

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: P333451-927

Luminaire Tested: **S125DIW-S1090D1340U927-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333451-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S1090D1340U927-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7066.1 lumens  
Efficiency: N/A  
Efficacy: 101.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

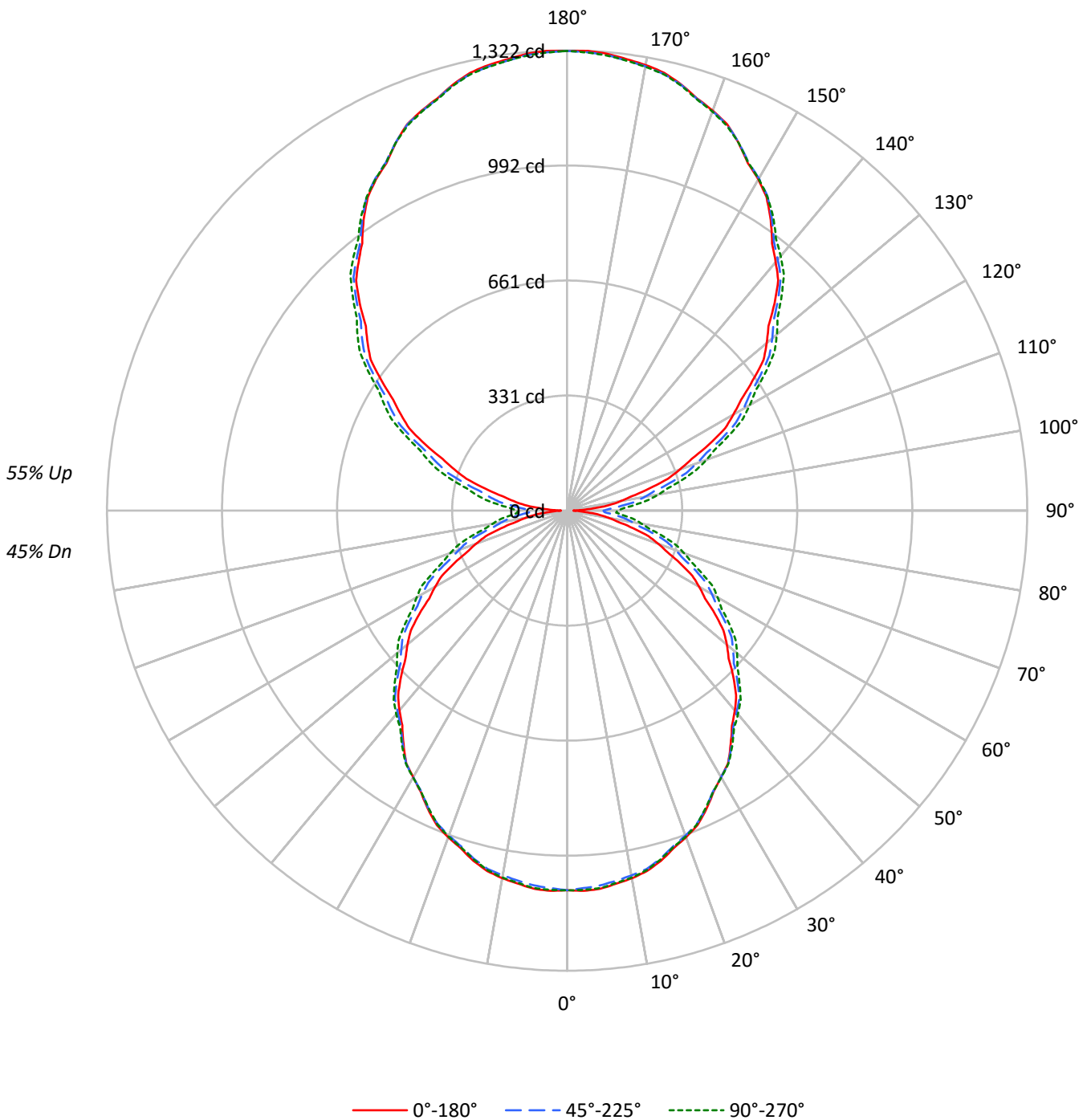
Input Watts (W): 69.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	81	81	81	65	65	65	51	51	51	45
1	96	91	87	84	88	84	80	77	70	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	61	56	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	28	25	21
5	66	55	46	40	60	50	43	38	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	22	19	16
7	56	44	36	30	51	41	33	28	34	29	25	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.1	1.5
10°-20°	292.8	4.1
20°-30°	435.5	6.2
30°-40°	515.8	7.3
40°-50°	533.3	7.5
50°-60°	491.3	7.0
60°-70°	397.1	5.6
70°-80°	265.9	3.8
80°-90°	140.8	2.0
90°-100°	165.8	2.3
100°-110°	318.2	4.5
110°-120°	480.6	6.8
120°-130°	603.9	8.5
130°-140°	661.8	9.4
140°-150°	641.3	9.1
150°-160°	537.0	7.6
160°-170°	357.0	5.1
170°-180°	124.9	1.8
0°-30°	831.4	11.8
0°-40°	1347.2	19.1
0°-60°	2371.8	33.6
0°-90°	3175.6	44.9
90°-120°	964.7	13.7
90°-150°	2871.6	40.6
90°-180°	3890.0	55.1
0°-180°	7066.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	61	104	133	144	15
95°	81	112	157	187	198	82
105°	244	267	304	331	342	260
115°	449	462	491	508	514	444
125°	651	657	678	693	698	582
135°	843	848	856	870	872	649
145°	1019	1022	1026	1031	1032	637
155°	1165	1165	1166	1170	1165	536
165°	1267	1265	1266	1270	1264	357
175°	1317	1314	1313	1319	1312	125
180°	1320	1320	1320	1320	1320	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.6	41.5	49.5	57.5	65.4	73.7	82.1	90.5	98.9	107.3	113.0
90°	18.1	27.6	37.0	46.4	55.8	65.4	75.1	84.8	94.4	104.2	110.7
92.5°	40.2	48.6	56.9	65.2	73.5	82.8	93.0	103.3	113.5	123.7	130.6
95°	80.7	87.3	94.0	100.6	107.3	115.7	126.1	136.5	146.8	157.2	164.0
97.5°	123.6	129.4	135.1	140.9	146.6	155.0	165.9	176.8	187.7	198.7	205.2
100°	155.7	160.7	165.6	170.6	175.6	183.4	193.9	204.5	215.1	225.7	232.7
102.5°	190.1	195.7	201.1	206.7	212.2	219.4	228.4	237.3	246.2	255.2	262.1
105°	243.9	248.8	253.8	258.7	263.7	270.5	278.9	287.4	295.9	304.4	310.5
107.5°	303.5	307.8	312.2	316.6	321.0	327.1	335.0	342.9	350.8	358.7	364.1
110°	344.5	348.6	352.5	356.5	360.5	366.1	373.5	380.9	388.2	395.5	400.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	387.3	390.1	393.0	395.9	398.8	403.9	411.2	418.6	425.9	433.2	437.8
115°	449.3	451.9	454.5	457.0	459.6	464.2	470.9	477.5	484.1	490.8	494.8
117.5°	511.5	513.0	514.5	516.0	517.5	521.4	527.7	533.9	540.2	546.4	550.7
120°	551.0	552.9	554.7	556.6	558.4	562.2	567.9	573.5	579.2	584.9	589.0
122.5°	592.9	593.7	594.4	595.1	595.9	599.2	605.1	610.9	616.8	622.7	626.3
125°	650.6	651.7	652.9	654.0	655.1	658.2	663.2	668.2	673.2	678.1	681.5
127.5°	711.2	711.8	712.3	712.8	713.4	715.7	719.9	724.1	728.3	732.5	735.7
130°	748.2	749.1	750.0	750.9	751.9	754.2	758.0	761.8	765.5	769.3	772.4
132.5°	784.3	786.2	788.0	789.8	791.6	793.8	796.3	798.8	801.2	803.7	806.8
135°	842.7	843.8	844.9	846.1	847.2	848.7	850.6	852.5	854.4	856.3	859.4
137.5°	897.5	898.7	899.8	900.9	902.1	903.3	904.7	905.9	907.3	908.6	911.6
140°	932.1	933.2	934.4	935.5	936.6	937.6	938.6	939.5	940.4	941.4	944.4
142.5°	967.4	968.2	968.9	969.7	970.5	971.3	972.2	973.2	974.1	975.0	977.5
145°	1019.4	1020.1	1020.7	1021.4	1022.2	1022.8	1023.5	1024.1	1024.8	1025.6	1026.7
147.5°	1066.4	1066.9	1067.5	1067.9	1068.4	1069.0	1069.5	1070.1	1070.6	1071.2	1072.1
150°	1098.5	1098.3	1098.0	1097.8	1097.6	1097.9	1098.8	1099.8	1100.7	1101.6	1101.6
152.5°	1124.8	1125.1	1125.5	1125.8	1126.1	1126.4	1126.8	1127.1	1127.5	1127.9	1128.5
155°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.4	1165.6	1165.9	1166.1	1166.3	1167.2
157.5°	1201.4	1200.9	1200.5	1199.9	1199.4	1199.3	1199.5	1199.8	1200.0	1200.2	1201.1
160°	1222.8	1222.2	1221.5	1220.8	1220.1	1219.9	1220.1	1220.4	1220.5	1220.8	1221.7
162.5°	1241.7	1241.3	1240.7	1240.2	1239.8	1239.5	1239.5	1239.6	1239.6	1239.7	1240.8
165°	1267.0	1266.5	1266.1	1265.7	1265.2	1265.1	1265.3	1265.5	1265.7	1266.0	1266.9
167.5°	1288.4	1287.5	1286.6	1285.6	1284.8	1284.3	1284.3	1284.3	1284.3	1284.3	1285.6
170°	1299.9	1299.0	1298.1	1297.2	1296.2	1295.8	1295.8	1295.8	1295.8	1295.8	1297.2
172.5°	1308.1	1307.2	1306.3	1305.4	1304.5	1304.0	1304.0	1304.0	1304.0	1304.0	1305.4
175°	1317.4	1316.4	1315.6	1314.6	1313.8	1313.3	1313.3	1313.3	1313.3	1313.3	1314.6
177.5°	1322.1	1321.4	1320.6	1319.9	1319.1	1318.7	1318.5	1318.3	1318.2	1318.0	1319.1
180°	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	118.6	124.3	130.0	133.8	135.5	137.4	139.2	140.9
90°	117.3	124.0	130.6	135.1	137.4	139.7	142.1	144.4
92.5°	137.3	144.1	150.8	155.3	157.5	159.7	161.8	164.0
95°	170.9	177.7	184.5	188.9	191.1	193.2	195.4	197.5
97.5°	211.7	218.2	224.7	228.9	230.8	232.7	234.6	236.5
100°	239.8	246.8	253.8	258.3	260.2	262.1	264.0	265.9
102.5°	269.2	276.2	283.3	287.8	289.9	292.0	294.1	296.1
105°	316.6	322.8	328.9	333.1	335.5	337.9	340.2	342.5
107.5°	369.5	374.9	380.2	383.7	385.1	386.5	387.9	389.4
110°	405.9	411.1	416.4	419.6	421.1	422.6	424.0	425.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	442.5	447.2	451.8	454.7	456.0	457.2	458.5	459.8
115°	498.8	502.9	507.0	509.6	510.8	512.0	513.2	514.4
117.5°	554.9	559.1	563.3	565.9	566.5	567.2	567.9	568.6
120°	593.0	597.1	601.1	603.4	603.9	604.4	604.9	605.5
122.5°	630.0	633.7	637.3	639.5	640.2	640.9	641.6	642.3
125°	684.8	688.2	691.5	693.7	694.7	695.6	696.6	697.5
127.5°	739.0	742.3	745.6	747.7	748.6	749.5	750.4	751.4
130°	775.5	778.6	781.7	783.6	784.3	785.1	785.8	786.6
132.5°	809.9	813.0	816.1	817.8	818.2	818.6	818.9	819.3
135°	862.5	865.6	868.7	870.4	870.6	870.9	871.2	871.5
137.5°	914.7	917.8	920.9	922.3	922.1	921.9	921.8	921.5
140°	947.5	950.5	953.6	955.1	954.9	954.7	954.5	954.3
142.5°	980.0	982.5	985.0	986.2	986.0	985.8	985.6	985.4
145°	1027.9	1029.1	1030.3	1031.0	1031.3	1031.6	1031.8	1032.1
147.5°	1073.0	1074.0	1074.8	1074.8	1073.6	1072.5	1071.4	1070.2
150°	1101.6	1101.6	1101.6	1101.5	1101.2	1101.1	1100.8	1100.6
152.5°	1128.9	1129.5	1130.0	1130.0	1129.2	1128.4	1127.7	1126.9
155°	1168.2	1169.0	1170.0	1169.8	1168.7	1167.6	1166.4	1165.3
157.5°	1202.1	1202.9	1203.9	1203.6	1202.1	1200.6	1199.0	1197.5
160°	1222.6	1223.5	1224.4	1224.3	1223.2	1222.0	1220.9	1219.7
162.5°	1241.9	1242.9	1244.0	1244.0	1242.6	1241.3	1240.0	1238.7
165°	1267.8	1268.8	1269.6	1269.4	1268.0	1266.7	1265.3	1263.9
167.5°	1287.1	1288.4	1289.8	1289.8	1288.3	1286.9	1285.5	1284.0
170°	1298.5	1299.9	1301.2	1301.2	1299.6	1298.0	1296.3	1294.7
172.5°	1306.8	1308.1	1309.5	1309.5	1308.1	1306.6	1305.2	1303.8
175°	1316.0	1317.4	1318.7	1318.6	1317.0	1315.4	1313.8	1312.2
177.5°	1320.2	1321.3	1322.4	1322.3	1321.0	1319.7	1318.4	1317.2
180°	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5	1320.5

(END OF REPORT)