

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: P333220-935

Luminaire Tested: **S125DIP-S850D590U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333220-935
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: S125DIP-S850D590U935-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4977.5 lumens
Efficiency: N/A
Efficacy: 123.5 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

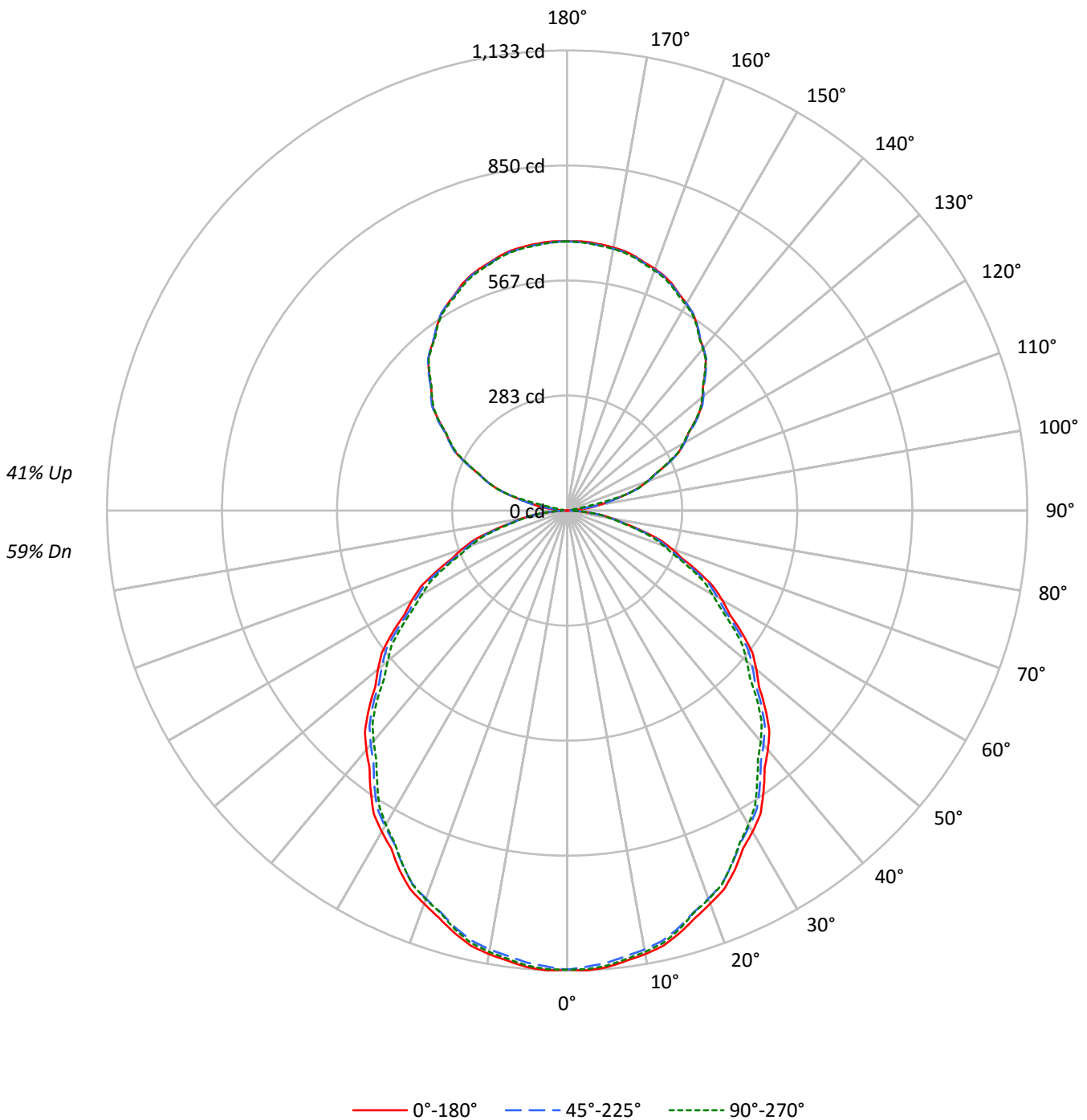
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333220-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-F

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	50	30	10	50	30	10	0		
RCR																										
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59								
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	56	54	50								
2	91	83	77	72	84	78	72	68	68	64	60	59	55	53	50	48	46	42								
3	83	73	66	60	77	69	62	57	60	55	50	52	48	45	44	41	39	35								
4	76	65	57	51	70	61	54	48	53	47	43	46	42	38	40	36	33	30								
5	70	58	49	43	65	54	47	41	48	42	37	41	37	33	36	32	29	26								
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	29	26	23								
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	30	26	23	20								
8	55	43	35	29	51	40	33	28	36	30	25	31	26	23	27	23	20	18								
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18	16								
10	48	36	28	24	45	34	27	23	30	24	21	27	22	19	23	20	17	15								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7299	7299	7299
5°	7316	7247	7293
10°	7271	7195	7237
15°	7192	7109	7138
20°	7080	6988	7000
25°	6959	6844	6837
30°	6809	6689	6655
35°	6649	6522	6430
40°	6483	6340	6250
45°	6305	6175	6052
50°	6109	5974	5795
55°	5920	5749	5588
60°	5694	5521	5324
65°	5425	5248	5069
70°	5166	4930	4762
75°	4706	4551	4397
80°	4192	4125	4024
85°	3646	3712	3512



TEST NUMBER: P333220-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	2.1
10°-20°	301.0	6.0
20°-30°	444.5	8.9
30°-40°	518.7	10.4
40°-50°	520.9	10.5
50°-60°	457.3	9.2
60°-70°	340.7	6.8
70°-80°	194.8	3.9
80°-90°	58.1	1.2
90°-100°	24.1	0.5
100°-110°	148.4	3.0
110°-120°	269.2	5.4
120°-130°	345.5	6.9
130°-140°	371.6	7.5
140°-150°	348.8	7.0
150°-160°	282.1	5.7
160°-170°	182.5	3.7
170°-180°	62.9	1.3
0°-30°	852.1	17.1
0°-40°	1370.8	27.5
0°-60°	2348.9	47.2
0°-90°	2942.5	59.1
90°-120°	441.7	8.9
90°-150°	1507.5	30.3
90°-180°	2035.0	40.9
0°-180°	4977.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1128	1126	1118	1125	1125	107
15°	1076	1073	1063	1067	1068	303
25°	976	972	960	962	960	449
35°	843	839	827	823	816	527
45°	690	686	676	666	663	532
55°	526	523	511	503	496	469
65°	355	353	343	336	332	352
75°	189	187	182	180	176	201
85°	49	50	50	49	47	55
90°	0	4	8	10	12	4
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	



TEST NUMBER: P333220-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1133.2	1132.6	1132.2	1131.7	1131.2	1130.1	1128.6	1127.0	1125.4	1123.9	1125.4
5°	1128.5	1128.1	1127.7	1127.3	1126.9	1125.7	1123.7	1121.7	1119.7	1117.8	1119.6
7.5°	1118.1	1117.8	1117.3	1116.9	1116.5	1115.3	1113.0	1110.9	1108.7	1106.5	1108.2
10°	1108.8	1108.5	1108.0	1107.6	1107.2	1106.0	1103.7	1101.6	1099.4	1097.2	1098.8
12.5°	1097.3	1096.7	1096.0	1095.2	1094.5	1093.1	1091.1	1089.1	1087.0	1085.0	1086.3
15°	1075.7	1075.1	1074.5	1073.9	1073.3	1071.9	1069.8	1067.6	1065.4	1063.2	1064.2
17.5°	1050.9	1050.0	1049.1	1048.3	1047.4	1045.8	1043.5	1041.3	1039.0	1036.7	1037.9
20°	1030.1	1029.8	1029.3	1028.9	1028.6	1027.0	1024.4	1021.8	1019.3	1016.7	1018.1
22.5°	1009.4	1008.7	1008.0	1007.2	1006.5	1005.0	1002.5	1000.1	997.6	995.2	996.2
25°	976.5	975.5	974.5	973.4	972.5	970.7	968.1	965.5	962.9	960.4	960.8
27.5°	938.0	937.5	936.9	936.3	935.6	934.0	931.3	928.7	926.0	923.3	923.4
30°	913.0	912.4	911.8	911.2	910.6	908.8	905.9	902.8	899.8	896.9	896.5
32.5°	885.8	884.8	884.0	883.0	882.2	880.4	877.7	875.0	872.4	869.7	869.0
35°	843.3	842.4	841.6	840.9	840.1	838.3	835.5	832.7	829.9	827.2	826.1
37.5°	799.1	798.1	797.0	796.1	795.0	793.2	790.7	788.0	785.4	782.8	781.3
40°	769.0	768.0	767.1	766.0	765.0	763.2	760.3	757.6	754.8	752.0	750.3
42.5°	736.8	736.0	735.1	734.3	733.5	731.7	728.9	726.1	723.3	720.6	718.9
45°	690.3	689.5	688.7	687.9	687.2	685.5	683.2	680.8	678.4	676.1	673.6
47.5°	640.2	640.3	640.3	640.3	640.4	639.0	636.1	633.3	630.4	627.6	625.1
50°	608.0	607.4	606.8	606.2	605.7	604.2	601.8	599.4	597.0	594.6	592.0
52.5°	575.1	574.7	574.3	573.9	573.4	571.9	569.4	566.8	564.3	561.7	559.5
55°	525.8	525.2	524.6	524.0	523.4	521.7	518.9	516.2	513.3	510.6	508.8
57.5°	473.7	473.5	473.1	472.8	472.5	471.1	468.8	466.5	464.1	461.8	459.4
60°	440.8	440.1	439.3	438.4	437.6	436.2	433.9	431.8	429.6	427.4	425.4
62.5°	406.5	405.9	405.3	404.6	404.0	402.7	400.9	399.0	397.1	395.2	393.1
65°	355.0	354.6	354.2	353.8	353.4	352.1	349.9	347.8	345.5	343.4	341.6
67.5°	305.1	304.3	303.4	302.6	301.8	300.5	298.9	297.3	295.7	294.0	292.5
70°	273.6	272.6	271.6	270.6	269.7	268.3	266.5	264.7	262.9	261.1	259.9
72.5°	239.3	238.6	237.9	237.3	236.6	235.7	234.5	233.3	232.2	231.1	229.7
75°	188.6	188.3	187.9	187.5	187.1	186.4	185.4	184.4	183.4	182.4	181.8
77.5°	142.0	141.8	141.7	141.5	141.4	141.0	140.4	139.9	139.3	138.8	138.4
80°	112.7	112.7	112.7	112.7	112.7	112.4	112.1	111.7	111.2	110.9	110.7
82.5°	86.9	86.6	86.3	85.9	85.7	85.4	85.3	85.3	85.2	85.2	84.8
85°	49.2	49.4	49.6	49.8	49.9	50.1	50.1	50.1	50.1	50.1	49.9
87.5°	19.4	19.5	19.8	20.0	20.1	20.2	20.1	20.1	20.1	20.1	20.3
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



TEST NUMBER: P333220-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-F

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



TEST NUMBER: P333220-935

CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1127.0	1128.6	1130.1	1130.9	1130.8	1130.6	1130.4	1130.2
5°	1121.4	1123.1	1124.9	1125.7	1125.5	1125.3	1125.1	1124.9
7.5°	1110.0	1111.7	1113.4	1114.2	1114.0	1113.9	1113.6	1113.4
10°	1100.4	1102.0	1103.5	1104.2	1104.1	1103.8	1103.6	1103.5
12.5°	1087.5	1088.8	1090.1	1090.7	1090.7	1090.6	1090.6	1090.5
15°	1065.2	1066.2	1067.2	1067.6	1067.6	1067.6	1067.6	1067.6
17.5°	1039.2	1040.4	1041.6	1041.8	1040.8	1039.8	1038.8	1037.8
20°	1019.5	1020.9	1022.3	1022.4	1021.5	1020.5	1019.5	1018.5
22.5°	997.0	998.0	998.9	999.0	998.3	997.6	997.0	996.3
25°	961.1	961.6	962.0	961.8	961.3	960.7	960.1	959.5
27.5°	923.5	923.6	923.7	923.4	922.8	922.2	921.6	921.0
30°	896.1	895.7	895.3	894.8	894.2	893.6	893.0	892.4
32.5°	868.2	867.5	866.9	865.9	864.9	863.8	862.7	861.7
35°	825.2	824.1	823.2	821.9	820.3	818.7	817.1	815.5
37.5°	779.8	778.3	776.9	775.7	774.8	773.9	773.0	772.1
40°	748.5	746.7	744.9	743.6	743.0	742.5	741.9	741.3
42.5°	717.3	715.7	714.0	712.7	711.9	710.9	710.0	709.1
45°	671.2	668.8	666.5	665.0	664.4	663.8	663.2	662.6
47.5°	622.7	620.3	617.9	616.0	614.6	613.2	611.7	610.4
50°	589.4	586.9	584.3	582.3	580.9	579.5	578.2	576.8
52.5°	557.2	554.9	552.7	550.8	549.2	547.7	546.1	544.6
55°	507.0	505.2	503.4	501.9	500.4	499.0	497.7	496.3
57.5°	457.2	454.9	452.5	451.0	450.2	449.5	448.8	448.0
60°	423.4	421.5	419.5	417.8	416.4	415.0	413.6	412.2
62.5°	391.0	388.8	386.7	385.0	384.0	382.9	381.9	380.7
65°	339.8	338.0	336.2	334.9	334.2	333.4	332.5	331.7
67.5°	291.0	289.5	288.0	287.0	286.5	286.0	285.5	285.1
70°	258.7	257.5	256.3	255.4	254.5	253.7	253.0	252.2
72.5°	228.3	227.0	225.7	224.5	223.8	223.0	222.2	221.4
75°	181.2	180.6	180.0	179.3	178.6	177.7	176.9	176.2
77.5°	138.1	137.7	137.3	136.9	136.3	135.8	135.3	134.7
80°	110.5	110.3	110.1	109.8	109.4	109.0	108.6	108.2
82.5°	84.4	84.0	83.7	83.5	83.4	83.3	83.3	83.2
85°	49.7	49.5	49.2	49.0	48.6	48.2	47.8	47.4
87.5°	20.4	20.5	20.6	20.6	20.3	20.1	19.8	19.5
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: P333220-935

CATALOG NUMBER: S125DIP-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)