

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: P333690-935

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333690-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
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-F  
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, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6406.7 lumens  
Efficiency: N/A  
Efficacy: 121.8 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

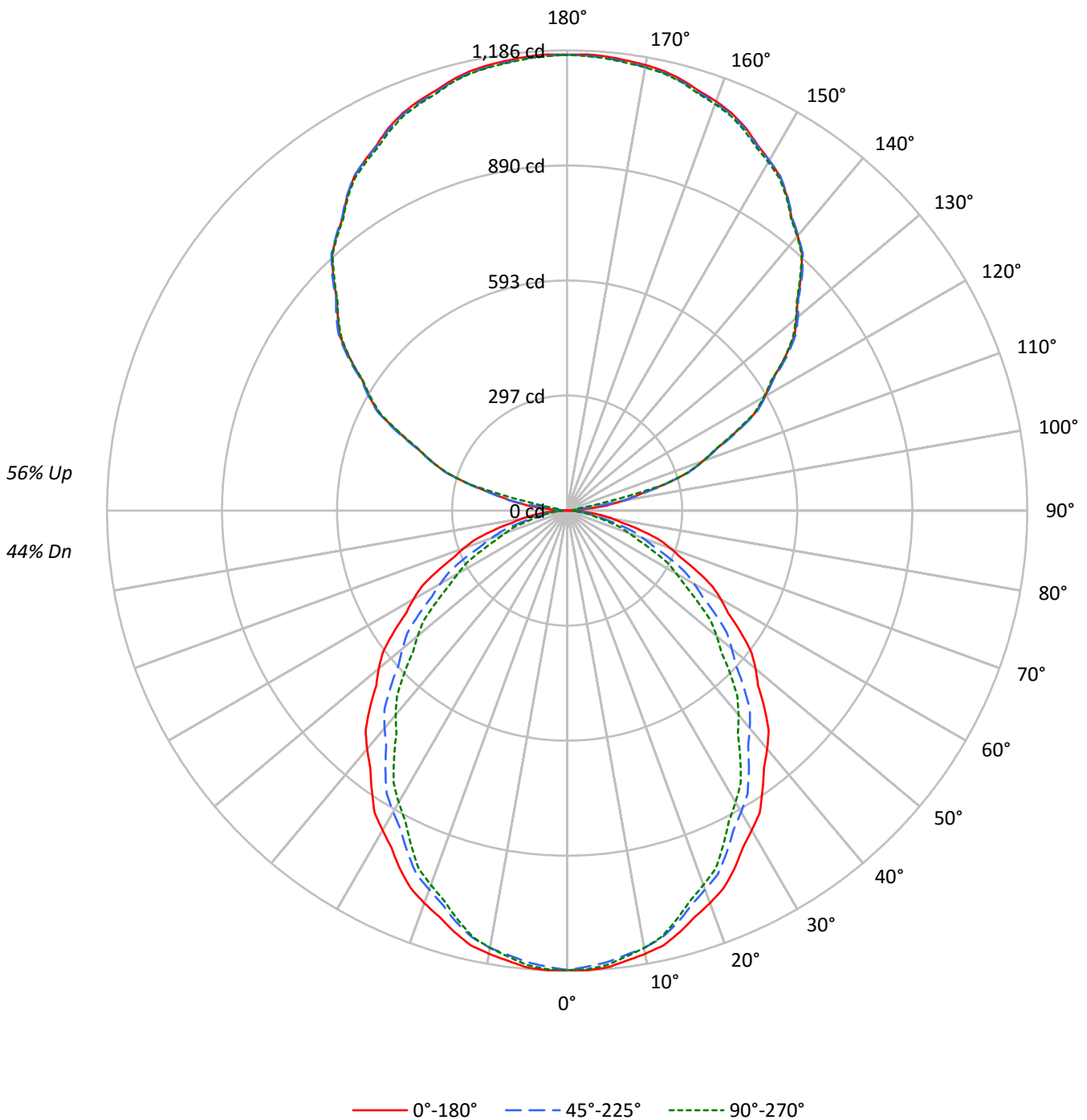
Input Watts (W): 52.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44
1	97	92	89	85	88	85	81	79	70	68	66	57	55	54	45	44	43	37
2	88	81	75	70	80	74	69	65	62	58	55	50	48	45	40	38	36	31
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	35	33	31	27
4	74	63	55	49	67	58	51	46	49	44	40	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	40	44	38	34	36	32	29	29	26	24	20
6	62	50	42	37	57	47	40	34	39	34	30	32	28	25	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	29	49	38	31	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	20	17	15	13
10	46	35	27	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

**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	1.7
10°-20°	311.1	4.9
20°-30°	451.2	7.0
30°-40°	514.2	8.0
40°-50°	501.2	7.8
50°-60°	421.9	6.6
60°-70°	295.7	4.6
70°-80°	152.0	2.4
80°-90°	40.8	0.6
90°-100°	42.7	0.7
100°-110°	263.1	4.1
110°-120°	477.1	7.4
120°-130°	612.4	9.6
130°-140°	658.7	10.3
140°-150°	618.2	9.6
150°-160°	500.1	7.8
160°-170°	323.4	5.0
170°-180°	111.6	1.7
0°-30°	873.6	13.6
0°-40°	1387.8	21.7
0°-60°	2310.8	36.1
0°-90°	2799.4	43.7
90°-120°	782.9	12.2
90°-150°	2672.2	41.7
90°-180°	3607.0	56.3
0°-180°	6406.7	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	4
95°	50	45	14	18	18	63
105°	256	259	260	259	259	271
115°	481	485	486	482	477	476
125°	684	689	690	686	684	610
135°	852	857	856	854	849	657
145°	988	990	990	991	986	618
155°	1088	1084	1085	1087	1081	501
165°	1149	1144	1144	1149	1142	324
175°	1175	1170	1170	1177	1170	112
180°	1175	1175	1175	1175	1175	



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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	11.2	12.6	13.9	14.9
92.5°	13.4	12.3	11.3	10.2	9.0	9.1	10.3	11.5	12.7	13.9	14.9
95°	49.6	49.1	48.5	47.9	47.4	43.3	36.0	28.7	21.3	13.9	14.9
97.5°	103.7	104.7	105.7	106.8	107.8	101.1	86.5	72.0	57.4	42.9	37.4
100°	145.4	146.0	146.5	147.1	147.7	148.4	149.2	150.0	150.8	151.5	122.7
102.5°	188.0	188.6	189.4	190.1	190.9	191.5	191.9	192.3	192.9	193.3	187.9
105°	256.0	256.8	257.5	258.3	259.1	259.5	259.5	259.5	259.5	259.5	259.5
107.5°	326.7	326.7	326.7	326.7	326.7	326.9	327.3	327.7	328.0	328.5	328.5
110°	372.7	372.7	372.7	372.7	372.7	372.9	373.2	373.7	374.0	374.4	373.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	415.9	416.4	416.8	417.2	417.8	418.1	418.4	418.5	418.8	419.0	418.3
115°	480.7	481.6	482.6	483.5	484.6	485.1	485.3	485.5	485.7	485.9	485.1
117.5°	547.8	547.7	547.7	547.6	547.6	547.9	548.6	549.4	550.1	550.9	549.8
120°	589.5	589.4	589.1	588.9	588.8	588.9	589.5	590.1	590.6	591.2	590.9
122.5°	626.5	627.2	627.9	628.6	629.4	629.9	630.2	630.4	630.7	630.9	630.6
125°	683.5	684.9	686.3	687.6	689.0	689.7	689.7	689.7	689.7	689.7	688.9
127.5°	738.0	739.1	740.0	741.0	741.9	742.4	742.3	742.2	742.0	741.9	741.5
130°	771.5	772.5	773.4	774.4	775.4	775.9	776.2	776.4	776.5	776.7	776.2
132.5°	804.9	806.1	807.2	808.3	809.4	809.8	809.3	808.9	808.5	808.1	808.0
135°	852.5	853.7	854.8	856.0	857.1	857.6	857.1	856.8	856.4	856.0	855.6
137.5°	896.2	897.2	898.2	899.2	900.3	900.6	900.3	899.9	899.5	899.1	899.2
140°	924.8	925.1	925.6	925.9	926.3	926.4	926.3	926.0	925.8	925.7	926.0
142.5°	950.5	950.8	951.1	951.2	951.5	951.7	952.0	952.3	952.5	952.8	952.9
145°	988.3	988.8	989.1	989.5	989.9	990.1	990.1	990.1	990.1	990.1	990.3
147.5°	1021.4	1021.4	1021.3	1021.2	1021.1	1021.2	1021.4	1021.7	1021.9	1022.1	1022.4
150°	1042.3	1042.0	1041.6	1041.2	1040.8	1040.8	1041.2	1041.6	1042.0	1042.3	1042.8
152.5°	1062.6	1061.7	1060.8	1060.0	1059.1	1058.9	1059.3	1059.7	1060.1	1060.4	1060.8
155°	1088.5	1087.4	1086.2	1085.0	1083.8	1083.5	1083.8	1084.3	1084.6	1085.0	1085.5
157.5°	1108.5	1107.8	1107.2	1106.5	1105.7	1105.4	1105.4	1105.4	1105.5	1105.5	1106.2
160°	1122.5	1121.3	1120.2	1119.0	1117.8	1117.3	1117.5	1117.8	1117.9	1118.1	1118.9
162.5°	1133.6	1132.5	1131.3	1130.1	1128.9	1128.4	1128.7	1128.9	1129.0	1129.2	1130.3
165°	1148.6	1147.5	1146.2	1145.1	1143.9	1143.4	1143.7	1143.8	1144.0	1144.2	1145.4
167.5°	1159.7	1158.6	1157.4	1156.2	1154.9	1154.4	1154.6	1154.8	1155.0	1155.2	1156.6
170°	1166.0	1164.7	1163.3	1161.9	1160.5	1160.0	1160.2	1160.4	1160.5	1160.8	1162.4
172.5°	1170.2	1168.8	1167.4	1166.1	1164.8	1164.2	1164.6	1164.9	1165.3	1165.6	1167.0
175°	1174.7	1173.5	1172.3	1171.2	1170.0	1169.6	1169.8	1169.9	1170.2	1170.4	1171.9
177.5°	1176.8	1175.9	1174.9	1174.0	1173.1	1172.7	1172.9	1173.0	1173.1	1173.3	1174.4
180°	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7



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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°	15.8	16.9	17.8	18.6	19.2	19.7	20.3	20.9
92.5°	15.8	16.9	17.8	18.4	18.7	18.9	19.2	19.5
95°	15.8	16.9	17.8	18.3	18.3	18.3	18.3	18.3
97.5°	31.9	26.4	21.0	18.3	18.3	18.3	18.3	18.3
100°	93.8	65.0	36.2	21.4	20.6	19.8	19.0	18.3
102.5°	182.4	176.9	171.5	162.2	149.0	135.9	122.7	109.5
105°	259.5	259.5	259.5	259.4	259.2	259.0	258.8	258.6
107.5°	328.6	328.6	328.6	328.4	327.8	327.2	326.6	326.1
110°	373.2	372.7	372.1	372.0	372.1	372.3	372.5	372.7





TEST NUMBER: P333690-935

CATALOG NUMBER: S125RDIW-S850D1050U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	417.6	416.8	416.1	415.6	415.3	415.0	414.7	414.5
115°	484.3	483.5	482.8	481.8	480.7	479.5	478.4	477.2
117.5°	548.9	547.9	546.8	546.0	545.6	545.1	544.6	544.1
120°	590.5	590.1	589.7	589.0	588.1	587.1	586.2	585.1
122.5°	630.2	629.8	629.4	628.7	627.6	626.5	625.3	624.2
125°	688.1	687.3	686.6	685.9	685.4	684.8	684.2	683.5
127.5°	741.1	740.6	740.2	739.3	737.9	736.4	734.9	733.6
130°	775.6	775.0	774.4	773.6	772.7	771.7	770.8	769.8
132.5°	807.9	807.7	807.6	807.1	806.2	805.1	804.2	803.2
135°	855.2	854.8	854.5	853.7	852.5	851.4	850.2	849.0
137.5°	899.3	899.4	899.5	899.1	898.0	897.0	896.0	895.0
140°	926.4	926.8	927.2	926.8	925.7	924.5	923.3	922.1
142.5°	953.0	953.0	953.1	952.6	951.4	950.3	949.1	948.0
145°	990.5	990.7	990.8	990.4	989.2	988.1	986.9	985.8
147.5°	1022.6	1022.9	1023.0	1022.5	1021.1	1019.7	1018.3	1016.9
150°	1043.1	1043.5	1043.9	1043.3	1041.7	1040.2	1038.6	1037.1
152.5°	1061.2	1061.6	1062.0	1061.5	1060.1	1058.7	1057.3	1055.9
155°	1086.2	1086.8	1087.4	1086.8	1085.3	1083.7	1082.2	1080.6
157.5°	1106.8	1107.4	1108.0	1107.6	1106.0	1104.5	1102.9	1101.4
160°	1119.6	1120.4	1121.2	1120.8	1119.3	1117.8	1116.2	1114.7
162.5°	1131.4	1132.5	1133.6	1133.2	1131.5	1129.9	1128.2	1126.4
165°	1146.5	1147.7	1148.8	1148.7	1147.1	1145.6	1144.0	1142.5
167.5°	1158.0	1159.3	1160.8	1160.6	1158.8	1157.1	1155.4	1153.7
170°	1163.9	1165.4	1167.0	1166.8	1165.1	1163.4	1161.7	1159.9
172.5°	1168.5	1169.8	1171.2	1171.0	1169.3	1167.5	1165.8	1164.1
175°	1173.5	1175.0	1176.6	1176.5	1174.7	1172.9	1171.2	1169.5
177.5°	1175.4	1176.6	1177.7	1177.6	1176.3	1175.1	1173.9	1172.6
180°	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7	1174.7

(END OF REPORT)