

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: P776834

Luminaire Tested: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776834
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B027)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K
Description: 8 INCH SQUARE MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4341.3 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.2 / 1.3
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')

CIE Type: Direct

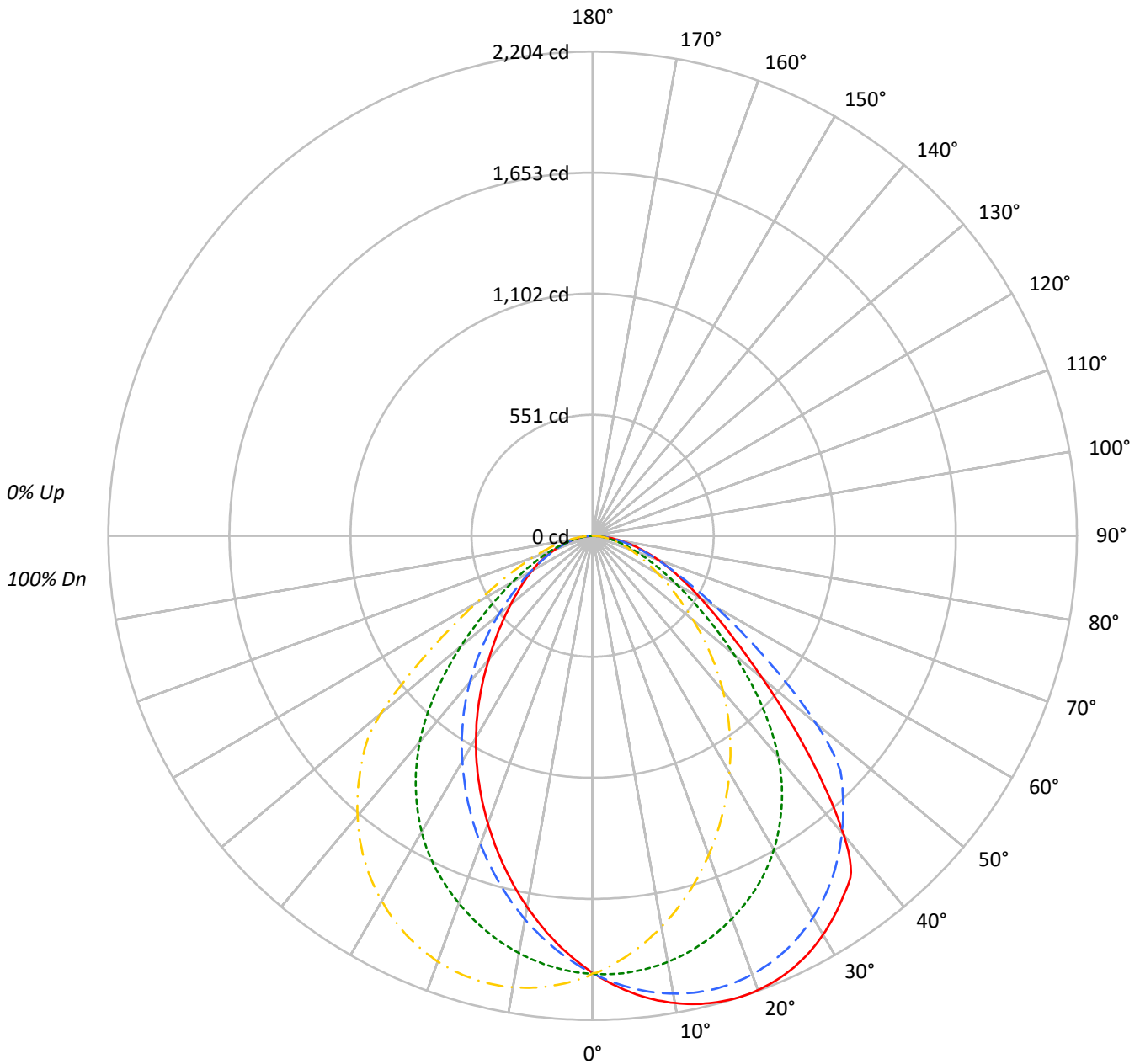
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

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	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	87																			
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	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	54	65	58	53	63	57	52	61	56	52	50																			
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																			
8	64	52	44	38	63	51	43	38	50	43	38	49	42	38	47	42	38	36																			
9	60	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32																			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	47770	47770	47770	47770
5°	50287	47986	44821	47485
10°	52592	47961	41772	46958
15°	54561	47732	38661	46275
20°	56158	47319	35569	45423
25°	57354	46713	32490	44440
30°	58062	45674	29393	43082
35°	58386	43929	26205	41075
40°	55676	41112	23038	38285
45°	46512	36820	20353	34240
50°	37718	31346	18171	29194
55°	31258	25719	16509	24260
60°	27086	21106	15265	20219
65°	24250	17617	14065	17038
70°	22077	14863	12725	14421
75°	20095	12498	11553	12183
80°	18020	10315	10122	9984
85°	14691	8006	6548	7346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 54525 cd/sqm



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.9	4.3
10°-20°	531.4	12.2
20°-30°	786.0	18.1
30°-40°	905.8	20.9
40°-50°	824.8	19.0
50°-60°	564.8	13.0
60°-70°	331.6	7.6
70°-80°	167.2	3.9
80°-90°	41.9	1.0
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°	1505.3	34.7
0°-40°	2411.1	55.5
0°-60°	3800.7	87.5
0°-90°	4341.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4341.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1992	1992	1992	1992	1992	
5°	2089	1994	1862	1973	2089	202
15°	2198	1923	1557	1864	2198	622
25°	2168	1766	1228	1680	2168	999
35°	1995	1501	895	1403	1995	1241
45°	1372	1086	600	1010	1372	1059
55°	748	615	395	580	748	679
65°	427	310	248	300	427	427
75°	217	135	125	132	217	231
85°	53	29	24	27	53	62
90°	0	0	0	0	0	



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2
0.5°	1999.9	2000.4	2000.4	1998.0	1995.6	1992.2	1989.3	1977.6	1977.1	1978.1	1982.5
1°	2011.1	2010.6	2008.7	2003.3	1996.0	1988.3	1982.0	1966.9	1965.0	1966.9	1973.2
1.5°	2021.8	2021.3	2016.4	2007.7	1997.0	1984.4	1974.2	1956.3	1953.4	1955.3	1964.0
2°	2032.0	2031.5	2024.7	2012.5	1997.0	1980.0	1966.0	1945.1	1940.7	1943.2	1954.3
2.5°	2042.6	2041.2	2032.4	2016.9	1997.0	1975.7	1957.7	1933.9	1928.1	1931.5	1944.6
3°	2052.3	2050.4	2040.2	2021.3	1997.0	1971.3	1949.5	1921.8	1915.5	1919.4	1934.4
3.5°	2062.0	2059.6	2047.5	2025.2	1996.5	1966.5	1940.7	1910.2	1902.4	1906.8	1924.2
4°	2071.7	2068.8	2054.3	2028.6	1996.0	1961.1	1931.5	1898.5	1889.3	1894.2	1913.6
4.5°	2080.5	2077.6	2060.6	2032.0	1995.1	1956.3	1922.8	1886.4	1875.7	1881.1	1902.9
5°	2089.2	2085.8	2067.4	2035.3	1993.6	1950.4	1913.1	1873.3	1862.1	1868.0	1891.7
5.5°	2097.9	2094.1	2073.7	2038.3	1992.2	1945.1	1903.4	1861.2	1848.1	1854.9	1880.6
6°	2106.2	2101.8	2079.5	2040.7	1990.7	1938.8	1893.7	1848.1	1834.0	1841.3	1869.4
6.5°	2113.9	2109.1	2084.8	2043.1	1988.8	1933.0	1883.5	1835.5	1820.4	1827.7	1858.3
7°	2121.7	2116.9	2090.2	2045.1	1986.8	1926.2	1873.3	1821.9	1805.4	1813.6	1846.1
7.5°	2129.0	2123.7	2095.5	2047.5	1984.4	1919.9	1862.6	1808.3	1791.3	1800.0	1834.5
8°	2135.8	2130.4	2100.4	2048.9	1982.0	1913.1	1851.9	1794.7	1776.3	1785.5	1822.4
8.5°	2142.1	2136.8	2104.7	2050.4	1979.6	1905.8	1840.8	1781.1	1761.2	1771.4	1810.2
9°	2148.4	2142.6	2108.6	2051.4	1976.6	1899.0	1830.1	1767.5	1746.2	1756.4	1797.6
9.5°	2154.7	2148.4	2113.0	2052.3	1973.2	1891.2	1819.0	1753.5	1731.1	1742.3	1785.5
10°	2160.0	2153.7	2116.4	2052.8	1969.8	1883.5	1807.3	1738.9	1715.6	1727.3	1772.9
10.5°	2165.4	2158.6	2119.8	2053.3	1966.0	1875.7	1795.7	1724.8	1700.6	1712.2	1759.8
11°	2170.7	2163.4	2122.7	2053.3	1962.1	1867.5	1783.5	1710.3	1685.0	1697.7	1746.7
11.5°	2175.1	2167.8	2125.6	2053.3	1958.2	1859.2	1771.9	1695.7	1669.5	1682.1	1733.1
12°	2179.4	2171.7	2128.0	2052.8	1953.8	1851.0	1759.8	1681.2	1653.5	1667.1	1720.0
12.5°	2183.3	2175.6	2130.0	2052.3	1949.5	1842.2	1747.6	1666.1	1638.0	1652.1	1706.9
13°	2187.2	2179.0	2131.9	2051.4	1944.6	1833.5	1735.0	1651.1	1622.0	1636.0	1693.3
13.5°	2190.1	2181.9	2133.4	2049.9	1939.3	1824.3	1722.4	1636.0	1606.0	1620.5	1679.7
14°	2193.0	2184.8	2134.8	2048.4	1933.9	1815.1	1709.3	1620.5	1589.9	1605.0	1665.6
14.5°	2195.9	2187.2	2135.8	2047.0	1928.6	1805.9	1696.7	1605.5	1573.9	1589.5	1651.6
15°	2197.9	2189.2	2136.3	2045.1	1922.8	1795.7	1683.6	1589.5	1557.4	1573.5	1637.5
15.5°	2199.8	2191.1	2136.8	2042.6	1917.0	1786.0	1670.5	1574.4	1541.4	1557.9	1623.4
16°	2201.3	2192.5	2136.3	2040.2	1910.7	1775.8	1656.9	1558.9	1524.9	1541.9	1609.4
16.5°	2202.7	2193.5	2135.8	2037.3	1904.8	1765.6	1643.3	1543.4	1508.9	1526.4	1595.3
17°	2203.2	2194.0	2135.3	2034.4	1898.0	1755.4	1629.7	1527.4	1492.4	1509.9	1580.2
17.5°	2203.7	2194.0	2134.3	2031.0	1891.2	1744.7	1615.7	1511.8	1475.9	1494.4	1566.2
18°	2204.2	2194.5	2132.9	2027.6	1884.5	1734.0	1602.1	1496.3	1459.4	1477.4	1551.6
18.5°	2203.7	2194.0	2131.4	2023.7	1877.2	1723.4	1588.0	1480.3	1442.9	1461.9	1536.6
19°	2203.2	2193.0	2129.5	2019.3	1869.4	1712.2	1573.9	1464.3	1426.4	1445.8	1522.0
19.5°	2202.3	2192.1	2127.0	2015.0	1862.1	1701.1	1559.9	1448.8	1410.4	1429.8	1507.5
20°	2200.8	2190.6	2124.6	2010.6	1854.4	1689.9	1545.8	1432.7	1393.9	1413.3	1491.9
20.5°	2199.3	2189.2	2121.7	2005.8	1846.6	1678.3	1531.2	1416.7	1377.0	1396.8	1476.9
21°	2196.9	2186.7	2118.3	2000.9	1838.4	1667.1	1516.7	1400.2	1360.5	1380.8	1462.3



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2188.7	2178.0	2106.7	1983.9	1813.1	1631.2	1472.5	1352.7	1311.0	1332.3	1416.7
23°	2185.3	2174.6	2102.3	1977.6	1803.9	1619.1	1458.0	1336.2	1294.5	1315.8	1401.7
23.5°	2181.4	2170.7	2097.5	1971.3	1794.7	1606.9	1443.4	1319.7	1278.0	1299.8	1386.7
24°	2177.0	2166.3	2092.6	1965.0	1785.5	1594.3	1428.4	1303.7	1261.5	1283.3	1371.1
24.5°	2172.7	2161.5	2086.8	1958.2	1775.8	1581.7	1413.3	1287.7	1244.5	1267.3	1355.6
25°	2167.8	2156.6	2081.0	1950.9	1765.6	1569.1	1398.3	1271.7	1228.0	1250.8	1340.6
25.5°	2162.0	2151.3	2074.6	1943.2	1755.4	1555.5	1383.3	1255.7	1212.0	1234.3	1325.5
26°	2156.2	2145.5	2068.8	1935.9	1745.2	1542.4	1368.2	1239.2	1195.0	1218.3	1309.5
26.5°	2150.3	2139.2	2062.0	1927.6	1734.5	1529.3	1353.2	1222.7	1178.0	1201.8	1294.5
27°	2144.0	2132.9	2054.8	1919.9	1723.4	1515.7	1337.7	1206.2	1161.5	1185.8	1278.9
27.5°	2137.2	2126.1	2047.5	1911.1	1711.7	1502.1	1322.6	1190.2	1145.5	1168.8	1263.4
28°	2129.5	2118.8	2039.7	1901.9	1700.1	1488.1	1307.1	1174.1	1128.5	1152.8	1247.9
28.5°	2122.2	2111.0	2032.0	1892.7	1688.0	1474.0	1292.0	1157.6	1111.6	1136.3	1232.9
29°	2113.9	2102.8	2023.7	1883.5	1675.8	1459.4	1276.5	1141.2	1095.1	1119.8	1216.8
29.5°	2105.7	2094.5	2015.5	1873.8	1662.7	1445.4	1261.0	1125.1	1078.6	1103.3	1201.3
30°	2097.0	2086.3	2006.2	1863.6	1649.6	1430.3	1245.5	1108.2	1061.6	1086.8	1185.8
30.5°	2088.2	2077.1	1997.0	1852.9	1636.0	1415.3	1230.4	1092.2	1044.6	1070.3	1170.3
31°	2078.5	2067.9	1987.8	1841.8	1622.5	1399.8	1214.4	1075.2	1028.1	1054.3	1154.7
31.5°	2068.8	2058.2	1978.1	1830.6	1608.4	1384.7	1198.4	1059.2	1011.6	1037.8	1139.2
32°	2059.1	2048.4	1967.9	1818.5	1593.8	1369.2	1182.9	1042.7	995.1	1021.3	1123.7
32.5°	2048.4	2037.8	1957.2	1806.3	1578.8	1352.7	1166.9	1026.2	978.1	1004.8	1108.2
33°	2038.3	2027.6	1946.6	1794.2	1563.7	1336.7	1151.3	1009.2	962.1	988.3	1092.6
33.5°	2027.6	2016.4	1935.4	1781.1	1548.7	1320.7	1135.3	993.7	945.1	972.3	1077.1
34°	2016.4	2005.8	1924.7	1768.0	1532.7	1304.7	1119.3	976.7	928.2	955.8	1060.6
34.5°	2005.3	1994.1	1912.6	1754.4	1516.7	1288.2	1103.3	960.2	911.7	939.3	1045.1
35°	1994.6	1982.5	1901.0	1740.4	1500.7	1271.7	1087.3	943.7	895.2	923.3	1029.6
35.5°	1983.9	1970.8	1888.3	1725.3	1483.7	1254.7	1070.8	927.7	878.7	906.8	1013.6
36°	1973.7	1958.7	1876.2	1710.8	1466.7	1238.7	1054.8	911.2	862.2	890.3	997.5
36.5°	1962.1	1947.0	1863.6	1695.2	1448.8	1221.7	1038.8	894.2	845.7	873.8	981.5
37°	1948.5	1935.4	1850.0	1679.7	1431.3	1204.2	1022.3	877.7	829.7	857.3	965.5
37.5°	1931.5	1923.8	1836.9	1664.2	1412.9	1186.8	1005.3	861.7	813.7	841.3	949.5
38°	1906.8	1912.6	1822.8	1647.7	1393.4	1169.8	989.3	845.2	797.6	825.3	933.5
38.5°	1881.1	1899.5	1808.8	1630.7	1374.5	1152.3	972.8	828.7	782.1	808.8	917.5
39°	1850.0	1884.9	1794.7	1612.8	1354.6	1134.8	956.3	812.7	766.6	793.3	901.5
39.5°	1815.6	1864.1	1780.1	1595.3	1334.7	1116.9	939.8	796.7	751.1	777.3	885.0
40°	1778.7	1841.3	1765.1	1576.8	1313.4	1098.9	923.3	780.7	736.0	761.7	869.0
40.5°	1738.4	1812.2	1750.5	1557.4	1292.5	1081.5	906.8	764.7	721.5	746.2	853.0
41°	1700.1	1782.1	1735.0	1537.1	1271.2	1063.0	889.8	749.6	706.9	731.7	836.5
41.5°	1658.4	1744.2	1719.5	1516.7	1249.3	1045.1	873.3	734.1	692.8	716.1	820.0
42°	1618.6	1709.8	1703.5	1494.9	1227.0	1026.7	856.8	719.0	678.8	701.6	804.0
42.5°	1576.8	1670.0	1687.5	1472.5	1204.2	1008.7	840.3	704.0	665.2	687.0	787.9
43°	1535.6	1633.1	1671.9	1449.2	1181.4	990.3	823.8	689.4	651.6	673.0	771.9
43.5°	1493.4	1591.9	1655.4	1426.9	1158.1	971.3	807.3	674.4	638.0	658.4	755.4



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1371.6	1472.0	1607.9	1350.8	1085.8	916.0	757.9	632.7	600.2	618.1	707.9
45.5°	1329.4	1430.8	1591.9	1325.0	1061.6	897.1	741.4	619.1	587.6	605.0	692.4
46°	1292.5	1392.0	1573.5	1298.4	1037.3	878.7	724.9	605.5	575.9	591.9	676.3
46.5°	1251.3	1350.3	1554.5	1270.7	1012.6	859.7	708.9	592.4	563.8	579.3	660.8
47°	1216.8	1313.4	1527.4	1242.6	987.8	841.3	692.4	579.8	552.1	567.2	645.8
47.5°	1176.1	1272.6	1501.6	1213.4	962.6	822.4	676.3	567.7	541.0	555.1	630.7
48°	1144.1	1237.2	1468.7	1183.8	938.8	804.0	660.3	554.6	529.8	543.4	616.2
48.5°	1105.7	1196.5	1437.6	1154.3	913.6	785.5	644.3	542.4	518.7	531.8	601.1
49°	1075.7	1163.5	1400.2	1124.7	888.9	767.1	628.8	530.8	508.0	520.1	586.6
49.5°	1039.3	1125.1	1365.3	1094.6	864.6	748.6	613.3	519.1	497.8	509.0	572.5
50°	1011.1	1093.6	1325.5	1064.5	840.3	730.2	597.7	507.5	487.1	497.8	558.4
50.5°	977.2	1058.2	1287.2	1033.4	815.1	711.8	582.7	496.3	476.9	487.1	544.4
51°	951.0	1026.7	1247.4	1002.4	791.8	693.8	568.2	485.2	467.7	476.9	530.8
51.5°	919.4	993.7	1209.1	971.8	768.0	676.3	553.6	474.0	458.0	466.3	517.7
52°	894.2	964.5	1168.3	941.7	744.8	658.4	539.0	463.8	448.3	456.1	504.6
52.5°	866.1	934.5	1131.0	911.7	721.5	640.4	525.0	453.2	438.6	446.4	491.5
53°	842.3	905.8	1091.7	881.1	699.6	623.0	511.4	443.0	429.4	436.2	478.9
53.5°	816.1	877.7	1054.8	851.0	677.3	606.0	497.8	432.8	420.7	427.0	466.3
54°	792.8	850.0	1016.5	821.4	656.0	589.0	484.2	423.6	411.9	417.7	454.6
54.5°	769.5	824.8	980.6	792.8	634.6	572.0	471.1	414.3	403.7	409.0	442.5
55°	747.7	798.1	945.6	764.2	615.2	555.5	458.5	404.6	394.9	399.8	430.8
55.5°	726.8	777.3	910.2	737.0	594.8	539.0	445.9	395.4	386.7	391.1	419.2
56°	705.5	750.6	877.7	710.3	575.4	523.0	433.3	386.2	378.0	382.3	408.5
56.5°	687.0	731.7	844.2	684.6	556.5	507.5	421.6	377.0	370.7	373.6	397.9
57°	665.7	706.9	814.1	659.4	538.6	492.0	410.0	369.2	362.9	365.3	387.2
57.5°	649.7	689.4	782.1	635.6	520.6	476.9	398.8	361.0	355.2	357.1	376.5
58°	629.8	666.6	753.5	611.8	503.6	462.4	387.2	352.7	347.4	348.8	365.8
58.5°	615.2	648.7	725.4	590.0	487.1	447.8	376.0	344.5	339.6	341.1	355.6
59°	595.8	628.8	697.7	568.6	470.6	433.8	364.4	336.2	332.4	333.3	345.5
59.5°	582.7	611.3	672.5	548.3	455.1	420.7	353.7	328.5	325.1	325.6	335.7
60°	564.8	592.9	646.3	528.4	440.1	407.6	343.0	320.7	318.3	318.3	326.0
60.5°	550.2	574.5	623.9	509.4	425.0	394.5	333.3	312.9	311.0	311.0	316.8
61°	534.7	558.9	598.7	491.0	411.4	381.4	323.1	305.2	304.2	303.7	307.6
61.5°	520.1	540.5	578.3	474.0	397.9	368.3	312.9	297.9	297.4	296.9	298.9
62°	506.0	526.4	556.5	457.5	383.8	355.6	303.7	291.1	290.6	289.7	289.7
62.5°	492.0	509.9	535.2	441.5	370.2	344.0	294.5	283.8	283.3	282.9	281.4
63°	478.4	495.4	516.7	426.0	358.1	331.9	285.3	277.0	276.1	276.1	273.2
63.5°	465.3	480.3	497.3	411.4	345.5	320.7	276.1	270.2	269.3	269.3	264.9
64°	452.7	465.3	479.8	396.4	333.8	309.5	267.3	263.5	262.0	262.5	257.1
64.5°	439.6	452.2	462.4	382.8	322.2	298.9	259.1	256.7	254.7	255.2	249.4
65°	427.4	438.1	444.9	369.7	310.5	288.2	250.8	249.9	247.9	248.4	241.6
65.5°	415.3	425.5	429.9	356.6	299.4	278.0	243.1	242.6	241.1	241.6	234.3
66°	403.2	412.4	413.9	344.0	288.7	267.8	235.3	235.8	234.3	235.3	227.1



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	368.7	374.6	370.7	308.6	258.1	238.7	213.0	216.4	214.5	215.9	206.7
68°	358.1	362.9	357.1	297.9	248.4	230.0	206.2	210.1	207.7	209.6	200.4
68.5°	346.9	351.3	344.5	287.2	239.2	221.2	199.4	204.3	201.4	203.3	193.6
69°	336.2	340.1	331.4	276.6	230.0	212.5	192.6	198.0	194.6	197.0	187.3
69.5°	326.0	329.0	319.3	266.4	220.8	203.8	186.3	191.6	188.3	191.2	181.5
70°	314.9	317.8	307.6	256.2	212.0	195.5	180.0	185.8	181.5	184.9	175.2
70.5°	304.7	306.6	296.0	246.5	203.3	187.8	174.2	180.0	175.6	179.0	169.3
71°	294.5	296.0	284.8	237.3	195.0	180.5	167.9	173.7	168.8	172.7	163.5
71.5°	284.3	285.8	273.6	228.0	186.8	172.7	162.1	167.9	163.0	166.4	157.7
72°	274.6	275.6	263.0	218.8	179.0	165.0	156.2	161.6	157.2	160.6	152.3
72.5°	264.9	265.4	252.8	209.6	171.3	158.2	150.4	155.7	151.9	154.8	147.0
73°	255.2	255.7	242.6	201.4	163.5	150.9	145.1	149.9	146.5	149.4	141.7
73.5°	245.0	245.5	232.4	192.6	156.2	144.1	139.7	144.6	140.7	143.6	136.3
74°	235.8	235.8	222.7	184.4	149.0	137.3	134.4	139.2	135.4	138.3	131.0
74.5°	226.6	226.1	213.0	176.1	142.2	131.0	129.1	133.4	130.0	132.5	125.7
75°	216.9	216.9	203.8	168.8	134.9	124.7	124.2	128.6	124.7	127.1	120.3
75.5°	208.1	207.7	194.6	161.1	128.1	118.4	118.9	122.8	119.4	121.8	115.5
76°	198.9	198.4	185.8	153.8	121.8	112.6	114.0	117.4	114.0	116.4	110.1
76.5°	189.7	189.2	177.1	146.0	115.5	106.7	109.2	112.1	109.2	111.1	104.8
77°	181.0	180.5	168.8	138.8	109.2	100.9	104.3	106.7	103.8	105.8	100.4
77.5°	172.7	171.8	160.6	131.5	102.9	95.6	99.0	101.4	99.0	100.4	95.1
78°	164.5	163.5	152.3	124.2	97.0	90.2	94.1	96.1	93.6	95.1	90.2
78.5°	155.7	155.3	144.1	117.4	91.2	84.9	89.3	91.2	88.8	90.2	85.4
79°	147.5	146.5	135.9	110.6	85.9	80.1	84.9	85.9	83.5	84.9	80.5
79.5°	138.8	138.3	127.6	103.8	80.1	75.2	80.1	80.5	78.6	80.1	75.7
80°	130.5	130.0	119.8	97.5	74.7	70.4	75.2	75.2	73.3	75.2	70.8
80.5°	122.3	121.8	112.1	90.7	69.4	66.0	70.8	69.9	68.4	69.9	66.0
81°	114.5	114.0	104.8	84.9	64.5	61.6	66.0	64.5	63.6	65.0	61.6
81.5°	106.3	105.8	97.5	78.6	59.7	57.3	61.1	59.2	58.2	59.7	56.8
82°	98.5	98.5	90.2	72.8	54.8	52.9	56.3	54.3	53.4	54.8	52.4
82.5°	90.7	90.7	83.0	67.0	50.0	49.0	51.9	49.0	48.5	50.0	47.5
83°	83.0	83.0	76.2	61.1	46.1	45.1	47.1	44.2	43.2	44.6	43.2
83.5°	75.2	75.7	68.9	55.3	41.7	41.2	42.7	38.8	38.3	39.8	38.8
84°	67.9	68.4	62.1	50.5	37.4	37.4	38.3	34.0	33.5	34.9	34.4
84.5°	60.6	61.1	55.8	45.1	33.0	33.5	34.4	29.1	28.6	30.1	30.6
85°	53.4	53.9	49.5	40.3	29.1	29.6	30.1	23.8	23.8	24.7	26.2
85.5°	46.1	46.6	43.7	34.9	24.7	25.7	25.7	19.4	18.9	20.4	22.3
86°	38.8	39.8	37.8	30.6	20.9	22.3	21.8	15.5	15.0	16.0	18.4
86.5°	31.5	33.0	32.5	25.7	17.5	18.4	18.0	12.1	11.6	12.6	14.6
87°	24.7	26.7	26.7	21.3	14.1	14.6	14.1	8.7	8.7	9.7	11.2
87.5°	19.9	21.3	21.3	16.5	10.7	11.2	10.7	5.8	5.8	6.3	7.3
88°	16.0	16.5	16.5	12.6	7.3	7.8	6.8	2.9	2.9	3.4	3.9
88.5°	12.1	12.6	12.6	8.7	4.4	3.9	3.4	1.0	1.0	1.0	1.0



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1992.2	1992.2	1992.2	1992.2	1992.2	1992.2
0.5°	1987.3	1993.6	1998.5	2003.8	1998.0	1999.9
1°	1981.5	1992.2	2001.4	2010.6	2007.7	2011.1
1.5°	1975.7	1990.2	2004.3	2016.9	2016.9	2021.8
2°	1969.4	1988.8	2006.7	2023.2	2026.1	2032.0
2.5°	1963.1	1986.3	2009.1	2029.5	2035.3	2042.6
3°	1956.3	1984.4	2011.1	2034.9	2044.6	2052.3
3.5°	1949.5	1981.5	2012.5	2040.7	2052.8	2062.0
4°	1942.7	1979.1	2014.0	2046.0	2061.1	2071.7
4.5°	1935.4	1976.2	2015.5	2050.9	2068.8	2080.5
5°	1927.6	1972.8	2016.4	2055.2	2076.6	2089.2
5.5°	1920.4	1969.4	2017.4	2059.6	2083.4	2097.9
6°	1912.6	1966.0	2017.9	2064.0	2090.7	2106.2
6.5°	1904.3	1962.1	2017.9	2067.9	2097.5	2113.9
7°	1896.1	1957.7	2017.9	2071.7	2103.8	2121.7
7.5°	1887.4	1953.8	2017.9	2074.6	2110.1	2129.0
8°	1878.6	1949.0	2017.4	2077.6	2115.9	2135.8
8.5°	1869.9	1944.6	2016.9	2080.5	2121.2	2142.1
9°	1861.2	1939.3	2015.5	2082.9	2126.6	2148.4
9.5°	1851.9	1934.4	2014.5	2084.8	2131.4	2154.7
10°	1842.2	1928.6	2013.0	2086.8	2135.8	2160.0
10.5°	1833.0	1923.3	2011.6	2088.2	2140.1	2165.4
11°	1823.3	1917.4	2009.6	2089.7	2144.0	2170.7
11.5°	1813.1	1911.6	2007.2	2090.7	2147.4	2175.1
12°	1802.9	1905.3	2004.8	2091.6	2150.8	2179.4
12.5°	1792.8	1899.0	2002.4	2092.1	2153.7	2183.3
13°	1782.6	1892.2	1999.0	2092.1	2156.2	2187.2
13.5°	1771.9	1885.4	1996.0	2091.6	2158.6	2190.1
14°	1761.2	1878.6	1992.7	2091.1	2160.5	2193.0
14.5°	1750.1	1871.4	1988.8	2090.7	2162.0	2195.9
15°	1738.9	1864.1	1984.9	2089.2	2163.0	2197.9
15.5°	1727.7	1856.3	1980.5	2087.7	2163.9	2199.8
16°	1716.6	1848.6	1976.2	2086.3	2164.9	2201.3
16.5°	1704.9	1840.8	1971.8	2084.4	2164.9	2202.7
17°	1693.3	1832.5	1966.9	2081.9	2164.9	2203.2
17.5°	1681.2	1824.3	1961.6	2079.5	2164.4	2203.7
18°	1669.5	1815.6	1956.3	2076.6	2163.4	2204.2
18.5°	1657.4	1806.8	1950.9	2073.2	2162.5	2203.7
19°	1645.3	1798.1	1945.1	2069.8	2161.0	2203.2
19.5°	1633.1	1789.4	1938.8	2065.9	2159.1	2202.3
20°	1620.5	1780.1	1933.0	2062.0	2156.6	2200.8
20.5°	1607.9	1770.9	1926.2	2057.7	2154.2	2199.3
21°	1595.3	1761.2	1919.4	2052.3	2151.3	2196.9



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1557.0	1732.1	1898.0	2036.8	2140.6	2188.7
23°	1543.9	1721.9	1890.8	2031.0	2136.3	2185.3
23.5°	1530.8	1711.7	1883.0	2024.7	2131.9	2181.4
24°	1517.7	1701.5	1875.2	2018.4	2127.0	2177.0
24.5°	1504.1	1690.9	1867.0	2011.6	2121.7	2172.7
25°	1491.0	1679.7	1858.7	2004.8	2115.9	2167.8
25.5°	1477.4	1668.5	1850.0	1997.5	2109.6	2162.0
26°	1463.8	1657.4	1841.3	1989.7	2103.8	2156.2
26.5°	1449.7	1645.7	1832.1	1982.0	2097.0	2150.3
27°	1436.1	1634.1	1822.8	1973.7	2089.7	2144.0
27.5°	1422.1	1622.0	1813.1	1965.5	2082.4	2137.2
28°	1408.0	1609.4	1802.9	1956.7	2074.6	2129.5
28.5°	1393.0	1596.7	1792.8	1948.0	2066.4	2122.2
29°	1378.9	1583.6	1782.1	1938.8	2058.2	2113.9
29.5°	1363.9	1570.1	1771.4	1929.6	2048.9	2105.7
30°	1348.8	1556.0	1759.8	1919.9	2040.2	2097.0
30.5°	1333.8	1541.9	1747.6	1910.2	2031.0	2088.2
31°	1318.2	1527.8	1736.0	1899.5	2021.3	2078.5
31.5°	1303.2	1512.8	1723.4	1889.3	2011.1	2068.8
32°	1287.7	1497.8	1710.3	1878.6	2000.9	2059.1
32.5°	1271.7	1482.7	1696.7	1867.5	1990.2	2048.4
33°	1256.1	1467.2	1683.1	1856.3	1979.1	2038.3
33.5°	1239.6	1451.7	1669.0	1844.2	1967.9	2027.6
34°	1223.1	1435.2	1654.5	1832.5	1956.7	2016.4
34.5°	1207.1	1419.6	1639.4	1820.4	1945.1	2005.3
35°	1191.6	1403.2	1624.4	1807.8	1933.0	1994.6
35.5°	1174.6	1386.7	1608.9	1795.2	1920.8	1983.9
36°	1158.1	1369.2	1593.3	1782.1	1908.7	1973.7
36.5°	1141.6	1352.2	1576.8	1768.5	1896.1	1962.1
37°	1125.6	1334.7	1560.4	1754.4	1883.5	1948.5
37.5°	1108.6	1316.8	1543.4	1740.4	1870.9	1931.5
38°	1092.2	1298.4	1525.9	1725.8	1858.7	1906.8
38.5°	1075.2	1279.9	1508.0	1710.8	1846.6	1881.1
39°	1059.2	1261.5	1490.0	1695.7	1835.0	1850.0
39.5°	1041.2	1243.0	1470.6	1680.2	1820.9	1815.6
40°	1024.7	1223.1	1451.7	1664.2	1806.3	1778.7
40.5°	1007.7	1203.3	1431.8	1648.2	1783.5	1738.4
41°	990.7	1183.4	1410.9	1632.2	1761.2	1700.1
41.5°	973.8	1163.0	1389.6	1615.2	1732.1	1658.4
42°	956.8	1142.1	1368.2	1598.2	1702.0	1618.6
42.5°	939.8	1120.8	1345.9	1581.2	1666.6	1576.8
43°	922.8	1098.9	1322.6	1564.2	1633.6	1535.6
43.5°	905.4	1077.1	1298.4	1546.3	1595.8	1493.4

TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	853.4	1009.7	1221.2	1491.5	1484.7	1371.6
45.5°	835.5	986.4	1194.5	1472.5	1445.8	1329.4
46°	818.0	964.1	1166.4	1454.6	1408.5	1292.5
46.5°	800.6	941.3	1138.7	1435.2	1370.2	1251.3
47°	783.1	918.0	1110.1	1416.7	1333.3	1216.8
47.5°	766.1	895.2	1082.0	1395.9	1294.5	1176.1
48°	748.2	872.4	1053.3	1374.5	1258.6	1144.1
48.5°	731.2	849.6	1024.2	1350.8	1221.2	1105.7
49°	713.7	827.2	995.6	1320.2	1186.8	1075.7
49.5°	696.7	805.4	967.5	1291.1	1150.9	1039.3
50°	679.7	782.6	938.8	1256.6	1118.3	1011.1
50.5°	662.3	760.8	910.2	1221.7	1082.9	977.2
51°	645.8	738.9	881.6	1185.3	1050.9	951.0
51.5°	628.8	718.1	853.9	1147.5	1018.9	919.4
52°	612.3	696.7	826.8	1109.1	989.3	894.2
52.5°	595.8	676.3	800.1	1073.2	957.8	866.1
53°	579.3	656.5	772.9	1035.9	927.7	842.3
53.5°	563.8	637.0	747.2	999.5	900.5	816.1
54°	547.8	617.2	722.4	963.1	871.9	792.8
54.5°	532.2	598.7	698.2	928.6	846.2	769.5
55°	516.7	580.3	674.9	895.2	817.5	747.7
55.5°	501.7	562.8	651.6	861.2	794.7	726.8
56°	486.6	545.3	629.3	829.7	767.6	705.5
56.5°	472.6	528.4	608.4	798.1	746.7	687.0
57°	458.0	511.4	587.6	768.5	720.5	665.7
57.5°	443.9	495.4	567.7	739.4	701.1	649.7
58°	430.4	479.8	548.3	711.8	677.3	629.8
58.5°	417.7	464.8	530.3	685.1	658.4	615.2
59°	405.1	450.3	512.8	658.4	637.5	595.8
59.5°	392.5	435.7	495.9	635.1	618.1	582.7
60°	379.9	421.6	478.9	610.8	599.7	564.8
60.5°	366.8	407.6	463.4	588.0	581.3	550.2
61°	354.7	394.5	447.8	565.7	564.8	534.7
61.5°	343.5	381.8	433.3	544.9	546.3	520.1
62°	331.9	369.2	419.2	525.0	531.8	506.0
62.5°	320.7	356.6	405.6	506.0	514.8	492.0
63°	309.5	345.0	391.5	487.6	499.7	478.4
63.5°	299.4	333.3	378.9	470.1	484.7	465.3
64°	289.2	321.7	366.3	452.2	469.2	452.7
64.5°	279.0	310.5	354.2	436.7	455.6	439.6
65°	268.8	300.3	342.1	420.7	441.0	427.4
65.5°	259.1	289.2	330.4	406.1	428.4	415.3
66°	249.9	279.0	319.3	391.1	414.8	403.2



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	223.2	249.4	287.2	351.3	376.5	368.7
68°	214.9	240.7	276.6	337.7	364.9	358.1
68.5°	206.7	231.4	266.9	326.0	353.2	346.9
69°	198.9	222.7	257.1	313.9	341.1	336.2
69.5°	190.7	214.0	247.9	302.3	329.9	326.0
70°	183.4	205.7	238.7	291.1	318.8	314.9
70.5°	175.6	197.0	229.5	280.0	307.6	304.7
71°	168.4	189.2	220.3	269.3	297.4	294.5
71.5°	161.6	181.0	212.0	258.6	286.7	284.3
72°	154.8	174.2	203.3	248.4	276.1	274.6
72.5°	148.0	166.9	195.0	238.7	265.9	264.9
73°	141.2	159.6	186.8	228.5	255.7	255.2
73.5°	134.9	152.3	178.5	219.3	246.0	245.0
74°	128.6	145.1	171.3	210.1	236.3	235.8
74.5°	122.8	138.3	164.0	200.4	226.6	226.6
75°	116.9	131.5	156.7	191.6	216.9	216.9
75.5°	111.1	124.7	149.0	182.9	207.7	208.1
76°	105.3	118.4	141.7	172.7	198.9	198.9
76.5°	99.9	112.1	134.4	165.0	189.7	189.7
77°	95.1	106.3	127.6	157.2	180.5	181.0
77.5°	90.2	99.9	120.8	149.4	171.8	172.7
78°	84.9	94.1	114.0	141.2	163.5	164.5
78.5°	80.1	88.8	107.7	133.4	155.3	155.7
79°	75.7	83.0	100.9	125.7	147.0	147.5
79.5°	71.3	77.6	94.6	117.9	138.3	138.8
80°	67.0	72.3	88.3	110.1	130.0	130.5
80.5°	62.6	67.4	82.5	102.9	121.8	122.3
81°	58.2	62.1	76.7	95.6	114.0	114.5
81.5°	53.9	57.3	70.8	88.3	106.3	106.3
82°	50.0	52.9	65.0	81.0	98.0	98.5
82.5°	45.6	48.0	59.7	74.2	90.7	90.7
83°	41.7	43.7	54.3	67.4	83.0	83.0
83.5°	37.8	39.3	49.0	60.6	75.7	75.2
84°	34.0	34.9	43.7	54.3	67.9	67.9
84.5°	30.1	31.1	38.8	48.0	60.6	60.6
85°	26.2	26.7	34.0	42.2	53.9	53.4
85.5°	22.3	23.3	29.1	36.9	46.6	46.1
86°	18.4	19.4	24.7	31.1	39.8	38.8
86.5°	15.0	16.0	20.4	25.7	33.5	31.5
87°	11.2	12.6	16.5	20.9	27.7	24.7
87.5°	7.3	9.2	12.6	15.5	22.3	19.9
88°	3.9	5.8	8.7	11.6	17.5	16.0
88.5°	1.0	2.4	4.9	7.8	13.1	12.1



TEST NUMBER: P776834

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.5	0.5



Report Generated By 670245859 / DESKTOP-T8S5UU9

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°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	2194.5	2184.3	2114.9	1995.6	1830.1	1655.0	1502.1	1384.2	1344.4	1364.8	1447.3
22°	2192.1	2181.4	2111.0	1989.7	1821.9	1643.3	1487.6	1368.2	1327.5	1348.8	1431.8



44°	1452.6	1552.1	1639.4	1402.2	1134.4	952.9	790.9	660.8	625.4	644.8	739.4
44.5°	1410.9	1511.3	1623.4	1377.0	1110.6	934.5	774.4	646.3	612.3	631.2	723.9



66.5°	392.0	399.3	398.8	331.9	278.5	257.6	227.6	229.5	227.6	228.5	220.3
67°	380.4	387.2	384.8	320.2	268.3	248.4	220.3	223.2	220.8	222.2	213.5



89°	8.2	8.2	8.2	4.9	1.5	1.0	1.0	0.5	0.0	0.5	0.5
89.5°	4.4	4.4	4.4	1.0	0.0	0.0	0.0	0.5	0.0	0.5	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	1582.7	1751.5	1912.6	2047.5	2148.4	2194.5
22°	1570.1	1741.8	1905.3	2042.6	2144.5	2192.1



44°	887.9	1054.8	1273.6	1528.3	1560.4	1452.6
44.5°	870.9	1032.5	1247.9	1509.9	1521.5	1410.9



66.5°	241.1	269.3	308.1	377.5	401.7	392.0
67°	231.9	259.6	297.4	363.9	389.6	380.4

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



89°	0.0	0.5	1.0	3.9	8.7	8.2
89.5°	0.0	0.0	0.0	0.5	4.9	4.4

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)