

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: P333559-935

Luminaire Tested: **S125RDIP-S850D590U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333559-935  
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: S125RDIP-S850D590U935-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4833.3 lumens  
Efficiency: N/A  
Efficacy: 119.9 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

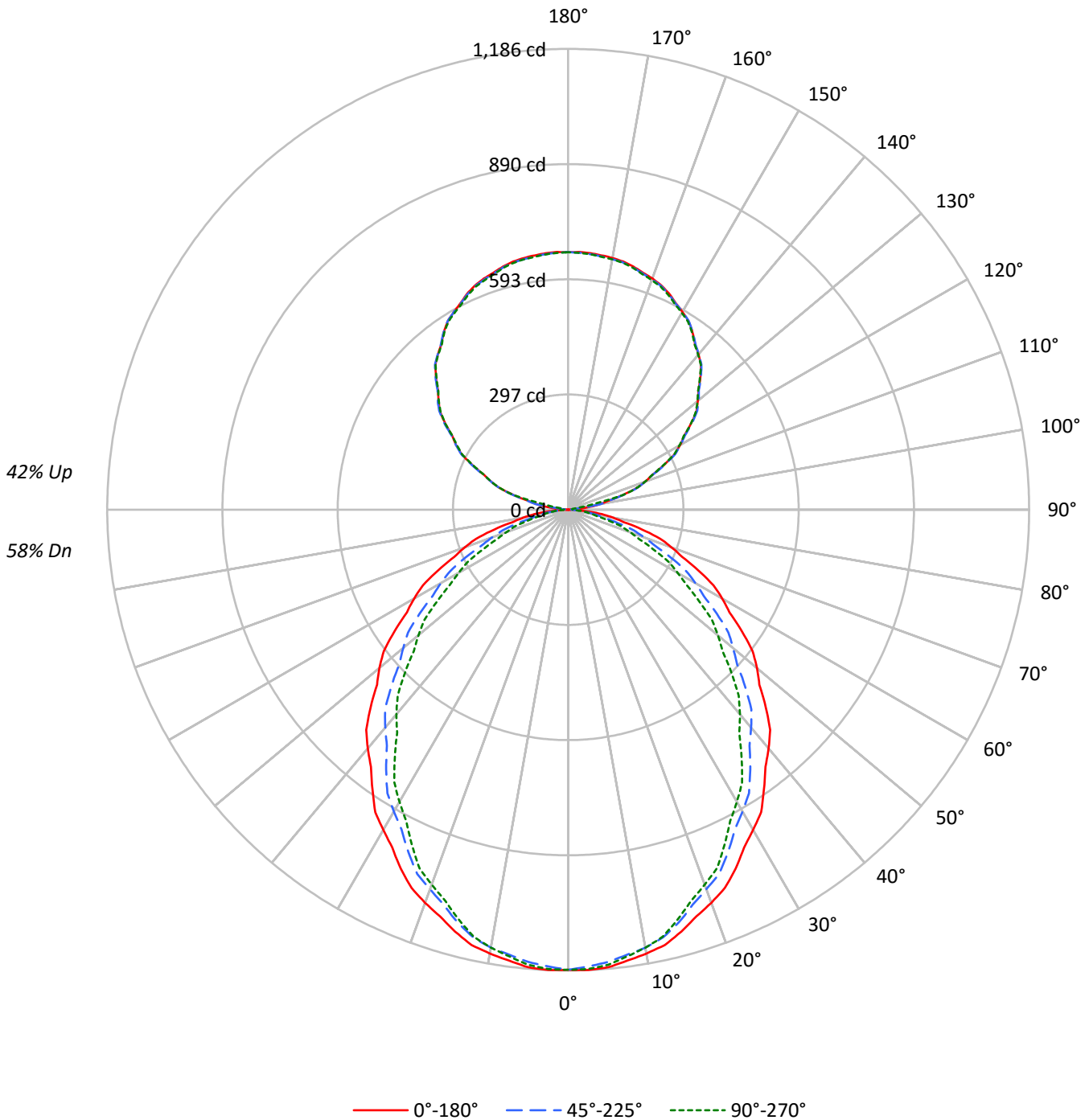
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	100	96	92	88	93	89	86	83	77	75	73	66	65	63	56	55	54	49
2	91	84	78	72	85	78	73	68	68	64	61	59	56	53	50	48	46	42
3	83	74	66	61	77	69	63	57	60	55	51	52	48	45	44	42	39	36
4	76	65	58	52	71	61	54	49	54	48	44	47	42	39	40	37	34	31
5	70	59	50	44	65	55	48	42	48	42	38	42	37	34	36	33	30	27
6	65	53	44	39	60	49	42	37	44	38	33	38	33	30	33	29	26	24
7	60	48	40	34	56	45	38	32	40	34	29	35	30	26	30	26	24	21
8	56	43	36	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	40	32	27	48	37	31	26	33	28	24	29	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	27	23	19	24	20	17	16

**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	2.3
10°-20°	311.1	6.4
20°-30°	451.2	9.3
30°-40°	514.2	10.6
40°-50°	501.2	10.4
50°-60°	421.9	8.7
60°-70°	295.7	6.1
70°-80°	152.0	3.1
80°-90°	39.8	0.8
90°-100°	24.1	0.5
100°-110°	148.4	3.1
110°-120°	269.2	5.6
120°-130°	345.5	7.1
130°-140°	371.6	7.7
140°-150°	348.8	7.2
150°-160°	282.1	5.8
160°-170°	182.5	3.8
170°-180°	62.9	1.3
0°-30°	873.6	18.1
0°-40°	1387.8	28.7
0°-60°	2310.8	47.8
0°-90°	2798.3	57.9
90°-120°	441.7	9.1
90°-150°	1507.5	31.2
90°-180°	2035.0	42.1
0°-180°	4833.3	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°	0	4	8	10	12	3
95°	28	26	8	10	10	36
105°	144	146	146	146	146	153
115°	271	274	274	272	269	269
125°	386	389	389	387	386	344
135°	481	484	483	482	479	371
145°	558	558	558	559	556	349
155°	614	611	612	613	610	283
165°	648	645	646	648	644	183
175°	663	660	660	664	660	63
180°	663	663	663	663	663	



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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°	16.5	15.6	14.6	13.8	12.8	12.3	12.3	12.3	12.3	12.3	12.4
90°	0.5	1.4	2.2	3.1	4.0	4.8	5.6	6.4	7.1	7.8	8.4
92.5°	7.6	7.0	6.4	5.8	5.1	5.2	5.9	6.5	7.1	7.8	8.4
95°	28.0	27.6	27.4	27.0	26.7	24.5	20.3	16.2	12.0	7.8	8.4
97.5°	58.5	59.1	59.7	60.2	60.8	57.0	48.8	40.6	32.4	24.2	21.1
100°	82.1	82.4	82.7	83.0	83.3	83.7	84.2	84.6	85.1	85.5	69.2
102.5°	106.0	106.4	106.9	107.3	107.6	108.0	108.2	108.6	108.8	109.1	106.0
105°	144.4	144.8	145.3	145.8	146.2	146.4	146.4	146.4	146.4	146.4	146.4
107.5°	184.3	184.3	184.3	184.3	184.3	184.4	184.6	184.9	185.1	185.3	185.3
110°	210.3	210.3	210.3	210.3	210.3	210.3	210.6	210.8	211.0	211.2	210.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	234.6	234.9	235.1	235.4	235.7	235.8	236.0	236.1	236.3	236.3	236.0
115°	271.1	271.7	272.2	272.8	273.4	273.7	273.8	273.9	274.0	274.1	273.7
117.5°	309.0	308.9	308.9	308.9	308.9	309.1	309.5	310.0	310.3	310.7	310.2
120°	332.6	332.4	332.3	332.3	332.1	332.3	332.6	332.9	333.2	333.6	333.3
122.5°	353.4	353.8	354.2	354.6	355.1	355.3	355.5	355.7	355.8	355.9	355.8
125°	385.6	386.4	387.1	387.9	388.7	389.1	389.1	389.1	389.1	389.1	388.7
127.5°	416.4	416.9	417.5	418.0	418.5	418.8	418.7	418.7	418.6	418.5	418.3
130°	435.2	435.8	436.4	436.9	437.4	437.7	437.8	438.0	438.1	438.2	437.8
132.5°	454.1	454.7	455.4	456.0	456.6	456.8	456.6	456.3	456.1	455.9	455.8
135°	481.0	481.6	482.2	482.8	483.5	483.8	483.5	483.3	483.1	482.8	482.7
137.5°	505.6	506.2	506.7	507.3	507.8	508.1	507.8	507.6	507.5	507.2	507.3
140°	521.7	521.9	522.1	522.4	522.5	522.6	522.5	522.4	522.3	522.2	522.4
142.5°	536.2	536.4	536.5	536.7	536.7	536.9	537.1	537.2	537.4	537.5	537.5
145°	557.6	557.8	558.0	558.2	558.4	558.5	558.5	558.5	558.5	558.5	558.6
147.5°	576.2	576.2	576.1	576.1	576.0	576.1	576.2	576.4	576.4	576.6	576.8
150°	588.0	587.8	587.5	587.4	587.1	587.1	587.4	587.5	587.8	588.0	588.2
152.5°	599.4	598.9	598.5	598.0	597.4	597.4	597.5	597.8	598.0	598.2	598.5
155°	614.1	613.4	612.8	612.1	611.4	611.2	611.4	611.7	611.8	612.1	612.4
157.5°	625.3	624.9	624.6	624.1	623.8	623.6	623.6	623.6	623.6	623.7	624.1
160°	633.2	632.6	631.9	631.2	630.6	630.3	630.4	630.5	630.6	630.8	631.2
162.5°	639.5	638.9	638.2	637.5	636.9	636.6	636.7	636.8	636.9	637.1	637.7
165°	647.9	647.3	646.6	646.0	645.3	645.1	645.1	645.2	645.4	645.5	646.1
167.5°	654.2	653.6	652.9	652.2	651.5	651.3	651.3	651.4	651.5	651.7	652.5
170°	657.8	657.0	656.3	655.5	654.7	654.4	654.4	654.6	654.7	654.8	655.7
172.5°	660.1	659.4	658.6	657.8	657.0	656.8	656.9	657.2	657.4	657.5	658.3
175°	662.7	662.0	661.3	660.7	660.0	659.8	659.9	660.0	660.1	660.2	661.1
177.5°	663.8	663.3	662.8	662.3	661.8	661.5	661.6	661.7	661.8	661.9	662.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7



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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°	12.5	12.7	12.7	12.7	12.7	12.6	12.5	12.4
90°	9.0	9.5	10.1	10.5	10.8	11.1	11.5	11.8
92.5°	9.0	9.5	10.1	10.4	10.5	10.7	10.8	11.0
95°	9.0	9.5	10.1	10.3	10.3	10.3	10.3	10.3
97.5°	18.0	14.9	11.9	10.3	10.3	10.3	10.3	10.3
100°	53.0	36.7	20.4	12.1	11.6	11.2	10.8	10.3
102.5°	102.9	99.8	96.8	91.5	84.0	76.6	69.2	61.8
105°	146.4	146.4	146.4	146.4	146.2	146.1	146.0	145.9
107.5°	185.4	185.4	185.4	185.2	184.9	184.6	184.3	183.9
110°	210.6	210.3	209.9	209.8	209.9	210.0	210.2	210.3





TEST NUMBER: P333559-935

CATALOG NUMBER: S125RDIP-S850D590U935-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	235.6	235.1	234.7	234.5	234.3	234.1	234.0	233.8
115°	273.2	272.8	272.3	271.8	271.1	270.5	269.8	269.2
117.5°	309.6	309.0	308.5	308.1	307.8	307.5	307.2	306.9
120°	333.1	332.9	332.7	332.3	331.7	331.2	330.6	330.1
122.5°	355.5	355.3	355.1	354.6	354.0	353.4	352.8	352.1
125°	388.2	387.7	387.3	386.9	386.6	386.2	386.0	385.6
127.5°	418.0	417.8	417.6	417.1	416.2	415.4	414.7	413.8
130°	437.6	437.2	436.9	436.4	435.9	435.3	434.8	434.3
132.5°	455.7	455.6	455.6	455.3	454.8	454.2	453.7	453.1
135°	482.4	482.2	482.0	481.6	481.0	480.3	479.6	479.0
137.5°	507.3	507.4	507.4	507.1	506.6	506.0	505.5	504.9
140°	522.6	522.8	523.1	522.8	522.2	521.5	520.9	520.2
142.5°	537.6	537.6	537.7	537.4	536.7	536.1	535.4	534.8
145°	558.8	558.9	559.0	558.7	558.0	557.4	556.7	556.0
147.5°	576.9	577.0	577.1	576.8	576.0	575.2	574.5	573.7
150°	588.4	588.7	588.8	588.6	587.7	586.8	585.9	585.0
152.5°	598.7	598.9	599.1	598.8	598.1	597.3	596.4	595.6
155°	612.8	613.0	613.4	613.1	612.3	611.4	610.5	609.6
157.5°	624.4	624.7	625.1	624.8	624.0	623.0	622.2	621.3
160°	631.6	632.1	632.5	632.2	631.4	630.5	629.6	628.8
162.5°	638.3	638.9	639.5	639.3	638.3	637.4	636.5	635.4
165°	646.8	647.5	648.1	648.0	647.1	646.3	645.4	644.5
167.5°	653.2	654.0	654.8	654.7	653.8	652.7	651.8	650.7
170°	656.6	657.5	658.3	658.2	657.3	656.3	655.3	654.4
172.5°	659.1	660.0	660.7	660.6	659.6	658.7	657.6	656.7
175°	661.9	662.8	663.7	663.7	662.7	661.7	660.7	659.7
177.5°	663.1	663.7	664.3	664.3	663.6	662.9	662.2	661.5
180°	662.7	662.7	662.7	662.7	662.7	662.7	662.7	662.7

(END OF REPORT)