

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: P197421

Luminaire Tested: **8WSL-LD2-80-UPL8-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P197421
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-LD2-80-UPL8-UNV-L830-CD1-U
Description: 8FT. Linear Wavestream System, 8% Uplight, L830
Light Source: (476) 3000K CCT, 80 CRI LEDS
EL236N0119D830
Ballast/Driver: OSRAM
OT85W1202772A0DIML

Summary

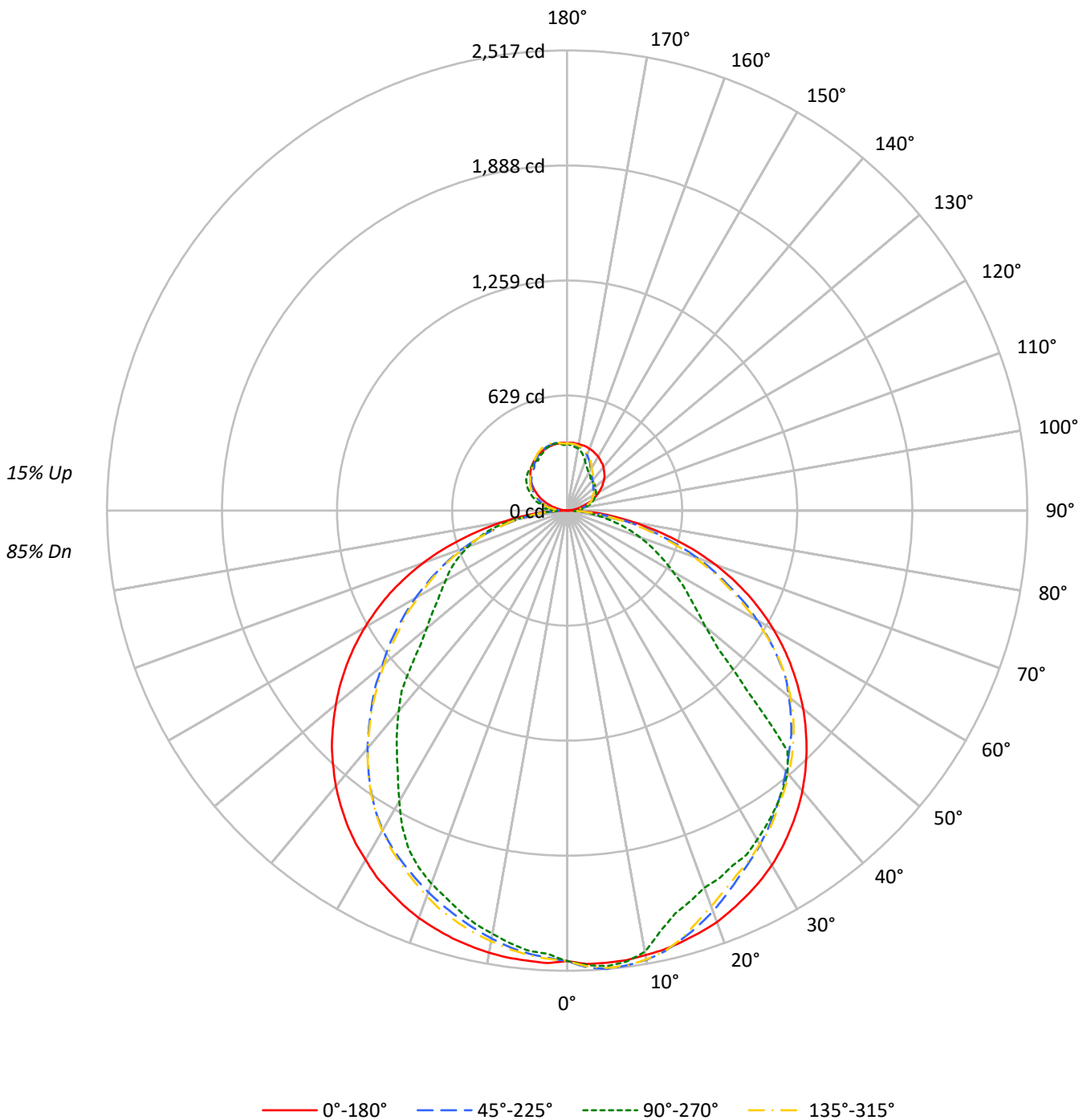
Lumens per Lamp: N/A
Luminaire Lumens: 8173.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.19 / 1.36
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 73.1
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

TEST NUMBER: P197421

CATALOG NUMBER: 8WSL-LD2-80-UPL8-UNV-L830-CD1-U

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°	6980	6980	6980	6980
5°	7059	7111	7029	6871
10°	7102	7050	7064	6761
15°	7156	6692	7102	6653
20°	7221	6617	7149	6545
25°	7264	6695	7182	6398
30°	7326	6800	7214	6006
35°	7362	6869	7252	5611
40°	7404	6936	7277	5297
45°	7419	5580	7292	4840
50°	7429	4336	7278	4418
55°	7413	4013	7270	4287
60°	7398	3782	7234	4349
65°	7320	3625	7162	4562
70°	7123	3496	6948	4763
75°	6669	3292	6468	5023
80°	6068	3013	5810	4776
85°	5915	3260	5317	4287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.2	2.9
10°-20°	665.2	8.1
20°-30°	1007.0	12.3
30°-40°	1215.9	14.9
40°-50°	1241.4	15.2
50°-60°	1085.3	13.3
60°-70°	841.2	10.3
70°-80°	505.8	6.2
80°-90°	156.1	1.9
90°-100°	65.8	0.8
100°-110°	125.9	1.5
110°-120°	171.0	2.1
120°-130°	194.4	2.4
130°-140°	197.2	2.4
140°-150°	181.5	2.2
150°-160°	149.7	1.8
160°-170°	100.7	1.2
170°-180°	35.0	0.4
0°-30°	1906.4	23.3
0°-40°	3122.2	38.2
0°-60°	5448.9	66.7
0°-90°	6952.0	85.1
90°-120°	362.7	4.4
90°-150°	935.6	11.4
90°-180°	1221.0	14.9
0°-180°	8173.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2464	2464	2464	2464	2464	
5°	2482	2501	2472	2417	2482	237
15°	2440	2282	2422	2269	2440	690
25°	2324	2142	2298	2047	2324	1073
35°	2129	1986	2097	1622	2129	1333
45°	1852	1393	1820	1208	1852	1428
55°	1501	813	1472	868	1501	1342
65°	1092	541	1068	681	1092	1078
75°	609	301	591	459	609	647
85°	182	100	164	132	182	184
90°	3	55	3	63	3	12
95°	16	76	16	121	16	20
105°	84	129	82	164	84	90
115°	164	166	161	222	164	162
125°	235	190	230	272	235	208
135°	288	208	285	301	288	222
145°	324	222	322	319	324	204
155°	351	258	348	338	351	162
165°	367	322	364	367	367	103
175°	372	354	372	364	372	35
180°	367	367	367	367	367	



TEST NUMBER: P197421

CATALOG NUMBER: 8WSL-LD2-80-UPL8-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1
2.5°	2482.5	2469.3	2501.0	2506.3	2487.8	2493.1	2495.7	2466.7	2477.2	2437.7	2448.2
5°	2482.5	2479.9	2516.8	2511.5	2501.0	2503.6	2511.5	2477.2	2472.0	2424.5	2432.4
7.5°	2479.9	2485.2	2508.9	2503.6	2487.8	2495.7	2508.9	2482.5	2466.7	2411.3	2408.7
10°	2469.3	2477.2	2495.7	2479.9	2450.9	2464.1	2493.1	2477.2	2456.1	2390.2	2377.0
12.5°	2458.8	2464.1	2469.3	2403.4	2355.9	2387.5	2469.3	2464.1	2440.3	2366.4	2342.7
15°	2440.3	2448.2	2427.1	2332.1	2282.0	2313.7	2421.8	2442.9	2421.8	2332.1	2303.1
17.5°	2419.2	2427.1	2382.3	2276.7	2239.8	2255.6	2361.2	2416.6	2398.1	2300.5	2263.6
20°	2395.5	2403.4	2332.1	2218.7	2195.0	2208.2	2303.1	2387.5	2371.7	2263.6	2221.3
22.5°	2361.2	2374.4	2274.1	2179.1	2176.5	2176.5	2247.7	2353.3	2337.4	2218.7	2173.9
25°	2324.2	2337.4	2216.1	2142.2	2142.2	2142.2	2197.6	2308.4	2297.8	2171.2	2126.4
27.5°	2284.7	2297.8	2163.3	2115.8	2123.7	2110.5	2155.4	2258.3	2258.3	2123.7	2076.2
30°	2239.8	2253.0	2110.5	2073.6	2078.9	2073.6	2107.9	2205.5	2205.5	2068.3	2018.2
32.5°	2187.0	2200.2	2052.5	2023.5	2034.0	2028.8	2063.1	2152.7	2155.4	2010.3	1949.6
35°	2129.0	2144.8	1991.8	1976.0	1986.5	1978.6	2002.4	2097.3	2097.3	1947.0	1870.5
37.5°	2068.3	2084.2	1928.5	1923.2	1933.8	1925.9	1944.3	2039.3	2034.0	1881.0	1786.0
40°	2002.4	2020.8	1862.6	1862.6	1875.7	1870.5	1886.3	1978.6	1968.1	1815.1	1699.0
42.5°	1928.5	1952.2	1796.6	1799.2	1783.4	1804.5	1820.3	1915.3	1894.2	1741.2	1604.0
45°	1852.0	1881.0	1733.3	1685.8	1393.0	1667.3	1751.7	1852.0	1820.3	1667.3	1511.7
47.5°	1770.2	1807.1	1659.4	1485.3	1121.2	1461.5	1677.9	1772.9	1735.9	1588.2	1422.0
50°	1685.8	1728.0	1582.9	1313.8	984.0	1287.4	1596.1	1693.7	1651.5	1506.4	1319.1
52.5°	1593.5	1640.9	1509.0	1163.4	891.7	1139.7	1511.7	1617.2	1564.4	1419.3	1234.7
55°	1501.1	1551.2	1408.8	1034.2	812.6	1013.1	1414.1	1519.6	1472.1	1329.6	1142.3
57.5°	1406.1	1456.3	1308.5	920.7	744.0	899.6	1303.3	1429.9	1377.1	1237.3	1050.0
60°	1305.9	1356.0	1200.4	817.8	667.5	802.0	1189.8	1329.6	1276.9	1142.3	960.3
62.5°	1200.4	1250.5	1097.5	722.9	604.1	709.7	1065.8	1232.0	1174.0	1042.1	868.0
65°	1092.2	1129.1	976.1	633.2	540.8	622.6	955.0	1110.7	1068.5	936.6	780.9
67.5°	978.8	1015.7	870.6	554.0	480.1	543.5	846.9	1002.5	955.0	833.7	693.8
70°	860.0	891.7	759.8	477.5	422.1	469.6	733.4	881.2	838.9	725.5	601.5
72.5°	738.7	767.7	641.1	406.3	361.4	401.0	614.7	759.8	717.6	612.1	517.1
75°	609.4	638.4	530.3	335.0	300.8	329.8	506.5	630.5	591.0	503.9	430.0
77.5°	488.1	522.4	419.5	263.8	240.1	258.5	398.4	509.2	469.6	403.6	345.6
80°	372.0	401.0	311.3	200.5	184.7	197.9	290.2	387.8	356.2	311.3	269.1
82.5°	269.1	284.9	213.7	147.7	139.8	145.1	197.9	274.4	258.5	224.2	197.9
85°	182.0	179.4	131.9	102.9	100.3	102.9	118.7	166.2	163.6	150.4	126.6
87.5°	76.5	71.2	60.7	42.2	36.9	39.6	47.5	63.3	60.7	63.3	60.7
90°	2.6	26.4	42.2	52.8	55.4	52.8	42.2	26.4	2.6	29.0	47.5
92.5°	5.3	34.3	50.1	58.0	63.3	58.0	47.5	34.3	5.3	44.8	47.5
95°	15.8	47.5	58.0	71.2	76.5	71.2	58.0	44.8	15.8	39.6	71.2
97.5°	31.7	60.7	68.6	79.1	81.8	76.5	66.0	60.7	29.0	71.2	73.9
100°	47.5	76.5	89.7	89.7	92.3	89.7	87.1	73.9	44.8	79.1	89.7
102.5°	66.0	87.1	102.9	110.8	110.8	110.8	102.9	87.1	60.7	97.6	124.0
105°	84.4	95.0	113.4	124.0	129.3	124.0	113.4	97.6	81.8	113.4	131.9
107.5°	105.5	102.9	124.0	134.5	139.8	134.5	124.0	105.5	100.3	126.6	147.7
110°	126.6	113.4	134.5	145.1	147.7	145.1	134.5	113.4	121.4	142.5	163.6



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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°	145.1	121.4	145.1	155.7	158.3	155.7	145.1	124.0	139.8	153.0	179.4
115°	163.6	129.3	150.4	163.6	166.2	163.6	150.4	131.9	160.9	166.2	192.6
117.5°	182.0	139.8	155.7	171.5	174.1	171.5	158.3	142.5	179.4	182.0	205.8
120°	200.5	153.0	163.6	176.8	182.0	179.4	163.6	155.7	195.2	195.2	216.3
122.5°	216.3	163.6	171.5	182.0	187.3	182.0	171.5	168.8	213.7	208.4	229.5
125°	234.8	174.1	176.8	187.3	189.9	187.3	179.4	176.8	229.5	219.0	237.4
127.5°	248.0	187.3	182.0	192.6	195.2	192.6	184.7	189.9	245.4	240.1	245.4
130°	263.8	200.5	187.3	197.9	200.5	200.5	187.3	205.8	258.5	255.9	255.9
132.5°	277.0	213.7	192.6	203.1	205.8	205.8	195.2	216.3	271.7	269.1	263.8
135°	287.6	232.2	203.1	203.1	208.4	208.4	205.8	234.8	284.9	282.3	277.0
137.5°	298.1	248.0	211.1	205.8	208.4	208.4	216.3	250.6	295.5	295.5	284.9
140°	308.7	263.8	216.3	211.1	211.1	216.3	224.2	266.5	306.0	306.0	287.6
142.5°	319.2	277.0	224.2	219.0	213.7	224.2	232.2	282.3	313.9	316.6	295.5
145°	324.5	290.2	234.8	226.9	221.6	234.8	245.4	295.5	321.9	327.1	311.3
147.5°	332.4	303.4	248.0	232.2	232.2	240.1	255.9	306.0	329.8	335.0	319.2
150°	340.3	313.9	258.5	240.1	234.8	248.0	266.5	316.6	337.7	343.0	329.8
152.5°	345.6	324.5	274.4	250.6	245.4	261.2	284.9	324.5	343.0	348.2	340.3
155°	350.9	332.4	292.8	261.2	258.5	271.7	300.8	332.4	348.2	353.5	348.2
157.5°	356.2	340.3	306.0	277.0	266.5	287.6	313.9	343.0	353.5	358.8	356.2
160°	358.8	345.6	321.9	292.8	287.6	306.0	327.1	345.6	356.2	364.1	361.4
162.5°	364.1	350.9	332.4	311.3	306.0	321.9	337.7	353.5	361.4	366.7	366.7
165°	366.7	356.2	343.0	327.1	321.9	337.7	345.6	358.8	364.1	366.7	369.3
167.5°	366.7	361.4	350.9	337.7	335.0	348.2	356.2	364.1	366.7	366.7	372.0
170°	369.3	364.1	356.2	348.2	345.6	356.2	358.8	366.7	369.3	366.7	374.6
172.5°	369.3	366.7	361.4	353.5	348.2	361.4	364.1	366.7	369.3	366.7	372.0
175°	372.0	366.7	366.7	361.4	353.5	366.7	366.7	366.7	372.0	366.7	369.3
177.5°	372.0	366.7	366.7	364.1	358.8	366.7	366.7	366.7	372.0	366.7	369.3
180°	366.7	366.7	366.7	366.7	366.7	366.7	366.7	366.7	366.7	366.7	366.7



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CATALOG NUMBER: 8WSL-LD2-80-UPL8-UNV-L830-CD1-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2464.1	2464.1	2464.1	2464.1	2464.1	2464.1
2.5°	2445.6	2427.1	2432.4	2453.5	2445.6	2482.5
5°	2427.1	2416.6	2416.6	2440.3	2437.7	2482.5
7.5°	2398.1	2387.5	2392.8	2419.2	2424.5	2479.9
10°	2363.8	2350.6	2355.9	2392.8	2406.0	2469.3
12.5°	2326.9	2316.3	2321.6	2363.8	2382.3	2458.8
15°	2284.7	2268.8	2284.7	2329.5	2353.3	2440.3
17.5°	2237.2	2216.1	2234.5	2292.6	2321.6	2419.2
20°	2189.7	2171.2	2181.8	2245.1	2287.3	2395.5
22.5°	2142.2	2115.8	2126.4	2192.3	2245.1	2361.2
25°	2086.8	2047.2	2068.3	2139.6	2200.2	2324.2
27.5°	2012.9	1952.2	1997.1	2086.8	2147.5	2284.7
30°	1915.3	1836.2	1902.1	2023.5	2092.1	2239.8
32.5°	1807.1	1722.7	1796.6	1952.2	2034.0	2187.0
35°	1699.0	1622.5	1688.4	1873.1	1973.4	2129.0
37.5°	1596.1	1530.1	1590.8	1788.7	1910.0	2068.3
40°	1498.5	1432.5	1495.8	1696.3	1841.4	2002.4
42.5°	1400.9	1340.2	1400.9	1598.7	1770.2	1928.5
45°	1303.3	1208.3	1298.0	1503.8	1693.7	1852.0
47.5°	1197.7	1086.9	1189.8	1400.9	1611.9	1770.2
50°	1097.5	1002.5	1092.2	1305.9	1527.5	1685.8
52.5°	1010.4	933.9	1005.1	1208.3	1440.4	1593.5
55°	928.6	868.0	928.6	1113.3	1348.1	1501.1
57.5°	854.8	815.2	857.4	1031.5	1253.1	1406.1
60°	791.5	767.7	794.1	931.3	1158.2	1305.9
62.5°	730.8	728.1	733.4	852.1	1057.9	1200.4
65°	667.5	680.6	667.5	767.7	957.7	1092.2
67.5°	604.1	630.5	609.4	683.3	849.5	978.8
70°	546.1	575.1	546.1	596.2	741.3	860.0
72.5°	480.1	517.1	480.1	514.4	627.9	738.7
75°	416.8	459.0	419.5	430.0	519.7	609.4
77.5°	348.2	387.8	356.2	348.2	419.5	488.1
80°	277.0	292.8	277.0	274.4	324.5	372.0
82.5°	192.6	205.8	192.6	200.5	237.4	269.1
85°	126.6	131.9	126.6	129.3	158.3	182.0
87.5°	52.8	52.8	52.8	66.0	71.2	76.5
90°	58.0	63.3	58.0	47.5	29.0	2.6
92.5°	60.7	66.0	60.7	52.8	34.3	5.3
95°	108.2	121.4	102.9	66.0	55.4	15.8
97.5°	87.1	95.0	89.7	76.5	68.6	31.7
100°	102.9	110.8	102.9	108.2	84.4	47.5
102.5°	121.4	126.6	124.0	126.6	102.9	66.0
105°	158.3	163.6	158.3	137.2	118.7	84.4
107.5°	168.8	182.0	171.5	153.0	134.5	105.5
110°	182.0	192.6	184.7	168.8	147.7	126.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	195.2	208.4	200.5	187.3	158.3	145.1
115°	211.1	221.6	216.3	200.5	174.1	163.6
117.5°	226.9	234.8	229.5	211.1	189.9	182.0
120°	240.1	250.6	245.4	224.2	203.1	200.5
122.5°	250.6	261.2	255.9	237.4	216.3	216.3
125°	261.2	271.7	266.5	248.0	226.9	234.8
127.5°	269.1	282.3	277.0	255.9	250.6	248.0
130°	279.6	287.6	284.9	263.8	263.8	263.8
132.5°	284.9	295.5	290.2	274.4	279.6	277.0
135°	287.6	300.8	295.5	287.6	292.8	287.6
137.5°	292.8	303.4	300.8	295.5	306.0	298.1
140°	300.8	306.0	308.7	300.8	316.6	308.7
142.5°	308.7	311.3	316.6	308.7	327.1	319.2
145°	313.9	319.2	324.5	324.5	335.0	324.5
147.5°	313.9	321.9	321.9	329.8	345.6	332.4
150°	321.9	316.6	332.4	340.3	350.9	340.3
152.5°	332.4	329.8	343.0	350.9	356.2	345.6
155°	335.0	337.7	345.6	358.8	361.4	350.9
157.5°	345.6	343.0	356.2	366.7	366.7	356.2
160°	353.5	353.5	366.7	372.0	369.3	358.8
162.5°	361.4	361.4	374.6	374.6	372.0	364.1
165°	366.7	366.7	379.9	377.3	372.0	366.7
167.5°	369.3	372.0	382.5	379.9	372.0	366.7
170°	372.0	372.0	382.5	377.3	372.0	369.3
172.5°	372.0	369.3	379.9	374.6	369.3	369.3
175°	369.3	364.1	374.6	369.3	369.3	372.0
177.5°	366.7	358.8	366.7	366.7	369.3	372.0
180°	366.7	366.7	366.7	366.7	366.7	366.7

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