

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: P333423-940

Luminaire Tested: **S125DIW-S850D1340U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333423-940  
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-S850D1340U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH 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: 7196.9 lumens  
Efficiency: N/A  
Efficacy: 117.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

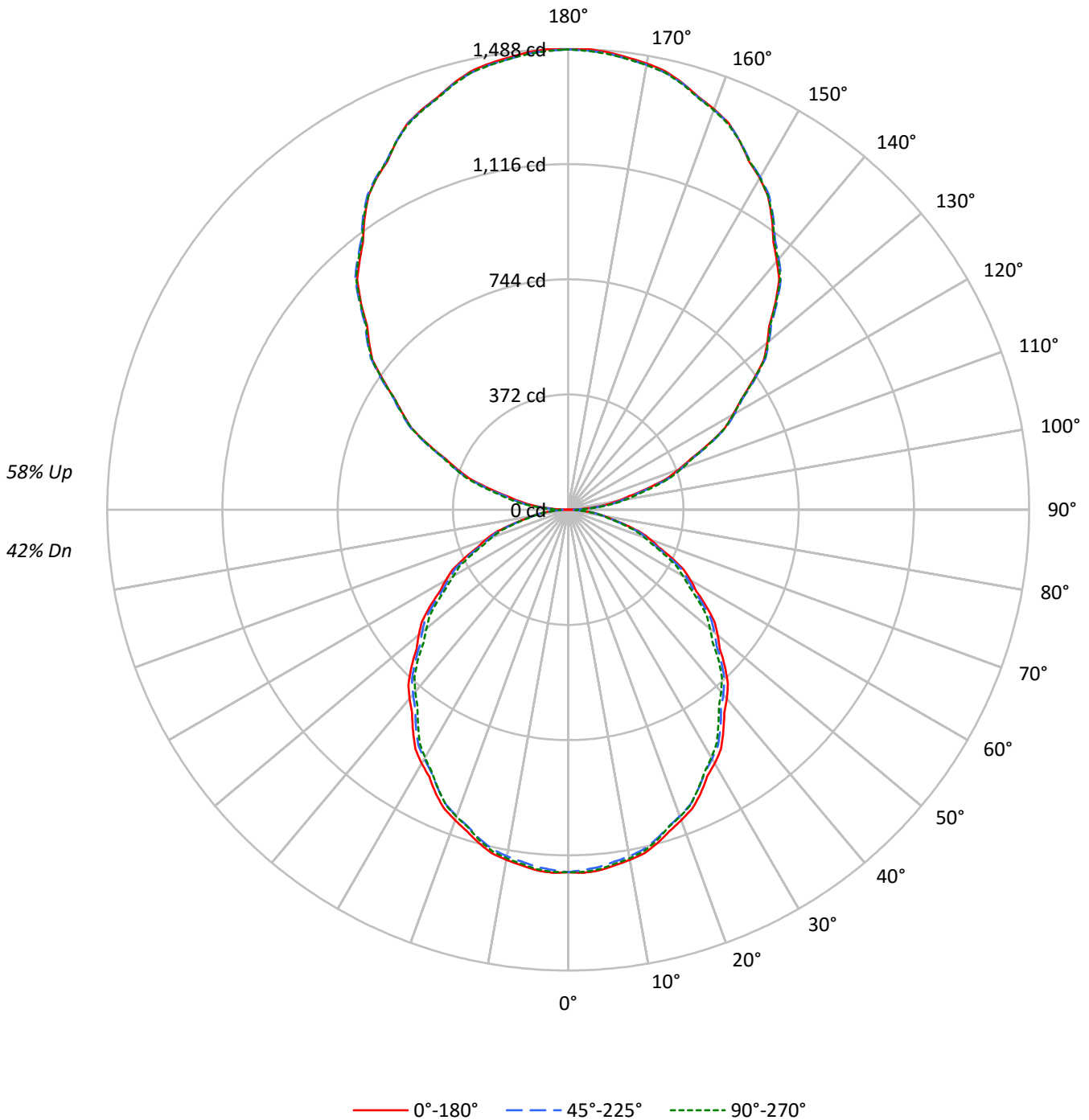
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	50	30	10	0														
RCR																																						
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42																				
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36																				
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30																				
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25																				
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22																				
5	67	55	47	41	61	51	44	39	42	37	33	34	31	27	27	24	22	19																				
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	19	16																				
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	22	20	17	15																				
8	53	41	33	28	48	37	31	26	31	26	22	26	22	19	21	18	15	13																				
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12																				
10	46	34	27	22	42	31	25	21	26	21	18	22	18	15	18	15	13	11																				

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

	0°	45°	90°
0°	7559	7559	7559
5°	7577	7505	7553
10°	7531	7452	7494
15°	7449	7362	7393
20°	7332	7236	7249
25°	7207	7088	7081
30°	7052	6927	6893
35°	6885	6754	6659
40°	6715	6566	6473
45°	6530	6395	6268
50°	6327	6187	6002
55°	6132	5954	5788
60°	5898	5717	5515
65°	5619	5434	5251
70°	5351	5108	4932
75°	4876	4716	4551
80°	4340	4273	4169
85°	3772	3846	3631



TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.4	1.5
10°-20°	311.8	4.3
20°-30°	460.3	6.4
30°-40°	537.2	7.5
40°-50°	539.5	7.5
50°-60°	473.6	6.6
60°-70°	352.9	4.9
70°-80°	201.8	2.8
80°-90°	62.0	0.9
90°-100°	99.5	1.4
100°-110°	294.0	4.1
110°-120°	497.9	6.9
120°-130°	655.3	9.1
130°-140°	734.3	10.2
140°-150°	719.7	10.0
150°-160°	604.5	8.4
160°-170°	401.8	5.6
170°-180°	140.6	2.0
0°-30°	882.5	12.3
0°-40°	1419.6	19.7
0°-60°	2432.7	33.8
0°-90°	3049.3	42.4
90°-120°	891.4	12.4
90°-150°	3000.7	41.7
90°-180°	4148.0	57.6
0°-180°	7196.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1169	1166	1158	1165	1165	111
15°	1114	1111	1101	1106	1106	314
25°	1011	1006	995	996	994	465
35°	873	869	857	852	845	546
45°	715	711	700	690	686	551
55°	545	541	529	521	514	486
65°	368	365	356	348	344	365
75°	195	193	189	186	182	208
85°	51	52	52	51	49	57
90°	1	10	18	24	28	7
95°	75	78	89	97	100	80
105°	264	270	276	283	287	282
115°	499	503	506	504	503	493
125°	728	734	736	733	732	651
135°	946	953	954	954	950	729
145°	1146	1151	1154	1154	1151	716
155°	1312	1312	1313	1317	1312	604
165°	1426	1424	1425	1429	1423	402
175°	1483	1479	1478	1484	1477	141
180°	1486	1486	1486	1486	1486	



TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5
2.5°	1173.6	1173.0	1172.6	1172.1	1171.5	1170.5	1168.9	1167.2	1165.6	1164.0	1165.6
5°	1168.8	1168.3	1167.9	1167.5	1167.1	1165.8	1163.8	1161.7	1159.7	1157.6	1159.5
7.5°	1158.0	1157.6	1157.2	1156.7	1156.4	1155.0	1152.7	1150.5	1148.3	1145.9	1147.7
10°	1148.3	1148.0	1147.5	1147.1	1146.7	1145.4	1143.1	1140.9	1138.6	1136.3	1138.0
12.5°	1136.5	1135.8	1135.1	1134.3	1133.5	1132.1	1130.1	1127.9	1125.8	1123.7	1125.1
15°	1114.1	1113.5	1112.9	1112.2	1111.6	1110.2	1108.0	1105.6	1103.4	1101.1	1102.2
17.5°	1088.3	1087.4	1086.5	1085.7	1084.8	1083.1	1080.8	1078.4	1076.0	1073.7	1075.0
20°	1066.8	1066.5	1066.0	1065.6	1065.2	1063.6	1061.0	1058.3	1055.6	1052.9	1054.4
22.5°	1045.4	1044.6	1043.9	1043.1	1042.4	1040.8	1038.3	1035.7	1033.2	1030.7	1031.7
25°	1011.3	1010.3	1009.2	1008.2	1007.2	1005.3	1002.6	1000.0	997.3	994.6	995.1
27.5°	971.4	970.9	970.3	969.6	969.0	967.3	964.6	961.8	959.0	956.3	956.4
30°	945.6	944.9	944.3	943.7	943.1	941.2	938.2	935.0	931.9	928.9	928.4
32.5°	917.4	916.4	915.5	914.5	913.6	911.8	909.0	906.2	903.5	900.7	900.0
35°	873.3	872.4	871.6	870.8	870.0	868.2	865.3	862.4	859.5	856.7	855.6
37.5°	827.6	826.5	825.5	824.5	823.4	821.5	818.9	816.1	813.4	810.7	809.1
40°	796.5	795.4	794.4	793.4	792.3	790.4	787.5	784.6	781.8	778.8	777.0
42.5°	763.1	762.2	761.3	760.5	759.6	757.8	754.9	752.0	749.1	746.3	744.6
45°	715.0	714.1	713.3	712.5	711.7	710.0	707.6	705.1	702.6	700.2	697.7
47.5°	663.1	663.2	663.2	663.2	663.3	661.8	658.8	655.9	652.9	650.0	647.4
50°	629.7	629.1	628.5	627.9	627.3	625.7	623.3	620.8	618.3	615.8	613.1
52.5°	595.7	595.2	594.8	594.3	593.9	592.3	589.7	587.0	584.4	581.8	579.4
55°	544.6	543.9	543.3	542.7	542.1	540.3	537.4	534.6	531.6	528.8	526.9
57.5°	490.6	490.4	490.0	489.6	489.4	487.9	485.5	483.1	480.6	478.2	475.8
60°	456.6	455.8	455.0	454.1	453.3	451.7	449.4	447.2	445.0	442.6	440.6
62.5°	421.0	420.4	419.7	419.0	418.4	417.1	415.2	413.2	411.3	409.3	407.2
65°	367.7	367.2	366.8	366.4	366.0	364.7	362.4	360.2	357.8	355.6	353.7
67.5°	316.0	315.1	314.2	313.3	312.5	311.2	309.6	307.9	306.2	304.5	302.9
70°	283.4	282.3	281.3	280.3	279.3	277.9	276.0	274.1	272.2	270.5	269.2
72.5°	247.8	247.1	246.4	245.8	245.0	244.1	242.9	241.7	240.5	239.3	237.9
75°	195.4	195.0	194.6	194.2	193.8	193.1	192.0	191.0	189.9	189.0	188.3
77.5°	147.0	146.9	146.8	146.6	146.4	146.1	145.4	144.9	144.3	143.7	143.4
80°	116.7	116.7	116.7	116.7	116.7	116.5	116.1	115.7	115.2	114.9	114.7
82.5°	90.0	89.7	89.3	89.0	88.7	88.5	88.4	88.4	88.3	88.2	87.8
85°	50.9	51.2	51.4	51.5	51.7	51.9	51.9	51.9	51.9	51.9	51.6
87.5°	20.2	20.7	21.0	21.5	21.8	22.2	22.4	22.6	22.7	23.0	23.2
90°	1.2	3.2	5.3	7.3	9.4	11.3	13.1	14.9	16.7	18.5	19.8
92.5°	28.0	29.4	30.9	32.3	33.7	35.6	37.8	40.0	42.2	44.4	46.1
95°	75.2	75.7	76.2	76.7	77.2	78.8	81.3	83.9	86.5	89.1	90.9
97.5°	124.9	125.1	125.4	125.6	125.7	127.6	131.2	134.7	138.3	141.8	143.5
100°	161.9	161.9	161.9	161.9	161.9	163.6	166.9	170.3	173.6	177.0	179.3
102.5°	201.7	202.8	203.8	204.8	205.8	207.2	208.9	210.6	212.3	214.0	216.5
105°	263.8	265.0	266.3	267.6	268.9	270.3	271.8	273.4	274.9	276.4	278.0
107.5°	332.2	333.5	334.7	336.1	337.3	338.6	339.7	340.9	342.1	343.3	344.1
110°	379.4	380.7	382.0	383.3	384.5	385.6	386.4	387.1	387.9	388.6	389.4



TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	427.5	428.2	428.8	429.5	430.2	431.1	431.9	432.9	433.9	434.9	435.2
115°	498.6	499.5	500.6	501.6	502.7	503.5	503.9	504.4	505.0	505.5	505.2
117.5°	569.8	570.2	570.7	571.1	571.7	572.1	572.6	573.0	573.5	574.0	574.2
120°	614.2	615.5	616.8	618.0	619.4	620.1	620.4	620.6	620.9	621.2	621.2
122.5°	662.4	662.8	663.3	663.7	664.1	664.8	665.4	666.1	666.7	667.4	667.2
125°	727.5	729.1	730.7	732.2	733.7	734.6	734.9	735.1	735.4	735.7	735.1
127.5°	796.9	797.8	798.7	799.6	800.5	801.0	801.4	801.6	802.0	802.3	802.0
130°	838.6	839.9	841.2	842.5	843.7	844.6	845.2	845.7	846.1	846.7	846.4
132.5°	880.2	882.3	884.5	886.5	888.7	889.7	889.6	889.5	889.4	889.3	889.0
135°	946.2	947.7	949.2	950.8	952.3	953.2	953.5	953.8	954.0	954.3	954.3
137.5°	1008.2	1009.7	1011.2	1012.6	1014.1	1015.1	1015.7	1016.3	1016.9	1017.4	1017.7
140°	1047.9	1049.3	1050.5	1051.9	1053.1	1054.1	1054.9	1055.7	1056.4	1057.2	1057.7
142.5°	1087.8	1088.9	1089.9	1091.0	1092.1	1093.1	1094.0	1095.0	1096.0	1097.0	1097.3
145°	1146.3	1147.3	1148.3	1149.3	1150.4	1151.3	1152.1	1152.8	1153.6	1154.4	1154.4
147.5°	1200.4	1201.0	1201.6	1202.1	1202.7	1203.3	1203.9	1204.5	1205.1	1205.8	1206.4
150°	1236.5	1236.3	1236.0	1235.7	1235.5	1235.8	1236.9	1238.0	1238.9	1240.0	1240.0
152.5°	1266.1	1266.5	1266.9	1267.2	1267.6	1267.9	1268.4	1268.7	1269.2	1269.6	1270.2
155°	1311.7	1311.7	1311.7	1311.7	1311.7	1311.8	1312.1	1312.3	1312.6	1312.9	1313.8
157.5°	1352.4	1351.8	1351.3	1350.7	1350.1	1350.0	1350.2	1350.5	1350.8	1351.0	1352.0
160°	1376.4	1375.7	1374.9	1374.1	1373.4	1373.1	1373.4	1373.7	1373.9	1374.1	1375.2
162.5°	1397.8	1397.2	1396.6	1396.1	1395.5	1395.3	1395.3	1395.3	1395.3	1395.4	1396.7
165°	1426.2	1425.7	1425.1	1424.7	1424.2	1424.1	1424.2	1424.5	1424.8	1425.0	1426.1
167.5°	1450.3	1449.2	1448.2	1447.2	1446.2	1445.6	1445.6	1445.6	1445.6	1445.6	1447.2
170°	1463.2	1462.2	1461.2	1460.2	1459.1	1458.6	1458.6	1458.6	1458.6	1458.6	1460.2
172.5°	1472.5	1471.4	1470.4	1469.4	1468.4	1467.8	1467.8	1467.8	1467.8	1467.8	1469.4
175°	1482.9	1481.8	1480.9	1479.8	1478.8	1478.3	1478.3	1478.3	1478.3	1478.3	1479.8
177.5°	1488.2	1487.4	1486.6	1485.8	1484.9	1484.4	1484.2	1484.0	1483.8	1483.5	1484.8
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4



TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5	1170.5
2.5°	1167.2	1168.9	1170.5	1171.3	1171.1	1170.9	1170.7	1170.5
5°	1161.4	1163.1	1165.0	1165.8	1165.6	1165.5	1165.2	1165.0
7.5°	1149.6	1151.4	1153.2	1154.0	1153.8	1153.6	1153.3	1153.2
10°	1139.6	1141.3	1142.9	1143.6	1143.4	1143.2	1143.0	1142.8
12.5°	1126.3	1127.7	1129.0	1129.6	1129.6	1129.5	1129.5	1129.4
15°	1103.2	1104.2	1105.3	1105.7	1105.7	1105.7	1105.7	1105.7
17.5°	1076.3	1077.5	1078.8	1079.0	1077.9	1076.9	1075.8	1074.9
20°	1055.9	1057.3	1058.7	1058.9	1057.9	1056.9	1055.9	1054.8
22.5°	1032.6	1033.6	1034.6	1034.7	1033.9	1033.2	1032.5	1031.9
25°	995.4	995.9	996.3	996.1	995.6	995.0	994.3	993.7
27.5°	956.4	956.5	956.6	956.4	955.7	955.1	954.5	953.9
30°	928.1	927.6	927.2	926.8	926.1	925.5	924.9	924.3
32.5°	899.2	898.5	897.8	896.8	895.7	894.6	893.5	892.4
35°	854.6	853.5	852.6	851.2	849.5	847.9	846.2	844.6
37.5°	807.6	806.1	804.6	803.3	802.5	801.5	800.6	799.6
40°	775.2	773.3	771.4	770.2	769.5	769.0	768.4	767.8
42.5°	742.9	741.2	739.5	738.2	737.3	736.3	735.3	734.4
45°	695.2	692.7	690.3	688.7	688.1	687.5	686.9	686.3
47.5°	644.9	642.4	639.9	637.9	636.5	635.1	633.6	632.1
50°	610.5	607.8	605.1	603.1	601.6	600.2	598.8	597.4
52.5°	577.1	574.7	572.4	570.4	568.8	567.2	565.6	564.0
55°	525.1	523.3	521.4	519.8	518.3	516.8	515.4	514.0
57.5°	473.5	471.1	468.7	467.1	466.3	465.6	464.8	464.0
60°	438.5	436.5	434.4	432.7	431.2	429.8	428.4	427.0
62.5°	404.9	402.7	400.5	398.8	397.7	396.5	395.5	394.3
65°	352.0	350.1	348.2	346.9	346.1	345.3	344.4	343.6
67.5°	301.4	299.8	298.3	297.2	296.8	296.2	295.7	295.2
70°	268.0	266.7	265.5	264.5	263.6	262.8	262.0	261.2
72.5°	236.5	235.1	233.7	232.6	231.8	231.0	230.2	229.3
75°	187.7	187.1	186.5	185.7	184.9	184.0	183.2	182.4
77.5°	143.0	142.6	142.2	141.8	141.2	140.6	140.1	139.5
80°	114.4	114.2	114.0	113.7	113.3	112.9	112.4	112.1
82.5°	87.4	87.0	86.7	86.5	86.4	86.3	86.2	86.1
85°	51.5	51.3	51.0	50.7	50.3	49.9	49.5	49.0
87.5°	23.5	23.7	24.0	24.1	23.9	23.7	23.5	23.4
90°	21.0	22.4	23.6	24.7	25.4	26.2	27.0	27.7
92.5°	47.8	49.5	51.2	52.3	52.9	53.5	54.0	54.6
95°	92.6	94.4	96.3	97.4	97.9	98.4	99.0	99.5
97.5°	145.2	146.9	148.6	149.6	149.9	150.3	150.5	150.9
100°	181.6	183.9	186.2	187.6	188.2	188.7	189.2	189.7
102.5°	219.0	221.5	224.1	225.7	226.4	227.1	227.8	228.5
105°	279.6	281.1	282.6	283.7	284.5	285.3	286.1	286.9
107.5°	344.8	345.6	346.4	346.8	346.7	346.6	346.6	346.5
110°	390.2	390.9	391.7	392.0	391.7	391.5	391.2	390.9





TEST NUMBER: P333423-940

CATALOG NUMBER: S125DIW-S850D1340U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	435.6	436.0	436.3	436.3	435.9	435.4	434.9	434.4
115°	505.0	504.7	504.4	504.2	503.9	503.6	503.5	503.2
117.5°	574.4	574.5	574.8	574.4	573.4	572.3	571.3	570.2
120°	621.2	621.2	621.2	620.6	619.6	618.6	617.5	616.5
122.5°	667.0	666.8	666.6	666.1	665.2	664.4	663.6	662.8
125°	734.6	734.1	733.6	733.3	733.0	732.7	732.5	732.2
127.5°	801.7	801.5	801.3	800.8	800.4	799.9	799.3	798.8
130°	846.1	846.0	845.7	845.3	844.8	844.3	843.7	843.2
132.5°	888.8	888.5	888.2	887.8	887.1	886.3	885.6	884.8
135°	954.3	954.3	954.3	953.8	952.7	951.7	950.7	949.7
137.5°	1018.1	1018.3	1018.7	1018.2	1016.9	1015.6	1014.3	1013.1
140°	1058.3	1058.7	1059.3	1058.9	1057.6	1056.3	1055.1	1053.7
142.5°	1097.6	1098.0	1098.2	1097.8	1096.4	1095.2	1093.9	1092.6
145°	1154.4	1154.4	1154.4	1154.0	1153.2	1152.4	1151.6	1150.9
147.5°	1206.9	1207.6	1208.2	1207.6	1205.9	1204.2	1202.4	1200.7
150°	1240.0	1240.0	1240.0	1239.7	1239.2	1238.7	1238.1	1237.7
152.5°	1270.8	1271.4	1272.0	1271.9	1271.0	1270.1	1269.1	1268.2
155°	1314.9	1315.9	1317.0	1316.8	1315.5	1314.3	1313.0	1311.7
157.5°	1353.1	1354.1	1355.1	1354.8	1353.1	1351.4	1349.7	1348.0
160°	1376.2	1377.2	1378.2	1378.1	1376.9	1375.6	1374.3	1373.0
162.5°	1397.9	1399.1	1400.3	1400.3	1398.7	1397.2	1395.8	1394.3
165°	1427.1	1428.2	1429.1	1428.9	1427.4	1425.8	1424.2	1422.7
167.5°	1448.8	1450.3	1451.8	1451.8	1450.2	1448.6	1447.0	1445.4
170°	1461.7	1463.2	1464.7	1464.6	1462.9	1461.1	1459.2	1457.4
172.5°	1471.0	1472.5	1474.0	1474.0	1472.4	1470.8	1469.2	1467.6
175°	1481.3	1482.9	1484.4	1484.3	1482.5	1480.7	1478.9	1477.1
177.5°	1486.0	1487.3	1488.5	1488.4	1486.9	1485.5	1484.1	1482.6
180°	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4	1486.4

(END OF REPORT)