

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: P333221-940

Luminaire Tested: **S125DIP-S850D590U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333221-940  
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: S125DIP-S850D590U940-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4871.6 lumens  
Efficiency: N/A  
Efficacy: 120.9 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: Semi-Direct

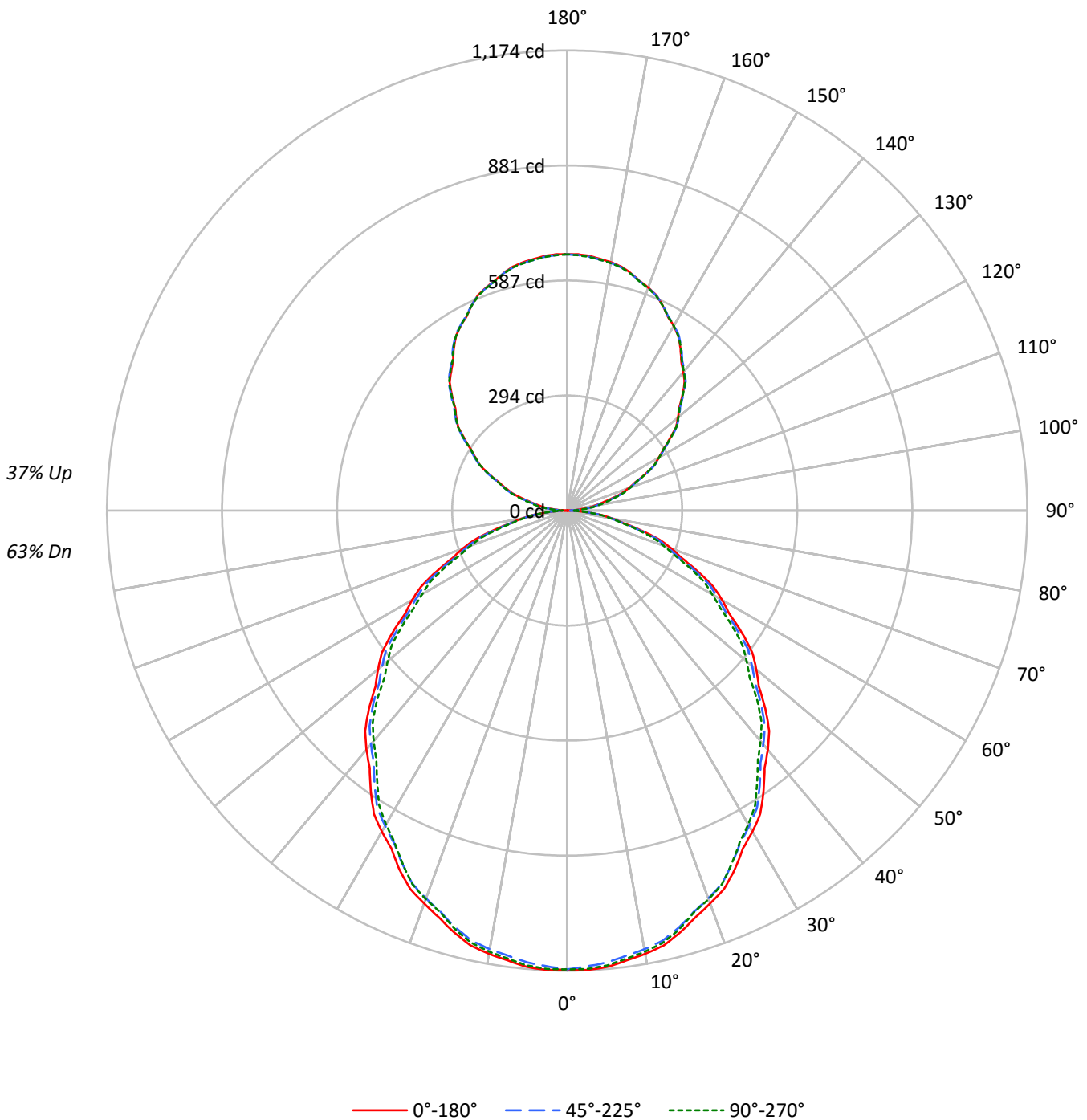
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90		79	79	79		68	68	68	63
1	101	96	92	88	94	90	87	84	79	77	74		69	67	65		60	58	57	53
2	92	84	78	72	85	79	73	69	69	65	61		61	57	54		52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52		54	49	46		46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44		48	43	39		42	38	35	32
5	70	58	50	44	66	55	47	42	49	43	38		43	38	34		37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33		39	34	30		34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29		35	30	27		31	27	24	22
8	56	43	35	30	52	41	33	28	36	30	26		32	27	24		29	25	22	19
9	52	39	32	26	49	37	30	25	33	28	23		30	25	21		26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21		28	23	19		24	21	18	16

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.4	2.3
10°-20°	311.8	6.4
20°-30°	460.3	9.4
30°-40°	537.2	11.0
40°-50°	539.5	11.1
50°-60°	473.6	9.7
60°-70°	352.9	7.2
70°-80°	201.8	4.1
80°-90°	60.1	1.2
90°-100°	43.8	0.9
100°-110°	129.3	2.7
110°-120°	219.0	4.5
120°-130°	288.2	5.9
130°-140°	322.9	6.6
140°-150°	316.5	6.5
150°-160°	265.8	5.5
160°-170°	176.7	3.6
170°-180°	61.8	1.3
0°-30°	882.5	18.1
0°-40°	1419.6	29.1
0°-60°	2432.7	49.9
0°-90°	3047.5	62.6
90°-120°	392.0	8.0
90°-150°	1319.7	27.1
90°-180°	1824.0	37.4
0°-180°	4871.6	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°	0	5	8	11	12	5
95°	33	34	39	43	44	35
105°	116	119	122	125	126	124
115°	219	221	222	222	221	217
125°	320	323	324	322	322	286
135°	416	419	420	420	418	321
145°	504	506	508	508	506	315
155°	577	577	577	579	577	266
165°	627	626	627	628	626	177
175°	652	650	650	653	650	62
180°	654	654	654	654	654	



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**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°	20.1	20.2	20.5	20.7	20.9	21.0	20.9	20.9	20.9	20.9	21.0
90°	0.5	1.4	2.3	3.2	4.1	5.0	5.8	6.6	7.3	8.1	8.7
92.5°	12.3	12.9	13.6	14.2	14.8	15.6	16.6	17.6	18.5	19.5	20.2
95°	33.1	33.3	33.5	33.7	34.0	34.7	35.8	36.9	38.1	39.1	39.9
97.5°	54.9	55.0	55.1	55.2	55.3	56.1	57.7	59.2	60.8	62.3	63.1
100°	71.2	71.2	71.2	71.2	71.2	72.0	73.4	74.9	76.3	77.8	78.8
102.5°	88.7	89.2	89.6	90.1	90.5	91.1	91.8	92.6	93.4	94.1	95.2
105°	116.0	116.5	117.1	117.7	118.2	118.9	119.6	120.2	120.9	121.5	122.3
107.5°	146.1	146.7	147.2	147.8	148.4	148.9	149.5	149.9	150.4	151.0	151.3
110°	166.8	167.4	168.0	168.5	169.2	169.6	169.9	170.2	170.6	170.9	171.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	188.0	188.3	188.6	188.9	189.2	189.6	190.0	190.4	190.8	191.3	191.5
115°	219.3	219.7	220.2	220.6	221.1	221.4	221.6	221.9	222.0	222.3	222.2
117.5°	250.6	250.7	251.0	251.2	251.4	251.6	251.8	252.0	252.2	252.4	252.5
120°	270.1	270.7	271.3	271.8	272.4	272.7	272.9	273.0	273.0	273.1	273.1
122.5°	291.3	291.5	291.7	291.9	292.1	292.3	292.7	292.9	293.2	293.6	293.5
125°	319.9	320.7	321.3	322.0	322.7	323.1	323.2	323.3	323.4	323.5	323.3
127.5°	350.5	350.9	351.2	351.6	352.0	352.3	352.4	352.6	352.7	352.8	352.8
130°	368.8	369.3	370.0	370.5	371.0	371.5	371.7	371.9	372.1	372.4	372.3
132.5°	387.1	388.1	389.0	389.9	390.8	391.3	391.2	391.2	391.1	391.1	391.0
135°	416.1	416.8	417.5	418.1	418.8	419.2	419.4	419.5	419.5	419.6	419.6
137.5°	443.4	444.1	444.7	445.3	446.0	446.5	446.7	446.9	447.2	447.5	447.5
140°	460.8	461.5	462.0	462.5	463.2	463.6	464.0	464.3	464.6	464.9	465.2
142.5°	478.4	478.8	479.3	479.8	480.3	480.7	481.2	481.6	482.1	482.4	482.6
145°	504.1	504.5	505.1	505.5	506.0	506.3	506.7	507.0	507.4	507.7	507.7
147.5°	527.9	528.2	528.4	528.7	529.0	529.1	529.4	529.8	530.0	530.3	530.6
150°	543.8	543.7	543.6	543.5	543.3	543.5	543.9	544.4	544.8	545.3	545.3
152.5°	556.8	557.0	557.1	557.3	557.4	557.6	557.8	557.9	558.1	558.4	558.7
155°	576.8	576.8	576.8	576.8	576.8	576.9	577.0	577.1	577.3	577.4	577.8
157.5°	594.8	594.5	594.2	594.1	593.8	593.7	593.8	594.0	594.1	594.1	594.6
160°	605.4	605.0	604.7	604.3	604.0	603.9	604.0	604.1	604.2	604.3	604.8
162.5°	614.7	614.5	614.2	613.9	613.7	613.6	613.6	613.7	613.7	613.7	614.2
165°	627.2	627.0	626.8	626.5	626.3	626.2	626.3	626.5	626.6	626.7	627.1
167.5°	637.8	637.4	636.9	636.4	636.0	635.8	635.8	635.8	635.8	635.8	636.4
170°	643.5	643.0	642.6	642.1	641.7	641.5	641.5	641.5	641.5	641.5	642.1
172.5°	647.6	647.1	646.7	646.2	645.8	645.5	645.5	645.5	645.5	645.5	646.2
175°	652.1	651.7	651.2	650.8	650.3	650.1	650.1	650.1	650.1	650.1	650.8
177.5°	654.5	654.2	653.8	653.4	653.0	652.8	652.7	652.6	652.6	652.5	653.0
180°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7



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**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°	21.1	21.2	21.3	21.3	21.0	20.8	20.5	20.2
90°	9.3	9.8	10.4	10.9	11.2	11.5	11.9	12.2
92.5°	21.0	21.8	22.6	23.0	23.3	23.5	23.7	24.0
95°	40.8	41.6	42.4	42.8	43.1	43.3	43.5	43.8
97.5°	63.8	64.6	65.4	65.8	65.9	66.1	66.2	66.3
100°	79.9	80.9	81.9	82.5	82.8	83.0	83.2	83.5
102.5°	96.3	97.5	98.5	99.2	99.6	99.9	100.2	100.5
105°	123.0	123.6	124.3	124.8	125.1	125.5	125.8	126.2
107.5°	151.7	152.0	152.3	152.5	152.5	152.5	152.4	152.4
110°	171.6	171.9	172.3	172.4	172.3	172.2	172.0	171.9





TEST NUMBER: P333221-940

CATALOG NUMBER: S125DIP-S850D590U940-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	191.6	191.7	191.9	191.9	191.7	191.5	191.3	191.1
115°	222.0	221.9	221.9	221.8	221.6	221.5	221.4	221.3
117.5°	252.6	252.7	252.8	252.6	252.2	251.7	251.3	250.7
120°	273.1	273.1	273.1	273.0	272.5	272.1	271.6	271.2
122.5°	293.4	293.3	293.2	292.9	292.6	292.2	291.9	291.5
125°	323.1	322.9	322.6	322.4	322.4	322.3	322.1	322.0
127.5°	352.6	352.5	352.4	352.2	352.0	351.8	351.5	351.3
130°	372.1	372.0	371.9	371.8	371.5	371.3	371.0	370.9
132.5°	390.8	390.7	390.7	390.4	390.1	389.8	389.5	389.1
135°	419.6	419.6	419.6	419.5	419.0	418.6	418.1	417.7
137.5°	447.7	447.8	448.0	447.8	447.2	446.7	446.1	445.5
140°	465.4	465.7	465.8	465.7	465.1	464.6	464.0	463.4
142.5°	482.7	482.9	483.0	482.8	482.2	481.6	481.1	480.5
145°	507.7	507.7	507.7	507.5	507.2	506.8	506.5	506.1
147.5°	530.8	531.1	531.4	531.1	530.3	529.6	528.8	528.1
150°	545.3	545.3	545.3	545.2	545.0	544.7	544.6	544.3
152.5°	558.9	559.2	559.5	559.4	558.9	558.6	558.1	557.8
155°	578.3	578.7	579.2	579.2	578.5	578.0	577.4	576.8
157.5°	595.0	595.5	595.9	595.8	595.0	594.3	593.6	592.8
160°	605.2	605.6	606.1	606.1	605.6	604.9	604.4	603.9
162.5°	614.7	615.3	615.9	615.8	615.2	614.5	613.9	613.1
165°	627.6	628.0	628.6	628.4	627.8	627.1	626.3	625.7
167.5°	637.1	637.8	638.5	638.5	637.8	637.0	636.3	635.7
170°	642.8	643.5	644.2	644.1	643.4	642.6	641.8	641.0
172.5°	646.9	647.6	648.3	648.3	647.6	646.8	646.1	645.4
175°	651.5	652.1	652.8	652.7	652.0	651.2	650.4	649.6
177.5°	653.5	654.1	654.6	654.6	654.0	653.4	652.6	652.0
180°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7

(END OF REPORT)