

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: P333691-935

Luminaire Tested: **S125RDIW-S850D1050U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333691-935  
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-S850D1050U935-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5927.6 lumens  
Efficiency: N/A  
Efficacy: 112.7 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

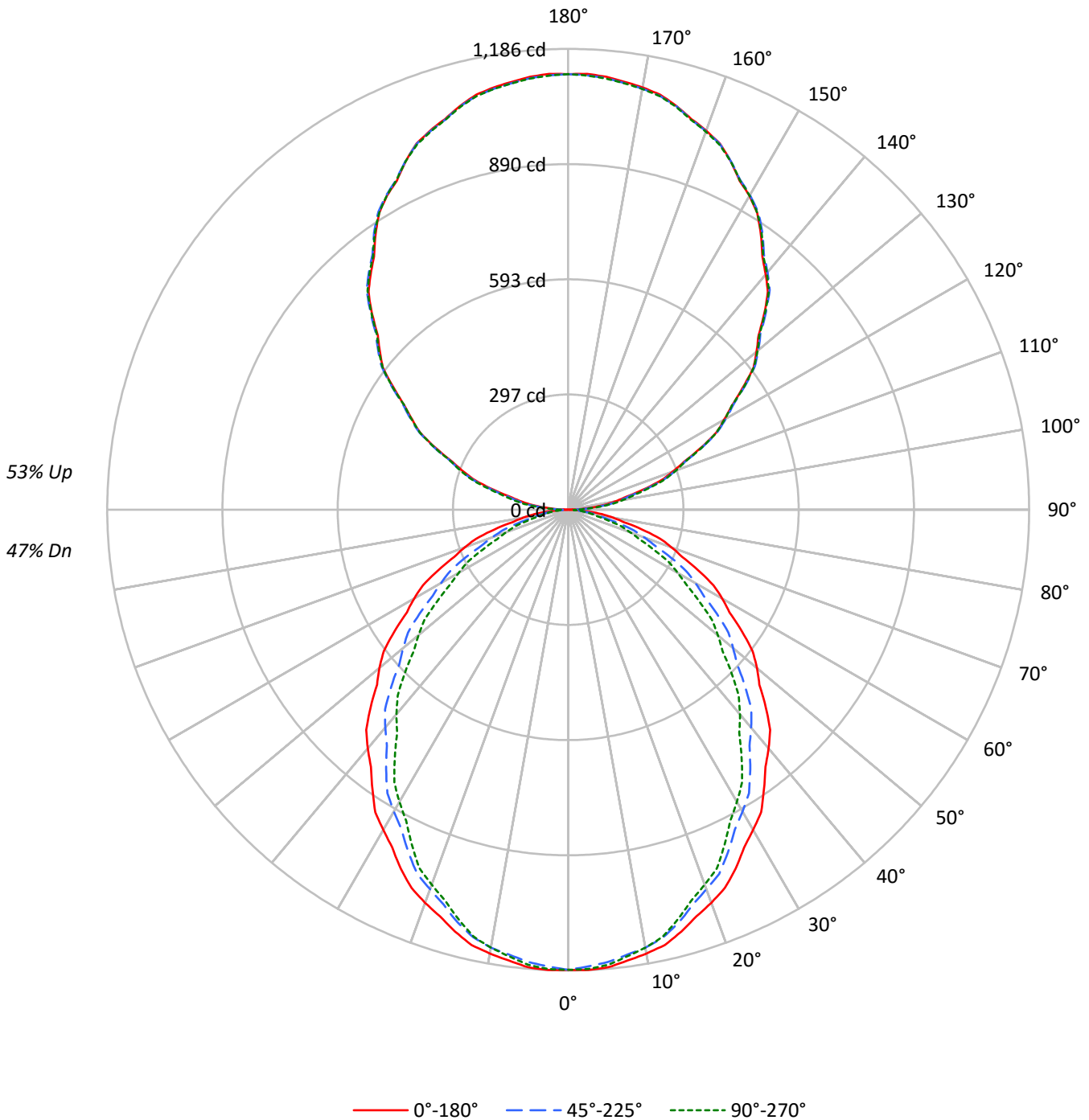
Input Watts (W): 52.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	54	54	54	47				47
1	97	93	89	86	89	86	83	80	72	70	68	59	58	56	48	47	46				40	
2	89	82	76	70	81	75	70	66	63	60	56	52	50	47	42	40	39				34	
3	81	72	65	59	74	66	60	55	56	51	47	46	43	40	38	35	33				29	
4	74	64	56	50	68	59	52	47	50	45	41	41	38	35	34	31	29				25	
5	68	57	49	43	63	53	46	40	45	39	35	37	33	30	30	27	25				22	
6	63	51	43	37	58	47	40	35	40	35	31	34	30	26	28	25	22				19	
7	58	46	38	33	53	43	36	31	37	31	27	31	27	23	25	22	20				17	
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	23	20	18				15	
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	21	18	16				14	
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15				13	

**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	1.9
10°-20°	311.1	5.2
20°-30°	451.2	7.6
30°-40°	514.2	8.7
40°-50°	501.2	8.5
50°-60°	421.9	7.1
60°-70°	295.7	5.0
70°-80°	152.0	2.6
80°-90°	40.8	0.7
90°-100°	75.1	1.3
100°-110°	221.7	3.7
110°-120°	375.6	6.3
120°-130°	494.3	8.3
130°-140°	553.8	9.3
140°-150°	542.8	9.2
150°-160°	455.9	7.7
160°-170°	303.0	5.1
170°-180°	106.1	1.8
0°-30°	873.6	14.7
0°-40°	1387.8	23.4
0°-60°	2310.8	39.0
0°-90°	2799.4	47.2
90°-120°	672.4	11.3
90°-150°	2263.2	38.2
90°-180°	3128.0	52.8
0°-180°	5927.6	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	8	14	18	21	5
95°	57	59	67	73	75	61
105°	199	203	208	214	216	212
115°	376	379	381	380	380	372
125°	549	554	555	553	552	491
135°	714	719	720	720	716	550
145°	864	868	871	870	868	540
155°	989	989	990	993	989	455
165°	1076	1074	1075	1078	1073	303
175°	1118	1115	1115	1120	1114	106
180°	1121	1121	1121	1121	1121	



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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°	16.6	15.8	15.0	14.2	13.4	13.1	13.2	13.3	13.4	13.5	13.7
90°	0.9	2.4	4.0	5.5	7.1	8.5	9.9	11.3	12.6	13.9	14.9
92.5°	21.1	22.2	23.2	24.4	25.5	26.9	28.5	30.1	31.9	33.5	34.8
95°	56.7	57.1	57.5	57.9	58.3	59.4	61.4	63.3	65.3	67.2	68.5
97.5°	94.2	94.4	94.5	94.7	94.9	96.3	98.9	101.6	104.3	106.9	108.2
100°	122.2	122.2	122.2	122.2	122.2	123.4	125.9	128.5	131.0	133.5	135.3
102.5°	152.1	152.9	153.7	154.5	155.2	156.3	157.6	158.9	160.1	161.4	163.3
105°	198.9	199.8	200.9	201.8	202.8	203.9	205.0	206.2	207.3	208.5	209.7
107.5°	250.6	251.5	252.5	253.5	254.4	255.4	256.2	257.2	258.0	258.9	259.5
110°	286.1	287.1	288.1	289.0	290.1	290.8	291.4	292.0	292.6	293.2	293.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	322.4	323.0	323.5	324.0	324.4	325.1	325.8	326.6	327.3	328.0	328.3
115°	376.0	376.8	377.5	378.3	379.1	379.7	380.0	380.5	380.8	381.3	381.1
117.5°	429.7	430.1	430.4	430.8	431.2	431.5	431.9	432.2	432.6	432.9	433.1
120°	463.2	464.3	465.2	466.1	467.1	467.7	467.9	468.1	468.3	468.5	468.5
122.5°	499.6	499.9	500.2	500.6	500.9	501.4	501.9	502.4	502.9	503.4	503.3
125°	548.7	549.9	551.0	552.2	553.4	554.1	554.3	554.5	554.7	554.8	554.5
127.5°	601.1	601.8	602.4	603.0	603.7	604.2	604.4	604.7	604.9	605.1	604.9
130°	632.5	633.4	634.5	635.4	636.4	637.1	637.5	637.8	638.3	638.6	638.4
132.5°	663.9	665.5	667.1	668.7	670.3	671.1	671.0	670.9	670.8	670.7	670.5
135°	713.6	714.8	715.9	717.1	718.3	718.9	719.2	719.4	719.5	719.7	719.7
137.5°	760.4	761.6	762.7	763.8	764.9	765.7	766.1	766.5	767.0	767.4	767.6
140°	790.4	791.3	792.4	793.3	794.3	795.0	795.7	796.3	796.8	797.4	797.8
142.5°	820.4	821.2	822.1	822.9	823.7	824.5	825.2	826.0	826.6	827.4	827.6
145°	864.5	865.3	866.1	866.9	867.6	868.3	868.9	869.5	870.1	870.6	870.6
147.5°	905.4	905.9	906.3	906.6	907.1	907.6	908.0	908.4	909.0	909.4	909.9
150°	932.6	932.5	932.2	932.0	931.9	932.1	932.9	933.7	934.4	935.2	935.2
152.5°	954.9	955.2	955.5	955.8	956.1	956.3	956.7	956.9	957.3	957.6	958.0
155°	989.3	989.3	989.3	989.3	989.3	989.4	989.6	989.8	990.0	990.2	991.0
157.5°	1020.0	1019.6	1019.2	1018.7	1018.3	1018.2	1018.4	1018.6	1018.8	1019.0	1019.8
160°	1038.2	1037.6	1037.0	1036.5	1035.9	1035.7	1035.9	1036.0	1036.2	1036.5	1037.2
162.5°	1054.2	1053.8	1053.3	1052.9	1052.5	1052.3	1052.4	1052.4	1052.5	1052.5	1053.4
165°	1075.7	1075.3	1074.9	1074.5	1074.1	1074.0	1074.3	1074.4	1074.6	1074.8	1075.6
167.5°	1093.8	1093.0	1092.3	1091.5	1090.7	1090.4	1090.4	1090.4	1090.4	1090.4	1091.5
170°	1103.6	1102.9	1102.1	1101.3	1100.5	1100.1	1100.1	1100.1	1100.1	1100.1	1101.3
172.5°	1110.6	1109.8	1109.1	1108.3	1107.5	1107.1	1107.1	1107.1	1107.1	1107.1	1108.3
175°	1118.4	1117.7	1116.9	1116.1	1115.3	1114.9	1114.9	1114.9	1114.9	1114.9	1116.1
177.5°	1122.5	1121.8	1121.2	1120.6	1120.0	1119.6	1119.4	1119.3	1119.1	1119.0	1119.9
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0



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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°	13.9	14.1	14.3	14.4	14.3	14.3	14.2	14.2
90°	15.9	16.9	17.8	18.6	19.2	19.8	20.3	20.9
92.5°	36.1	37.4	38.7	39.4	39.9	40.3	40.7	41.2
95°	69.9	71.2	72.6	73.4	73.9	74.2	74.6	75.0
97.5°	109.5	110.8	112.1	112.8	113.0	113.3	113.6	113.7
100°	137.0	138.7	140.4	141.5	141.9	142.3	142.7	143.1
102.5°	165.2	167.1	169.0	170.2	170.7	171.3	171.9	172.4
105°	210.9	212.0	213.2	214.0	214.6	215.2	215.8	216.4
107.5°	260.1	260.7	261.2	261.6	261.5	261.5	261.4	261.4
110°	294.3	294.9	295.5	295.7	295.5	295.2	295.1	294.9





TEST NUMBER: P333691-935

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	328.6	328.8	329.1	329.1	328.7	328.4	328.0	327.7
115°	380.8	380.6	380.5	380.3	380.0	379.9	379.7	379.5
117.5°	433.2	433.3	433.5	433.2	432.4	431.6	430.8	430.1
120°	468.5	468.5	468.5	468.1	467.4	466.6	465.8	465.0
122.5°	503.1	502.9	502.7	502.4	501.8	501.1	500.5	499.9
125°	554.1	553.7	553.3	553.0	552.8	552.6	552.4	552.2
127.5°	604.7	604.5	604.3	604.1	603.6	603.3	602.9	602.5
130°	638.3	638.0	637.8	637.6	637.1	636.8	636.4	636.0
132.5°	670.3	670.1	669.9	669.6	669.0	668.5	668.0	667.4
135°	719.7	719.7	719.7	719.4	718.6	717.8	717.0	716.3
137.5°	767.8	768.1	768.3	767.9	767.0	766.0	765.0	764.1
140°	798.1	798.6	798.9	798.7	797.7	796.7	795.7	794.8
142.5°	827.9	828.1	828.4	827.9	827.0	826.0	825.1	824.1
145°	870.6	870.6	870.6	870.4	869.8	869.2	868.7	868.1
147.5°	910.3	910.8	911.3	910.9	909.6	908.2	906.9	905.6
150°	935.2	935.2	935.2	935.0	934.6	934.3	933.8	933.5
152.5°	958.5	959.0	959.4	959.3	958.6	957.9	957.2	956.5
155°	991.8	992.6	993.3	993.2	992.2	991.3	990.3	989.3
157.5°	1020.5	1021.3	1022.1	1021.8	1020.5	1019.3	1018.0	1016.8
160°	1038.0	1038.8	1039.6	1039.4	1038.5	1037.5	1036.6	1035.5
162.5°	1054.4	1055.2	1056.2	1056.1	1055.0	1053.9	1052.7	1051.6
165°	1076.3	1077.1	1077.9	1077.7	1076.6	1075.4	1074.3	1073.1
167.5°	1092.7	1093.8	1095.0	1095.0	1093.8	1092.6	1091.4	1090.2
170°	1102.4	1103.6	1104.7	1104.7	1103.3	1102.0	1100.6	1099.2
172.5°	1109.4	1110.6	1111.7	1111.7	1110.5	1109.3	1108.1	1106.9
175°	1117.2	1118.4	1119.6	1119.5	1118.2	1116.8	1115.4	1114.0
177.5°	1120.8	1121.8	1122.7	1122.6	1121.5	1120.4	1119.4	1118.3
180°	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0	1121.0

(END OF REPORT)