

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: P776835

Luminaire Tested: HCDJBS4050CSD-HCD8TSQMB-5000lm-2700K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B024-HCD8TSQMB)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD8TSQMB-5000lm-2700K
Description: 8 INCH SQUARE MEDIUM MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

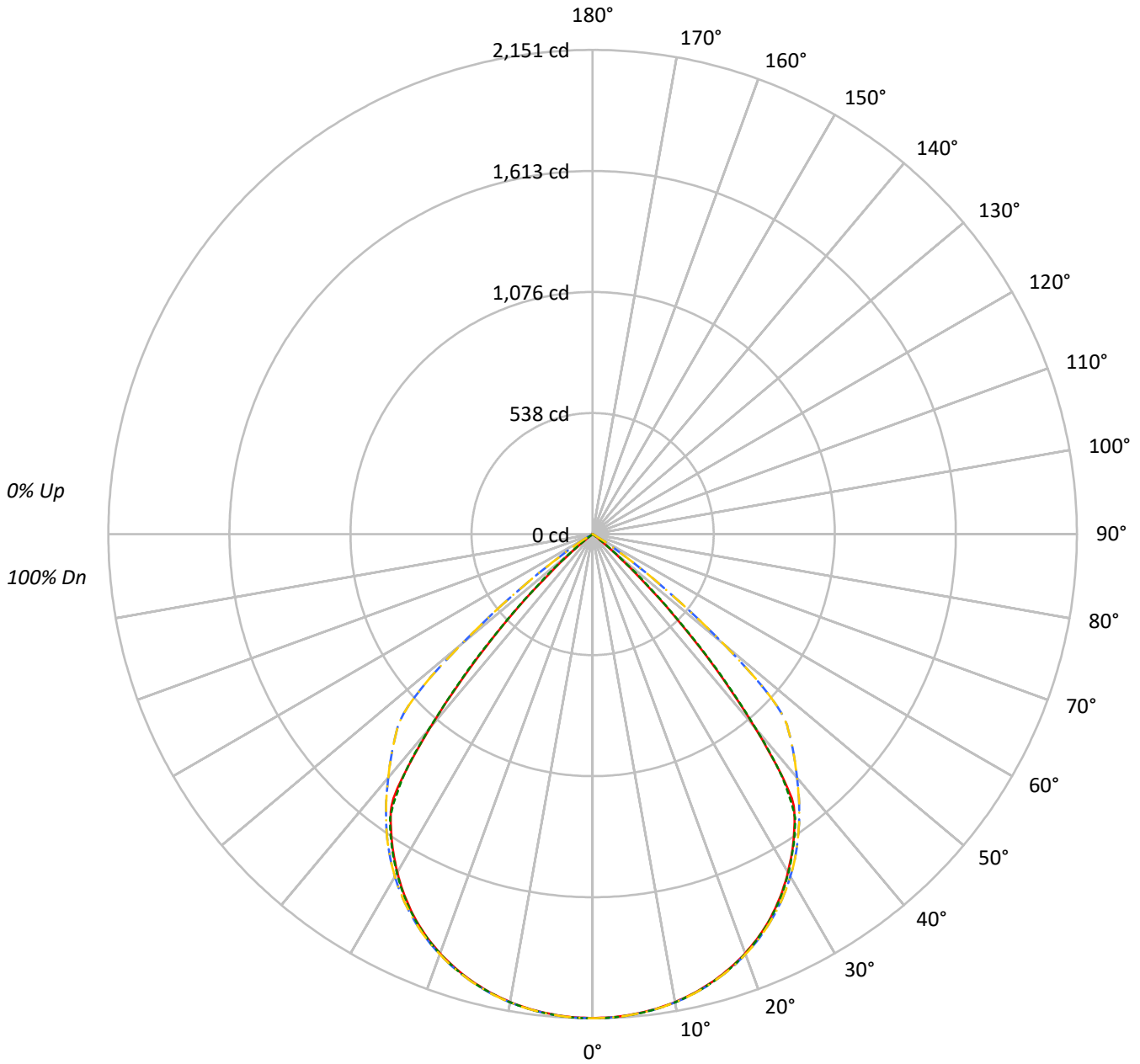
Lumens per Lamp: N/A
Luminaire Lumens: 3342.2 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.28
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (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



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92			92																
2	106	101	96	92	104	99	95	91	96	92	89	92	90	87	90	87	85	84			84																
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	77	76			76																
4	93	85	78	73	91	84	78	73	81	76	72	79	75	71	77	74	70	69			69																
5	88	78	71	66	86	77	71	66	75	70	65	73	68	65	72	67	64	62			62																
6	82	72	65	60	81	71	64	60	69	64	59	68	63	59	67	62	58	57			57																
7	77	66	59	55	76	66	59	54	64	58	54	63	58	54	62	57	53	52			52																
8	72	62	55	50	71	61	54	50	60	54	50	59	53	49	58	53	49	47			47																
9	68	57	50	46	67	57	50	46	56	50	45	55	49	45	54	49	45	44			44																
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40			40																

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	51570	51570	51570	51570
5°	51515	51548	51515	51548
10°	51390	51424	51390	51424
15°	51093	51141	51093	51141
20°	50568	50614	50568	50614
25°	49623	49681	49623	49681
30°	48033	48133	48033	48133
35°	45767	45899	45767	45899
40°	35080	35380	35080	35380
45°	17396	17844	17396	17844
50°	3824	4656	3824	4656
55°	59	75	59	75
60°	43	67	43	67
65°	51	51	51	51
70°	35	35	35	35
75°	46	46	46	46
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 41666 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.5	6.1
10°-20°	580.9	17.4
20°-30°	865.0	25.9
30°-40°	978.4	29.3
40°-50°	624.4	18.7
50°-60°	88.6	2.7
60°-70°	1.0	0.0
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	1649.4	49.4
0°-40°	2627.9	78.6
0°-60°	3340.9	100.0
0°-90°	3342.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3342.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2151	2151	2151	2151	2151	
5°	2140	2142	2140	2142	2140	203
15°	2058	2060	2058	2060	2058	580
25°	1876	1878	1876	1878	1876	862
35°	1564	1568	1564	1568	1564	949
45°	513	526	513	526	513	409
55°	1	2	1	2	1	13
65°	1	1	1	1	1	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7
0.5°	2149.8	2150.3	2150.7	2151.2	2151.2	2151.2	2150.7	2150.3	2149.8	2150.3	2150.7
1°	2149.3	2149.8	2150.3	2150.7	2150.7	2150.7	2150.3	2149.8	2149.3	2149.8	2150.3
1.5°	2148.9	2149.3	2149.8	2150.3	2150.3	2150.3	2149.8	2149.3	2148.9	2149.3	2149.8
2°	2148.4	2148.4	2149.3	2149.8	2149.3	2149.8	2149.3	2148.4	2148.4	2148.4	2149.3
2.5°	2147.5	2148.0	2148.4	2148.9	2148.9	2148.9	2148.4	2148.0	2147.5	2148.0	2148.4
3°	2146.6	2146.6	2147.5	2148.0	2147.5	2148.0	2147.5	2146.6	2146.6	2146.6	2147.5
3.5°	2145.2	2145.7	2146.2	2146.6	2146.6	2146.6	2146.2	2145.7	2145.2	2145.7	2146.2
4°	2143.9	2144.3	2144.8	2145.2	2144.8	2145.2	2144.8	2144.3	2143.9	2144.3	2144.8
4.5°	2142.1	2142.5	2143.0	2143.4	2143.4	2143.4	2143.0	2142.5	2142.1	2142.5	2143.0
5°	2140.2	2140.7	2141.6	2141.6	2141.6	2141.6	2141.6	2140.7	2140.2	2140.7	2141.6
5.5°	2138.4	2138.9	2139.3	2139.8	2139.3	2139.8	2139.3	2138.9	2138.4	2138.9	2139.3
6°	2136.1	2136.6	2137.0	2137.5	2137.5	2137.5	2137.0	2136.6	2136.1	2136.6	2137.0
6.5°	2133.9	2134.3	2134.8	2135.2	2134.8	2135.2	2134.8	2134.3	2133.9	2134.3	2134.8
7°	2131.1	2131.6	2132.5	2132.5	2132.5	2132.5	2132.5	2131.6	2131.1	2131.6	2132.5
7.5°	2128.4	2128.8	2129.3	2129.8	2129.3	2129.8	2129.3	2128.8	2128.4	2128.8	2129.3
8°	2125.2	2125.7	2126.6	2126.6	2126.6	2126.6	2126.6	2125.7	2125.2	2125.7	2126.6
8.5°	2122.0	2122.5	2123.4	2123.4	2122.9	2123.4	2123.4	2122.5	2122.0	2122.5	2123.4
9°	2118.4	2118.8	2119.7	2120.2	2119.7	2120.2	2119.7	2118.8	2118.4	2118.8	2119.7
9.5°	2114.7	2115.2	2116.1	2116.5	2115.6	2116.5	2116.1	2115.2	2114.7	2115.2	2116.1
10°	2110.6	2111.5	2112.4	2112.4	2112.0	2112.4	2112.4	2111.5	2110.6	2111.5	2112.4
10.5°	2106.5	2107.4	2108.3	2108.3	2107.9	2108.3	2108.3	2107.4	2106.5	2107.4	2108.3
11°	2102.0	2102.9	2104.2	2103.8	2103.3	2103.8	2104.2	2102.9	2102.0	2102.9	2104.2
11.5°	2097.4	2098.3	2099.7	2099.2	2098.8	2099.2	2099.7	2098.3	2097.4	2098.3	2099.7
12°	2092.4	2093.3	2094.7	2094.7	2093.8	2094.7	2094.7	2093.3	2092.4	2093.3	2094.7
12.5°	2087.4	2088.3	2089.7	2089.7	2088.8	2089.7	2089.7	2088.3	2087.4	2088.3	2089.7
13°	2081.9	2083.3	2084.7	2084.7	2083.7	2084.7	2084.7	2083.3	2081.9	2083.3	2084.7
13.5°	2076.5	2077.8	2079.2	2079.2	2078.3	2079.2	2079.2	2077.8	2076.5	2077.8	2079.2
14°	2070.5	2071.9	2073.3	2073.3	2072.4	2073.3	2073.3	2071.9	2070.5	2071.9	2073.3
14.5°	2064.6	2066.0	2067.3	2067.3	2066.4	2067.3	2067.3	2066.0	2064.6	2066.0	2067.3
15°	2058.2	2059.6	2061.4	2061.0	2060.1	2061.0	2061.4	2059.6	2058.2	2059.6	2061.4
15.5°	2051.9	2053.2	2055.0	2054.6	2053.7	2054.6	2055.0	2053.2	2051.9	2053.2	2055.0
16°	2045.0	2046.4	2048.2	2048.2	2046.8	2048.2	2048.2	2046.4	2045.0	2046.4	2048.2
16.5°	2038.2	2039.6	2041.4	2041.4	2040.0	2041.4	2041.4	2039.6	2038.2	2039.6	2041.4
17°	2030.4	2032.3	2034.5	2034.1	2032.7	2034.1	2034.5	2032.3	2030.4	2032.3	2034.5
17.5°	2023.2	2025.0	2026.8	2026.8	2025.4	2026.8	2026.8	2025.0	2023.2	2025.0	2026.8
18°	2015.4	2017.2	2019.5	2019.1	2017.2	2019.1	2019.5	2017.2	2015.4	2017.2	2019.5
18.5°	2007.2	2009.5	2011.3	2010.9	2009.0	2010.9	2011.3	2009.5	2007.2	2009.5	2011.3
19°	1999.0	2001.3	2003.1	2002.7	2000.8	2002.7	2003.1	2001.3	1999.0	2001.3	2003.1
19.5°	1990.4	1992.6	1994.9	1994.5	1992.6	1994.5	1994.9	1992.6	1990.4	1992.6	1994.9
20°	1981.7	1984.0	1986.3	1985.8	1983.5	1985.8	1986.3	1984.0	1981.7	1984.0	1986.3
20.5°	1972.1	1974.9	1977.6	1976.7	1974.4	1976.7	1977.6	1974.9	1972.1	1974.9	1977.6
21°	1962.6	1965.8	1968.5	1967.6	1964.8	1967.6	1968.5	1965.8	1962.6	1965.8	1968.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1932.5	1936.1	1939.3	1938.0	1934.8	1938.0	1939.3	1936.1	1932.5	1936.1	1939.3
23°	1921.6	1925.7	1929.3	1927.5	1923.8	1927.5	1929.3	1925.7	1921.6	1925.7	1929.3
23.5°	1910.6	1915.2	1918.8	1916.6	1912.9	1916.6	1918.8	1915.2	1910.6	1915.2	1918.8
24°	1899.7	1903.8	1907.9	1905.6	1901.5	1905.6	1907.9	1903.8	1899.7	1903.8	1907.9
24.5°	1887.9	1892.4	1897.0	1894.2	1890.1	1894.2	1897.0	1892.4	1887.9	1892.4	1897.0
25°	1875.6	1881.0	1885.6	1882.4	1877.8	1882.4	1885.6	1881.0	1875.6	1881.0	1885.6
25.5°	1862.8	1869.2	1874.2	1870.5	1865.5	1870.5	1874.2	1869.2	1862.8	1869.2	1874.2
26°	1850.5	1856.9	1862.3	1858.2	1853.2	1858.2	1862.3	1856.9	1850.5	1856.9	1862.3
26.5°	1836.8	1844.1	1850.0	1845.5	1840.0	1845.5	1850.0	1844.1	1836.8	1844.1	1850.0
27°	1823.6	1830.9	1837.7	1832.3	1826.4	1832.3	1837.7	1830.9	1823.6	1830.9	1837.7
27.5°	1810.0	1817.7	1825.0	1819.1	1812.7	1819.1	1825.0	1817.7	1810.0	1817.7	1825.0
28°	1795.4	1804.0	1811.8	1805.4	1798.6	1805.4	1811.8	1804.0	1795.4	1804.0	1811.8
28.5°	1780.8	1789.9	1798.6	1791.7	1784.0	1791.7	1798.6	1789.9	1780.8	1789.9	1798.6
29°	1765.8	1775.3	1784.9	1777.2	1769.4	1777.2	1784.9	1775.3	1765.8	1775.3	1784.9
29.5°	1750.7	1760.8	1770.8	1762.6	1753.9	1762.6	1770.8	1760.8	1750.7	1760.8	1770.8
30°	1734.8	1745.7	1756.7	1748.0	1738.4	1748.0	1756.7	1745.7	1734.8	1745.7	1756.7
30.5°	1718.8	1730.7	1742.1	1732.5	1722.9	1732.5	1742.1	1730.7	1718.8	1730.7	1742.1
31°	1702.9	1714.7	1727.0	1717.0	1707.0	1717.0	1727.0	1714.7	1702.9	1714.7	1727.0
31.5°	1686.5	1699.3	1712.0	1701.5	1690.1	1701.5	1712.0	1699.3	1686.5	1699.3	1712.0
32°	1670.1	1683.3	1696.5	1685.6	1673.7	1685.6	1696.5	1683.3	1670.1	1683.3	1696.5
32.5°	1653.2	1666.9	1680.6	1669.2	1656.9	1669.2	1680.6	1666.9	1653.2	1666.9	1680.6
33°	1635.9	1650.5	1664.6	1652.8	1640.0	1652.8	1664.6	1650.5	1635.9	1650.5	1664.6
33.5°	1618.2	1633.7	1647.8	1636.4	1622.7	1636.4	1647.8	1633.7	1618.2	1633.7	1647.8
34°	1599.9	1617.3	1630.9	1619.5	1604.9	1619.5	1630.9	1617.3	1599.9	1617.3	1630.9
34.5°	1581.7	1599.9	1614.1	1602.2	1586.7	1602.2	1614.1	1599.9	1581.7	1599.9	1614.1
35°	1563.5	1582.6	1596.3	1584.9	1568.0	1584.9	1596.3	1582.6	1563.5	1582.6	1596.3
35.5°	1544.4	1565.3	1579.0	1567.6	1548.9	1567.6	1579.0	1565.3	1544.4	1565.3	1579.0
36°	1525.2	1547.5	1561.2	1549.8	1518.4	1549.8	1561.2	1547.5	1525.2	1547.5	1561.2
36.5°	1502.4	1528.9	1543.0	1531.6	1484.7	1531.6	1543.0	1528.9	1502.4	1528.9	1543.0
37°	1471.0	1510.2	1524.8	1513.4	1445.0	1513.4	1524.8	1510.2	1471.0	1510.2	1524.8
37.5°	1423.2	1491.5	1506.1	1494.2	1406.8	1494.2	1506.1	1491.5	1423.2	1491.5	1506.1
38°	1371.2	1472.8	1487.4	1472.8	1363.0	1472.8	1487.4	1472.8	1371.2	1472.8	1487.4
38.5°	1309.7	1452.8	1468.7	1442.3	1312.9	1442.3	1468.7	1452.8	1309.7	1452.8	1468.7
39°	1247.3	1426.4	1450.5	1406.8	1256.9	1406.8	1450.5	1426.4	1247.3	1426.4	1450.5
39.5°	1184.0	1390.4	1431.4	1369.9	1194.5	1369.9	1431.4	1390.4	1184.0	1390.4	1431.4
40°	1120.7	1343.9	1412.2	1329.8	1130.3	1329.8	1412.2	1343.9	1120.7	1343.9	1412.2
40.5°	1056.9	1289.7	1394.0	1284.7	1064.7	1284.7	1394.0	1289.7	1056.9	1289.7	1394.0
41°	992.2	1230.9	1375.3	1234.6	1001.8	1234.6	1375.3	1230.9	992.2	1230.9	1375.3
41.5°	929.8	1171.7	1357.1	1179.5	939.8	1179.5	1357.1	1171.7	929.8	1171.7	1357.1
42°	866.5	1112.0	1338.9	1119.8	879.2	1119.8	1338.9	1112.0	866.5	1112.0	1338.9
42.5°	805.4	1052.8	1320.7	1059.2	819.1	1059.2	1320.7	1052.8	805.4	1052.8	1320.7
43°	744.4	992.2	1302.5	997.7	758.1	997.7	1302.5	992.2	744.4	992.2	1302.5
43.5°	684.7	931.6	1283.8	938.5	697.5	938.5	1283.8	931.6	684.7	931.6	1283.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	513.0	754.0	1228.7	765.3	526.2	765.3	1228.7	754.0	513.0	754.0	1228.7
45.5°	458.8	697.0	1210.0	707.5	473.3	707.5	1210.0	697.0	458.8	697.0	1210.0
46°	407.7	641.0	1185.8	651.5	422.8	651.5	1185.8	641.0	407.7	641.0	1185.8
46.5°	358.1	585.4	1157.6	596.3	373.6	596.3	1157.6	585.4	358.1	585.4	1157.6
47°	308.9	530.7	1118.0	542.1	330.3	542.1	1118.0	530.7	308.9	530.7	1118.0
47.5°	261.9	477.4	1073.8	489.7	293.4	489.7	1073.8	477.4	261.9	477.4	1073.8
48°	220.9	427.3	1020.5	439.2	256.9	439.2	1020.5	427.3	220.9	427.3	1020.5
48.5°	183.6	379.0	962.1	390.9	220.5	390.9	962.1	379.0	183.6	379.0	962.1
49°	154.9	331.2	896.1	344.9	184.0	344.9	896.1	331.2	154.9	331.2	896.1
49.5°	128.0	284.7	829.1	302.0	151.7	302.0	829.1	284.7	128.0	284.7	829.1
50°	102.5	241.0	759.9	264.7	124.8	264.7	759.9	241.0	102.5	241.0	759.9
50.5°	81.5	201.8	692.0	229.6	98.4	229.6	692.0	201.8	81.5	201.8	692.0
51°	61.0	168.6	625.9	195.9	74.7	195.9	625.9	168.6	61.0	168.6	625.9
51.5°	43.7	140.8	564.4	164.5	58.8	164.5	564.4	140.8	43.7	140.8	564.4
52°	26.4	114.3	504.3	135.8	46.9	135.8	504.3	114.3	26.4	114.3	504.3
52.5°	9.6	92.0	446.5	109.8	35.1	109.8	446.5	92.0	9.6	92.0	446.5
53°	5.5	71.5	391.3	87.5	23.7	87.5	391.3	71.5	5.5	71.5	391.3
53.5°	4.1	52.8	342.6	66.5	13.7	66.5	342.6	52.8	4.1	52.8	342.6
54°	2.7	36.4	296.6	48.7	3.6	48.7	296.6	36.4	2.7	36.4	296.6
54.5°	1.4	20.0	253.7	36.4	1.8	36.4	253.7	20.0	1.4	20.0	253.7
55°	1.4	6.8	215.0	24.6	1.8	24.6	215.0	6.8	1.4	6.8	215.0
55.5°	1.4	4.1	178.1	15.0	1.8	15.0	178.1	4.1	1.4	4.1	178.1
56°	1.4	3.2	145.8	9.1	1.4	9.1	145.8	3.2	1.4	3.2	145.8
56.5°	1.4	1.8	120.3	3.6	1.4	3.6	120.3	1.8	1.4	1.8	120.3
57°	1.4	1.4	96.1	2.3	1.4	2.3	96.1	1.4	1.4	1.4	96.1
57.5°	1.4	1.4	74.7	1.4	1.4	1.4	74.7	1.4	1.4	1.4	74.7
58°	1.4	1.4	55.6	1.4	1.4	1.4	55.6	1.4	1.4	1.4	55.6
58.5°	0.9	0.9	40.1	1.4	1.4	1.4	40.1	0.9	0.9	0.9	40.1
59°	0.9	0.9	30.5	0.9	1.4	0.9	30.5	0.9	0.9	0.9	30.5
59.5°	0.9	0.9	22.3	0.9	1.4	0.9	22.3	0.9	0.9	0.9	22.3
60°	0.9	0.9	14.6	0.9	1.4	0.9	14.6	0.9	0.9	0.9	14.6
60.5°	0.9	0.9	8.7	0.9	0.9	0.9	8.7	0.9	0.9	0.9	8.7
61°	0.9	0.9	5.5	0.9	0.9	0.9	5.5	0.9	0.9	0.9	5.5
61.5°	0.9	0.9	3.2	0.9	0.9	0.9	3.2	0.9	0.9	0.9	3.2
62°	0.9	0.9	1.4	0.9	0.9	0.9	1.4	0.9	0.9	0.9	1.4
62.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
63°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
63.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
64°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
64.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.5	0.9	0.9	0.5	0.9	0.9	0.9	0.9	0.5
65.5°	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5
66°	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5



TEST NUMBER: P776835

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76.5°	0.5	0.5	0.0	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.0
77°	0.5	0.5	0.0	0.5	0.5	0.5	0.0	0.5	0.5	0.5	0.0
77.5°	0.0	0.5	0.0	0.5	0.5	0.5	0.0	0.5	0.0	0.5	0.0
78°	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776835
CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

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: P776835

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2150.7	2150.7	2150.7	2150.7	2150.7	2150.7
0.5°	2151.2	2151.2	2151.2	2150.7	2150.3	2149.8
1°	2150.7	2150.7	2150.7	2150.3	2149.8	2149.3
1.5°	2150.3	2150.3	2150.3	2149.8	2149.3	2148.9
2°	2149.8	2149.3	2149.8	2149.3	2148.4	2148.4
2.5°	2148.9	2148.9	2148.9	2148.4	2148.0	2147.5
3°	2148.0	2147.5	2148.0	2147.5	2146.6	2146.6
3.5°	2146.6	2146.6	2146.6	2146.2	2145.7	2145.2
4°	2145.2	2144.8	2145.2	2144.8	2144.3	2143.9
4.5°	2143.4	2143.4	2143.4	2143.0	2142.5	2142.1
5°	2141.6	2141.6	2141.6	2141.6	2140.7	2140.2
5.5°	2139.8	2139.3	2139.8	2139.3	2138.9	2138.4
6°	2137.5	2137.5	2137.5	2137.0	2136.6	2136.1
6.5°	2135.2	2134.8	2135.2	2134.8	2134.3	2133.9
7°	2132.5	2132.5	2132.5	2132.5	2131.6	2131.1
7.5°	2129.8	2129.3	2129.8	2129.3	2128.8	2128.4
8°	2126.6	2126.6	2126.6	2126.6	2125.7	2125.2
8.5°	2123.4	2122.9	2123.4	2123.4	2122.5	2122.0
9°	2120.2	2119.7	2120.2	2119.7	2118.8	2118.4
9.5°	2116.5	2115.6	2116.5	2116.1	2115.2	2114.7
10°	2112.4	2112.0	2112.4	2112.4	2111.5	2110.6
10.5°	2108.3	2107.9	2108.3	2108.3	2107.4	2106.5
11°	2103.8	2103.3	2103.8	2104.2	2102.9	2102.0
11.5°	2099.2	2098.8	2099.2	2099.7	2098.3	2097.4
12°	2094.7	2093.8	2094.7	2094.7	2093.3	2092.4
12.5°	2089.7	2088.8	2089.7	2089.7	2088.3	2087.4
13°	2084.7	2083.7	2084.7	2084.7	2083.3	2081.9
13.5°	2079.2	2078.3	2079.2	2079.2	2077.8	2076.5
14°	2073.3	2072.4	2073.3	2073.3	2071.9	2070.5
14.5°	2067.3	2066.4	2067.3	2067.3	2066.0	2064.6
15°	2061.0	2060.1	2061.0	2061.4	2059.6	2058.2
15.5°	2054.6	2053.7	2054.6	2055.0	2053.2	2051.9
16°	2048.2	2046.8	2048.2	2048.2	2046.4	2045.0
16.5°	2041.4	2040.0	2041.4	2041.4	2039.6	2038.2
17°	2034.1	2032.7	2034.1	2034.5	2032.3	2030.4
17.5°	2026.8	2025.4	2026.8	2026.8	2025.0	2023.2
18°	2019.1	2017.2	2019.1	2019.5	2017.2	2015.4
18.5°	2010.9	2009.0	2010.9	2011.3	2009.5	2007.2
19°	2002.7	2000.8	2002.7	2003.1	2001.3	1999.0
19.5°	1994.5	1992.6	1994.5	1994.9	1992.6	1990.4
20°	1985.8	1983.5	1985.8	1986.3	1984.0	1981.7
20.5°	1976.7	1974.4	1976.7	1977.6	1974.9	1972.1
21°	1967.6	1964.8	1967.6	1968.5	1965.8	1962.6



TEST NUMBER: P776835

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1938.0	1934.8	1938.0	1939.3	1936.1	1932.5
23°	1927.5	1923.8	1927.5	1929.3	1925.7	1921.6
23.5°	1916.6	1912.9	1916.6	1918.8	1915.2	1910.6
24°	1905.6	1901.5	1905.6	1907.9	1903.8	1899.7
24.5°	1894.2	1890.1	1894.2	1897.0	1892.4	1887.9
25°	1882.4	1877.8	1882.4	1885.6	1881.0	1875.6
25.5°	1870.5	1865.5	1870.5	1874.2	1869.2	1862.8
26°	1858.2	1853.2	1858.2	1862.3	1856.9	1850.5
26.5°	1845.5	1840.0	1845.5	1850.0	1844.1	1836.8
27°	1832.3	1826.4	1832.3	1837.7	1830.9	1823.6
27.5°	1819.1	1812.7	1819.1	1825.0	1817.7	1810.0
28°	1805.4	1798.6	1805.4	1811.8	1804.0	1795.4
28.5°	1791.7	1784.0	1791.7	1798.6	1789.9	1780.8
29°	1777.2	1769.4	1777.2	1784.9	1775.3	1765.8
29.5°	1762.6	1753.9	1762.6	1770.8	1760.8	1750.7
30°	1748.0	1738.4	1748.0	1756.7	1745.7	1734.8
30.5°	1732.5	1722.9	1732.5	1742.1	1730.7	1718.8
31°	1717.0	1707.0	1717.0	1727.0	1714.7	1702.9
31.5°	1701.5	1690.1	1701.5	1712.0	1699.3	1686.5
32°	1685.6	1673.7	1685.6	1696.5	1683.3	1670.1
32.5°	1669.2	1656.9	1669.2	1680.6	1666.9	1653.2
33°	1652.8	1640.0	1652.8	1664.6	1650.5	1635.9
33.5°	1636.4	1622.7	1636.4	1647.8	1633.7	1618.2
34°	1619.5	1604.9	1619.5	1630.9	1617.3	1599.9
34.5°	1602.2	1586.7	1602.2	1614.1	1599.9	1581.7
35°	1584.9	1568.0	1584.9	1596.3	1582.6	1563.5
35.5°	1567.6	1548.9	1567.6	1579.0	1565.3	1544.4
36°	1549.8	1518.4	1549.8	1561.2	1547.5	1525.2
36.5°	1531.6	1484.7	1531.6	1543.0	1528.9	1502.4
37°	1513.4	1445.0	1513.4	1524.8	1510.2	1471.0
37.5°	1494.2	1406.8	1494.2	1506.1	1491.5	1423.2
38°	1472.8	1363.0	1472.8	1487.4	1472.8	1371.2
38.5°	1442.3	1312.9	1442.3	1468.7	1452.8	1309.7
39°	1406.8	1256.9	1406.8	1450.5	1426.4	1247.3
39.5°	1369.9	1194.5	1369.9	1431.4	1390.4	1184.0
40°	1329.8	1130.3	1329.8	1412.2	1343.9	1120.7
40.5°	1284.7	1064.7	1284.7	1394.0	1289.7	1056.9
41°	1234.6	1001.8	1234.6	1375.3	1230.9	992.2
41.5°	1179.5	939.8	1179.5	1357.1	1171.7	929.8
42°	1119.8	879.2	1119.8	1338.9	1112.0	866.5
42.5°	1059.2	819.1	1059.2	1320.7	1052.8	805.4
43°	997.7	758.1	997.7	1302.5	992.2	744.4
43.5°	938.5	697.5	938.5	1283.8	931.6	684.7



TEST NUMBER: P776835

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	765.3	526.2	765.3	1228.7	754.0	513.0
45.5°	707.5	473.3	707.5	1210.0	697.0	458.8
46°	651.5	422.8	651.5	1185.8	641.0	407.7
46.5°	596.3	373.6	596.3	1157.6	585.4	358.1
47°	542.1	330.3	542.1	1118.0	530.7	308.9
47.5°	489.7	293.4	489.7	1073.8	477.4	261.9
48°	439.2	256.9	439.2	1020.5	427.3	220.9
48.5°	390.9	220.5	390.9	962.1	379.0	183.6
49°	344.9	184.0	344.9	896.1	331.2	154.9
49.5°	302.0	151.7	302.0	829.1	284.7	128.0
50°	264.7	124.8	264.7	759.9	241.0	102.5
50.5°	229.6	98.4	229.6	692.0	201.8	81.5
51°	195.9	74.7	195.9	625.9	168.6	61.0
51.5°	164.5	58.8	164.5	564.4	140.8	43.7
52°	135.8	46.9	135.8	504.3	114.3	26.4
52.5°	109.8	35.1	109.8	446.5	92.0	9.6
53°	87.5	23.7	87.5	391.3	71.5	5.5
53.5°	66.5	13.7	66.5	342.6	52.8	4.1
54°	48.7	3.6	48.7	296.6	36.4	2.7
54.5°	36.4	1.8	36.4	253.7	20.0	1.4
55°	24.6	1.8	24.6	215.0	6.8	1.4
55.5°	15.0	1.8	15.0	178.1	4.1	1.4
56°	9.1	1.4	9.1	145.8	3.2	1.4
56.5°	3.6	1.4	3.6	120.3	1.8	1.4
57°	2.3	1.4	2.3	96.1	1.4	1.4
57.5°	1.4	1.4	1.4	74.7	1.4	1.4
58°	1.4	1.4	1.4	55.6	1.4	1.4
58.5°	1.4	1.4	1.4	40.1	0.9	0.9
59°	0.9	1.4	0.9	30.5	0.9	0.9
59.5°	0.9	1.4	0.9	22.3	0.9	0.9
60°	0.9	1.4	0.9	14.6	0.9	0.9
60.5°	0.9	0.9	0.9	8.7	0.9	0.9
61°	0.9	0.9	0.9	5.5	0.9	0.9
61.5°	0.9	0.9	0.9	3.2	0.9	0.9
62°	0.9	0.9	0.9	1.4	0.9	0.9
62.5°	0.9	0.9	0.9	0.9	0.9	0.9
63°	0.9	0.9	0.9	0.9	0.9	0.9
63.5°	0.9	0.9	0.9	0.9	0.9	0.9
64°	0.9	0.9	0.9	0.9	0.9	0.9
64.5°	0.9	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.9	0.5	0.9	0.9
65.5°	0.5	0.9	0.5	0.5	0.5	0.5
66°	0.5	0.9	0.5	0.5	0.5	0.5



TEST NUMBER: P776835

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.5	0.5	0.5	0.5	0.5	0.5
76.5°	0.5	0.5	0.5	0.0	0.5	0.5
77°	0.5	0.5	0.5	0.0	0.5	0.5
77.5°	0.5	0.5	0.5	0.0	0.5	0.0
78°	0.0	0.5	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776835

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMB-5000lm-2700K

CANDELA DISTRIBUTION (continued):

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



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Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°

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21.5°	1953.0	1956.2	1958.9	1958.0	1955.3	1958.0	1958.9	1956.2	1953.0	1956.2	1958.9
22°	1943.0	1946.2	1949.4	1948.0	1945.3	1948.0	1949.4	1946.2	1943.0	1946.2	1949.4



44°	625.5	871.9	1265.6	880.1	638.7	880.1	1265.6	871.9	625.5	871.9	1265.6
44.5°	568.5	812.7	1247.3	822.3	581.8	822.3	1247.3	812.7	568.5	812.7	1247.3



66.5°	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5
67°	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5



89°	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0

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21.5°	1958.0	1955.3	1958.0	1958.9	1956.2	1953.0
22°	1948.0	1945.3	1948.0	1949.4	1946.2	1943.0



44°	880.1	638.7	880.1	1265.6	871.9	625.5
44.5°	822.3	581.8	822.3	1247.3	812.7	568.5

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66.5°	0.5	0.9	0.5	0.5	0.5	0.5
67°	0.5	0.9	0.5	0.5	0.5	0.5

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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

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(END OF REPORT)