

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

Luminaire Tested: **S125DIP-S850D590U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333220
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-S850D590U835-4F0-1E-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: 5781.1 lumens
Efficiency: N/A
Efficacy: 143.5 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

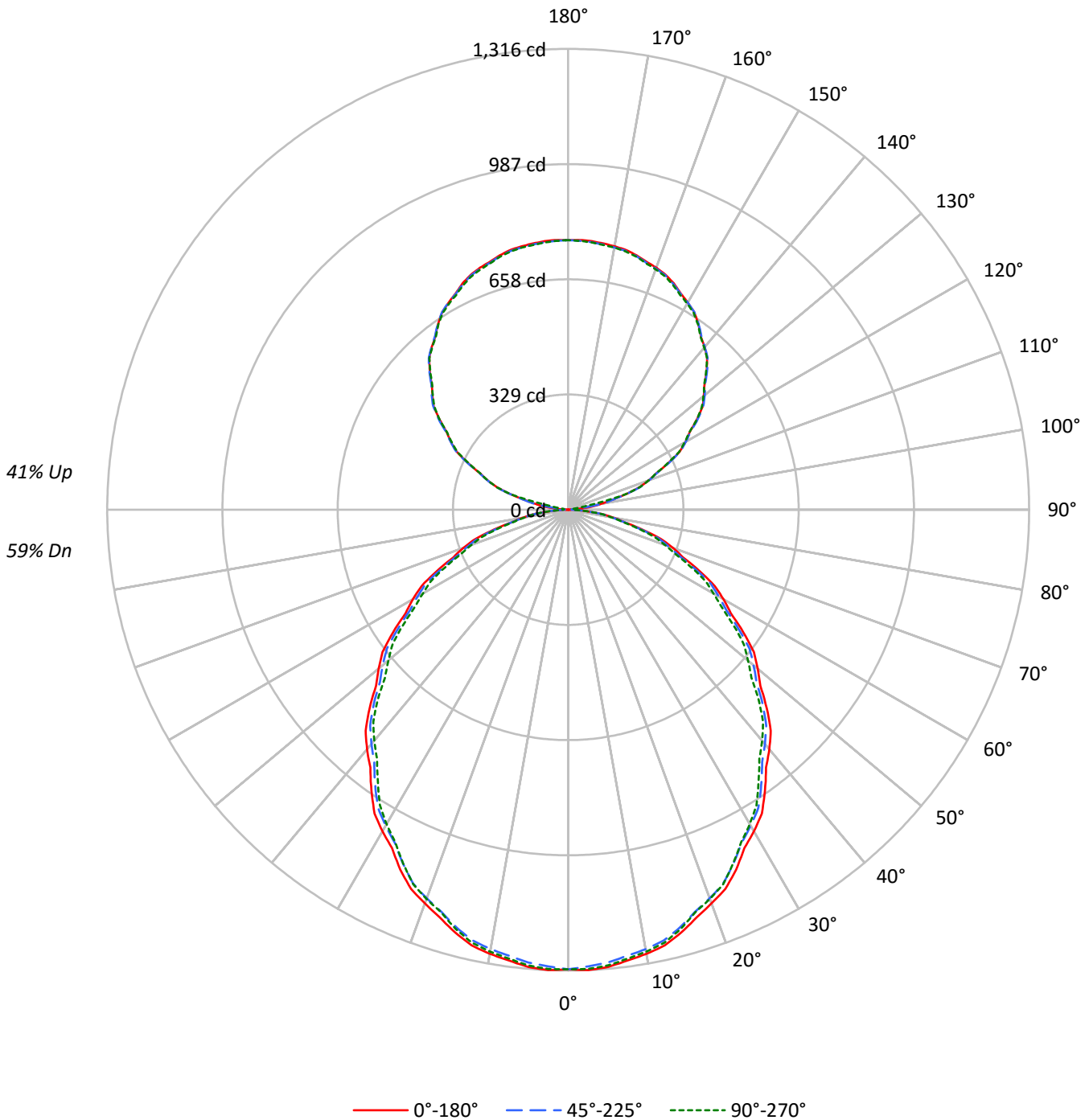
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-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	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°	8478	8478	8478
5°	8497	8416	8470
10°	8445	8357	8405
15°	8354	8256	8291
20°	8223	8115	8130
25°	8082	7948	7941
30°	7908	7768	7730
35°	7722	7574	7468
40°	7530	7363	7259
45°	7323	7172	7029
50°	7095	6939	6731
55°	6876	6677	6490
60°	6613	6412	6185
65°	6301	6094	5888
70°	6001	5727	5531
75°	5467	5288	5105
80°	4868	4790	4675
85°	4231	4313	4076



TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	2.1
10°-20°	349.6	6.0
20°-30°	516.2	8.9
30°-40°	602.4	10.4
40°-50°	605.0	10.5
50°-60°	531.1	9.2
60°-70°	395.7	6.8
70°-80°	226.3	3.9
80°-90°	67.4	1.2
90°-100°	28.0	0.5
100°-110°	172.4	3.0
110°-120°	312.6	5.4
120°-130°	401.2	6.9
130°-140°	431.5	7.5
140°-150°	405.1	7.0
150°-160°	327.7	5.7
160°-170°	211.9	3.7
170°-180°	73.1	1.3
0°-30°	989.7	17.1
0°-40°	1592.1	27.5
0°-60°	2728.2	47.2
0°-90°	3417.6	59.1
90°-120°	513.0	8.9
90°-150°	1750.8	30.3
90°-180°	2364.0	40.9
0°-180°	5781.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1313	1313	1313	1313	1313	
5°	1311	1308	1298	1307	1306	124
15°	1249	1246	1235	1240	1240	352
25°	1134	1128	1115	1117	1114	522
35°	979	975	961	955	947	612
45°	802	797	785	773	770	618
55°	611	607	593	584	576	545
65°	412	410	399	390	385	409
75°	219	217	212	209	205	234
85°	57	58	58	57	55	64
90°	1	5	9	12	14	4
95°	32	30	9	12	12	41
105°	168	170	170	170	169	178
115°	315	318	318	316	313	312
125°	448	452	452	450	448	400
135°	559	562	561	560	556	430
145°	648	649	649	649	646	405
155°	713	710	711	712	708	328
165°	752	749	750	753	748	212
175°	770	766	767	771	766	73
180°	770	770	770	770	770	



TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1316.1	1315.5	1315.0	1314.4	1313.8	1312.6	1310.8	1309.0	1307.1	1305.3	1307.1
5°	1310.7	1310.2	1309.7	1309.3	1308.8	1307.4	1305.1	1302.8	1300.5	1298.2	1300.3
7.5°	1298.6	1298.2	1297.7	1297.2	1296.8	1295.3	1292.7	1290.2	1287.7	1285.1	1287.1
10°	1287.8	1287.4	1286.9	1286.4	1286.0	1284.5	1281.9	1279.4	1276.9	1274.3	1276.2
12.5°	1274.5	1273.7	1272.9	1272.0	1271.2	1269.6	1267.3	1264.9	1262.5	1260.2	1261.7
15°	1249.4	1248.7	1248.0	1247.3	1246.6	1245.0	1242.5	1239.9	1237.4	1234.8	1236.0
17.5°	1220.5	1219.5	1218.5	1217.5	1216.5	1214.6	1212.0	1209.4	1206.7	1204.1	1205.5
20°	1196.4	1196.0	1195.5	1195.0	1194.6	1192.8	1189.8	1186.8	1183.8	1180.8	1182.5
22.5°	1172.3	1171.5	1170.7	1169.8	1169.0	1167.2	1164.4	1161.5	1158.7	1155.9	1157.0
25°	1134.1	1133.0	1131.8	1130.6	1129.5	1127.4	1124.4	1121.4	1118.4	1115.4	1115.9
27.5°	1089.4	1088.8	1088.1	1087.4	1086.7	1084.8	1081.7	1078.6	1075.5	1072.4	1072.5
30°	1060.4	1059.7	1059.0	1058.3	1057.6	1055.5	1052.1	1048.6	1045.1	1041.7	1041.2
32.5°	1028.8	1027.7	1026.7	1025.6	1024.6	1022.5	1019.4	1016.3	1013.2	1010.1	1009.3
35°	979.4	978.4	977.5	976.6	975.7	973.6	970.4	967.1	963.9	960.7	959.5
37.5°	928.1	926.9	925.7	924.6	923.4	921.3	918.3	915.2	912.2	909.2	907.4
40°	893.2	892.0	890.9	889.7	888.5	886.4	883.1	879.9	876.7	873.4	871.4
42.5°	855.8	854.8	853.8	852.9	851.9	849.8	846.6	843.3	840.1	836.9	835.0
45°	801.8	800.8	799.9	799.0	798.1	796.2	793.5	790.7	787.9	785.2	782.4
47.5°	743.6	743.7	743.7	743.7	743.8	742.2	738.8	735.5	732.2	728.9	726.0
50°	706.2	705.5	704.8	704.1	703.5	701.7	699.0	696.2	693.4	690.6	687.6
52.5°	668.0	667.5	667.0	666.5	666.0	664.2	661.3	658.3	655.4	652.4	649.8
55°	610.7	610.0	609.3	608.6	607.9	605.9	602.7	599.5	596.2	593.0	590.9
57.5°	550.2	549.9	549.5	549.1	548.8	547.2	544.5	541.8	539.0	536.3	533.6
60°	512.0	511.1	510.2	509.2	508.3	506.6	504.0	501.5	499.0	496.4	494.1
62.5°	472.1	471.4	470.7	469.9	469.2	467.7	465.6	463.4	461.2	459.0	456.6
65°	412.3	411.8	411.4	410.9	410.5	409.0	406.4	403.9	401.3	398.8	396.7
67.5°	354.4	353.4	352.4	351.4	350.5	349.0	347.2	345.3	343.4	341.5	339.7
70°	317.8	316.6	315.5	314.3	313.2	311.6	309.5	307.4	305.3	303.3	301.9
72.5°	277.9	277.1	276.3	275.6	274.8	273.7	272.4	271.0	269.7	268.4	266.8
75°	219.1	218.7	218.2	217.8	217.3	216.5	215.3	214.2	213.0	211.9	211.2
77.5°	164.9	164.7	164.6	164.4	164.2	163.8	163.1	162.5	161.8	161.2	160.8
80°	130.9	130.9	130.9	130.9	130.9	130.6	130.2	129.7	129.2	128.8	128.6
82.5°	100.9	100.6	100.2	99.8	99.5	99.2	99.1	99.1	99.0	98.9	98.5
85°	57.1	57.4	57.6	57.8	58.0	58.2	58.2	58.2	58.2	58.2	57.9
87.5°	22.5	22.7	23.0	23.2	23.4	23.5	23.4	23.4	23.4	23.4	23.6
90°	0.6	1.6	2.6	3.6	4.6	5.6	6.5	7.4	8.2	9.1	9.8
92.5°	8.8	8.1	7.4	6.7	5.9	6.0	6.8	7.6	8.3	9.1	9.8
95°	32.5	32.1	31.8	31.4	31.0	28.4	23.6	18.8	13.9	9.1	9.8
97.5°	67.9	68.6	69.3	69.9	70.6	66.2	56.7	47.1	37.6	28.1	24.5
100°	95.3	95.7	96.0	96.4	96.8	97.2	97.8	98.3	98.8	99.3	80.4
102.5°	123.1	123.6	124.1	124.6	125.0	125.4	125.7	126.1	126.4	126.7	123.1
105°	167.7	168.2	168.8	169.3	169.8	170.0	170.0	170.0	170.0	170.0	170.0
107.5°	214.1	214.1	214.1	214.1	214.1	214.2	214.4	214.7	215.0	215.2	215.2
110°	244.2	244.2	244.2	244.2	244.2	244.3	244.6	244.8	245.1	245.3	245.0



TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	272.5	272.8	273.1	273.4	273.7	273.9	274.1	274.2	274.4	274.5	274.1
115°	314.9	315.6	316.2	316.8	317.5	317.9	318.0	318.1	318.2	318.4	317.9
117.5°	358.9	358.8	358.8	358.8	358.8	359.0	359.5	360.0	360.4	360.9	360.3
120°	386.3	386.1	386.0	385.9	385.7	385.9	386.3	386.6	387.0	387.4	387.1
122.5°	410.4	410.9	411.4	411.9	412.4	412.7	412.9	413.1	413.2	413.4	413.2
125°	447.9	448.8	449.6	450.5	451.4	451.9	451.9	451.9	451.9	451.9	451.4
127.5°	483.6	484.2	484.9	485.5	486.1	486.4	486.3	486.3	486.2	486.1	485.8
130°	505.5	506.1	506.8	507.4	508.0	508.4	508.5	508.7	508.8	508.9	508.5
132.5°	527.4	528.1	528.9	529.6	530.3	530.6	530.3	530.0	529.7	529.5	529.4
135°	558.6	559.3	560.1	560.8	561.6	561.9	561.6	561.3	561.1	560.8	560.6
137.5°	587.2	587.9	588.5	589.2	589.8	590.1	589.8	589.6	589.4	589.1	589.2
140°	605.9	606.2	606.4	606.7	606.9	607.0	606.9	606.7	606.6	606.5	606.7
142.5°	622.8	623.0	623.1	623.3	623.4	623.6	623.8	623.9	624.1	624.3	624.3
145°	647.6	647.8	648.1	648.3	648.6	648.7	648.7	648.7	648.7	648.7	648.8
147.5°	669.2	669.2	669.1	669.1	669.0	669.1	669.2	669.4	669.5	669.7	669.9
150°	682.9	682.7	682.4	682.2	681.9	681.9	682.2	682.4	682.7	682.9	683.2
152.5°	696.2	695.6	695.1	694.5	693.9	693.8	694.0	694.3	694.5	694.8	695.1
155°	713.2	712.4	711.7	710.9	710.1	709.9	710.1	710.4	710.6	710.9	711.3
157.5°	726.3	725.8	725.4	724.9	724.5	724.3	724.3	724.3	724.3	724.4	724.8
160°	735.4	734.7	733.9	733.1	732.4	732.1	732.2	732.3	732.4	732.6	733.1
162.5°	742.7	742.0	741.2	740.4	739.7	739.4	739.5	739.6	739.7	739.9	740.6
165°	752.5	751.8	751.0	750.3	749.5	749.2	749.3	749.4	749.6	749.7	750.4
167.5°	759.8	759.1	758.3	757.5	756.7	756.4	756.5	756.6	756.7	756.9	757.8
170°	764.0	763.1	762.2	761.3	760.4	760.0	760.1	760.3	760.4	760.5	761.5
172.5°	766.7	765.8	764.9	764.0	763.1	762.8	763.0	763.3	763.5	763.7	764.6
175°	769.7	768.9	768.1	767.4	766.6	766.3	766.4	766.6	766.7	766.8	767.8
177.5°	771.0	770.4	769.8	769.2	768.6	768.3	768.4	768.5	768.6	768.7	769.5
180°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7



TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1309.0	1310.8	1312.6	1313.5	1313.3	1313.1	1312.9	1312.7
5°	1302.4	1304.4	1306.5	1307.4	1307.2	1307.0	1306.7	1306.5
7.5°	1289.2	1291.2	1293.2	1294.1	1293.9	1293.7	1293.4	1293.2
10°	1278.0	1279.9	1281.7	1282.5	1282.3	1282.0	1281.8	1281.6
12.5°	1263.1	1264.6	1266.1	1266.8	1266.8	1266.7	1266.7	1266.6
15°	1237.2	1238.3	1239.5	1240.0	1240.0	1240.0	1240.0	1240.0
17.5°	1207.0	1208.4	1209.8	1210.0	1208.8	1207.7	1206.5	1205.4
20°	1184.1	1185.7	1187.3	1187.5	1186.4	1185.2	1184.1	1182.9
22.5°	1158.0	1159.1	1160.2	1160.3	1159.5	1158.7	1157.9	1157.2
25°	1116.3	1116.8	1117.3	1117.1	1116.5	1115.8	1115.1	1114.4
27.5°	1072.6	1072.7	1072.8	1072.5	1071.8	1071.1	1070.4	1069.7
30°	1040.8	1040.3	1039.8	1039.3	1038.6	1037.9	1037.2	1036.5
32.5°	1008.4	1007.6	1006.8	1005.7	1004.5	1003.2	1002.0	1000.8
35°	958.4	957.2	956.1	954.6	952.7	950.9	949.0	947.2
37.5°	905.7	904.0	902.3	900.9	899.9	898.8	897.8	896.7
40°	869.3	867.2	865.1	863.7	863.0	862.4	861.7	861.0
42.5°	833.1	831.2	829.3	827.8	826.8	825.7	824.6	823.6
45°	779.6	776.8	774.1	772.3	771.7	771.0	770.3	769.6
47.5°	723.2	720.4	717.6	715.4	713.8	712.2	710.5	708.9
50°	684.6	681.6	678.6	676.3	674.7	673.1	671.5	669.9
52.5°	647.2	644.5	641.9	639.7	637.9	636.1	634.3	632.5
55°	588.9	586.8	584.7	582.9	581.2	579.6	578.0	576.4
57.5°	531.0	528.3	525.6	523.8	522.9	522.1	521.2	520.3
60°	491.8	489.5	487.2	485.2	483.6	482.0	480.4	478.8
62.5°	454.1	451.6	449.1	447.2	446.0	444.7	443.5	442.2
65°	394.7	392.6	390.5	389.0	388.1	387.2	386.2	385.3
67.5°	338.0	336.2	334.5	333.3	332.8	332.2	331.6	331.1
70°	300.5	299.1	297.7	296.6	295.6	294.7	293.8	292.9
72.5°	265.2	263.7	262.1	260.8	259.9	259.0	258.1	257.1
75°	210.5	209.8	209.1	208.3	207.4	206.4	205.5	204.6
77.5°	160.4	159.9	159.5	159.0	158.3	157.7	157.1	156.4
80°	128.3	128.1	127.9	127.5	127.1	126.6	126.1	125.7
82.5°	98.0	97.6	97.2	97.0	96.9	96.8	96.7	96.6
85°	57.7	57.5	57.2	56.9	56.4	56.0	55.5	55.0
87.5°	23.7	23.8	23.9	23.9	23.6	23.3	23.0	22.7
90°	10.4	11.0	11.7	12.2	12.6	12.9	13.3	13.7
92.5°	10.4	11.0	11.7	12.1	12.2	12.4	12.6	12.8
95°	10.4	11.0	11.7	12.0	12.0	12.0	12.0	12.0
97.5°	20.9	17.3	13.8	12.0	12.0	12.0	12.0	12.0
100°	61.5	42.6	23.7	14.0	13.5	13.0	12.5	12.0
102.5°	119.5	115.9	112.4	106.3	97.6	89.0	80.4	71.8
105°	170.0	170.0	170.0	170.0	169.8	169.7	169.6	169.4
107.5°	215.3	215.3	215.3	215.1	214.8	214.4	214.0	213.6
110°	244.6	244.2	243.8	243.7	243.8	243.9	244.1	244.2



TEST NUMBER: P333220

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	273.6	273.1	272.6	272.3	272.1	271.9	271.8	271.6
115°	317.3	316.8	316.3	315.7	314.9	314.2	313.4	312.7
117.5°	359.6	358.9	358.3	357.8	357.5	357.1	356.8	356.5
120°	386.9	386.6	386.4	385.9	385.3	384.7	384.0	383.4
122.5°	412.9	412.7	412.4	411.9	411.2	410.4	409.7	409.0
125°	450.9	450.3	449.8	449.4	449.0	448.6	448.3	447.9
127.5°	485.5	485.3	485.0	484.4	483.4	482.5	481.6	480.6
130°	508.2	507.8	507.4	506.9	506.3	505.6	505.0	504.4
132.5°	529.3	529.2	529.2	528.8	528.2	527.5	526.9	526.3
135°	560.3	560.1	559.8	559.3	558.6	557.8	557.0	556.3
137.5°	589.2	589.3	589.3	589.0	588.4	587.7	587.1	586.4
140°	607.0	607.2	607.5	607.2	606.5	605.7	605.0	604.2
142.5°	624.4	624.4	624.5	624.1	623.4	622.6	621.8	621.1
145°	649.0	649.1	649.2	648.9	648.1	647.4	646.6	645.8
147.5°	670.0	670.2	670.3	669.9	669.0	668.1	667.2	666.3
150°	683.4	683.7	683.9	683.6	682.6	681.5	680.5	679.5
152.5°	695.3	695.6	695.8	695.5	694.6	693.7	692.7	691.8
155°	711.7	712.0	712.4	712.1	711.1	710.1	709.1	708.0
157.5°	725.2	725.6	726.0	725.7	724.7	723.6	722.6	721.6
160°	733.6	734.1	734.6	734.3	733.3	732.3	731.3	730.3
162.5°	741.3	742.0	742.7	742.5	741.4	740.3	739.2	738.0
165°	751.2	752.0	752.7	752.6	751.6	750.6	749.6	748.5
167.5°	758.7	759.6	760.5	760.4	759.3	758.1	757.0	755.8
170°	762.6	763.6	764.6	764.5	763.4	762.2	761.1	760.0
172.5°	765.5	766.5	767.4	767.3	766.1	765.0	763.8	762.7
175°	768.8	769.8	770.9	770.8	769.7	768.5	767.4	766.2
177.5°	770.2	770.9	771.6	771.5	770.7	769.9	769.1	768.3
180°	769.7	769.7	769.7	769.7	769.7	769.7	769.7	769.7

(END OF REPORT)