

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: P776830

Luminaire Tested: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776830
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-2700K
Description: 8 INCH SQUARE MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4075.3 lumens
Efficiency: N/A
Efficacy: 84.9 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

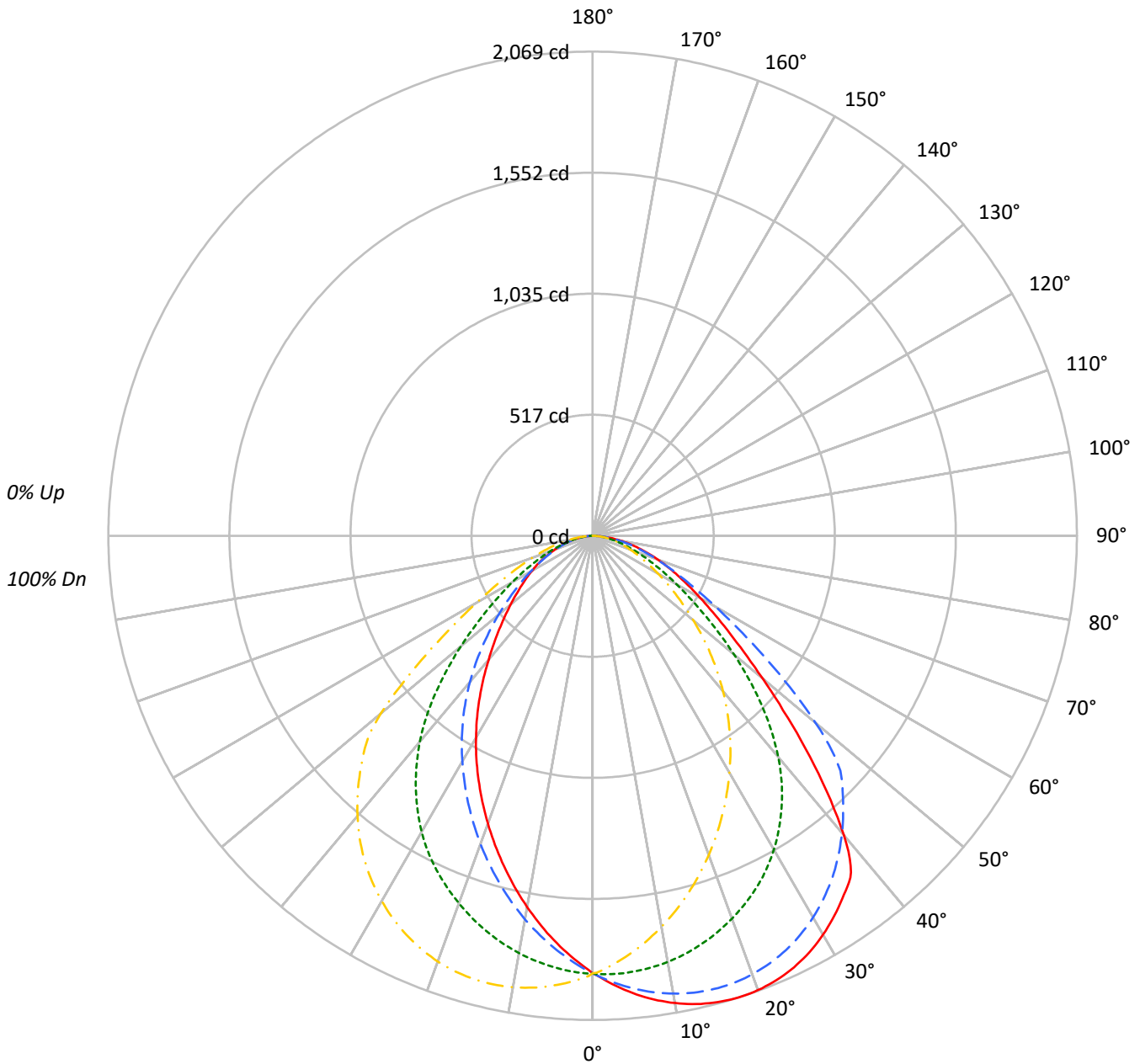
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

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°	44842	44842	44842	44842
5°	47206	45045	42074	44575
10°	49371	45022	39213	44080
15°	51217	44805	36293	43438
20°	52716	44418	33389	42639
25°	53841	43850	30497	41718
30°	54504	42875	27591	40441
35°	54809	41236	24597	38557
40°	52264	38592	21626	35941
45°	43663	34565	19105	32140
50°	35409	29425	17059	27403
55°	29339	24142	15497	22771
60°	25422	19811	14330	18981
65°	22769	16539	13203	15994
70°	20724	13952	11939	13538
75°	18863	11729	10849	11432
80°	16916	9680	9500	9376
85°	13784	7511	6135	6878

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 51185 cd/sqm



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.3	4.3
10°-20°	498.8	12.2
20°-30°	737.8	18.1
30°-40°	850.3	20.9
40°-50°	774.2	19.0
50°-60°	530.2	13.0
60°-70°	311.3	7.6
70°-80°	156.9	3.9
80°-90°	39.3	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°	1413.0	34.7
0°-40°	2263.3	55.5
0°-60°	3567.7	87.5
0°-90°	4075.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4075.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1870	1870	1870	1870	1870	
5°	1961	1871	1748	1852	1961	189
15°	2063	1805	1462	1750	2063	584
25°	2035	1657	1153	1577	2035	938
35°	1872	1409	840	1317	1872	1165
45°	1288	1019	563	948	1288	994
55°	702	578	371	545	702	637
65°	401	292	233	282	401	401
75°	204	127	117	123	204	217
85°	50	27	22	25	50	58
90°	0	0	0	0	0	



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1
0.5°	1877.4	1877.8	1877.8	1875.5	1873.3	1870.1	1867.3	1856.4	1856.0	1856.9	1861.0
1°	1887.8	1887.4	1885.6	1880.6	1873.7	1866.4	1860.5	1846.4	1844.6	1846.4	1852.3
1.5°	1897.9	1897.4	1892.9	1884.7	1874.6	1862.8	1853.2	1836.4	1833.6	1835.5	1843.7
2°	1907.4	1907.0	1900.6	1889.2	1874.6	1858.7	1845.5	1825.9	1821.8	1824.1	1834.6
2.5°	1917.4	1916.1	1907.9	1893.3	1874.6	1854.6	1837.7	1815.4	1810.0	1813.1	1825.4
3°	1926.6	1924.7	1915.2	1897.4	1874.6	1850.5	1830.0	1804.0	1798.1	1801.8	1815.9
3.5°	1935.7	1933.4	1922.0	1901.0	1874.2	1845.9	1821.8	1793.1	1785.8	1789.9	1806.3
4°	1944.8	1942.0	1928.4	1904.2	1873.7	1840.9	1813.1	1782.2	1773.5	1778.1	1796.3
4.5°	1953.0	1950.2	1934.3	1907.4	1872.8	1836.4	1804.9	1770.8	1760.8	1765.8	1786.3
5°	1961.2	1958.0	1940.7	1910.6	1871.4	1830.9	1795.8	1758.5	1748.0	1753.5	1775.8
5.5°	1969.4	1965.7	1946.6	1913.3	1870.1	1825.9	1786.7	1747.1	1734.8	1741.2	1765.3
6°	1977.1	1973.0	1952.1	1915.6	1868.7	1820.0	1777.6	1734.8	1721.6	1728.4	1754.9
6.5°	1984.4	1979.8	1957.1	1917.9	1866.9	1814.5	1768.1	1723.0	1708.8	1715.7	1744.4
7°	1991.7	1987.1	1962.1	1919.7	1865.1	1808.1	1758.5	1710.2	1694.7	1702.5	1733.0
7.5°	1998.5	1993.5	1967.1	1922.0	1862.8	1802.2	1748.5	1697.5	1681.5	1689.7	1722.1
8°	2004.9	1999.9	1971.6	1923.4	1860.5	1795.8	1738.5	1684.7	1667.4	1676.1	1710.7
8.5°	2010.8	2005.8	1975.7	1924.7	1858.2	1789.0	1728.0	1672.0	1653.3	1662.8	1699.3
9°	2016.7	2011.3	1979.4	1925.6	1855.5	1782.6	1718.0	1659.2	1639.2	1648.7	1687.4
9.5°	2022.7	2016.7	1983.5	1926.6	1852.3	1775.3	1707.5	1646.0	1625.0	1635.5	1676.1
10°	2027.7	2021.7	1986.7	1927.0	1849.1	1768.1	1696.6	1632.3	1610.5	1621.4	1664.2
10.5°	2032.7	2026.3	1989.9	1927.5	1845.5	1760.8	1685.6	1619.1	1596.4	1607.3	1651.9
11°	2037.7	2030.9	1992.6	1927.5	1841.8	1753.0	1674.2	1605.5	1581.8	1593.6	1639.6
11.5°	2041.8	2035.0	1995.3	1927.5	1838.2	1745.3	1663.3	1591.8	1567.2	1579.0	1626.9
12°	2045.9	2038.6	1997.6	1927.0	1834.1	1737.5	1651.9	1578.1	1552.2	1564.9	1614.6
12.5°	2049.5	2042.2	1999.4	1926.6	1830.0	1729.3	1640.5	1564.0	1537.6	1550.8	1602.3
13°	2053.2	2045.4	2001.2	1925.6	1825.4	1721.1	1628.7	1549.9	1522.6	1535.8	1589.5
13.5°	2055.9	2048.2	2002.6	1924.3	1820.4	1712.5	1616.8	1535.8	1507.5	1521.2	1576.8
14°	2058.6	2050.9	2004.0	1922.9	1815.4	1703.8	1604.6	1521.2	1492.5	1506.6	1563.6
14.5°	2061.4	2053.2	2004.9	1921.5	1810.4	1695.2	1592.7	1507.1	1477.5	1492.1	1550.4
15°	2063.2	2055.0	2005.3	1919.7	1804.9	1685.6	1580.4	1492.1	1462.0	1477.0	1537.1
15.5°	2065.0	2056.8	2005.8	1917.4	1799.5	1676.5	1568.1	1477.9	1447.0	1462.5	1523.9
16°	2066.4	2058.2	2005.3	1915.2	1793.6	1666.9	1555.4	1463.4	1431.5	1447.4	1510.7
16.5°	2067.7	2059.1	2004.9	1912.4	1788.1	1657.4	1542.6	1448.8	1416.5	1432.8	1497.5
17°	2068.2	2059.5	2004.4	1909.7	1781.7	1647.8	1529.9	1433.8	1401.0	1417.4	1483.4
17.5°	2068.7	2059.5	2003.5	1906.5	1775.3	1637.8	1516.6	1419.2	1385.5	1402.8	1470.2
18°	2069.1	2060.0	2002.2	1903.3	1769.0	1627.8	1503.9	1404.6	1370.0	1386.8	1456.5
18.5°	2068.7	2059.5	2000.8	1899.7	1762.1	1617.8	1490.7	1389.6	1354.5	1372.3	1442.4
19°	2068.2	2058.6	1999.0	1895.6	1754.9	1607.3	1477.5	1374.5	1339.0	1357.2	1428.7
19.5°	2067.3	2057.7	1996.7	1891.5	1748.0	1596.8	1464.3	1360.0	1324.0	1342.2	1415.1
20°	2065.9	2056.4	1994.4	1887.4	1740.7	1586.3	1451.1	1344.9	1308.5	1326.7	1400.5
20.5°	2064.6	2055.0	1991.7	1882.8	1733.4	1575.4	1437.4	1329.9	1292.6	1311.2	1386.4
21°	2062.3	2052.7	1988.5	1878.3	1725.7	1564.9	1423.7	1314.4	1277.1	1296.2	1372.7

TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2054.5	2044.5	1977.6	1862.3	1702.0	1531.2	1382.3	1269.8	1230.6	1250.7	1329.9
23°	2051.3	2041.3	1973.5	1856.4	1693.4	1519.8	1368.6	1254.3	1215.1	1235.2	1315.8
23.5°	2047.7	2037.7	1968.9	1850.5	1684.7	1508.5	1355.0	1238.8	1199.7	1220.2	1301.7
24°	2043.6	2033.6	1964.4	1844.6	1676.1	1496.6	1340.8	1223.8	1184.2	1204.7	1287.1
24.5°	2039.5	2029.0	1958.9	1838.2	1666.9	1484.8	1326.7	1208.8	1168.2	1189.6	1272.5
25°	2035.0	2024.5	1953.4	1831.4	1657.4	1472.9	1312.6	1193.7	1152.7	1174.2	1258.4
25.5°	2029.5	2019.5	1947.5	1824.1	1647.8	1460.2	1298.5	1178.7	1137.7	1158.7	1244.3
26°	2024.0	2014.0	1942.0	1817.2	1638.3	1447.9	1284.4	1163.2	1121.8	1143.6	1229.3
26.5°	2018.6	2008.1	1935.7	1809.5	1628.2	1435.6	1270.3	1147.7	1105.8	1128.2	1215.1
27°	2012.6	2002.2	1928.8	1802.2	1617.8	1422.8	1255.7	1132.2	1090.3	1113.1	1200.6
27.5°	2006.3	1995.8	1922.0	1794.0	1606.8	1410.1	1241.6	1117.2	1075.3	1097.2	1186.0
28°	1999.0	1989.0	1914.7	1785.4	1595.9	1396.9	1227.0	1102.2	1059.4	1082.1	1171.4
28.5°	1992.1	1981.7	1907.4	1776.7	1584.5	1383.7	1212.9	1086.7	1043.4	1066.7	1157.3
29°	1984.4	1973.9	1899.7	1768.1	1573.1	1370.0	1198.3	1071.2	1028.0	1051.2	1142.3
29.5°	1976.7	1966.2	1891.9	1758.9	1560.8	1356.8	1183.7	1056.2	1012.5	1035.7	1127.7
30°	1968.5	1958.4	1883.3	1749.4	1548.5	1342.7	1169.1	1040.2	996.5	1020.2	1113.1
30.5°	1960.3	1949.8	1874.6	1739.4	1535.8	1328.5	1155.0	1025.2	980.6	1004.7	1098.5
31°	1951.1	1941.1	1866.0	1728.9	1523.0	1314.0	1140.0	1009.3	965.1	989.7	1084.0
31.5°	1942.0	1932.0	1856.9	1718.4	1509.8	1299.9	1125.0	994.2	949.6	974.2	1069.4
32°	1932.9	1922.9	1847.3	1707.0	1496.2	1285.3	1110.4	978.8	934.1	958.7	1054.8
32.5°	1922.9	1912.9	1837.3	1695.6	1482.0	1269.8	1095.4	963.3	918.2	943.2	1040.2
33°	1913.3	1903.3	1827.3	1684.3	1467.9	1254.8	1080.8	947.3	903.2	927.8	1025.7
33.5°	1903.3	1892.9	1816.8	1672.0	1453.8	1239.7	1065.8	932.8	887.2	912.7	1011.1
34°	1892.9	1882.8	1806.8	1659.7	1438.8	1224.7	1050.7	916.8	871.3	897.2	995.6
34.5°	1882.4	1871.9	1795.4	1646.9	1423.7	1209.2	1035.7	901.3	855.8	881.8	981.0
35°	1872.4	1861.0	1784.5	1633.7	1408.7	1193.7	1020.7	885.9	840.3	866.7	966.5
35.5°	1862.3	1850.0	1772.6	1619.6	1392.8	1177.8	1005.2	870.8	824.8	851.2	951.4
36°	1852.8	1838.7	1761.2	1605.9	1376.8	1162.8	990.1	855.3	809.3	835.8	936.4
36.5°	1841.8	1827.7	1749.4	1591.3	1360.0	1146.8	975.1	839.4	793.8	820.3	921.4
37°	1829.1	1816.8	1736.6	1576.8	1343.6	1130.4	959.6	823.9	778.8	804.8	906.3
37.5°	1813.1	1805.9	1724.3	1562.2	1326.3	1114.0	943.7	808.9	763.8	789.8	891.3
38°	1789.9	1795.4	1711.1	1546.7	1308.1	1098.1	928.7	793.4	748.8	774.7	876.3
38.5°	1765.8	1783.1	1697.9	1530.8	1290.3	1081.7	913.2	777.9	734.2	759.2	861.3
39°	1736.6	1769.4	1684.7	1513.9	1271.6	1065.3	897.7	762.9	719.6	744.7	846.2
39.5°	1704.3	1749.8	1671.0	1497.5	1252.9	1048.4	882.2	747.8	705.0	729.6	830.7
40°	1669.7	1728.4	1656.9	1480.2	1232.9	1031.6	866.7	732.8	690.9	715.1	815.7
40.5°	1631.9	1701.1	1643.3	1462.0	1213.3	1015.2	851.2	717.8	677.3	700.5	800.7
41°	1595.9	1672.9	1628.7	1442.9	1193.3	997.9	835.3	703.7	663.6	686.8	785.2
41.5°	1556.7	1637.3	1614.1	1423.7	1172.8	981.0	819.8	689.1	650.4	672.2	769.7
42°	1519.4	1605.0	1599.1	1403.2	1151.8	963.7	804.3	675.0	637.2	658.6	754.7
42.5°	1480.2	1567.7	1584.1	1382.3	1130.4	946.9	788.8	660.9	624.4	644.9	739.7
43°	1441.5	1533.0	1569.5	1360.4	1109.0	929.6	773.4	647.2	611.7	631.7	724.6
43.5°	1401.9	1494.3	1554.0	1339.5	1087.2	911.8	757.9	633.1	598.9	618.0	709.1



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1287.6	1381.8	1509.4	1268.0	1019.3	859.9	711.4	593.9	563.4	580.2	664.5
45.5°	1247.9	1343.1	1494.3	1243.8	996.5	842.1	695.9	581.2	551.6	567.9	649.9
46°	1213.3	1306.7	1477.0	1218.8	973.8	824.8	680.4	568.4	540.6	555.6	634.9
46.5°	1174.6	1267.5	1459.3	1192.8	950.5	807.1	665.4	556.1	529.2	543.8	620.3
47°	1142.3	1232.9	1433.8	1166.4	927.3	789.8	649.9	544.3	518.3	532.4	606.2
47.5°	1104.0	1194.6	1409.6	1139.1	903.6	772.0	634.9	532.9	507.8	521.0	592.1
48°	1074.0	1161.4	1378.6	1111.3	881.3	754.7	619.9	520.6	497.4	510.1	578.4
48.5°	1038.0	1123.1	1349.5	1083.5	857.6	737.4	604.8	509.2	486.9	499.2	564.3
49°	1009.7	1092.2	1314.4	1055.7	834.4	720.1	590.3	498.3	476.9	488.2	550.6
49.5°	975.6	1056.2	1281.6	1027.5	811.6	702.8	575.7	487.3	467.3	477.8	537.4
50°	949.2	1026.6	1244.3	999.3	788.8	685.5	561.1	476.4	457.3	467.3	524.2
50.5°	917.3	993.3	1208.3	970.1	765.2	668.1	547.0	465.9	447.7	457.3	511.0
51°	892.7	963.7	1171.0	941.0	743.3	651.3	533.3	455.5	439.1	447.7	498.3
51.5°	863.1	932.8	1135.0	912.3	721.0	634.9	519.7	445.0	429.9	437.7	486.0
52°	839.4	905.4	1096.7	884.0	699.1	618.0	506.0	435.4	420.8	428.1	473.7
52.5°	813.0	877.2	1061.7	855.8	677.3	601.2	492.8	425.4	411.7	419.0	461.4
53°	790.7	850.3	1024.8	827.1	656.8	584.8	480.0	415.8	403.1	409.4	449.5
53.5°	766.1	823.9	990.1	798.9	635.8	568.9	467.3	406.3	394.9	400.8	437.7
54°	744.2	797.9	954.2	771.1	615.8	552.9	454.5	397.6	386.7	392.1	426.8
54.5°	722.3	774.3	920.5	744.2	595.7	537.0	442.2	389.0	378.9	383.9	415.4
55°	701.8	749.2	887.7	717.3	577.5	521.5	430.4	379.8	370.7	375.3	404.4
55.5°	682.3	729.6	854.4	691.8	558.4	506.0	418.6	371.2	363.0	367.1	393.5
56°	662.2	704.6	823.9	666.8	540.2	491.0	406.7	362.5	354.8	358.9	383.5
56.5°	644.9	686.8	792.5	642.6	522.4	476.4	395.8	353.9	348.0	350.7	373.5
57°	624.9	663.6	764.2	619.0	505.5	461.8	384.9	346.6	340.7	343.0	363.4
57.5°	609.8	647.2	734.2	596.6	488.7	447.7	374.4	338.9	333.4	335.2	353.4
58°	591.2	625.8	707.3	574.3	472.8	434.0	363.4	331.1	326.1	327.5	343.4
58.5°	577.5	608.9	680.9	553.8	457.3	420.4	353.0	323.4	318.8	320.2	333.8
59°	559.3	590.3	654.9	533.8	441.8	407.2	342.0	315.6	312.0	312.9	324.3
59.5°	547.0	573.9	631.3	514.7	427.2	394.9	332.0	308.3	305.2	305.6	315.2
60°	530.1	556.6	606.7	496.0	413.1	382.6	322.0	301.1	298.8	298.8	306.1
60.5°	516.5	539.3	585.7	478.2	399.0	370.3	312.9	293.8	291.9	291.9	297.4
61°	501.9	524.7	562.0	460.9	386.2	358.0	303.3	286.5	285.6	285.1	288.8
61.5°	488.2	507.4	542.9	445.0	373.5	345.7	293.8	279.6	279.2	278.7	280.6
62°	475.0	494.2	522.4	429.5	360.3	333.8	285.1	273.3	272.8	271.9	271.9
62.5°	461.8	478.7	502.4	414.5	347.5	322.9	276.5	266.4	266.0	265.5	264.2
63°	449.1	465.0	485.1	399.9	336.1	311.5	267.8	260.1	259.2	259.2	256.4
63.5°	436.8	450.9	466.8	386.2	324.3	301.1	259.2	253.7	252.8	252.8	248.7
64°	424.9	436.8	450.4	372.1	313.3	290.6	251.0	247.3	245.9	246.4	241.4
64.5°	412.6	424.5	434.0	359.4	302.4	280.6	243.2	240.9	239.1	239.6	234.1
65°	401.3	411.3	417.6	347.1	291.5	270.5	235.5	234.6	232.7	233.2	226.8
65.5°	389.9	399.4	403.5	334.8	281.0	261.0	228.2	227.7	226.4	226.8	220.0
66°	378.5	387.1	388.5	322.9	271.0	251.4	220.9	221.3	220.0	220.9	213.2



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	346.1	351.6	348.0	289.7	242.3	224.1	199.9	203.1	201.3	202.7	194.0
68°	336.1	340.7	335.2	279.6	233.2	215.9	193.6	197.2	194.9	196.8	188.1
68.5°	325.6	329.7	323.4	269.6	224.5	207.7	187.2	191.7	189.0	190.8	181.7
69°	315.6	319.3	311.1	259.6	215.9	199.5	180.8	185.8	182.6	184.9	175.8
69.5°	306.1	308.8	299.7	250.0	207.2	191.3	174.9	179.9	176.7	179.4	170.3
70°	295.6	298.3	288.8	240.5	199.0	183.5	169.0	174.4	170.3	173.5	164.4
70.5°	286.0	287.8	277.8	231.4	190.8	176.3	163.5	169.0	164.9	168.1	159.0
71°	276.5	277.8	267.3	222.7	183.1	169.4	157.6	163.1	158.5	162.1	153.5
71.5°	266.9	268.3	256.9	214.1	175.3	162.1	152.1	157.6	153.0	156.2	148.0
72°	257.8	258.7	246.9	205.4	168.1	154.9	146.7	151.7	147.6	150.8	143.0
72.5°	248.7	249.1	237.3	196.8	160.8	148.5	141.2	146.2	142.6	145.3	138.0
73°	239.6	240.0	227.7	189.0	153.5	141.6	136.2	140.7	137.5	140.3	133.0
73.5°	230.0	230.5	218.2	180.8	146.7	135.3	131.2	135.7	132.1	134.8	128.0
74°	221.3	221.3	209.1	173.1	139.8	128.9	126.2	130.7	127.1	129.8	123.0
74.5°	212.7	212.2	199.9	165.3	133.4	123.0	121.1	125.2	122.1	124.3	118.0
75°	203.6	203.6	191.3	158.5	126.6	117.1	116.6	120.7	117.1	119.3	113.0
75.5°	195.4	194.9	182.6	151.2	120.2	111.1	111.6	115.2	112.0	114.3	108.4
76°	186.7	186.3	174.4	144.4	114.3	105.7	107.0	110.2	107.0	109.3	103.4
76.5°	178.1	177.6	166.2	137.1	108.4	100.2	102.5	105.2	102.5	104.3	98.4
77°	169.9	169.4	158.5	130.3	102.5	94.7	97.9	100.2	97.5	99.3	94.3
77.5°	162.1	161.2	150.8	123.4	96.6	89.7	92.9	95.2	92.9	94.3	89.3
78°	154.4	153.5	143.0	116.6	91.1	84.7	88.4	90.2	87.9	89.3	84.7
78.5°	146.2	145.7	135.3	110.2	85.6	79.7	83.8	85.6	83.3	84.7	80.2
79°	138.5	137.5	127.5	103.8	80.6	75.1	79.7	80.6	78.3	79.7	75.6
79.5°	130.3	129.8	119.8	97.5	75.1	70.6	75.1	75.6	73.8	75.1	71.1
80°	122.5	122.1	112.5	91.5	70.1	66.0	70.6	70.6	68.8	70.6	66.5
80.5°	114.8	114.3	105.2	85.2	65.1	61.9	66.5	65.6	64.2	65.6	61.9
81°	107.5	107.0	98.4	79.7	60.6	57.8	61.9	60.6	59.7	61.0	57.8
81.5°	99.7	99.3	91.5	73.8	56.0	53.7	57.4	55.6	54.7	56.0	53.3
82°	92.5	92.5	84.7	68.3	51.5	49.6	52.8	51.0	50.1	51.5	49.2
82.5°	85.2	85.2	77.9	62.9	46.9	46.0	48.7	46.0	45.5	46.9	44.6
83°	77.9	77.9	71.5	57.4	43.3	42.4	44.2	41.4	40.5	41.9	40.5
83.5°	70.6	71.1	64.7	51.9	39.2	38.7	40.1	36.4	36.0	37.3	36.4
84°	63.8	64.2	58.3	47.4	35.1	35.1	36.0	31.9	31.4	32.8	32.3
84.5°	56.9	57.4	52.4	42.4	31.0	31.4	32.3	27.3	26.9	28.2	28.7
85°	50.1	50.6	46.5	37.8	27.3	27.8	28.2	22.3	22.3	23.2	24.6
85.5°	43.3	43.7	41.0	32.8	23.2	24.1	24.1	18.2	17.8	19.1	21.0
86°	36.4	37.3	35.5	28.7	19.6	21.0	20.5	14.6	14.1	15.0	17.3
86.5°	29.6	31.0	30.5	24.1	16.4	17.3	16.9	11.4	10.9	11.8	13.7
87°	23.2	25.0	25.0	20.0	13.2	13.7	13.2	8.2	8.2	9.1	10.5
87.5°	18.7	20.0	20.0	15.5	10.0	10.5	10.0	5.5	5.5	5.9	6.8
88°	15.0	15.5	15.5	11.8	6.8	7.3	6.4	2.7	2.7	3.2	3.6
88.5°	11.4	11.8	11.8	8.2	4.1	3.6	3.2	0.9	0.9	0.9	0.9



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

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: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1870.1	1870.1	1870.1	1870.1	1870.1	1870.1
0.5°	1865.5	1871.4	1876.0	1881.0	1875.5	1877.4
1°	1860.1	1870.1	1878.7	1887.4	1884.7	1887.8
1.5°	1854.6	1868.3	1881.5	1893.3	1893.3	1897.9
2°	1848.7	1866.9	1883.7	1899.2	1902.0	1907.4
2.5°	1842.8	1864.6	1886.0	1905.1	1910.6	1917.4
3°	1836.4	1862.8	1887.8	1910.2	1919.3	1926.6
3.5°	1830.0	1860.1	1889.2	1915.6	1927.0	1935.7
4°	1823.6	1857.8	1890.6	1920.6	1934.8	1944.8
4.5°	1816.8	1855.0	1891.9	1925.2	1942.0	1953.0
5°	1809.5	1851.9	1892.9	1929.3	1949.3	1961.2
5.5°	1802.7	1848.7	1893.8	1933.4	1955.7	1969.4
6°	1795.4	1845.5	1894.2	1937.5	1962.5	1977.1
6.5°	1787.6	1841.8	1894.2	1941.1	1968.9	1984.4
7°	1779.9	1837.7	1894.2	1944.8	1974.8	1991.7
7.5°	1771.7	1834.1	1894.2	1947.5	1980.8	1998.5
8°	1763.5	1829.5	1893.8	1950.2	1986.2	2004.9
8.5°	1755.3	1825.4	1893.3	1953.0	1991.2	2010.8
9°	1747.1	1820.4	1891.9	1955.2	1996.2	2016.7
9.5°	1738.5	1815.9	1891.0	1957.1	2000.8	2022.7
10°	1729.3	1810.4	1889.7	1958.9	2004.9	2027.7
10.5°	1720.7	1805.4	1888.3	1960.3	2009.0	2032.7
11°	1711.6	1799.9	1886.5	1961.6	2012.6	2037.7
11.5°	1702.0	1794.5	1884.2	1962.5	2015.8	2041.8
12°	1692.5	1788.6	1881.9	1963.4	2019.0	2045.9
12.5°	1682.9	1782.6	1879.6	1963.9	2021.7	2049.5
13°	1673.3	1776.3	1876.5	1963.9	2024.0	2053.2
13.5°	1663.3	1769.9	1873.7	1963.4	2026.3	2055.9
14°	1653.3	1763.5	1870.5	1963.0	2028.1	2058.6
14.5°	1642.8	1756.7	1866.9	1962.5	2029.5	2061.4
15°	1632.3	1749.8	1863.2	1961.2	2030.4	2063.2
15.5°	1621.9	1742.6	1859.1	1959.8	2031.3	2065.0
16°	1611.4	1735.3	1855.0	1958.4	2032.2	2066.4
16.5°	1600.5	1728.0	1851.0	1956.6	2032.2	2067.7
17°	1589.5	1720.2	1846.4	1954.3	2032.2	2068.2
17.5°	1578.1	1712.5	1841.4	1952.1	2031.8	2068.7
18°	1567.2	1704.3	1836.4	1949.3	2030.9	2069.1
18.5°	1555.8	1696.1	1831.4	1946.1	2029.9	2068.7
19°	1544.4	1687.9	1825.9	1943.0	2028.6	2068.2
19.5°	1533.0	1679.7	1820.0	1939.3	2026.8	2067.3
20°	1521.2	1671.0	1814.5	1935.7	2024.5	2065.9
20.5°	1509.4	1662.4	1808.1	1931.6	2022.2	2064.6
21°	1497.5	1653.3	1801.8	1926.6	2019.5	2062.3

TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1461.5	1626.0	1781.7	1912.0	2009.4	2054.5
23°	1449.2	1616.4	1774.9	1906.5	2005.3	2051.3
23.5°	1436.9	1606.8	1767.6	1900.6	2001.2	2047.7
24°	1424.6	1597.3	1760.3	1894.7	1996.7	2043.6
24.5°	1411.9	1587.2	1752.6	1888.3	1991.7	2039.5
25°	1399.6	1576.8	1744.8	1881.9	1986.2	2035.0
25.5°	1386.8	1566.3	1736.6	1875.1	1980.3	2029.5
26°	1374.1	1555.8	1728.4	1867.8	1974.8	2024.0
26.5°	1360.9	1544.9	1719.8	1860.5	1968.5	2018.6
27°	1348.1	1534.0	1711.1	1852.8	1961.6	2012.6
27.5°	1334.9	1522.6	1702.0	1845.0	1954.8	2006.3
28°	1321.7	1510.7	1692.5	1836.8	1947.5	1999.0
28.5°	1307.6	1498.9	1682.9	1828.6	1939.8	1992.1
29°	1294.4	1486.6	1672.9	1820.0	1932.0	1984.4
29.5°	1280.3	1473.8	1662.8	1811.3	1923.4	1976.7
30°	1266.2	1460.6	1651.9	1802.2	1915.2	1968.5
30.5°	1252.0	1447.4	1640.5	1793.1	1906.5	1960.3
31°	1237.5	1434.2	1629.6	1783.1	1897.4	1951.1
31.5°	1223.3	1420.1	1617.8	1773.5	1887.8	1942.0
32°	1208.8	1406.0	1605.5	1763.5	1878.3	1932.9
32.5°	1193.7	1391.9	1592.7	1753.0	1868.3	1922.9
33°	1179.2	1377.3	1580.0	1742.6	1857.8	1913.3
33.5°	1163.7	1362.7	1566.7	1731.2	1847.3	1903.3
34°	1148.2	1347.2	1553.1	1720.2	1836.8	1892.9
34.5°	1133.2	1332.6	1539.0	1708.8	1825.9	1882.4
35°	1118.6	1317.2	1524.8	1697.0	1814.5	1872.4
35.5°	1102.6	1301.7	1510.3	1685.2	1803.1	1862.3
36°	1087.2	1285.3	1495.7	1672.9	1791.7	1852.8
36.5°	1071.7	1269.3	1480.2	1660.1	1779.9	1841.8
37°	1056.6	1252.9	1464.7	1646.9	1768.1	1829.1
37.5°	1040.7	1236.1	1448.8	1633.7	1756.2	1813.1
38°	1025.2	1218.8	1432.4	1620.0	1744.8	1789.9
38.5°	1009.3	1201.5	1415.5	1605.9	1733.4	1765.8
39°	994.2	1184.2	1398.7	1591.8	1722.5	1736.6
39.5°	977.4	1166.9	1380.5	1577.2	1709.3	1704.3
40°	961.9	1148.2	1362.7	1562.2	1695.6	1669.7
40.5°	946.0	1129.5	1344.0	1547.2	1674.2	1631.9
41°	930.0	1110.8	1324.4	1532.1	1653.3	1595.9
41.5°	914.1	1091.7	1304.4	1516.2	1626.0	1556.7
42°	898.1	1072.1	1284.4	1500.3	1597.7	1519.4
42.5°	882.2	1052.1	1263.4	1484.3	1564.5	1480.2
43°	866.3	1031.6	1241.6	1468.4	1533.5	1441.5
43.5°	849.9	1011.1	1218.8	1451.5	1498.0	1401.9

TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	801.1	947.8	1146.4	1400.1	1393.7	1287.6
45.5°	784.3	925.9	1121.3	1382.3	1357.2	1247.9
46°	767.9	905.0	1094.9	1365.4	1322.2	1213.3
46.5°	751.5	883.6	1068.9	1347.2	1286.2	1174.6
47°	735.1	861.7	1042.1	1329.9	1251.6	1142.3
47.5°	719.2	840.3	1015.7	1310.3	1215.1	1104.0
48°	702.3	818.9	988.8	1290.3	1181.4	1074.0
48.5°	686.4	797.5	961.5	1268.0	1146.4	1038.0
49°	670.0	776.5	934.6	1239.3	1114.0	1009.7
49.5°	654.0	756.0	908.2	1212.0	1080.3	975.6
50°	638.1	734.6	881.3	1179.6	1049.8	949.2
50.5°	621.7	714.1	854.4	1146.8	1016.6	917.3
51°	606.2	693.7	827.6	1112.7	986.5	892.7
51.5°	590.3	674.1	801.6	1077.1	956.4	863.1
52°	574.8	654.0	776.1	1041.2	928.7	839.4
52.5°	559.3	634.9	751.0	1007.5	899.1	813.0
53°	543.8	616.2	725.5	972.4	870.8	790.7
53.5°	529.2	598.0	701.4	938.2	845.3	766.1
54°	514.2	579.3	678.2	904.1	818.4	744.2
54.5°	499.6	562.0	655.4	871.7	794.3	722.3
55°	485.1	544.7	633.5	840.3	767.4	701.8
55.5°	470.9	528.3	611.7	808.4	746.0	682.3
56°	456.8	511.9	590.7	778.8	720.5	662.2
56.5°	443.6	496.0	571.1	749.2	700.9	644.9
57°	429.9	480.0	551.6	721.4	676.3	624.9
57.5°	416.7	465.0	532.9	694.1	658.1	609.8
58°	404.0	450.4	514.7	668.1	635.8	591.2
58.5°	392.1	436.3	497.8	643.1	618.0	577.5
59°	380.3	422.7	481.4	618.0	598.5	559.3
59.5°	368.5	409.0	465.5	596.2	580.2	547.0
60°	356.6	395.8	449.5	573.4	562.9	530.1
60.5°	344.3	382.6	435.0	552.0	545.6	516.5
61°	332.9	370.3	420.4	531.1	530.1	501.9
61.5°	322.5	358.4	406.7	511.5	512.8	488.2
62°	311.5	346.6	393.5	492.8	499.2	475.0
62.5°	301.1	334.8	380.8	475.0	483.2	461.8
63°	290.6	323.8	367.5	457.7	469.1	449.1
63.5°	281.0	312.9	355.7	441.3	455.0	436.8
64°	271.4	302.0	343.9	424.5	440.4	424.9
64.5°	261.9	291.5	332.5	409.9	427.7	412.6
65°	252.3	281.9	321.1	394.9	414.0	401.3
65.5°	243.2	271.4	310.2	381.2	402.2	389.9
66°	234.6	261.9	299.7	367.1	389.4	378.5



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	209.5	234.1	269.6	329.7	353.4	346.1
68°	201.8	225.9	259.6	317.0	342.5	336.1
68.5°	194.0	217.2	250.5	306.1	331.6	325.6
69°	186.7	209.1	241.4	294.7	320.2	315.6
69.5°	179.0	200.9	232.7	283.7	309.7	306.1
70°	172.2	193.1	224.1	273.3	299.2	295.6
70.5°	164.9	184.9	215.4	262.8	288.8	286.0
71°	158.0	177.6	206.8	252.8	279.2	276.5
71.5°	151.7	169.9	199.0	242.8	269.2	266.9
72°	145.3	163.5	190.8	233.2	259.2	257.8
72.5°	138.9	156.7	183.1	224.1	249.6	248.7
73°	132.5	149.8	175.3	214.5	240.0	239.6
73.5°	126.6	143.0	167.6	205.9	230.9	230.0
74°	120.7	136.2	160.8	197.2	221.8	221.3
74.5°	115.2	129.8	153.9	188.1	212.7	212.7
75°	109.8	123.4	147.1	179.9	203.6	203.6
75.5°	104.3	117.1	139.8	171.7	194.9	195.4
76°	98.8	111.1	133.0	162.1	186.7	186.7
76.5°	93.8	105.2	126.2	154.9	178.1	178.1
77°	89.3	99.7	119.8	147.6	169.4	169.9
77.5°	84.7	93.8	113.4	140.3	161.2	162.1
78°	79.7	88.4	107.0	132.5	153.5	154.4
78.5°	75.1	83.3	101.1	125.2	145.7	146.2
79°	71.1	77.9	94.7	118.0	138.0	138.5
79.5°	67.0	72.9	88.8	110.7	129.8	130.3
80°	62.9	67.9	82.9	103.4	122.1	122.5
80.5°	58.8	63.3	77.4	96.6	114.3	114.8
81°	54.7	58.3	72.0	89.7	107.0	107.5
81.5°	50.6	53.7	66.5	82.9	99.7	99.7
82°	46.9	49.6	61.0	76.1	92.0	92.5
82.5°	42.8	45.1	56.0	69.7	85.2	85.2
83°	39.2	41.0	51.0	63.3	77.9	77.9
83.5°	35.5	36.9	46.0	56.9	71.1	70.6
84°	31.9	32.8	41.0	51.0	63.8	63.8
84.5°	28.2	29.1	36.4	45.1	56.9	56.9
85°	24.6	25.0	31.9	39.6	50.6	50.1
85.5°	21.0	21.9	27.3	34.6	43.7	43.3
86°	17.3	18.2	23.2	29.1	37.3	36.4
86.5°	14.1	15.0	19.1	24.1	31.4	29.6
87°	10.5	11.8	15.5	19.6	26.0	23.2
87.5°	6.8	8.7	11.8	14.6	21.0	18.7
88°	3.6	5.5	8.2	10.9	16.4	15.0
88.5°	0.9	2.3	4.6	7.3	12.3	11.4



TEST NUMBER: P776830

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-HCD8TSQLWW-5000lm-2700K

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°	2060.0	2050.4	1985.3	1873.3	1718.0	1553.5	1410.1	1299.4	1262.1	1281.2	1358.6
22°	2057.7	2047.7	1981.7	1867.8	1710.2	1542.6	1396.4	1284.4	1246.1	1266.2	1344.0



44°	1363.6	1457.0	1539.0	1316.3	1064.8	894.5	742.4	620.3	587.1	605.3	694.1
44.5°	1324.4	1418.7	1523.9	1292.6	1042.5	877.2	726.9	606.7	574.8	592.5	679.5



66.5°	368.0	374.8	374.4	311.5	261.4	241.8	213.6	215.4	213.6	214.5	206.8
67°	357.1	363.4	361.2	300.6	251.9	233.2	206.8	209.5	207.2	208.6	200.4



89°	7.7	7.7	7.7	4.6	1.4	0.9	0.9	0.5	0.0	0.5	0.5
89.5°	4.1	4.1	4.1	0.9	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°	1485.7	1644.2	1795.4	1922.0	2016.7	2060.0
22°	1473.8	1635.1	1788.6	1917.4	2013.1	2057.7



44°	833.5	990.1	1195.6	1434.7	1464.7	1363.6
44.5°	817.5	969.2	1171.4	1417.4	1428.3	1324.4

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

Scaled Data Report



66.5°	226.4	252.8	289.2	354.3	377.1	368.0
67°	217.7	243.7	279.2	341.6	365.7	357.1

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

Scaled Data Report



89°	0.0	0.5	0.9	3.6	8.2	7.7
89.5°	0.0	0.0	0.0	0.5	4.6	4.1

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

Scaled Data Report



(END OF REPORT)