

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: P333694-935

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333694-935
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-S850D1340U935-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7418.1 lumens
Efficiency: N/A
Efficacy: 120.8 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: Semi-Indirect

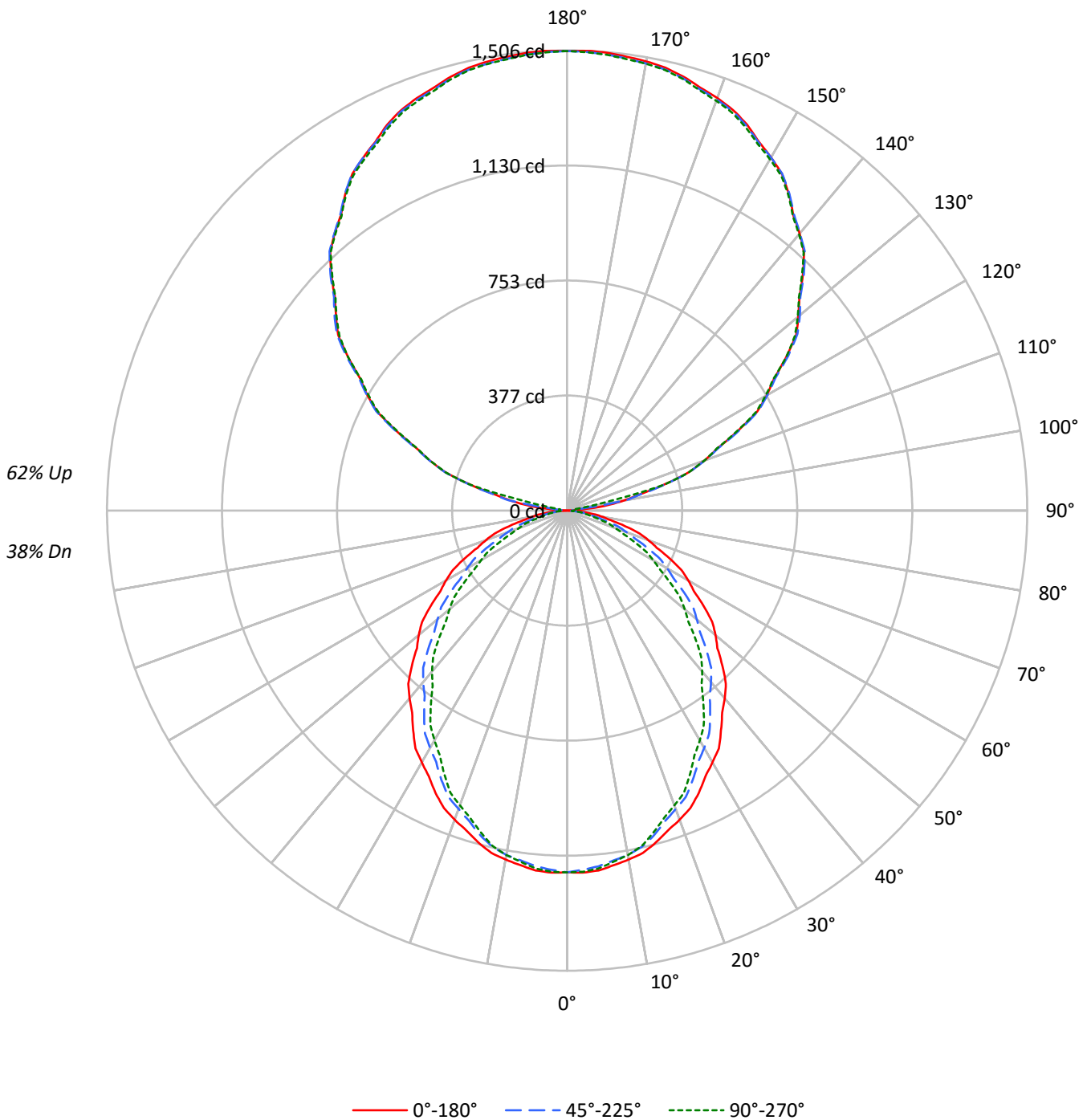
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32
2	87	80	74	69	79	72	67	63	59	56	52	47	44	42	35	34	32	27
3	79	70	63	57	72	64	58	53	52	48	44	41	38	36	31	29	28	23
4	73	62	54	49	66	57	50	45	46	42	38	37	34	31	28	26	24	20
5	67	55	47	42	60	51	44	39	42	36	33	33	30	27	25	23	21	17
6	61	50	42	36	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	57	45	37	32	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	52	41	33	28	48	37	31	26	31	26	22	25	21	18	19	17	15	12
9	49	37	30	25	44	34	27	23	28	23	20	23	19	17	18	15	13	11
10	46	34	27	22	41	31	25	21	26	21	18	21	18	15	17	14	12	10

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



TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	1.5
10°-20°	311.1	4.2
20°-30°	451.2	6.1
30°-40°	514.2	6.9
40°-50°	501.2	6.8
50°-60°	421.9	5.7
60°-70°	295.7	4.0
70°-80°	152.0	2.0
80°-90°	41.5	0.6
90°-100°	54.6	0.7
100°-110°	336.8	4.5
110°-120°	610.9	8.2
120°-130°	783.9	10.6
130°-140°	843.2	11.4
140°-150°	791.5	10.7
150°-160°	640.2	8.6
160°-170°	414.1	5.6
170°-180°	142.8	1.9
0°-30°	873.6	11.8
0°-40°	1387.8	18.7
0°-60°	2310.8	31.2
0°-90°	2800.1	37.7
90°-120°	1002.3	13.5
90°-150°	3420.9	46.1
90°-180°	4618.0	62.3
0°-180°	7418.1	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	5
95°	64	58	18	23	23	81
105°	328	332	332	332	331	347
115°	615	621	622	617	611	610
125°	875	882	883	878	875	781
135°	1091	1098	1096	1093	1087	841
145°	1265	1267	1268	1268	1262	791
155°	1393	1387	1389	1392	1384	642
165°	1470	1464	1465	1471	1463	415
175°	1504	1498	1498	1506	1497	143
180°	1504	1504	1504	1504	1504	



TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

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	17.8	19.1
92.5°	17.1	15.8	14.4	13.0	11.6	11.7	13.3	14.7	16.3	17.8	19.1
95°	63.5	62.8	62.1	61.3	60.5	55.4	46.1	36.7	27.2	17.8	19.1
97.5°	132.7	134.0	135.3	136.6	138.0	129.3	110.7	92.1	73.4	54.8	47.9
100°	186.1	186.9	187.6	188.4	189.2	190.0	191.0	192.0	193.0	194.0	157.0
102.5°	240.6	241.5	242.5	243.4	244.4	245.1	245.7	246.3	246.8	247.5	240.5
105°	327.8	328.7	329.8	330.7	331.7	332.2	332.2	332.2	332.2	332.2	332.2
107.5°	418.3	418.3	418.3	418.3	418.3	418.5	419.0	419.5	420.0	420.5	420.5
110°	477.2	477.2	477.2	477.2	477.2	477.3	477.9	478.4	478.9	479.3	478.6



TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	532.4	533.0	533.6	534.2	534.8	535.3	535.5	535.8	536.1	536.4	535.5
115°	615.4	616.6	617.9	619.1	620.4	621.0	621.3	621.6	621.8	622.1	621.0
117.5°	701.2	701.1	701.1	701.0	701.0	701.5	702.4	703.4	704.3	705.2	704.0
120°	754.7	754.5	754.2	754.0	753.7	754.0	754.7	755.4	756.2	756.9	756.5
122.5°	801.9	802.9	803.8	804.8	805.7	806.4	806.8	807.1	807.4	807.8	807.3
125°	875.1	876.8	878.6	880.3	882.0	882.9	882.9	882.9	882.9	882.9	881.9
127.5°	944.9	946.2	947.4	948.6	949.9	950.4	950.2	950.1	949.9	949.8	949.3
130°	987.7	988.9	990.2	991.4	992.6	993.4	993.7	993.9	994.1	994.4	993.7
132.5°	1030.5	1031.9	1033.4	1034.8	1036.2	1036.7	1036.1	1035.6	1035.1	1034.5	1034.4
135°	1091.4	1092.9	1094.3	1095.8	1097.3	1097.8	1097.3	1096.8	1096.3	1095.8	1095.4
137.5°	1147.4	1148.6	1149.9	1151.2	1152.4	1152.9	1152.4	1152.0	1151.6	1151.2	1151.2
140°	1183.9	1184.4	1184.9	1185.3	1185.9	1186.0	1185.8	1185.5	1185.3	1185.0	1185.5
142.5°	1216.9	1217.2	1217.5	1217.8	1218.1	1218.4	1218.7	1219.1	1219.4	1219.8	1219.9
145°	1265.2	1265.8	1266.3	1266.8	1267.2	1267.5	1267.5	1267.5	1267.5	1267.5	1267.7
147.5°	1307.6	1307.5	1307.4	1307.3	1307.3	1307.3	1307.6	1307.9	1308.2	1308.5	1308.8
150°	1334.4	1333.9	1333.4	1332.9	1332.4	1332.4	1332.9	1333.4	1333.9	1334.4	1334.9
152.5°	1360.2	1359.2	1358.1	1357.0	1355.9	1355.6	1356.1	1356.6	1357.1	1357.5	1358.1
155°	1393.4	1392.0	1390.5	1389.1	1387.5	1387.1	1387.5	1388.0	1388.5	1389.1	1389.7
157.5°	1419.1	1418.2	1417.3	1416.4	1415.6	1415.1	1415.1	1415.2	1415.3	1415.3	1416.1
160°	1436.9	1435.5	1434.0	1432.4	1431.0	1430.4	1430.6	1430.9	1431.2	1431.4	1432.4
162.5°	1451.2	1449.8	1448.2	1446.7	1445.3	1444.7	1444.9	1445.2	1445.4	1445.6	1447.0
165°	1470.4	1468.9	1467.4	1465.9	1464.5	1463.8	1464.0	1464.3	1464.6	1464.8	1466.3
167.5°	1484.6	1483.2	1481.6	1480.1	1478.5	1477.9	1478.1	1478.3	1478.6	1478.9	1480.7
170°	1492.7	1491.0	1489.2	1487.5	1485.7	1485.0	1485.2	1485.5	1485.7	1486.0	1488.0
172.5°	1498.1	1496.3	1494.6	1492.8	1491.1	1490.5	1490.9	1491.3	1491.8	1492.2	1494.0
175°	1503.8	1502.4	1500.9	1499.3	1497.9	1497.3	1497.5	1497.8	1498.1	1498.2	1500.2
177.5°	1506.5	1505.3	1504.2	1503.0	1501.8	1501.2	1501.5	1501.7	1501.8	1502.0	1503.5
180°	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8



TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

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	15.3
90°	20.3	21.5	22.8	23.8	24.5	25.2	26.0	26.8
92.5°	20.3	21.5	22.8	23.6	23.9	24.3	24.6	25.0
95°	20.3	21.5	22.8	23.4	23.4	23.4	23.4	23.4
97.5°	40.9	33.9	26.9	23.4	23.4	23.4	23.4	23.4
100°	120.1	83.3	46.3	27.4	26.3	25.4	24.4	23.4
102.5°	233.5	226.5	219.6	207.6	190.8	173.9	157.0	140.3
105°	332.2	332.2	332.2	332.1	331.8	331.6	331.3	331.1
107.5°	420.6	420.7	420.7	420.3	419.6	418.9	418.1	417.4
110°	477.9	477.2	476.4	476.1	476.4	476.6	476.9	477.2



TEST NUMBER: P333694-935

CATALOG NUMBER: S125RDIW-S850D1340U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	534.5	533.6	532.7	532.0	531.7	531.3	531.0	530.6
115°	620.1	619.1	618.1	616.8	615.4	613.9	612.3	610.9
117.5°	702.7	701.4	700.1	699.0	698.4	697.8	697.2	696.5
120°	756.0	755.4	754.9	754.1	752.9	751.6	750.4	749.2
122.5°	806.8	806.2	805.8	804.8	803.4	801.9	800.5	799.1
125°	880.9	879.9	878.9	878.0	877.4	876.6	875.8	875.1
127.5°	948.7	948.1	947.6	946.4	944.6	942.8	940.9	939.1
130°	992.9	992.1	991.4	990.4	989.2	987.9	986.7	985.5
132.5°	1034.2	1034.1	1033.9	1033.2	1032.0	1030.8	1029.5	1028.3
135°	1094.8	1094.3	1093.8	1092.9	1091.4	1089.9	1088.4	1086.9
137.5°	1151.3	1151.4	1151.5	1150.9	1149.6	1148.3	1147.0	1145.7
140°	1186.0	1186.5	1187.0	1186.5	1185.0	1183.5	1182.1	1180.5
142.5°	1220.0	1220.1	1220.2	1219.5	1218.0	1216.5	1215.0	1213.6
145°	1268.0	1268.3	1268.5	1267.9	1266.4	1264.9	1263.4	1262.0
147.5°	1309.2	1309.4	1309.8	1309.0	1307.2	1305.4	1303.6	1301.8
150°	1335.4	1335.8	1336.4	1335.6	1333.6	1331.6	1329.6	1327.7
152.5°	1358.6	1359.1	1359.5	1358.9	1357.1	1355.4	1353.6	1351.8
155°	1390.5	1391.2	1392.0	1391.4	1389.4	1387.4	1385.4	1383.5
157.5°	1416.9	1417.7	1418.5	1417.9	1415.9	1413.9	1412.0	1410.0
160°	1433.4	1434.3	1435.4	1434.9	1432.9	1430.9	1428.9	1426.9
162.5°	1448.4	1449.8	1451.2	1450.8	1448.6	1446.4	1444.2	1442.1
165°	1467.7	1469.3	1470.8	1470.5	1468.5	1466.5	1464.6	1462.6
167.5°	1482.5	1484.2	1486.0	1485.7	1483.5	1481.4	1479.1	1476.9
170°	1490.0	1491.9	1493.9	1493.8	1491.6	1489.4	1487.1	1484.9
172.5°	1495.8	1497.6	1499.3	1499.2	1496.9	1494.7	1492.5	1490.2
175°	1502.2	1504.2	1506.1	1506.1	1503.8	1501.6	1499.3	1497.1
177.5°	1504.9	1506.2	1507.6	1507.5	1505.9	1504.3	1502.7	1501.2
180°	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8	1503.8

(END OF REPORT)