

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P197429

Luminaire Tested: **8WSL-LD2-100-UPL8-UNV-L830-CD2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P197429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28106)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8WSL-LD2-100-UPL8-UNV-L830-CD2-U
Description: 8FT. Linear Wavestream System, 8% Uplight, L830
Light Source: (476) 3000K CCT, 80 CRI LEDS
EL236N0119D830
Ballast/Driver: OSRAM
OT50W

Summary

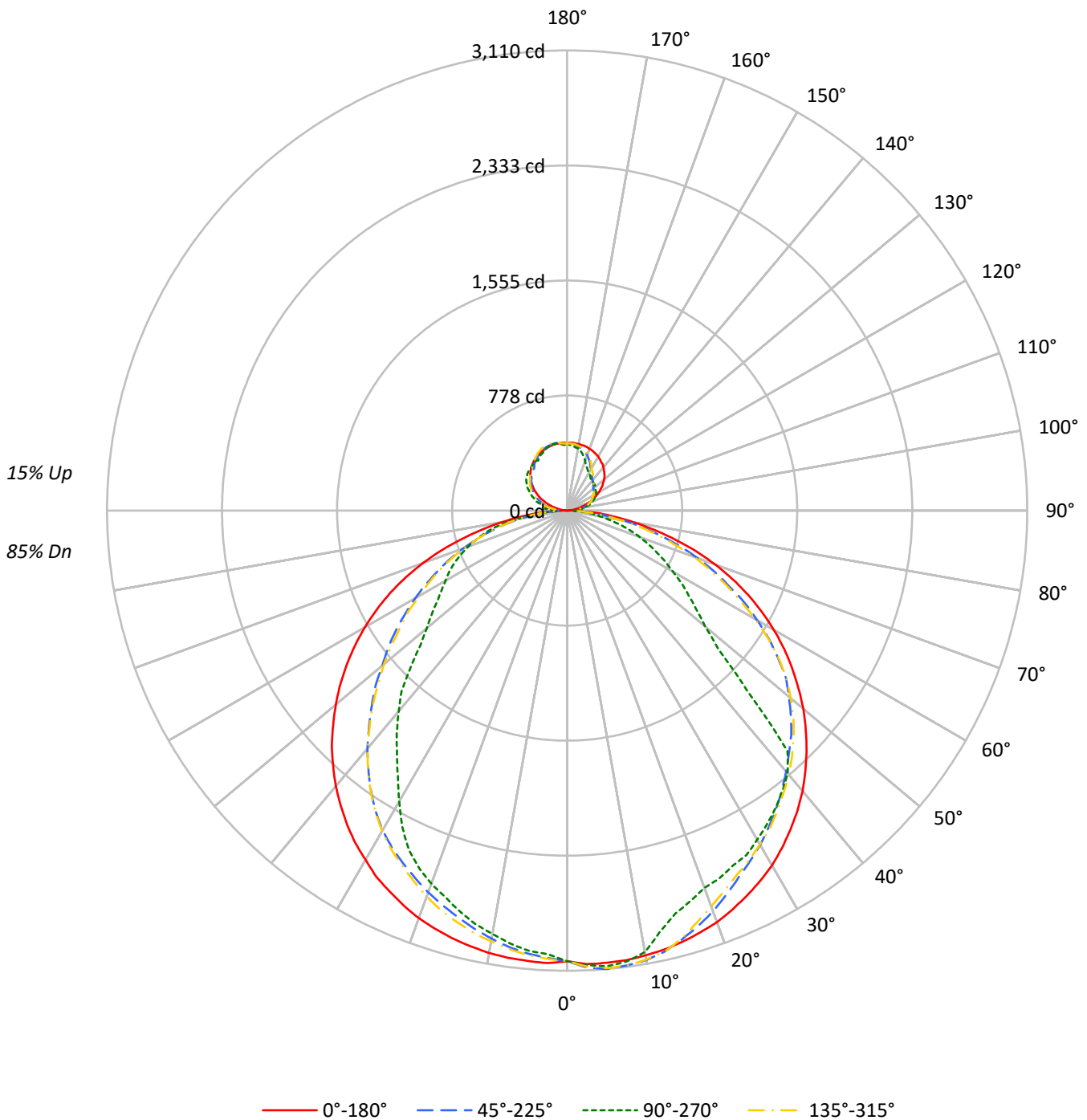
Lumens per Lamp: N/A
Luminaire Lumens: 10100.9 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.19 / 1.36
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 90.6
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: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				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	0
RCR																		
0	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	105	101	96	92	101	97	93	90	90	87	84	83	81	79	78	76	74	71
2	96	88	81	75	92	84	78	73	78	73	69	73	69	65	68	65	62	59
3	87	77	69	62	83	74	67	61	69	63	58	64	59	55	60	56	52	50
4	80	68	59	53	76	66	58	52	61	55	49	57	52	47	53	49	45	42
5	73	61	52	45	70	59	51	44	55	48	43	51	45	41	48	43	39	37
6	68	55	46	40	65	53	45	39	50	43	37	47	40	36	44	38	34	32
7	63	49	41	35	60	48	40	34	45	38	33	42	36	32	40	35	31	28
8	58	45	37	31	56	44	36	30	41	34	29	39	33	28	37	31	27	25
9	54	41	33	28	52	40	33	27	38	31	26	36	30	26	34	29	25	23
10	51	38	30	25	49	37	30	25	35	28	24	33	27	23	31	26	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8626	8626	8626	8626
5°	8724	8789	8687	8492
10°	8778	8712	8731	8356
15°	8844	8271	8777	8223
20°	8924	8177	8836	8089
25°	8978	8275	8876	7908
30°	9054	8403	8915	7422
35°	9099	8490	8963	6934
40°	9151	8572	8994	6546
45°	9169	6896	9012	5982
50°	9181	5359	8994	5460
55°	9162	4959	8985	5298
60°	9143	4673	8940	5375
65°	9047	4480	8851	5638
70°	8803	4321	8587	5887
75°	8243	4068	7993	6209
80°	7499	3722	7181	5903
85°	7313	4027	6568	5298



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.5	2.9
10°-20°	822.1	8.1
20°-30°	1244.5	12.3
30°-40°	1502.7	14.9
40°-50°	1534.2	15.2
50°-60°	1341.3	13.3
60°-70°	1039.6	10.3
70°-80°	625.0	6.2
80°-90°	192.9	1.9
90°-100°	81.4	0.8
100°-110°	155.5	1.5
110°-120°	211.3	2.1
120°-130°	240.2	2.4
130°-140°	243.7	2.4
140°-150°	224.3	2.2
150°-160°	185.0	1.8
160°-170°	124.4	1.2
170°-180°	43.2	0.4
0°-30°	2356.0	23.3
0°-40°	3858.7	38.2
0°-60°	6734.2	66.7
0°-90°	8591.8	85.1
90°-120°	448.2	4.4
90°-150°	1156.3	11.4
90°-180°	1509.0	14.9
0°-180°	10100.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3045	3045	3045	3045	3045	
5°	3068	3091	3055	2987	3068	292
15°	3016	2820	2993	2804	3016	853
25°	2872	2648	2840	2530	2872	1326
35°	2631	2455	2592	2005	2631	1647
45°	2289	1722	2250	1493	2289	1765
55°	1855	1004	1819	1073	1855	1658
65°	1350	668	1320	841	1350	1332
75°	753	372	730	567	753	799
85°	225	124	202	163	225	227
90°	3	68	3	78	3	15
95°	20	95	20	150	20	25
105°	104	160	101	202	104	112
115°	202	205	199	274	202	200
125°	290	235	284	336	290	257
135°	355	258	352	372	355	274
145°	401	274	398	394	401	252
155°	434	320	430	417	434	200
165°	453	398	450	453	453	128
175°	460	437	460	450	460	44
180°	453	453	453	453	453	



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CATALOG NUMBER: 8WSL-LD2-100-UPL8-UNV-L830-CD2-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3
2.5°	3068.1	3051.8	3090.9	3097.4	3074.6	3081.1	3084.4	3048.5	3061.6	3012.7	3025.7
5°	3068.1	3064.8	3110.5	3104.0	3090.9	3094.2	3104.0	3061.6	3055.0	2996.4	3006.1
7.5°	3064.8	3071.4	3100.7	3094.2	3074.6	3084.4	3100.7	3068.1	3048.5	2980.1	2976.8
10°	3051.8	3061.6	3084.4	3064.8	3029.0	3045.3	3081.1	3061.6	3035.5	2954.0	2937.7
12.5°	3038.7	3045.3	3051.8	2970.3	2911.6	2950.7	3051.8	3045.3	3015.9	2924.6	2895.3
15°	3015.9	3025.7	2999.6	2882.2	2820.3	2859.4	2993.1	3019.2	2993.1	2882.2	2846.4
17.5°	2989.8	2999.6	2944.2	2813.8	2768.1	2787.7	2918.1	2986.6	2963.8	2843.1	2797.5
20°	2960.5	2970.3	2882.2	2742.0	2712.7	2729.0	2846.4	2950.7	2931.2	2797.5	2745.3
22.5°	2918.1	2934.4	2810.5	2693.1	2689.9	2689.9	2777.9	2908.3	2888.8	2742.0	2686.6
25°	2872.5	2888.8	2738.8	2647.5	2647.5	2647.5	2716.0	2852.9	2839.9	2683.4	2627.9
27.5°	2823.6	2839.9	2673.6	2614.9	2624.7	2608.4	2663.8	2791.0	2791.0	2624.7	2566.0
30°	2768.1	2784.4	2608.4	2562.7	2569.2	2562.7	2605.1	2725.7	2725.7	2556.2	2494.3
32.5°	2702.9	2719.2	2536.6	2500.8	2513.8	2507.3	2549.7	2660.5	2663.8	2484.5	2409.5
35°	2631.2	2650.8	2461.6	2442.1	2455.1	2445.3	2474.7	2592.1	2592.1	2406.2	2311.7
37.5°	2556.2	2575.8	2383.4	2376.9	2389.9	2380.1	2403.0	2520.3	2513.8	2324.7	2207.3
40°	2474.7	2497.5	2301.9	2301.9	2318.2	2311.7	2331.2	2445.3	2432.3	2243.2	2099.7
42.5°	2383.4	2412.7	2220.4	2223.6	2204.1	2230.2	2249.7	2367.1	2341.0	2151.9	1982.4
45°	2288.8	2324.7	2142.1	2083.4	1721.5	2060.6	2164.9	2288.8	2249.7	2060.6	1868.2
47.5°	2187.8	2233.4	2050.8	1835.6	1385.7	1806.3	2073.7	2191.0	2145.4	1962.8	1757.4
50°	2083.4	2135.6	1956.3	1623.7	1216.2	1591.1	1972.6	2093.2	2041.0	1861.7	1630.2
52.5°	1969.3	2028.0	1865.0	1437.9	1102.0	1408.5	1868.2	1998.7	1933.5	1754.1	1525.9
55°	1855.2	1917.1	1741.1	1278.1	1004.2	1252.0	1747.6	1878.0	1819.3	1643.3	1411.8
57.5°	1737.8	1799.8	1617.2	1137.9	919.4	1111.8	1610.7	1767.2	1702.0	1529.2	1297.7
60°	1613.9	1675.9	1483.5	1010.7	824.9	991.2	1470.5	1643.3	1578.1	1411.8	1186.8
62.5°	1483.5	1545.5	1356.4	893.4	746.6	877.1	1317.2	1522.6	1450.9	1287.9	1072.7
65°	1349.8	1395.5	1206.4	782.5	668.4	769.5	1180.3	1372.7	1320.5	1157.5	965.1
67.5°	1209.6	1255.3	1076.0	684.7	593.4	671.7	1046.6	1239.0	1180.3	1030.3	857.5
70°	1062.9	1102.0	939.0	590.1	521.7	580.4	906.4	1089.0	1036.8	896.6	743.4
72.5°	912.9	948.8	792.3	502.1	446.7	495.6	759.7	939.0	886.8	756.4	639.0
75°	753.2	789.0	655.4	414.1	371.7	407.6	626.0	779.2	730.3	622.7	531.5
77.5°	603.2	645.6	518.4	326.0	296.7	319.5	492.3	629.3	580.4	498.9	427.1
80°	459.7	495.6	384.7	247.8	228.2	244.5	358.7	479.3	440.2	384.7	332.6
82.5°	332.6	352.1	264.1	182.6	172.8	179.3	244.5	339.1	319.5	277.1	244.5
85°	225.0	221.7	163.0	127.2	123.9	127.2	146.7	205.4	202.1	185.8	156.5
87.5°	94.6	88.0	75.0	52.2	45.6	48.9	58.7	78.3	75.0	78.3	75.0
90°	3.3	32.6	52.2	65.2	68.5	65.2	52.2	32.6	3.3	35.9	58.7
92.5°	6.5	42.4	61.9	71.7	78.3	71.7	58.7	42.4	6.5	55.4	58.7
95°	19.6	58.7	71.7	88.0	94.6	88.0	71.7	55.4	19.6	48.9	88.0
97.5°	39.1	75.0	84.8	97.8	101.1	94.6	81.5	75.0	35.9	88.0	91.3
100°	58.7	94.6	110.9	110.9	114.1	110.9	107.6	91.3	55.4	97.8	110.9
102.5°	81.5	107.6	127.2	136.9	136.9	136.9	127.2	107.6	75.0	120.6	153.2
105°	104.3	117.4	140.2	153.2	159.8	153.2	140.2	120.6	101.1	140.2	163.0
107.5°	130.4	127.2	153.2	166.3	172.8	166.3	153.2	130.4	123.9	156.5	182.6
110°	156.5	140.2	166.3	179.3	182.6	179.3	166.3	140.2	150.0	176.1	202.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	179.3	150.0	179.3	192.4	195.6	192.4	179.3	153.2	172.8	189.1	221.7
115°	202.1	159.8	185.8	202.1	205.4	202.1	185.8	163.0	198.9	205.4	238.0
117.5°	225.0	172.8	192.4	211.9	215.2	211.9	195.6	176.1	221.7	225.0	254.3
120°	247.8	189.1	202.1	218.5	225.0	221.7	202.1	192.4	241.3	241.3	267.4
122.5°	267.4	202.1	211.9	225.0	231.5	225.0	211.9	208.7	264.1	257.6	283.7
125°	290.2	215.2	218.5	231.5	234.8	231.5	221.7	218.5	283.7	270.6	293.4
127.5°	306.5	231.5	225.0	238.0	241.3	238.0	228.2	234.8	303.2	296.7	303.2
130°	326.0	247.8	231.5	244.5	247.8	247.8	231.5	254.3	319.5	316.3	316.3
132.5°	342.3	264.1	238.0	251.1	254.3	254.3	241.3	267.4	335.8	332.6	326.0
135°	355.4	286.9	251.1	251.1	257.6	257.6	254.3	290.2	352.1	348.9	342.3
137.5°	368.4	306.5	260.8	254.3	257.6	257.6	267.4	309.7	365.2	365.2	352.1
140°	381.5	326.0	267.4	260.8	260.8	267.4	277.1	329.3	378.2	378.2	355.4
142.5°	394.5	342.3	277.1	270.6	264.1	277.1	286.9	348.9	388.0	391.3	365.2
145°	401.0	358.7	290.2	280.4	273.9	290.2	303.2	365.2	397.8	404.3	384.7
147.5°	410.8	375.0	306.5	286.9	286.9	296.7	316.3	378.2	407.6	414.1	394.5
150°	420.6	388.0	319.5	296.7	290.2	306.5	329.3	391.3	417.3	423.9	407.6
152.5°	427.1	401.0	339.1	309.7	303.2	322.8	352.1	401.0	423.9	430.4	420.6
155°	433.6	410.8	361.9	322.8	319.5	335.8	371.7	410.8	430.4	436.9	430.4
157.5°	440.2	420.6	378.2	342.3	329.3	355.4	388.0	423.9	436.9	443.4	440.2
160°	443.4	427.1	397.8	361.9	355.4	378.2	404.3	427.1	440.2	449.9	446.7
162.5°	449.9	433.6	410.8	384.7	378.2	397.8	417.3	436.9	446.7	453.2	453.2
165°	453.2	440.2	423.9	404.3	397.8	417.3	427.1	443.4	449.9	453.2	456.5
167.5°	453.2	446.7	433.6	417.3	414.1	430.4	440.2	449.9	453.2	453.2	459.7
170°	456.5	449.9	440.2	430.4	427.1	440.2	443.4	453.2	456.5	453.2	463.0
172.5°	456.5	453.2	446.7	436.9	430.4	446.7	449.9	453.2	456.5	453.2	459.7
175°	459.7	453.2	453.2	446.7	436.9	453.2	453.2	453.2	459.7	453.2	456.5
177.5°	459.7	453.2	453.2	449.9	443.4	453.2	453.2	453.2	459.7	453.2	456.5
180°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3045.3	3045.3	3045.3	3045.3	3045.3	3045.3
2.5°	3022.4	2999.6	3006.1	3032.2	3022.4	3068.1
5°	2999.6	2986.6	2986.6	3015.9	3012.7	3068.1
7.5°	2963.8	2950.7	2957.2	2989.8	2996.4	3064.8
10°	2921.4	2905.1	2911.6	2957.2	2973.5	3051.8
12.5°	2875.7	2862.7	2869.2	2921.4	2944.2	3038.7
15°	2823.6	2804.0	2823.6	2879.0	2908.3	3015.9
17.5°	2764.9	2738.8	2761.6	2833.3	2869.2	2989.8
20°	2706.2	2683.4	2696.4	2774.7	2826.8	2960.5
22.5°	2647.5	2614.9	2627.9	2709.4	2774.7	2918.1
25°	2579.0	2530.1	2556.2	2644.2	2719.2	2872.5
27.5°	2487.7	2412.7	2468.2	2579.0	2654.0	2823.6
30°	2367.1	2269.3	2350.8	2500.8	2585.5	2768.1
32.5°	2233.4	2129.1	2220.4	2412.7	2513.8	2702.9
35°	2099.7	2005.2	2086.7	2314.9	2438.8	2631.2
37.5°	1972.6	1891.1	1966.1	2210.6	2360.6	2556.2
40°	1851.9	1770.4	1848.7	2096.5	2275.8	2474.7
42.5°	1731.3	1656.3	1731.3	1975.8	2187.8	2383.4
45°	1610.7	1493.3	1604.1	1858.5	2093.2	2288.8
47.5°	1480.2	1343.3	1470.5	1731.3	1992.1	2187.8
50°	1356.4	1239.0	1349.8	1613.9	1887.8	2083.4
52.5°	1248.8	1154.2	1242.2	1493.3	1780.2	1969.3
55°	1147.7	1072.7	1147.7	1375.9	1666.1	1855.2
57.5°	1056.4	1007.5	1059.6	1274.8	1548.7	1737.8
60°	978.1	948.8	981.4	1150.9	1431.3	1613.9
62.5°	903.1	899.9	906.4	1053.1	1307.4	1483.5
65°	824.9	841.2	824.9	948.8	1183.5	1349.8
67.5°	746.6	779.2	753.2	844.5	1049.9	1209.6
70°	674.9	710.8	674.9	736.9	916.2	1062.9
72.5°	593.4	639.0	593.4	635.8	776.0	912.9
75°	515.2	567.3	518.4	531.5	642.3	753.2
77.5°	430.4	479.3	440.2	430.4	518.4	603.2
80°	342.3	361.9	342.3	339.1	401.0	459.7
82.5°	238.0	254.3	238.0	247.8	293.4	332.6
85°	156.5	163.0	156.5	159.8	195.6	225.0
87.5°	65.2	65.2	65.2	81.5	88.0	94.6
90°	71.7	78.3	71.7	58.7	35.9	3.3
92.5°	75.0	81.5	75.0	65.2	42.4	6.5
95°	133.7	150.0	127.2	81.5	68.5	19.6
97.5°	107.6	117.4	110.9	94.6	84.8	39.1
100°	127.2	136.9	127.2	133.7	104.3	58.7
102.5°	150.0	156.5	153.2	156.5	127.2	81.5
105°	195.6	202.1	195.6	169.5	146.7	104.3
107.5°	208.7	225.0	211.9	189.1	166.3	130.4
110°	225.0	238.0	228.2	208.7	182.6	156.5



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	241.3	257.6	247.8	231.5	195.6	179.3
115°	260.8	273.9	267.4	247.8	215.2	202.1
117.5°	280.4	290.2	283.7	260.8	234.8	225.0
120°	296.7	309.7	303.2	277.1	251.1	247.8
122.5°	309.7	322.8	316.3	293.4	267.4	267.4
125°	322.8	335.8	329.3	306.5	280.4	290.2
127.5°	332.6	348.9	342.3	316.3	309.7	306.5
130°	345.6	355.4	352.1	326.0	326.0	326.0
132.5°	352.1	365.2	358.7	339.1	345.6	342.3
135°	355.4	371.7	365.2	355.4	361.9	355.4
137.5°	361.9	375.0	371.7	365.2	378.2	368.4
140°	371.7	378.2	381.5	371.7	391.3	381.5
142.5°	381.5	384.7	391.3	381.5	404.3	394.5
145°	388.0	394.5	401.0	401.0	414.1	401.0
147.5°	388.0	397.8	397.8	407.6	427.1	410.8
150°	397.8	391.3	410.8	420.6	433.6	420.6
152.5°	410.8	407.6	423.9	433.6	440.2	427.1
155°	414.1	417.3	427.1	443.4	446.7	433.6
157.5°	427.1	423.9	440.2	453.2	453.2	440.2
160°	436.9	436.9	453.2	459.7	456.5	443.4
162.5°	446.7	446.7	463.0	463.0	459.7	449.9
165°	453.2	453.2	469.5	466.2	459.7	453.2
167.5°	456.5	459.7	472.8	469.5	459.7	453.2
170°	459.7	459.7	472.8	466.2	459.7	456.5
172.5°	459.7	456.5	469.5	463.0	456.5	456.5
175°	456.5	449.9	463.0	456.5	456.5	459.7
177.5°	453.2	443.4	453.2	453.2	456.5	459.7
180°	453.2	453.2	453.2	453.2	453.2	453.2

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