

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: P776271

Luminaire Tested: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B054)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K
Description: 4 INCH ROUND NARROW LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3829.7 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.01 / 1.07
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

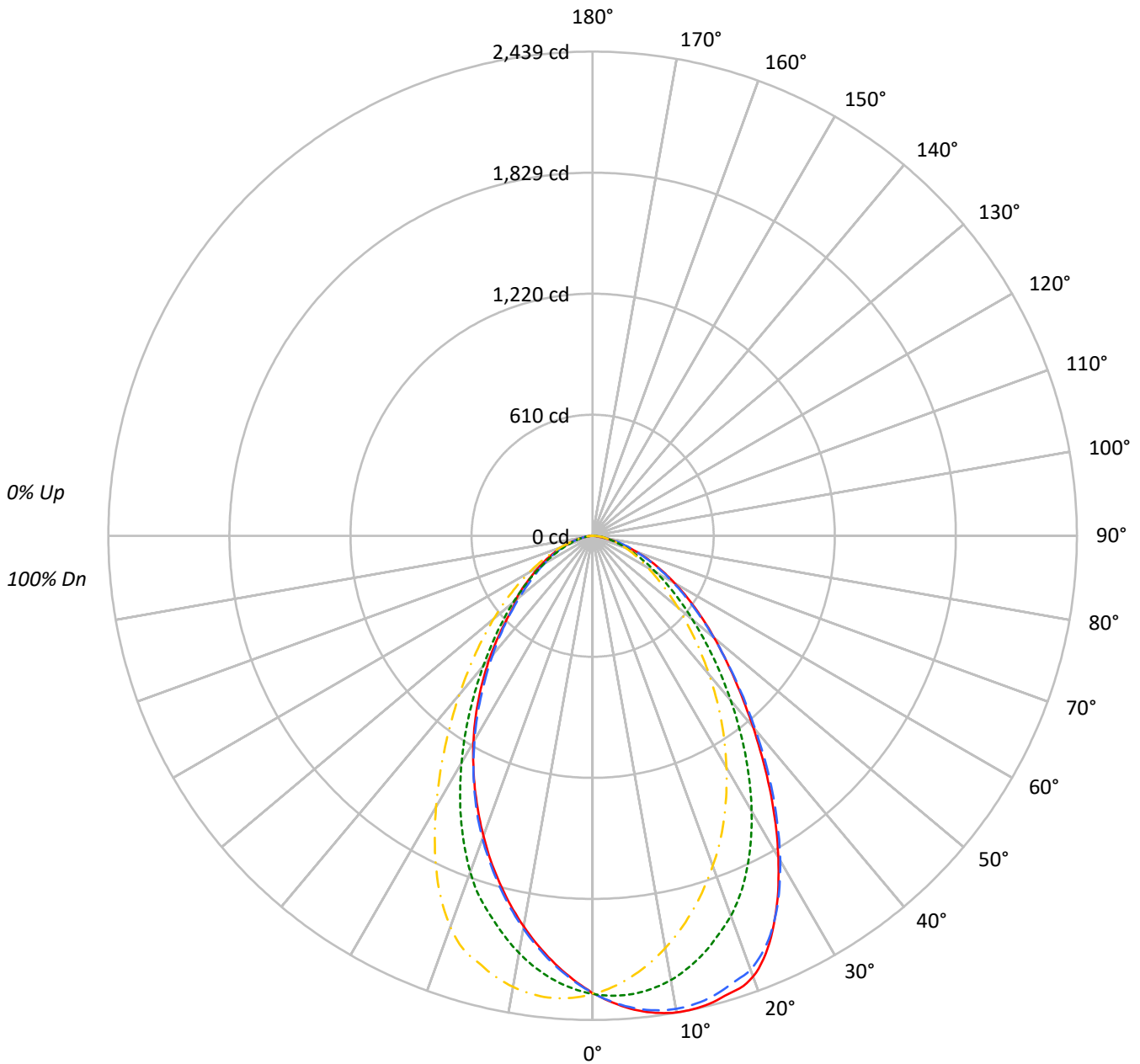
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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	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	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44					44			
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40					40			
9	63	51	44	39	62	51	44	39	50	43	38	49	43	38	48	42	38	36					36			
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	290210	290210	290210	290210
5°	302688	292708	273531	283663
10°	311542	290342	255340	272694
15°	315600	283223	235850	258338
20°	316442	272835	215394	241282
25°	299951	255933	194807	217899
30°	271877	232641	174470	191864
35°	238917	205793	153665	165449
40°	206424	177822	132496	140858
45°	178851	151549	111913	119869
50°	156454	128632	98834	101966
55°	137462	109377	87831	86295
60°	120262	92978	77423	72288
65°	104166	79003	68163	60123
70°	85109	66674	57586	49527
75°	63747	56502	46631	41088
80°	38266	49355	33193	32613
85°	14728	45774	11841	19205

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 183585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.6	5.6
10°-20°	589.5	15.4
20°-30°	798.6	20.9
30°-40°	776.3	20.3
40°-50°	614.5	16.0
50°-60°	430.3	11.2
60°-70°	260.9	6.8
70°-80°	119.6	3.1
80°-90°	24.4	0.6
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°	1603.7	41.9
0°-40°	2380.0	62.1
0°-60°	3424.8	89.4
0°-90°	3829.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3829.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2306	2306	2306	2306	2306	
5°	2396	2317	2165	2245	2396	230
15°	2422	2174	1810	1983	2422	684
25°	2160	1843	1403	1569	2160	986
35°	1555	1340	1000	1077	1555	971
45°	1005	852	629	674	1005	779
55°	626	498	400	393	626	563
65°	350	265	229	202	350	347
75°	131	116	96	84	131	142
85°	10	32	8	13	10	17
90°	0	4	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°	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0
0.5°	2313.1	2314.3	2313.5	2312.3	2311.1	2306.8	2303.7	2302.5	2289.6	2289.2	2291.6
1°	2324.0	2325.6	2324.4	2319.7	2313.9	2304.9	2297.4	2292.3	2277.1	2277.1	2280.2
1.5°	2334.6	2336.6	2333.4	2326.0	2316.2	2302.9	2290.8	2282.6	2264.2	2263.4	2268.1
2°	2344.8	2347.5	2342.4	2332.6	2317.8	2299.8	2283.7	2271.6	2251.2	2249.7	2255.2
2.5°	2354.6	2358.1	2351.4	2338.5	2319.3	2296.6	2275.9	2261.0	2237.6	2236.0	2242.2
3°	2363.9	2367.5	2360.0	2343.6	2319.7	2292.3	2267.7	2248.9	2223.5	2221.9	2229.3
3.5°	2372.9	2376.9	2367.5	2348.3	2320.1	2288.0	2259.1	2237.6	2209.4	2207.0	2215.6
4°	2381.2	2385.5	2374.9	2352.2	2319.3	2282.9	2250.1	2225.0	2195.3	2192.2	2201.9
4.5°	2389.0	2393.7	2381.6	2355.7	2318.6	2277.9	2240.7	2212.1	2180.0	2176.9	2187.5
5°	2396.0	2401.9	2387.8	2358.9	2317.0	2271.6	2230.5	2199.2	2165.2	2161.2	2173.4
5.5°	2402.7	2409.3	2393.7	2361.2	2315.0	2265.3	2220.3	2185.9	2149.1	2145.2	2157.7
6°	2408.9	2416.0	2398.8	2363.6	2312.3	2257.9	2209.0	2171.8	2133.9	2128.8	2142.9
6.5°	2414.4	2422.3	2403.5	2365.1	2309.2	2250.9	2198.0	2157.7	2117.8	2112.7	2126.8
7°	2419.5	2427.7	2407.4	2365.9	2305.6	2242.6	2186.3	2143.6	2101.4	2095.9	2110.4
7.5°	2424.2	2432.8	2410.9	2365.9	2300.9	2234.4	2174.5	2128.8	2084.9	2078.7	2094.3
8°	2427.7	2437.1	2414.0	2365.9	2296.2	2225.4	2162.0	2113.5	2068.1	2061.1	2077.9
8.5°	2431.3	2441.0	2416.4	2365.1	2291.2	2216.4	2149.1	2097.9	2050.9	2044.2	2061.5
9°	2434.0	2444.6	2418.3	2363.6	2285.3	2206.2	2135.8	2082.6	2033.7	2026.2	2044.2
9.5°	2436.3	2447.3	2419.1	2361.2	2279.0	2196.1	2122.5	2066.5	2015.7	2008.2	2026.6
10°	2437.9	2449.3	2419.9	2358.5	2272.0	2185.1	2108.8	2050.9	1998.1	1990.2	2009.0
10.5°	2438.7	2450.8	2419.5	2355.3	2264.6	2174.2	2094.3	2034.1	1980.1	1971.8	1991.4
11°	2439.1	2451.6	2419.1	2351.8	2256.3	2162.4	2079.5	2017.2	1962.1	1953.5	1973.4
11.5°	2439.1	2452.0	2417.9	2347.1	2247.7	2150.7	2065.0	2000.4	1943.7	1934.7	1955.0
12°	2438.3	2452.0	2416.0	2342.4	2238.7	2138.2	2049.7	1983.6	1925.3	1915.9	1936.2
12.5°	2437.1	2451.2	2413.6	2336.9	2228.9	2124.9	2034.1	1966.0	1906.5	1896.3	1917.8
13°	2435.2	2449.6	2410.5	2331.1	2219.2	2111.9	2018.4	1948.4	1887.7	1877.5	1899.5
13.5°	2432.4	2448.1	2407.4	2324.4	2208.6	2098.6	2002.4	1930.4	1868.5	1858.0	1880.3
14°	2429.7	2445.0	2403.1	2316.6	2197.6	2084.2	1985.5	1912.4	1849.4	1838.0	1861.1
14.5°	2426.2	2441.8	2398.4	2308.8	2185.9	2069.7	1968.7	1894.0	1829.8	1818.8	1841.5
15°	2422.3	2438.3	2392.9	2300.6	2173.8	2054.4	1951.9	1875.6	1810.2	1798.5	1822.0
15.5°	2417.2	2433.6	2387.0	2291.9	2161.6	2039.5	1934.7	1856.8	1790.7	1778.9	1802.0
16°	2411.7	2428.9	2380.4	2282.6	2148.3	2023.9	1916.7	1838.0	1771.1	1759.0	1782.5
16.5°	2407.4	2423.4	2373.3	2272.8	2135.0	2008.2	1899.1	1818.8	1751.1	1739.0	1762.5
17°	2403.9	2418.3	2366.3	2262.6	2120.9	1991.8	1881.5	1800.1	1731.2	1717.9	1742.9
17.5°	2400.7	2414.8	2358.9	2251.2	2107.2	1975.4	1863.1	1780.5	1710.8	1697.5	1723.0
18°	2397.6	2411.7	2353.0	2241.1	2093.2	1958.5	1844.3	1760.9	1690.5	1677.2	1702.6
18.5°	2391.7	2408.2	2347.5	2230.9	2079.5	1942.1	1825.9	1741.4	1670.1	1656.8	1682.7
19°	2384.3	2403.1	2342.0	2221.5	2065.8	1925.3	1807.1	1721.8	1649.8	1636.5	1663.5
19.5°	2374.1	2395.3	2335.0	2211.7	2052.1	1908.8	1789.1	1702.2	1629.1	1616.1	1643.5
20°	2362.8	2385.9	2325.6	2200.8	2037.2	1891.2	1769.5	1682.7	1608.3	1595.4	1623.2
20.5°	2349.9	2374.5	2314.3	2187.9	2020.8	1874.0	1751.1	1662.3	1587.6	1574.7	1602.4
21°	2334.6	2362.0	2300.9	2174.5	2003.2	1854.8	1731.2	1642.0	1567.6	1554.3	1581.3



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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°	2279.0	2314.3	2255.6	2124.5	1948.4	1796.5	1672.1	1581.3	1505.4	1492.5	1518.3
23°	2257.1	2295.1	2238.3	2106.9	1928.0	1776.2	1651.4	1560.6	1484.7	1472.1	1496.8
23.5°	2234.4	2275.1	2219.6	2088.1	1908.1	1755.8	1631.0	1540.2	1464.7	1451.4	1474.9
24°	2210.9	2253.6	2200.4	2068.1	1886.9	1733.9	1609.9	1519.9	1444.0	1431.0	1453.4
24.5°	2185.9	2230.5	2179.2	2047.0	1865.4	1712.4	1588.7	1498.7	1423.2	1410.3	1431.8
25°	2160.1	2206.2	2157.3	2025.5	1843.1	1690.5	1566.8	1478.0	1402.9	1390.0	1410.3
25.5°	2133.9	2180.8	2133.9	2003.5	1820.8	1668.2	1545.7	1457.3	1382.5	1368.8	1388.0
26°	2106.9	2155.0	2110.0	1980.5	1798.1	1645.9	1524.6	1436.5	1362.6	1347.7	1366.1
26.5°	2078.7	2128.8	2085.3	1957.4	1774.6	1622.8	1502.7	1415.4	1341.8	1327.3	1344.2
27°	2050.9	2101.0	2059.5	1933.1	1750.4	1599.7	1480.7	1394.3	1321.9	1306.6	1322.3
27.5°	2022.3	2072.8	2032.9	1908.5	1726.5	1577.0	1458.4	1373.5	1301.1	1285.9	1300.0
28°	1992.2	2043.5	2004.7	1882.6	1701.8	1554.3	1436.5	1352.8	1281.2	1265.1	1277.7
28.5°	1962.5	2013.7	1975.8	1856.8	1677.6	1530.4	1414.6	1331.3	1261.2	1244.4	1255.7
29°	1932.3	1984.0	1947.6	1830.6	1652.1	1506.6	1392.3	1310.1	1241.3	1223.6	1233.8
29.5°	1901.4	1953.8	1919.0	1803.2	1626.7	1483.5	1370.4	1289.4	1220.9	1203.3	1211.9
30°	1870.9	1922.5	1889.3	1776.6	1600.9	1459.6	1347.7	1268.7	1200.6	1182.6	1189.6
30.5°	1839.6	1891.6	1858.8	1748.8	1575.1	1435.4	1325.4	1247.5	1180.2	1162.2	1168.1
31°	1807.9	1859.9	1828.2	1720.2	1550.0	1411.9	1303.5	1226.4	1160.3	1141.5	1146.6
31.5°	1777.0	1827.8	1797.7	1692.1	1523.4	1387.6	1281.2	1205.6	1140.3	1120.7	1125.4
32°	1744.9	1795.4	1766.4	1662.7	1497.2	1364.1	1259.3	1184.9	1120.3	1100.8	1103.9
32.5°	1712.8	1762.9	1735.1	1633.7	1471.0	1340.3	1236.6	1164.2	1100.0	1080.4	1082.0
33°	1681.1	1730.8	1704.2	1604.8	1444.4	1316.0	1214.6	1143.8	1080.0	1060.1	1060.5
33.5°	1649.0	1698.7	1674.1	1575.4	1418.5	1292.1	1192.7	1122.3	1060.1	1039.7	1040.1
34°	1617.7	1666.2	1642.4	1545.7	1391.9	1267.5	1170.8	1101.9	1040.1	1019.4	1018.6
34.5°	1586.4	1633.4	1610.7	1516.4	1365.3	1243.6	1148.9	1081.6	1019.8	999.4	997.9
35°	1555.1	1601.3	1579.0	1487.0	1339.5	1220.1	1126.6	1061.3	1000.2	979.9	976.7
35.5°	1523.8	1569.6	1547.7	1458.0	1312.9	1196.3	1105.5	1040.5	980.6	960.3	956.8
36°	1492.1	1537.9	1516.7	1429.1	1286.7	1172.4	1083.9	1020.6	960.7	940.7	936.4
36.5°	1462.0	1506.6	1485.8	1399.7	1260.0	1148.5	1062.0	1000.6	941.1	921.2	916.5
37°	1431.0	1474.5	1454.9	1371.6	1235.0	1125.8	1040.1	980.6	921.2	901.6	896.5
37.5°	1401.3	1443.2	1424.8	1343.0	1208.4	1101.9	1018.6	960.7	902.4	882.8	876.9
38°	1371.2	1412.7	1393.5	1313.7	1183.3	1078.9	997.9	941.5	882.8	863.6	857.4
38.5°	1342.2	1382.1	1363.7	1286.3	1157.9	1055.8	975.9	921.6	863.6	844.5	839.0
39°	1313.3	1352.0	1333.6	1257.7	1132.9	1033.5	954.8	902.4	844.9	825.7	819.8
39.5°	1285.1	1322.7	1305.4	1231.1	1107.0	1010.4	933.7	882.8	825.7	807.3	801.0
40°	1256.5	1293.7	1276.1	1202.5	1082.4	987.7	913.3	863.6	806.5	788.5	782.6
40.5°	1229.5	1265.5	1247.5	1176.7	1058.1	964.6	892.6	843.7	788.1	770.1	765.0
41°	1202.5	1236.6	1219.3	1149.7	1033.5	943.5	872.6	824.9	769.7	752.1	747.0
41.5°	1175.5	1210.0	1192.0	1123.1	1009.2	920.8	852.7	805.7	751.3	734.1	729.8
42°	1149.7	1182.6	1164.6	1096.5	986.1	899.2	833.1	787.7	732.9	716.9	713.4
42.5°	1124.6	1156.0	1138.3	1072.2	963.0	878.5	813.5	768.9	715.3	700.1	696.9
43°	1099.6	1130.5	1112.5	1047.2	939.9	857.8	794.8	750.9	697.3	683.2	680.1
43.5°	1075.3	1105.1	1086.3	1022.5	917.2	837.0	775.6	732.5	679.7	667.2	663.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1004.9	1031.5	1012.3	950.5	851.5	777.9	720.8	681.3	628.8	621.4	617.1
45.5°	982.2	1008.4	988.5	927.4	830.4	758.8	703.6	665.2	612.4	606.9	602.2
46°	960.3	985.7	965.4	905.1	809.6	740.4	686.4	649.2	596.8	592.1	587.4
46.5°	938.8	963.0	942.3	882.8	789.3	721.6	669.9	633.2	581.5	577.6	572.5
47°	917.6	940.7	920.4	860.9	768.9	703.2	653.1	617.5	567.0	563.9	558.0
47.5°	897.3	919.2	898.1	839.8	749.4	685.6	636.7	602.2	553.3	550.6	543.9
48°	876.6	897.7	876.2	817.9	729.8	667.6	620.6	587.4	541.2	537.3	530.6
48.5°	856.2	877.3	855.4	797.9	711.0	650.8	604.6	572.5	530.6	524.4	516.9
49°	837.0	857.0	834.7	777.9	692.6	633.9	589.3	558.4	521.2	511.8	504.0
49.5°	817.9	837.0	814.7	758.4	674.6	617.5	573.7	544.3	512.6	500.1	491.1
50°	799.1	817.9	795.2	738.8	657.0	601.5	558.8	530.6	504.8	489.1	478.6
50.5°	780.7	798.3	775.2	719.6	639.4	585.4	544.3	517.3	497.0	478.2	465.7
51°	762.3	779.5	756.0	701.2	622.2	570.1	529.8	504.4	488.0	468.4	453.9
51.5°	744.3	761.1	737.6	683.2	606.2	555.3	516.1	491.9	477.4	459.4	442.6
52°	726.7	742.7	719.2	664.8	589.7	540.4	502.1	479.8	465.7	448.8	430.8
52.5°	709.5	724.7	701.2	647.6	573.7	525.9	488.8	468.0	454.3	438.3	419.5
53°	692.6	707.5	683.2	630.8	558.0	511.5	475.5	457.1	443.4	427.7	408.5
53.5°	675.4	689.9	666.0	613.6	542.8	497.4	462.5	445.7	432.0	417.1	397.6
54°	659.0	673.1	648.8	597.2	527.9	483.7	450.0	435.5	421.1	407.0	387.0
54.5°	642.5	655.8	631.6	581.1	512.6	470.4	437.5	426.1	410.9	396.8	376.8
55°	626.5	639.8	615.9	565.1	498.5	457.4	425.8	416.4	400.3	387.4	367.1
55.5°	610.5	623.4	599.5	549.8	484.5	444.1	414.0	406.6	390.5	376.8	357.3
56°	594.8	607.3	583.5	534.1	470.8	431.2	402.3	396.4	380.4	367.1	347.9
56.5°	579.5	591.7	567.8	519.3	457.4	419.1	390.9	386.6	370.6	358.1	339.3
57°	564.7	576.4	552.5	504.8	443.8	406.6	380.0	376.8	360.8	349.1	330.7
57.5°	549.0	560.8	537.7	490.3	430.8	394.8	369.4	367.4	351.8	339.7	322.4
58°	534.5	545.5	522.4	476.2	417.9	383.1	359.2	358.1	342.4	331.1	313.8
58.5°	520.1	530.6	507.9	462.1	406.2	371.8	349.1	348.7	333.8	322.4	305.6
59°	505.6	516.5	493.8	448.4	393.7	360.4	339.3	339.7	324.8	313.8	297.0
59.5°	491.5	501.3	479.4	435.1	381.5	349.4	330.3	331.1	316.2	305.2	289.2
60°	477.8	488.0	465.7	422.2	369.4	338.9	321.3	322.4	307.6	296.6	281.4
60.5°	464.1	473.9	452.0	408.9	358.4	329.1	312.3	313.8	299.0	288.4	273.5
61°	450.4	460.2	438.7	396.8	347.1	318.9	303.3	305.2	290.7	280.6	265.7
61.5°	437.1	446.1	425.0	384.3	336.5	308.7	294.3	296.6	282.5	272.4	258.3
62°	424.2	433.6	412.4	372.1	326.0	298.6	286.4	288.4	274.7	264.5	250.8
62.5°	411.7	420.3	399.9	360.4	315.4	288.8	278.2	280.6	266.5	256.7	243.4
63°	398.8	407.4	387.0	348.7	304.8	279.4	270.4	272.4	259.1	249.7	236.0
63.5°	386.2	394.4	374.9	337.3	294.3	270.4	262.6	264.5	251.2	241.8	228.9
64°	374.1	381.9	362.8	326.0	284.1	261.4	255.5	256.7	243.8	234.8	221.9
64.5°	362.0	369.8	351.0	315.0	274.7	252.8	248.1	249.3	236.4	227.4	215.2
65°	349.8	358.1	339.3	304.1	265.3	244.2	241.1	242.2	228.9	220.3	208.2
65.5°	337.7	345.5	327.5	293.9	255.9	236.0	233.6	234.8	221.1	213.3	201.5
66°	325.2	334.2	316.6	283.7	246.9	227.7	227.0	227.4	213.7	206.2	195.3



TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	289.2	299.4	283.7	253.6	221.1	205.1	206.2	206.2	191.4	185.5	176.1
68°	277.4	288.0	273.1	244.2	212.9	197.6	200.0	199.2	184.3	178.8	169.8
68.5°	265.3	276.7	263.0	235.2	204.7	190.6	193.3	192.1	177.3	171.8	164.0
69°	254.0	265.3	253.2	225.8	196.8	183.5	187.0	185.5	170.2	165.5	158.1
69.5°	242.6	254.4	243.4	217.2	189.0	177.3	180.4	178.4	163.2	158.9	152.2
70°	231.3	243.4	233.6	208.2	181.2	170.6	174.5	171.8	156.5	152.6	146.4
70.5°	220.7	232.8	224.2	199.6	173.7	164.4	168.3	165.5	150.3	146.4	140.9
71°	209.7	222.7	214.8	191.4	166.7	158.5	162.4	158.9	143.6	139.7	135.0
71.5°	199.2	212.1	205.8	183.1	159.7	152.6	156.5	152.6	137.4	133.8	129.5
72°	188.6	202.3	197.2	175.3	153.0	146.7	150.7	146.4	131.1	128.0	124.0
72.5°	178.8	192.9	188.2	167.9	146.4	141.3	145.2	140.1	124.8	121.7	118.6
73°	169.0	183.1	179.6	160.4	140.1	135.4	139.3	134.2	118.6	116.2	113.5
73.5°	158.9	174.1	171.4	152.6	133.8	130.3	133.8	128.0	112.7	110.4	108.4
74°	149.5	164.7	162.8	145.6	128.0	125.2	128.4	122.5	106.8	104.5	103.3
74.5°	139.7	155.7	155.0	140.5	122.1	120.1	123.3	116.6	101.4	99.0	97.8
75°	131.1	147.1	147.1	133.8	116.2	115.0	117.8	111.1	95.9	93.5	93.1
75.5°	122.5	138.5	138.9	127.2	110.7	110.4	112.7	105.7	90.4	88.4	88.0
76°	113.9	131.1	131.9	120.1	105.7	105.7	107.6	100.2	84.9	83.0	83.4
76.5°	105.3	123.3	124.8	113.5	100.2	101.0	102.5	94.7	79.4	77.9	78.7
77°	97.0	115.4	118.2	107.2	95.5	96.3	97.4	89.6	74.4	72.8	74.0
77.5°	88.8	107.6	111.1	101.4	90.4	92.0	92.4	84.5	69.3	68.1	69.7
78°	81.0	100.2	104.1	95.9	85.7	87.7	88.0	79.4	64.6	63.0	65.3
78.5°	73.6	93.5	97.4	90.4	81.0	83.0	83.0	74.4	59.5	58.3	60.7
79°	66.1	86.5	91.2	84.9	76.3	78.7	78.7	69.3	54.8	53.6	56.3
79.5°	59.5	79.8	84.9	79.4	72.0	74.7	74.0	64.6	50.1	49.3	52.4
80°	52.8	73.2	78.7	74.4	68.1	70.4	69.7	59.9	45.8	44.6	48.1
80.5°	47.0	67.3	72.8	69.7	63.8	66.5	65.3	55.6	41.1	40.3	44.2
81°	41.1	61.4	67.3	65.0	59.9	62.6	61.0	50.9	37.2	36.4	40.3
81.5°	35.6	56.0	61.8	60.3	56.0	58.7	56.7	46.6	32.9	32.5	36.8
82°	30.1	50.5	56.3	56.0	52.0	54.8	52.8	42.3	29.0	28.6	33.3
82.5°	25.0	45.0	51.3	51.7	48.5	50.9	48.5	38.3	24.7	24.7	29.7
83°	20.7	39.9	46.6	47.3	45.0	47.3	44.6	34.4	20.3	20.7	26.2
83.5°	16.8	35.2	41.9	43.4	41.5	43.8	41.1	30.5	16.8	17.6	22.7
84°	13.7	30.1	37.6	39.5	38.0	39.9	37.6	26.6	13.3	14.9	19.6
84.5°	11.7	25.8	33.3	36.0	34.8	36.8	34.0	22.7	10.2	12.5	16.8
85°	10.2	21.5	29.3	32.5	31.7	33.3	30.9	19.6	8.2	10.6	13.7
85.5°	8.2	17.6	25.8	29.0	28.6	30.1	27.4	16.8	7.0	8.6	11.0
86°	6.7	14.1	22.3	25.8	25.4	26.6	23.9	14.5	5.9	7.0	7.8
86.5°	5.5	11.7	19.2	22.3	22.3	23.1	20.7	12.5	4.7	5.1	5.5
87°	4.7	9.4	16.0	19.6	19.6	20.0	17.6	10.2	3.5	3.5	3.1
87.5°	3.5	7.0	13.7	16.8	16.8	16.8	14.5	8.2	2.3	2.0	1.2
88°	2.7	4.7	11.3	14.1	13.7	14.1	11.7	6.3	1.6	0.8	0.4
88.5°	2.0	3.1	8.6	11.3	11.0	11.0	9.0	4.3	0.4	0.4	0.0



TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.8	2.3	4.3	3.5	3.1	1.6	0.4	0.0	0.4	0.0



TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2306.0	2306.0	2306.0	2306.0	2306.0	2306.0
0.5°	2295.5	2304.1	2308.4	2314.6	2320.5	2313.1
1°	2286.9	2299.4	2308.8	2318.9	2328.7	2324.0
1.5°	2277.5	2294.3	2308.4	2323.3	2336.6	2334.6
2°	2268.1	2289.2	2307.2	2326.8	2344.0	2344.8
2.5°	2257.9	2282.9	2306.0	2329.9	2351.0	2354.6
3°	2247.3	2276.7	2303.7	2332.3	2357.3	2363.9
3.5°	2236.0	2269.6	2301.3	2334.6	2363.2	2372.9
4°	2224.6	2262.2	2297.8	2335.8	2367.9	2381.2
4.5°	2212.9	2254.0	2294.3	2336.6	2372.6	2389.0
5°	2200.4	2245.4	2290.0	2336.9	2377.3	2396.0
5.5°	2187.5	2236.8	2284.9	2336.6	2380.8	2402.7
6°	2174.5	2227.0	2279.8	2335.8	2383.5	2408.9
6.5°	2161.2	2216.8	2273.9	2334.2	2385.9	2414.4
7°	2146.8	2206.2	2267.3	2331.9	2387.8	2419.5
7.5°	2132.7	2195.3	2260.2	2329.1	2389.4	2424.2
8°	2118.2	2184.3	2252.8	2326.0	2389.8	2427.7
8.5°	2102.9	2172.2	2244.6	2322.5	2389.8	2431.3
9°	2087.7	2159.7	2236.0	2318.2	2389.4	2434.0
9.5°	2071.6	2146.8	2227.0	2313.1	2388.6	2436.3
10°	2055.6	2133.9	2217.6	2307.6	2387.0	2437.9
10.5°	2039.2	2120.2	2207.8	2301.7	2385.1	2438.7
11°	2022.7	2106.5	2196.9	2295.1	2382.3	2439.1
11.5°	2005.9	2092.0	2185.5	2288.0	2378.8	2439.1
12°	1988.7	2076.7	2174.5	2280.6	2374.9	2438.3
12.5°	1971.5	2061.9	2162.8	2272.4	2370.6	2437.1
13°	1953.8	2046.6	2150.3	2263.8	2365.9	2435.2
13.5°	1935.5	2030.9	2137.4	2255.2	2360.4	2432.4
14°	1917.1	2014.5	2124.1	2245.0	2354.2	2429.7
14.5°	1898.7	1998.8	2111.5	2235.2	2348.3	2426.2
15°	1881.1	1982.8	2098.2	2225.8	2340.9	2422.3
15.5°	1862.7	1967.2	2086.1	2217.6	2335.0	2417.2
16°	1844.7	1951.1	2074.0	2210.2	2330.3	2411.7
16.5°	1826.3	1935.5	2061.9	2201.6	2325.6	2407.4
17°	1807.9	1919.4	2047.8	2191.4	2320.1	2403.9
17.5°	1789.1	1902.2	2031.7	2178.5	2312.7	2400.7
18°	1770.3	1883.8	2014.5	2164.8	2302.1	2397.6
18.5°	1750.8	1864.6	1996.1	2149.1	2289.6	2391.7
19°	1730.4	1843.9	1976.9	2132.7	2275.5	2384.3
19.5°	1709.7	1823.1	1957.4	2114.7	2261.0	2374.1
20°	1688.5	1801.6	1937.4	2095.9	2244.2	2362.8
20.5°	1666.6	1780.5	1915.9	2076.3	2227.0	2349.9
21°	1645.1	1757.8	1894.0	2055.2	2207.8	2334.6

TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1577.8	1689.3	1826.3	1988.3	2143.6	2279.0
23°	1555.1	1665.8	1802.4	1964.8	2119.8	2257.1
23.5°	1531.6	1642.0	1777.8	1939.8	2095.1	2234.4
24°	1508.5	1617.7	1753.5	1914.7	2068.9	2210.9
24.5°	1485.0	1593.4	1728.1	1888.1	2042.7	2185.9
25°	1462.0	1569.2	1702.6	1861.5	2014.9	2160.1
25.5°	1438.5	1544.9	1676.4	1834.5	1987.5	2133.9
26°	1415.0	1520.3	1650.2	1806.7	1958.9	2106.9
26.5°	1391.9	1495.2	1624.7	1778.9	1930.8	2078.7
27°	1368.4	1470.2	1597.7	1750.4	1901.8	2050.9
27.5°	1345.0	1445.1	1571.1	1721.8	1871.7	2022.3
28°	1321.5	1420.1	1543.4	1692.4	1841.5	1992.2
28.5°	1298.4	1394.7	1516.7	1663.5	1812.2	1962.5
29°	1274.9	1370.4	1490.1	1634.5	1782.5	1932.3
29.5°	1251.4	1345.3	1462.7	1604.8	1751.9	1901.4
30°	1228.3	1320.3	1435.4	1577.0	1721.4	1870.9
30.5°	1205.3	1295.3	1408.0	1547.7	1690.9	1839.6
31°	1182.2	1271.0	1381.0	1518.3	1661.1	1807.9
31.5°	1159.5	1246.0	1354.3	1489.7	1631.0	1777.0
32°	1136.0	1221.3	1327.3	1461.2	1600.1	1744.9
32.5°	1114.1	1197.0	1300.7	1432.2	1570.0	1712.8
33°	1091.4	1172.4	1274.1	1405.2	1539.8	1681.1
33.5°	1068.7	1148.1	1248.3	1377.0	1509.7	1649.0
34°	1046.8	1124.3	1222.1	1349.3	1481.1	1617.7
34.5°	1024.9	1100.4	1196.6	1321.9	1451.0	1586.4
35°	1002.9	1076.9	1171.2	1294.9	1422.0	1555.1
35.5°	981.4	1053.0	1145.8	1267.9	1393.1	1523.8
36°	960.3	1030.7	1121.9	1242.4	1364.9	1492.1
36.5°	939.2	1007.6	1097.3	1215.0	1337.1	1462.0
37°	918.0	985.3	1074.2	1190.0	1308.6	1431.0
37.5°	898.1	962.6	1049.9	1164.6	1281.2	1401.3
38°	877.7	941.1	1026.8	1139.9	1253.8	1371.2
38.5°	858.2	919.6	1003.7	1114.5	1226.8	1342.2
39°	839.0	898.5	981.4	1091.0	1201.3	1313.3
39.5°	819.0	877.3	959.5	1067.1	1175.1	1285.1
40°	799.9	857.4	937.2	1043.6	1149.3	1256.5
40.5°	781.5	837.0	916.1	1019.8	1124.3	1229.5
41°	763.1	817.9	894.9	997.5	1099.6	1202.5
41.5°	744.7	798.3	874.6	974.8	1075.3	1175.5
42°	727.5	779.5	854.2	953.2	1051.5	1149.7
42.5°	709.8	760.7	833.9	931.7	1028.0	1124.6
43°	693.0	743.1	814.3	910.6	1004.9	1099.6
43.5°	676.2	724.7	794.8	889.5	982.6	1075.3

TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	628.5	673.5	738.8	829.2	917.6	1004.9
45.5°	613.2	656.6	721.2	809.6	896.9	982.2
46°	597.9	640.6	703.2	790.5	876.6	960.3
46.5°	583.1	624.5	686.4	771.7	856.2	938.8
47°	568.2	608.9	668.8	752.9	836.6	917.6
47.5°	554.1	593.6	652.3	734.9	817.1	897.3
48°	540.0	578.8	635.9	716.9	798.3	876.6
48.5°	526.3	563.9	619.5	699.3	779.5	856.2
49°	512.2	549.4	603.8	682.5	761.5	837.0
49.5°	498.9	534.9	588.1	665.6	743.5	817.9
50°	486.0	520.8	572.5	648.4	725.5	799.1
50.5°	473.1	507.1	557.6	632.0	708.3	780.7
51°	460.6	493.5	542.8	616.3	691.1	762.3
51.5°	448.1	479.8	528.3	600.3	674.6	744.3
52°	435.5	467.2	513.8	585.0	657.4	726.7
52.5°	423.4	454.3	500.1	569.8	641.4	709.5
53°	411.7	441.8	486.0	554.5	625.3	692.6
53.5°	399.9	429.3	472.7	540.0	609.3	675.4
54°	388.6	416.8	459.4	525.1	593.6	659.0
54.5°	377.6	405.0	446.5	510.7	578.8	642.5
55°	366.7	393.3	433.6	496.6	563.1	626.5
55.5°	355.7	381.9	421.1	482.9	548.6	610.5
56°	345.5	370.6	408.1	469.2	533.8	594.8
56.5°	335.8	359.6	396.4	455.9	519.3	579.5
57°	326.0	348.3	384.3	442.6	504.8	564.7
57.5°	316.2	338.1	372.5	429.7	490.7	549.0
58°	306.4	327.1	361.2	416.8	476.6	534.5
58.5°	296.6	317.0	350.2	404.6	463.3	520.1
59°	287.6	306.8	338.9	392.1	449.6	505.6
59.5°	278.6	297.0	328.3	380.0	436.7	491.5
60°	270.4	287.2	317.4	368.2	423.4	477.8
60.5°	261.8	277.8	307.2	356.5	410.9	464.1
61°	253.6	268.8	296.6	345.1	397.6	450.4
61.5°	245.4	259.4	286.8	333.8	385.8	437.1
62°	237.5	250.4	277.1	322.4	373.7	424.2
62.5°	229.7	241.8	267.3	311.9	361.6	411.7
63°	222.3	233.6	257.9	300.9	349.4	398.8
63.5°	214.8	225.4	248.9	290.7	338.1	386.2
64°	207.8	217.2	239.5	280.2	326.7	374.1
64.5°	201.1	209.4	230.9	270.0	315.4	362.0
65°	194.5	201.9	222.3	260.2	304.4	349.8
65.5°	188.2	194.1	214.1	250.4	293.9	337.7
66°	182.0	186.7	205.4	240.7	283.3	325.2



TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	164.0	165.9	181.6	213.3	251.2	289.2
68°	158.5	159.3	174.1	204.7	241.1	277.4
68.5°	152.6	153.0	167.1	196.0	230.9	265.3
69°	147.1	146.7	160.0	187.4	220.7	254.0
69.5°	141.7	140.1	152.6	179.6	210.9	242.6
70°	136.2	134.6	146.0	171.8	201.5	231.3
70.5°	131.1	129.5	139.7	164.0	192.1	220.7
71°	126.0	124.0	133.8	156.1	182.7	209.7
71.5°	120.5	118.6	127.6	148.7	173.7	199.2
72°	115.8	113.5	121.3	141.7	164.7	188.6
72.5°	111.1	108.4	115.0	134.6	156.1	178.8
73°	105.7	103.3	109.6	128.0	147.9	169.0
73.5°	101.0	98.6	103.7	120.9	138.9	158.9
74°	96.3	93.9	98.2	114.3	131.5	149.5
74.5°	92.0	89.2	93.1	107.6	124.0	139.7
75°	87.3	84.5	88.0	101.4	116.6	131.1
75.5°	83.0	80.2	83.0	95.1	109.2	122.5
76°	78.7	75.9	78.3	88.8	102.1	113.9
76.5°	74.4	71.6	73.2	83.4	95.1	105.3
77°	70.0	67.7	68.9	77.5	88.4	97.0
77.5°	66.1	63.8	64.2	72.0	81.8	88.8
78°	61.8	59.9	59.9	66.9	75.5	81.0
78.5°	57.9	56.0	56.0	61.4	69.3	73.6
79°	54.0	52.4	52.0	56.7	63.4	66.1
79.5°	50.1	48.5	47.7	51.7	57.5	59.5
80°	46.2	45.0	44.2	47.3	52.0	52.8
80.5°	42.7	41.9	40.3	43.0	46.6	47.0
81°	39.1	38.3	37.2	38.7	41.5	41.1
81.5°	35.6	34.8	33.7	34.4	36.4	35.6
82°	32.1	31.7	30.1	30.9	31.7	30.1
82.5°	28.6	28.6	27.0	27.4	27.0	25.0
83°	25.4	25.4	23.9	23.9	22.7	20.7
83.5°	21.9	21.9	20.7	20.7	19.2	16.8
84°	18.8	19.2	18.0	17.6	15.7	13.7
84.5°	15.7	16.0	15.3	14.9	13.3	11.7
85°	12.5	13.3	12.9	12.5	10.6	10.2
85.5°	9.4	11.0	10.2	10.2	8.2	8.2
86°	6.7	8.2	7.8	7.8	5.9	6.7
86.5°	3.9	5.5	5.1	5.5	4.3	5.5
87°	2.0	2.7	3.1	3.9	3.1	4.7
87.5°	0.4	0.8	1.2	2.0	2.0	3.5
88°	0.0	0.0	0.0	0.4	1.2	2.7
88.5°	0.0	0.0	0.0	0.0	0.4	2.0



TEST NUMBER: P776271

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRH-HCD42TRLWW-4000lm-3000K

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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Peachtree City, GA 30269

Scaled Data Report





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

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21.5°	2317.0	2347.5	2287.2	2158.9	1985.5	1835.7	1712.0	1622.0	1546.9	1533.2	1561.0
22°	2298.2	2331.9	2272.0	2142.1	1967.2	1816.5	1692.1	1601.7	1526.1	1512.8	1539.4



44°	1051.1	1079.6	1060.9	996.7	895.3	817.1	757.2	715.3	662.5	651.9	648.4
44.5°	1027.6	1055.4	1037.0	974.0	873.4	797.1	738.8	697.7	646.1	637.1	632.8



66.5°	313.1	322.8	305.2	273.1	237.9	219.9	219.9	220.7	206.2	199.2	188.6
67°	300.9	310.7	294.7	263.4	229.3	212.5	212.9	213.3	198.8	192.5	182.4



89°	1.2	2.3	6.3	9.0	8.2	8.2	6.3	2.7	0.0	0.4	0.0
89.5°	0.4	1.6	3.9	6.7	5.9	5.5	3.5	1.2	0.0	0.4	0.0

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21.5°	1623.2	1735.1	1872.1	2034.1	2187.9	2317.0
22°	1600.9	1712.8	1849.4	2011.8	2165.9	2298.2



44°	660.2	707.1	776.0	868.7	960.3	1051.1
44.5°	644.1	689.9	757.6	848.8	938.8	1027.6



66.5°	175.7	179.6	197.2	231.3	272.4	313.1
67°	169.8	172.6	189.4	222.3	261.8	300.9

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89°	0.0	0.0	0.0	0.0	0.4	1.2
89.5°	0.0	0.0	0.0	0.0	0.0	0.4

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(END OF REPORT)