

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: P197469

Luminaire Tested: **8WSL-LD2-75-UPL15-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P197469
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28105)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8WSL-LD2-75-UPL15-UNV-L830-CD1-U
Description: 8FT. Linear Wavestream System, 15% Uplight, L830
Light Source: (476) 3000K CCT, 80 CRI LEDS
EL236N0119D830
Ballast/Driver: OSRAM
OT85W1202772A0DIML

Summary

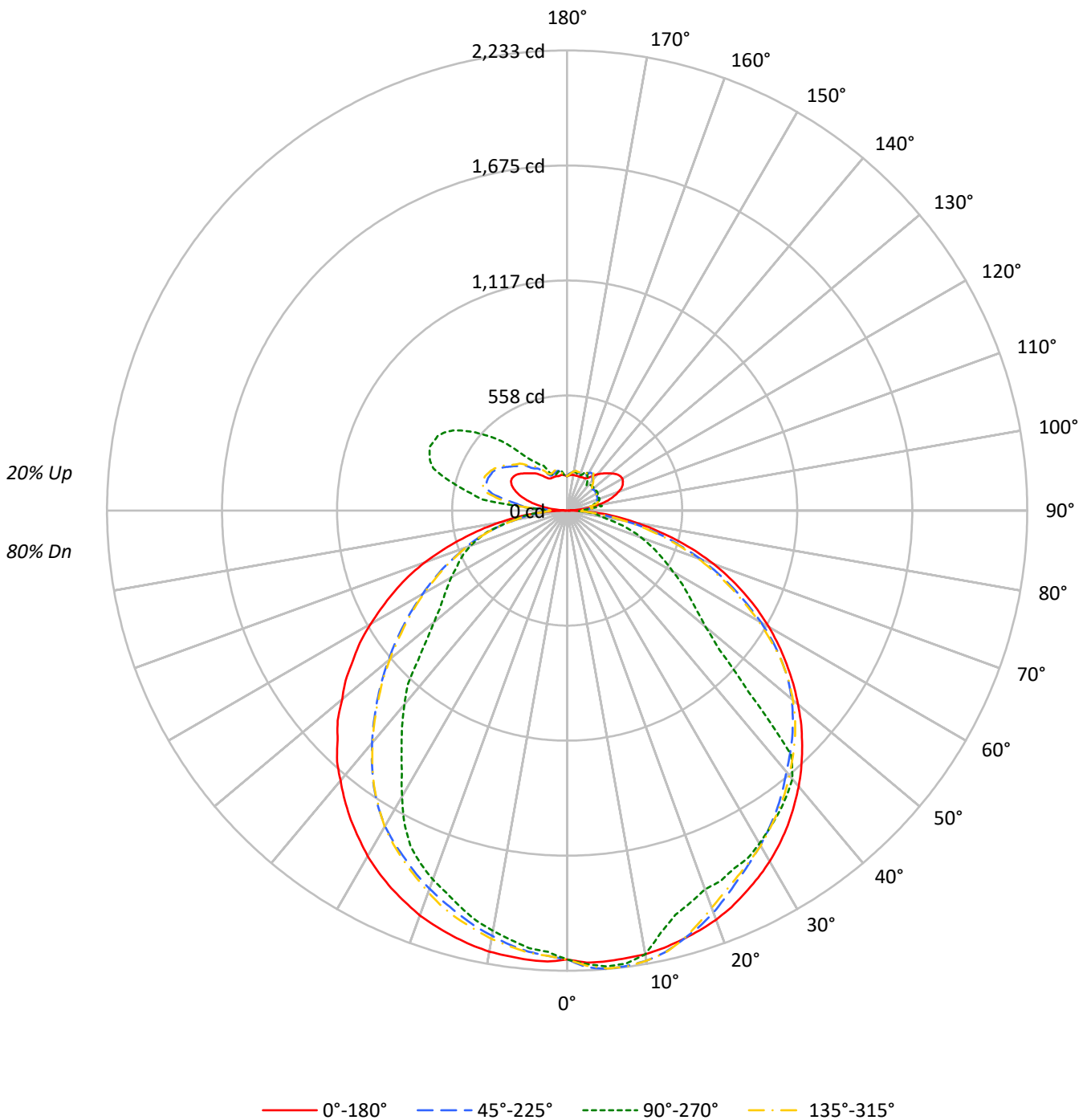
Lumens per Lamp: N/A
Luminaire Lumens: 7709.1 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.19 / 1.35
Luminous Opening: Rectangular (W 0.5' x L: 7.6' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 67.2
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	
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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80
1	104	99	95	91	99	95	91	88	87	84	81	80	77	75	73	71	70	66
2	94	86	80	74	90	83	77	72	76	71	67	70	66	62	64	61	58	55
3	86	76	68	62	82	73	66	60	67	61	56	61	57	53	56	53	49	46
4	79	67	59	52	75	64	57	51	59	53	48	55	49	45	50	46	42	40
5	72	60	51	45	69	58	50	44	53	46	41	49	43	39	45	41	37	34
6	67	54	45	39	64	52	44	38	48	41	36	44	39	34	41	36	32	30
7	62	49	40	34	59	47	39	33	44	37	32	40	35	30	38	33	29	26
8	58	44	36	30	55	43	35	30	40	33	28	37	31	27	34	29	26	24
9	54	41	33	27	51	39	32	27	37	30	26	34	28	24	32	27	23	21
10	50	37	30	25	48	36	29	24	34	27	23	32	26	22	30	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6170	6170	6170	6170
5°	6244	6315	6222	6059
10°	6287	6287	6251	5956
15°	6322	5955	6271	5845
20°	6370	5895	6302	5745
25°	6394	5987	6316	5620
30°	6429	6102	6331	5243
35°	6452	6192	6331	4843
40°	6464	6288	6325	4540
45°	6462	4999	6312	4088
50°	6447	3857	6282	3714
55°	6423	3557	6262	3607
60°	6404	3358	6234	3684
65°	6353	3252	6185	3855
70°	6255	3169	6090	4122
75°	5967	3011	5775	4379
80°	5589	2734	5425	4365
85°	5610	3575	5203	5203



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	2.7
10°-20°	588.3	7.6
20°-30°	889.0	11.5
30°-40°	1069.9	13.9
40°-50°	1088.1	14.1
50°-60°	947.1	12.3
60°-70°	738.8	9.6
70°-80°	456.7	5.9
80°-90°	160.7	2.1
90°-100°	151.3	2.0
100°-110°	292.9	3.8
110°-120°	320.5	4.2
120°-130°	281.0	3.6
130°-140°	210.5	2.7
140°-150°	144.1	1.9
150°-160°	91.8	1.2
160°-170°	53.7	0.7
170°-180°	17.3	0.2
0°-30°	1684.6	21.9
0°-40°	2754.5	35.7
0°-60°	4789.7	62.1
0°-90°	6145.9	79.7
90°-120°	764.7	9.9
90°-150°	1400.4	18.2
90°-180°	1563.0	20.3
0°-180°	7709.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2178	2178	2178	2178	2178	
5°	2196	2221	2188	2131	2196	209
15°	2156	2031	2138	1993	2156	609
25°	2046	1916	2021	1798	2046	944
35°	1866	1791	1831	1400	1866	1167
45°	1613	1248	1576	1020	1613	1244
55°	1300	720	1268	730	1300	1163
65°	948	485	923	575	948	937
75°	545	275	528	400	545	577
85°	173	110	160	160	173	172
90°	2	70	2	110	2	13
95°	68	115	52	230	68	70
105°	215	143	208	613	215	224
115°	298	163	298	735	298	291
125°	303	170	303	678	303	269
135°	255	170	255	495	255	198
145°	200	170	205	295	200	128
155°	178	205	175	203	178	82
165°	175	185	173	188	175	50
175°	173	180	173	175	173	17
180°	168	168	168	168	168	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3
2.5°	2195.8	2185.8	2218.3	2220.8	2203.3	2210.8	2210.8	2183.3	2190.8	2158.3	2163.3
5°	2195.8	2198.3	2233.3	2230.8	2220.8	2223.3	2230.8	2195.8	2188.3	2143.3	2148.3
7.5°	2190.8	2203.3	2228.3	2225.8	2215.8	2218.3	2230.8	2200.8	2180.8	2128.3	2125.8
10°	2185.8	2198.3	2218.3	2205.8	2185.8	2193.3	2218.3	2198.3	2173.3	2110.8	2095.8
12.5°	2173.3	2185.8	2195.8	2133.3	2098.3	2128.3	2198.3	2185.8	2158.3	2085.7	2065.7
15°	2155.8	2170.8	2158.3	2070.7	2030.7	2058.2	2158.3	2168.3	2138.3	2053.2	2028.2
17.5°	2135.8	2153.3	2120.8	2023.2	1993.2	2005.7	2105.8	2145.8	2115.8	2020.7	1990.7
20°	2113.3	2133.3	2075.7	1973.2	1955.7	1965.7	2050.7	2120.8	2090.7	1985.7	1953.2
22.5°	2083.2	2105.8	2023.2	1938.2	1945.7	1938.2	2000.7	2088.2	2055.7	1948.2	1910.7
25°	2045.7	2070.7	1970.7	1908.2	1915.7	1913.2	1958.2	2045.7	2020.7	1903.2	1863.2
27.5°	2008.2	2033.2	1923.2	1888.2	1900.7	1885.7	1918.2	2000.7	1980.7	1855.7	1818.2
30°	1965.7	1993.2	1875.7	1853.2	1865.7	1855.7	1878.2	1955.7	1935.7	1805.6	1768.1
32.5°	1918.2	1945.7	1825.7	1810.6	1828.2	1815.6	1830.7	1905.7	1883.2	1750.6	1705.6
35°	1865.7	1893.2	1773.1	1773.1	1790.6	1775.6	1783.1	1855.7	1830.7	1695.6	1635.6
37.5°	1808.1	1838.2	1715.6	1728.1	1748.1	1733.1	1733.1	1803.1	1773.1	1635.6	1555.6
40°	1748.1	1780.6	1655.6	1683.1	1700.6	1683.1	1678.1	1748.1	1710.6	1575.6	1473.0
42.5°	1683.1	1718.1	1600.6	1633.1	1610.6	1633.1	1620.6	1690.6	1653.1	1510.5	1388.0
45°	1613.1	1658.1	1545.6	1525.5	1247.9	1510.5	1563.1	1630.6	1575.6	1448.0	1303.0
47.5°	1540.6	1588.1	1485.5	1340.5	1002.9	1325.5	1500.5	1565.6	1510.5	1380.5	1217.9
50°	1463.0	1518.0	1423.0	1180.4	875.3	1165.4	1430.5	1498.0	1425.5	1308.0	1132.9
52.5°	1383.0	1443.0	1353.0	1042.9	790.3	1027.9	1355.5	1425.5	1355.5	1230.4	1050.4
55°	1300.5	1363.0	1270.5	915.3	720.3	912.8	1268.0	1348.0	1268.0	1152.9	967.8
57.5°	1217.9	1288.0	1182.9	822.8	660.2	810.3	1170.4	1268.0	1192.9	1072.9	887.8
60°	1130.4	1195.4	1087.9	722.8	592.7	720.3	1072.9	1185.4	1100.4	990.4	810.3
62.5°	1040.4	1112.9	985.4	635.2	537.7	632.7	967.8	1092.9	1010.4	905.3	735.3
65°	947.8	1017.9	887.8	565.2	485.2	560.2	870.3	997.9	922.8	820.3	665.2
67.5°	852.8	917.8	790.3	497.7	432.7	492.7	770.3	897.8	832.8	732.8	590.2
70°	755.3	815.3	690.2	432.7	382.6	430.2	672.7	795.3	735.3	642.7	522.7
72.5°	652.7	707.8	585.2	370.1	330.1	367.6	570.2	690.2	627.7	547.7	462.7
75°	545.2	597.7	487.7	307.6	275.1	305.1	472.7	577.7	527.7	460.2	392.6
77.5°	442.7	495.2	387.6	237.6	210.1	232.6	370.1	472.7	430.2	372.6	320.1
80°	342.6	385.1	285.1	177.6	167.6	177.6	277.6	362.6	332.6	292.6	250.1
82.5°	252.6	277.6	192.6	145.1	145.1	145.1	187.6	257.6	245.1	217.6	190.1
85°	172.6	172.6	130.0	110.0	110.0	110.0	127.5	152.6	160.1	145.1	145.1
87.5°	72.5	75.0	67.5	60.0	57.5	60.0	65.0	62.5	62.5	70.0	87.5
90°	2.5	32.5	55.0	67.5	70.0	65.0	50.0	30.0	2.5	42.5	77.5
92.5°	17.5	70.0	65.0	85.0	87.5	80.0	67.5	55.0	10.0	77.5	82.5
95°	67.5	82.5	127.5	130.0	115.0	110.0	125.0	77.5	52.5	105.0	210.1
97.5°	107.5	125.0	115.0	150.1	170.1	150.1	120.0	120.0	100.0	162.6	245.1
100°	147.6	132.5	117.5	130.0	150.1	132.5	112.5	132.5	140.1	190.1	300.1
102.5°	185.1	147.6	147.6	127.5	130.0	125.0	142.6	145.1	175.1	215.1	370.1
105°	215.1	152.6	155.1	145.1	142.6	145.1	155.1	155.1	207.6	237.6	402.6
107.5°	242.6	157.6	152.6	160.1	162.6	160.1	152.6	157.6	237.6	252.6	410.1
110°	265.1	160.1	155.1	160.1	167.6	160.1	155.1	162.6	262.6	267.6	415.1



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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°	285.1	162.6	160.1	157.6	165.1	157.6	160.1	167.6	282.6	275.1	415.1
115°	297.6	165.1	160.1	160.1	162.6	160.1	162.6	170.1	297.6	277.6	410.1
117.5°	305.1	170.1	162.6	165.1	167.6	165.1	162.6	175.1	307.6	287.6	407.6
120°	310.1	187.6	162.6	167.6	170.1	167.6	162.6	190.1	310.1	292.6	397.6
122.5°	307.6	195.1	165.1	167.6	172.6	167.6	165.1	197.6	307.6	290.1	385.1
125°	302.6	202.6	165.1	165.1	170.1	167.6	167.6	202.6	302.6	285.1	367.6
127.5°	292.6	220.1	165.1	167.6	167.6	167.6	167.6	217.6	292.6	287.6	350.1
130°	280.1	232.6	160.1	170.1	167.6	172.6	165.1	232.6	280.1	280.1	335.1
132.5°	267.6	237.6	160.1	170.1	170.1	172.6	162.6	237.6	267.6	270.1	320.1
135°	255.1	242.6	170.1	167.6	170.1	170.1	172.6	242.6	255.1	260.1	310.1
137.5°	242.6	245.1	182.6	160.1	167.6	162.6	187.6	245.1	245.1	245.1	295.1
140°	230.1	242.6	192.6	155.1	157.6	160.1	197.6	245.1	235.1	237.6	270.1
142.5°	215.1	235.1	200.1	167.6	155.1	172.6	205.1	242.6	220.1	230.1	257.6
145°	200.1	227.6	215.1	185.1	170.1	192.6	222.6	235.1	205.1	225.1	250.1
147.5°	187.6	215.1	217.6	195.1	187.6	202.6	225.1	225.1	190.1	215.1	232.6
150°	180.1	202.6	210.1	202.6	195.1	212.6	220.1	207.6	180.1	207.6	217.6
152.5°	177.6	192.6	192.6	212.6	210.1	222.6	202.6	197.6	175.1	200.1	197.6
155°	177.6	190.1	185.1	195.1	205.1	205.1	192.6	192.6	175.1	200.1	187.6
157.5°	175.1	192.6	185.1	182.6	187.6	192.6	192.6	195.1	175.1	195.1	187.6
160°	175.1	195.1	187.6	180.1	182.6	190.1	195.1	195.1	175.1	195.1	190.1
162.5°	175.1	190.1	190.1	182.6	182.6	192.6	195.1	192.6	175.1	190.1	195.1
165°	175.1	190.1	192.6	187.6	185.1	197.6	195.1	187.6	172.6	187.6	197.6
167.5°	175.1	185.1	195.1	190.1	190.1	197.6	197.6	185.1	172.6	180.1	197.6
170°	175.1	182.6	192.6	190.1	192.6	200.1	192.6	182.6	175.1	177.6	190.1
172.5°	175.1	177.6	187.6	190.1	190.1	195.1	187.6	177.6	175.1	172.6	182.6
175°	172.6	177.6	182.6	182.6	180.1	187.6	180.1	175.1	172.6	170.1	175.1
177.5°	170.1	172.6	177.6	177.6	172.6	177.6	172.6	170.1	170.1	167.6	172.6
180°	167.6	167.6	167.6	167.6	167.6	167.6	167.6	167.6	167.6	167.6	167.6



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2178.3	2178.3	2178.3	2178.3	2178.3	2178.3
2.5°	2160.8	2143.3	2148.3	2163.3	2160.8	2195.8
5°	2138.3	2130.8	2130.8	2153.3	2150.8	2195.8
7.5°	2113.3	2100.8	2108.3	2133.3	2140.8	2190.8
10°	2080.7	2070.7	2073.2	2110.8	2123.3	2185.8
12.5°	2048.2	2038.2	2045.7	2080.7	2098.3	2173.3
15°	2010.7	1993.2	2013.2	2050.7	2073.2	2155.8
17.5°	1965.7	1945.7	1965.7	2015.7	2043.2	2135.8
20°	1925.7	1905.7	1918.2	1970.7	2008.2	2113.3
22.5°	1880.7	1855.7	1865.7	1923.2	1970.7	2083.2
25°	1830.7	1798.1	1813.1	1875.7	1928.2	2045.7
27.5°	1765.6	1710.6	1748.1	1825.7	1875.7	2008.2
30°	1675.6	1603.1	1663.1	1770.6	1828.2	1965.7
32.5°	1570.6	1493.0	1558.1	1703.1	1773.1	1918.2
35°	1468.0	1400.5	1460.5	1633.1	1718.1	1865.7
37.5°	1378.0	1315.5	1370.5	1553.1	1658.1	1808.1
40°	1285.5	1227.9	1283.0	1468.0	1598.1	1748.1
42.5°	1200.4	1145.4	1197.9	1383.0	1533.0	1683.1
45°	1110.4	1020.4	1105.4	1295.5	1463.0	1613.1
47.5°	1015.4	920.3	1007.9	1210.4	1393.0	1540.6
50°	927.8	842.8	922.8	1122.9	1318.0	1463.0
52.5°	850.3	777.8	847.8	1035.4	1240.4	1383.0
55°	777.8	730.3	780.3	955.3	1167.9	1300.5
57.5°	720.3	687.7	722.8	877.8	1087.9	1217.9
60°	670.2	650.2	672.7	800.3	1002.9	1130.4
62.5°	615.2	607.7	615.2	725.3	920.3	1040.4
65°	567.7	575.2	567.7	657.7	832.8	947.8
67.5°	522.7	540.2	525.2	585.2	745.3	852.8
70°	472.7	497.7	475.2	520.2	655.2	755.3
72.5°	420.2	450.2	420.2	457.7	560.2	652.7
75°	365.1	400.1	367.6	390.1	470.2	545.2
77.5°	305.1	327.6	310.1	317.6	382.6	442.7
80°	242.6	267.6	245.1	250.1	302.6	342.6
82.5°	202.6	220.1	205.1	190.1	225.1	252.6
85°	150.1	160.1	155.1	147.6	155.1	172.6
87.5°	92.5	97.5	92.5	92.5	80.0	72.5
90°	102.5	110.0	102.5	80.0	45.0	2.5
92.5°	105.0	115.0	105.0	87.5	85.0	17.5
95°	235.1	230.1	250.1	227.6	130.0	67.5
97.5°	365.1	417.6	377.6	272.6	175.1	107.5
100°	420.2	470.2	437.7	340.1	200.1	147.6
102.5°	485.2	540.2	505.2	397.6	225.1	185.1
105°	565.2	612.7	582.7	420.2	247.6	215.1
107.5°	607.7	680.2	620.2	430.2	262.6	242.6
110°	630.2	707.8	650.2	432.7	275.1	265.1



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	647.7	722.8	662.7	432.7	280.1	285.1
115°	647.7	735.3	662.7	425.2	287.6	297.6
117.5°	647.7	727.8	662.7	417.6	297.6	305.1
120°	625.2	725.3	645.2	407.6	300.1	310.1
122.5°	607.7	705.3	620.2	395.1	300.1	307.6
125°	575.2	677.7	590.2	380.1	295.1	302.6
127.5°	540.2	637.7	552.7	362.6	297.6	292.6
130°	507.7	592.7	515.2	345.1	287.6	280.1
132.5°	465.2	542.7	472.7	332.6	277.6	267.6
135°	425.2	495.2	435.2	322.6	265.1	255.1
137.5°	382.6	445.2	392.6	302.6	252.6	242.6
140°	332.6	382.6	342.6	280.1	245.1	230.1
142.5°	300.1	327.6	310.1	270.1	235.1	215.1
145°	280.1	295.1	287.6	260.1	230.1	200.1
147.5°	260.1	275.1	267.6	240.1	217.6	187.6
150°	252.6	252.6	262.6	222.6	210.1	180.1
152.5°	225.1	245.1	235.1	202.6	205.1	177.6
155°	192.6	202.6	202.6	195.1	205.1	177.6
157.5°	180.1	187.6	190.1	195.1	200.1	175.1
160°	180.1	182.6	190.1	197.6	197.6	175.1
162.5°	185.1	182.6	195.1	202.6	192.6	175.1
165°	190.1	187.6	200.1	205.1	187.6	175.1
167.5°	195.1	195.1	205.1	202.6	182.6	175.1
170°	195.1	200.1	205.1	195.1	180.1	175.1
172.5°	187.6	190.1	195.1	182.6	172.6	175.1
175°	177.6	175.1	182.6	175.1	172.6	172.6
177.5°	172.6	165.1	172.6	170.1	167.6	170.1
180°	167.6	167.6	167.6	167.6	167.6	167.6

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