

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: P776497

Luminaire Tested: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776497
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: HCDJBS3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K
Description: 8 INCH ROUND MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3983.4 lumens
Efficiency: N/A
Efficacy: 103.5 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

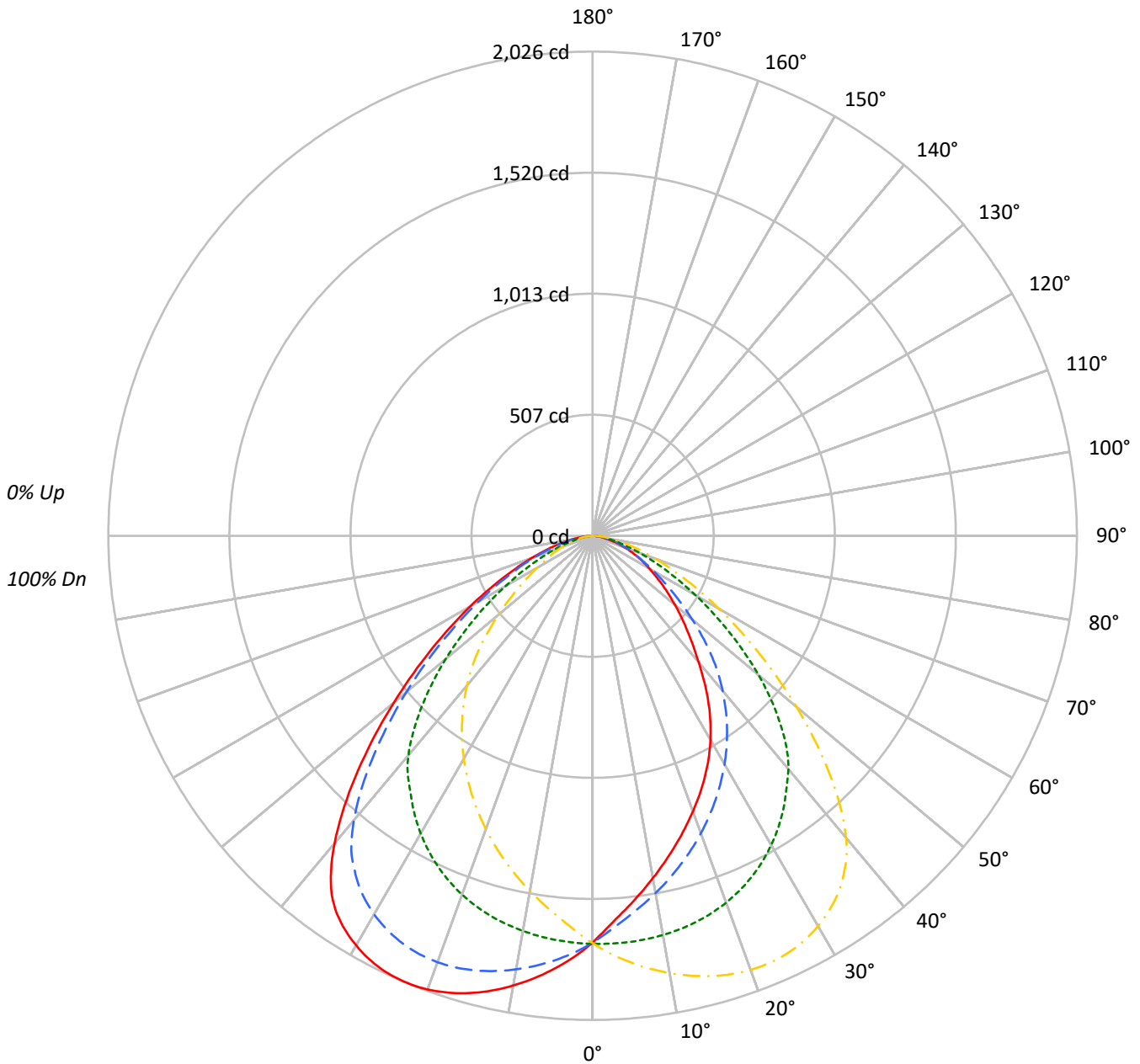
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

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°	52011	52011	52011	52011
5°	48128	52308	55707	52063
10°	45085	52578	59234	52060
15°	42360	52879	62605	52048
20°	39875	53075	65632	51899
25°	37446	53049	68090	51483
30°	34760	52686	69770	50708
35°	31415	51877	70296	49387
40°	27508	50798	66928	47789
45°	24153	47908	59873	43669
50°	21359	43037	51553	38107
55°	18853	36844	43466	31910
60°	16700	30298	36075	25731
65°	14903	24295	29496	20162
70°	12702	18844	24030	15336
75°	10180	14309	19369	11253
80°	7894	10549	15243	7613
85°	5289	7531	9738	4309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 60905 cd/sqm



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.5	4.1
10°-20°	468.1	11.8
20°-30°	716.5	18.0
30°-40°	848.4	21.3
40°-50°	779.1	19.6
50°-60°	544.8	13.7
60°-70°	305.2	7.7
70°-80°	131.8	3.3
80°-90°	27.8	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°	1346.1	33.8
0°-40°	2194.5	55.1
0°-60°	3518.5	88.3
0°-90°	3983.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3983.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1704	1704	1704	1704	1704	
5°	1570	1707	1818	1699	1570	146
15°	1340	1673	1981	1647	1340	376
25°	1112	1575	2021	1528	1112	510
35°	843	1392	1886	1325	843	524
45°	559	1110	1387	1011	559	433
55°	354	692	817	600	354	318
65°	206	336	408	279	206	204
75°	86	121	164	95	86	94
85°	15	22	28	12	15	19
90°	0	0	0	0	0	



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6
0.5°	1687.3	1688.5	1692.9	1698.8	1708.0	1711.5	1715.1	1715.1	1714.3	1712.7	1711.5
1°	1673.8	1676.2	1683.3	1693.7	1708.0	1716.7	1724.3	1727.0	1727.4	1725.1	1720.3
1.5°	1659.9	1663.0	1673.8	1688.5	1708.4	1722.3	1733.4	1739.0	1739.8	1736.2	1728.6
2°	1645.5	1650.3	1663.8	1683.3	1708.4	1727.0	1742.2	1750.1	1751.7	1747.3	1737.4
2.5°	1632.0	1637.6	1653.9	1677.7	1708.4	1731.8	1750.9	1760.8	1763.2	1758.1	1745.3
3°	1618.9	1625.3	1644.4	1672.6	1708.4	1737.0	1758.9	1771.6	1774.8	1768.4	1753.3
3.5°	1606.2	1613.7	1634.4	1667.0	1708.0	1741.4	1767.2	1781.9	1785.9	1778.3	1760.4
4°	1594.3	1602.2	1625.3	1661.1	1707.6	1745.7	1775.2	1792.2	1796.6	1788.3	1768.0
4.5°	1581.9	1591.1	1615.7	1655.5	1707.2	1750.1	1783.1	1802.6	1807.4	1797.8	1775.2
5°	1570.4	1579.9	1606.6	1649.5	1706.8	1754.5	1790.7	1812.1	1817.7	1807.4	1782.3
5.5°	1558.5	1568.8	1597.8	1643.6	1706.4	1758.1	1798.2	1822.1	1828.0	1816.9	1789.1
6°	1546.9	1558.1	1588.7	1638.0	1705.6	1762.0	1805.4	1831.2	1838.0	1826.0	1795.8
6.5°	1535.4	1547.3	1579.9	1632.0	1704.8	1766.0	1812.9	1840.8	1847.9	1834.4	1802.2
7°	1523.5	1536.6	1571.2	1626.1	1704.0	1769.6	1819.7	1849.5	1857.5	1843.1	1808.5
7.5°	1512.0	1525.9	1562.5	1620.1	1702.8	1773.2	1826.8	1858.2	1866.6	1851.9	1814.5
8°	1500.4	1514.7	1553.7	1614.1	1701.6	1776.3	1833.2	1867.0	1876.1	1860.2	1820.5
8.5°	1488.9	1504.0	1545.0	1608.2	1700.4	1779.5	1840.0	1875.7	1885.3	1868.2	1826.4
9°	1477.4	1493.3	1535.8	1601.8	1699.2	1782.7	1845.9	1883.7	1894.0	1875.7	1832.0
9.5°	1465.8	1482.5	1527.1	1595.8	1697.6	1785.5	1852.3	1891.6	1902.4	1883.7	1837.2
10°	1454.3	1471.4	1517.9	1589.9	1696.0	1788.7	1857.8	1900.0	1910.7	1890.8	1842.3
10.5°	1443.2	1460.7	1508.8	1583.9	1694.4	1791.1	1863.8	1907.1	1919.1	1898.4	1847.5
11°	1431.3	1449.9	1499.6	1577.6	1692.5	1793.4	1869.8	1914.7	1927.0	1905.2	1852.3
11.5°	1419.7	1439.2	1490.5	1571.2	1690.5	1795.8	1874.9	1921.9	1934.6	1911.9	1857.1
12°	1408.2	1428.1	1481.0	1564.8	1688.5	1798.2	1880.1	1929.0	1941.7	1918.7	1861.4
12.5°	1397.1	1417.3	1471.8	1558.1	1686.5	1800.2	1885.3	1936.2	1948.9	1924.6	1865.4
13°	1385.5	1406.6	1462.7	1551.3	1684.1	1802.2	1890.1	1942.5	1956.0	1931.0	1869.4
13.5°	1374.4	1395.9	1453.1	1545.0	1681.3	1803.8	1894.8	1948.5	1962.4	1936.6	1873.4
14°	1362.9	1384.7	1443.6	1537.8	1678.5	1805.0	1899.2	1954.9	1968.8	1942.1	1876.9
14.5°	1351.3	1374.0	1434.0	1531.0	1675.8	1806.6	1903.6	1960.4	1974.7	1947.3	1880.1
15°	1340.2	1362.9	1424.5	1523.5	1673.0	1807.8	1907.5	1966.0	1980.7	1952.5	1883.3
15.5°	1328.7	1351.7	1415.0	1516.7	1669.8	1808.5	1911.1	1971.2	1986.3	1956.8	1886.1
16°	1317.5	1341.0	1405.0	1509.2	1666.6	1809.3	1914.7	1976.3	1991.4	1961.2	1888.5
16.5°	1306.4	1330.3	1395.1	1502.0	1663.0	1809.7	1917.9	1980.7	1996.2	1965.6	1890.8
17°	1294.9	1319.1	1385.5	1494.1	1659.5	1810.1	1921.1	1985.1	2000.6	1969.2	1892.8
17.5°	1283.8	1308.4	1375.2	1486.1	1655.5	1810.1	1923.8	1989.0	2004.6	1972.7	1894.4
18°	1272.2	1297.3	1365.3	1478.2	1651.5	1810.1	1926.2	1992.6	2008.5	1975.9	1896.0
18.5°	1261.1	1286.5	1354.9	1470.2	1647.1	1809.7	1928.2	1996.2	2011.7	1978.3	1897.2
19°	1250.0	1275.4	1345.0	1461.9	1642.8	1809.3	1930.2	1999.4	2014.9	1981.1	1898.0
19.5°	1238.4	1264.7	1334.6	1453.9	1638.4	1808.5	1931.8	2001.8	2017.7	1983.1	1898.4
20°	1227.3	1253.1	1324.3	1445.2	1633.6	1807.4	1933.0	2004.2	2020.1	1984.7	1898.8
20.5°	1215.8	1242.0	1314.0	1436.8	1628.8	1805.8	1934.2	2006.1	2022.0	1985.9	1898.4
21°	1204.6	1230.9	1303.2	1428.1	1623.3	1804.2	1934.6	2007.7	2023.6	1987.1	1898.0



TEST NUMBER: P776497
 CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1170.1	1197.5	1271.8	1401.0	1607.0	1798.2	1935.0	2010.1	2026.0	1987.5	1894.8
23°	1158.5	1186.4	1260.7	1391.5	1601.0	1795.4	1934.2	2010.1	2025.6	1986.7	1892.8
23.5°	1147.0	1175.2	1250.4	1382.4	1594.7	1792.6	1933.0	2009.7	2025.2	1985.9	1890.8
24°	1135.5	1163.7	1239.2	1372.8	1587.9	1789.5	1931.8	2008.9	2024.4	1984.3	1888.1
24.5°	1123.5	1151.8	1228.5	1362.9	1581.5	1785.9	1930.2	2007.7	2022.8	1982.3	1885.3
25°	1111.6	1140.6	1217.4	1353.3	1574.8	1781.9	1927.8	2006.1	2021.3	1980.3	1882.1
25.5°	1099.7	1128.7	1206.6	1343.4	1568.0	1777.9	1925.4	2004.2	2019.3	1977.5	1878.5
26°	1087.8	1117.2	1195.5	1333.5	1560.5	1773.6	1922.7	2001.8	2016.5	1974.3	1874.1
26.5°	1075.8	1105.2	1184.4	1323.1	1552.9	1768.4	1919.5	1999.0	2013.3	1970.8	1869.8
27°	1063.1	1093.7	1172.8	1312.8	1545.4	1763.6	1915.9	1995.8	2010.1	1967.2	1865.0
27.5°	1050.4	1081.4	1161.7	1302.4	1537.4	1758.1	1911.9	1992.2	2006.1	1962.8	1859.8
28°	1038.1	1069.5	1150.2	1291.7	1529.1	1752.5	1907.5	1987.9	2001.8	1957.6	1854.3
28.5°	1025.3	1057.1	1138.6	1281.0	1520.7	1746.5	1902.8	1983.5	1997.0	1952.9	1848.7
29°	1012.2	1044.8	1127.1	1270.2	1512.4	1740.2	1897.6	1978.3	1991.4	1946.9	1842.3
29.5°	999.1	1032.1	1115.6	1259.5	1503.2	1733.4	1892.0	1973.1	1985.5	1940.9	1835.6
30°	986.0	1019.4	1103.7	1248.8	1494.5	1726.3	1886.1	1967.2	1979.1	1934.2	1828.4
30.5°	972.5	1006.3	1091.7	1237.2	1485.3	1719.1	1879.7	1960.4	1972.3	1927.4	1820.9
31°	958.5	993.5	1079.8	1226.1	1475.8	1711.5	1873.0	1953.7	1965.2	1919.9	1812.9
31.5°	944.6	980.0	1067.5	1215.0	1465.8	1703.2	1865.8	1946.5	1957.6	1911.9	1804.6
32°	930.3	966.9	1055.6	1203.0	1456.3	1695.2	1858.2	1938.6	1949.3	1903.2	1796.2
32.5°	916.0	953.4	1043.2	1191.9	1446.4	1686.5	1850.3	1930.6	1940.9	1894.4	1786.7
33°	902.1	939.5	1030.9	1180.0	1436.0	1677.7	1841.9	1921.9	1931.4	1885.3	1776.7
33.5°	887.4	925.5	1018.6	1168.5	1425.3	1668.2	1832.8	1912.3	1921.5	1874.5	1766.4
34°	873.1	911.6	1005.9	1156.1	1414.6	1658.3	1823.3	1902.4	1911.1	1863.8	1754.9
34.5°	857.6	897.3	993.1	1144.2	1403.4	1648.3	1813.7	1892.0	1899.6	1851.1	1742.6
35°	842.9	882.6	980.4	1131.9	1391.9	1638.0	1803.0	1880.1	1886.1	1838.0	1729.4
35.5°	827.3	868.3	967.3	1119.6	1380.4	1626.5	1791.5	1867.4	1872.2	1822.9	1715.5
36°	812.6	853.6	954.2	1107.2	1368.4	1614.5	1778.7	1853.1	1856.3	1807.0	1702.8
36.5°	796.7	838.9	941.4	1094.5	1356.1	1602.6	1765.2	1837.2	1839.2	1790.7	1689.7
37°	781.6	823.8	927.9	1082.2	1344.2	1589.9	1751.3	1820.9	1818.5	1773.2	1675.4
37.5°	765.7	808.7	914.4	1069.1	1331.9	1578.4	1738.2	1803.0	1799.4	1752.9	1658.7
38°	750.6	793.2	900.9	1057.1	1320.7	1566.8	1723.5	1783.1	1776.7	1731.4	1640.0
38.5°	734.3	778.0	887.4	1044.4	1309.2	1556.1	1707.2	1762.0	1754.5	1709.2	1619.7
39°	719.6	762.5	873.9	1032.1	1297.7	1543.4	1688.9	1740.6	1730.2	1685.7	1599.0
39.5°	704.5	747.0	859.9	1019.8	1286.5	1529.5	1670.2	1717.5	1705.6	1661.4	1576.8
40°	690.2	731.5	846.0	1007.4	1274.6	1513.9	1649.5	1692.9	1679.3	1636.0	1553.7
40.5°	675.1	716.0	831.7	994.7	1261.5	1496.1	1627.7	1668.2	1652.3	1609.8	1529.5
41°	661.6	700.9	817.4	982.0	1247.2	1478.2	1605.0	1641.6	1624.9	1582.7	1505.2
41.5°	647.6	685.8	803.5	968.9	1232.1	1459.1	1581.5	1614.9	1596.2	1555.3	1479.8
42°	634.9	670.7	789.2	955.4	1216.2	1438.8	1557.3	1587.1	1567.6	1527.5	1453.9
42.5°	621.8	656.4	774.9	941.4	1199.9	1418.9	1532.2	1558.5	1538.6	1498.4	1428.1
43°	608.7	642.5	760.2	926.7	1182.4	1397.9	1506.0	1529.9	1508.8	1470.2	1401.8
43.5°	596.0	628.6	745.4	911.6	1164.9	1376.0	1479.4	1500.4	1478.6	1440.0	1374.4



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	559.4	589.2	699.7	864.7	1109.6	1307.2	1397.9	1410.6	1386.7	1351.3	1292.1
45.5°	548.3	576.5	684.6	849.2	1090.1	1283.8	1369.2	1380.8	1356.5	1321.5	1264.3
46°	536.3	563.8	668.7	832.5	1071.1	1259.1	1341.4	1350.2	1325.5	1291.7	1236.4
46.5°	524.8	551.4	652.8	815.4	1051.6	1234.5	1313.2	1319.9	1294.9	1261.5	1208.6
47°	513.7	539.5	636.9	798.7	1031.3	1209.4	1284.2	1288.9	1263.9	1231.7	1180.8
47.5°	502.5	527.2	620.6	781.2	1010.6	1184.4	1255.1	1258.7	1234.1	1202.3	1152.6
48°	491.8	515.6	604.3	764.1	990.0	1158.9	1226.9	1229.3	1203.8	1173.2	1125.1
48.5°	481.1	504.1	588.8	747.0	969.3	1133.5	1197.9	1199.1	1174.4	1143.8	1097.7
49°	470.7	492.6	572.9	729.1	948.6	1108.0	1169.3	1169.7	1143.4	1115.2	1070.7
49.5°	460.0	481.5	557.8	711.7	927.1	1082.2	1141.0	1139.4	1114.4	1085.8	1043.6
50°	449.7	470.3	542.3	694.2	906.1	1056.7	1112.8	1110.0	1085.4	1057.5	1016.2
50.5°	439.3	459.6	527.2	676.3	884.2	1031.3	1083.8	1081.0	1056.7	1029.3	989.6
51°	429.4	448.5	512.9	658.4	862.7	1005.1	1055.6	1052.0	1028.1	1001.9	962.9
51.5°	419.8	438.1	498.6	640.1	841.7	980.4	1028.5	1024.1	999.9	974.4	937.5
52°	409.9	427.4	484.2	622.6	819.8	955.0	1001.1	995.9	972.9	947.4	911.2
52.5°	400.4	417.1	470.7	604.7	798.3	929.1	973.3	967.7	944.6	920.8	885.4
53°	390.8	406.7	456.8	586.8	776.9	904.1	946.2	940.7	918.8	894.9	860.3
53.5°	381.7	396.8	443.3	569.3	755.4	879.4	919.6	914.0	891.4	868.7	835.7
54°	372.1	386.8	429.8	551.8	733.9	854.4	893.7	887.8	866.3	843.2	811.0
54.5°	363.4	377.3	417.1	534.3	712.8	830.1	867.5	861.5	839.7	818.2	787.2
55°	354.2	367.8	404.3	517.2	692.2	806.3	841.7	836.1	816.6	794.7	763.7
55.5°	345.5	358.2	392.0	500.1	671.5	781.6	817.4	811.0	790.8	770.1	740.7
56°	337.1	349.1	379.7	483.0	650.8	758.2	792.0	786.4	767.7	746.2	717.6
56.5°	328.4	339.9	368.2	466.7	630.9	735.9	767.7	762.1	742.7	723.6	695.4
57°	320.0	330.4	356.2	450.8	610.3	712.4	743.9	738.7	721.2	700.9	673.1
57.5°	312.1	322.0	345.1	434.5	591.2	689.8	720.0	715.2	697.3	678.7	651.6
58°	303.7	313.3	334.4	419.0	571.3	667.5	697.3	692.6	676.3	656.8	630.9
58.5°	296.2	304.9	323.6	403.9	552.2	646.1	675.1	670.7	653.6	636.1	609.9
59°	288.6	296.6	313.3	388.8	533.1	624.6	652.8	648.8	633.3	615.4	590.0
59.5°	281.1	288.6	303.3	374.1	514.5	603.9	630.5	627.4	611.9	594.8	569.7
60°	273.5	280.7	293.4	359.8	496.2	583.2	609.1	606.7	590.8	575.3	550.6
60.5°	266.4	272.7	283.9	346.3	478.3	563.0	588.8	586.4	571.3	556.2	531.6
61°	259.2	265.2	274.3	332.4	461.2	543.1	568.9	566.5	550.2	537.1	512.9
61.5°	252.1	258.0	266.0	319.2	443.7	524.0	549.0	547.1	531.6	518.4	495.0
62°	245.3	250.9	257.2	306.9	427.0	505.3	529.6	528.4	512.9	500.1	477.5
62.5°	238.5	243.7	248.9	294.6	411.1	487.0	510.5	509.3	493.4	482.3	460.4
63°	232.2	236.6	240.9	282.7	395.2	468.3	492.2	491.0	476.3	464.8	443.3
63.5°	225.8	229.8	233.0	270.7	378.9	450.4	473.9	473.1	458.0	447.7	427.4
64°	219.5	223.4	225.4	259.6	365.0	433.4	456.8	456.0	440.5	431.0	411.1
64.5°	213.1	216.7	218.3	248.9	350.7	416.7	439.7	438.9	424.6	415.1	395.6
65°	206.3	210.3	211.5	238.5	336.3	400.8	423.0	422.6	408.3	399.6	380.9
65.5°	200.0	204.0	204.4	228.6	322.0	384.8	406.7	406.7	392.0	384.1	366.2
66°	193.6	197.6	197.6	218.7	307.7	368.9	391.2	391.2	376.9	368.9	351.5



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	173.7	178.9	178.9	191.6	268.4	326.0	347.1	347.5	334.8	327.2	311.3
68°	167.8	172.9	172.9	182.9	256.0	312.1	333.6	334.0	320.8	313.7	297.8
68.5°	161.4	167.0	167.0	174.9	244.5	297.8	319.6	320.0	307.3	300.2	285.1
69°	155.1	161.0	161.0	166.6	232.6	284.7	306.1	306.5	293.4	287.8	272.7
69.5°	149.1	154.7	155.5	159.4	221.8	271.5	292.2	293.0	281.1	275.5	260.8
70°	142.3	148.7	149.9	152.3	211.1	258.8	279.5	280.7	269.2	263.6	248.9
70.5°	136.8	142.3	144.7	145.5	200.8	246.9	266.8	268.4	257.2	252.1	237.7
71°	131.2	136.8	139.5	139.1	190.4	235.8	255.2	256.8	245.7	240.5	227.0
71.5°	125.2	131.6	134.4	133.2	180.9	224.2	243.7	245.3	234.2	229.4	216.3
72°	119.7	126.0	129.2	126.8	171.4	213.1	232.2	233.8	223.4	218.7	205.9
72.5°	114.1	120.9	124.4	120.9	162.2	202.4	221.4	223.0	212.7	208.3	195.6
73°	108.5	115.3	119.3	114.5	153.5	192.0	210.3	212.7	202.4	198.0	186.1
73.5°	102.6	109.7	114.1	109.3	144.7	182.1	200.8	202.4	192.4	188.4	176.5
74°	97.0	104.6	109.3	104.2	136.8	172.5	190.4	192.8	182.9	178.9	167.4
74.5°	91.8	99.4	104.6	99.0	128.8	163.4	180.5	182.9	173.3	170.2	158.6
75°	86.3	93.8	99.8	94.2	121.3	154.3	171.0	173.7	164.2	161.0	149.9
75.5°	81.1	89.1	95.0	89.9	113.7	145.5	162.2	164.6	155.5	152.3	141.5
76°	75.9	83.9	90.6	85.5	106.9	137.2	153.1	155.8	146.7	143.5	133.2
76.5°	71.2	78.7	85.9	81.1	100.2	128.8	144.7	147.5	138.8	135.6	125.6
77°	66.4	73.9	81.5	77.1	93.8	121.3	136.4	139.1	130.4	127.6	118.1
77.5°	62.4	69.2	77.1	73.6	87.5	113.7	128.4	131.2	122.5	120.1	110.5
78°	58.8	64.8	72.8	69.6	81.5	106.2	120.5	123.6	114.9	112.5	103.4
78.5°	55.3	60.8	68.4	66.0	75.5	99.4	113.3	116.1	107.7	105.4	96.6
79°	51.7	56.9	64.4	62.0	70.4	92.6	105.8	108.9	100.2	98.2	90.2
79.5°	48.5	53.3	60.4	58.4	64.8	85.9	99.0	101.8	93.4	91.8	83.5
80°	44.9	50.1	56.5	54.9	60.0	79.9	92.2	94.6	86.7	85.1	77.1
80.5°	42.1	46.5	52.5	51.7	54.9	73.9	85.5	88.3	79.9	78.7	71.6
81°	39.0	43.3	48.9	48.1	50.9	68.0	79.5	81.9	73.6	72.4	65.6
81.5°	35.8	39.8	45.7	44.5	46.1	62.4	73.2	75.5	67.2	66.4	60.0
82°	32.6	36.6	42.1	41.3	42.1	57.3	67.6	69.6	61.2	60.8	54.5
82.5°	29.8	33.4	39.0	38.2	38.2	52.1	61.6	63.6	55.3	55.3	49.3
83°	26.6	30.2	35.8	35.0	34.6	47.3	56.5	58.0	49.7	49.7	44.5
83.5°	23.5	27.0	32.6	32.2	31.4	42.9	50.9	52.5	43.7	44.5	40.2
84°	20.7	24.3	29.4	29.0	28.2	39.0	46.1	47.3	38.6	39.8	35.8
84.5°	17.9	21.1	26.2	26.2	24.6	34.6	40.9	42.1	33.0	35.0	31.4
85°	15.1	18.3	23.1	23.1	21.5	30.6	37.0	37.4	27.8	30.2	27.0
85.5°	12.7	15.1	20.3	20.3	18.7	26.6	32.6	33.0	22.7	25.4	22.7
86°	10.3	12.7	17.1	17.5	15.9	22.7	28.2	28.6	17.1	20.7	18.3
86.5°	8.0	10.7	14.7	14.7	13.5	19.5	23.9	23.9	12.7	17.1	14.7
87°	6.0	8.3	11.9	12.3	11.1	15.9	19.5	19.5	10.3	13.5	11.1
87.5°	4.0	6.0	9.5	9.9	8.7	12.7	15.9	15.5	8.0	10.3	7.6
88°	2.4	4.0	6.8	7.2	6.8	9.9	11.9	11.9	5.6	6.8	4.4
88.5°	1.2	2.4	4.4	4.8	4.8	7.2	8.7	8.0	3.2	3.2	1.2



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

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	0.4	0.4	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1703.6	1703.6	1703.6	1703.6	1703.6	1703.6
0.5°	1708.4	1707.2	1700.8	1695.2	1690.1	1687.3
1°	1712.7	1706.8	1695.2	1685.3	1677.0	1673.8
1.5°	1717.1	1706.0	1689.3	1675.0	1663.8	1659.9
2°	1721.5	1705.2	1683.3	1665.0	1650.7	1645.5
2.5°	1725.9	1704.4	1677.4	1654.3	1638.0	1632.0
3°	1729.8	1703.2	1671.4	1644.0	1625.7	1618.9
3.5°	1733.4	1702.4	1665.0	1633.6	1613.7	1606.2
4°	1737.4	1701.2	1658.7	1623.7	1601.4	1594.3
4.5°	1741.0	1700.0	1652.3	1613.7	1589.9	1581.9
5°	1744.1	1698.8	1645.5	1604.2	1578.8	1570.4
5.5°	1747.3	1697.2	1639.2	1594.3	1567.6	1558.5
6°	1750.5	1695.6	1632.4	1585.1	1556.5	1546.9
6.5°	1753.3	1694.0	1626.1	1575.6	1545.4	1535.4
7°	1756.1	1692.5	1619.3	1566.4	1534.2	1523.5
7.5°	1758.9	1690.5	1612.5	1556.9	1523.1	1512.0
8°	1761.2	1688.5	1606.2	1547.7	1512.0	1500.4
8.5°	1763.6	1686.5	1599.0	1538.2	1500.8	1488.9
9°	1766.0	1684.1	1592.3	1528.7	1489.3	1477.4
9.5°	1768.0	1681.7	1585.5	1519.1	1478.6	1465.8
10°	1770.0	1679.3	1578.8	1510.0	1467.4	1454.3
10.5°	1771.6	1676.6	1571.6	1500.0	1456.3	1443.2
11°	1773.2	1673.8	1564.8	1490.5	1445.2	1431.3
11.5°	1774.4	1671.0	1557.7	1480.6	1434.0	1419.7
12°	1775.6	1668.2	1550.5	1471.0	1422.9	1408.2
12.5°	1776.7	1665.0	1543.0	1461.1	1411.8	1397.1
13°	1777.5	1661.4	1535.8	1451.1	1401.0	1385.5
13.5°	1778.3	1658.3	1528.3	1441.2	1389.5	1374.4
14°	1778.7	1654.7	1520.7	1431.3	1378.4	1362.9
14.5°	1778.7	1650.7	1513.2	1420.9	1367.2	1351.3
15°	1778.7	1646.7	1505.6	1411.0	1356.1	1340.2
15.5°	1778.7	1642.8	1497.3	1400.6	1344.2	1328.7
16°	1778.3	1638.4	1489.3	1390.3	1333.5	1317.5
16.5°	1777.9	1634.0	1481.3	1380.0	1322.3	1306.4
17°	1777.1	1629.2	1473.0	1370.0	1311.2	1294.9
17.5°	1775.9	1624.5	1464.3	1359.3	1299.7	1283.8
18°	1774.8	1619.7	1455.9	1349.0	1288.5	1272.2
18.5°	1773.2	1614.1	1447.2	1337.8	1277.0	1261.1
19°	1771.2	1609.0	1438.4	1327.5	1265.9	1250.0
19.5°	1769.2	1603.4	1429.3	1316.8	1254.7	1238.4
20°	1766.8	1597.4	1420.5	1306.4	1243.6	1227.3
20.5°	1764.4	1591.9	1411.0	1295.3	1232.1	1215.8
21°	1761.6	1585.5	1401.8	1284.2	1220.9	1204.6



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1751.7	1565.6	1372.8	1251.2	1186.4	1170.1
23°	1747.3	1558.9	1362.9	1240.4	1174.8	1158.5
23.5°	1743.3	1551.3	1352.9	1228.9	1163.3	1147.0
24°	1738.6	1544.2	1343.0	1217.8	1151.8	1135.5
24.5°	1733.8	1536.2	1332.7	1206.2	1139.8	1123.5
25°	1728.6	1528.3	1322.3	1195.1	1128.3	1111.6
25.5°	1723.5	1520.3	1311.6	1183.6	1116.8	1099.7
26°	1717.5	1512.4	1301.2	1172.0	1104.8	1087.8
26.5°	1711.5	1504.0	1290.5	1160.5	1092.5	1075.8
27°	1705.2	1494.9	1279.8	1149.0	1080.6	1063.1
27.5°	1698.4	1486.1	1268.6	1137.1	1068.3	1050.4
28°	1691.3	1477.0	1257.5	1125.1	1055.6	1038.1
28.5°	1684.1	1467.8	1246.4	1113.2	1043.6	1025.3
29°	1676.6	1457.9	1235.3	1101.7	1030.9	1012.2
29.5°	1668.6	1448.4	1224.1	1089.7	1018.6	999.1
30°	1660.3	1438.4	1212.6	1077.8	1005.9	986.0
30.5°	1651.5	1428.1	1200.7	1065.1	992.7	972.5
31°	1642.8	1417.7	1189.1	1053.2	979.6	958.5
31.5°	1633.2	1407.4	1177.6	1040.8	966.1	944.6
32°	1624.1	1395.9	1165.3	1028.5	952.6	930.3
32.5°	1613.7	1385.1	1153.4	1016.2	939.1	916.0
33°	1603.4	1373.6	1141.0	1003.5	925.5	902.1
33.5°	1592.3	1362.1	1129.1	990.7	911.2	887.4
34°	1580.3	1349.8	1116.4	978.0	897.3	873.1
34.5°	1568.4	1337.4	1104.1	965.3	883.4	857.6
35°	1555.7	1325.1	1091.3	952.2	868.7	842.9
35.5°	1543.8	1313.6	1079.0	939.1	854.4	827.3
36°	1532.6	1302.4	1066.7	926.3	839.7	812.6
36.5°	1521.9	1291.3	1054.4	912.8	824.6	796.7
37°	1510.8	1280.2	1042.0	899.3	809.9	781.6
37.5°	1498.4	1269.0	1029.7	886.2	794.7	765.7
38°	1484.5	1257.1	1017.4	872.7	779.6	750.6
38.5°	1469.0	1244.4	1005.1	859.5	764.1	734.3
39°	1451.1	1230.5	993.1	845.6	749.0	719.6
39.5°	1432.4	1215.4	980.0	832.5	733.5	704.5
40°	1412.6	1199.1	966.5	818.2	718.4	690.2
40.5°	1392.7	1182.0	952.6	804.7	702.5	675.1
41°	1372.0	1164.9	938.3	790.8	687.4	661.6
41.5°	1350.2	1146.6	924.0	776.9	672.3	647.6
42°	1328.3	1128.3	908.4	762.1	657.6	634.9
42.5°	1306.0	1109.6	892.9	747.8	643.7	621.8
43°	1283.8	1090.5	877.0	733.1	629.4	608.7
43.5°	1259.9	1071.1	861.1	718.0	615.8	596.0

TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1188.7	1011.4	810.6	671.9	576.1	559.4
45.5°	1164.1	990.7	793.6	656.4	563.8	548.3
46°	1139.4	970.9	776.5	640.1	550.6	536.3
46.5°	1116.0	949.4	759.0	624.6	538.7	524.8
47°	1090.5	928.7	741.5	608.3	526.8	513.7
47.5°	1065.5	907.3	723.6	592.0	514.9	502.5
48°	1040.8	887.0	706.1	575.7	502.9	491.8
48.5°	1017.0	865.5	688.2	559.8	491.4	481.1
49°	991.5	844.8	670.7	543.9	479.9	470.7
49.5°	966.9	823.8	652.8	528.8	468.7	460.0
50°	942.2	802.3	634.9	513.3	457.6	449.7
50.5°	918.8	781.6	617.0	498.6	446.5	439.3
51°	893.3	761.0	600.3	483.4	435.7	429.4
51.5°	870.7	740.3	582.4	469.5	425.0	419.8
52°	846.0	719.2	565.3	455.2	414.7	409.9
52.5°	823.0	698.1	547.9	441.3	404.3	400.4
53°	799.5	678.3	530.8	427.4	394.4	390.8
53.5°	776.9	658.4	513.7	414.7	384.1	381.7
54°	753.4	638.1	497.4	401.5	374.1	372.1
54.5°	731.5	618.2	481.1	388.4	364.6	363.4
55°	709.3	599.5	464.8	376.1	355.0	354.2
55.5°	687.8	580.1	448.5	364.2	345.9	345.5
56°	665.9	561.4	433.4	352.2	336.7	337.1
56.5°	644.9	542.3	417.8	340.3	327.6	328.4
57°	624.2	524.0	402.7	329.2	318.5	320.0
57.5°	604.3	505.7	387.6	318.5	309.7	312.1
58°	584.0	488.6	373.7	308.1	301.4	303.7
58.5°	564.9	471.5	359.8	297.8	293.0	296.2
59°	545.1	454.4	346.3	287.8	285.1	288.6
59.5°	526.4	437.3	332.8	278.3	277.1	281.1
60°	508.1	421.4	320.0	269.2	269.2	273.5
60.5°	490.2	405.1	307.3	260.0	261.6	266.4
61°	472.3	390.0	295.0	251.3	254.0	259.2
61.5°	455.6	375.3	283.5	242.9	246.9	252.1
62°	438.5	360.2	271.9	235.0	239.7	245.3
62.5°	422.2	345.9	260.4	227.0	233.0	238.5
63°	405.9	331.6	249.7	219.5	226.2	232.2
63.5°	390.4	318.1	239.3	211.9	219.1	225.8
64°	374.9	304.5	229.4	205.1	213.1	219.5
64.5°	360.2	291.8	219.5	198.4	206.7	213.1
65°	346.7	279.1	210.3	191.6	200.4	206.3
65.5°	332.8	267.2	201.2	185.3	194.4	200.0
66°	318.9	254.8	192.4	179.3	188.4	193.6



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	278.7	221.4	167.8	161.4	170.2	173.7
68°	266.4	210.7	160.2	155.8	163.8	167.8
68.5°	254.4	200.4	153.1	150.3	157.8	161.4
69°	242.9	190.8	145.9	145.1	151.9	155.1
69.5°	231.4	181.3	139.5	140.3	145.9	149.1
70°	220.3	171.8	133.2	135.2	140.3	142.3
70.5°	209.9	163.0	126.8	130.4	134.8	136.8
71°	199.6	154.3	120.5	125.2	129.2	131.2
71.5°	189.2	145.9	114.5	120.1	123.6	125.2
72°	179.7	138.4	108.9	115.3	118.1	119.7
72.5°	170.2	131.2	103.4	110.5	112.5	114.1
73°	161.0	123.6	97.8	105.8	106.9	108.5
73.5°	152.3	116.1	93.0	101.0	101.8	102.6
74°	143.9	108.5	88.3	96.6	96.6	97.0
74.5°	135.6	101.8	83.9	91.8	91.4	91.8
75°	127.6	95.4	79.5	87.5	86.3	86.3
75.5°	120.1	89.1	75.1	83.1	81.1	81.1
76°	112.5	83.1	71.2	78.7	76.3	75.9
76.5°	105.8	77.5	67.2	74.3	71.2	71.2
77°	98.6	72.0	63.6	70.0	66.8	66.4
77.5°	92.2	66.8	60.0	66.0	62.0	62.4
78°	85.9	61.6	56.9	61.6	58.0	58.8
78.5°	79.5	56.9	53.3	57.6	54.1	55.3
79°	73.9	52.1	49.7	54.1	50.5	51.7
79.5°	68.0	47.7	46.5	50.1	47.3	48.5
80°	62.4	43.3	43.3	46.1	43.7	44.9
80.5°	57.3	39.4	40.2	42.9	40.6	42.1
81°	52.5	35.8	37.0	39.4	37.4	39.0
81.5°	47.7	32.2	33.8	36.2	33.8	35.8
82°	42.9	28.6	31.0	33.0	30.6	32.6
82.5°	39.0	25.4	28.2	29.8	27.8	29.8
83°	35.4	22.7	25.4	27.0	24.6	26.6
83.5°	31.4	19.9	22.3	23.9	21.5	23.5
84°	27.4	17.1	19.9	21.1	18.7	20.7
84.5°	23.5	14.3	17.1	18.3	15.9	17.9
85°	19.5	12.3	14.3	15.5	13.5	15.1
85.5°	16.3	9.9	11.9	13.1	11.1	12.7
86°	13.1	8.0	9.5	10.7	8.7	10.3
86.5°	9.9	5.6	7.2	8.0	6.8	8.0
87°	7.2	4.0	4.8	5.6	4.8	6.0
87.5°	4.8	2.0	2.8	3.6	3.2	4.0
88°	2.0	0.8	0.8	1.6	2.0	2.4
88.5°	0.4	0.0	0.0	0.4	0.8	1.2



TEST NUMBER: P776497

CATALOG NUMBER: HCDJBL3040CSD-HCD8TRH-HCD8TRLWW-4000lm-3500K

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°	1193.1	1219.7	1292.9	1418.9	1618.1	1802.6	1935.0	2008.9	2024.8	1987.5	1897.2
22°	1181.6	1209.0	1282.2	1410.2	1612.5	1800.6	1935.0	2009.7	2025.2	1987.5	1896.0



44°	583.6	615.4	730.3	896.5	1146.6	1353.3	1453.1	1471.0	1447.6	1411.0	1347.0
44.5°	571.7	601.9	715.2	881.0	1128.7	1330.7	1425.3	1440.8	1418.1	1381.2	1319.9



66.5°	186.9	191.6	191.2	209.1	293.4	354.2	375.7	375.7	362.2	354.6	338.3
67°	180.5	185.3	184.9	200.0	280.7	340.3	361.0	361.0	348.3	341.1	324.8



89°	0.4	1.2	2.0	2.8	3.2	4.4	5.2	4.0	0.8	0.4	0.0
89.5°	0.0	0.4	0.4	0.8	1.6	2.0	2.0	0.8	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



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

Scaled Data Report



21.5°	1758.5	1579.2	1392.3	1273.4	1209.4	1193.1
22°	1754.9	1572.4	1382.8	1262.3	1197.9	1181.6



44°	1236.8	1051.2	844.4	702.9	602.3	583.6
44.5°	1211.8	1031.3	827.3	687.8	589.2	571.7



66.5°	305.3	243.3	184.1	173.3	182.1	186.9
67°	291.4	231.8	175.7	167.4	176.1	180.5

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

Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.4	0.4
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)