

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: P776585

Luminaire Tested: HCDJBS4050CSD-HCD42TRMB-5000lm-2700K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776585  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B051)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD42TRMB-5000lm-2700K  
Description: 4 INCH ROUND NARROW MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

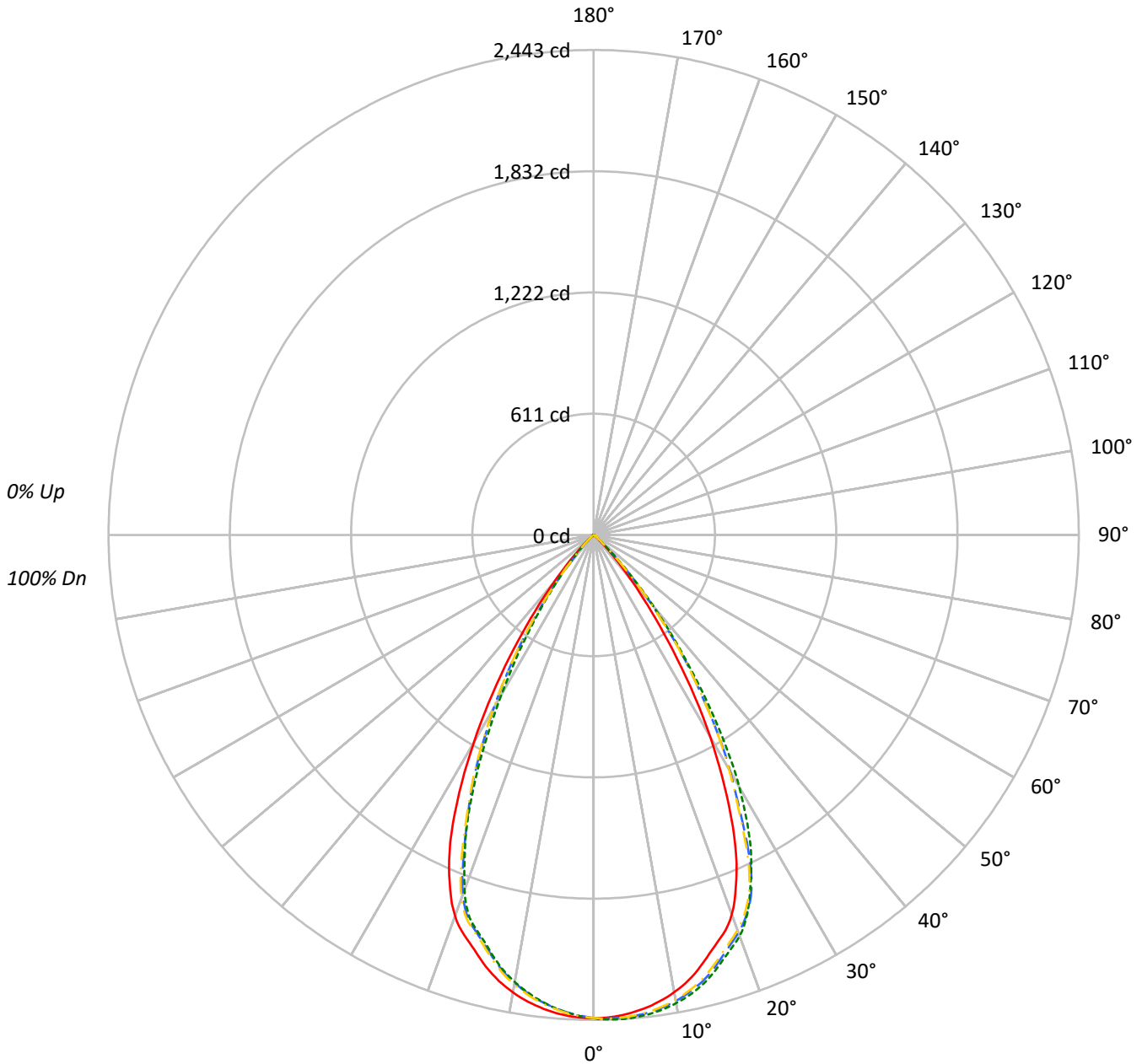
Lumens per Lamp: N/A  
Luminaire Lumens: 2149.2 lumens  
Efficiency: N/A  
Efficacy: 44.8 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.94 / 0.88  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P776585  
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

### 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	102	100	100	100	100	100		
	1	114	111	109	106	111	109	107	105	105	103	101	101	100	98	98	97	96	96	94	94	94	94	94		
	2	108	103	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	89	88	88	88	88	88		
	3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	85	83	83	82	82	82	82	82		
	4	98	91	85	81	96	89	84	81	87	83	80	85	82	79	83	80	78	78	76	76	76	76	76		
	5	93	85	79	75	91	84	79	75	82	78	74	81	77	73	79	76	73	73	71	71	71	71	71		
	6	89	80	74	70	87	79	74	70	78	73	69	76	72	69	75	71	68	68	67	67	67	67	67		
	7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	64	63	63	63	63	63		
	8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	60	59	59	59	59	59		
	9	76	67	61	57	75	67	61	57	66	61	57	65	60	57	64	60	57	57	55	55	55	55	55		
	10	73	63	58	54	72	63	58	54	62	57	54	61	57	54	61	56	53	53	52	52	52	52	52		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	306281	306281	306281	306281
5°	304520	308095	304633	301475
10°	298853	306060	299031	292284
15°	287079	299001	287848	276578
20°	272474	287955	273505	254554
25°	232507	260640	237117	201722
30°	170488	213081	175109	134885
35°	100723	142465	107851	76863
40°	46213	75982	51536	34927
45°	14256	25842	16285	10216
50°	4542	5169	4640	3916
55°	2787	3203	2787	2392
60°	1712	1938	1837	1611
65°	1221	1221	1221	1072
70°	846	846	846	662
75°	438	681	438	438
80°	362	362	362	362
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 26982 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.8	10.6
10°-20°	619.6	28.8
20°-30°	752.0	35.0
30°-40°	443.1	20.6
40°-50°	89.1	4.1
50°-60°	12.1	0.6
60°-70°	4.1	0.2
70°-80°	1.2	0.1
80°-90°	0.1	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°	1599.4	74.4
0°-40°	2042.5	95.0
0°-60°	2143.7	99.7
0°-90°	2149.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2149.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2434	2434	2434	2434	2434	
5°	2410	2439	2411	2386	2410	228
15°	2203	2295	2209	2123	2203	619
25°	1674	1877	1708	1453	1674	750
35°	656	927	702	500	656	417
45°	80	145	92	57	80	78
55°	13	15	13	11	13	12
65°	4	4	4	4	4	4
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P776585

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7
0.5°	2434.2	2435.6	2434.2	2433.3	2438.3	2436.5	2435.1	2434.7	2434.2	2433.7	2430.1
1°	2433.3	2435.6	2435.6	2435.1	2440.1	2438.3	2436.5	2435.1	2433.7	2431.9	2426.9
1.5°	2432.4	2435.6	2436.9	2436.9	2441.5	2439.7	2436.9	2434.7	2432.4	2429.6	2423.7
2°	2430.6	2434.7	2437.4	2437.8	2442.4	2440.6	2437.4	2434.2	2431.0	2427.4	2419.6
2.5°	2428.3	2433.7	2437.4	2438.3	2443.3	2441.0	2436.9	2433.3	2428.7	2424.2	2415.1
3°	2425.6	2431.9	2436.9	2438.8	2443.3	2441.0	2436.5	2431.5	2426.5	2420.5	2410.5
3.5°	2422.8	2430.1	2436.5	2438.3	2442.9	2440.1	2435.1	2429.6	2423.3	2416.4	2405.5
4°	2419.2	2427.4	2435.1	2437.4	2441.9	2439.2	2433.7	2426.9	2419.6	2411.9	2399.6
4.5°	2415.1	2424.6	2433.7	2436.5	2440.6	2437.8	2431.5	2424.2	2416.0	2407.3	2393.2
5°	2410.5	2421.0	2431.5	2434.7	2438.8	2435.6	2429.2	2421.0	2411.4	2401.9	2386.4
5.5°	2405.5	2417.4	2428.7	2432.8	2436.5	2433.3	2426.0	2417.4	2406.4	2396.0	2379.6
6°	2400.1	2412.8	2425.6	2430.1	2433.7	2430.1	2422.4	2412.8	2401.0	2389.6	2371.8
6.5°	2394.1	2408.3	2421.9	2426.9	2431.0	2426.9	2418.3	2407.8	2395.0	2382.3	2363.6
7°	2388.2	2402.8	2417.8	2423.3	2426.9	2422.8	2414.2	2402.3	2389.1	2375.0	2354.5
7.5°	2380.9	2396.9	2413.3	2419.6	2422.8	2418.3	2409.6	2396.9	2382.3	2366.8	2345.4
8°	2373.7	2390.5	2408.7	2415.1	2418.3	2413.7	2403.7	2390.5	2374.6	2358.6	2335.9
8.5°	2365.5	2383.7	2402.8	2410.1	2413.3	2408.3	2397.8	2383.7	2366.8	2350.0	2325.4
9°	2357.3	2376.4	2396.9	2404.6	2407.8	2402.8	2391.4	2376.4	2358.6	2340.4	2314.9
9.5°	2348.2	2368.2	2390.5	2398.7	2401.9	2396.4	2384.6	2368.6	2349.5	2330.9	2303.1
10°	2338.6	2360.0	2383.7	2392.3	2395.0	2390.0	2377.3	2360.5	2340.0	2319.9	2291.3
10.5°	2328.1	2350.9	2376.4	2385.5	2388.2	2382.3	2369.6	2351.3	2329.9	2309.0	2279.0
11°	2318.1	2341.8	2368.2	2377.8	2380.5	2374.6	2360.9	2341.8	2319.9	2297.2	2265.8
11.5°	2306.7	2331.8	2359.5	2370.0	2372.3	2365.9	2351.8	2331.8	2308.6	2284.9	2251.2
12°	2294.4	2320.8	2350.4	2361.8	2363.6	2357.3	2342.2	2321.3	2296.7	2271.7	2236.2
12.5°	2281.2	2309.0	2340.9	2352.3	2354.5	2347.2	2331.8	2309.9	2284.0	2257.6	2220.2
13°	2267.1	2297.2	2329.9	2342.7	2344.1	2337.2	2320.8	2298.1	2270.8	2243.0	2203.4
13.5°	2252.1	2283.5	2319.5	2332.2	2333.1	2325.9	2309.0	2284.9	2256.2	2227.5	2186.1
14°	2236.6	2269.9	2307.6	2320.8	2321.8	2314.0	2296.3	2271.2	2241.2	2210.7	2167.4
14.5°	2220.2	2254.8	2294.9	2308.6	2308.6	2300.4	2283.1	2256.7	2225.7	2193.4	2149.7
15°	2203.4	2238.9	2281.2	2295.4	2294.9	2287.2	2268.5	2241.6	2209.3	2176.1	2131.9
15.5°	2186.5	2222.5	2266.7	2281.2	2281.2	2272.6	2253.5	2225.7	2192.5	2158.8	2116.0
16°	2170.6	2206.6	2251.2	2266.7	2266.2	2257.6	2238.0	2209.3	2175.6	2141.9	2100.5
16.5°	2156.0	2190.6	2235.3	2251.2	2250.3	2242.1	2222.1	2193.4	2160.1	2126.5	2085.0
17°	2141.0	2176.1	2219.3	2236.2	2235.3	2226.6	2206.1	2177.9	2145.1	2111.9	2069.5
17.5°	2126.9	2161.5	2204.3	2220.7	2220.7	2212.0	2191.1	2163.3	2130.6	2096.9	2054.1
18°	2112.3	2147.4	2189.3	2206.6	2207.5	2197.9	2177.4	2148.8	2115.5	2081.4	2035.9
18.5°	2096.9	2132.4	2175.2	2192.9	2193.4	2184.3	2162.4	2133.3	2100.1	2065.0	2014.9
19°	2078.7	2117.8	2160.6	2178.8	2179.7	2170.2	2147.9	2119.2	2083.2	2045.9	1989.4
19.5°	2057.7	2101.4	2146.5	2164.2	2166.1	2156.0	2133.3	2102.8	2064.1	2023.1	1960.3
20°	2034.5	2082.8	2131.5	2150.6	2150.1	2140.6	2117.8	2085.5	2042.2	1997.2	1926.1
20.5°	2007.6	2061.8	2116.0	2134.6	2131.9	2123.3	2101.0	2066.4	2017.2	1968.5	1887.9
21°	1978.5	2039.5	2098.7	2116.9	2111.0	2103.2	2082.8	2045.0	1990.8	1936.2	1843.7



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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°	1877.9	1955.3	2037.7	2050.4	2035.0	2031.8	2017.7	1968.0	1895.6	1820.1	1701.3
23°	1841.5	1922.0	2012.6	2024.0	2004.9	2002.6	1992.2	1937.5	1862.4	1776.4	1654.4
23.5°	1804.1	1887.0	1984.9	1994.4	1972.6	1971.2	1962.1	1903.4	1826.4	1730.8	1607.9
24°	1762.7	1849.7	1953.9	1961.7	1940.7	1939.3	1929.3	1867.4	1789.1	1684.9	1564.2
24.5°	1719.5	1810.1	1918.9	1928.0	1909.3	1904.3	1891.5	1830.1	1749.5	1638.9	1520.1
25°	1674.4	1769.1	1877.4	1891.5	1877.0	1869.7	1851.5	1790.0	1707.6	1595.2	1475.9
25.5°	1626.6	1725.4	1833.3	1856.0	1844.7	1835.1	1805.5	1747.2	1662.1	1551.9	1431.3
26°	1577.9	1678.0	1782.7	1817.8	1810.5	1799.6	1755.4	1701.7	1615.2	1509.6	1385.8
26.5°	1527.4	1627.0	1729.0	1778.6	1774.1	1760.0	1702.2	1653.5	1566.0	1465.9	1338.9
27°	1476.8	1574.2	1673.0	1736.3	1735.4	1719.0	1650.7	1602.5	1517.3	1421.7	1290.6
27.5°	1426.7	1518.7	1617.9	1693.5	1692.1	1675.8	1598.4	1549.2	1465.9	1377.1	1240.1
28°	1377.1	1461.8	1564.2	1645.7	1648.0	1631.1	1548.3	1492.3	1414.0	1331.1	1190.5
28.5°	1327.0	1405.3	1514.1	1597.0	1602.0	1582.0	1499.1	1437.7	1364.4	1283.8	1141.8
29°	1275.6	1349.8	1466.3	1545.1	1557.9	1531.4	1455.0	1383.9	1310.7	1234.2	1095.3
29.5°	1224.6	1293.4	1421.3	1492.3	1512.3	1479.1	1409.0	1331.6	1257.4	1181.4	1049.3
30°	1173.2	1241.0	1375.8	1438.1	1466.3	1427.2	1363.9	1281.1	1205.0	1129.9	1003.8
30.5°	1121.7	1186.8	1330.2	1386.7	1417.2	1374.8	1318.4	1230.1	1154.0	1077.6	959.7
31°	1068.0	1134.9	1281.5	1335.7	1367.6	1324.8	1271.5	1180.0	1101.2	1026.6	915.0
31.5°	1015.2	1082.1	1231.9	1285.2	1313.4	1274.7	1221.0	1129.9	1049.3	976.0	870.4
32°	961.9	1031.1	1180.0	1236.4	1258.8	1226.0	1170.0	1079.4	997.9	927.8	825.4
32.5°	908.7	981.5	1127.2	1189.6	1202.8	1175.9	1118.5	1027.9	948.3	880.4	777.6
33°	855.4	932.3	1073.5	1141.3	1146.8	1127.6	1067.1	975.1	896.8	834.0	730.7
33.5°	802.6	883.2	1021.6	1092.6	1091.7	1077.1	1016.1	924.6	846.8	787.1	684.7
34°	751.2	836.7	972.4	1043.0	1036.6	1027.9	967.9	875.9	797.6	739.3	640.1
34.5°	702.0	789.9	925.5	993.3	982.0	976.5	922.8	828.1	749.8	691.5	595.5
35°	655.6	743.9	878.2	941.9	927.3	926.4	875.9	782.1	702.0	643.7	553.1
35.5°	610.9	700.2	833.6	890.9	874.5	877.7	831.3	737.5	656.5	597.3	512.2
36°	567.7	659.2	788.9	840.4	823.1	828.5	785.3	695.6	612.3	551.3	472.5
36.5°	525.4	618.2	744.3	792.6	772.1	778.9	738.9	654.2	570.0	507.6	433.4
37°	485.3	576.8	698.3	745.2	723.4	730.2	691.5	613.7	526.7	465.3	394.2
37.5°	447.5	537.2	653.3	699.7	677.0	682.4	644.6	573.2	488.0	428.4	355.1
38°	410.6	497.1	607.3	654.6	631.9	636.0	598.6	534.0	450.2	392.0	316.4
38.5°	375.1	458.0	563.1	608.7	588.2	589.5	554.0	494.9	416.1	355.1	280.4
39°	342.3	419.7	521.7	565.4	545.4	545.4	510.3	456.2	382.0	318.7	247.2
39.5°	310.9	382.9	481.7	522.2	503.5	501.7	469.8	419.7	347.8	288.6	216.7
40°	281.3	347.8	444.8	479.4	462.5	460.3	433.8	383.8	313.7	257.7	189.8
40.5°	253.6	314.1	407.9	437.5	425.7	421.1	397.9	347.8	283.2	229.4	166.2
41°	227.2	282.3	373.3	396.1	388.8	382.4	361.9	311.8	255.4	203.0	145.7
41.5°	203.5	253.1	339.2	357.4	351.9	343.7	326.0	280.0	228.5	178.5	127.9
42°	181.2	225.8	305.5	320.5	315.0	304.6	290.0	250.4	204.0	156.1	113.4
42.5°	160.7	200.3	272.7	286.3	283.6	270.9	257.2	221.7	181.2	137.0	100.6
43°	144.3	176.2	239.9	254.0	252.2	239.0	225.3	195.3	160.2	119.7	88.3
43.5°	128.4	156.1	209.4	224.0	224.0	209.9	195.8	171.6	140.7	104.7	77.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	80.1	102.9	136.1	151.6	145.2	136.6	123.4	110.2	91.5	69.2	51.9
45.5°	68.7	85.6	117.5	132.9	122.9	117.0	104.3	94.2	78.3	59.6	46.4
46°	58.3	72.4	99.2	114.3	103.8	99.2	88.3	79.2	66.0	51.0	41.4
46.5°	48.7	60.5	80.6	95.6	86.5	83.8	74.2	66.9	55.5	46.0	36.0
47°	41.0	50.1	67.8	77.4	71.5	69.7	61.9	55.5	49.6	40.5	31.0
47.5°	34.1	41.4	56.0	64.2	58.7	57.8	56.0	49.6	43.7	35.5	25.5
48°	29.6	34.1	46.4	52.8	52.4	51.4	50.1	43.7	37.8	30.5	23.7
48.5°	26.9	29.6	38.2	42.8	45.5	45.5	44.2	38.2	31.9	25.5	22.8
49°	25.5	26.9	32.3	35.1	39.2	39.2	38.2	32.3	25.9	24.1	21.9
49.5°	24.1	25.5	28.7	30.0	32.8	32.8	31.9	26.9	24.6	22.8	20.9
50°	23.2	24.1	26.4	27.3	26.4	26.9	25.9	25.0	23.7	21.9	19.6
50.5°	21.9	23.2	25.0	25.5	25.0	25.5	25.0	24.1	22.3	20.9	18.7
51°	20.9	21.9	24.1	24.6	24.1	24.1	23.7	22.8	21.4	19.6	17.3
51.5°	19.6	20.9	22.8	23.2	22.8	22.8	22.3	21.4	20.0	18.7	16.4
52°	18.7	19.6	21.9	22.3	21.9	21.9	21.4	20.0	18.7	17.3	15.5
52.5°	17.3	18.2	20.5	20.9	20.5	20.5	20.0	19.1	17.8	16.4	14.6
53°	16.4	17.3	19.1	19.6	19.1	19.1	18.7	17.8	16.4	15.5	13.7
53.5°	15.5	15.9	17.8	18.2	17.8	17.8	17.3	16.8	15.5	14.6	12.7
54°	14.6	15.0	16.8	17.3	16.8	16.8	16.4	15.5	14.6	13.7	12.3
54.5°	13.7	14.1	15.9	16.4	15.5	15.5	15.5	14.6	13.7	12.7	11.4
55°	12.7	13.7	14.6	15.0	14.6	14.6	14.6	13.7	12.7	12.3	10.9
55.5°	11.8	12.7	13.7	14.1	13.7	13.7	13.7	12.7	12.3	11.4	10.0
56°	11.4	11.8	12.7	13.2	12.7	12.7	12.7	12.3	11.4	10.9	9.6
56.5°	10.5	10.9	12.3	12.3	12.3	12.3	11.8	11.4	10.9	10.0	9.1
57°	10.0	10.5	11.4	11.8	11.4	11.4	11.4	10.9	10.0	9.6	8.6
57.5°	9.1	9.6	10.5	10.9	10.5	10.5	10.5	10.0	9.6	9.1	8.2
58°	8.6	9.1	10.0	10.5	10.0	10.0	10.0	9.6	9.1	8.6	7.7
58.5°	8.2	8.6	9.6	9.6	9.6	9.6	9.1	9.1	8.6	8.2	7.3
59°	7.7	8.2	8.6	9.1	8.6	8.6	8.6	8.6	8.2	7.7	6.8
59.5°	7.3	7.7	8.2	8.6	8.2	8.2	8.2	7.7	7.7	7.3	6.4
60°	6.8	7.3	7.7	8.2	7.7	7.7	7.7	7.3	7.3	6.8	5.9
60.5°	6.4	6.8	7.3	7.7	7.3	7.3	7.3	6.8	6.8	6.4	5.9
61°	6.4	6.4	6.8	7.3	6.8	6.8	6.8	6.8	6.4	5.9	5.5
61.5°	5.9	5.9	6.4	6.8	6.4	6.4	6.4	6.4	5.9	5.5	5.0
62°	5.5	5.5	6.4	6.4	6.4	6.4	5.9	5.9	5.5	5.5	5.0
62.5°	5.0	5.5	5.9	5.9	5.9	5.9	5.9	5.5	5.5	5.0	4.6
63°	5.0	5.0	5.5	5.5	5.5	5.5	5.5	5.5	5.0	5.0	4.6
63.5°	4.6	4.6	5.0	5.5	5.0	5.0	5.0	5.0	4.6	4.6	4.1
64°	4.6	4.6	5.0	5.0	5.0	5.0	5.0	4.6	4.6	4.1	4.1
64.5°	4.1	4.1	4.6	4.6	4.6	4.6	4.6	4.6	4.1	4.1	3.6
65°	4.1	4.1	4.6	4.6	4.1	4.1	4.1	4.1	4.1	3.6	3.6
65.5°	3.6	3.6	4.1	4.1	4.1	4.1	4.1	4.1	3.6	3.6	3.2
66°	3.6	3.6	3.6	4.1	3.6	3.6	3.6	3.6	3.6	3.2	3.2





TEST NUMBER: P776585

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	2.7	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.7	2.7
68°	2.7	2.7	3.2	3.2	3.2	3.2	3.2	2.7	2.7	2.7	2.3
68.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.3
69°	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.3	2.3	2.3
69.5°	2.3	2.3	2.7	2.7	2.7	2.7	2.3	2.3	2.3	2.3	2.3
70°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.8
70.5°	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3	1.8	1.8	1.8
71°	1.8	1.8	2.3	2.3	2.3	2.3	2.3	1.8	1.8	1.8	1.8
71.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
72°	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.4
72.5°	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.4	1.4	1.4
73°	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.4	1.4	1.4	1.4
73.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
74°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
74.5°	0.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9
75°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9
75.5°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.9
76°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
76.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
77°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
77.5°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5
78°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5
78.5°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
81°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
81.5°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
82.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
83°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	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: P776585  
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-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: P776585

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2433.7	2433.7	2433.7	2433.7	2433.7	2433.7
0.5°	2427.8	2432.8	2431.5	2431.5	2432.4	2434.2
1°	2424.2	2429.6	2428.7	2428.7	2431.0	2433.3
1.5°	2420.5	2426.0	2425.1	2426.0	2428.7	2432.4
2°	2416.0	2421.5	2421.0	2422.4	2426.0	2430.6
2.5°	2411.0	2416.9	2416.4	2418.3	2422.8	2428.3
3°	2406.0	2411.9	2411.4	2414.2	2419.2	2425.6
3.5°	2400.1	2406.0	2406.0	2409.2	2415.5	2422.8
4°	2393.7	2400.1	2400.1	2403.7	2410.5	2419.2
4.5°	2387.3	2393.2	2393.7	2397.8	2405.5	2415.1
5°	2379.6	2386.4	2386.9	2391.9	2400.1	2410.5
5.5°	2372.3	2378.7	2379.1	2385.0	2394.6	2405.5
6°	2363.6	2370.5	2371.4	2377.8	2387.8	2400.1
6.5°	2355.4	2361.8	2363.2	2369.6	2380.9	2394.1
7°	2345.9	2352.7	2354.1	2361.8	2373.7	2388.2
7.5°	2335.9	2343.2	2345.0	2352.7	2365.5	2380.9
8°	2325.9	2332.7	2335.0	2343.2	2357.3	2373.7
8.5°	2314.9	2322.2	2324.5	2333.1	2348.2	2365.5
9°	2303.5	2310.8	2313.6	2323.1	2338.6	2357.3
9.5°	2292.2	2299.4	2302.2	2311.7	2328.6	2348.2
10°	2279.4	2287.2	2289.9	2300.8	2318.1	2338.6
10.5°	2266.7	2274.0	2277.1	2288.5	2306.7	2328.1
11°	2252.1	2260.3	2263.9	2275.3	2294.4	2318.1
11.5°	2237.5	2245.3	2248.9	2261.2	2281.7	2306.7
12°	2222.1	2230.3	2233.4	2246.6	2268.0	2294.4
12.5°	2205.2	2213.4	2216.6	2229.8	2253.0	2281.2
13°	2187.9	2195.7	2198.8	2213.4	2238.0	2267.1
13.5°	2169.7	2177.9	2181.5	2196.1	2221.1	2252.1
14°	2150.6	2159.2	2162.9	2177.9	2204.3	2236.6
14.5°	2132.4	2140.6	2144.2	2160.1	2186.5	2220.2
15°	2115.5	2122.8	2126.5	2141.5	2169.2	2203.4
15.5°	2099.6	2106.4	2110.5	2125.1	2151.9	2186.5
16°	2083.7	2090.9	2095.0	2109.6	2136.5	2170.6
16.5°	2067.7	2075.5	2079.1	2094.6	2121.9	2156.0
17°	2052.2	2060.0	2063.6	2079.6	2107.3	2141.0
17.5°	2035.4	2043.6	2047.7	2064.5	2092.3	2126.9
18°	2013.6	2024.9	2029.5	2048.2	2077.3	2112.3
18.5°	1989.0	1999.9	2005.8	2029.0	2060.0	2096.9
19°	1960.7	1972.1	1980.3	2005.8	2039.5	2078.7
19.5°	1928.4	1938.9	1949.4	1979.0	2015.8	2057.7
20°	1892.0	1900.7	1914.8	1946.6	1988.5	2034.5
20.5°	1852.4	1860.1	1876.1	1911.1	1956.6	2007.6
21°	1810.5	1817.8	1834.6	1870.6	1921.1	1978.5



TEST NUMBER: P776585

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1668.5	1691.7	1697.2	1729.5	1794.1	1877.9
23°	1618.9	1649.8	1649.8	1679.9	1746.3	1841.5
23.5°	1568.8	1604.3	1601.6	1630.7	1700.8	1804.1
24°	1521.0	1556.5	1551.0	1582.0	1655.3	1762.7
24.5°	1471.4	1506.0	1500.5	1536.5	1611.6	1719.5
25°	1423.1	1452.7	1450.9	1489.1	1569.2	1674.4
25.5°	1376.2	1400.8	1400.8	1443.6	1526.9	1626.6
26°	1329.8	1346.6	1349.3	1397.6	1483.6	1577.9
26.5°	1281.5	1294.7	1298.8	1352.5	1439.5	1527.4
27°	1233.7	1240.1	1249.7	1304.3	1393.1	1476.8
27.5°	1185.0	1186.8	1200.5	1255.6	1344.8	1426.7
28°	1137.7	1134.5	1150.9	1205.0	1292.9	1377.1
28.5°	1089.4	1081.2	1104.0	1154.5	1241.0	1327.0
29°	1041.1	1027.5	1054.8	1104.4	1185.9	1275.6
29.5°	992.9	977.4	1007.0	1057.1	1135.4	1224.6
30°	945.1	928.2	957.8	1008.8	1082.6	1173.2
30.5°	896.4	879.5	909.1	961.9	1033.4	1121.7
31°	849.0	833.1	857.7	915.5	984.2	1068.0
31.5°	801.2	789.4	808.5	871.8	936.4	1015.2
32°	755.3	745.7	761.6	827.6	889.1	961.9
32.5°	709.3	703.4	716.6	783.5	844.0	908.7
33°	666.0	660.6	673.3	737.5	797.1	855.4
33.5°	622.8	617.3	631.9	692.4	749.3	802.6
34°	581.3	576.8	590.9	647.8	700.6	751.2
34.5°	541.7	537.6	551.8	602.7	653.7	702.0
35°	502.6	500.3	512.6	559.5	605.9	655.6
35.5°	464.4	464.8	476.6	517.6	559.5	610.9
36°	431.1	432.5	440.2	477.1	514.9	567.7
36.5°	398.3	400.2	405.2	437.9	472.5	525.4
37°	365.1	370.1	371.9	399.7	432.5	485.3
37.5°	332.3	340.5	340.5	362.4	394.2	447.5
38°	299.1	311.4	311.4	326.0	357.8	410.6
38.5°	272.2	284.5	283.2	291.4	322.8	375.1
39°	245.4	259.0	257.2	259.0	290.0	342.3
39.5°	220.3	234.9	232.6	228.5	259.0	310.9
40°	196.2	212.6	209.4	199.9	228.5	281.3
40.5°	175.3	190.7	187.1	175.3	201.7	253.6
41°	154.3	171.2	166.2	155.2	176.6	227.2
41.5°	136.1	154.8	150.2	139.8	154.8	203.5
42°	119.3	138.9	134.3	124.3	139.3	181.2
42.5°	104.7	122.9	118.8	109.3	123.8	160.7
43°	91.5	107.0	102.9	93.8	108.3	144.3
43.5°	79.7	91.0	87.0	82.9	92.9	128.4



TEST NUMBER: P776585

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	52.8	57.4	55.5	55.5	61.9	80.1
45.5°	46.4	48.3	46.9	48.3	54.2	68.7
46°	39.6	40.1	40.1	41.4	46.4	58.3
46.5°	33.2	33.2	33.7	35.5	39.6	48.7
47°	26.9	28.7	28.7	30.5	33.7	41.0
47.5°	24.6	25.9	25.9	27.3	29.6	34.1
48°	23.2	24.1	24.6	25.5	26.9	29.6
48.5°	22.3	23.2	23.2	24.1	25.0	26.9
49°	21.4	22.3	22.3	23.2	24.1	25.5
49.5°	20.0	20.9	21.4	21.9	23.2	24.1
50°	19.1	20.0	20.0	20.9	21.9	23.2
50.5°	17.8	18.7	19.1	19.6	20.9	21.9
51°	16.8	17.8	17.8	18.7	19.6	20.9
51.5°	15.9	16.8	16.8	17.3	18.7	19.6
52°	15.0	15.5	15.9	16.4	17.3	18.7
52.5°	14.1	14.6	15.0	15.5	16.4	17.3
53°	13.2	13.7	14.1	14.6	15.5	16.4
53.5°	12.7	13.2	13.2	13.7	14.6	15.5
54°	11.8	12.3	12.3	13.2	13.7	14.6
54.5°	11.4	11.4	11.8	12.3	12.7	13.7
55°	10.5	10.9	10.9	11.4	12.3	12.7
55.5°	10.0	10.5	10.5	10.9	11.4	11.8
56°	9.6	9.6	10.0	10.5	10.9	11.4
56.5°	8.6	9.1	9.1	9.6	10.0	10.5
57°	8.2	8.6	8.6	9.1	9.6	10.0
57.5°	7.7	8.2	8.2	8.6	9.1	9.1
58°	7.3	7.7	7.7	8.2	8.6	8.6
58.5°	7.3	7.3	7.3	7.7	8.2	8.2
59°	6.8	6.8	6.8	7.3	7.7	7.7
59.5°	6.4	6.4	6.8	6.8	7.3	7.3
60°	5.9	6.4	6.4	6.4	6.8	6.8
60.5°	5.5	5.9	5.9	5.9	6.4	6.4
61°	5.5	5.5	5.5	5.9	5.9	6.4
61.5°	5.0	5.0	5.5	5.5	5.5	5.9
62°	5.0	5.0	5.0	5.0	5.5	5.5
62.5°	4.6	4.6	4.6	5.0	5.0	5.0
63°	4.1	4.6	4.6	4.6	4.6	5.0
63.5°	4.1	4.1	4.1	4.6	4.6	4.6
64°	3.6	4.1	4.1	4.1	4.1	4.6
64.5°	3.6	3.6	3.6	3.6	4.1	4.1
65°	3.6	3.6	3.6	3.6	3.6	4.1
65.5°	3.2	3.2	3.2	3.6	3.6	3.6
66°	3.2	3.2	3.2	3.2	3.2	3.6



TEST NUMBER: P776585  
 CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	2.7	2.7	2.7	2.7	2.7	2.7
68°	2.3	2.7	2.7	2.7	2.7	2.7
68.5°	2.3	2.3	2.3	2.3	2.3	2.7
69°	2.3	2.3	2.3	2.3	2.3	2.3
69.5°	1.8	2.3	2.3	2.3	2.3	2.3
70°	1.8	1.8	1.8	1.8	2.3	2.3
70.5°	1.8	1.8	1.8	1.8	1.8	1.8
71°	1.8	1.8	1.8	1.8	1.8	1.8
71.5°	1.8	1.8	1.8	1.8	1.8	1.8
72°	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	1.4	1.4	1.4	1.4	1.4
73°	1.4	1.4	1.4	1.4	1.4	1.4
73.5°	1.4	1.4	1.4	1.4	1.4	1.4
74°	1.4	1.4	1.4	1.4	1.4	1.4
74.5°	0.9	0.9	0.9	0.9	0.9	0.9
75°	0.9	0.9	0.9	0.9	0.9	0.9
75.5°	0.9	0.9	0.9	0.9	0.9	0.9
76°	0.9	0.9	0.9	0.9	0.9	0.9
76.5°	0.9	0.9	0.9	0.9	0.9	0.9
77°	0.9	0.9	0.9	0.9	0.9	0.9
77.5°	0.5	0.9	0.9	0.9	0.5	0.5
78°	0.5	0.5	0.5	0.5	0.5	0.5
78.5°	0.5	0.5	0.5	0.5	0.5	0.5
79°	0.5	0.5	0.5	0.5	0.5	0.5
79.5°	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5
80.5°	0.5	0.5	0.5	0.5	0.5	0.5
81°	0.5	0.5	0.5	0.5	0.5	0.5
81.5°	0.5	0.5	0.5	0.5	0.0	0.0
82°	0.5	0.5	0.5	0.5	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: P776585

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRMB-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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Scaled Data Report





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

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Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	1946.6	2014.0	2080.0	2096.4	2088.2	2081.8	2062.7	2021.7	1960.7	1900.2	1797.8
22°	1912.5	1985.8	2059.1	2075.0	2062.7	2057.7	2041.8	1996.7	1928.9	1861.5	1749.5



44°	112.4	138.4	180.7	196.2	195.3	182.6	168.9	148.9	122.5	91.5	68.7
44.5°	96.1	120.6	154.8	170.3	169.4	158.4	144.8	128.4	106.1	79.7	60.1



66.5°	3.2	3.2	3.6	3.6	3.6	3.6	3.6	3.6	3.2	3.2	2.7
67°	3.2	3.2	3.6	3.6	3.2	3.2	3.2	3.2	3.2	3.2	2.7



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°	1765.9	1775.5	1790.9	1826.0	1882.0	1946.6
22°	1719.0	1732.7	1745.0	1779.1	1838.7	1912.5



44°	69.2	78.8	75.1	72.8	81.5	112.4
44.5°	59.2	67.8	65.1	64.2	71.5	96.1



66.5°	2.7	3.2	3.2	3.2	3.2	3.2
67°	2.7	2.7	2.7	2.7	3.2	3.2

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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)