

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: P776806

Luminaire Tested: HCDJBS4050CSD-HCD8TRH-HCD8TRLWW-5000lm-3000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776806
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-3000K
Description: 8 INCH ROUND MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

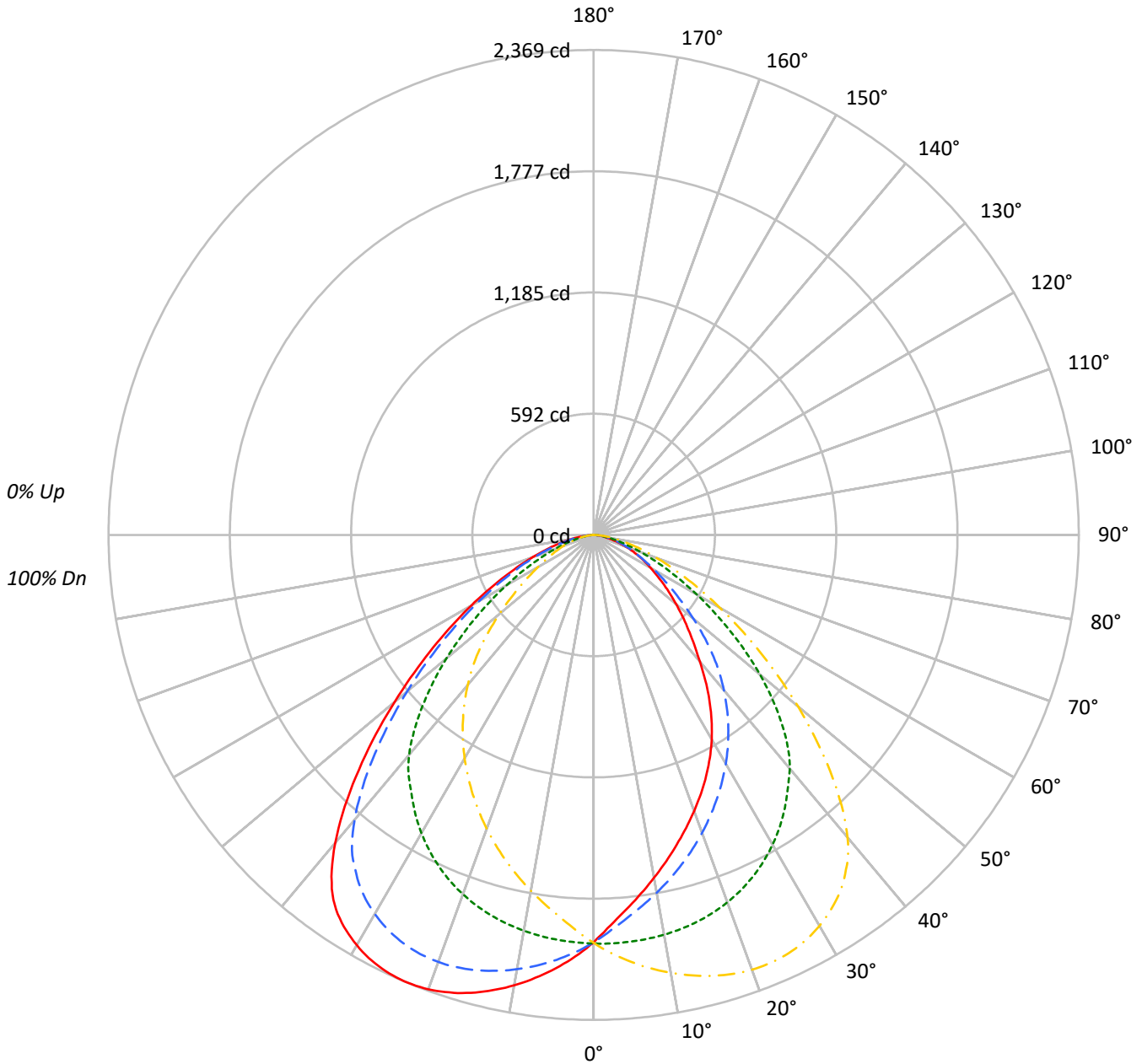
Lumens per Lamp: N/A
Luminaire Lumens: 4656.9 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.32
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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



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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									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°	60807	60807	60807	60807
5°	56268	61153	65128	60868
10°	52708	61469	69251	60865
15°	49522	61821	73190	60850
20°	46616	62052	76731	60678
25°	43779	62020	79604	60188
30°	40637	61595	81569	59286
35°	36726	60650	82182	57740
40°	32159	59391	78246	55868
45°	28237	56013	69997	51056
50°	24969	50313	60269	44552
55°	22042	43072	50817	37307
60°	19527	35421	42175	30085
65°	17424	28405	34488	23572
70°	14854	22030	28092	17924
75°	11902	16727	22648	13164
80°	9230	12342	17810	8914
85°	6200	8792	11385	5044

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 71202 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.9	4.1
10°-20°	547.3	11.8
20°-30°	837.7	18.0
30°-40°	991.9	21.3
40°-50°	910.9	19.6
50°-60°	637.0	13.7
60°-70°	356.9	7.7
70°-80°	154.1	3.3
80°-90°	32.5	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°	1573.8	33.8
0°-40°	2565.6	55.1
0°-60°	4113.5	88.3
0°-90°	4656.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4656.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1992	1992	1992	1992	1992	
5°	1836	1995	2125	1986	1836	171
15°	1567	1956	2316	1925	1567	440
25°	1300	1841	2363	1787	1300	597
35°	985	1627	2205	1549	985	613
45°	654	1297	1621	1182	654	507
55°	414	809	955	701	414	372
65°	241	393	477	326	241	239
75°	101	142	192	112	101	109
85°	18	25	32	14	18	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°	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7
0.5°	1972.6	1974.0	1979.1	1986.1	1996.8	2001.0	2005.2	2005.2	2004.2	2002.4	2001.0
1°	1956.8	1959.6	1968.0	1980.1	1996.8	2007.0	2015.8	2019.1	2019.6	2016.8	2011.2
1.5°	1940.5	1944.3	1956.8	1974.0	1997.3	2013.5	2026.5	2033.0	2034.0	2029.8	2021.0
2°	1923.8	1929.4	1945.2	1968.0	1997.3	2019.1	2036.8	2046.1	2047.9	2042.8	2031.2
2.5°	1908.0	1914.5	1933.6	1961.5	1997.3	2024.7	2047.0	2058.6	2061.4	2055.4	2040.5
3°	1892.7	1900.1	1922.4	1955.4	1997.3	2030.7	2056.3	2071.2	2074.9	2067.4	2049.8
3.5°	1877.8	1886.6	1910.8	1948.9	1996.8	2035.8	2066.0	2083.2	2087.9	2079.1	2058.1
4°	1863.9	1873.2	1900.1	1941.9	1996.3	2040.9	2075.3	2095.3	2100.4	2090.7	2067.0
4.5°	1849.4	1860.1	1889.0	1935.4	1995.9	2046.1	2084.6	2107.4	2113.0	2101.8	2075.3
5°	1836.0	1847.1	1878.3	1928.5	1995.4	2051.2	2093.5	2118.6	2125.1	2113.0	2083.7
5.5°	1822.0	1834.1	1868.0	1921.5	1994.9	2055.4	2102.3	2130.2	2137.2	2124.1	2091.6
6°	1808.5	1821.6	1857.3	1915.0	1994.0	2060.0	2110.7	2140.9	2148.8	2134.8	2099.5
6.5°	1795.1	1809.0	1847.1	1908.0	1993.1	2064.6	2119.5	2152.0	2160.4	2144.6	2106.9
7°	1781.1	1796.5	1836.9	1901.0	1992.1	2068.8	2127.4	2162.3	2171.6	2154.8	2114.4
7.5°	1767.6	1783.9	1826.7	1894.1	1990.7	2073.0	2135.8	2172.5	2182.2	2165.0	2121.4
8°	1754.2	1770.9	1816.4	1887.1	1989.4	2076.7	2143.2	2182.7	2193.4	2174.8	2128.3
8.5°	1740.7	1758.3	1806.2	1880.1	1988.0	2080.5	2151.1	2192.9	2204.1	2184.1	2135.3
9°	1727.2	1745.8	1795.5	1872.7	1986.6	2084.2	2158.1	2202.2	2214.3	2192.9	2141.8
9.5°	1713.7	1733.2	1785.3	1865.7	1984.7	2087.4	2165.5	2211.5	2224.1	2202.2	2147.8
10°	1700.2	1720.2	1774.6	1858.7	1982.8	2091.1	2172.0	2221.3	2233.8	2210.6	2153.9
10.5°	1687.2	1707.7	1763.9	1851.8	1981.0	2093.9	2179.0	2229.7	2243.6	2219.4	2159.9
11°	1673.3	1695.1	1753.2	1844.3	1978.7	2096.7	2186.0	2238.5	2252.9	2227.3	2165.5
11.5°	1659.8	1682.6	1742.5	1836.9	1976.3	2099.5	2192.0	2246.9	2261.7	2235.2	2171.1
12°	1646.3	1669.6	1731.4	1829.5	1974.0	2102.3	2198.0	2255.2	2270.1	2243.1	2176.2
12.5°	1633.3	1657.0	1720.7	1821.6	1971.7	2104.6	2204.1	2263.6	2278.5	2250.1	2180.8
13°	1619.8	1644.5	1710.0	1813.7	1968.9	2106.9	2209.7	2271.0	2286.8	2257.5	2185.5
13.5°	1606.8	1631.9	1698.9	1806.2	1965.6	2108.8	2215.2	2278.0	2294.3	2264.0	2190.1
14°	1593.3	1618.9	1687.7	1797.9	1962.4	2110.2	2220.4	2285.4	2301.7	2270.6	2194.3
14.5°	1579.9	1606.4	1676.5	1790.0	1959.1	2112.1	2225.5	2291.9	2308.7	2276.6	2198.0
15°	1566.8	1593.3	1665.4	1781.1	1955.9	2113.5	2230.1	2298.4	2315.6	2282.6	2201.8
15.5°	1553.4	1580.3	1654.2	1773.2	1952.2	2114.4	2234.3	2304.5	2322.1	2287.8	2205.0
16°	1540.4	1567.8	1642.6	1764.4	1948.4	2115.3	2238.5	2310.5	2328.2	2292.9	2207.8
16.5°	1527.3	1555.2	1631.0	1756.0	1944.3	2115.8	2242.2	2315.6	2333.8	2298.0	2210.6
17°	1513.9	1542.2	1619.8	1746.7	1940.1	2116.2	2245.9	2320.8	2338.9	2302.2	2212.9
17.5°	1500.8	1529.7	1607.7	1737.4	1935.4	2116.2	2249.2	2325.4	2343.5	2306.3	2214.8
18°	1487.4	1516.6	1596.1	1728.1	1930.8	2116.2	2252.0	2329.6	2348.2	2310.1	2216.6
18.5°	1474.4	1504.1	1584.0	1718.8	1925.7	2115.8	2254.3	2333.8	2351.9	2312.9	2218.0
19°	1461.3	1491.1	1572.4	1709.1	1920.6	2115.3	2256.6	2337.5	2355.6	2316.1	2219.0
19.5°	1447.9	1478.5	1560.3	1699.8	1915.4	2114.4	2258.5	2340.3	2358.9	2318.4	2219.4
20°	1434.8	1465.1	1548.3	1689.6	1909.9	2113.0	2259.9	2343.1	2361.7	2320.3	2219.9
20.5°	1421.4	1452.0	1536.2	1679.8	1904.3	2111.1	2261.3	2345.4	2364.0	2321.7	2219.4
21°	1408.3	1439.0	1523.6	1669.6	1897.8	2109.3	2261.7	2347.2	2365.8	2323.1	2219.0



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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°	1367.9	1400.0	1486.9	1638.0	1878.7	2102.3	2262.2	2350.0	2368.6	2323.5	2215.2
23°	1354.4	1387.0	1473.9	1626.8	1871.8	2099.0	2261.3	2350.0	2368.2	2322.6	2212.9
23.5°	1341.0	1374.0	1461.8	1616.1	1864.3	2095.8	2259.9	2349.6	2367.7	2321.7	2210.6
24°	1327.5	1360.5	1448.8	1605.0	1856.4	2092.1	2258.5	2348.6	2366.8	2319.8	2207.3
24.5°	1313.5	1346.5	1436.2	1593.3	1849.0	2087.9	2256.6	2347.2	2364.9	2317.5	2204.1
25°	1299.6	1333.5	1423.2	1582.2	1841.1	2083.2	2253.8	2345.4	2363.1	2315.2	2200.4
25.5°	1285.6	1319.6	1410.7	1570.6	1833.2	2078.6	2251.0	2343.1	2360.7	2311.9	2196.2
26°	1271.7	1306.1	1397.7	1558.9	1824.3	2073.5	2247.8	2340.3	2357.5	2308.2	2191.1
26.5°	1257.8	1292.1	1384.6	1546.9	1815.5	2067.4	2244.1	2337.0	2353.8	2304.0	2186.0
27°	1242.9	1278.7	1371.2	1534.8	1806.7	2061.9	2239.9	2333.3	2350.0	2299.8	2180.4
27.5°	1228.0	1264.3	1358.2	1522.7	1797.4	2055.4	2235.2	2329.1	2345.4	2294.7	2174.3
28°	1213.6	1250.3	1344.7	1510.1	1787.6	2048.8	2230.1	2324.0	2340.3	2288.7	2167.8
28.5°	1198.7	1235.9	1331.2	1497.6	1777.9	2041.9	2224.5	2318.9	2334.7	2283.1	2161.3
29°	1183.4	1221.5	1317.7	1485.0	1768.1	2034.4	2218.5	2312.9	2328.2	2276.1	2153.9
29.5°	1168.0	1206.6	1304.2	1472.5	1757.4	2026.5	2212.0	2306.8	2321.2	2269.2	2146.0
30°	1152.7	1191.8	1290.3	1459.9	1747.2	2018.2	2205.0	2299.8	2313.8	2261.3	2137.6
30.5°	1136.9	1176.4	1276.3	1446.5	1736.5	2009.8	2197.6	2291.9	2305.9	2253.4	2128.8
31°	1120.6	1161.5	1262.4	1433.4	1725.3	2001.0	2189.7	2284.0	2297.5	2244.5	2119.5
31.5°	1104.4	1145.7	1248.0	1420.4	1713.7	1991.2	2181.3	2275.7	2288.7	2235.2	2109.7
32°	1087.6	1130.4	1234.0	1406.5	1702.6	1981.9	2172.5	2266.4	2278.9	2225.0	2100.0
32.5°	1070.9	1114.6	1219.6	1393.5	1690.9	1971.7	2163.2	2257.1	2269.2	2214.8	2088.8
33°	1054.6	1098.3	1205.2	1379.5	1678.9	1961.5	2153.4	2246.9	2258.0	2204.1	2077.2
33.5°	1037.4	1082.1	1190.8	1366.1	1666.3	1950.3	2142.7	2235.7	2246.4	2191.5	2065.1
34°	1020.7	1065.8	1175.9	1351.6	1653.8	1938.7	2131.6	2224.1	2234.3	2179.0	2051.6
34.5°	1002.6	1049.1	1161.1	1337.7	1640.8	1927.1	2120.4	2212.0	2220.8	2164.1	2037.2
35°	985.4	1031.9	1146.2	1323.3	1627.3	1915.0	2107.9	2198.0	2205.0	2148.8	2021.9
35.5°	967.3	1015.1	1130.9	1308.9	1613.8	1901.5	2094.4	2183.2	2188.8	2131.1	2005.6
36°	950.1	997.9	1115.5	1294.5	1599.8	1887.6	2079.5	2166.4	2170.2	2112.5	1990.7
36.5°	931.5	980.7	1100.7	1279.6	1585.4	1873.6	2063.7	2147.8	2150.2	2093.5	1975.4
37°	913.8	963.1	1084.8	1265.2	1571.5	1858.7	2047.5	2128.8	2126.0	2073.0	1958.7
37.5°	895.2	945.4	1069.0	1249.9	1557.1	1845.3	2032.1	2107.9	2103.7	2049.3	1939.2
38°	877.5	927.3	1053.2	1235.9	1544.1	1831.8	2014.9	2084.6	2077.2	2024.2	1917.3
38.5°	858.5	909.6	1037.4	1221.0	1530.6	1819.2	1995.9	2060.0	2051.2	1998.2	1893.6
39°	841.3	891.5	1021.6	1206.6	1517.1	1804.4	1974.5	2034.9	2022.8	1970.8	1869.4
39.5°	823.6	873.4	1005.4	1192.2	1504.1	1788.1	1952.6	2007.9	1994.0	1942.4	1843.4
40°	806.9	855.2	989.1	1177.8	1490.2	1770.0	1928.5	1979.1	1963.3	1912.7	1816.4
40.5°	789.2	837.1	972.4	1162.9	1474.8	1749.0	1902.9	1950.3	1931.7	1882.0	1788.1
41°	773.4	819.4	955.6	1148.1	1458.1	1728.1	1876.4	1919.2	1899.6	1850.4	1759.7
41.5°	757.2	801.8	939.4	1132.7	1440.4	1705.8	1849.0	1888.0	1866.2	1818.3	1730.0
42°	742.3	784.1	922.6	1116.9	1421.8	1682.1	1820.6	1855.5	1832.7	1785.8	1699.8
42.5°	726.9	767.4	905.9	1100.7	1402.8	1658.9	1791.3	1822.0	1798.8	1751.8	1669.6
43°	711.6	751.1	888.7	1083.5	1382.3	1634.2	1760.7	1788.6	1763.9	1718.8	1638.9
43.5°	696.7	734.9	871.5	1065.8	1361.9	1608.7	1729.5	1754.2	1728.6	1683.5	1606.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	654.0	688.8	818.1	1010.9	1297.3	1528.3	1634.2	1649.1	1621.2	1579.9	1510.6
45.5°	641.0	674.0	800.4	992.8	1274.5	1500.8	1600.8	1614.3	1585.9	1545.0	1478.1
46°	627.0	659.1	781.8	973.3	1252.2	1472.0	1568.2	1578.5	1549.6	1510.1	1445.5
46.5°	613.5	644.7	763.2	953.3	1229.4	1443.2	1535.2	1543.1	1513.9	1474.8	1413.0
47°	600.5	630.7	744.6	933.8	1205.7	1413.9	1501.3	1506.9	1477.6	1440.0	1380.5
47.5°	587.5	616.3	725.6	913.3	1181.5	1384.6	1467.4	1471.6	1442.7	1405.6	1347.5
48°	575.0	602.8	706.5	893.3	1157.4	1354.9	1434.4	1437.2	1407.4	1371.6	1315.4
48.5°	562.4	589.4	688.4	873.4	1133.2	1325.1	1400.4	1401.8	1373.0	1337.2	1283.3
49°	550.3	575.9	669.8	852.4	1109.0	1295.4	1367.0	1367.4	1336.8	1303.8	1251.7
49.5°	537.8	562.9	652.1	832.0	1083.9	1265.2	1334.0	1332.1	1302.8	1269.4	1220.1
50°	525.7	549.9	634.0	811.5	1059.3	1235.4	1301.0	1297.7	1268.9	1236.4	1188.0
50.5°	513.6	537.3	616.3	790.6	1033.7	1205.7	1267.0	1263.8	1235.4	1203.4	1156.9
51°	502.0	524.3	599.6	769.7	1008.6	1175.0	1234.0	1229.9	1202.0	1171.3	1125.7
51.5°	490.8	512.2	582.9	748.3	984.0	1146.2	1202.4	1197.3	1169.0	1139.2	1096.0
52°	479.2	499.7	566.1	727.9	958.4	1116.5	1170.4	1164.3	1137.4	1107.6	1065.3
52.5°	468.1	487.6	550.3	707.0	933.3	1086.2	1137.8	1131.3	1104.4	1076.5	1035.1
53°	456.9	475.5	534.1	686.0	908.2	1057.0	1106.2	1099.7	1074.2	1046.3	1005.8
53.5°	446.2	463.9	518.3	665.6	883.1	1028.1	1075.1	1068.6	1042.1	1015.6	977.0
54°	435.1	452.3	502.5	645.1	858.0	998.9	1044.9	1037.9	1012.8	985.8	948.2
54.5°	424.8	441.1	487.6	624.7	833.4	970.5	1014.2	1007.2	981.7	956.6	920.3
55°	414.1	429.9	472.7	604.7	809.2	942.6	984.0	977.5	954.7	929.1	892.9
55.5°	403.9	418.8	458.3	584.7	785.1	913.8	955.6	948.2	924.5	900.3	865.9
56°	394.2	408.1	443.9	564.7	760.9	886.4	925.9	919.4	897.5	872.4	839.0
56.5°	383.9	397.4	430.4	545.7	737.6	860.3	897.5	891.0	868.2	845.9	812.9
57°	374.2	386.3	416.5	527.1	713.5	832.9	869.6	863.6	843.2	819.4	786.9
57.5°	364.9	376.5	403.4	508.0	691.2	806.4	841.8	836.2	815.3	793.4	761.8
58°	355.1	366.3	390.9	489.9	667.9	780.4	815.3	809.7	790.6	767.9	737.6
58.5°	346.3	356.5	378.3	472.2	645.6	755.3	789.2	784.1	764.1	743.7	713.0
59°	337.4	346.7	366.3	454.6	623.3	730.2	763.2	758.6	740.4	719.5	689.8
59.5°	328.6	337.4	354.6	437.4	601.5	706.0	737.2	733.5	715.3	695.3	666.1
60°	319.8	328.2	343.0	420.6	580.1	681.9	712.1	709.3	690.7	672.6	643.8
60.5°	311.4	318.9	331.9	404.8	559.2	658.2	688.4	685.6	667.9	650.3	621.4
61°	303.1	310.0	320.7	388.6	539.2	634.9	665.1	662.3	643.3	627.9	599.6
61.5°	294.7	301.7	311.0	373.2	518.7	612.6	641.9	639.6	621.4	606.1	578.7
62°	286.8	293.3	300.7	358.8	499.2	590.8	619.1	617.7	599.6	584.7	558.2
62.5°	278.9	284.9	291.0	344.4	480.6	569.4	596.8	595.4	576.8	563.8	538.2
63°	271.4	276.6	281.7	330.5	462.0	547.5	575.4	574.0	556.8	543.4	518.3
63.5°	264.0	268.7	272.4	316.5	443.0	526.6	554.0	553.1	535.5	523.4	499.7
64°	256.6	261.2	263.5	303.5	426.7	506.6	534.1	533.1	515.0	503.8	480.6
64.5°	249.1	253.3	255.2	291.0	410.0	487.1	514.1	513.1	496.4	485.3	462.5
65°	241.2	245.9	247.3	278.9	393.2	468.5	494.5	494.1	477.4	467.1	445.3
65.5°	233.8	238.4	238.9	267.3	376.5	449.9	475.5	475.5	458.3	449.0	428.1
66°	226.4	231.0	231.0	255.6	359.8	431.3	457.4	457.4	440.6	431.3	410.9



TEST NUMBER: P776806

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	203.1	209.2	209.2	224.0	313.7	381.1	405.8	406.2	391.4	382.5	363.9
68°	196.1	202.2	202.2	213.8	299.3	364.9	390.0	390.4	375.1	366.7	348.1
68.5°	188.7	195.2	195.2	204.5	285.9	348.1	373.7	374.2	359.3	350.9	333.3
69°	181.3	188.2	188.2	194.8	271.9	332.8	357.9	358.4	343.0	336.5	318.9
69.5°	174.3	180.8	181.7	186.4	259.4	317.5	341.6	342.6	328.6	322.1	304.9
70°	166.4	173.8	175.2	178.0	246.8	302.6	326.8	328.2	314.7	308.2	291.0
70.5°	159.9	166.4	169.2	170.1	234.7	288.6	311.9	313.7	300.7	294.7	278.0
71°	153.4	159.9	163.1	162.7	222.6	275.6	298.4	300.3	287.2	281.2	265.4
71.5°	146.4	153.8	157.1	155.7	211.5	262.1	284.9	286.8	273.8	268.2	252.9
72°	139.9	147.3	151.1	148.3	200.3	249.1	271.4	273.3	261.2	255.6	240.8
72.5°	133.4	141.3	145.5	141.3	189.6	236.6	258.9	260.8	248.7	243.6	228.7
73°	126.9	134.8	139.4	133.9	179.4	224.5	245.9	248.7	236.6	231.5	217.5
73.5°	119.9	128.3	133.4	127.8	169.2	212.9	234.7	236.6	225.0	220.3	206.4
74°	113.4	122.2	127.8	121.8	159.9	201.7	222.6	225.4	213.8	209.2	195.7
74.5°	107.4	116.2	122.2	115.7	150.6	191.0	211.0	213.8	202.7	198.9	185.5
75°	100.9	109.7	116.7	110.2	141.8	180.3	199.9	203.1	192.0	188.2	175.2
75.5°	94.8	104.1	111.1	105.0	132.9	170.1	189.6	192.4	181.7	178.0	165.5
76°	88.8	98.1	106.0	99.9	125.0	160.4	178.9	182.2	171.5	167.8	155.7
76.5°	83.2	92.0	100.4	94.8	117.1	150.6	169.2	172.4	162.2	158.5	146.9
77°	77.6	86.5	95.3	90.2	109.7	141.8	159.4	162.7	152.5	149.2	138.0
77.5°	73.0	80.9	90.2	86.0	102.3	132.9	150.1	153.4	143.2	140.4	129.2
78°	68.8	75.8	85.1	81.3	95.3	124.1	140.8	144.6	134.3	131.5	120.8
78.5°	64.6	71.1	79.9	77.2	88.3	116.2	132.5	135.7	126.0	123.2	112.9
79°	60.4	66.5	75.3	72.5	82.3	108.3	123.6	127.4	117.1	114.8	105.5
79.5°	56.7	62.3	70.6	68.3	75.8	100.4	115.7	119.0	109.2	107.4	97.6
80°	52.5	58.6	66.0	64.1	70.2	93.4	107.8	110.6	101.3	99.5	90.2
80.5°	49.3	54.4	61.4	60.4	64.1	86.5	99.9	103.2	93.4	92.0	83.7
81°	45.6	50.7	57.2	56.2	59.5	79.5	93.0	95.7	86.0	84.6	76.7
81.5°	41.8	46.5	53.5	52.1	53.9	73.0	85.5	88.3	78.6	77.6	70.2
82°	38.1	42.8	49.3	48.3	49.3	66.9	79.0	81.3	71.6	71.1	63.7
82.5°	34.9	39.0	45.6	44.6	44.6	60.9	72.0	74.4	64.6	64.6	57.6
83°	31.1	35.3	41.8	40.9	40.4	55.3	66.0	67.9	58.1	58.1	52.1
83.5°	27.4	31.6	38.1	37.6	36.7	50.2	59.5	61.4	51.1	52.1	46.9
84°	24.2	28.4	34.4	33.9	33.0	45.6	53.9	55.3	45.1	46.5	41.8
84.5°	20.9	24.6	30.7	30.7	28.8	40.4	47.9	49.3	38.6	40.9	36.7
85°	17.7	21.4	27.0	27.0	25.1	35.8	43.2	43.7	32.5	35.3	31.6
85.5°	14.9	17.7	23.7	23.7	21.8	31.1	38.1	38.6	26.5	29.7	26.5
86°	12.1	14.9	20.0	20.5	18.6	26.5	33.0	33.5	20.0	24.2	21.4
86.5°	9.3	12.5	17.2	17.2	15.8	22.8	27.9	27.9	14.9	20.0	17.2
87°	7.0	9.8	13.9	14.4	13.0	18.6	22.8	22.8	12.1	15.8	13.0
87.5°	4.6	7.0	11.2	11.6	10.2	14.9	18.6	18.1	9.3	12.1	8.8
88°	2.8	4.6	7.9	8.4	7.9	11.6	13.9	13.9	6.5	7.9	5.1
88.5°	1.4	2.8	5.1	5.6	5.6	8.4	10.2	9.3	3.7	3.7	1.4



TEST NUMBER: P776806

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-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	0.5	0.5	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776806

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1991.7	1991.7	1991.7	1991.7	1991.7	1991.7
0.5°	1997.3	1995.9	1988.4	1981.9	1975.9	1972.6
1°	2002.4	1995.4	1981.9	1970.3	1960.5	1956.8
1.5°	2007.5	1994.5	1974.9	1958.2	1945.2	1940.5
2°	2012.6	1993.5	1968.0	1946.6	1929.9	1923.8
2.5°	2017.7	1992.6	1961.0	1934.0	1915.0	1908.0
3°	2022.4	1991.2	1954.0	1922.0	1900.6	1892.7
3.5°	2026.5	1990.3	1946.6	1909.9	1886.6	1877.8
4°	2031.2	1988.9	1939.2	1898.3	1872.2	1863.9
4.5°	2035.4	1987.5	1931.7	1886.6	1858.7	1849.4
5°	2039.1	1986.1	1923.8	1875.5	1845.7	1836.0
5.5°	2042.8	1984.2	1916.4	1863.9	1832.7	1822.0
6°	2046.5	1982.4	1908.5	1853.2	1819.7	1808.5
6.5°	2049.8	1980.5	1901.0	1842.0	1806.7	1795.1
7°	2053.0	1978.7	1893.1	1831.3	1793.7	1781.1
7.5°	2056.3	1976.3	1885.2	1820.2	1780.7	1767.6
8°	2059.1	1974.0	1877.8	1809.5	1767.6	1754.2
8.5°	2061.9	1971.7	1869.4	1798.3	1754.6	1740.7
9°	2064.6	1968.9	1861.5	1787.2	1741.1	1727.2
9.5°	2067.0	1966.1	1853.6	1776.0	1728.6	1713.7
10°	2069.3	1963.3	1845.7	1765.3	1715.6	1700.2
10.5°	2071.2	1960.1	1837.4	1753.7	1702.6	1687.2
11°	2073.0	1956.8	1829.5	1742.5	1689.6	1673.3
11.5°	2074.4	1953.6	1821.1	1730.9	1676.5	1659.8
12°	2075.8	1950.3	1812.7	1719.8	1663.5	1646.3
12.5°	2077.2	1946.6	1803.9	1708.1	1650.5	1633.3
13°	2078.1	1942.4	1795.5	1696.5	1638.0	1619.8
13.5°	2079.1	1938.7	1786.7	1684.9	1624.5	1606.8
14°	2079.5	1934.5	1777.9	1673.3	1611.5	1593.3
14.5°	2079.5	1929.9	1769.0	1661.2	1598.5	1579.9
15°	2079.5	1925.2	1760.2	1649.6	1585.4	1566.8
15.5°	2079.5	1920.6	1750.4	1637.5	1571.5	1553.4
16°	2079.1	1915.4	1741.1	1625.4	1558.9	1540.4
16.5°	2078.6	1910.3	1731.9	1613.3	1545.9	1527.3
17°	2077.7	1904.8	1722.1	1601.7	1532.9	1513.9
17.5°	2076.3	1899.2	1711.9	1589.2	1519.4	1500.8
18°	2074.9	1893.6	1702.1	1577.1	1506.4	1487.4
18.5°	2073.0	1887.1	1691.9	1564.1	1492.9	1474.4
19°	2070.7	1881.1	1681.7	1552.0	1479.9	1461.3
19.5°	2068.4	1874.5	1671.0	1539.4	1466.9	1447.9
20°	2065.6	1867.6	1660.7	1527.3	1453.9	1434.8
20.5°	2062.8	1861.1	1649.6	1514.3	1440.4	1421.4
21°	2059.5	1853.6	1638.9	1501.3	1427.4	1408.3

TEST NUMBER: P776806

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	<i>2047.9</i>	<i>1830.4</i>	<i>1605.0</i>	<i>1462.7</i>	<i>1387.0</i>	<i>1367.9</i>
23°	2042.8	1822.5	1593.3	1450.2	1373.5	1354.4
23.5°	2038.2	1813.7	1581.7	1436.7	1360.0	1341.0
24°	2032.6	1805.3	1570.1	1423.7	1346.5	1327.5
24.5°	2027.0	1796.0	1558.0	1410.2	1332.6	1313.5
25°	2021.0	1786.7	1545.9	1397.2	1319.1	1299.6
25.5°	2014.9	1777.4	1533.4	1383.7	1305.6	1285.6
26°	2007.9	1768.1	1521.3	1370.2	1291.7	1271.7
26.5°	2001.0	1758.3	1508.7	1356.8	1277.3	1257.8
27°	1993.5	1747.7	1496.2	1343.3	1263.3	1242.9
27.5°	1985.6	1737.4	1483.2	1329.3	1248.9	1228.0
28°	1977.3	1726.7	1470.2	1315.4	1234.0	1213.6
28.5°	1968.9	1716.0	1457.2	1301.4	1220.1	1198.7
29°	1960.1	1704.4	1444.1	1288.0	1205.2	1183.4
29.5°	1950.8	1693.3	1431.1	1274.0	1190.8	1168.0
30°	1941.0	1681.7	1417.6	1260.1	1175.9	1152.7
30.5°	1930.8	1669.6	1403.7	1245.2	1160.6	1136.9
31°	1920.6	1657.5	1390.2	1231.3	1145.3	1120.6
31.5°	1909.4	1645.4	1376.7	1216.9	1129.5	1104.4
32°	1898.7	1631.9	1362.3	1202.4	1113.7	1087.6
32.5°	1886.6	1619.4	1348.4	1188.0	1097.9	1070.9
33°	1874.5	1605.9	1334.0	1173.2	1082.1	1054.6
33.5°	1861.5	1592.4	1320.0	1158.3	1065.3	1037.4
34°	1847.6	1578.0	1305.2	1143.4	1049.1	1020.7
34.5°	1833.6	1563.6	1290.8	1128.5	1032.8	1002.6
35°	1818.8	1549.2	1275.9	1113.2	1015.6	985.4
35.5°	1804.8	1535.7	1261.5	1097.9	998.9	967.3
36°	1791.8	1522.7	1247.1	1083.0	981.7	950.1
36.5°	1779.3	1509.7	1232.7	1067.2	964.0	931.5
37°	1766.2	1496.7	1218.2	1051.4	946.8	913.8
37.5°	1751.8	1483.6	1203.8	1036.0	929.1	895.2
38°	1735.6	1469.7	1189.4	1020.2	911.5	877.5
38.5°	1717.4	1454.8	1175.0	1004.9	893.3	858.5
39°	1696.5	1438.6	1161.1	988.6	875.7	841.3
39.5°	1674.7	1420.9	1145.7	973.3	857.6	823.6
40°	1651.4	1401.8	1129.9	956.6	839.9	806.9
40.5°	1628.2	1381.9	1113.7	940.8	821.3	789.2
41°	1604.0	1361.9	1096.9	924.5	803.6	773.4
41.5°	1578.5	1340.5	1080.2	908.2	786.0	757.2
42°	1552.9	1319.1	1062.1	891.0	768.8	742.3
42.5°	1526.9	1297.3	1043.9	874.3	752.5	726.9
43°	1500.8	1275.0	1025.4	857.1	735.8	711.6
43.5°	1473.0	1252.2	1006.8	839.4	720.0	696.7

TEST NUMBER: P776806

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1389.8	1182.5	947.7	785.5	673.5	654.0
45.5°	1360.9	1158.3	927.7	767.4	659.1	641.0
46°	1332.1	1135.0	907.8	748.3	643.8	627.0
46.5°	1304.7	1109.9	887.3	730.2	629.8	613.5
47°	1275.0	1085.8	866.9	711.1	615.9	600.5
47.5°	1245.7	1060.7	845.9	692.1	601.9	587.5
48°	1216.9	1037.0	825.5	673.0	588.0	575.0
48.5°	1189.0	1011.9	804.6	654.4	574.5	562.4
49°	1159.2	987.7	784.1	635.8	561.0	550.3
49.5°	1130.4	963.1	763.2	618.2	548.0	537.8
50°	1101.6	938.0	742.3	600.1	535.0	525.7
50.5°	1074.2	913.8	721.4	582.9	522.0	513.6
51°	1044.4	889.6	701.9	565.2	509.4	502.0
51.5°	1017.9	865.5	680.9	548.9	496.9	490.8
52°	989.1	840.8	660.9	532.2	484.8	479.2
52.5°	962.1	816.2	640.5	515.9	472.7	468.1
53°	934.7	793.0	620.5	499.7	461.1	456.9
53.5°	908.2	769.7	600.5	484.8	449.0	446.2
54°	880.8	746.0	581.5	469.4	437.4	435.1
54.5°	855.2	722.8	562.4	454.1	426.2	424.8
55°	829.2	700.9	543.4	439.7	415.1	414.1
55.5°	804.1	678.1	524.3	425.8	404.4	403.9
56°	778.5	656.3	506.6	411.8	393.7	394.2
56.5°	753.9	634.0	488.5	397.9	383.0	383.9
57°	729.7	612.6	470.8	384.9	372.3	374.2
57.5°	706.5	591.2	453.2	372.3	362.1	364.9
58°	682.8	571.2	436.9	360.2	352.3	355.1
58.5°	660.5	551.3	420.6	348.1	342.6	346.3
59°	637.2	531.3	404.8	336.5	333.3	337.4
59.5°	615.4	511.3	389.0	325.4	324.0	328.6
60°	594.0	492.7	374.2	314.7	314.7	319.8
60.5°	573.1	473.6	359.3	304.0	305.8	311.4
61°	552.2	456.0	344.9	293.8	297.0	303.1
61.5°	532.7	438.8	331.4	284.0	288.6	294.7
62°	512.7	421.1	317.9	274.7	280.3	286.8
62.5°	493.6	404.4	304.4	265.4	272.4	278.9
63°	474.6	387.6	291.9	256.6	264.5	271.4
63.5°	456.4	371.8	279.8	247.7	256.1	264.0
64°	438.3	356.0	268.2	239.8	249.1	256.6
64.5°	421.1	341.2	256.6	231.9	241.7	249.1
65°	405.3	326.3	245.9	224.0	234.3	241.2
65.5°	389.0	312.3	235.2	216.6	227.3	233.8
66°	372.8	297.9	225.0	209.6	220.3	226.4

TEST NUMBER: P776806

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	325.8	258.9	196.1	188.7	198.9	203.1
68°	311.4	246.3	187.3	182.2	191.5	196.1
68.5°	297.5	234.3	178.9	175.7	184.5	188.7
69°	284.0	223.1	170.6	169.7	177.6	181.3
69.5°	270.5	211.9	163.1	164.1	170.6	174.3
70°	257.5	200.8	155.7	158.0	164.1	166.4
70.5°	245.4	190.6	148.3	152.5	157.6	159.9
71°	233.3	180.3	140.8	146.4	151.1	153.4
71.5°	221.2	170.6	133.9	140.4	144.6	146.4
72°	210.1	161.8	127.4	134.8	138.0	139.9
72.5°	198.9	153.4	120.8	129.2	131.5	133.4
73°	188.2	144.6	114.3	123.6	125.0	126.9
73.5°	178.0	135.7	108.8	118.1	119.0	119.9
74°	168.3	126.9	103.2	112.9	112.9	113.4
74.5°	158.5	119.0	98.1	107.4	106.9	107.4
75°	149.2	111.6	93.0	102.3	100.9	100.9
75.5°	140.4	104.1	87.8	97.1	94.8	94.8
76°	131.5	97.1	83.2	92.0	89.2	88.8
76.5°	123.6	90.6	78.6	86.9	83.2	83.2
77°	115.3	84.1	74.4	81.8	78.1	77.6
77.5°	107.8	78.1	70.2	77.2	72.5	73.0
78°	100.4	72.0	66.5	72.0	67.9	68.8
78.5°	93.0	66.5	62.3	67.4	63.2	64.6
79°	86.5	60.9	58.1	63.2	59.0	60.4
79.5°	79.5	55.8	54.4	58.6	55.3	56.7
80°	73.0	50.7	50.7	53.9	51.1	52.5
80.5°	66.9	46.0	46.9	50.2	47.4	49.3
81°	61.4	41.8	43.2	46.0	43.7	45.6
81.5°	55.8	37.6	39.5	42.3	39.5	41.8
82°	50.2	33.5	36.3	38.6	35.8	38.1
82.5°	45.6	29.7	33.0	34.9	32.5	34.9
83°	41.4	26.5	29.7	31.6	28.8	31.1
83.5°	36.7	23.2	26.0	27.9	25.1	27.4
84°	32.1	20.0	23.2	24.6	21.8	24.2
84.5°	27.4	16.7	20.0	21.4	18.6	20.9
85°	22.8	14.4	16.7	18.1	15.8	17.7
85.5°	19.1	11.6	13.9	15.3	13.0	14.9
86°	15.3	9.3	11.2	12.5	10.2	12.1
86.5°	11.6	6.5	8.4	9.3	7.9	9.3
87°	8.4	4.6	5.6	6.5	5.6	7.0
87.5°	5.6	2.3	3.3	4.2	3.7	4.6
88°	2.3	0.9	0.9	1.9	2.3	2.8
88.5°	0.5	0.0	0.0	0.5	0.9	1.4



TEST NUMBER: P776806
CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-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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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°	1394.9	1426.0	1511.5	1658.9	1891.7	2107.4	2262.2	2348.6	2367.2	2323.5	2218.0
22°	1381.4	1413.5	1499.0	1648.7	1885.2	2105.1	2262.2	2349.6	2367.7	2323.5	2216.6



44°	682.3	719.5	853.8	1048.1	1340.5	1582.2	1698.9	1719.8	1692.3	1649.6	1574.7
44.5°	668.4	703.7	836.2	1030.0	1319.6	1555.7	1666.3	1684.4	1657.9	1614.7	1543.1



66.5°	218.5	224.0	223.6	244.5	343.0	414.1	439.2	439.2	423.4	414.6	395.5
67°	211.0	216.6	216.1	233.8	328.2	397.9	422.0	422.0	407.2	398.8	379.7



89°	0.5	1.4	2.3	3.3	3.7	5.1	6.0	4.6	0.9	0.5	0.0
89.5°	0.0	0.5	0.5	0.9	1.9	2.3	2.3	0.9	0.0	0.0	0.0

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21.5°	2055.8	1846.2	1627.7	1488.8	1413.9	1394.9
22°	2051.6	1838.3	1616.6	1475.7	1400.4	1381.4



44°	1446.0	1228.9	987.2	821.8	704.2	682.3
44.5°	1416.7	1205.7	967.3	804.1	688.8	668.4

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66.5°	357.0	284.5	215.2	202.7	212.9	218.5
67°	340.7	271.0	205.4	195.7	205.9	211.0

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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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Scaled Data Report



(END OF REPORT)