974.6	1987.4	1993.8	1994.7	1990.6	1981.9
2°	1886.7	1892.1	1907.6	1930.0	1958.7	1980.1	1997.4	2006.6	2008.4	2003.4	1992.0
2.5°	1871.2	1877.6	1896.2	1923.6	1958.7	1985.6	2007.5	2018.9	2021.6	2015.7	2001.1
3°	1856.1	1863.4	1885.3	1917.7	1958.7	1991.5	2016.6	2031.2	2034.8	2027.5	2010.2
3.5°	1841.5	1850.2	1873.9	1911.3	1958.2	1996.5	2026.2	2043.0	2047.6	2038.9	2018.4
4°	1827.9	1837.0	1863.4	1904.4	1957.8	2001.5	2035.3	2054.9	2059.9	2050.3	2027.1
4.5°	1813.7	1824.2	1852.5	1898.1	1957.3	2006.6	2044.4	2066.7	2072.2	2061.2	2035.3
5°	1800.5	1811.5	1842.0	1891.2	1956.9	2011.6	2053.0	2077.7	2084.0	2072.2	2043.5
5.5°	1786.8	1798.7	1832.0	1884.4	1956.4	2015.7	2061.7	2089.1	2095.9	2083.1	2051.2
6°	1773.6	1786.4	1821.5	1878.0	1955.5	2020.2	2069.9	2099.5	2107.3	2093.6	2059.0
6.5°	1760.4	1774.1	1811.5	1871.2	1954.6	2024.8	2078.6	2110.5	2118.7	2103.2	2066.3
7°	1746.7	1761.8	1801.4	1864.3	1953.7	2028.9	2086.3	2120.5	2129.6	2113.2	2073.6
7.5°	1733.5	1749.5	1791.4	1857.5	1952.3	2033.0	2094.5	2130.5	2140.1	2123.2	2080.4
8°	1720.3	1736.7	1781.4	1850.7	1950.9	2036.6	2101.8	2140.6	2151.0	2132.8	2087.2
8.5°	1707.1	1724.4	1771.3	1843.8	1949.6	2040.3	2109.6	2150.6	2161.5	2141.9	2094.1
9°	1693.9	1712.1	1760.9	1836.5	1948.2	2043.9	2116.4	2159.7	2171.6	2150.6	2100.5
9.5°	1680.6	1699.8	1750.8	1829.7	1946.4	2047.1	2123.7	2168.8	2181.1	2159.7	2106.4
10°	1667.4	1687.0	1740.3	1822.9	1944.6	2050.8	2130.1	2178.4	2190.7	2167.9	2112.3
10.5°	1654.7	1674.7	1729.9	1816.0	1942.7	2053.5	2136.9	2186.6	2200.3	2176.6	2118.2
11°	1641.0	1662.4	1719.4	1808.7	1940.5	2056.2	2143.8	2195.3	2209.4	2184.3	2123.7
11.5°	1627.8	1650.1	1708.9	1801.4	1938.2	2059.0	2149.7	2203.5	2218.1	2192.1	2129.2
12°	1614.5	1637.3	1698.0	1794.1	1935.9	2061.7	2155.6	2211.7	2226.3	2199.8	2134.2
12.5°	1601.8	1625.0	1687.5	1786.4	1933.6	2064.0	2161.5	2219.9	2234.5	2206.7	2138.7
13°	1588.6	1612.7	1677.0	1778.6	1930.9	2066.3	2167.0	2227.2	2242.7	2214.0	2143.3
13.5°	1575.8	1600.4	1666.0	1771.3	1927.7	2068.1	2172.5	2234.0	2250.0	2220.3	2147.9
14°	1562.6	1587.6	1655.1	1763.1	1924.5	2069.5	2177.5	2241.3	2257.3	2226.7	2152.0
14.5°	1549.4	1575.3	1644.2	1755.4	1921.3	2071.3	2182.5	2247.7	2264.1	2232.6	2155.6
15°	1536.6	1562.6	1633.2	1746.7	1918.1	2072.6	2187.1	2254.1	2270.9	2238.6	2159.3
15.5°	1523.4	1549.8	1622.3	1739.0	1914.5	2073.6	2191.2	2260.0	2277.3	2243.6	2162.4
16°	1510.6	1537.5	1610.9	1730.3	1910.8	2074.5	2195.3	2265.9	2283.2	2248.6	2165.2
16.5°	1497.8	1525.2	1599.5	1722.1	1906.7	2074.9	2198.9	2270.9	2288.7	2253.6	2167.9
17°	1484.6	1512.4	1588.6	1713.0	1902.6	2075.4	2202.6	2275.9	2293.7	2257.7	2170.2
17.5°	1471.9	1500.1	1576.7	1703.9	1898.1	2075.4	2205.7	2280.5	2298.3	2261.8	2172.0
18°	1458.6	1487.4	1565.3	1694.8	1893.5	2075.4	2208.5	2284.6	2302.8	2265.5	2173.8
18.5°	1445.9	1475.1	1553.5	1685.6	1888.5	2074.9	2210.8	2288.7	2306.5	2268.2	2175.2
19°	1433.1	1462.3	1542.1	1676.1	1883.5	2074.5	2213.0	2292.4	2310.1	2271.4	2176.1
19.5°	1419.9	1450.0	1530.2	1667.0	1878.5	2073.6	2214.9	2295.1	2313.3	2273.7	2176.6
20°	1407.1	1436.8	1518.4	1656.9	1873.0	2072.2	2216.2	2297.8	2316.1	2275.5	2177.0
20.5°	1393.9	1424.0	1506.5	1647.4	1867.5	2070.4	2217.6	2300.1	2318.3	2276.9	2176.6
21°	1381.2	1411.2	1494.2	1637.3	1861.1	2068.5	2218.1	2301.9	2320.2	2278.2	2176.1



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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°	1341.5	1373.0	1458.2	1606.3	1842.5	2061.7	2218.5	2304.7	2322.9	2278.7	2172.5
23°	1328.3	1360.2	1445.4	1595.4	1835.6	2058.5	2217.6	2304.7	2322.4	2277.8	2170.2
23.5°	1315.1	1347.4	1433.6	1584.9	1828.3	2055.3	2216.2	2304.2	2322.0	2276.9	2167.9
24°	1301.8	1334.2	1420.8	1574.0	1820.6	2051.7	2214.9	2303.3	2321.1	2275.0	2164.7
24.5°	1288.2	1320.5	1408.5	1562.6	1813.3	2047.6	2213.0	2301.9	2319.2	2272.8	2161.5
25°	1274.5	1307.8	1395.7	1551.6	1805.5	2043.0	2210.3	2300.1	2317.4	2270.5	2157.9
25.5°	1260.8	1294.1	1383.4	1540.2	1797.8	2038.5	2207.6	2297.8	2315.1	2267.3	2153.8
26°	1247.1	1280.9	1370.7	1528.8	1789.1	2033.4	2204.4	2295.1	2312.0	2263.6	2148.8
26.5°	1233.5	1267.2	1357.9	1517.0	1780.5	2027.5	2200.7	2291.9	2308.3	2259.5	2143.8
27°	1218.9	1254.0	1344.7	1505.1	1771.8	2022.0	2196.6	2288.3	2304.7	2255.4	2138.3
27.5°	1204.3	1239.8	1331.9	1493.3	1762.7	2015.7	2192.1	2284.1	2300.1	2250.4	2132.4
28°	1190.2	1226.2	1318.7	1481.0	1753.1	2009.3	2187.1	2279.1	2295.1	2244.5	2126.0
28.5°	1175.6	1212.0	1305.5	1468.7	1743.5	2002.4	2181.6	2274.1	2289.6	2239.0	2119.6
29°	1160.5	1197.9	1292.3	1456.4	1734.0	1995.2	2175.7	2268.2	2283.2	2232.2	2112.3
29.5°	1145.5	1183.3	1279.1	1444.1	1723.5	1987.4	2169.3	2262.3	2276.4	2225.3	2104.6
30°	1130.5	1168.7	1265.4	1431.8	1713.5	1979.2	2162.4	2255.4	2269.1	2217.6	2096.3
30.5°	1115.0	1153.7	1251.7	1418.5	1703.0	1971.0	2155.1	2247.7	2261.4	2209.8	2087.7
31°	1099.0	1139.1	1238.0	1405.8	1692.0	1962.3	2147.4	2239.9	2253.2	2201.2	2078.6
31.5°	1083.0	1123.6	1223.9	1393.0	1680.6	1952.8	2139.2	2231.7	2244.5	2192.1	2069.0
32°	1066.6	1108.6	1210.2	1379.3	1669.7	1943.6	2130.5	2222.6	2234.9	2182.0	2059.4
32.5°	1050.2	1093.1	1196.1	1366.6	1658.3	1933.6	2121.4	2213.5	2225.3	2172.0	2048.5
33°	1034.3	1077.1	1182.0	1352.9	1646.4	1923.6	2111.8	2203.5	2214.4	2161.5	2037.1
33.5°	1017.4	1061.2	1167.8	1339.7	1634.1	1912.6	2101.4	2192.5	2203.0	2149.2	2025.2
34°	1001.0	1045.2	1153.2	1325.5	1621.8	1901.3	2090.4	2181.1	2191.2	2136.9	2012.0
34.5°	983.2	1028.8	1138.7	1311.9	1609.1	1889.9	2079.5	2169.3	2177.9	2122.3	1997.9
35°	966.4	1011.9	1124.1	1297.7	1595.9	1878.0	2067.2	2155.6	2162.4	2107.3	1982.8
35.5°	948.6	995.5	1109.0	1283.6	1582.6	1864.8	2054.0	2141.0	2146.5	2090.0	1966.9
36°	931.7	978.7	1094.0	1269.5	1569.0	1851.1	2039.4	2124.6	2128.3	2071.7	1952.3
36.5°	913.5	961.8	1079.4	1254.9	1554.8	1837.4	2023.9	2106.4	2108.7	2053.0	1937.3
37°	896.2	944.5	1063.9	1240.8	1541.2	1822.9	2007.9	2087.7	2085.0	2033.0	1920.9
37.5°	877.9	927.2	1048.4	1225.7	1527.0	1809.6	1992.9	2067.2	2063.1	2009.7	1901.7
38°	860.6	909.4	1032.9	1212.0	1514.3	1796.4	1976.0	2044.4	2037.1	1985.1	1880.3
38.5°	841.9	892.1	1017.4	1197.5	1501.0	1784.1	1957.3	2020.2	2011.6	1959.6	1857.0
39°	825.0	874.3	1001.9	1183.3	1487.8	1769.5	1936.4	1995.6	1983.8	1932.7	1833.3
39.5°	807.7	856.5	986.0	1169.2	1475.1	1753.6	1914.9	1969.2	1955.5	1904.9	1807.8
40°	791.3	838.7	970.0	1155.1	1461.4	1735.8	1891.2	1940.9	1925.4	1875.7	1781.4
40.5°	774.0	820.9	953.6	1140.5	1446.3	1715.3	1866.2	1912.6	1894.4	1845.6	1753.6
41°	758.5	803.6	937.2	1125.9	1429.9	1694.8	1840.2	1882.1	1863.0	1814.6	1725.8
41.5°	742.5	786.3	921.2	1110.9	1412.6	1672.9	1813.3	1851.6	1830.1	1783.2	1696.6
42°	728.0	769.0	904.8	1095.4	1394.4	1649.6	1785.5	1819.7	1797.3	1751.3	1667.0
42.5°	712.9	752.6	888.4	1079.4	1375.7	1626.8	1756.8	1786.8	1764.1	1718.0	1637.3
43°	697.9	736.6	871.5	1062.5	1355.6	1602.7	1726.7	1754.0	1729.9	1685.6	1607.2
43.5°	683.3	720.7	854.7	1045.2	1335.6	1577.6	1696.1	1720.3	1695.2	1651.0	1575.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	641.3	675.5	802.3	991.4	1272.2	1498.8	1602.7	1617.3	1589.9	1549.4	1481.4
45.5°	628.6	660.9	784.9	973.6	1249.9	1471.9	1569.9	1583.1	1555.3	1515.2	1449.5
46°	614.9	646.4	766.7	954.5	1228.0	1443.6	1538.0	1548.0	1519.7	1481.0	1417.6
46.5°	601.7	632.2	748.5	934.9	1205.7	1415.3	1505.6	1513.3	1484.6	1446.3	1385.7
47°	588.9	618.6	730.2	915.8	1182.4	1386.6	1472.3	1477.8	1449.1	1412.2	1353.8
47.5°	576.2	604.4	711.5	895.7	1158.7	1357.9	1439.0	1443.1	1414.9	1378.4	1321.4
48°	563.9	591.2	692.9	876.1	1135.0	1328.7	1406.7	1409.4	1380.2	1345.1	1290.0
48.5°	551.6	578.0	675.1	856.5	1111.3	1299.6	1373.4	1374.8	1346.5	1311.4	1258.5
49°	539.7	564.8	656.8	836.0	1087.6	1270.4	1340.6	1341.0	1311.0	1278.6	1227.5
49.5°	527.4	552.0	639.5	815.9	1063.0	1240.8	1308.2	1306.4	1277.7	1244.9	1196.5
50°	515.5	539.2	621.7	795.9	1038.8	1211.6	1275.9	1272.7	1244.4	1212.5	1165.1
50.5°	503.7	526.9	604.4	775.4	1013.8	1182.4	1242.6	1239.4	1211.6	1180.1	1134.6
51°	492.3	514.2	588.0	754.8	989.1	1152.3	1210.2	1206.1	1178.8	1148.7	1104.0
51.5°	481.4	502.3	571.6	733.9	965.0	1124.1	1179.2	1174.2	1146.4	1117.2	1074.8
52°	470.0	490.0	555.2	713.8	939.9	1094.9	1147.8	1141.8	1115.4	1086.2	1044.8
52.5°	459.0	478.2	539.7	693.3	915.3	1065.3	1115.9	1109.5	1083.0	1055.7	1015.1
53°	448.1	466.3	523.7	672.8	890.7	1036.6	1084.9	1078.5	1053.4	1026.1	986.4
53.5°	437.6	454.9	508.2	652.7	866.1	1008.3	1054.3	1047.9	1022.0	996.0	958.1
54°	426.7	443.5	492.7	632.7	841.5	979.6	1024.7	1017.9	993.2	966.8	929.9
54.5°	416.6	432.6	478.2	612.6	817.3	951.8	994.6	987.8	962.7	938.1	902.5
55°	406.1	421.6	463.6	593.0	793.6	924.4	965.0	958.6	936.3	911.2	875.6
55.5°	396.1	410.7	449.4	573.4	769.9	896.2	937.2	929.9	906.6	882.9	849.2
56°	386.5	400.2	435.3	553.8	746.2	869.3	908.0	901.6	880.2	855.6	822.8
56.5°	376.5	389.7	422.1	535.1	723.4	843.7	880.2	873.8	851.5	829.6	797.2
57°	366.9	378.8	408.4	516.9	699.7	816.8	852.9	846.9	826.9	803.6	771.7
57.5°	357.8	369.2	395.7	498.2	677.8	790.9	825.5	820.0	799.5	778.1	747.1
58°	348.3	359.2	383.4	480.4	655.0	765.3	799.5	794.1	775.4	753.0	723.4
58.5°	339.6	349.6	371.0	463.1	633.1	740.7	774.0	769.0	749.4	729.3	699.2
59°	330.9	340.0	359.2	445.8	611.3	716.1	748.5	743.9	726.1	705.6	676.4
59.5°	322.3	330.9	347.8	428.9	589.8	692.4	722.9	719.3	701.5	681.9	653.2
60°	313.6	321.8	336.4	412.5	568.9	668.7	698.3	695.6	677.4	659.6	631.3
60.5°	305.4	312.7	325.5	397.0	548.4	645.5	675.1	672.3	655.0	637.7	609.4
61°	297.2	304.0	314.5	381.1	528.8	622.7	652.3	649.6	630.9	615.8	588.0
61.5°	289.0	295.8	304.9	366.0	508.7	600.8	629.5	627.2	609.4	594.4	567.5
62°	281.2	287.6	294.9	351.9	489.6	579.4	607.2	605.8	588.0	573.4	547.4
62.5°	273.5	279.4	285.3	337.8	471.3	558.4	585.3	583.9	565.7	552.9	527.8
63°	266.2	271.2	276.2	324.1	453.1	537.0	564.3	562.9	546.1	532.9	508.2
63.5°	258.9	263.5	267.1	310.4	434.4	516.5	543.3	542.4	525.1	513.3	490.0
64°	251.6	256.2	258.5	297.7	418.4	496.9	523.7	522.8	505.1	494.1	471.3
64.5°	244.3	248.4	250.2	285.3	402.0	477.7	504.1	503.2	486.8	475.9	453.5
65°	236.6	241.1	242.5	273.5	385.6	459.5	485.0	484.5	468.1	458.1	436.7
65.5°	229.3	233.8	234.3	262.1	369.2	441.2	466.3	466.3	449.4	440.3	419.8
66°	222.0	226.5	226.5	250.7	352.8	423.0	448.5	448.5	432.1	423.0	403.0



TEST NUMBER: P776805

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	199.2	205.1	205.1	219.7	307.7	373.8	397.9	398.4	383.8	375.1	356.9
68°	192.4	198.3	198.3	209.7	293.6	357.8	382.4	382.9	367.9	359.6	341.4
68.5°	185.1	191.4	191.4	200.6	280.3	341.4	366.5	366.9	352.4	344.1	326.8
69°	177.8	184.6	184.6	191.0	266.7	326.4	351.0	351.4	336.4	330.0	312.7
69.5°	170.9	177.3	178.2	182.8	254.4	311.3	335.0	335.9	322.3	315.9	299.0
70°	163.2	170.5	171.8	174.6	242.0	296.7	320.4	321.8	308.6	302.2	285.3
70.5°	156.8	163.2	165.9	166.8	230.2	283.1	305.9	307.7	294.9	289.0	272.6
71°	150.4	156.8	160.0	159.5	218.3	270.3	292.6	294.5	281.7	275.8	260.3
71.5°	143.6	150.9	154.1	152.7	207.4	257.1	279.4	281.2	268.5	263.0	248.0
72°	137.2	144.5	148.1	145.4	196.5	244.3	266.2	268.0	256.2	250.7	236.1
72.5°	130.8	138.6	142.7	138.6	186.0	232.0	253.9	255.7	243.9	238.9	224.3
73°	124.4	132.2	136.7	131.3	175.9	220.2	241.1	243.9	232.0	227.0	213.3
73.5°	117.6	125.8	130.8	125.4	165.9	208.8	230.2	232.0	220.6	216.1	202.4
74°	111.2	119.9	125.4	119.4	156.8	197.8	218.3	221.1	209.7	205.1	191.9
74.5°	105.3	114.0	119.9	113.5	147.7	187.3	206.9	209.7	198.7	195.1	181.9
75°	98.9	107.6	114.4	108.0	139.0	176.9	196.0	199.2	188.3	184.6	171.8
75.5°	93.0	102.1	108.9	103.0	130.4	166.8	186.0	188.7	178.2	174.6	162.3
76°	87.1	96.2	103.9	98.0	122.6	157.3	175.5	178.7	168.2	164.6	152.7
76.5°	81.6	90.3	98.5	93.0	114.9	147.7	165.9	169.1	159.1	155.4	144.0
77°	76.1	84.8	93.4	88.4	107.6	139.0	156.3	159.5	149.5	146.3	135.4
77.5°	71.6	79.3	88.4	84.3	100.3	130.4	147.2	150.4	140.4	137.7	126.7
78°	67.5	74.3	83.4	79.8	93.4	121.7	138.1	141.8	131.7	129.0	118.5
78.5°	63.4	69.7	78.4	75.7	86.6	114.0	129.9	133.1	123.5	120.8	110.8
79°	59.3	65.2	73.8	71.1	80.7	106.2	121.2	124.9	114.9	112.6	103.5
79.5°	55.6	61.1	69.3	67.0	74.3	98.5	113.5	116.7	107.1	105.3	95.7
80°	51.5	57.4	64.7	62.9	68.8	91.6	105.8	108.5	99.4	97.5	88.4
80.5°	48.3	53.3	60.2	59.3	62.9	84.8	98.0	101.2	91.6	90.3	82.0
81°	44.7	49.7	56.1	55.2	58.3	77.9	91.2	93.9	84.3	83.0	75.2
81.5°	41.0	45.6	52.4	51.1	52.9	71.6	83.9	86.6	77.0	76.1	68.8
82°	37.4	41.9	48.3	47.4	48.3	65.6	77.5	79.8	70.2	69.7	62.4
82.5°	34.2	38.3	44.7	43.8	43.8	59.7	70.7	72.9	63.4	63.4	56.5
83°	30.5	34.6	41.0	40.1	39.7	54.2	64.7	66.6	57.0	57.0	51.1
83.5°	26.9	31.0	37.4	36.9	36.0	49.2	58.3	60.2	50.1	51.1	46.0
84°	23.7	27.8	33.7	33.3	32.4	44.7	52.9	54.2	44.2	45.6	41.0
84.5°	20.5	24.2	30.1	30.1	28.3	39.7	47.0	48.3	37.8	40.1	36.0
85°	17.3	21.0	26.4	26.4	24.6	35.1	42.4	42.8	31.9	34.6	31.0
85.5°	14.6	17.3	23.2	23.2	21.4	30.5	37.4	37.8	26.0	29.2	26.0
86°	11.9	14.6	19.6	20.1	18.2	26.0	32.4	32.8	19.6	23.7	21.0
86.5°	9.1	12.3	16.9	16.9	15.5	22.3	27.3	27.3	14.6	19.6	16.9
87°	6.8	9.6	13.7	14.1	12.8	18.2	22.3	22.3	11.9	15.5	12.8
87.5°	4.6	6.8	10.9	11.4	10.0	14.6	18.2	17.8	9.1	11.9	8.7
88°	2.7	4.6	7.7	8.2	7.7	11.4	13.7	13.7	6.4	7.7	5.0
88.5°	1.4	2.7	5.0	5.5	5.5	8.2	10.0	9.1	3.6	3.6	1.4



TEST NUMBER: P776805

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

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	0.5	0.5	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776805

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1953.2	1953.2	1953.2	1953.2	1953.2	1953.2
0.5°	1958.7	1957.3	1950.0	1943.6	1937.7	1934.5
1°	1963.7	1956.9	1943.6	1932.3	1922.7	1919.0
1.5°	1968.7	1956.0	1936.8	1920.4	1907.6	1903.1
2°	1973.7	1955.0	1930.0	1909.0	1892.6	1886.7
2.5°	1978.7	1954.1	1923.1	1896.7	1878.0	1871.2
3°	1983.3	1952.8	1916.3	1884.8	1863.9	1856.1
3.5°	1987.4	1951.9	1909.0	1873.0	1850.2	1841.5
4°	1992.0	1950.5	1901.7	1861.6	1836.1	1827.9
4.5°	1996.1	1949.1	1894.4	1850.2	1822.9	1813.7
5°	1999.7	1947.7	1886.7	1839.3	1810.1	1800.5
5.5°	2003.4	1945.9	1879.4	1827.9	1797.3	1786.8
6°	2007.0	1944.1	1871.6	1817.4	1784.6	1773.6
6.5°	2010.2	1942.3	1864.3	1806.4	1771.8	1760.4
7°	2013.4	1940.5	1856.6	1796.0	1759.0	1746.7
7.5°	2016.6	1938.2	1848.8	1785.0	1746.3	1733.5
8°	2019.3	1935.9	1841.5	1774.5	1733.5	1720.3
8.5°	2022.0	1933.6	1833.3	1763.6	1720.7	1707.1
9°	2024.8	1930.9	1825.6	1752.7	1707.5	1693.9
9.5°	2027.1	1928.1	1817.8	1741.7	1695.2	1680.6
10°	2029.3	1925.4	1810.1	1731.2	1682.5	1667.4
10.5°	2031.2	1922.2	1801.9	1719.8	1669.7	1654.7
11°	2033.0	1919.0	1794.1	1708.9	1656.9	1641.0
11.5°	2034.4	1915.8	1785.9	1697.5	1644.2	1627.8
12°	2035.7	1912.6	1777.7	1686.6	1631.4	1614.5
12.5°	2037.1	1909.0	1769.1	1675.2	1618.6	1601.8
13°	2038.0	1904.9	1760.9	1663.8	1606.3	1588.6
13.5°	2038.9	1901.3	1752.2	1652.4	1593.1	1575.8
14°	2039.4	1897.2	1743.5	1641.0	1580.4	1562.6
14.5°	2039.4	1892.6	1734.9	1629.1	1567.6	1549.4
15°	2039.4	1888.0	1726.2	1617.7	1554.8	1536.6
15.5°	2039.4	1883.5	1716.6	1605.9	1541.2	1523.4
16°	2038.9	1878.5	1707.5	1594.0	1528.8	1510.6
16.5°	2038.5	1873.4	1698.4	1582.2	1516.1	1497.8
17°	2037.5	1868.0	1688.8	1570.8	1503.3	1484.6
17.5°	2036.2	1862.5	1678.8	1558.5	1490.1	1471.9
18°	2034.8	1857.0	1669.2	1546.6	1477.3	1458.6
18.5°	2033.0	1850.7	1659.2	1533.9	1464.1	1445.9
19°	2030.7	1844.7	1649.2	1522.0	1451.4	1433.1
19.5°	2028.4	1838.4	1638.7	1509.7	1438.6	1419.9
20°	2025.7	1831.5	1628.7	1497.8	1425.8	1407.1
20.5°	2023.0	1825.1	1617.7	1485.1	1412.6	1393.9
21°	2019.8	1817.8	1607.2	1472.3	1399.8	1381.2

TEST NUMBER: P776805

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2008.4	1795.0	1574.0	1434.5	1360.2	1341.5
23°	2003.4	1787.3	1562.6	1422.2	1347.0	1328.3
23.5°	1998.8	1778.6	1551.2	1409.0	1333.7	1315.1
24°	1993.3	1770.4	1539.8	1396.2	1320.5	1301.8
24.5°	1987.9	1761.3	1527.9	1383.0	1306.9	1288.2
25°	1981.9	1752.2	1516.1	1370.2	1293.6	1274.5
25.5°	1976.0	1743.1	1503.8	1357.0	1280.4	1260.8
26°	1969.2	1734.0	1491.9	1343.8	1266.7	1247.1
26.5°	1962.3	1724.4	1479.6	1330.6	1252.6	1233.5
27°	1955.0	1713.9	1467.3	1317.3	1238.9	1218.9
27.5°	1947.3	1703.9	1454.5	1303.7	1224.8	1204.3
28°	1939.1	1693.4	1441.8	1290.0	1210.2	1190.2
28.5°	1930.9	1682.9	1429.0	1276.3	1196.5	1175.6
29°	1922.2	1671.5	1416.3	1263.1	1182.0	1160.5
29.5°	1913.1	1660.6	1403.5	1249.4	1167.8	1145.5
30°	1903.5	1649.2	1390.3	1235.7	1153.2	1130.5
30.5°	1893.5	1637.3	1376.6	1221.2	1138.2	1115.0
31°	1883.5	1625.5	1363.4	1207.5	1123.2	1099.0
31.5°	1872.5	1613.6	1350.2	1193.4	1107.7	1083.0
32°	1862.1	1600.4	1336.0	1179.2	1092.2	1066.6
32.5°	1850.2	1588.1	1322.4	1165.1	1076.7	1050.2
33°	1838.4	1574.9	1308.2	1150.5	1061.2	1034.3
33.5°	1825.6	1561.7	1294.5	1135.9	1044.8	1017.4
34°	1811.9	1547.5	1280.0	1121.3	1028.8	1001.0
34.5°	1798.2	1533.4	1265.8	1106.7	1012.8	983.2
35°	1783.7	1519.3	1251.2	1091.7	996.0	966.4
35.5°	1770.0	1506.1	1237.1	1076.7	979.6	948.6
36°	1757.2	1493.3	1223.0	1062.1	962.7	931.7
36.5°	1744.9	1480.5	1208.9	1046.6	945.4	913.5
37°	1732.1	1467.8	1194.7	1031.1	928.5	896.2
37.5°	1718.0	1455.0	1180.6	1016.0	911.2	877.9
38°	1702.1	1441.3	1166.5	1000.5	893.9	860.6
38.5°	1684.3	1426.7	1152.3	985.5	876.1	841.9
39°	1663.8	1410.8	1138.7	969.5	858.8	825.0
39.5°	1642.3	1393.5	1123.6	954.5	841.0	807.7
40°	1619.6	1374.8	1108.1	938.1	823.7	791.3
40.5°	1596.8	1355.2	1092.2	922.6	805.4	774.0
41°	1573.1	1335.6	1075.8	906.6	788.1	758.5
41.5°	1548.0	1314.6	1059.3	890.7	770.8	742.5
42°	1522.9	1293.6	1041.6	873.8	753.9	728.0
42.5°	1497.4	1272.2	1023.8	857.4	738.0	712.9
43°	1471.9	1250.3	1005.6	840.5	721.6	697.9
43.5°	1444.5	1228.0	987.3	823.2	706.1	683.3

TEST NUMBER: P776805

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1362.9	1159.6	929.4	770.3	660.5	641.3
45.5°	1334.7	1135.9	909.8	752.6	646.4	628.6
46°	1306.4	1113.1	890.2	733.9	631.3	614.9
46.5°	1279.5	1088.5	870.2	716.1	617.6	601.7
47°	1250.3	1064.8	850.1	697.4	604.0	588.9
47.5°	1221.6	1040.2	829.6	678.7	590.3	576.2
48°	1193.4	1016.9	809.5	660.0	576.6	563.9
48.5°	1166.0	992.3	789.0	641.8	563.4	551.6
49°	1136.8	968.6	769.0	623.6	550.2	539.7
49.5°	1108.6	944.5	748.5	606.2	537.4	527.4
50°	1080.3	919.9	728.0	588.5	524.7	515.5
50.5°	1053.4	896.2	707.4	571.6	511.9	503.7
51°	1024.2	872.5	688.3	554.3	499.6	492.3
51.5°	998.3	848.7	667.8	538.3	487.3	481.4
52°	970.0	824.6	648.2	521.9	475.4	470.0
52.5°	943.6	800.4	628.1	506.0	463.6	459.0
53°	916.7	777.6	608.5	490.0	452.2	448.1
53.5°	890.7	754.8	588.9	475.4	440.3	437.6
54°	863.8	731.6	570.2	460.4	428.9	426.7
54.5°	838.7	708.8	551.6	445.3	418.0	416.6
55°	813.2	687.4	532.9	431.2	407.1	406.1
55.5°	788.6	665.1	514.2	417.5	396.6	396.1
56°	763.5	643.6	496.9	403.9	386.1	386.5
56.5°	739.4	621.7	479.1	390.2	375.6	376.5
57°	715.6	600.8	461.8	377.4	365.1	366.9
57.5°	692.9	579.8	444.4	365.1	355.1	357.8
58°	669.6	560.2	428.5	353.3	345.5	348.3
58.5°	647.7	540.6	412.5	341.4	335.9	339.6
59°	624.9	521.0	397.0	330.0	326.8	330.9
59.5°	603.5	501.4	381.5	319.1	317.7	322.3
60°	582.5	483.2	366.9	308.6	308.6	313.6
60.5°	562.0	464.5	352.4	298.1	299.9	305.4
61°	541.5	447.2	338.2	288.1	291.3	297.2
61.5°	522.4	430.3	325.0	278.5	283.1	289.0
62°	502.8	413.0	311.8	269.4	274.9	281.2
62.5°	484.1	396.6	298.6	260.3	267.1	273.5
63°	465.4	380.2	286.3	251.6	259.4	266.2
63.5°	447.6	364.7	274.4	243.0	251.2	258.9
64°	429.8	349.2	263.0	235.2	244.3	251.6
64.5°	413.0	334.6	251.6	227.5	237.0	244.3
65°	397.5	320.0	241.1	219.7	229.7	236.6
65.5°	381.5	306.3	230.6	212.4	222.9	229.3
66°	365.6	292.2	220.6	205.6	216.1	222.0



TEST NUMBER: P776805

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	319.5	253.9	192.4	185.1	195.1	199.2
68°	305.4	241.6	183.7	178.7	187.8	192.4
68.5°	291.7	229.7	175.5	172.3	181.0	185.1
69°	278.5	218.8	167.3	166.4	174.1	177.8
69.5°	265.3	207.9	160.0	160.9	167.3	170.9
70°	252.5	196.9	152.7	155.0	160.9	163.2
70.5°	240.7	186.9	145.4	149.5	154.5	156.8
71°	228.8	176.9	138.1	143.6	148.1	150.4
71.5°	217.0	167.3	131.3	137.7	141.8	143.6
72°	206.0	158.6	124.9	132.2	135.4	137.2
72.5°	195.1	150.4	118.5	126.7	129.0	130.8
73°	184.6	141.8	112.1	121.2	122.6	124.4
73.5°	174.6	133.1	106.7	115.8	116.7	117.6
74°	165.0	124.4	101.2	110.8	110.8	111.2
74.5°	155.4	116.7	96.2	105.3	104.8	105.3
75°	146.3	109.4	91.2	100.3	98.9	98.9
75.5°	137.7	102.1	86.2	95.3	93.0	93.0
76°	129.0	95.3	81.6	90.3	87.5	87.1
76.5°	121.2	88.9	77.0	85.2	81.6	81.6
77°	113.0	82.5	72.9	80.2	76.6	76.1
77.5°	105.8	76.6	68.8	75.7	71.1	71.6
78°	98.5	70.7	65.2	70.7	66.6	67.5
78.5°	91.2	65.2	61.1	66.1	62.0	63.4
79°	84.8	59.7	57.0	62.0	57.9	59.3
79.5°	77.9	54.7	53.3	57.4	54.2	55.6
80°	71.6	49.7	49.7	52.9	50.1	51.5
80.5°	65.6	45.1	46.0	49.2	46.5	48.3
81°	60.2	41.0	42.4	45.1	42.8	44.7
81.5°	54.7	36.9	38.7	41.5	38.7	41.0
82°	49.2	32.8	35.6	37.8	35.1	37.4
82.5°	44.7	29.2	32.4	34.2	31.9	34.2
83°	40.6	26.0	29.2	31.0	28.3	30.5
83.5°	36.0	22.8	25.5	27.3	24.6	26.9
84°	31.5	19.6	22.8	24.2	21.4	23.7
84.5°	26.9	16.4	19.6	21.0	18.2	20.5
85°	22.3	14.1	16.4	17.8	15.5	17.3
85.5°	18.7	11.4	13.7	15.0	12.8	14.6
86°	15.0	9.1	10.9	12.3	10.0	11.9
86.5°	11.4	6.4	8.2	9.1	7.7	9.1
87°	8.2	4.6	5.5	6.4	5.5	6.8
87.5°	5.5	2.3	3.2	4.1	3.6	4.6
88°	2.3	0.9	0.9	1.8	2.3	2.7
88.5°	0.5	0.0	0.0	0.5	0.9	1.4



TEST NUMBER: P776805
CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-2700K

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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Scaled Data Report



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Scaled Data Report





21.5°	1367.9	1398.5	1482.3	1626.8	1855.2	2066.7	2218.5	2303.3	2321.5	2278.7	2175.2
22°	1354.7	1386.2	1470.0	1616.8	1848.8	2064.4	2218.5	2304.2	2322.0	2278.7	2173.8



44°	669.2	705.6	837.4	1027.9	1314.6	1551.6	1666.0	1686.6	1659.7	1617.7	1544.3
44.5°	655.5	690.1	820.0	1010.1	1294.1	1525.7	1634.1	1651.9	1625.9	1583.5	1513.3



66.5°	214.2	219.7	219.3	239.8	336.4	406.1	430.8	430.8	415.3	406.6	387.9
67°	206.9	212.4	212.0	229.3	321.8	390.2	413.9	413.9	399.3	391.1	372.4



89°	0.5	1.4	2.3	3.2	3.6	5.0	5.9	4.6	0.9	0.5	0.0
89.5°	0.0	0.5	0.5	0.9	1.8	2.3	2.3	0.9	0.0	0.0	0.0

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Scaled Data Report





21.5°	2016.1	1810.5	1596.3	1460.0	1386.6	1367.9
22°	2012.0	1802.8	1585.4	1447.3	1373.4	1354.7



44°	1418.1	1205.2	968.2	805.9	690.6	669.2
44.5°	1389.4	1182.4	948.6	788.6	675.5	655.5



66.5°	350.1	279.0	211.0	198.7	208.8	214.2
67°	334.1	265.7	201.5	191.9	201.9	206.9

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Peachtree City, GA 30269

Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.5	0.5
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)