

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: NEO-RAY

Report Number: P331316-840

Luminaire Tested: **S122DIP-S485D925U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331316-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S485D925U840-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 925 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5329.5 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

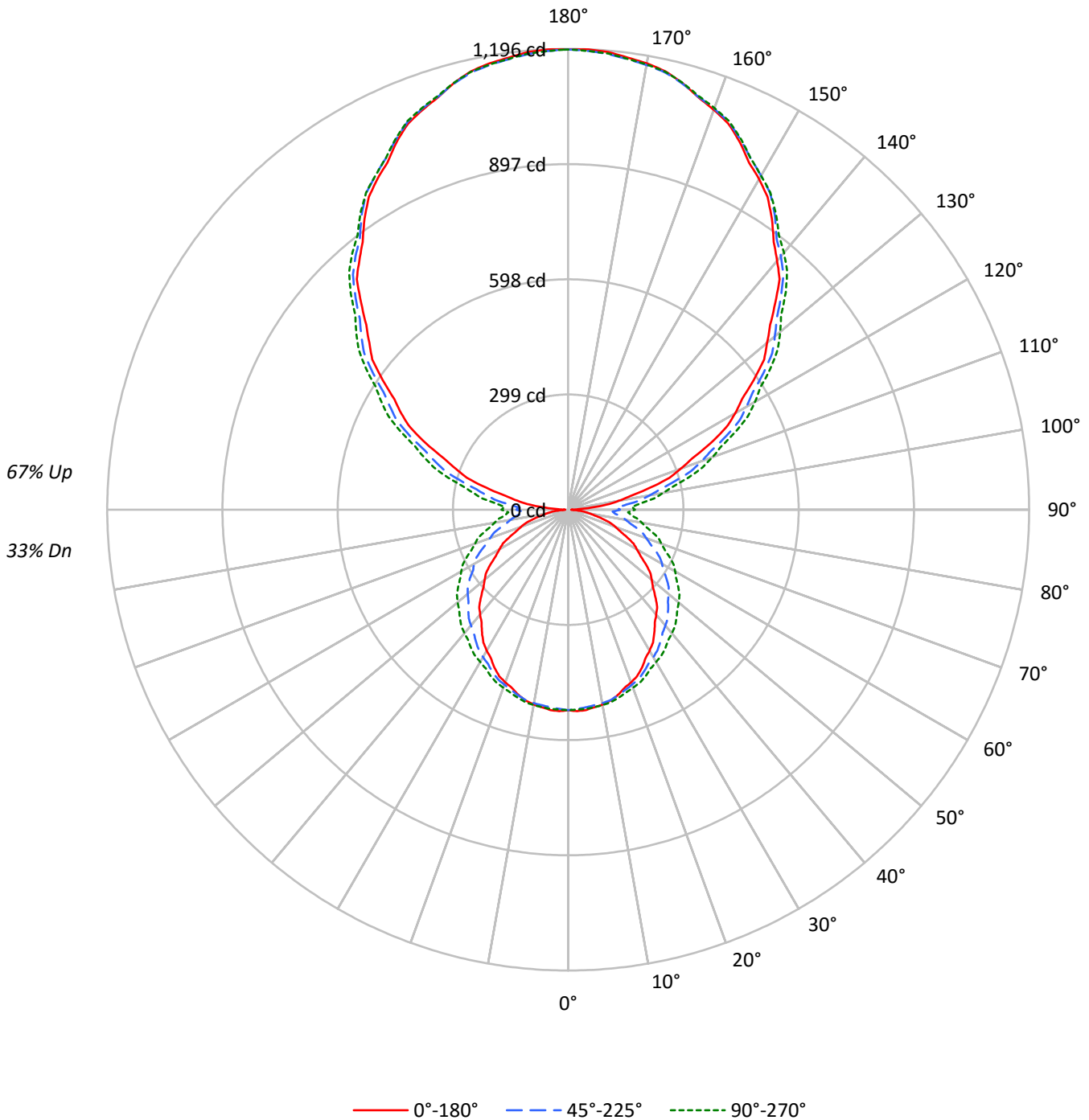
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	93	88	84	80	84	80	76	73	63	61	58	48	47	45	34	33	32	26
2	84	77	70	65	75	69	64	59	55	51	48	42	39	37	30	28	26	21
3	77	67	59	53	69	60	54	49	48	43	39	37	33	31	26	24	22	17
4	70	59	51	45	62	53	46	41	42	37	33	32	29	26	23	21	19	14
5	64	52	44	38	57	47	40	35	38	32	28	29	25	22	21	18	16	12
6	59	47	39	33	53	42	35	30	34	28	25	26	22	19	19	16	14	11
7	54	42	34	28	48	38	31	26	30	25	21	23	20	17	17	14	12	9
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	8
9	47	34	27	22	42	31	25	20	25	20	17	20	16	13	14	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	14	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8402	8402	8402
5°	8443	8088	8058
10°	8390	7850	7761
15°	8275	7596	7448
20°	8129	7324	7148
25°	7984	7062	6875
30°	7780	6794	6601
35°	7575	6536	6409
40°	7360	6315	6215
45°	7153	6118	6051
50°	6934	5937	5888
55°	6700	5744	5722
60°	6417	5546	5546
65°	6122	5313	5339
70°	5796	5061	5115
75°	5371	4816	4908
80°	4707	4564	4698
85°	4070	4346	4535



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	0.9
10°-20°	141.4	2.7
20°-30°	214.3	4.0
30°-40°	261.0	4.9
40°-50°	280.8	5.3
50°-60°	272.7	5.1
60°-70°	238.1	4.5
70°-80°	183.3	3.4
80°-90°	127.8	2.4
90°-100°	160.4	3.0
100°-110°	296.9	5.6
110°-120°	442.6	8.3
120°-130°	551.1	10.3
130°-140°	602.5	11.3
140°-150°	583.1	10.9
150°-160°	487.7	9.2
160°-170°	323.5	6.1
170°-180°	113.0	2.1
0°-30°	405.0	7.6
0°-40°	666.0	12.5
0°-60°	1219.4	22.9
0°-90°	1768.6	33.2
90°-120°	899.9	16.9
90°-150°	2636.7	49.5
90°-180°	3561.0	66.8
0°-180°	5329.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	520	520	520	520	520	
5°	522	520	515	519	519	49
15°	498	499	499	506	505	140
25°	452	458	464	473	476	208
35°	390	403	417	433	439	244
45°	320	340	367	389	398	247
55°	245	273	311	338	348	219
65°	167	205	249	279	290	166
75°	93	135	183	214	226	98
85°	27	74	122	153	164	29
90°	9	65	135	162	173	8
95°	58	104	151	179	187	65
105°	220	246	287	314	323	233
115°	406	421	452	473	479	401
125°	588	598	618	635	641	526
135°	760	771	780	794	798	587
145°	921	928	934	940	940	575
155°	1053	1056	1059	1064	1061	485
165°	1146	1145	1145	1151	1147	323
175°	1192	1189	1187	1194	1188	113
180°	1194	1194	1194	1194	1194	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4
2.5°	523.4	523.0	522.6	522.2	521.8	521.1	520.2	519.3	518.4	517.4	518.1
5°	521.9	521.4	520.9	520.4	519.9	519.2	518.2	517.2	516.1	515.1	516.1
7.5°	517.3	516.8	516.5	516.2	515.9	515.3	514.5	513.8	513.0	512.2	513.4
10°	513.6	513.3	512.9	512.6	512.3	511.9	511.4	510.9	510.4	509.9	511.2
12.5°	507.6	507.7	507.8	507.8	507.9	507.7	507.4	507.0	506.5	506.2	507.6
15°	497.8	498.1	498.5	498.8	499.1	499.3	499.3	499.3	499.3	499.3	500.8
17.5°	485.1	485.8	486.6	487.3	488.0	488.6	489.1	489.6	490.2	490.7	492.2
20°	476.7	477.5	478.4	479.2	480.0	480.8	481.4	482.1	482.8	483.4	485.2
22.5°	467.6	468.6	469.6	470.5	471.5	472.4	473.4	474.3	475.2	476.3	478.1
25°	452.5	453.7	454.8	456.1	457.2	458.6	460.1	461.6	463.1	464.5	466.6
27.5°	434.4	436.4	438.3	440.2	442.0	443.9	445.7	447.5	449.2	451.0	453.5
30°	422.3	424.5	426.7	428.9	431.1	433.2	435.5	437.6	439.8	441.9	444.6
32.5°	409.1	411.5	413.9	416.5	418.9	421.4	423.9	426.6	429.1	431.7	434.7
35°	389.9	392.7	395.7	398.5	401.3	404.3	407.5	410.7	413.8	417.1	420.7
37.5°	369.1	372.4	375.7	379.0	382.2	386.0	390.1	394.2	398.3	402.4	406.6
40°	355.3	358.9	362.6	366.3	370.0	374.1	378.6	383.1	387.7	392.2	396.6
42.5°	341.9	345.7	349.3	353.0	356.7	361.1	366.4	371.5	376.8	381.9	386.7
45°	319.8	324.3	328.8	333.4	337.9	343.1	348.9	354.8	360.7	366.6	371.7
47.5°	297.9	302.9	307.8	312.7	317.6	323.6	330.4	337.3	344.2	351.0	356.5
50°	282.9	288.0	293.3	298.4	303.6	309.9	317.5	325.1	332.6	340.1	345.9
52.5°	268.3	273.8	279.2	284.8	290.2	296.9	304.9	312.8	320.7	328.7	334.5
55°	245.1	251.2	257.2	263.2	269.2	276.6	285.4	294.1	302.8	311.4	317.5
57.5°	222.2	229.0	235.8	242.6	249.4	257.2	266.1	275.0	283.9	292.8	299.3
60°	205.9	213.1	220.4	227.5	234.7	243.1	252.7	262.2	271.8	281.3	287.7
62.5°	191.4	198.8	206.4	213.9	221.4	229.8	239.3	248.9	258.5	268.0	274.8
65°	167.4	175.6	183.9	192.1	200.3	209.3	219.2	229.1	239.0	248.9	255.8
67.5°	145.4	154.0	162.6	171.2	179.8	189.0	199.2	209.3	219.4	229.5	236.5
70°	129.8	138.5	147.1	155.8	164.6	174.1	184.5	194.9	205.3	215.7	222.9
72.5°	115.2	124.2	133.2	142.2	151.2	161.0	171.5	182.0	192.5	203.0	210.2
75°	92.8	102.2	111.5	120.9	130.3	140.4	151.1	161.8	172.6	183.3	190.5
77.5°	71.1	80.9	90.7	100.5	110.4	120.7	131.6	142.5	153.4	164.3	171.5
80°	56.6	66.8	77.1	87.3	97.5	108.1	119.0	129.8	140.7	151.6	158.6
82.5°	44.5	54.6	64.6	74.7	84.8	95.4	106.4	117.4	128.5	139.6	146.5
85°	27.2	37.6	48.0	58.4	68.7	79.3	90.0	100.7	111.5	122.2	129.3
87.5°	14.9	25.5	36.1	46.6	57.1	68.2	79.9	91.6	103.3	115.0	121.8
90°	8.6	21.0	33.3	45.7	58.2	72.2	87.9	103.5	119.2	134.8	141.1
92.5°	24.8	35.9	47.0	58.0	69.0	80.2	91.7	103.2	114.7	126.1	132.8
95°	58.5	68.6	78.7	88.8	98.9	109.2	119.8	130.3	140.8	151.3	157.6
97.5°	101.0	110.0	119.0	127.9	136.9	146.6	157.1	167.6	178.1	188.6	194.9
100°	133.3	141.3	149.3	157.2	165.2	174.3	184.3	194.4	204.4	214.5	220.7
102.5°	166.5	173.6	180.8	187.8	194.9	203.5	213.4	223.4	233.4	243.4	249.5
105°	220.5	226.0	231.6	237.0	242.6	249.9	259.1	268.2	277.4	286.6	292.9
107.5°	275.5	280.4	285.3	290.1	295.0	301.6	309.9	318.3	326.7	335.0	340.8
110°	310.4	315.1	319.8	324.5	329.2	335.7	343.9	352.0	360.2	368.5	373.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	349.1	353.3	357.4	361.5	365.8	371.6	379.3	386.9	394.6	402.1	407.0
115°	406.2	409.3	412.5	415.7	418.9	424.0	431.1	438.2	445.4	452.4	457.2
117.5°	462.2	465.2	468.2	471.2	474.2	478.6	484.3	490.0	495.7	501.4	505.8
120°	500.1	502.6	505.0	507.5	510.0	513.6	518.6	523.5	528.4	533.3	538.0
122.5°	534.8	537.2	539.6	542.0	544.4	548.2	553.2	558.3	563.3	568.4	572.4
125°	588.0	590.1	592.1	594.1	596.1	599.5	604.2	608.8	613.5	618.2	622.1
127.5°	640.7	643.1	645.4	647.8	650.2	653.2	656.7	660.1	663.7	667.2	670.6
130°	673.7	676.4	679.2	682.0	684.7	687.6	690.6	693.8	696.8	699.8	703.5
132.5°	710.8	713.0	715.2	717.4	719.6	722.2	724.9	727.7	730.5	733.4	736.3
135°	759.6	762.0	764.6	767.0	769.5	771.7	773.9	776.0	778.1	780.2	783.6
137.5°	811.8	813.9	815.8	817.8	819.7	821.4	822.7	824.0	825.4	826.7	829.6
140°	843.2	845.2	847.0	848.8	850.7	852.3	853.7	855.3	856.7	858.2	860.8
142.5°	875.6	877.4	879.2	881.1	882.9	884.2	885.0	886.0	886.8	887.6	889.9
145°	921.1	922.7	924.2	925.8	927.4	928.9	930.2	931.5	932.9	934.2	935.4
147.5°	962.4	964.3	966.2	968.1	970.0	971.4	972.3	973.1	974.0	974.9	975.5
150°	990.7	992.0	993.3	994.7	996.0	997.1	998.0	999.0	999.9	1000.8	1001.4
152.5°	1015.6	1017.0	1018.3	1019.7	1021.1	1022.3	1023.3	1024.4	1025.4	1026.5	1027.4
155°	1053.2	1053.8	1054.5	1055.2	1055.8	1056.5	1057.2	1057.8	1058.5	1059.1	1060.4
157.5°	1085.2	1085.6	1086.1	1086.5	1087.0	1087.4	1087.8	1088.2	1088.6	1089.0	1090.6
160°	1104.6	1105.0	1105.4	1105.9	1106.3	1106.7	1106.9	1107.1	1107.3	1107.5	1108.9
162.5°	1122.3	1122.4	1122.5	1122.6	1122.7	1122.8	1123.1	1123.3	1123.5	1123.7	1125.2
165°	1145.9	1145.7	1145.4	1145.2	1145.0	1144.9	1144.9	1144.9	1144.9	1144.9	1146.4
167.5°	1165.6	1165.0	1164.3	1163.6	1163.0	1162.6	1162.6	1162.5	1162.5	1162.4	1164.0
170°	1176.1	1175.4	1174.8	1174.1	1173.4	1173.0	1172.8	1172.6	1172.3	1172.0	1173.7
172.5°	1183.4	1182.7	1182.0	1181.3	1180.6	1180.2	1180.0	1179.7	1179.5	1179.3	1180.9
175°	1192.2	1191.5	1190.8	1190.2	1189.5	1189.0	1188.5	1188.1	1187.6	1187.2	1188.7
177.5°	1195.9	1195.3	1194.8	1194.3	1193.7	1193.3	1192.9	1192.5	1192.1	1191.8	1192.9
180°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	520.4	520.4	520.4	520.4	520.4	520.4	520.4	520.4
2.5°	518.8	519.4	520.1	520.3	520.0	519.8	519.5	519.2
5°	517.2	518.2	519.2	519.6	519.4	519.3	519.1	518.9
7.5°	514.6	515.8	517.1	517.6	517.5	517.3	517.1	516.9
10°	512.5	513.8	515.2	515.8	515.6	515.4	515.3	515.1
12.5°	508.9	510.3	511.6	512.2	512.0	511.8	511.7	511.5
15°	502.3	503.8	505.3	505.9	505.8	505.6	505.4	505.3
17.5°	493.8	495.4	497.0	497.8	497.8	497.8	497.8	497.8
20°	487.2	489.0	490.8	491.7	491.7	491.7	491.7	491.7
22.5°	479.9	481.7	483.6	484.6	484.9	485.1	485.4	485.7
25°	468.6	470.6	472.6	473.9	474.4	474.9	475.4	475.9
27.5°	456.2	458.7	461.2	462.6	463.0	463.4	463.7	464.1
30°	447.4	450.0	452.7	454.2	454.7	455.2	455.8	456.3
32.5°	437.9	440.9	444.0	446.1	447.0	447.9	448.8	449.7
35°	424.4	428.2	431.8	434.2	435.5	436.6	437.8	439.0
37.5°	410.6	414.8	418.8	421.4	422.7	423.9	425.2	426.5
40°	400.9	405.3	409.6	412.5	414.0	415.6	417.1	418.6
42.5°	391.4	396.2	400.9	404.1	405.6	407.1	408.6	410.1
45°	377.0	382.1	387.3	390.7	392.4	394.2	395.8	397.5
47.5°	361.8	367.3	372.7	376.4	378.2	380.0	381.9	383.7
50°	351.5	357.2	362.9	366.7	368.6	370.4	372.2	374.1
52.5°	340.3	346.2	352.0	355.9	357.9	359.9	361.8	363.9
55°	323.6	329.6	335.6	339.7	341.9	344.1	346.3	348.4
57.5°	305.8	312.3	318.8	323.2	325.4	327.6	329.8	332.0
60°	294.1	300.4	306.8	311.1	313.5	315.9	318.2	320.5
62.5°	281.6	288.3	295.1	299.6	301.8	304.1	306.3	308.5
65°	262.7	269.5	276.4	280.9	283.1	285.3	287.4	289.6
67.5°	243.5	250.3	257.3	262.0	264.2	266.5	268.8	271.0
70°	230.1	237.3	244.5	249.1	251.2	253.2	255.2	257.2
72.5°	217.2	224.3	231.4	236.1	238.4	240.9	243.3	245.7
75°	197.7	204.9	212.1	216.8	218.9	221.2	223.3	225.5
77.5°	178.6	185.8	193.0	197.7	200.1	202.4	204.8	207.1
80°	165.7	172.7	179.8	184.4	186.8	189.1	191.5	193.8
82.5°	153.6	160.7	167.6	172.3	174.5	176.7	178.9	181.2
85°	136.2	143.3	150.4	155.0	157.3	159.8	162.1	164.4
87.5°	128.6	135.3	142.1	146.5	148.8	150.9	153.1	155.3
90°	147.3	153.6	159.9	164.1	166.3	168.5	170.8	173.0
92.5°	139.5	146.1	152.8	157.1	159.3	161.3	163.3	165.4
95°	164.0	170.4	176.7	180.7	182.3	183.8	185.4	186.9
97.5°	201.1	207.3	213.5	217.5	219.4	221.5	223.4	225.3
100°	226.9	233.1	239.3	243.2	244.8	246.4	248.0	249.7
102.5°	255.8	262.1	268.3	272.3	273.9	275.5	277.1	278.7
105°	299.2	305.5	311.8	315.9	317.8	319.6	321.4	323.3
107.5°	346.6	352.4	358.3	361.5	362.3	363.1	364.1	364.9
110°	379.2	384.6	389.9	393.2	394.4	395.6	396.7	397.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	411.8	416.7	421.4	424.5	425.9	427.3	428.6	429.9
115°	462.0	466.9	471.6	474.6	475.7	477.0	478.2	479.3
117.5°	510.3	514.7	519.2	521.9	522.9	523.9	525.0	526.0
120°	542.7	547.3	552.1	555.0	556.1	557.3	558.6	559.7
122.5°	576.4	580.5	584.5	587.0	588.1	589.2	590.3	591.4
125°	625.9	629.8	633.7	636.2	637.5	638.7	640.1	641.4
127.5°	673.9	677.3	680.6	682.7	683.5	684.2	685.0	685.7
130°	707.0	710.6	714.2	716.2	716.6	717.1	717.5	718.0
132.5°	739.1	742.0	745.0	746.7	747.3	748.0	748.6	749.2
135°	786.9	790.1	793.5	795.5	796.1	796.8	797.5	798.1
137.5°	832.5	835.4	838.3	839.9	840.1	840.4	840.6	840.8
140°	863.5	866.2	868.9	870.3	870.4	870.5	870.6	870.7
142.5°	892.2	894.5	896.9	898.0	898.0	898.0	898.0	897.9
145°	936.6	938.0	939.2	939.8	939.7	939.6	939.6	939.5
147.5°	976.2	976.8	977.4	977.5	977.0	976.6	976.2	975.7
150°	1002.1	1002.8	1003.4	1003.4	1002.8	1002.1	1001.4	1000.8
152.5°	1028.2	1029.1	1030.0	1030.0	1029.1	1028.2	1027.4	1026.5
155°	1061.5	1062.6	1063.7	1063.9	1063.2	1062.6	1061.9	1061.2
157.5°	1092.1	1093.6	1095.1	1095.3	1094.3	1093.2	1092.1	1091.1
160°	1110.2	1111.6	1113.0	1113.2	1112.3	1111.4	1110.4	1109.5
162.5°	1126.7	1128.2	1129.7	1130.0	1128.9	1127.8	1126.8	1125.7
165°	1148.0	1149.5	1151.1	1151.3	1150.2	1149.1	1148.0	1146.9
167.5°	1165.5	1167.1	1168.6	1168.8	1167.7	1166.5	1165.4	1164.2
170°	1175.2	1176.8	1178.3	1178.4	1177.1	1175.8	1174.4	1173.1
172.5°	1182.5	1184.1	1185.6	1185.7	1184.4	1183.1	1181.6	1180.3
175°	1190.3	1191.8	1193.5	1193.6	1192.2	1190.8	1189.5	1188.2
177.5°	1194.0	1195.1	1196.1	1196.1	1195.1	1194.0	1192.9	1191.8
180°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3

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