

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: P776230

Luminaire Tested: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776230
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156A001)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS3040CSD-HCD42TRMW-3500lm-2700K
Description: 4 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

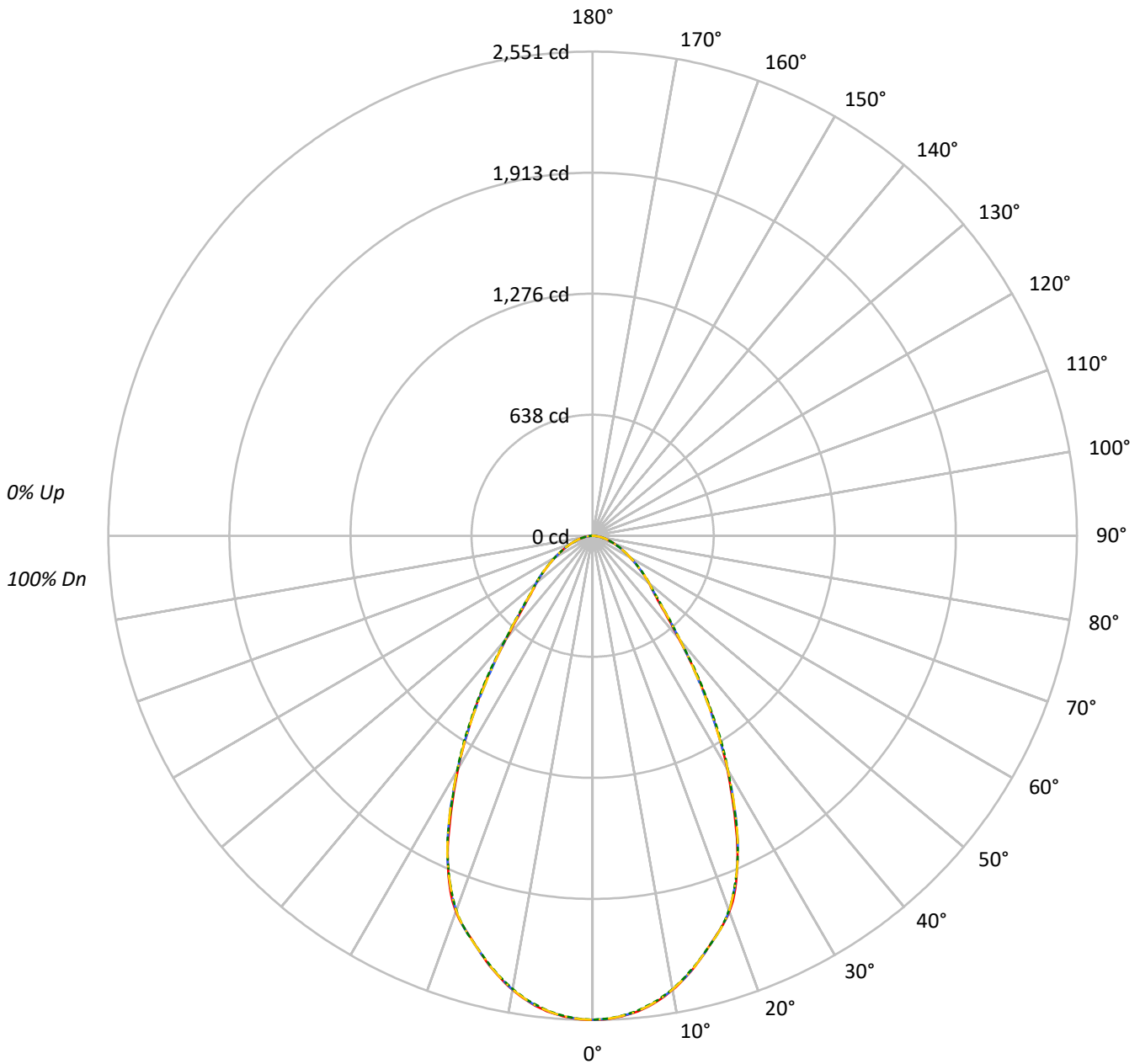
Lumens per Lamp: N/A
Luminaire Lumens: 3293.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 0.95
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 33.5
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								
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89								
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80								
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71								
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64								
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	62	57	78	68	61	56	67	60	56	65	60	55	64	59	55	53								
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49								
8	71	60	52	48	70	59	52	47	58	52	47	57	51	47	56	51	47	45								
9	67	56	49	44	66	55	48	44	54	48	44	53	48	44	52	47	43	42								
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	320942	320942	320942	320942
5°	318681	317987	318681	317987
10°	310443	309753	310443	309753
15°	296708	296356	296708	296356
20°	282130	281125	282130	281125
25°	250406	251211	250406	251211
30°	206018	207108	206018	207108
35°	159826	161562	159826	161562
40°	116084	118105	116084	118105
45°	87904	90093	87904	90093
50°	75691	76298	75691	76298
55°	65802	66548	65802	66548
60°	57513	58017	57513	58017
65°	50534	50951	50534	50951
70°	44597	44854	44597	44854
75°	39191	39191	39191	39191
80°	33918	33628	33918	33628
85°	27147	27147	27147	27147

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 90093 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.6	7.2
10°-20°	639.7	19.4
20°-30°	819.2	24.9
30°-40°	649.2	19.7
40°-50°	397.5	12.1
50°-60°	271.7	8.3
60°-70°	170.1	5.2
70°-80°	86.2	2.6
80°-90°	21.8	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°	1696.6	51.5
0°-40°	2345.7	71.2
0°-60°	3014.9	91.6
0°-90°	3293.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3293.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2550	2550	2550	2550	2550	
5°	2523	2517	2523	2517	2523	238
15°	2277	2275	2277	2275	2277	640
25°	1803	1809	1803	1809	1803	817
35°	1040	1052	1040	1052	1040	648
45°	494	506	494	506	494	392
55°	300	303	300	303	300	270
65°	170	171	170	171	170	169
75°	81	81	81	81	81	86
85°	19	19	19	19	19	22
90°	0	1	0	1	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°	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2
0.5°	2550.6	2550.2	2549.5	2549.2	2548.2	2549.2	2549.5	2550.2	2550.6	2550.2	2549.5
1°	2549.5	2549.2	2548.9	2548.5	2547.1	2548.5	2548.9	2549.2	2549.5	2549.2	2548.9
1.5°	2548.2	2547.5	2547.5	2546.8	2545.8	2546.8	2547.5	2547.5	2548.2	2547.5	2547.5
2°	2546.1	2545.8	2545.1	2544.8	2543.4	2544.8	2545.1	2545.8	2546.1	2545.8	2545.1
2.5°	2543.7	2543.1	2542.4	2542.0	2540.3	2542.0	2542.4	2543.1	2543.7	2543.1	2542.4
3°	2540.3	2539.6	2539.0	2538.3	2536.6	2538.3	2539.0	2539.6	2540.3	2539.6	2539.0
3.5°	2536.6	2535.9	2534.9	2534.2	2533.1	2534.2	2534.9	2535.9	2536.6	2535.9	2534.9
4°	2532.1	2531.8	2530.4	2529.7	2528.0	2529.7	2530.4	2531.8	2532.1	2531.8	2530.4
4.5°	2527.3	2526.7	2525.3	2524.6	2522.6	2524.6	2525.3	2526.7	2527.3	2526.7	2525.3
5°	2522.6	2521.5	2520.2	2519.5	2517.1	2519.5	2520.2	2521.5	2522.6	2521.5	2520.2
5.5°	2517.4	2515.0	2513.3	2512.7	2510.6	2512.7	2513.3	2515.0	2517.4	2515.0	2513.3
6°	2509.6	2508.2	2506.5	2505.5	2502.8	2505.5	2506.5	2508.2	2509.6	2508.2	2506.5
6.5°	2501.7	2500.7	2498.7	2497.6	2494.9	2497.6	2498.7	2500.7	2501.7	2500.7	2498.7
7°	2493.5	2492.2	2491.1	2489.4	2487.0	2489.4	2491.1	2492.2	2493.5	2492.2	2491.1
7.5°	2484.3	2482.9	2481.6	2480.9	2478.5	2480.9	2481.6	2482.9	2484.3	2482.9	2481.6
8°	2474.4	2473.4	2472.0	2471.0	2469.6	2471.0	2472.0	2473.4	2474.4	2473.4	2472.0
8.5°	2464.2	2462.8	2461.4	2460.4	2459.0	2460.4	2461.4	2462.8	2464.2	2462.8	2461.4
9°	2453.2	2452.2	2450.5	2449.5	2448.1	2449.5	2450.5	2452.2	2453.2	2452.2	2450.5
9.5°	2441.3	2440.6	2438.9	2437.9	2436.5	2437.9	2438.9	2440.6	2441.3	2440.6	2438.9
10°	2429.3	2428.3	2426.9	2425.6	2423.9	2425.6	2426.9	2428.3	2429.3	2428.3	2426.9
10.5°	2416.0	2415.3	2413.6	2412.6	2411.2	2412.6	2413.6	2415.3	2416.0	2415.3	2413.6
11°	2402.7	2402.0	2400.6	2399.3	2397.6	2399.3	2400.6	2402.0	2402.7	2402.0	2400.6
11.5°	2388.7	2388.0	2386.6	2385.3	2383.9	2385.3	2386.6	2388.0	2388.7	2388.0	2386.6
12°	2374.3	2373.7	2372.6	2370.9	2369.6	2370.9	2372.6	2373.7	2374.3	2373.7	2372.6
12.5°	2359.3	2358.6	2357.6	2355.9	2354.2	2355.9	2357.6	2358.6	2359.3	2358.6	2357.6
13°	2343.9	2343.3	2342.2	2340.9	2339.2	2340.9	2342.2	2343.3	2343.9	2343.3	2342.2
13.5°	2327.9	2327.2	2326.5	2325.2	2323.8	2325.2	2326.5	2327.2	2327.9	2327.2	2326.5
14°	2311.5	2311.2	2310.5	2309.1	2307.7	2309.1	2310.5	2311.2	2311.5	2311.2	2310.5
14.5°	2294.4	2294.1	2293.7	2292.4	2291.0	2292.4	2293.7	2294.1	2294.4	2294.1	2293.7
15°	2277.3	2277.3	2276.7	2276.0	2274.6	2276.0	2276.7	2277.3	2277.3	2277.3	2276.7
15.5°	2259.6	2259.6	2260.3	2259.6	2258.9	2259.6	2260.3	2259.6	2259.6	2259.6	2260.3
16°	2242.5	2242.8	2243.9	2243.5	2242.8	2243.5	2243.9	2242.8	2242.5	2242.8	2243.9
16.5°	2225.4	2226.1	2227.5	2227.5	2227.1	2227.5	2227.5	2226.1	2225.4	2226.1	2227.5
17°	2209.4	2210.1	2211.4	2211.1	2211.4	2211.1	2211.4	2210.1	2209.4	2210.1	2211.4
17.5°	2193.7	2194.3	2195.4	2195.0	2194.7	2195.0	2195.4	2194.3	2193.7	2194.3	2195.4
18°	2178.3	2178.6	2179.3	2178.6	2178.0	2178.6	2179.3	2178.6	2178.3	2178.6	2179.3
18.5°	2161.9	2161.9	2161.9	2161.2	2160.2	2161.2	2161.9	2161.9	2161.9	2161.9	2161.9
19°	2145.2	2144.1	2143.5	2142.4	2141.4	2142.4	2143.5	2144.1	2145.2	2144.1	2143.5
19.5°	2126.7	2125.4	2123.3	2122.6	2121.6	2122.6	2123.3	2125.4	2126.7	2125.4	2123.3
20°	2106.6	2104.9	2101.1	2101.4	2099.1	2101.4	2101.1	2104.9	2106.6	2104.9	2101.1
20.5°	2084.4	2081.6	2077.2	2078.6	2075.8	2078.6	2077.2	2081.6	2084.4	2081.6	2077.2
21°	2061.1	2057.1	2051.9	2053.6	2050.2	2053.6	2051.9	2057.1	2061.1	2057.1	2051.9



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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°	1976.1	1972.0	1968.6	1968.3	1966.5	1968.3	1968.6	1972.0	1976.1	1972.0	1968.6
23°	1943.7	1940.2	1939.6	1937.2	1936.5	1937.2	1939.6	1940.2	1943.7	1940.2	1939.6
23.5°	1910.5	1907.5	1909.2	1905.1	1906.8	1905.1	1909.2	1907.5	1910.5	1907.5	1909.2
24°	1876.0	1873.6	1877.7	1872.3	1875.4	1872.3	1877.7	1873.6	1876.0	1873.6	1877.7
24.5°	1840.5	1839.5	1844.6	1839.2	1843.3	1839.2	1844.6	1839.5	1840.5	1839.5	1844.6
25°	1803.3	1804.0	1810.1	1806.0	1809.1	1806.0	1810.1	1804.0	1803.3	1804.0	1810.1
25.5°	1764.7	1769.1	1774.6	1772.9	1773.6	1772.9	1774.6	1769.1	1764.7	1769.1	1774.6
26°	1725.1	1732.9	1738.1	1738.4	1735.7	1738.4	1738.1	1732.9	1725.1	1732.9	1738.1
26.5°	1684.4	1696.1	1700.1	1702.5	1696.4	1702.5	1700.1	1696.1	1684.4	1696.1	1700.1
27°	1644.8	1657.8	1661.9	1665.7	1656.4	1665.7	1661.9	1657.8	1644.8	1657.8	1661.9
27.5°	1605.9	1618.2	1623.0	1627.7	1615.8	1627.7	1623.0	1618.2	1605.9	1618.2	1623.0
28°	1567.0	1578.6	1583.3	1588.1	1575.1	1588.1	1583.3	1578.6	1567.0	1578.6	1583.3
28.5°	1529.0	1538.3	1543.7	1547.8	1535.9	1547.8	1543.7	1538.3	1529.0	1538.3	1543.7
29°	1491.5	1497.6	1504.1	1506.8	1498.6	1506.8	1504.1	1497.6	1491.5	1497.6	1504.1
29.5°	1454.6	1457.7	1464.8	1465.9	1462.1	1465.9	1464.8	1457.7	1454.6	1457.7	1464.8
30°	1417.7	1416.7	1424.5	1424.9	1425.2	1424.9	1424.5	1416.7	1417.7	1416.7	1424.5
30.5°	1379.4	1377.1	1384.6	1385.3	1390.4	1385.3	1384.6	1377.1	1379.4	1377.1	1384.6
31°	1341.5	1336.4	1344.3	1345.6	1353.5	1345.6	1344.3	1336.4	1341.5	1336.4	1344.3
31.5°	1302.6	1297.5	1304.0	1306.4	1316.3	1306.4	1304.0	1297.5	1302.6	1297.5	1304.0
32°	1263.0	1258.2	1264.0	1267.8	1278.0	1267.8	1264.0	1258.2	1263.0	1258.2	1264.0
32.5°	1224.7	1220.6	1224.7	1229.5	1239.8	1229.5	1224.7	1220.6	1224.7	1220.6	1224.7
33°	1186.1	1183.1	1184.4	1191.3	1200.8	1191.3	1184.4	1183.1	1186.1	1183.1	1184.4
33.5°	1151.6	1145.5	1144.5	1153.0	1161.6	1153.0	1144.5	1145.5	1151.6	1145.5	1144.5
34°	1114.4	1107.9	1104.9	1115.4	1124.3	1115.4	1104.9	1107.9	1114.4	1107.9	1104.9
34.5°	1077.5	1070.7	1066.3	1077.5	1087.4	1077.5	1066.3	1070.7	1077.5	1070.7	1066.3
35°	1040.3	1034.5	1029.7	1041.0	1051.6	1041.0	1029.7	1034.5	1040.3	1034.5	1029.7
35.5°	1004.1	998.6	993.5	1004.8	1016.4	1004.8	993.5	998.6	1004.1	998.6	993.5
36°	968.6	962.8	958.3	970.0	981.9	970.0	958.3	962.8	968.6	962.8	958.3
36.5°	933.4	928.3	924.2	935.5	946.7	935.5	924.2	928.3	933.4	928.3	924.2
37°	897.9	894.1	890.7	902.0	911.9	902.0	890.7	894.1	897.9	894.1	890.7
37.5°	863.4	861.0	858.6	869.9	877.1	869.9	858.6	861.0	863.4	861.0	858.6
38°	829.2	828.9	827.9	838.5	842.6	838.5	827.9	828.9	829.2	828.9	827.9
38.5°	797.1	797.8	798.5	807.7	809.4	807.7	798.5	797.8	797.1	797.8	798.5
39°	766.1	767.8	769.1	778.0	777.7	778.0	769.1	767.8	766.1	767.8	769.1
39.5°	735.7	738.7	741.1	748.6	747.6	748.6	741.1	738.7	735.7	738.7	741.1
40°	706.6	710.0	714.1	720.3	718.9	720.3	714.1	710.0	706.6	710.0	714.1
40.5°	679.3	682.7	688.2	692.6	692.3	692.6	688.2	682.7	679.3	682.7	688.2
41°	653.0	656.4	663.6	666.7	667.7	666.7	663.6	656.4	653.0	656.4	663.6
41.5°	628.1	631.8	640.0	641.7	644.8	641.7	640.0	631.8	628.1	631.8	640.0
42°	604.9	608.6	617.5	618.5	622.6	618.5	617.5	608.6	604.9	608.6	617.5
42.5°	583.0	586.8	596.3	596.7	601.1	596.7	596.3	586.8	583.0	586.8	596.3
43°	562.2	566.3	575.5	576.2	580.3	576.2	575.5	566.3	562.2	566.3	575.5
43.5°	543.0	547.1	556.0	556.4	560.1	556.4	556.0	547.1	543.0	547.1	556.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	493.9	497.3	502.7	504.4	506.2	504.4	502.7	497.3	493.9	497.3	502.7
45.5°	479.5	482.2	487.4	489.1	490.4	489.1	487.4	482.2	479.5	482.2	487.4
46°	465.9	468.2	472.7	475.1	475.8	475.1	472.7	468.2	465.9	468.2	472.7
46.5°	453.2	455.3	458.7	461.4	462.1	461.4	458.7	455.3	453.2	455.3	458.7
47°	441.3	442.6	446.0	448.8	449.8	448.8	446.0	442.6	441.3	442.6	446.0
47.5°	430.0	431.0	434.1	437.2	438.5	437.2	434.1	431.0	430.0	431.0	434.1
48°	419.4	420.8	423.8	426.6	427.9	426.6	423.8	420.8	419.4	420.8	423.8
48.5°	410.9	411.5	413.9	416.7	417.7	416.7	413.9	411.5	410.9	411.5	413.9
49°	402.7	403.0	405.1	407.1	408.1	407.1	405.1	403.0	402.7	403.0	405.1
49.5°	394.8	395.2	396.5	398.2	398.6	398.2	396.5	395.2	394.8	395.2	396.5
50°	386.6	387.0	388.0	389.3	389.7	389.3	388.0	387.0	386.6	387.0	388.0
50.5°	378.4	378.8	379.4	380.8	380.8	380.8	379.4	378.8	378.4	378.8	379.4
51°	369.2	369.9	370.9	372.3	372.3	372.3	370.9	369.9	369.2	369.9	370.9
51.5°	360.3	360.7	362.0	363.7	364.1	363.7	362.0	360.7	360.3	360.7	362.0
52°	351.1	351.8	353.1	354.9	355.2	354.9	353.1	351.8	351.1	351.8	353.1
52.5°	341.9	342.6	344.3	345.6	346.3	345.6	344.3	342.6	341.9	342.6	344.3
53°	333.3	334.0	335.4	336.8	337.4	336.8	335.4	334.0	333.3	334.0	335.4
53.5°	324.5	325.1	326.5	328.2	328.9	328.2	326.5	325.1	324.5	325.1	326.5
54°	316.3	316.6	318.0	319.3	320.0	319.3	318.0	316.6	316.3	316.6	318.0
54.5°	308.1	308.4	309.8	311.1	311.8	311.1	309.8	308.4	308.1	308.4	309.8
55°	299.9	300.5	301.9	302.9	303.3	302.9	301.9	300.5	299.9	300.5	301.9
55.5°	292.0	292.7	294.1	295.1	295.4	295.1	294.1	292.7	292.0	292.7	294.1
56°	284.5	285.2	286.2	287.2	287.6	287.2	286.2	285.2	284.5	285.2	286.2
56.5°	277.0	277.7	278.7	279.7	280.1	279.7	278.7	277.7	277.0	277.7	278.7
57°	269.5	270.2	271.2	272.2	272.5	272.2	271.2	270.2	269.5	270.2	271.2
57.5°	262.0	263.0	264.0	264.7	265.4	264.7	264.0	263.0	262.0	263.0	264.0
58°	255.5	255.8	256.8	257.9	258.2	257.9	256.8	255.8	255.5	255.8	256.8
58.5°	248.6	249.0	250.0	250.7	251.0	250.7	250.0	249.0	248.6	249.0	250.0
59°	241.8	242.1	242.8	243.5	244.2	243.5	242.8	242.1	241.8	242.1	242.8
59.5°	235.0	235.3	236.0	237.0	237.4	237.0	236.0	235.3	235.0	235.3	236.0
60°	228.5	228.8	229.5	230.2	230.5	230.2	229.5	228.8	228.5	228.8	229.5
60.5°	222.0	222.3	223.0	223.7	224.0	223.7	223.0	222.3	222.0	222.3	223.0
61°	215.8	216.2	216.9	217.6	217.9	217.6	216.9	216.2	215.8	216.2	216.9
61.5°	209.7	210.0	210.7	211.4	211.8	211.4	210.7	210.0	209.7	210.0	210.7
62°	203.9	203.9	204.6	205.3	205.3	205.3	204.6	203.9	203.9	203.9	204.6
62.5°	197.7	198.1	198.4	199.1	199.5	199.1	198.4	198.1	197.7	198.1	198.4
63°	191.9	192.3	192.6	193.3	193.3	193.3	192.6	192.3	191.9	192.3	192.6
63.5°	186.1	186.5	186.8	187.5	187.8	187.5	186.8	186.5	186.1	186.5	186.8
64°	180.7	181.0	181.4	181.7	182.0	181.7	181.4	181.0	180.7	181.0	181.4
64.5°	175.2	175.5	175.9	176.2	176.6	176.2	175.9	175.5	175.2	175.5	175.9
65°	169.7	170.1	170.4	170.8	171.1	170.8	170.4	170.1	169.7	170.1	170.4
65.5°	164.6	164.6	165.0	165.6	165.6	165.6	165.0	164.6	164.6	164.6	165.0
66°	159.2	159.5	159.8	160.2	160.5	160.2	159.8	159.5	159.2	159.5	159.8



TEST NUMBER: P776230

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	144.1	144.5	144.8	145.2	145.2	145.2	144.8	144.5	144.1	144.5	144.8
68°	139.3	139.7	140.0	140.4	140.4	140.4	140.0	139.7	139.3	139.7	140.0
68.5°	134.6	134.9	135.2	135.2	135.6	135.2	135.2	134.9	134.6	134.9	135.2
69°	130.1	130.1	130.1	130.8	130.8	130.8	130.1	130.1	130.1	130.1	130.1
69.5°	125.3	125.7	125.7	126.0	126.4	126.0	125.7	125.7	125.3	125.7	125.7
70°	121.2	121.6	121.2	121.6	121.9	121.6	121.2	121.6	121.2	121.6	121.2
70.5°	116.8	117.1	117.1	117.1	117.5	117.1	117.1	117.1	116.8	117.1	117.1
71°	112.7	112.7	112.7	112.7	113.0	112.7	112.7	112.7	112.7	112.7	112.7
71.5°	108.3	108.3	108.6	108.6	108.6	108.6	108.6	108.3	108.3	108.3	108.6
72°	104.2	104.2	104.2	104.5	104.5	104.5	104.2	104.2	104.2	104.2	104.2
72.5°	100.1	100.1	100.1	100.4	100.4	100.4	100.1	100.1	100.1	100.1	100.1
73°	96.0	96.0	96.0	96.3	96.3	96.3	96.0	96.0	96.0	96.0	96.0
73.5°	91.9	91.9	92.2	92.2	92.2	92.2	92.2	91.9	91.9	91.9	92.2
74°	88.1	88.1	88.1	88.5	88.5	88.5	88.1	88.1	88.1	88.1	88.1
74.5°	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
75°	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
75.5°	76.8	76.8	76.8	76.8	77.2	76.8	76.8	76.8	76.8	76.8	76.8
76°	73.4	73.1	73.1	73.4	73.4	73.4	73.1	73.1	73.4	73.1	73.1
76.5°	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7
77°	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
77.5°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
78°	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
78.5°	56.4	56.4	56.0	56.0	56.4	56.0	56.0	56.4	56.4	56.4	56.0
79°	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
79.5°	49.9	49.9	49.5	49.9	49.9	49.9	49.5	49.9	49.9	49.9	49.5
80°	46.8	46.8	46.4	46.4	46.4	46.4	46.4	46.8	46.8	46.8	46.4
80.5°	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
81°	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
81.5°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
82°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
82.5°	32.1	32.1	32.1	32.1	31.8	32.1	32.1	32.1	32.1	32.1	32.1
83°	29.4	29.4	29.4	29.0	29.0	29.0	29.4	29.4	29.4	29.4	29.4
83.5°	26.6	26.6	26.6	26.3	26.3	26.3	26.6	26.6	26.6	26.6	26.6
84°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
84.5°	21.5	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.5	21.2	21.2
85°	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
85.5°	16.4	16.1	16.4	16.1	16.4	16.1	16.4	16.1	16.4	16.1	16.4
86°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
86.5°	11.6	11.3	11.3	11.3	11.6	11.3	11.3	11.3	11.6	11.3	11.3
87°	9.2	9.2	9.2	8.9	9.2	8.9	9.2	9.2	9.2	9.2	9.2
87.5°	6.8	6.8	6.8	6.8	7.2	6.8	6.8	6.8	6.8	6.8	6.8
88°	4.4	4.8	4.8	5.1	5.1	5.1	4.8	4.8	4.4	4.8	4.8
88.5°	2.7	2.7	3.1	3.4	4.1	3.4	3.1	2.7	2.7	2.7	3.1



TEST NUMBER: P776230
CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-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	0.3	0.7	1.0	0.7	0.3	0.0	0.0	0.0	0.3



TEST NUMBER: P776230

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2550.2	2550.2	2550.2	2550.2	2550.2	2550.2
0.5°	2549.2	2548.2	2549.2	2549.5	2550.2	2550.6
1°	2548.5	2547.1	2548.5	2548.9	2549.2	2549.5
1.5°	2546.8	2545.8	2546.8	2547.5	2547.5	2548.2
2°	2544.8	2543.4	2544.8	2545.1	2545.8	2546.1
2.5°	2542.0	2540.3	2542.0	2542.4	2543.1	2543.7
3°	2538.3	2536.6	2538.3	2539.0	2539.6	2540.3
3.5°	2534.2	2533.1	2534.2	2534.9	2535.9	2536.6
4°	2529.7	2528.0	2529.7	2530.4	2531.8	2532.1
4.5°	2524.6	2522.6	2524.6	2525.3	2526.7	2527.3
5°	2519.5	2517.1	2519.5	2520.2	2521.5	2522.6
5.5°	2512.7	2510.6	2512.7	2513.3	2515.0	2517.4
6°	2505.5	2502.8	2505.5	2506.5	2508.2	2509.6
6.5°	2497.6	2494.9	2497.6	2498.7	2500.7	2501.7
7°	2489.4	2487.0	2489.4	2491.1	2492.2	2493.5
7.5°	2480.9	2478.5	2480.9	2481.6	2482.9	2484.3
8°	2471.0	2469.6	2471.0	2472.0	2473.4	2474.4
8.5°	2460.4	2459.0	2460.4	2461.4	2462.8	2464.2
9°	2449.5	2448.1	2449.5	2450.5	2452.2	2453.2
9.5°	2437.9	2436.5	2437.9	2438.9	2440.6	2441.3
10°	2425.6	2423.9	2425.6	2426.9	2428.3	2429.3
10.5°	2412.6	2411.2	2412.6	2413.6	2415.3	2416.0
11°	2399.3	2397.6	2399.3	2400.6	2402.0	2402.7
11.5°	2385.3	2383.9	2385.3	2386.6	2388.0	2388.7
12°	2370.9	2369.6	2370.9	2372.6	2373.7	2374.3
12.5°	2355.9	2354.2	2355.9	2357.6	2358.6	2359.3
13°	2340.9	2339.2	2340.9	2342.2	2343.3	2343.9
13.5°	2325.2	2323.8	2325.2	2326.5	2327.2	2327.9
14°	2309.1	2307.7	2309.1	2310.5	2311.2	2311.5
14.5°	2292.4	2291.0	2292.4	2293.7	2294.1	2294.4
15°	2276.0	2274.6	2276.0	2276.7	2277.3	2277.3
15.5°	2259.6	2258.9	2259.6	2260.3	2259.6	2259.6
16°	2243.5	2242.8	2243.5	2243.9	2242.8	2242.5
16.5°	2227.5	2227.1	2227.5	2227.5	2226.1	2225.4
17°	2211.1	2211.4	2211.1	2211.4	2210.1	2209.4
17.5°	2195.0	2194.7	2195.0	2195.4	2194.3	2193.7
18°	2178.6	2178.0	2178.6	2179.3	2178.6	2178.3
18.5°	2161.2	2160.2	2161.2	2161.9	2161.9	2161.9
19°	2142.4	2141.4	2142.4	2143.5	2144.1	2145.2
19.5°	2122.6	2121.6	2122.6	2123.3	2125.4	2126.7
20°	2101.4	2099.1	2101.4	2101.1	2104.9	2106.6
20.5°	2078.6	2075.8	2078.6	2077.2	2081.6	2084.4
21°	2053.6	2050.2	2053.6	2051.9	2057.1	2061.1



TEST NUMBER: P776230

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1968.3	1966.5	1968.3	1968.6	1972.0	1976.1
23°	1937.2	1936.5	1937.2	1939.6	1940.2	1943.7
23.5°	1905.1	1906.8	1905.1	1909.2	1907.5	1910.5
24°	1872.3	1875.4	1872.3	1877.7	1873.6	1876.0
24.5°	1839.2	1843.3	1839.2	1844.6	1839.5	1840.5
25°	1806.0	1809.1	1806.0	1810.1	1804.0	1803.3
25.5°	1772.9	1773.6	1772.9	1774.6	1769.1	1764.7
26°	1738.4	1735.7	1738.4	1738.1	1732.9	1725.1
26.5°	1702.5	1696.4	1702.5	1700.1	1696.1	1684.4
27°	1665.7	1656.4	1665.7	1661.9	1657.8	1644.8
27.5°	1627.7	1615.8	1627.7	1623.0	1618.2	1605.9
28°	1588.1	1575.1	1588.1	1583.3	1578.6	1567.0
28.5°	1547.8	1535.9	1547.8	1543.7	1538.3	1529.0
29°	1506.8	1498.6	1506.8	1504.1	1497.6	1491.5
29.5°	1465.9	1462.1	1465.9	1464.8	1457.7	1454.6
30°	1424.9	1425.2	1424.9	1424.5	1416.7	1417.7
30.5°	1385.3	1390.4	1385.3	1384.6	1377.1	1379.4
31°	1345.6	1353.5	1345.6	1344.3	1336.4	1341.5
31.5°	1306.4	1316.3	1306.4	1304.0	1297.5	1302.6
32°	1267.8	1278.0	1267.8	1264.0	1258.2	1263.0
32.5°	1229.5	1239.8	1229.5	1224.7	1220.6	1224.7
33°	1191.3	1200.8	1191.3	1184.4	1183.1	1186.1
33.5°	1153.0	1161.6	1153.0	1144.5	1145.5	1151.6
34°	1115.4	1124.3	1115.4	1104.9	1107.9	1114.4
34.5°	1077.5	1087.4	1077.5	1066.3	1070.7	1077.5
35°	1041.0	1051.6	1041.0	1029.7	1034.5	1040.3
35.5°	1004.8	1016.4	1004.8	993.5	998.6	1004.1
36°	970.0	981.9	970.0	958.3	962.8	968.6
36.5°	935.5	946.7	935.5	924.2	928.3	933.4
37°	902.0	911.9	902.0	890.7	894.1	897.9
37.5°	869.9	877.1	869.9	858.6	861.0	863.4
38°	838.5	842.6	838.5	827.9	828.9	829.2
38.5°	807.7	809.4	807.7	798.5	797.8	797.1
39°	778.0	777.7	778.0	769.1	767.8	766.1
39.5°	748.6	747.6	748.6	741.1	738.7	735.7
40°	720.3	718.9	720.3	714.1	710.0	706.6
40.5°	692.6	692.3	692.6	688.2	682.7	679.3
41°	666.7	667.7	666.7	663.6	656.4	653.0
41.5°	641.7	644.8	641.7	640.0	631.8	628.1
42°	618.5	622.6	618.5	617.5	608.6	604.9
42.5°	596.7	601.1	596.7	596.3	586.8	583.0
43°	576.2	580.3	576.2	575.5	566.3	562.2
43.5°	556.4	560.1	556.4	556.0	547.1	543.0

TEST NUMBER: P776230

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	504.4	506.2	504.4	502.7	497.3	493.9
45.5°	489.1	490.4	489.1	487.4	482.2	479.5
46°	475.1	475.8	475.1	472.7	468.2	465.9
46.5°	461.4	462.1	461.4	458.7	455.3	453.2
47°	448.8	449.8	448.8	446.0	442.6	441.3
47.5°	437.2	438.5	437.2	434.1	431.0	430.0
48°	426.6	427.9	426.6	423.8	420.8	419.4
48.5°	416.7	417.7	416.7	413.9	411.5	410.9
49°	407.1	408.1	407.1	405.1	403.0	402.7
49.5°	398.2	398.6	398.2	396.5	395.2	394.8
50°	389.3	389.7	389.3	388.0	387.0	386.6
50.5°	380.8	380.8	380.8	379.4	378.8	378.4
51°	372.3	372.3	372.3	370.9	369.9	369.2
51.5°	363.7	364.1	363.7	362.0	360.7	360.3
52°	354.9	355.2	354.9	353.1	351.8	351.1
52.5°	345.6	346.3	345.6	344.3	342.6	341.9
53°	336.8	337.4	336.8	335.4	334.0	333.3
53.5°	328.2	328.9	328.2	326.5	325.1	324.5
54°	319.3	320.0	319.3	318.0	316.6	316.3
54.5°	311.1	311.8	311.1	309.8	308.4	308.1
55°	302.9	303.3	302.9	301.9	300.5	299.9
55.5°	295.1	295.4	295.1	294.1	292.7	292.0
56°	287.2	287.6	287.2	286.2	285.2	284.5
56.5°	279.7	280.1	279.7	278.7	277.7	277.0
57°	272.2	272.5	272.2	271.2	270.2	269.5
57.5°	264.7	265.4	264.7	264.0	263.0	262.0
58°	257.9	258.2	257.9	256.8	255.8	255.5
58.5°	250.7	251.0	250.7	250.0	249.0	248.6
59°	243.5	244.2	243.5	242.8	242.1	241.8
59.5°	237.0	237.4	237.0	236.0	235.3	235.0
60°	230.2	230.5	230.2	229.5	228.8	228.5
60.5°	223.7	224.0	223.7	223.0	222.3	222.0
61°	217.6	217.9	217.6	216.9	216.2	215.8
61.5°	211.4	211.8	211.4	210.7	210.0	209.7
62°	205.3	205.3	205.3	204.6	203.9	203.9
62.5°	199.1	199.5	199.1	198.4	198.1	197.7
63°	193.3	193.3	193.3	192.6	192.3	191.9
63.5°	187.5	187.8	187.5	186.8	186.5	186.1
64°	181.7	182.0	181.7	181.4	181.0	180.7
64.5°	176.2	176.6	176.2	175.9	175.5	175.2
65°	170.8	171.1	170.8	170.4	170.1	169.7
65.5°	165.6	165.6	165.6	165.0	164.6	164.6
66°	160.2	160.5	160.2	159.8	159.5	159.2



TEST NUMBER: P776230

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	145.2	145.2	145.2	144.8	144.5	144.1
68°	140.4	140.4	140.4	140.0	139.7	139.3
68.5°	135.2	135.6	135.2	135.2	134.9	134.6
69°	130.8	130.8	130.8	130.1	130.1	130.1
69.5°	126.0	126.4	126.0	125.7	125.7	125.3
70°	121.6	121.9	121.6	121.2	121.6	121.2
70.5°	117.1	117.5	117.1	117.1	117.1	116.8
71°	112.7	113.0	112.7	112.7	112.7	112.7
71.5°	108.6	108.6	108.6	108.6	108.3	108.3
72°	104.5	104.5	104.5	104.2	104.2	104.2
72.5°	100.4	100.4	100.4	100.1	100.1	100.1
73°	96.3	96.3	96.3	96.0	96.0	96.0
73.5°	92.2	92.2	92.2	92.2	91.9	91.9
74°	88.5	88.5	88.5	88.1	88.1	88.1
74.5°	84.4	84.4	84.4	84.4	84.4	84.4
75°	80.6	80.6	80.6	80.6	80.6	80.6
75.5°	76.8	77.2	76.8	76.8	76.8	76.8
76°	73.4	73.4	73.4	73.1	73.1	73.4
76.5°	69.7	69.7	69.7	69.7	69.7	69.7
77°	66.3	66.3	66.3	66.3	66.3	66.3
77.5°	62.8	62.8	62.8	62.8	62.8	62.8
78°	59.4	59.4	59.4	59.4	59.4	59.4
78.5°	56.0	56.4	56.0	56.0	56.4	56.4
79°	52.9	52.9	52.9	52.9	52.9	52.9
79.5°	49.9	49.9	49.9	49.5	49.9	49.9
80°	46.4	46.4	46.4	46.4	46.8	46.8
80.5°	43.7	43.7	43.7	43.7	43.7	43.7
81°	40.6	40.6	40.6	40.6	40.6	40.6
81.5°	37.6	37.6	37.6	37.6	37.6	37.6
82°	34.8	34.8	34.8	34.8	34.8	34.8
82.5°	32.1	31.8	32.1	32.1	32.1	32.1
83°	29.0	29.0	29.0	29.4	29.4	29.4
83.5°	26.3	26.3	26.3	26.6	26.6	26.6
84°	23.9	23.9	23.9	23.9	23.9	23.9
84.5°	21.2	21.2	21.2	21.2	21.2	21.5
85°	18.8	18.8	18.8	18.8	18.8	18.8
85.5°	16.1	16.4	16.1	16.4	16.1	16.4
86°	13.7	13.7	13.7	13.7	13.7	13.7
86.5°	11.3	11.6	11.3	11.3	11.3	11.6
87°	8.9	9.2	8.9	9.2	9.2	9.2
87.5°	6.8	7.2	6.8	6.8	6.8	6.8
88°	5.1	5.1	5.1	4.8	4.8	4.4
88.5°	3.4	4.1	3.4	3.1	2.7	2.7



TEST NUMBER: P776230

CATALOG NUMBER: HCDJBL3040CSD-HCD42TRMW-3500lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.7	1.0	0.7	0.3	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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Scaled Data Report



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Scaled Data Report





21.5°	2034.2	2030.8	2024.9	2026.7	2023.2	2026.7	2024.9	2030.8	2034.2	2030.8	2024.9
22°	2005.8	2002.4	1997.3	1998.0	1994.5	1998.0	1997.3	2002.4	2005.8	2002.4	1997.3



44°	525.3	529.4	537.2	537.9	541.3	537.9	537.2	529.4	525.3	529.4	537.2
44.5°	508.9	513.0	519.8	520.8	523.2	520.8	519.8	513.0	508.9	513.0	519.8



66.5°	154.0	154.4	154.7	155.1	155.4	155.1	154.7	154.4	154.0	154.4	154.7
67°	149.2	149.2	149.6	149.9	150.3	149.9	149.6	149.2	149.2	149.2	149.6



89°	1.0	1.4	2.0	2.4	2.7	2.4	2.0	1.4	1.0	1.4	2.0
89.5°	0.0	0.3	1.0	1.4	1.7	1.4	1.0	0.3	0.0	0.3	1.0

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21.5°	2026.7	2023.2	2026.7	2024.9	2030.8	2034.2
22°	1998.0	1994.5	1998.0	1997.3	2002.4	2005.8



44°	537.9	541.3	537.9	537.2	529.4	525.3
44.5°	520.8	523.2	520.8	519.8	513.0	508.9



66.5°	155.1	155.4	155.1	154.7	154.4	154.0
67°	149.9	150.3	149.9	149.6	149.2	149.2

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89°	2.4	2.7	2.4	2.0	1.4	1.0
89.5°	1.4	1.7	1.4	1.0	0.3	0.0

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(END OF REPORT)