

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: P776008

Luminaire Tested: HCDJBS1525CSD-HCD4TSQH-2500lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776008
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K
Description: 4 INCH SQUARE MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2553.8 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.05 / 1.09
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

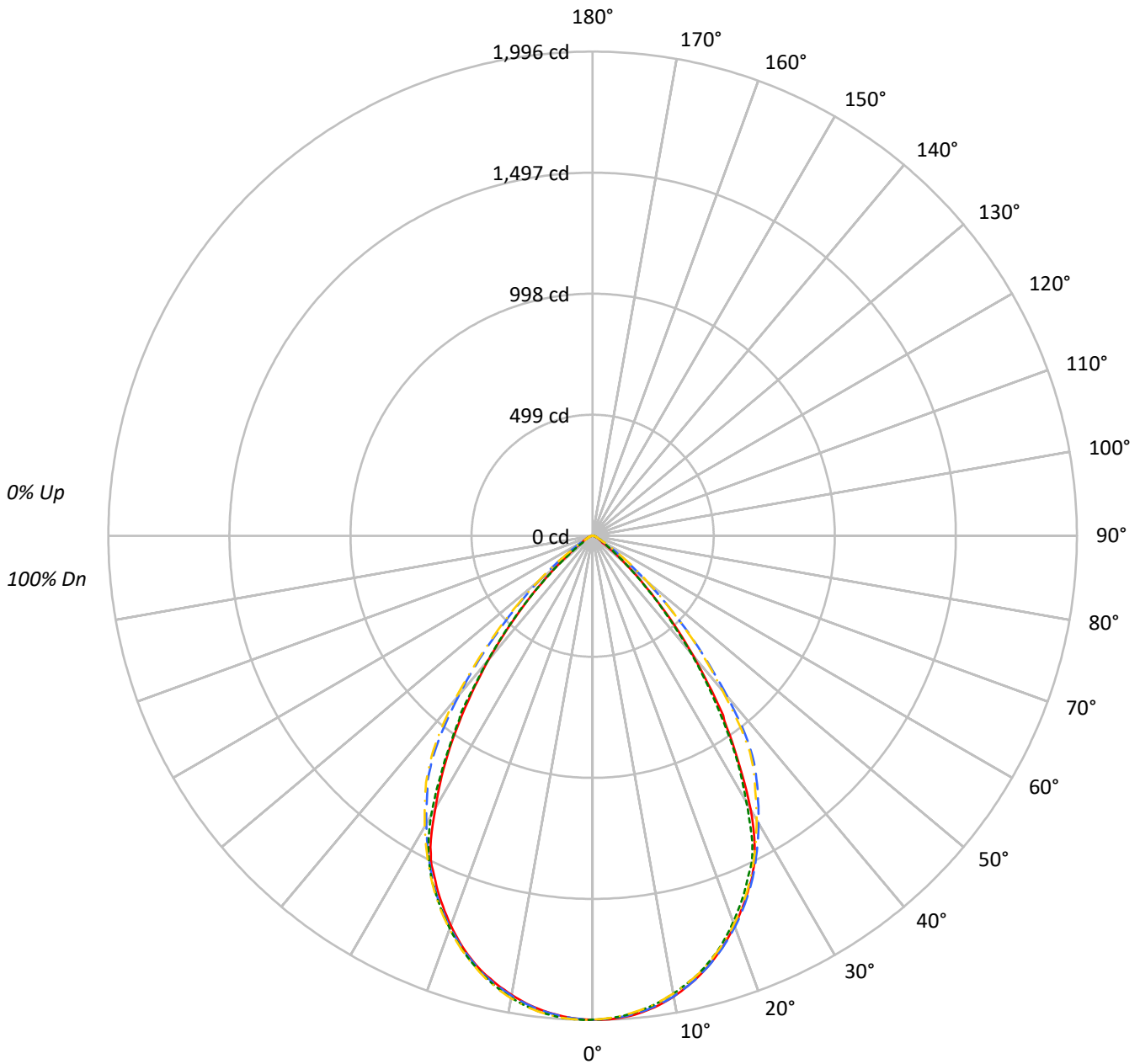
Input Watts (W): 25
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

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	100	100	100
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92	92	92	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	85	84	84	84	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76	76	76	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70	70	70	70
5	88	79	72	67	87	78	72	67	76	71	66	74	70	66	73	69	65	64	64	64	64
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60	58	58	58	58
7	78	68	61	56	77	67	61	56	66	60	56	65	59	56	63	59	55	54	54	54	54
8	74	63	56	52	73	63	56	52	61	56	51	60	55	51	59	55	51	49	49	49	49
9	70	59	52	48	69	58	52	48	57	52	48	57	51	47	56	51	47	46	46	46	46
10	66	55	49	44	65	55	49	44	54	48	44	53	48	44	52	47	44	43	43	43	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	197180	197180	197180	197180
5°	196644	195790	196038	196822
10°	193508	192333	192875	194070
15°	188029	187016	188009	188869
20°	179910	178227	179804	181193
25°	169621	166797	168574	171072
30°	148590	144732	147974	151866
35°	116598	114112	118866	120459
40°	82953	81185	86140	86992
45°	50714	49428	53761	54082
50°	24896	25680	27710	26818
55°	9323	12873	13579	10426
60°	6781	8599	8698	6879
65°	5356	6783	6899	5520
70°	4248	5433	5520	4479
75°	3284	4277	4277	3704
80°	2163	3301	3188	2903
85°	907	2608	1474	2041

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 315°
 Vertical Angle: 45°
 Luminance: 77790 cd/sqm



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQH-2500lm-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.1	7.3
10°-20°	515.9	20.2
20°-30°	710.0	27.8
30°-40°	652.3	25.5
40°-50°	352.8	13.8
50°-60°	95.1	3.7
60°-70°	27.1	1.1
70°-80°	11.4	0.4
80°-90°	2.2	0.1
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	55.3
0°-40°	2065.3	80.9
0°-60°	2513.2	98.4
0°-90°	2553.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1995	1995	1995	1995	1995	
5°	1982	1973	1976	1984	1982	187
15°	1838	1828	1837	1846	1838	516
25°	1555	1529	1546	1569	1555	706
35°	966	946	985	998	966	601
45°	363	354	385	387	363	286
55°	54	75	79	60	54	63
65°	23	29	30	24	23	23
75°	9	11	11	10	9	9
85°	1	2	1	2	1	1
90°	0	0	0	0	0	



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9
0.5°	1995.9	1995.2	1994.4	1993.6	1994.9	1993.6	1994.1	1994.4	1995.2	1995.2	1994.1
1°	1995.9	1994.6	1993.6	1993.1	1993.9	1992.6	1992.9	1993.1	1994.1	1994.6	1993.6
1.5°	1995.2	1993.6	1993.4	1991.8	1992.1	1990.6	1991.3	1991.6	1993.1	1993.4	1992.4
2°	1994.6	1992.9	1991.8	1990.6	1990.1	1989.1	1989.3	1989.8	1991.1	1992.1	1991.1
2.5°	1993.4	1991.6	1990.6	1988.8	1988.0	1986.8	1987.3	1987.5	1989.6	1990.3	1989.6
3°	1991.8	1989.3	1988.8	1987.0	1986.0	1984.2	1984.7	1985.2	1987.5	1988.8	1987.5
3.5°	1989.8	1987.3	1986.5	1984.7	1983.5	1981.4	1981.7	1982.4	1985.0	1986.5	1985.5
4°	1987.5	1984.7	1984.7	1982.2	1980.4	1978.6	1978.6	1979.6	1981.9	1984.2	1983.0
4.5°	1985.0	1981.7	1981.4	1979.4	1976.9	1974.8	1975.3	1976.3	1979.1	1981.7	1979.9
5°	1981.9	1978.4	1978.4	1975.8	1973.3	1971.3	1971.5	1972.8	1975.8	1978.1	1976.6
5.5°	1978.1	1974.8	1975.1	1972.3	1969.2	1966.9	1967.4	1968.7	1972.0	1975.1	1973.0
6°	1974.6	1970.5	1971.0	1968.2	1964.9	1962.4	1963.1	1964.6	1967.7	1971.0	1969.0
6.5°	1970.2	1966.2	1966.9	1964.1	1960.1	1957.5	1958.3	1959.8	1963.4	1967.2	1964.9
7°	1965.4	1961.1	1962.1	1959.1	1955.0	1952.2	1953.5	1955.2	1958.5	1962.6	1960.3
7.5°	1960.3	1956.0	1957.3	1954.5	1949.4	1946.9	1947.9	1949.9	1953.2	1957.8	1955.2
8°	1955.0	1950.4	1952.4	1948.4	1943.5	1940.5	1942.0	1943.8	1947.9	1952.4	1949.9
8.5°	1948.9	1944.6	1946.6	1942.3	1936.9	1934.6	1936.2	1938.0	1941.8	1946.6	1944.3
9°	1942.5	1938.5	1940.5	1936.2	1930.6	1927.8	1929.6	1931.6	1935.4	1940.5	1938.5
9.5°	1935.7	1931.1	1934.4	1929.8	1923.5	1920.9	1922.7	1924.7	1928.5	1934.4	1931.9
10°	1928.0	1924.0	1927.3	1922.4	1916.3	1913.8	1915.8	1917.9	1921.7	1927.8	1925.2
10.5°	1920.7	1916.1	1920.2	1915.1	1909.0	1906.4	1908.7	1910.5	1914.3	1920.9	1917.9
11°	1912.8	1908.2	1913.3	1907.4	1901.3	1898.8	1901.1	1902.9	1906.9	1913.5	1910.5
11.5°	1904.7	1900.1	1904.7	1899.6	1893.0	1890.4	1892.7	1895.8	1899.6	1905.9	1902.6
12°	1895.8	1891.2	1896.5	1890.9	1884.6	1882.3	1884.6	1887.4	1891.2	1898.5	1897.3
12.5°	1887.1	1882.0	1887.4	1882.3	1876.2	1873.9	1876.2	1879.2	1882.8	1889.9	1888.6
13°	1878.0	1872.9	1878.7	1873.1	1868.0	1865.5	1867.8	1870.8	1874.4	1881.5	1880.0
13.5°	1868.6	1863.0	1869.3	1863.7	1859.4	1857.1	1859.4	1862.7	1866.0	1873.1	1871.3
14°	1858.6	1853.3	1859.1	1854.1	1849.2	1846.7	1849.7	1852.5	1857.6	1864.7	1863.0
14.5°	1848.0	1842.4	1848.7	1844.1	1838.6	1836.3	1839.3	1842.1	1847.7	1856.3	1851.0
15°	1837.5	1831.7	1838.6	1834.0	1827.6	1825.8	1828.4	1831.9	1837.3	1846.2	1840.6
15.5°	1826.3	1820.8	1827.9	1822.8	1816.4	1814.4	1817.2	1820.8	1826.3	1835.8	1829.7
16°	1815.2	1809.3	1816.2	1811.3	1805.0	1803.2	1805.8	1809.8	1815.2	1824.8	1818.7
16.5°	1803.0	1798.1	1804.5	1799.9	1792.8	1791.0	1794.3	1798.1	1804.0	1813.4	1807.3
17°	1791.0	1785.4	1793.0	1788.2	1780.3	1779.1	1782.4	1786.4	1792.3	1801.9	1795.3
17.5°	1778.6	1773.2	1780.6	1775.8	1767.4	1766.6	1769.9	1773.7	1779.3	1790.2	1783.1
18°	1765.6	1760.3	1768.4	1762.8	1753.1	1753.4	1757.5	1761.3	1765.8	1778.0	1770.9
18.5°	1751.6	1746.8	1755.2	1750.1	1738.9	1739.7	1744.2	1748.0	1752.4	1765.1	1758.2
19°	1738.4	1733.0	1742.5	1736.6	1724.2	1725.4	1731.0	1734.3	1738.4	1751.6	1745.0
19.5°	1724.4	1719.3	1729.0	1722.1	1709.7	1710.9	1717.5	1720.3	1724.2	1737.6	1731.5
20°	1710.4	1705.1	1715.5	1707.4	1694.4	1695.7	1703.8	1705.8	1709.4	1723.4	1718.0
20.5°	1695.7	1690.6	1701.5	1692.4	1679.2	1680.4	1689.3	1690.8	1694.4	1708.9	1703.6
21°	1680.7	1675.3	1686.5	1676.9	1663.4	1664.9	1674.8	1675.6	1679.2	1693.6	1689.3



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1634.9	1628.8	1641.5	1628.6	1615.6	1616.9	1629.3	1627.8	1631.6	1646.6	1644.6
23°	1617.9	1612.8	1625.8	1611.5	1598.6	1600.1	1613.8	1610.8	1615.6	1630.3	1628.8
23.5°	1602.1	1596.8	1609.2	1595.5	1580.8	1583.8	1597.3	1594.2	1598.6	1613.8	1612.3
24°	1585.9	1579.8	1593.2	1578.2	1562.5	1566.5	1580.5	1577.5	1581.3	1597.3	1595.5
24.5°	1571.1	1563.0	1576.2	1561.4	1545.4	1548.7	1562.7	1560.4	1563.2	1580.3	1578.2
25°	1555.3	1545.2	1558.7	1542.9	1529.4	1530.4	1545.2	1542.9	1545.7	1562.7	1560.9
25.5°	1534.8	1528.7	1540.6	1524.6	1513.4	1511.9	1526.9	1524.8	1529.2	1544.4	1543.1
26°	1516.2	1512.6	1521.8	1505.5	1497.4	1493.8	1508.6	1506.5	1513.7	1526.1	1525.3
26.5°	1496.1	1496.9	1503.7	1487.5	1474.0	1476.8	1489.5	1487.7	1494.6	1507.6	1506.5
27°	1472.2	1476.0	1484.9	1469.9	1449.3	1460.5	1470.4	1469.7	1469.7	1490.5	1487.7
27.5°	1447.3	1455.9	1465.9	1453.7	1426.2	1443.7	1451.1	1452.1	1447.8	1474.5	1468.7
28°	1421.1	1434.6	1446.0	1437.1	1394.4	1424.4	1431.5	1435.6	1420.9	1457.0	1449.3
28.5°	1393.7	1412.2	1427.0	1418.8	1362.1	1398.2	1412.0	1416.5	1390.1	1432.0	1430.3
29°	1365.2	1387.8	1406.9	1393.7	1331.1	1376.6	1392.4	1392.1	1359.1	1409.4	1410.4
29.5°	1333.9	1362.4	1387.8	1370.3	1299.3	1349.9	1371.8	1369.8	1327.3	1386.5	1391.1
30°	1301.9	1334.7	1368.2	1345.4	1268.1	1318.4	1352.0	1344.6	1296.5	1357.1	1371.3
30.5°	1268.1	1308.0	1348.2	1314.8	1237.6	1286.9	1331.4	1314.3	1265.0	1325.5	1351.5
31°	1234.0	1277.2	1327.8	1283.1	1207.3	1256.4	1310.5	1284.6	1235.3	1295.0	1331.1
31.5°	1199.4	1247.2	1307.5	1252.1	1176.8	1225.1	1289.4	1253.3	1205.5	1263.8	1310.3
32°	1164.1	1213.9	1286.9	1221.3	1147.1	1194.9	1269.1	1222.8	1175.5	1233.5	1290.2
32.5°	1130.0	1182.1	1267.8	1190.3	1115.5	1165.4	1248.2	1192.3	1145.0	1203.2	1269.6
33°	1096.7	1148.3	1249.3	1160.3	1083.8	1136.4	1228.7	1163.3	1114.8	1173.5	1250.3
33.5°	1063.7	1114.0	1229.4	1130.5	1049.4	1106.6	1209.6	1133.3	1084.0	1143.5	1233.2
34°	1031.4	1081.0	1206.8	1101.0	1015.9	1077.1	1191.0	1104.9	1052.0	1114.0	1215.7
34.5°	998.8	1047.7	1187.2	1071.0	980.3	1046.4	1171.5	1075.4	1018.4	1084.3	1190.0
35°	966.3	1014.4	1167.1	1040.8	945.7	1017.2	1149.9	1047.2	985.1	1054.3	1164.1
35.5°	934.5	982.8	1145.5	1009.8	910.9	984.6	1126.0	1017.2	951.8	1023.3	1141.7
36°	915.0	951.6	1120.1	978.5	878.1	952.3	1101.8	987.9	918.3	992.2	1114.0
36.5°	879.4	921.1	1090.9	946.2	844.8	919.5	1071.0	956.9	885.0	960.5	1083.3
37°	843.0	890.3	1063.4	913.4	813.0	886.7	1040.3	925.9	851.1	927.9	1051.7
37.5°	806.7	859.3	1033.9	881.7	781.7	853.2	1007.2	894.6	819.4	894.9	1019.9
38°	770.3	828.5	999.6	849.9	751.2	821.1	971.4	863.1	788.4	863.1	987.7
38.5°	737.8	797.8	964.0	818.3	720.5	790.1	935.8	831.1	757.6	830.3	955.4
39°	705.5	766.7	929.4	786.6	691.0	759.9	900.2	799.8	726.8	799.3	922.3
39.5°	673.9	735.2	895.1	754.8	660.0	731.4	866.1	769.0	696.8	768.5	889.5
40°	642.9	704.2	860.8	724.5	629.2	701.4	832.6	739.5	667.6	738.3	856.5
40.5°	613.2	672.7	826.5	695.3	598.2	672.7	800.3	709.3	637.1	708.3	823.9
41°	583.4	642.7	791.9	666.6	568.4	644.7	768.8	680.8	606.8	679.3	790.4
41.5°	554.0	613.2	757.6	638.1	537.9	617.0	737.8	652.8	576.1	651.1	757.8
42°	525.5	584.7	724.8	609.1	509.2	587.8	707.5	624.9	546.6	622.3	724.5
42.5°	497.0	556.2	692.8	581.2	481.2	559.0	678.3	597.4	517.9	594.1	692.0
43°	469.3	528.8	661.0	552.9	454.0	531.1	649.3	569.5	489.9	565.4	659.0
43.5°	440.8	502.1	630.0	525.0	427.4	503.9	620.3	542.0	462.4	537.2	627.4



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	362.8	423.8	539.0	443.9	353.6	424.3	533.9	461.7	384.6	455.8	535.4
45.5°	338.4	398.1	509.2	418.7	330.0	400.4	506.2	435.5	360.2	430.1	506.9
46°	315.0	373.7	480.7	393.8	306.8	376.3	478.5	410.8	336.6	405.2	478.5
46.5°	292.1	349.8	453.0	370.4	285.2	353.1	452.0	386.4	313.7	381.3	451.2
47°	270.5	326.9	425.8	347.5	264.6	330.5	426.6	363.0	291.1	357.7	425.3
47.5°	250.4	304.6	399.6	324.9	245.3	308.6	401.9	339.6	270.0	334.3	399.9
48°	230.8	283.2	374.7	302.8	229.1	287.3	379.0	317.5	249.9	312.7	375.2
48.5°	212.5	263.1	350.8	281.7	212.8	266.9	356.2	296.4	232.4	291.1	351.3
49°	195.0	243.8	327.9	262.1	196.5	247.6	334.6	275.3	215.1	270.5	329.5
49.5°	178.0	225.2	306.3	242.8	180.5	230.8	314.0	255.5	197.5	250.7	306.3
50°	161.9	207.4	285.2	224.0	167.0	214.1	294.1	238.5	180.2	233.1	285.0
50.5°	147.2	190.2	264.4	205.9	154.6	197.3	275.3	221.4	166.3	215.3	265.2
51°	133.5	174.1	245.1	189.7	143.9	180.5	256.3	204.1	153.3	197.5	246.6
51.5°	120.8	159.1	226.5	174.4	133.7	166.8	239.7	187.1	141.6	180.0	229.3
52°	108.8	144.9	209.2	160.2	124.1	154.1	223.7	170.1	130.7	165.0	212.3
52.5°	97.9	131.2	192.2	147.5	114.9	142.4	207.4	155.8	121.0	151.5	195.2
53°	87.7	118.5	176.7	135.8	106.3	131.7	191.2	142.9	111.6	139.3	178.2
53.5°	79.3	107.0	161.9	125.3	98.4	122.0	174.9	131.2	103.0	128.1	162.7
54°	70.9	96.4	148.2	115.4	90.2	113.1	161.2	120.5	94.6	118.0	149.0
54.5°	62.5	86.2	135.0	106.3	82.4	104.5	148.2	110.6	86.4	108.3	136.3
55°	54.1	76.8	123.6	98.1	74.7	96.4	136.0	101.7	78.8	99.7	124.1
55.5°	48.6	69.9	112.4	90.0	67.9	88.7	124.6	93.3	71.2	91.5	112.9
56°	46.5	63.3	102.2	83.4	61.8	81.1	113.9	85.2	64.6	83.6	102.5
56.5°	44.7	56.4	92.8	76.5	57.5	73.7	104.0	77.8	59.2	76.3	93.0
57°	43.2	49.8	85.9	69.7	54.9	66.6	94.8	70.7	55.4	68.9	84.1
57.5°	41.4	43.0	78.8	62.8	52.9	60.3	86.4	63.8	53.4	62.0	76.3
58°	39.9	41.4	71.9	56.9	50.8	54.4	78.6	57.2	51.4	56.2	69.1
58.5°	38.4	39.9	65.1	51.9	49.1	50.1	71.7	51.9	49.3	51.6	62.5
59°	36.9	38.4	58.2	48.0	47.0	47.8	65.1	47.8	47.5	48.6	56.9
59.5°	35.6	36.9	53.1	46.0	45.3	45.8	59.5	45.5	45.8	46.8	52.1
60°	34.3	35.6	48.8	44.0	43.5	44.0	54.4	43.7	44.0	45.0	47.8
60.5°	32.8	34.3	44.7	42.5	41.7	42.5	49.8	41.9	42.2	43.2	43.7
61°	31.5	32.8	41.4	40.7	40.2	40.7	45.8	40.2	40.7	41.4	40.7
61.5°	30.5	31.8	38.4	39.2	38.6	39.2	42.2	38.6	39.2	39.9	37.6
62°	29.2	30.5	35.8	37.4	37.1	37.6	39.2	37.1	37.4	38.4	35.1
62.5°	28.0	29.2	33.3	36.1	35.6	36.1	36.6	35.6	36.1	36.9	32.8
63°	26.9	28.2	31.3	34.6	34.1	34.6	34.1	34.3	34.6	35.3	31.0
63.5°	25.9	26.9	29.5	33.0	32.8	33.3	32.0	32.8	33.3	34.1	29.2
64°	24.9	25.9	28.2	31.8	31.5	32.0	30.0	31.5	31.8	32.5	28.0
64.5°	23.9	24.9	27.2	30.5	30.3	30.8	28.5	30.3	30.5	31.3	26.7
65°	22.9	24.2	25.9	29.2	29.0	29.5	27.2	29.0	29.5	30.0	25.7
65.5°	22.1	23.1	24.9	28.2	27.7	28.2	26.2	27.7	28.2	28.7	24.7
66°	21.1	22.1	24.2	26.9	26.4	27.2	25.2	26.7	26.9	27.7	23.6



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	18.6	19.6	21.4	23.6	23.4	23.9	22.4	23.4	23.6	24.4	20.8
68°	17.8	18.8	20.3	22.6	22.4	22.9	21.4	22.4	22.6	23.4	20.1
68.5°	17.0	17.8	19.6	21.9	21.4	21.9	20.6	21.4	21.6	22.4	19.3
69°	16.3	17.0	18.8	20.8	20.6	21.1	19.6	20.6	20.8	21.4	18.6
69.5°	15.5	16.3	18.0	20.1	19.6	20.1	18.8	19.6	19.8	20.3	17.8
70°	14.7	15.5	17.3	19.1	18.8	19.3	18.0	18.8	19.1	19.6	16.8
70.5°	14.0	15.0	16.5	18.3	17.8	18.6	17.0	17.8	18.0	18.6	16.3
71°	13.5	14.2	15.8	17.5	17.0	17.5	16.3	17.0	17.3	17.8	15.5
71.5°	12.7	13.5	15.0	16.5	16.3	16.8	15.5	16.3	16.3	16.8	14.7
72°	12.2	13.0	14.2	16.0	15.5	16.0	15.0	15.5	15.5	16.0	14.0
72.5°	11.4	12.2	13.7	15.3	14.7	15.3	14.2	14.7	14.7	15.3	13.5
73°	10.9	11.7	13.0	14.5	14.0	14.5	13.5	14.0	14.0	14.5	12.7
73.5°	10.2	10.9	12.2	13.7	13.2	13.7	13.0	13.2	13.2	13.7	12.2
74°	9.7	10.4	11.7	13.0	12.7	13.2	12.2	12.5	12.7	13.2	11.7
74.5°	9.2	9.9	11.2	12.5	11.9	12.5	11.7	11.9	11.9	12.5	10.9
75°	8.6	9.2	10.4	11.7	11.2	11.9	10.9	11.2	11.2	11.7	10.4
75.5°	8.1	8.6	9.9	11.2	10.7	11.2	10.4	10.7	10.7	11.2	9.9
76°	7.4	8.1	9.4	10.7	10.2	10.7	9.9	9.9	9.9	10.4	9.4
76.5°	6.9	7.6	8.9	9.9	9.4	10.2	9.4	9.4	9.4	9.9	8.6
77°	6.6	7.1	8.4	9.4	8.9	9.4	8.9	8.6	8.6	9.2	8.1
77.5°	6.1	6.6	7.9	8.9	8.4	8.9	8.4	8.1	8.1	8.6	7.6
78°	5.6	6.1	7.4	8.4	7.9	8.4	7.9	7.6	7.6	8.1	7.1
78.5°	5.1	5.6	6.9	7.9	7.4	7.9	7.4	7.1	7.1	7.4	6.9
79°	4.8	5.1	6.4	7.4	6.9	7.4	6.9	6.6	6.6	6.9	6.4
79.5°	4.3	4.6	6.1	6.9	6.4	6.9	6.4	6.1	6.1	6.4	5.8
80°	3.8	4.3	5.6	6.4	5.8	6.4	6.1	5.6	5.6	5.8	5.3
80.5°	3.6	3.8	5.1	5.8	5.6	5.8	5.6	5.1	5.1	5.3	5.1
81°	3.1	3.3	4.8	5.3	5.1	5.3	5.1	4.6	4.6	4.8	4.6
81.5°	2.8	3.1	4.3	4.8	4.6	5.1	4.8	4.1	4.1	4.3	4.3
82°	2.5	2.5	4.1	4.6	4.3	4.6	4.3	3.8	3.8	3.8	3.8
82.5°	2.0	2.3	3.6	4.1	3.8	4.3	4.1	3.3	3.3	3.3	3.6
83°	1.8	2.0	3.3	3.8	3.6	3.8	3.6	3.1	2.8	3.1	3.1
83.5°	1.3	1.5	2.8	3.3	3.3	3.6	3.3	2.5	2.5	2.5	2.8
84°	1.0	1.3	2.5	3.1	2.8	3.1	3.1	2.3	2.0	2.3	2.5
84.5°	1.0	1.0	2.3	2.5	2.5	2.8	2.5	2.0	1.8	1.8	2.3
85°	0.8	1.0	2.0	2.3	2.3	2.5	2.3	1.5	1.3	1.5	2.0
85.5°	0.5	0.8	1.8	2.0	1.8	2.0	2.0	1.3	1.0	1.3	1.5
86°	0.5	0.5	1.3	1.5	1.5	1.8	1.8	1.0	1.0	1.0	1.3
86.5°	0.5	0.5	1.0	1.3	1.3	1.5	1.5	1.0	0.8	0.8	1.0
87°	0.3	0.3	0.8	1.0	1.0	1.0	1.3	0.8	0.8	0.8	0.8
87.5°	0.0	0.3	0.5	0.8	0.8	0.8	1.0	0.5	0.5	0.5	0.5
88°	0.0	0.0	0.3	0.5	0.5	0.5	0.8	0.5	0.5	0.5	0.3
88.5°	0.0	0.0	0.0	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1994.9	1994.9	1994.9	1994.9	1994.9	1994.9
0.5°	1994.4	1996.2	1995.2	1995.7	1995.2	1995.9
1°	1994.1	1995.9	1995.2	1995.7	1995.2	1995.9
1.5°	1993.4	1995.9	1995.2	1995.4	1995.2	1995.2
2°	1992.4	1995.2	1994.9	1994.9	1994.6	1994.6
2.5°	1991.1	1994.6	1993.9	1994.6	1993.6	1993.4
3°	1989.3	1993.4	1992.6	1993.1	1992.4	1991.8
3.5°	1987.3	1991.3	1991.1	1991.6	1990.6	1989.8
4°	1984.7	1989.1	1989.1	1989.6	1988.8	1987.5
4.5°	1981.9	1986.5	1986.8	1987.3	1986.3	1985.0
5°	1978.9	1983.7	1984.0	1984.5	1983.5	1981.9
5.5°	1975.3	1980.7	1980.9	1981.2	1980.2	1978.1
6°	1971.5	1976.9	1977.4	1977.9	1976.6	1974.6
6.5°	1967.2	1972.8	1973.5	1973.8	1972.5	1970.2
7°	1962.6	1968.5	1969.2	1969.7	1968.2	1965.4
7.5°	1957.5	1963.9	1964.9	1964.9	1963.4	1960.3
8°	1951.9	1958.3	1959.6	1960.1	1958.0	1955.0
8.5°	1946.3	1953.0	1954.2	1954.5	1952.4	1948.9
9°	1940.5	1946.6	1948.6	1948.9	1946.1	1942.5
9.5°	1933.9	1940.0	1942.0	1942.5	1940.2	1935.7
10°	1927.0	1933.6	1935.2	1936.2	1933.1	1928.0
10.5°	1919.6	1926.5	1928.3	1929.1	1926.0	1920.7
11°	1912.5	1918.6	1920.7	1921.4	1918.4	1912.8
11.5°	1904.7	1911.0	1912.8	1913.8	1910.5	1904.7
12°	1896.5	1902.4	1904.7	1905.7	1901.6	1895.8
12.5°	1887.4	1894.0	1896.0	1896.8	1893.2	1887.1
13°	1878.5	1885.1	1887.4	1888.4	1884.3	1878.0
13.5°	1869.6	1875.9	1878.2	1878.7	1874.7	1868.6
14°	1860.4	1866.5	1868.8	1868.6	1865.0	1858.6
14.5°	1853.3	1856.3	1858.9	1858.1	1854.8	1848.0
15°	1842.9	1845.7	1848.7	1847.7	1844.4	1837.5
15.5°	1831.9	1835.2	1837.3	1837.0	1833.5	1826.3
16°	1820.8	1824.1	1826.6	1826.3	1822.3	1815.2
16.5°	1809.3	1812.6	1815.4	1814.7	1811.1	1803.0
17°	1797.4	1800.4	1803.7	1802.7	1799.4	1791.0
17.5°	1785.2	1788.5	1791.5	1790.8	1786.9	1778.6
18°	1772.5	1775.5	1779.1	1778.3	1774.5	1765.6
18.5°	1759.5	1762.8	1766.4	1765.1	1761.0	1751.6
19°	1746.5	1749.6	1753.1	1752.4	1747.5	1738.4
19.5°	1732.5	1736.4	1739.4	1738.9	1734.1	1724.4
20°	1718.6	1722.6	1725.9	1725.4	1720.1	1710.4
20.5°	1704.3	1708.1	1711.7	1711.2	1705.6	1695.7
21°	1689.6	1693.6	1696.7	1696.9	1690.3	1680.7

TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1643.8	1647.9	1651.2	1652.0	1644.3	1634.9
23°	1628.3	1632.1	1635.2	1636.2	1628.3	1617.9
23.5°	1612.0	1615.9	1619.2	1619.9	1612.0	1602.1
24°	1595.0	1599.1	1602.6	1603.4	1595.8	1585.9
24.5°	1578.5	1583.1	1585.9	1586.4	1579.0	1571.1
25°	1561.7	1568.6	1568.3	1569.3	1561.7	1555.3
25.5°	1543.9	1548.7	1550.8	1551.8	1543.9	1534.8
26°	1525.9	1529.7	1534.2	1533.5	1527.1	1516.2
26.5°	1510.3	1510.3	1518.7	1515.7	1511.4	1496.1
27°	1493.1	1487.7	1497.9	1497.6	1495.3	1472.2
27.5°	1471.5	1465.4	1478.6	1478.8	1474.8	1447.3
28°	1452.4	1441.2	1458.5	1459.5	1454.2	1421.1
28.5°	1431.3	1415.8	1436.4	1440.9	1434.1	1393.7
29°	1409.4	1388.3	1414.0	1422.1	1411.5	1365.2
29.5°	1385.5	1360.6	1389.6	1402.8	1387.8	1333.9
30°	1361.4	1330.6	1364.4	1383.5	1362.6	1301.9
30.5°	1335.4	1298.8	1338.5	1363.9	1335.4	1268.1
31°	1308.7	1265.0	1310.0	1344.1	1307.7	1234.0
31.5°	1280.5	1233.0	1280.8	1324.0	1278.2	1199.4
32°	1251.8	1198.4	1250.8	1304.2	1248.2	1164.1
32.5°	1220.8	1163.3	1219.0	1286.4	1216.7	1130.0
33°	1188.8	1130.0	1185.7	1266.8	1183.7	1096.7
33.5°	1156.0	1096.5	1152.4	1246.0	1150.4	1063.7
34°	1123.4	1063.7	1119.1	1227.4	1117.1	1031.4
34.5°	1089.6	1030.1	1086.3	1205.5	1083.8	998.8
35°	1057.1	998.3	1053.0	1180.9	1050.5	966.3
35.5°	1025.0	966.6	1020.2	1156.7	1018.7	934.5
36°	993.3	935.0	988.9	1132.3	987.4	915.0
36.5°	961.2	916.7	957.9	1105.1	956.1	879.4
37°	930.5	880.9	926.9	1076.9	925.6	843.0
37.5°	900.0	844.0	895.9	1047.7	894.9	806.7
38°	869.7	807.2	864.9	1016.9	864.4	770.3
38.5°	838.9	770.3	833.9	985.6	833.6	737.8
39°	808.2	738.5	802.8	952.6	802.8	705.5
39.5°	777.4	706.0	771.8	920.0	772.3	673.9
40°	746.4	674.2	740.0	885.2	740.3	642.9
40.5°	715.4	643.4	708.3	850.1	709.3	613.2
41°	684.4	614.0	677.5	815.3	679.0	583.4
41.5°	654.4	583.4	647.0	780.5	649.0	554.0
42°	625.1	554.7	617.8	745.6	620.1	525.5
42.5°	596.2	526.5	588.5	712.1	591.1	497.0
43°	567.9	496.8	560.6	679.3	563.1	469.3
43.5°	540.2	468.3	532.6	647.3	535.1	440.8



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	461.4	386.9	451.2	556.5	455.8	362.8
45.5°	436.0	361.5	424.8	528.3	430.1	338.4
46°	410.8	336.8	399.4	500.3	405.2	315.0
46.5°	385.7	313.2	373.5	472.1	380.3	292.1
47°	361.8	290.6	349.6	444.9	356.9	270.5
47.5°	338.4	268.5	325.9	418.2	333.5	250.4
48°	315.7	247.4	303.0	393.0	311.2	230.8
48.5°	294.1	227.8	281.4	367.4	289.1	212.5
49°	273.0	209.0	260.6	343.2	269.0	195.0
49.5°	253.5	191.4	240.0	319.8	248.9	178.0
50°	235.4	174.4	221.2	296.9	229.1	161.9
50.5°	217.4	158.1	203.1	275.6	210.8	147.2
51°	199.3	143.4	185.3	255.0	193.5	133.5
51.5°	181.5	129.9	169.3	235.2	176.9	120.8
52°	165.2	117.5	154.3	216.6	161.4	108.8
52.5°	150.2	105.5	139.6	198.8	146.4	97.9
53°	136.0	94.6	126.3	182.0	132.2	87.7
53.5°	122.5	86.2	113.6	166.5	119.2	79.3
54°	109.8	77.5	102.2	150.8	107.3	70.9
54.5°	98.6	68.9	91.8	137.0	96.4	62.5
55°	88.2	60.5	83.1	124.1	87.5	54.1
55.5°	78.8	51.9	74.7	111.6	78.8	48.6
56°	69.4	47.8	66.1	100.2	70.2	46.5
56.5°	61.0	45.8	57.7	89.5	61.5	44.7
57°	53.6	44.0	49.1	82.1	52.9	43.2
57.5°	47.3	42.2	44.2	75.0	46.5	41.4
58°	42.5	40.7	42.5	67.6	42.5	39.9
58.5°	40.7	39.2	40.9	60.3	40.7	38.4
59°	38.9	37.6	39.4	53.1	39.2	36.9
59.5°	37.6	36.4	37.9	48.3	37.6	35.6
60°	36.1	34.8	36.4	44.2	36.4	34.3
60.5°	34.8	33.6	35.1	40.7	34.8	32.8
61°	33.6	32.3	33.8	37.6	33.6	31.5
61.5°	32.3	31.0	32.5	34.8	32.3	30.5
62°	31.0	30.0	31.3	32.5	31.0	29.2
62.5°	29.7	28.7	30.0	30.5	30.0	28.0
63°	28.7	27.7	29.0	28.7	28.7	26.9
63.5°	27.7	26.7	27.7	27.5	27.5	25.9
64°	26.4	25.7	26.7	26.4	26.4	24.9
64.5°	25.7	24.7	25.7	25.4	25.4	23.9
65°	24.7	23.6	24.7	24.4	24.4	22.9
65.5°	23.6	22.6	23.9	23.4	23.4	22.1
66°	22.6	21.9	22.9	22.6	22.6	21.1



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	20.3	19.3	20.3	20.1	19.8	18.6
68°	19.3	18.6	19.3	19.1	19.1	17.8
68.5°	18.6	17.8	18.6	18.3	18.3	17.0
69°	17.8	17.0	17.8	17.5	17.5	16.3
69.5°	17.0	16.3	17.0	16.8	16.8	15.5
70°	16.3	15.5	16.5	16.0	16.0	14.7
70.5°	15.8	15.0	15.8	15.5	15.3	14.0
71°	15.0	14.2	15.0	14.7	14.5	13.5
71.5°	14.2	13.7	14.2	14.0	13.7	12.7
72°	13.7	13.0	13.7	13.5	13.2	12.2
72.5°	13.2	12.5	13.0	12.7	12.5	11.4
73°	12.5	11.7	12.5	12.2	11.7	10.9
73.5°	11.9	11.2	11.9	11.7	11.2	10.2
74°	11.4	10.7	11.2	10.9	10.7	9.7
74.5°	10.9	10.2	10.7	10.4	9.9	9.2
75°	10.2	9.7	10.2	9.9	9.4	8.6
75.5°	9.7	9.2	9.7	9.4	8.9	8.1
76°	9.2	8.6	9.2	8.9	8.4	7.4
76.5°	8.6	8.1	8.6	8.4	7.9	6.9
77°	8.1	7.6	8.1	7.6	7.4	6.6
77.5°	7.6	7.1	7.6	7.4	6.6	6.1
78°	7.1	6.6	7.1	6.9	6.1	5.6
78.5°	6.9	6.4	6.6	6.4	5.8	5.1
79°	6.4	5.8	6.1	5.8	5.3	4.8
79.5°	5.8	5.3	5.8	5.3	4.8	4.3
80°	5.3	5.1	5.3	5.1	4.3	3.8
80.5°	5.1	4.8	5.1	4.6	3.8	3.6
81°	4.6	4.3	4.6	4.3	3.6	3.1
81.5°	4.3	4.1	4.1	3.8	3.1	2.8
82°	3.8	3.6	3.8	3.6	2.5	2.5
82.5°	3.6	3.3	3.6	3.1	2.3	2.0
83°	3.3	3.1	3.1	2.8	2.0	1.8
83.5°	2.8	2.8	2.8	2.5	1.8	1.3
84°	2.5	2.5	2.5	2.3	1.3	1.0
84.5°	2.3	2.3	2.0	2.0	1.0	1.0
85°	2.0	1.8	1.8	1.5	1.0	0.8
85.5°	1.5	1.5	1.5	1.3	0.8	0.5
86°	1.3	1.3	1.3	1.0	0.5	0.5
86.5°	1.0	1.0	1.0	0.8	0.5	0.5
87°	0.8	0.8	0.8	0.5	0.3	0.3
87.5°	0.5	0.5	0.5	0.3	0.3	0.0
88°	0.3	0.3	0.3	0.3	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776008

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQH-2500lm-4000K

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



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°	1665.7	1659.8	1671.8	1660.8	1647.9	1648.9	1660.1	1659.8	1663.4	1678.1	1674.6
22°	1650.4	1644.6	1656.8	1644.8	1632.1	1633.1	1644.6	1643.8	1647.6	1662.4	1660.1



44°	413.9	475.7	599.2	497.0	402.2	475.9	590.8	514.8	435.0	509.7	595.9
44.5°	387.9	449.5	569.0	469.6	377.3	450.2	562.1	487.9	409.6	482.5	565.1



66.5°	20.3	21.4	23.1	25.9	25.4	25.9	24.2	25.4	25.9	26.4	22.6
67°	19.3	20.3	22.1	24.7	24.4	24.9	23.1	24.4	24.7	25.4	21.9



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report





21.5°	1674.3	1678.4	1681.9	1682.2	1675.3	1665.7
22°	1659.3	1663.4	1666.7	1667.2	1660.1	1650.4



44°	513.5	441.1	504.9	616.2	508.4	413.9
44.5°	487.6	413.6	477.9	585.7	481.8	387.9



66.5°	21.9	20.8	21.9	21.6	21.6	20.3
67°	21.1	20.1	21.1	20.8	20.6	19.3



89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report



(END OF REPORT)