

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: P333699-935

Luminaire Tested: **S125RDIW-S850D1560U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333699-935  
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-S850D1560U935-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7456.7 lumens  
Efficiency: N/A  
Efficacy: 109.5 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

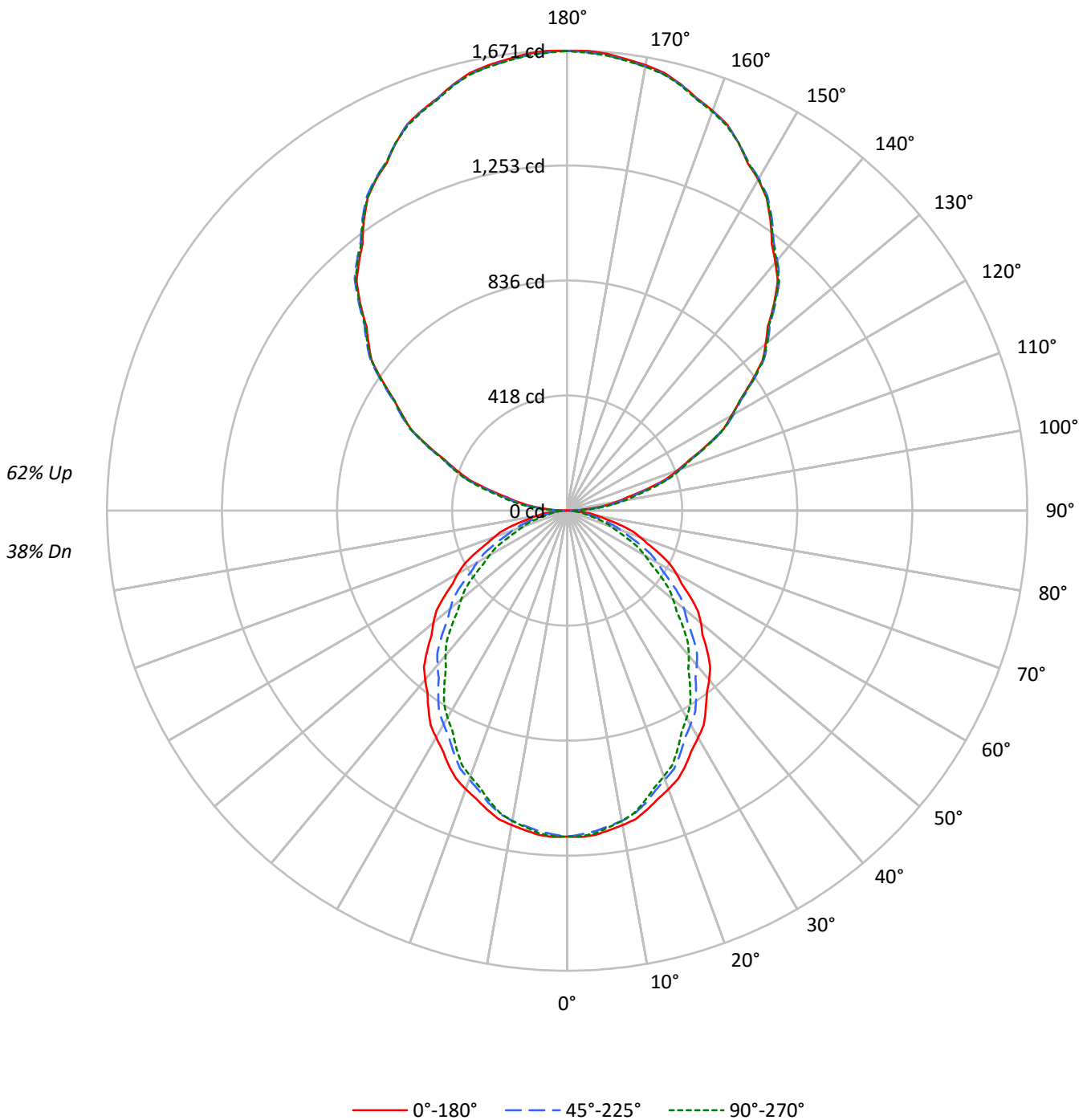
Input Watts (W): 68.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63	53	51	50	40	39	38	32
2	87	80	74	69	78	72	67	63	59	55	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	72	62	54	49	65	57	50	45	46	42	38	37	33	31	28	26	24	20
5	66	55	47	42	60	50	44	38	41	36	32	33	29	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	31	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	52	40	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	17	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



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**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	6.7
50°-60°	421.9	5.7
60°-70°	295.7	4.0
70°-80°	152.0	2.0
80°-90°	42.0	0.6
90°-100°	111.8	1.5
100°-110°	330.0	4.4
110°-120°	559.0	7.5
120°-130°	735.7	9.9
130°-140°	824.3	11.1
140°-150°	807.9	10.8
150°-160°	678.6	9.1
160°-170°	451.1	6.0
170°-180°	157.9	2.1
0°-30°	873.6	11.7
0°-40°	1387.8	18.6
0°-60°	2310.8	31.0
0°-90°	2800.6	37.6
90°-120°	1000.8	13.4
90°-150°	3368.6	45.2
90°-180°	4656.0	62.4
0°-180°	7456.7	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	12	21	27	31	7
95°	84	88	100	109	112	90
105°	296	303	310	318	322	316
115°	560	565	568	566	565	553
125°	817	824	826	823	822	731
135°	1062	1070	1071	1071	1066	818
145°	1287	1292	1296	1296	1292	804
155°	1473	1473	1474	1478	1473	678
165°	1601	1599	1600	1604	1597	451
175°	1665	1660	1660	1666	1658	158
180°	1669	1669	1669	1669	1669	



TEST NUMBER: P333699-935

CATALOG NUMBER: S125RDIW-S850D1560U935-4F0-1E-UDD-F1

**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	16.1	15.4	14.7	14.1	13.9	14.1	14.4	14.6	14.9	15.2
90°	1.3	3.6	5.9	8.3	10.5	12.7	14.7	16.7	18.8	20.8	22.2
92.5°	31.4	33.1	34.7	36.2	37.9	40.0	42.4	44.9	47.4	49.9	51.7
95°	84.4	85.0	85.6	86.1	86.7	88.4	91.4	94.2	97.1	100.0	102.0
97.5°	140.3	140.4	140.7	140.9	141.2	143.3	147.2	151.3	155.2	159.2	161.1
100°	181.8	181.8	181.8	181.8	181.8	183.7	187.4	191.1	194.9	198.6	201.3
102.5°	226.4	227.6	228.8	229.9	231.1	232.6	234.5	236.4	238.3	240.2	243.1
105°	296.1	297.5	298.9	300.4	301.9	303.4	305.1	306.9	308.6	310.4	312.1
107.5°	372.9	374.4	375.8	377.3	378.7	380.1	381.4	382.7	384.1	385.4	386.2
110°	425.9	427.4	428.8	430.2	431.7	432.8	433.7	434.5	435.4	436.3	437.1



TEST NUMBER: P333699-935

CATALOG NUMBER: S125RDIW-S850D1560U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	479.9	480.7	481.5	482.2	482.9	483.9	484.9	486.0	487.2	488.3	488.6
115°	559.6	560.9	562.0	563.1	564.3	565.2	565.8	566.3	566.9	567.5	567.1
117.5°	639.6	640.2	640.7	641.2	641.7	642.2	642.7	643.3	643.8	644.4	644.5
120°	689.5	691.0	692.4	693.9	695.3	696.1	696.5	696.7	697.0	697.3	697.3
122.5°	743.6	744.1	744.6	745.1	745.6	746.2	747.0	747.8	748.5	749.2	749.0
125°	816.7	818.5	820.3	822.0	823.7	824.8	825.0	825.3	825.6	825.9	825.3
127.5°	894.7	895.7	896.6	897.6	898.6	899.3	899.7	900.0	900.3	900.7	900.3
130°	941.4	942.9	944.3	945.7	947.2	948.2	948.8	949.3	949.9	950.5	950.2
132.5°	988.2	990.6	992.9	995.3	997.6	998.8	998.7	998.5	998.4	998.3	998.0
135°	1062.2	1063.9	1065.7	1067.4	1069.1	1070.1	1070.4	1070.7	1071.0	1071.3	1071.3
137.5°	1131.8	1133.5	1135.1	1136.8	1138.5	1139.6	1140.3	1140.9	1141.5	1142.2	1142.5
140°	1176.5	1177.9	1179.3	1180.8	1182.2	1183.4	1184.2	1185.2	1186.0	1186.9	1187.4
142.5°	1221.2	1222.4	1223.6	1224.8	1226.0	1227.1	1228.2	1229.3	1230.5	1231.5	1231.8
145°	1286.9	1288.0	1289.2	1290.3	1291.5	1292.4	1293.3	1294.2	1295.0	1295.9	1295.9
147.5°	1347.6	1348.2	1348.8	1349.5	1350.1	1350.8	1351.5	1352.2	1352.9	1353.6	1354.3
150°	1388.1	1387.8	1387.6	1387.2	1387.0	1387.4	1388.5	1389.7	1390.9	1392.1	1392.1
152.5°	1421.3	1421.8	1422.2	1422.5	1423.0	1423.4	1423.9	1424.4	1424.8	1425.3	1426.0
155°	1472.6	1472.6	1472.6	1472.6	1472.6	1472.7	1473.0	1473.3	1473.5	1473.9	1475.0
157.5°	1518.2	1517.6	1517.0	1516.3	1515.7	1515.5	1515.8	1516.1	1516.4	1516.7	1517.9
160°	1545.2	1544.4	1543.5	1542.7	1541.8	1541.5	1541.8	1542.1	1542.4	1542.7	1543.8
162.5°	1569.2	1568.5	1567.9	1567.3	1566.6	1566.3	1566.3	1566.4	1566.5	1566.5	1568.0
165°	1601.1	1600.5	1599.9	1599.4	1598.8	1598.6	1599.0	1599.2	1599.5	1599.8	1600.9
167.5°	1628.1	1626.9	1625.8	1624.6	1623.5	1622.9	1622.9	1622.9	1622.9	1622.9	1624.6
170°	1642.6	1641.5	1640.3	1639.2	1638.1	1637.4	1637.4	1637.4	1637.4	1637.4	1639.2
172.5°	1653.0	1651.9	1650.7	1649.6	1648.4	1647.9	1647.9	1647.9	1647.9	1647.9	1649.6
175°	1664.7	1663.5	1662.4	1661.2	1660.1	1659.5	1659.5	1659.5	1659.5	1659.5	1661.2
177.5°	1670.7	1669.7	1668.9	1667.9	1667.0	1666.4	1666.2	1665.9	1665.7	1665.5	1666.9
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6



TEST NUMBER: P333699-935

CATALOG NUMBER: S125RDIW-S850D1560U935-4F0-1E-UDD-F1

**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°	15.5	15.8	16.0	16.2	16.2	16.2	16.3	16.3
90°	23.7	25.1	26.5	27.7	28.6	29.4	30.3	31.2
92.5°	53.6	55.5	57.5	58.7	59.4	60.0	60.6	61.3
95°	104.0	106.1	108.1	109.3	109.9	110.6	111.1	111.7
97.5°	163.0	164.9	166.8	168.0	168.3	168.7	169.0	169.4
100°	203.9	206.5	209.1	210.7	211.2	211.8	212.4	212.9
102.5°	245.9	248.7	251.5	253.4	254.2	254.9	255.8	256.6
105°	313.8	315.6	317.3	318.6	319.4	320.3	321.2	322.0
107.5°	387.1	388.0	388.8	389.3	389.2	389.2	389.1	389.0
110°	438.1	438.9	439.8	440.1	439.8	439.5	439.2	438.9





TEST NUMBER: P333699-935

CATALOG NUMBER: S125RDIW-S850D1560U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	489.0	489.5	489.8	489.8	489.3	488.8	488.3	487.8
115°	566.9	566.6	566.3	566.0	565.8	565.4	565.2	564.9
117.5°	644.8	645.1	645.2	644.8	643.6	642.5	641.4	640.2
120°	697.3	697.3	697.3	696.7	695.6	694.4	693.3	692.2
122.5°	748.8	748.6	748.3	747.8	746.8	745.9	744.9	744.1
125°	824.8	824.1	823.5	823.1	822.9	822.5	822.3	822.0
127.5°	900.1	899.8	899.5	899.1	898.5	897.9	897.3	896.7
130°	949.9	949.7	949.3	948.9	948.4	947.8	947.2	946.7
132.5°	997.7	997.5	997.1	996.6	995.8	995.0	994.2	993.3
135°	1071.3	1071.3	1071.3	1070.7	1069.5	1068.4	1067.2	1066.1
137.5°	1142.9	1143.2	1143.6	1143.1	1141.6	1140.1	1138.7	1137.2
140°	1188.0	1188.6	1189.1	1188.7	1187.3	1185.9	1184.4	1182.9
142.5°	1232.2	1232.5	1233.0	1232.3	1230.9	1229.5	1228.0	1226.6
145°	1295.9	1295.9	1295.9	1295.5	1294.6	1293.7	1292.9	1292.0
147.5°	1355.0	1355.6	1356.3	1355.7	1353.8	1351.8	1349.9	1347.9
150°	1392.1	1392.1	1392.1	1391.7	1391.1	1390.6	1390.0	1389.4
152.5°	1426.7	1427.4	1428.1	1427.9	1426.8	1425.8	1424.8	1423.7
155°	1476.1	1477.3	1478.4	1478.3	1476.9	1475.4	1473.9	1472.6
157.5°	1519.0	1520.2	1521.3	1521.0	1519.0	1517.1	1515.2	1513.3
160°	1545.0	1546.1	1547.3	1547.1	1545.7	1544.2	1542.8	1541.4
162.5°	1569.3	1570.7	1572.1	1571.9	1570.3	1568.6	1566.9	1565.2
165°	1602.1	1603.3	1604.4	1604.1	1602.4	1600.7	1599.0	1597.2
167.5°	1626.3	1628.1	1629.8	1629.8	1628.0	1626.3	1624.4	1622.6
170°	1640.9	1642.6	1644.3	1644.3	1642.2	1640.2	1638.1	1636.2
172.5°	1651.3	1653.0	1654.8	1654.8	1652.9	1651.1	1649.3	1647.6
175°	1663.0	1664.7	1666.5	1666.3	1664.3	1662.2	1660.3	1658.2
177.5°	1668.3	1669.7	1671.0	1670.9	1669.3	1667.7	1666.0	1664.5
180°	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6	1668.6

(END OF REPORT)