

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: P333211-940

Luminaire Tested: **S125DIP-S850D365U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333211-940
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-S850D365U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4352.7 lumens
Efficiency: N/A
Efficacy: 124.4 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

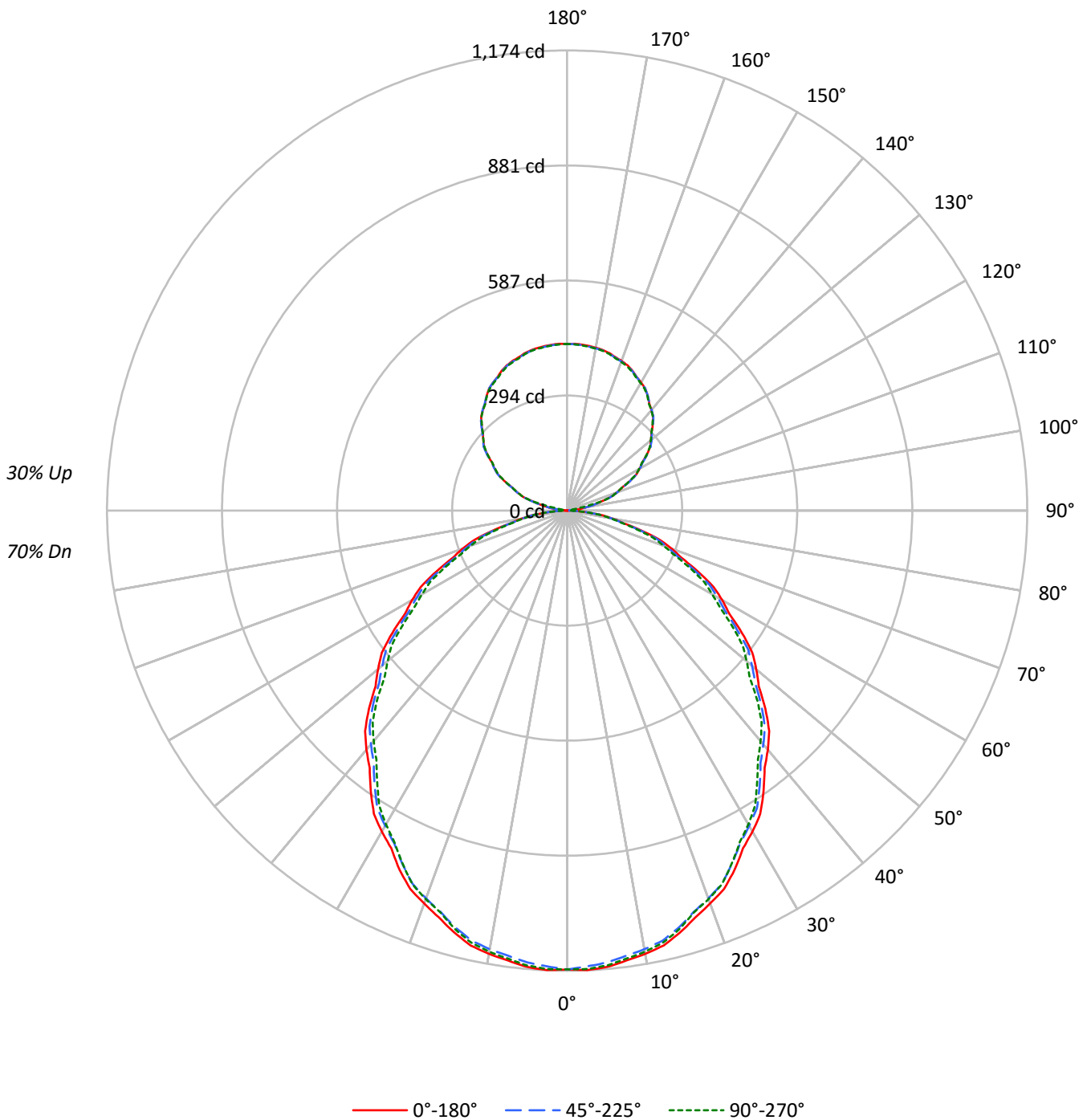
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	66	64	63	59
2	93	85	79	73	88	81	75	70	73	68	64	65	61	58	58	55	53	49
3	85	75	67	61	80	71	64	59	64	59	54	57	53	49	51	48	45	42
4	78	66	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39	36
5	71	59	51	45	67	56	49	43	51	45	40	46	41	37	41	37	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	36	32	37	33	30	27
7	61	48	40	34	58	46	38	33	42	35	31	38	33	29	34	30	26	24
8	57	44	36	30	54	42	35	29	38	32	27	35	29	26	31	27	24	22
9	53	40	32	27	50	38	31	26	35	29	25	32	27	23	29	25	21	19
10	50	37	30	25	47	35	28	24	32	26	22	30	25	21	27	23	20	18

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



TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	2.5
10°-20°	311.8	7.2
20°-30°	460.3	10.6
30°-40°	537.2	12.3
40°-50°	539.5	12.4
50°-60°	473.6	10.9
60°-70°	352.9	8.1
70°-80°	201.8	4.6
80°-90°	59.6	1.4
90°-100°	15.5	0.4
100°-110°	95.2	2.2
110°-120°	172.7	4.0
120°-130°	221.7	5.1
130°-140°	238.4	5.5
140°-150°	223.8	5.1
150°-160°	181.0	4.2
160°-170°	117.1	2.7
170°-180°	40.4	0.9
0°-30°	882.5	20.3
0°-40°	1419.6	32.6
0°-60°	2432.7	55.9
0°-90°	3047.0	70.0
90°-120°	283.4	6.5
90°-150°	967.3	22.2
90°-180°	1306.0	30.0
0°-180°	4352.7	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	3	5	7	8	4
95°	18	16	5	6	7	23
105°	93	94	94	94	94	98
115°	174	176	176	175	173	172
125°	247	250	250	248	247	221
135°	309	310	310	309	307	238
145°	358	358	358	359	357	224
155°	394	392	393	394	391	181
165°	416	414	414	416	414	117
175°	425	424	424	426	423	40
180°	425	425	425	425	425	



TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-F

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	20.3	20.4	20.5	20.5	20.5	20.4	20.3	20.2	20.3
90°	0.4	0.9	1.4	2.0	2.6	3.1	3.6	4.1	4.5	5.1	5.4
92.5°	4.8	4.5	4.1	3.7	3.3	3.3	3.7	4.2	4.6	5.1	5.4
95°	17.9	17.7	17.6	17.3	17.1	15.7	13.0	10.3	7.7	5.1	5.4
97.5°	37.5	37.9	38.3	38.6	39.1	36.6	31.3	26.0	20.8	15.5	13.6
100°	52.6	52.9	53.1	53.2	53.5	53.7	54.0	54.3	54.6	54.8	44.4
102.5°	68.0	68.3	68.6	68.8	69.1	69.3	69.5	69.6	69.8	70.0	68.0
105°	92.6	92.9	93.3	93.5	93.8	93.9	93.9	93.9	93.9	93.9	93.9
107.5°	118.2	118.2	118.2	118.2	118.2	118.3	118.5	118.6	118.8	118.9	118.9
110°	134.9	134.9	134.9	134.9	134.9	135.0	135.1	135.3	135.4	135.5	135.4



TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.5	150.7	150.9	151.1	151.2	151.3	151.4	151.5	151.6	151.7	151.4
115°	174.0	174.3	174.7	175.0	175.4	175.6	175.7	175.8	175.8	175.8	175.6
117.5°	198.2	198.2	198.2	198.2	198.2	198.3	198.6	198.9	199.1	199.4	199.0
120°	213.4	213.3	213.3	213.2	213.1	213.2	213.4	213.6	213.8	214.0	213.9
122.5°	226.8	227.0	227.3	227.6	227.8	228.0	228.1	228.2	228.3	228.4	228.3
125°	247.4	247.9	248.4	248.9	249.4	249.7	249.7	249.7	249.7	249.7	249.3
127.5°	267.2	267.5	267.9	268.2	268.6	268.8	268.7	268.7	268.6	268.6	268.4
130°	279.3	279.6	280.0	280.4	280.7	280.9	281.0	281.0	281.1	281.2	281.0
132.5°	291.4	291.8	292.2	292.6	293.0	293.1	293.0	292.8	292.7	292.5	292.5
135°	308.6	309.0	309.4	309.9	310.2	310.4	310.2	310.1	310.0	309.9	309.7
137.5°	324.4	324.8	325.1	325.5	325.8	326.0	325.8	325.7	325.6	325.5	325.5
140°	334.7	334.9	335.0	335.2	335.3	335.4	335.3	335.2	335.1	335.1	335.2
142.5°	344.1	344.2	344.3	344.3	344.4	344.5	344.6	344.7	344.8	344.9	344.9
145°	357.8	357.9	358.0	358.2	358.3	358.4	358.4	358.4	358.4	358.4	358.5
147.5°	369.7	369.7	369.7	369.6	369.6	369.6	369.7	369.8	369.9	370.0	370.1
150°	377.3	377.2	377.0	376.8	376.7	376.7	376.8	377.0	377.2	377.3	377.5
152.5°	384.6	384.3	384.0	383.7	383.3	383.3	383.4	383.6	383.7	383.9	384.0
155°	394.0	393.6	393.2	392.7	392.4	392.2	392.4	392.4	392.6	392.7	393.0
157.5°	401.3	401.0	400.7	400.5	400.3	400.1	400.1	400.2	400.2	400.2	400.4
160°	406.3	405.9	405.5	405.0	404.7	404.5	404.5	404.6	404.7	404.7	405.0
162.5°	410.4	409.9	409.5	409.0	408.7	408.5	408.6	408.6	408.7	408.8	409.1
165°	415.7	415.4	414.9	414.5	414.1	413.9	413.9	414.0	414.1	414.2	414.6
167.5°	419.8	419.4	418.9	418.5	418.0	417.9	417.9	418.0	418.1	418.1	418.7
170°	422.0	421.6	421.1	420.6	420.1	419.9	420.0	420.0	420.1	420.2	420.7
172.5°	423.6	423.1	422.6	422.1	421.6	421.4	421.5	421.7	421.8	422.0	422.4
175°	425.2	424.8	424.4	423.9	423.6	423.4	423.4	423.5	423.6	423.7	424.2
177.5°	426.0	425.6	425.3	425.0	424.6	424.5	424.5	424.6	424.6	424.7	425.1
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2



TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-F

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°	20.4	20.5	20.5	20.4	20.2	19.9	19.6	19.3
90°	5.7	6.1	6.4	6.7	7.0	7.1	7.3	7.6
92.5°	5.7	6.1	6.4	6.7	6.8	6.9	7.0	7.0
95°	5.7	6.1	6.4	6.6	6.6	6.6	6.6	6.6
97.5°	11.6	9.5	7.6	6.6	6.6	6.6	6.6	6.6
100°	34.0	23.5	13.1	7.8	7.5	7.2	6.9	6.6
102.5°	66.0	64.0	62.1	58.7	53.9	49.2	44.4	39.7
105°	93.9	93.9	93.9	93.9	93.8	93.7	93.7	93.6
107.5°	119.0	119.0	119.0	118.9	118.7	118.4	118.2	118.0
110°	135.1	134.9	134.7	134.6	134.7	134.7	134.8	134.9



TEST NUMBER: P333211-940

CATALOG NUMBER: S125DIP-S850D365U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	151.1	150.9	150.6	150.4	150.3	150.3	150.2	150.1
115°	175.3	175.0	174.8	174.4	174.0	173.6	173.2	172.7
117.5°	198.7	198.3	198.0	197.7	197.5	197.3	197.2	197.0
120°	213.7	213.6	213.5	213.2	212.9	212.5	212.1	211.8
122.5°	228.1	228.0	227.8	227.6	227.1	226.8	226.3	226.0
125°	249.1	248.8	248.5	248.3	248.1	247.9	247.6	247.4
127.5°	268.2	268.0	268.0	267.6	267.1	266.5	266.1	265.6
130°	280.7	280.5	280.4	280.0	279.7	279.4	279.0	278.7
132.5°	292.4	292.4	292.3	292.1	291.8	291.4	291.1	290.8
135°	309.6	309.4	309.2	309.0	308.6	308.2	307.7	307.3
137.5°	325.6	325.6	325.6	325.4	325.0	324.7	324.3	324.0
140°	335.4	335.5	335.6	335.5	335.1	334.7	334.2	333.8
142.5°	344.9	345.0	345.0	344.8	344.4	343.9	343.6	343.1
145°	358.6	358.6	358.6	358.5	358.1	357.7	357.2	356.8
147.5°	370.1	370.2	370.3	370.1	369.6	369.1	368.6	368.1
150°	377.6	377.7	377.8	377.6	377.1	376.6	375.9	375.4
152.5°	384.1	384.2	384.4	384.2	383.7	383.3	382.7	382.2
155°	393.2	393.3	393.6	393.4	392.9	392.3	391.7	391.2
157.5°	400.6	400.8	401.1	400.9	400.4	399.8	399.2	398.7
160°	405.3	405.6	405.8	405.7	405.1	404.6	404.0	403.5
162.5°	409.6	409.9	410.4	410.2	409.6	408.9	408.4	407.8
165°	415.0	415.4	415.9	415.8	415.3	414.6	414.1	413.6
167.5°	419.2	419.6	420.2	420.1	419.5	418.8	418.2	417.6
170°	421.2	421.9	422.4	422.4	421.8	421.2	420.4	419.8
172.5°	422.9	423.5	423.9	423.9	423.3	422.6	422.0	421.3
175°	424.7	425.3	425.9	425.9	425.2	424.5	423.9	423.3
177.5°	425.5	425.9	426.2	426.2	425.8	425.3	424.9	424.5
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2

(END OF REPORT)