

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: P333565

Luminaire Tested: **S125RDIP-S850D810U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333565  
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: S125RDIP-S850D810U835-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6490.4 lumens  
Efficiency: N/A  
Efficacy: 141.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: General Diffuse

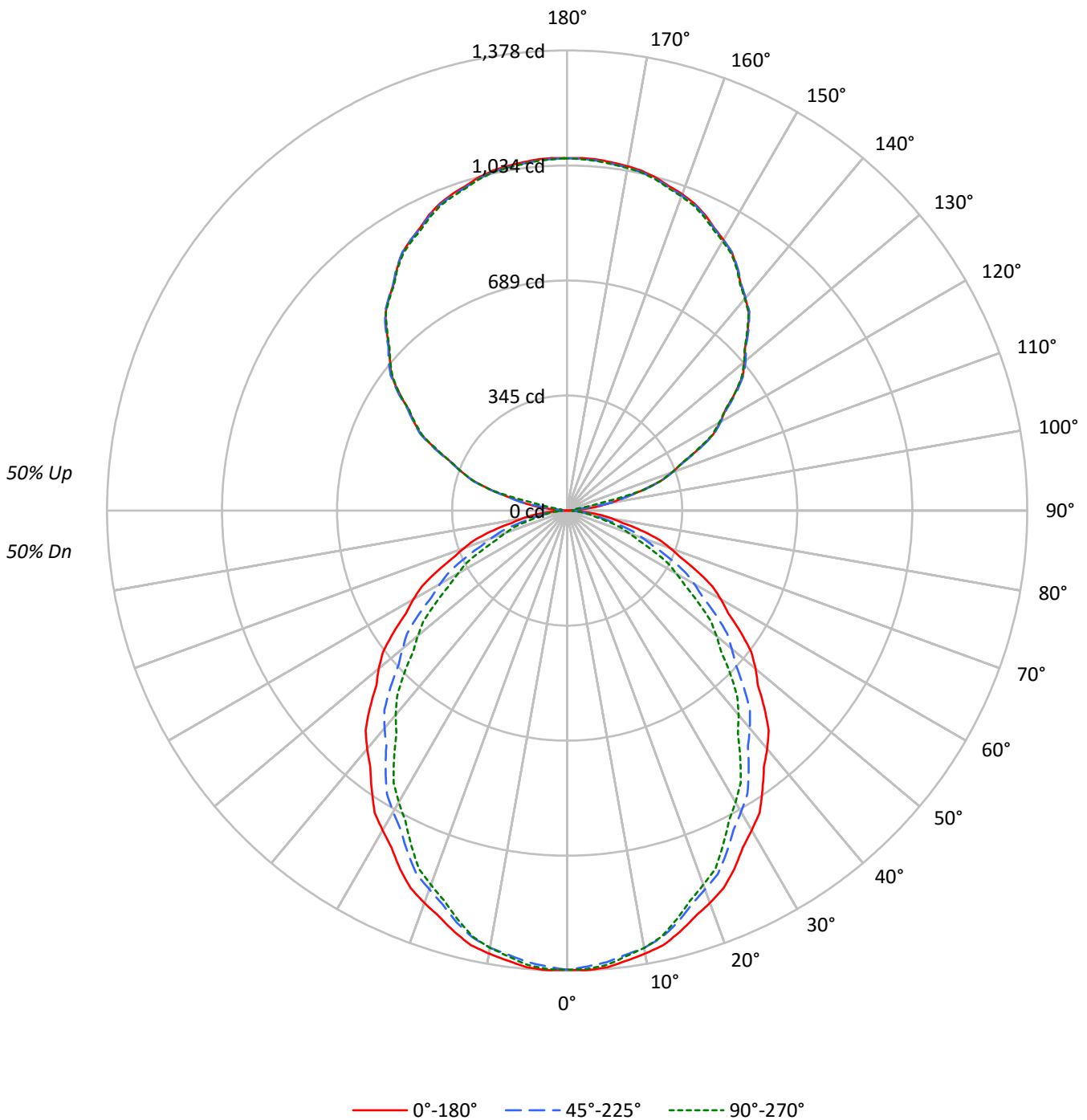
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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									70									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	99	99	99	99	83	83	83	69	69	69	56	56	56	50																				
1	98	94	90	87	90	87	83	80	73	71	69	61	60	58	50	49	48	43																				
2	89	82	76	71	82	76	71	66	65	61	57	54	51	49	44	42	41	36																				
3	82	72	65	59	75	67	61	56	57	52	48	48	44	42	39	37	35	31																				
4	75	64	56	50	69	60	53	47	51	46	41	43	39	36	35	32	30	27																				
5	69	57	49	43	63	53	46	41	46	40	36	39	34	31	32	29	26	23																				
6	63	51	43	38	58	48	41	36	41	36	31	35	31	27	29	26	23	20																				
7	59	46	39	33	54	43	36	31	37	32	28	32	27	24	27	23	21	18																				
8	54	42	35	29	50	39	33	28	34	29	25	29	25	22	24	21	19	16																				
9	51	39	31	26	47	36	29	25	31	26	22	27	23	19	23	19	17	15																				
10	47	35	28	23	44	33	27	22	29	24	20	25	21	18	21	18	15	13																				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.3	2.0
10°-20°	361.3	5.6
20°-30°	524.0	8.1
30°-40°	597.2	9.2
40°-50°	582.1	9.0
50°-60°	490.0	7.5
60°-70°	343.5	5.3
70°-80°	176.6	2.7
80°-90°	46.8	0.7
90°-100°	38.3	0.6
100°-110°	236.3	3.6
110°-120°	428.5	6.6
120°-130°	550.0	8.5
130°-140°	591.5	9.1
140°-150°	555.2	8.6
150°-160°	449.1	6.9
160°-170°	290.5	4.5
170°-180°	100.2	1.5
0°-30°	1014.6	15.6
0°-40°	1611.8	24.8
0°-60°	2683.9	41.4
0°-90°	3250.7	50.1
90°-120°	703.1	10.8
90°-150°	2399.9	37.0
90°-180°	3240.0	49.9
0°-180°	6490.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	1	7	12	16	19	5
95°	45	41	12	16	16	57
105°	230	233	233	233	232	244
115°	432	435	436	433	429	428
125°	614	619	619	616	614	548
135°	766	770	769	767	762	590
145°	888	889	889	890	885	555
155°	978	973	974	976	970	450
165°	1032	1027	1028	1032	1026	291
175°	1055	1051	1051	1057	1050	100
180°	1055	1055	1055	1055	1055	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.3	18.3	17.2	16.2	15.2	14.7	14.8	14.8	14.9	15.0	15.1
90°	0.8	2.2	3.6	5.0	6.3	7.6	8.9	10.1	11.3	12.5	13.4
92.5°	12.0	11.1	10.1	9.1	8.2	8.2	9.3	10.4	11.4	12.5	13.4
95°	44.6	44.1	43.5	43.0	42.5	38.9	32.3	25.7	19.1	12.5	13.4
97.5°	93.1	94.0	94.9	95.9	96.8	90.8	77.7	64.6	51.5	38.5	33.6
100°	130.6	131.1	131.6	132.2	132.7	133.3	134.0	134.7	135.4	136.1	110.2
102.5°	168.8	169.4	170.1	170.7	171.4	171.9	172.4	172.8	173.2	173.6	168.7
105°	229.9	230.6	231.3	232.0	232.7	233.0	233.0	233.0	233.0	233.0	233.0
107.5°	293.4	293.4	293.4	293.4	293.4	293.6	293.9	294.3	294.6	295.0	295.0
110°	334.7	334.7	334.7	334.7	334.7	334.9	335.2	335.6	335.9	336.3	335.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	373.5	373.9	374.3	374.8	375.2	375.5	375.7	375.9	376.1	376.3	375.7
115°	431.7	432.6	433.4	434.3	435.2	435.7	435.9	436.0	436.2	436.4	435.7
117.5°	491.9	491.9	491.8	491.8	491.8	492.1	492.7	493.4	494.1	494.7	493.8
120°	529.4	529.3	529.1	528.9	528.7	528.9	529.4	530.0	530.5	531.0	530.7
122.5°	562.6	563.3	563.9	564.6	565.2	565.7	565.9	566.2	566.4	566.7	566.3
125°	613.9	615.1	616.3	617.6	618.8	619.4	619.4	619.4	619.4	619.4	618.7
127.5°	662.9	663.7	664.6	665.5	666.3	666.7	666.6	666.5	666.4	666.3	665.9
130°	692.9	693.8	694.6	695.5	696.4	696.9	697.1	697.2	697.4	697.6	697.1
132.5°	722.9	723.9	724.9	725.9	727.0	727.3	726.9	726.5	726.1	725.7	725.6
135°	765.6	766.7	767.7	768.8	769.8	770.1	769.8	769.4	769.1	768.8	768.4
137.5°	804.9	805.8	806.7	807.6	808.5	808.8	808.5	808.2	807.9	807.5	807.6
140°	830.5	830.9	831.2	831.6	831.9	832.0	831.8	831.7	831.5	831.3	831.7
142.5°	853.7	853.9	854.1	854.3	854.5	854.7	855.0	855.2	855.5	855.7	855.8
145°	887.6	888.0	888.3	888.7	889.0	889.2	889.2	889.2	889.2	889.2	889.4
147.5°	917.3	917.3	917.2	917.1	917.1	917.1	917.3	917.5	917.8	918.0	918.2
150°	936.1	935.8	935.4	935.1	934.7	934.7	935.1	935.4	935.8	936.1	936.5
152.5°	954.3	953.5	952.7	952.0	951.2	951.0	951.3	951.7	952.0	952.4	952.7
155°	977.6	976.5	975.5	974.4	973.4	973.0	973.4	973.7	974.1	974.4	974.9
157.5°	995.5	994.9	994.3	993.7	993.0	992.7	992.8	992.8	992.8	992.9	993.4
160°	1008.1	1007.0	1006.0	1004.9	1003.9	1003.5	1003.6	1003.8	1004.0	1004.1	1004.8
162.5°	1018.1	1017.0	1016.0	1014.9	1013.9	1013.5	1013.6	1013.8	1014.0	1014.2	1015.1
165°	1031.5	1030.5	1029.4	1028.4	1027.3	1026.9	1027.1	1027.3	1027.4	1027.6	1028.7
167.5°	1041.5	1040.5	1039.4	1038.3	1037.2	1036.8	1036.9	1037.1	1037.3	1037.5	1038.7
170°	1047.2	1045.9	1044.7	1043.5	1042.3	1041.8	1041.9	1042.1	1042.3	1042.5	1043.9
172.5°	1050.9	1049.7	1048.5	1047.3	1046.0	1045.6	1045.9	1046.2	1046.5	1046.8	1048.1
175°	1055.0	1053.9	1052.9	1051.9	1050.8	1050.4	1050.5	1050.7	1050.9	1051.1	1052.5
177.5°	1056.9	1056.0	1055.2	1054.4	1053.5	1053.2	1053.3	1053.4	1053.6	1053.7	1054.7
180°	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	15.3	15.5	15.7	15.7	15.6	15.5	15.5	15.4
90°	14.3	15.1	16.0	16.7	17.2	17.7	18.2	18.8
92.5°	14.3	15.1	16.0	16.5	16.8	17.0	17.3	17.5
95°	14.3	15.1	16.0	16.4	16.4	16.4	16.4	16.4
97.5°	28.7	23.8	18.9	16.4	16.4	16.4	16.4	16.4
100°	84.3	58.4	32.5	19.2	18.5	17.8	17.1	16.4
102.5°	163.8	158.9	154.0	145.7	133.8	122.0	110.2	98.4
105°	233.0	233.0	233.0	233.0	232.8	232.6	232.4	232.3
107.5°	295.1	295.1	295.1	294.9	294.4	293.8	293.3	292.8
110°	335.2	334.7	334.2	334.0	334.2	334.4	334.5	334.7





TEST NUMBER: P333565

CATALOG NUMBER: S125RDIP-S850D810U835-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	375.0	374.3	373.7	373.2	373.0	372.7	372.5	372.3
115°	435.0	434.3	433.6	432.7	431.7	430.6	429.6	428.6
117.5°	492.9	492.0	491.1	490.4	490.0	489.5	489.1	488.6
120°	530.3	530.0	529.6	529.0	528.1	527.3	526.4	525.5
122.5°	566.0	565.6	565.3	564.6	563.6	562.6	561.6	560.6
125°	618.0	617.3	616.6	616.0	615.5	614.9	614.4	613.9
127.5°	665.5	665.2	664.8	663.9	662.7	661.4	660.1	658.8
130°	696.5	696.0	695.5	694.8	693.9	693.1	692.2	691.3
132.5°	725.5	725.4	725.3	724.8	724.0	723.1	722.2	721.4
135°	768.1	767.7	767.4	766.7	765.6	764.6	763.5	762.5
137.5°	807.7	807.7	807.8	807.4	806.5	805.6	804.7	803.8
140°	832.0	832.4	832.7	832.4	831.3	830.3	829.2	828.2
142.5°	855.9	855.9	856.0	855.5	854.5	853.4	852.4	851.3
145°	889.5	889.7	889.9	889.4	888.4	887.4	886.3	885.3
147.5°	918.4	918.6	918.8	918.3	917.0	915.8	914.5	913.3
150°	936.8	937.2	937.5	937.0	935.6	934.2	932.8	931.4
152.5°	953.1	953.4	953.8	953.3	952.1	950.8	949.6	948.3
155°	975.5	976.0	976.5	976.1	974.7	973.3	971.9	970.5
157.5°	994.0	994.6	995.1	994.7	993.3	991.9	990.5	989.1
160°	1005.5	1006.2	1006.9	1006.6	1005.2	1003.8	1002.4	1001.0
162.5°	1016.1	1017.1	1018.0	1017.8	1016.2	1014.7	1013.2	1011.7
165°	1029.7	1030.7	1031.8	1031.6	1030.2	1028.8	1027.4	1026.0
167.5°	1040.0	1041.2	1042.5	1042.3	1040.7	1039.2	1037.6	1036.1
170°	1045.2	1046.6	1048.0	1047.9	1046.4	1044.8	1043.2	1041.7
172.5°	1049.3	1050.6	1051.9	1051.7	1050.1	1048.6	1047.0	1045.4
175°	1053.8	1055.2	1056.6	1056.5	1055.0	1053.4	1051.9	1050.3
177.5°	1055.7	1056.6	1057.6	1057.6	1056.4	1055.3	1054.2	1053.1
180°	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0	1055.0

(END OF REPORT)