

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: P333695-935

Luminaire Tested: **S125RDIW-S850D1340U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333695-935  
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: S125RDIW-S850D1340U935-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6804.8 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

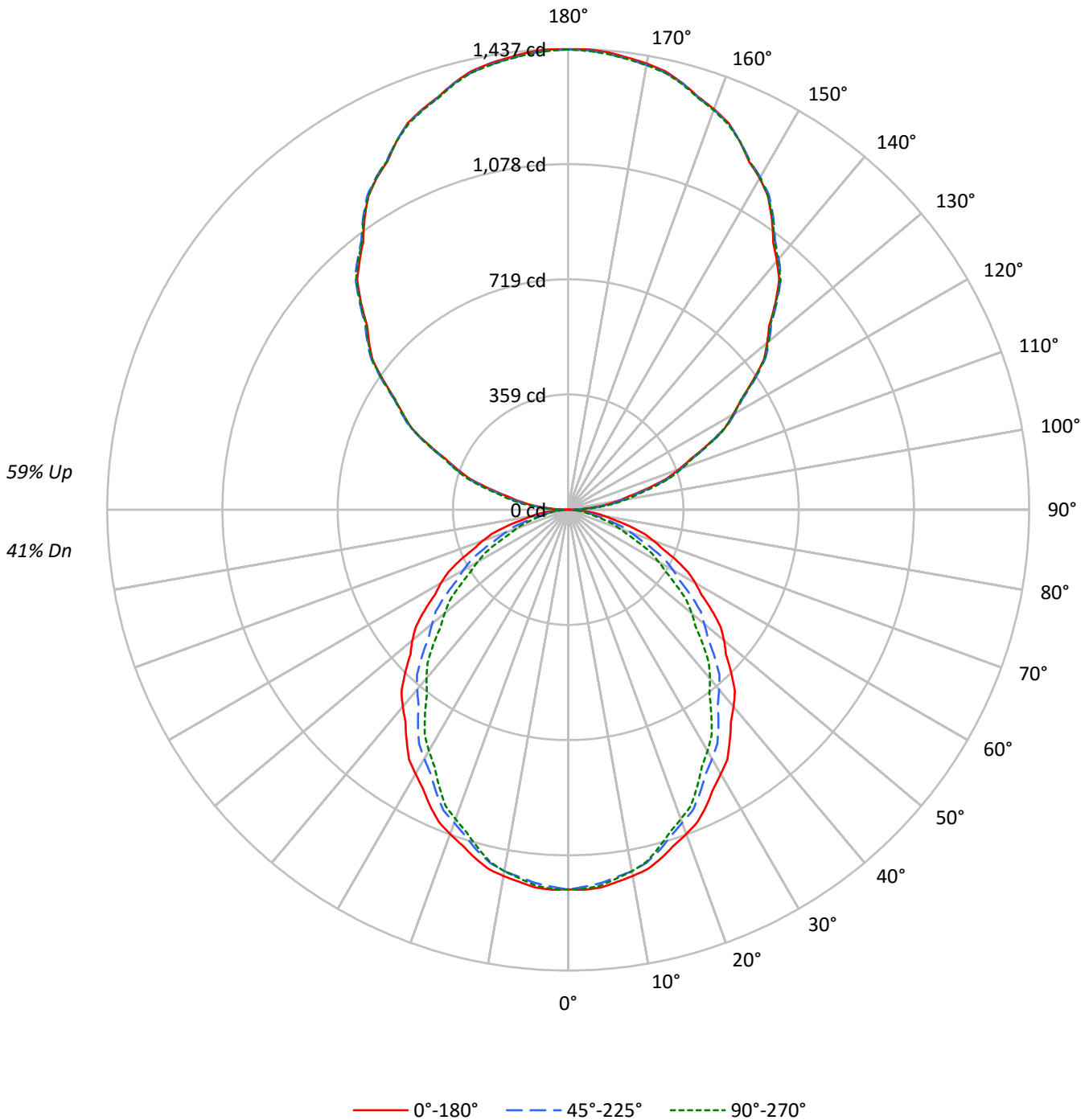
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	43	42	41	35
2	88	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	71	64	58	73	65	59	54	54	49	45	43	40	37	34	31	30	25
4	73	63	55	49	66	57	51	46	48	43	39	39	35	32	30	28	26	22
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	27	25	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	13
9	49	37	30	25	45	35	28	24	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

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

	0°	45°	90°
0°	7647	7647	7647
5°	7664	7577	7623
10°	7606	7506	7506
15°	7515	7353	7294
20°	7399	7142	7056
25°	7264	6933	6780
30°	7095	6689	6475
35°	6923	6437	6133
40°	6762	6175	5798
45°	6566	5881	5431
50°	6370	5561	5050
55°	6141	5255	4641
60°	5913	4885	4204
65°	5644	4455	3703
70°	5336	3916	3191
75°	4908	3301	2655
80°	4322	2592	2228
85°	3646	2119	1993



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.3	1.6
10°-20°	311.1	4.6
20°-30°	451.2	6.6
30°-40°	514.2	7.6
40°-50°	501.2	7.4
50°-60°	421.9	6.2
60°-70°	295.7	4.3
70°-80°	152.0	2.2
80°-90°	41.5	0.6
90°-100°	96.1	1.4
100°-110°	283.9	4.2
110°-120°	480.8	7.1
120°-130°	632.7	9.3
130°-140°	709.0	10.4
140°-150°	694.9	10.2
150°-160°	583.6	8.6
160°-170°	388.0	5.7
170°-180°	135.8	2.0
0°-30°	873.6	12.8
0°-40°	1387.8	20.4
0°-60°	2310.8	34.0
0°-90°	2800.1	41.1
90°-120°	860.8	12.6
90°-150°	2897.4	42.6
90°-180°	4005.0	58.9
0°-180°	6804.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1182	1178	1169	1177	1176	112
15°	1124	1118	1100	1099	1091	317
25°	1019	1005	973	961	951	469
35°	878	856	816	791	778	550
45°	719	692	644	609	595	554
55°	545	516	467	428	412	488
65°	369	338	292	257	242	366
75°	197	169	132	113	106	208
85°	49	34	29	28	27	55
90°	1	10	18	23	27	6
95°	73	75	86	94	96	77
105°	255	260	267	273	277	272
115°	481	486	488	487	486	476
125°	702	709	710	708	707	629
135°	914	920	921	921	917	704
145°	1107	1111	1115	1114	1111	692
155°	1266	1267	1268	1272	1266	583
165°	1377	1375	1376	1380	1374	388
175°	1432	1428	1427	1433	1426	136
180°	1435	1435	1435	1435	1435	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1186.0	1185.6	1185.1	1184.6	1184.1	1183.1	1181.6	1179.9	1178.4	1176.7	1178.4
5°	1182.2	1181.4	1180.5	1179.7	1179.0	1177.5	1175.3	1173.1	1170.9	1168.7	1170.7
7.5°	1170.5	1169.8	1169.0	1168.2	1167.5	1165.8	1163.2	1160.5	1158.0	1155.3	1156.7
10°	1159.8	1159.2	1158.6	1158.0	1157.4	1155.7	1153.0	1150.1	1147.4	1144.6	1145.1
12.5°	1147.6	1146.9	1146.1	1145.4	1144.6	1142.4	1138.6	1134.9	1131.2	1127.4	1127.8
15°	1124.0	1122.8	1121.6	1120.4	1119.2	1116.5	1112.4	1108.2	1104.1	1099.8	1099.7
17.5°	1097.3	1095.5	1093.7	1091.9	1090.0	1086.5	1081.2	1076.0	1070.7	1065.5	1064.5
20°	1076.6	1074.6	1072.6	1070.7	1068.7	1064.5	1058.2	1051.8	1045.4	1039.1	1038.1
22.5°	1053.7	1051.7	1049.7	1047.8	1045.8	1041.5	1034.7	1028.1	1021.4	1014.8	1012.8
25°	1019.4	1016.4	1013.4	1010.5	1007.5	1002.3	995.0	987.6	980.2	972.9	970.3
27.5°	980.1	976.5	972.8	969.2	965.6	959.8	952.0	944.1	936.3	928.3	924.7
30°	951.4	947.6	943.9	940.1	936.3	930.2	922.0	913.6	905.3	896.9	892.3
32.5°	923.5	919.1	914.7	910.3	905.9	899.4	891.0	882.4	873.9	865.4	860.4
35°	878.1	873.3	868.6	863.8	859.0	852.1	843.3	834.3	825.4	816.4	810.6
37.5°	833.5	827.8	822.0	816.1	810.4	802.9	793.7	784.4	775.2	765.9	759.1
40°	802.1	796.2	790.1	784.2	778.3	770.5	761.0	751.4	741.9	732.4	724.8
42.5°	769.2	763.1	757.0	750.8	744.7	736.8	726.9	717.0	707.1	697.3	690.1
45°	718.9	713.2	707.4	701.6	695.9	687.5	676.6	665.7	654.8	643.9	635.8
47.5°	666.9	660.8	654.7	648.7	642.6	634.0	623.0	612.0	601.0	590.0	581.8
50°	634.0	627.4	620.9	614.3	607.8	598.8	587.5	576.2	564.8	553.5	545.2
52.5°	598.2	591.5	584.8	578.1	571.4	562.7	552.0	541.3	530.5	519.9	510.9
55°	545.4	539.1	532.8	526.4	520.0	511.3	500.2	489.0	477.9	466.7	457.8
57.5°	492.1	485.3	478.5	471.7	465.0	456.2	445.5	434.7	424.0	413.3	404.6
60°	457.8	450.9	443.9	437.0	430.0	421.2	410.4	399.7	389.0	378.2	369.5
62.5°	421.4	414.7	408.1	401.4	394.8	386.1	375.1	364.3	353.4	342.5	334.4
65°	369.3	362.6	355.8	349.0	342.2	333.6	323.1	312.5	302.0	291.5	283.5
67.5°	317.6	310.8	304.1	297.4	290.6	282.1	272.1	262.0	251.9	241.8	234.5
70°	282.6	275.8	269.1	262.3	255.5	247.2	237.3	227.3	217.4	207.4	201.3
72.5°	248.2	241.6	235.1	228.4	221.9	213.9	204.6	195.3	186.0	176.7	171.0
75°	196.7	190.8	184.8	178.8	172.9	165.7	157.4	149.0	140.7	132.3	127.9
77.5°	145.6	140.8	136.0	131.3	126.5	120.8	114.1	107.5	100.7	94.1	91.0
80°	116.2	111.5	106.7	101.9	97.2	92.0	86.4	80.8	75.3	69.7	67.9
82.5°	87.6	83.3	79.0	74.7	70.4	66.4	62.6	58.8	54.9	51.1	50.3
85°	49.2	45.6	42.0	38.5	34.9	32.5	31.6	30.6	29.6	28.6	28.4
87.5°	16.7	15.9	15.2	14.6	13.8	13.5	13.8	13.9	14.1	14.3	14.6
90°	1.1	3.1	5.1	7.1	9.0	10.9	12.7	14.4	16.1	17.9	19.1
92.5°	27.0	28.4	29.8	31.2	32.5	34.4	36.5	38.7	40.7	42.9	44.5
95°	72.6	73.1	73.6	74.0	74.6	76.1	78.5	81.0	83.5	86.0	87.7
97.5°	120.6	120.8	121.1	121.2	121.4	123.2	126.7	130.1	133.5	136.9	138.5
100°	156.4	156.4	156.4	156.4	156.4	158.0	161.2	164.5	167.6	170.9	173.1
102.5°	194.8	195.8	196.7	197.8	198.7	200.1	201.7	203.4	205.0	206.6	209.1
105°	254.7	255.9	257.1	258.4	259.6	261.0	262.4	264.0	265.4	266.9	268.5
107.5°	320.7	322.0	323.2	324.5	325.7	326.9	328.0	329.2	330.4	331.5	332.3
110°	366.4	367.6	368.9	370.1	371.3	372.3	373.1	373.8	374.5	375.2	376.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	412.8	413.5	414.1	414.7	415.3	416.2	417.1	418.0	419.0	419.9	420.3
115°	481.4	482.3	483.4	484.3	485.3	486.1	486.6	487.1	487.6	488.1	487.8
117.5°	550.2	550.6	551.0	551.5	552.0	552.4	552.8	553.3	553.7	554.2	554.4
120°	593.1	594.3	595.6	596.8	598.1	598.7	599.0	599.3	599.5	599.8	599.8
122.5°	639.6	640.0	640.4	640.8	641.3	641.9	642.5	643.2	643.8	644.5	644.2
125°	702.5	704.0	705.5	707.0	708.4	709.3	709.6	709.8	710.1	710.3	709.8
127.5°	769.5	770.3	771.2	772.1	772.9	773.4	773.8	774.0	774.4	774.6	774.4
130°	809.7	811.0	812.2	813.5	814.7	815.5	816.1	816.6	817.0	817.5	817.3
132.5°	849.9	852.0	854.0	856.0	858.1	859.0	858.9	858.8	858.8	858.7	858.4
135°	913.6	915.1	916.5	918.1	919.5	920.4	920.7	920.9	921.2	921.4	921.4
137.5°	973.4	974.9	976.4	977.8	979.2	980.2	980.8	981.3	981.9	982.4	982.7
140°	1011.8	1013.1	1014.3	1015.6	1016.8	1017.8	1018.6	1019.3	1020.0	1020.8	1021.3
142.5°	1050.3	1051.4	1052.4	1053.4	1054.5	1055.4	1056.4	1057.3	1058.3	1059.2	1059.5
145°	1106.8	1107.8	1108.8	1109.7	1110.8	1111.6	1112.4	1113.1	1113.9	1114.7	1114.7
147.5°	1159.1	1159.6	1160.2	1160.7	1161.2	1161.8	1162.4	1163.0	1163.6	1164.2	1164.8
150°	1193.9	1193.7	1193.4	1193.2	1192.9	1193.3	1194.3	1195.3	1196.3	1197.3	1197.3
152.5°	1222.5	1222.9	1223.2	1223.6	1223.9	1224.3	1224.7	1225.0	1225.5	1225.9	1226.5
155°	1266.5	1266.5	1266.5	1266.5	1266.5	1266.6	1266.9	1267.1	1267.4	1267.7	1268.6
157.5°	1305.8	1305.3	1304.8	1304.2	1303.6	1303.5	1303.7	1304.0	1304.2	1304.5	1305.4
160°	1329.0	1328.4	1327.6	1326.8	1326.1	1325.9	1326.1	1326.4	1326.5	1326.8	1327.8
162.5°	1349.6	1349.1	1348.5	1348.0	1347.5	1347.2	1347.2	1347.3	1347.3	1347.4	1348.6
165°	1377.1	1376.6	1376.1	1375.6	1375.1	1375.0	1375.2	1375.4	1375.7	1376.0	1377.0
167.5°	1400.3	1399.3	1398.4	1397.3	1396.4	1395.9	1395.9	1395.9	1395.9	1395.9	1397.3
170°	1412.8	1411.9	1410.8	1409.9	1408.9	1408.3	1408.3	1408.3	1408.3	1408.3	1409.9
172.5°	1421.8	1420.7	1419.8	1418.8	1417.8	1417.3	1417.3	1417.3	1417.3	1417.3	1418.8
175°	1431.8	1430.8	1429.9	1428.8	1427.9	1427.4	1427.4	1427.4	1427.4	1427.4	1428.8
177.5°	1436.9	1436.1	1435.4	1434.6	1433.7	1433.3	1433.0	1432.9	1432.7	1432.4	1433.7
180°	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1179.9	1181.6	1183.1	1183.9	1183.7	1183.5	1183.4	1183.2
5°	1172.7	1174.7	1176.6	1177.5	1177.1	1176.6	1176.3	1175.9
7.5°	1158.1	1159.5	1160.9	1161.3	1160.9	1160.5	1160.0	1159.6
10°	1145.7	1146.3	1146.9	1146.9	1146.3	1145.7	1145.1	1144.6
12.5°	1128.3	1128.7	1129.1	1128.9	1128.0	1127.0	1126.2	1125.2
15°	1099.5	1099.2	1099.1	1098.1	1096.3	1094.5	1092.7	1090.9
17.5°	1063.5	1062.6	1061.5	1060.3	1058.9	1057.4	1055.9	1054.5
20°	1037.1	1036.0	1035.1	1033.7	1031.9	1030.1	1028.3	1026.6
22.5°	1010.8	1008.9	1006.9	1005.2	1003.8	1002.3	1000.8	999.4
25°	967.8	965.2	962.6	960.2	957.9	955.8	953.6	951.4
27.5°	921.1	917.5	913.9	911.0	909.0	906.8	904.7	902.6
30°	887.8	883.2	878.6	875.5	873.7	871.8	870.0	868.2
32.5°	855.3	850.2	845.2	841.5	839.3	837.1	834.7	832.5
35°	804.9	799.1	793.3	789.1	786.3	783.5	780.8	777.9
37.5°	752.2	745.2	738.3	733.5	730.8	728.1	725.4	722.7
40°	717.2	709.7	702.1	697.2	694.8	692.4	690.0	687.7
42.5°	682.9	675.6	668.4	663.0	659.5	656.0	652.5	649.0
45°	627.9	620.0	612.0	606.6	603.6	600.6	597.6	594.6
47.5°	573.6	565.4	557.2	551.5	548.2	544.9	541.6	538.3
50°	536.8	528.5	520.1	514.4	511.5	508.5	505.5	502.6
52.5°	502.0	492.9	484.0	477.9	475.0	472.0	469.1	466.1
55°	448.9	440.0	431.0	424.9	421.8	418.6	415.4	412.2
57.5°	395.8	387.1	378.3	372.6	369.7	366.9	364.1	361.3
60°	360.8	352.0	343.3	337.4	334.4	331.5	328.5	325.5
62.5°	326.2	318.1	310.0	304.5	301.5	298.5	295.6	292.6
65°	275.6	267.7	259.7	254.3	251.2	248.3	245.3	242.3
67.5°	227.2	220.0	212.7	207.8	205.5	203.1	200.7	198.4
70°	195.1	189.0	182.8	178.6	176.2	173.7	171.4	169.0
72.5°	165.3	159.6	153.9	150.3	148.7	147.1	145.6	144.0
75°	123.6	119.2	114.9	112.0	110.6	109.2	107.8	106.4
77.5°	87.9	84.9	81.8	79.8	78.8	77.7	76.7	75.7
80°	66.2	64.4	62.6	61.5	61.1	60.7	60.3	59.9
82.5°	49.5	48.6	47.8	47.3	47.0	46.8	46.6	46.3
85°	28.2	28.0	27.8	27.6	27.4	27.2	27.0	26.9
87.5°	14.8	15.1	15.3	15.4	15.4	15.4	15.4	15.4
90°	20.3	21.6	22.8	23.8	24.5	25.3	26.1	26.8
92.5°	46.1	47.8	49.4	50.5	51.1	51.7	52.2	52.7
95°	89.5	91.2	93.0	94.0	94.5	95.1	95.6	96.1
97.5°	140.2	141.8	143.4	144.5	144.7	145.1	145.3	145.7
100°	175.4	177.5	179.8	181.2	181.7	182.2	182.7	183.1
102.5°	211.5	213.9	216.4	217.9	218.6	219.3	220.0	220.7
105°	269.9	271.4	272.9	274.0	274.7	275.5	276.2	277.0
107.5°	332.9	333.7	334.5	334.8	334.8	334.7	334.7	334.6
110°	376.8	377.5	378.2	378.5	378.2	378.0	377.7	377.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.6	420.9	421.3	421.3	420.9	420.4	419.9	419.5
115°	487.6	487.3	487.1	486.8	486.6	486.3	486.1	485.9
117.5°	554.6	554.7	555.0	554.6	553.6	552.6	551.6	550.6
120°	599.8	599.8	599.8	599.3	598.2	597.3	596.2	595.3
122.5°	644.0	643.9	643.6	643.2	642.3	641.5	640.8	640.0
125°	709.3	708.9	708.3	708.0	707.7	707.5	707.2	707.0
127.5°	774.1	773.9	773.7	773.3	772.8	772.3	771.8	771.3
130°	817.0	816.8	816.6	816.1	815.7	815.2	814.7	814.2
132.5°	858.2	857.9	857.6	857.2	856.5	855.7	855.1	854.4
135°	921.4	921.4	921.4	920.9	919.9	918.9	917.9	917.0
137.5°	983.0	983.3	983.6	983.1	981.9	980.6	979.4	978.2
140°	1021.8	1022.3	1022.8	1022.4	1021.1	1019.9	1018.7	1017.4
142.5°	1059.8	1060.1	1060.4	1060.0	1058.7	1057.5	1056.2	1055.0
145°	1114.7	1114.7	1114.7	1114.2	1113.5	1112.8	1112.0	1111.3
147.5°	1165.4	1166.0	1166.6	1166.1	1164.3	1162.7	1161.0	1159.3
150°	1197.3	1197.3	1197.3	1197.0	1196.5	1196.0	1195.5	1195.1
152.5°	1227.0	1227.6	1228.2	1228.1	1227.2	1226.3	1225.4	1224.5
155°	1269.6	1270.6	1271.6	1271.4	1270.2	1269.0	1267.7	1266.5
157.5°	1306.5	1307.4	1308.5	1308.1	1306.5	1304.8	1303.2	1301.6
160°	1328.8	1329.8	1330.8	1330.7	1329.5	1328.2	1327.0	1325.7
162.5°	1349.8	1350.9	1352.1	1352.0	1350.6	1349.1	1347.7	1346.3
165°	1377.9	1379.0	1379.9	1379.7	1378.2	1376.7	1375.2	1373.7
167.5°	1398.9	1400.3	1401.8	1401.8	1400.2	1398.7	1397.1	1395.6
170°	1411.4	1412.8	1414.3	1414.2	1412.5	1410.7	1408.9	1407.2
172.5°	1420.3	1421.8	1423.2	1423.2	1421.7	1420.1	1418.6	1417.0
175°	1430.3	1431.8	1433.3	1433.1	1431.4	1429.7	1428.0	1426.2
177.5°	1434.9	1436.1	1437.3	1437.2	1435.7	1434.3	1433.0	1431.6
180°	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2	1435.2

(END OF REPORT)