

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: P333240

Luminaire Tested: **S125DIP-S850D1035U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333240  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S850D1035U835-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7131.9 lumens  
Efficiency: N/A  
Efficacy: 137.2 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

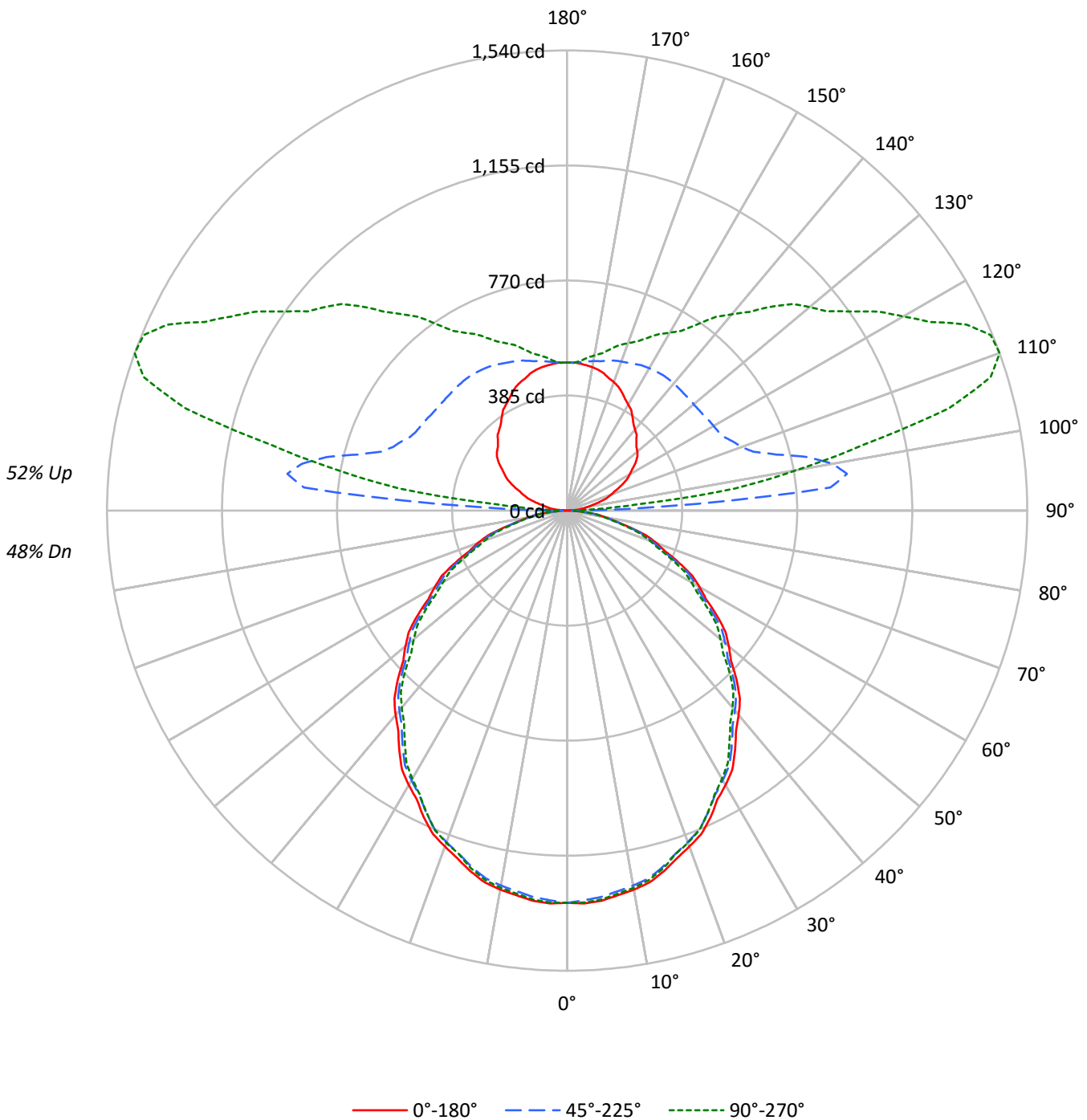
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48	48	48	48	48	48	48													
1	97	93	89	85	89	86	82	79	72	70	67	59	58	56	48	47	46	40	40	40	40	40	40	40													
2	89	81	75	70	81	75	69	65	63	59	56	52	49	47	42	40	38	34	34	34	34	34	34	34													
3	81	71	64	58	74	66	59	54	56	51	47	46	43	40	37	35	33	28	28	28	28	28	28	28													
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28	24	24	24	24	24	24	24													
5	68	56	48	42	62	52	45	39	44	39	34	37	33	29	30	27	24	21	21	21	21	21	21	21													
6	62	50	42	36	57	47	39	34	40	34	30	33	29	26	27	24	22	19	19	19	19	19	19	19													
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	22	19	16	16	16	16	16	16	16													
8	54	41	33	28	49	38	31	27	33	27	23	28	23	20	23	20	17	15	15	15	15	15	15	15													
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13	13	13	13	13	13	13													
10	47	34	27	22	43	32	26	21	28	22	19	23	19	16	19	16	14	12	12	12	12	12	12	12													

**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



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CATALOG NUMBER: S125DIP-S850D1035U835-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.8	1.7
10°-20°	349.6	4.9
20°-30°	516.2	7.2
30°-40°	602.4	8.4
40°-50°	605.0	8.5
50°-60°	531.1	7.4
60°-70°	395.7	5.5
70°-80°	226.3	3.2
80°-90°	68.6	1.0
90°-100°	358.9	5.0
100°-110°	771.5	10.8
110°-120°	724.1	10.2
120°-130°	586.8	8.2
130°-140°	470.9	6.6
140°-150°	355.4	5.0
150°-160°	250.1	3.5
160°-170°	147.4	2.1
170°-180°	48.0	0.7
0°-30°	989.7	13.9
0°-40°	1592.1	22.3
0°-60°	2728.2	38.3
0°-90°	3418.8	47.9
90°-120°	1854.5	26.0
90°-150°	3267.6	45.8
90°-180°	3713.0	52.1
0°-180°	7131.9	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	9	16	21	23	5
95°	33	97	884	401	235	35
105°	113	158	724	1425	1323	119
115°	202	243	581	1252	1474	198
125°	280	327	557	996	1161	248
135°	327	394	553	835	964	254
145°	381	437	555	691	761	239
155°	435	468	541	611	638	200
165°	475	488	519	551	559	134
175°	494	494	498	504	502	47
180°	495	495	495	495	495	



TEST NUMBER: P333240

CATALOG NUMBER: S125DIP-S850D1035U835-4F0-1E-UDD-F4

**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°	22.6	22.8	23.2	23.6	24.0	24.3	24.4	24.6	24.6	24.8	25.0
90°	1.0	2.0	4.0	6.0	8.0	10.0	11.0	13.0	14.0	16.0	17.0
92.5°	12.2	14.8	23.2	35.5	52.7	81.9	136.4	227.8	327.0	321.8	260.5
95°	32.9	33.9	41.9	52.9	74.9	119.8	226.6	446.2	721.8	884.5	865.5
97.5°	54.7	55.9	61.5	72.5	92.2	124.6	195.3	356.2	644.5	944.6	1095.1
100°	69.9	71.9	75.9	86.8	105.8	135.8	193.7	323.4	575.0	901.4	1151.0
102.5°	86.7	87.8	91.0	102.8	120.2	149.3	200.9	309.9	522.3	825.6	1117.5
105°	112.8	112.8	117.8	127.8	143.8	171.7	215.6	304.5	471.2	723.7	1010.3
107.5°	138.4	140.4	145.1	153.3	169.9	195.1	237.6	313.7	449.6	653.7	900.8
110°	156.7	158.7	162.7	171.7	186.7	212.6	253.6	322.4	443.2	620.9	838.5



TEST NUMBER: P333240

CATALOG NUMBER: S125DIP-S850D1035U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	175.1	177.1	180.3	189.3	204.2	229.4	268.7	333.6	443.2	601.8	792.2
115°	201.7	203.6	206.6	215.6	230.6	255.6	292.5	350.4	446.2	581.0	741.7
117.5°	225.6	228.6	231.8	240.8	257.8	281.9	316.9	369.6	452.8	570.8	711.6
120°	241.6	244.6	248.6	257.6	274.5	299.5	334.4	382.3	459.2	566.0	694.8
122.5°	258.4	260.5	263.7	272.7	291.3	316.3	351.2	396.7	464.8	562.0	680.4
125°	279.5	281.5	286.5	295.5	314.5	340.4	373.4	416.3	474.2	557.0	660.9
127.5°	296.1	299.1	305.5	316.9	337.0	363.0	394.7	434.2	484.8	554.6	642.9
130°	306.5	309.5	317.5	330.4	351.4	377.3	408.3	446.2	491.2	553.0	630.9
132.5°	314.5	318.2	327.8	342.4	364.2	390.1	421.1	456.6	498.3	553.0	621.3
135°	327.4	331.4	343.4	359.4	380.3	407.3	438.2	471.2	508.1	553.0	609.9
137.5°	343.8	346.8	358.0	374.0	394.5	422.3	450.4	482.0	517.1	554.2	599.8
140°	353.4	356.4	368.4	384.3	403.3	430.3	459.2	489.2	521.1	555.0	595.0
142.5°	364.6	366.8	377.9	393.9	412.1	437.4	464.8	493.1	523.5	555.8	591.0
145°	381.3	383.3	393.3	407.3	425.3	448.2	474.2	499.1	526.1	555.0	585.0
147.5°	398.9	400.1	408.7	421.7	437.2	457.4	480.2	502.7	527.1	552.4	578.8
150°	409.3	411.3	418.3	431.3	445.2	462.2	484.2	505.1	527.1	550.0	574.0
152.5°	420.5	421.7	427.9	439.2	452.4	467.8	488.2	506.7	526.3	546.9	568.4
155°	435.2	435.2	441.2	451.2	461.2	475.2	492.1	508.1	524.1	541.1	559.0
157.5°	448.4	448.2	453.0	461.6	470.4	481.0	495.5	509.1	521.5	535.1	550.2
160°	457.2	456.2	460.2	467.2	475.2	484.2	497.1	509.1	519.1	531.1	543.1
162.5°	464.4	463.4	467.4	473.6	480.0	487.4	498.7	508.3	516.7	526.3	536.7
165°	475.2	473.2	476.2	481.2	485.2	491.2	499.1	507.1	513.1	519.1	527.1
167.5°	482.4	481.4	483.2	486.0	488.8	492.5	499.1	504.7	507.5	512.1	517.7
170°	487.2	486.2	487.2	489.2	491.2	494.1	499.1	503.1	505.1	508.1	512.1
172.5°	490.4	488.6	489.6	491.5	492.7	494.1	498.3	501.5	501.9	503.3	506.5
175°	494.1	492.1	493.1	494.1	494.1	494.1	497.1	499.1	498.1	498.1	499.1
177.5°	495.9	494.3	494.3	495.1	494.3	494.3	495.9	496.7	495.1	495.1	495.9
180°	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1



TEST NUMBER: P333240

CATALOG NUMBER: S125DIP-S850D1035U835-4F0-1E-UDD-F4

**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°	25.2	25.4	25.6	25.8	25.4	25.1	24.9	24.5
90°	18.0	19.0	20.0	22.0	22.0	22.0	23.0	23.0
92.5°	176.9	128.4	96.6	81.9	69.1	66.7	65.3	63.7
95°	717.8	566.0	443.2	359.4	288.5	258.6	250.6	234.6
97.5°	1069.0	962.5	842.9	726.3	664.7	608.7	579.8	567.0
100°	1227.9	1179.0	1076.1	972.3	903.4	831.6	794.6	778.7
102.5°	1281.4	1311.5	1262.2	1191.9	1118.3	1067.2	1027.0	1015.0
105°	1249.8	1386.6	1430.5	1419.5	1387.6	1354.7	1334.7	1322.7
107.5°	1137.2	1319.7	1432.5	1484.6	1500.8	1500.6	1494.0	1486.0
110°	1054.2	1243.8	1384.6	1469.5	1514.4	1533.3	1540.3	1540.3





TEST NUMBER: P333240

CATALOG NUMBER: S125DIP-S850D1035U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	988.7	1168.8	1311.1	1411.2	1476.8	1509.4	1526.8	1533.9
115°	906.4	1061.2	1197.9	1306.7	1384.6	1432.5	1460.5	1473.5
117.5°	853.3	986.7	1104.5	1204.3	1282.2	1331.7	1359.4	1367.4
120°	824.6	944.4	1054.2	1142.0	1215.9	1263.8	1290.8	1298.8
122.5°	803.0	914.0	1011.8	1094.1	1160.0	1203.9	1230.9	1238.1
125°	771.7	873.5	960.3	1032.2	1088.1	1129.0	1151.0	1161.0
127.5°	739.7	834.8	915.8	983.1	1033.8	1069.9	1090.7	1095.1
130°	719.8	807.6	885.5	950.4	1000.3	1033.2	1053.2	1059.2
132.5°	699.8	782.0	852.7	915.2	965.1	998.1	1016.4	1023.2
135°	673.8	742.7	806.6	863.5	907.4	940.4	958.3	964.3
137.5°	651.9	707.6	760.7	809.0	848.3	878.3	894.9	901.4
140°	639.9	686.8	732.7	774.7	811.6	837.6	852.5	857.5
142.5°	629.5	669.2	708.8	745.1	776.5	798.4	812.6	816.8
145°	615.9	646.9	677.8	704.8	728.7	745.7	756.7	760.7
147.5°	603.2	628.3	652.1	672.4	691.4	705.0	711.4	713.2
150°	596.0	617.9	636.9	654.9	669.8	681.8	685.8	686.8
152.5°	588.0	607.5	624.9	638.9	651.5	661.1	665.0	666.0
155°	576.0	592.0	606.0	616.9	626.9	633.9	636.9	637.9
157.5°	564.0	577.2	588.0	596.6	604.4	610.1	612.9	612.7
160°	556.0	566.0	576.0	583.0	590.0	595.0	597.0	596.0
162.5°	547.3	556.4	564.8	571.0	576.4	580.6	581.0	580.8
165°	535.1	542.1	548.1	553.0	557.0	559.0	559.0	559.0
167.5°	523.5	528.1	532.7	536.3	538.3	540.1	539.3	539.1
170°	517.1	520.1	523.1	525.1	527.1	528.1	528.1	527.1
172.5°	509.9	512.9	515.1	516.3	516.7	518.5	516.9	515.9
175°	502.1	502.1	504.1	504.1	504.1	505.1	503.1	502.1
177.5°	496.7	497.5	497.5	497.5	496.7	497.5	495.1	495.1
180°	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1

(END OF REPORT)