

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

Luminaire Tested: **S125DIP-S850D590U835-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333221
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-S850D590U835-4F0-1E-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: 5463.1 lumens
Efficiency: N/A
Efficacy: 135.6 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

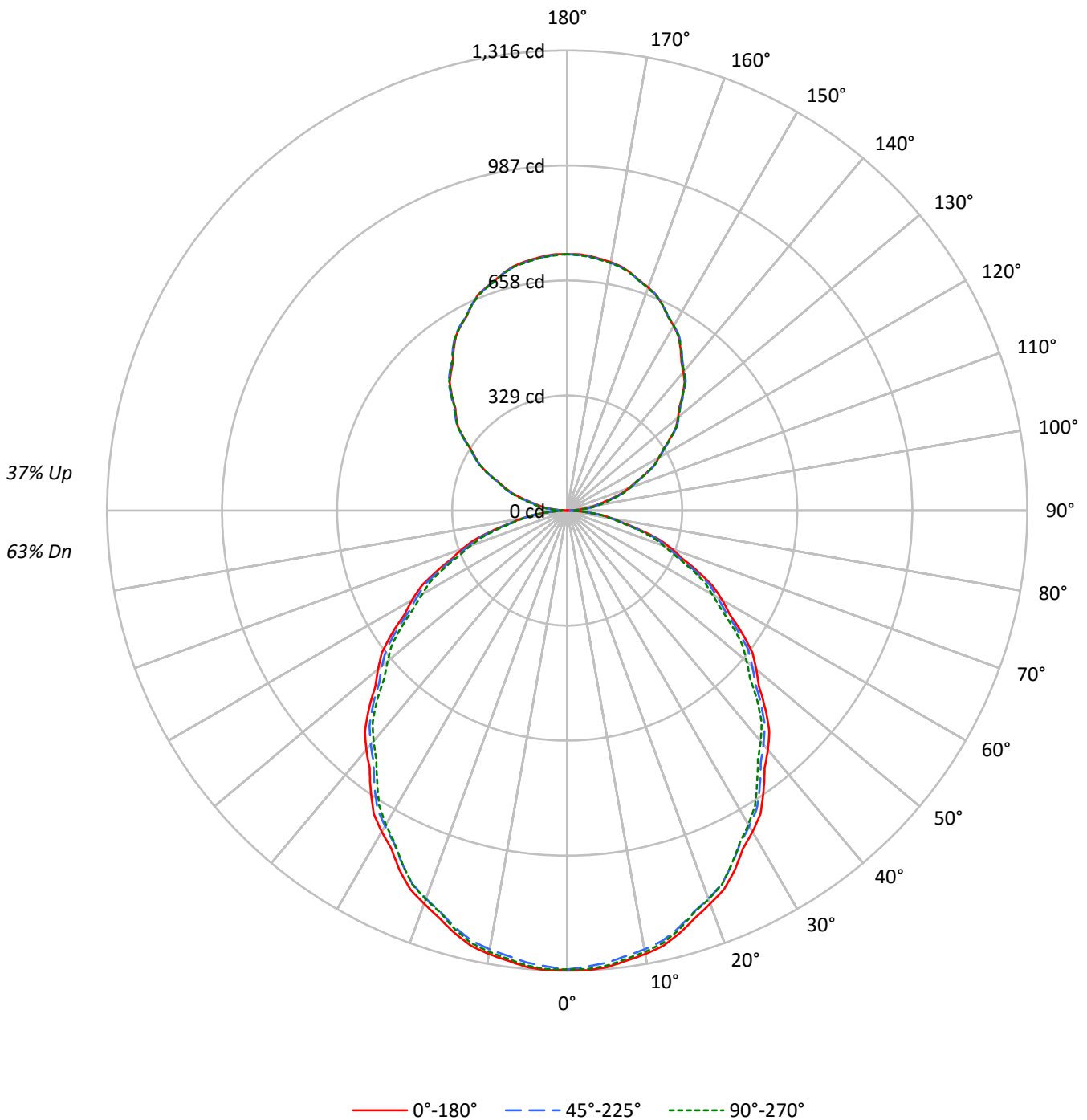
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

Luminous Intensity Polar Plot





TEST NUMBER: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

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°	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: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	2.3
10°-20°	349.6	6.4
20°-30°	516.2	9.4
30°-40°	602.4	11.0
40°-50°	605.0	11.1
50°-60°	531.1	9.7
60°-70°	395.7	7.2
70°-80°	226.3	4.1
80°-90°	67.4	1.2
90°-100°	49.1	0.9
100°-110°	145.0	2.7
110°-120°	245.6	4.5
120°-130°	323.2	5.9
130°-140°	362.1	6.6
140°-150°	354.9	6.5
150°-160°	298.1	5.5
160°-170°	198.2	3.6
170°-180°	69.4	1.3
0°-30°	989.7	18.1
0°-40°	1592.1	29.1
0°-60°	2728.2	49.9
0°-90°	3417.6	62.6
90°-120°	439.7	8.0
90°-150°	1479.9	27.1
90°-180°	2046.0	37.5
0°-180°	5463.1	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	5
95°	37	38	44	48	49	40
105°	130	133	136	140	142	139
115°	246	248	249	249	248	243
125°	359	362	363	362	361	321
135°	467	470	471	470	468	360
145°	565	568	569	569	568	353
155°	647	647	648	650	647	298
165°	703	702	703	705	702	198
175°	731	729	729	732	728	69
180°	733	733	733	733	733	



TEST NUMBER: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

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°	13.8	14.5	15.2	15.9	16.6	17.5	18.6	19.7	20.8	21.9	22.7
95°	37.1	37.3	37.6	37.8	38.1	38.9	40.1	41.4	42.7	43.9	44.8
97.5°	61.6	61.7	61.8	61.9	62.0	62.9	64.7	66.4	68.2	69.9	70.8
100°	79.9	79.9	79.9	79.9	79.9	80.7	82.3	84.0	85.6	87.3	88.4
102.5°	99.5	100.0	100.5	101.0	101.5	102.2	103.0	103.9	104.7	105.5	106.8
105°	130.1	130.7	131.3	132.0	132.6	133.3	134.1	134.8	135.6	136.3	137.1
107.5°	163.8	164.5	165.1	165.7	166.4	167.0	167.6	168.1	168.7	169.3	169.7
110°	187.1	187.7	188.4	189.0	189.7	190.2	190.5	190.9	191.3	191.7	192.1



TEST NUMBER: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	210.8	211.2	211.5	211.8	212.2	212.6	213.1	213.5	214.0	214.5	214.7
115°	245.9	246.4	246.9	247.4	247.9	248.3	248.5	248.8	249.0	249.3	249.2
117.5°	281.0	281.2	281.5	281.7	281.9	282.2	282.4	282.6	282.8	283.1	283.2
120°	302.9	303.6	304.2	304.8	305.5	305.8	306.0	306.1	306.2	306.3	306.3
122.5°	326.7	326.9	327.1	327.3	327.6	327.8	328.2	328.5	328.8	329.2	329.1
125°	358.8	359.6	360.3	361.1	361.9	362.3	362.4	362.6	362.7	362.8	362.6
127.5°	393.1	393.5	393.9	394.3	394.8	395.1	395.2	395.4	395.5	395.7	395.6
130°	413.6	414.2	414.9	415.5	416.1	416.6	416.8	417.1	417.3	417.6	417.5
132.5°	434.1	435.2	436.2	437.2	438.3	438.8	438.7	438.7	438.6	438.6	438.5
135°	466.6	467.4	468.2	468.9	469.7	470.1	470.3	470.4	470.5	470.6	470.6
137.5°	497.2	498.0	498.7	499.4	500.2	500.7	501.0	501.2	501.5	501.8	501.9
140°	516.8	517.5	518.1	518.7	519.4	519.9	520.3	520.7	521.0	521.4	521.7
142.5°	536.5	537.0	537.5	538.1	538.6	539.1	539.6	540.1	540.6	541.0	541.2
145°	565.3	565.8	566.4	566.9	567.4	567.8	568.2	568.6	569.0	569.3	569.3
147.5°	592.0	592.3	592.6	592.9	593.2	593.4	593.7	594.1	594.4	594.7	595.0
150°	609.8	609.7	609.6	609.5	609.3	609.5	610.0	610.5	611.0	611.5	611.5
152.5°	624.4	624.6	624.8	625.0	625.1	625.3	625.5	625.7	625.9	626.2	626.5
155°	646.9	646.9	646.9	646.9	646.9	647.0	647.1	647.2	647.4	647.5	648.0
157.5°	667.0	666.7	666.4	666.2	665.9	665.8	665.9	666.1	666.2	666.3	666.8
160°	678.9	678.5	678.1	677.7	677.3	677.2	677.3	677.5	677.6	677.7	678.2
162.5°	689.4	689.1	688.8	688.5	688.2	688.1	688.1	688.2	688.2	688.2	688.8
165°	703.4	703.1	702.9	702.6	702.4	702.3	702.4	702.6	702.7	702.8	703.3
167.5°	715.3	714.8	714.2	713.7	713.2	713.0	713.0	713.0	713.0	713.0	713.7
170°	721.6	721.1	720.6	720.1	719.6	719.4	719.4	719.4	719.4	719.4	720.1
172.5°	726.2	725.7	725.2	724.7	724.2	723.9	723.9	723.9	723.9	723.9	724.7
175°	731.3	730.8	730.3	729.8	729.3	729.1	729.1	729.1	729.1	729.1	729.8
177.5°	734.0	733.6	733.2	732.8	732.3	732.1	732.0	731.9	731.8	731.7	732.3
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1



TEST NUMBER: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

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°	23.6	24.4	25.3	25.8	26.1	26.4	26.6	26.9
95°	45.7	46.6	47.5	48.0	48.3	48.6	48.8	49.1
97.5°	71.6	72.5	73.3	73.8	73.9	74.1	74.2	74.4
100°	89.6	90.7	91.8	92.5	92.8	93.1	93.3	93.6
102.5°	108.0	109.3	110.5	111.3	111.7	112.0	112.4	112.7
105°	137.9	138.6	139.4	140.0	140.3	140.7	141.1	141.5
107.5°	170.1	170.5	170.8	171.0	171.0	171.0	170.9	170.9
110°	192.4	192.8	193.2	193.3	193.2	193.1	192.9	192.8



TEST NUMBER: P333221

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.9	215.0	215.2	215.2	215.0	214.7	214.5	214.3
115°	249.0	248.9	248.8	248.7	248.5	248.4	248.3	248.2
117.5°	283.3	283.4	283.5	283.3	282.8	282.3	281.8	281.2
120°	306.3	306.3	306.3	306.1	305.6	305.1	304.6	304.1
122.5°	329.0	328.9	328.8	328.5	328.1	327.7	327.3	326.9
125°	362.3	362.1	361.8	361.6	361.5	361.4	361.2	361.1
127.5°	395.4	395.3	395.2	395.0	394.7	394.5	394.2	394.0
130°	417.3	417.2	417.1	416.9	416.6	416.4	416.1	415.9
132.5°	438.3	438.2	438.1	437.8	437.5	437.1	436.8	436.4
135°	470.6	470.6	470.6	470.4	469.9	469.4	468.9	468.4
137.5°	502.1	502.2	502.4	502.2	501.5	500.9	500.3	499.6
140°	521.9	522.2	522.4	522.2	521.6	521.0	520.3	519.7
142.5°	541.3	541.5	541.6	541.4	540.8	540.1	539.5	538.9
145°	569.3	569.3	569.3	569.1	568.8	568.4	568.0	567.6
147.5°	595.3	595.6	595.9	595.6	594.7	593.9	593.0	592.2
150°	611.5	611.5	611.5	611.4	611.2	610.9	610.7	610.4
152.5°	626.8	627.1	627.4	627.3	626.8	626.4	625.9	625.5
155°	648.5	649.0	649.5	649.5	648.8	648.2	647.5	646.9
157.5°	667.3	667.8	668.3	668.2	667.3	666.5	665.7	664.8
160°	678.7	679.2	679.7	679.7	679.1	678.4	677.8	677.2
162.5°	689.4	690.0	690.7	690.6	689.9	689.1	688.4	687.6
165°	703.8	704.3	704.9	704.7	704.0	703.2	702.4	701.7
167.5°	714.5	715.3	716.0	716.0	715.2	714.4	713.6	712.9
170°	720.9	721.6	722.4	722.3	721.5	720.6	719.7	718.8
172.5°	725.5	726.2	727.0	727.0	726.2	725.4	724.6	723.8
175°	730.6	731.3	732.1	732.0	731.2	730.3	729.4	728.5
177.5°	732.9	733.5	734.1	734.1	733.4	732.7	731.9	731.2
180°	733.1	733.1	733.1	733.1	733.1	733.1	733.1	733.1

(END OF REPORT)