

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: P333573-830

Luminaire Tested: **S125RDIP-S850D1035U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333573-830  
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: S125RDIP-S850D1035U830-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6564.2 lumens  
Efficiency: N/A  
Efficacy: 126.2 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

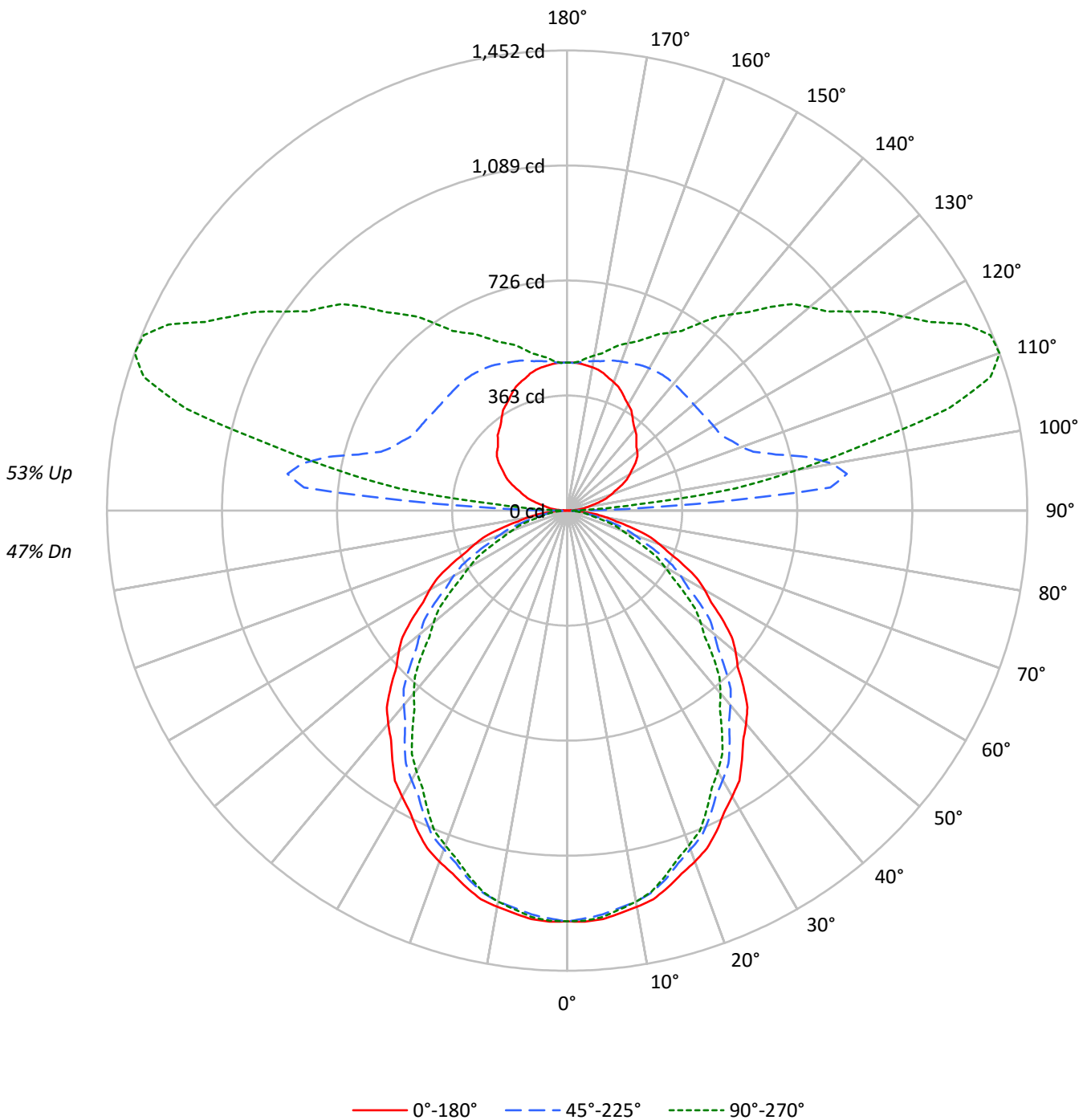
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53
1	97	93	89	86	89	86	82	79	72	69	67	59	57	56	47	46	45
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	42	40	38
3	81	72	65	59	74	66	60	55	56	51	47	46	43	40	37	35	33
4	74	64	56	50	68	59	52	47	50	45	40	41	37	34	33	31	28
5	68	57	49	43	62	52	45	40	44	39	35	37	33	30	30	27	25
6	63	51	43	37	58	47	40	35	40	35	31	34	29	26	27	24	22
7	58	46	38	33	53	43	36	31	36	31	27	31	26	23	25	22	20
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	18
9	50	38	31	26	46	35	29	24	30	25	21	26	22	19	21	18	16
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	14

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

	0°	45°	90°
0°	8371	8371	8371
5°	8390	8294	8345
10°	8326	8217	8217
15°	8227	8050	7985
20°	8100	7818	7724
25°	7953	7590	7422
30°	7767	7322	7088
35°	7579	7046	6714
40°	7403	6759	6347
45°	7188	6437	5945
50°	6973	6089	5528
55°	6723	5754	5082
60°	6473	5349	4602
65°	6178	4876	4053
70°	5840	4288	3493
75°	5375	3616	2907
80°	4731	2838	2440
85°	3987	2319	2179



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.9	1.9
10°-20°	340.6	5.2
20°-30°	493.9	7.5
30°-40°	562.9	8.6
40°-50°	548.6	8.4
50°-60°	461.8	7.0
60°-70°	323.7	4.9
70°-80°	166.4	2.5
80°-90°	44.6	0.7
90°-100°	338.3	5.2
100°-110°	727.2	11.1
110°-120°	682.5	10.4
120°-130°	553.1	8.4
130°-140°	443.9	6.8
140°-150°	334.9	5.1
150°-160°	235.8	3.6
160°-170°	139.0	2.1
170°-180°	45.2	0.7
0°-30°	956.3	14.6
0°-40°	1519.2	23.1
0°-60°	2529.7	38.5
0°-90°	3064.5	46.7
90°-120°	1747.9	26.6
90°-150°	3079.8	46.9
90°-180°	3500.0	53.3
0°-180°	6564.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1294	1290	1279	1289	1287	123
15°	1230	1224	1204	1203	1194	347
25°	1116	1100	1065	1052	1042	513
35°	961	937	894	866	852	602
45°	787	757	705	667	651	607
55°	597	564	511	468	451	534
65°	404	370	319	281	265	400
75°	215	185	145	124	116	228
85°	54	37	31	30	29	60
90°	1	8	15	20	22	4
95°	31	92	834	378	221	33
105°	106	149	682	1343	1247	112
115°	190	229	548	1180	1389	187
125°	263	309	525	939	1094	234
135°	309	371	521	787	909	240
145°	359	412	523	652	717	225
155°	410	441	510	576	601	189
165°	448	460	489	519	527	126
175°	466	466	470	475	473	44
180°	467	467	467	467	467	



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CATALOG NUMBER: S125RDIP-S850D1035U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1298.4	1297.9	1297.3	1296.8	1296.3	1295.1	1293.5	1291.7	1290.0	1288.2	1290.0
5°	1294.1	1293.3	1292.3	1291.5	1290.6	1289.0	1286.6	1284.2	1281.8	1279.4	1281.6
7.5°	1281.4	1280.5	1279.7	1278.8	1278.1	1276.2	1273.4	1270.5	1267.6	1264.7	1266.2
10°	1269.6	1268.9	1268.3	1267.6	1267.0	1265.2	1262.2	1259.0	1256.0	1253.0	1253.6
12.5°	1256.3	1255.5	1254.6	1253.9	1253.0	1250.6	1246.4	1242.4	1238.3	1234.2	1234.6
15°	1230.5	1229.2	1227.9	1226.5	1225.2	1222.3	1217.8	1213.1	1208.6	1204.0	1203.8
17.5°	1201.3	1199.3	1197.3	1195.3	1193.3	1189.4	1183.6	1177.9	1172.1	1166.4	1165.4
20°	1178.6	1176.4	1174.2	1172.1	1169.9	1165.3	1158.4	1151.4	1144.4	1137.5	1136.4
22.5°	1153.5	1151.3	1149.1	1147.0	1144.8	1140.1	1132.7	1125.5	1118.1	1110.9	1108.7
25°	1116.0	1112.7	1109.4	1106.2	1102.9	1097.2	1089.2	1081.1	1073.1	1065.1	1062.2
27.5°	1072.9	1068.9	1065.0	1061.0	1057.1	1050.7	1042.2	1033.5	1024.9	1016.2	1012.3
30°	1041.5	1037.4	1033.3	1029.2	1025.0	1018.3	1009.3	1000.1	991.0	981.8	976.9
32.5°	1011.0	1006.2	1001.4	996.6	991.6	984.6	975.3	966.0	956.7	947.3	941.9
35°	961.3	956.0	950.8	945.6	940.4	932.8	923.1	913.3	903.5	893.7	887.4
37.5°	912.5	906.2	899.8	893.4	887.1	878.9	868.8	858.7	848.6	838.5	830.9
40°	878.1	871.6	865.0	858.5	852.0	843.5	833.0	822.6	812.2	801.7	793.4
42.5°	842.1	835.4	828.7	821.9	815.2	806.5	795.7	784.9	774.1	763.4	755.4
45°	787.0	780.7	774.4	768.1	761.8	752.6	740.6	728.8	716.8	704.8	696.1
47.5°	730.1	723.4	716.7	710.1	703.4	694.1	682.0	670.0	657.9	645.8	636.9
50°	694.0	686.8	679.7	672.5	665.3	655.5	643.1	630.7	618.3	606.0	596.8
52.5°	654.9	647.5	640.2	632.8	625.5	616.0	604.3	592.6	580.8	569.1	559.3
55°	597.1	590.1	583.2	576.3	569.3	559.7	547.5	535.4	523.2	511.0	501.1
57.5°	538.8	531.3	523.9	516.4	509.1	499.5	487.7	475.9	464.2	452.4	442.9
60°	501.1	493.6	486.0	478.3	470.7	461.1	449.3	437.5	425.8	414.1	404.5
62.5°	461.3	454.0	446.8	439.4	432.2	422.6	410.7	398.8	386.8	374.9	366.1
65°	404.3	396.9	389.5	382.1	374.7	365.2	353.7	342.1	330.6	319.1	310.4
67.5°	347.7	340.3	332.9	325.6	318.1	308.9	297.8	286.8	275.8	264.7	256.7
70°	309.3	301.9	294.5	287.1	279.7	270.6	259.8	248.8	238.0	227.1	220.4
72.5°	271.7	264.5	257.3	250.1	242.9	234.1	223.9	213.8	203.6	193.4	187.2
75°	215.4	208.9	202.3	195.8	189.3	181.4	172.3	163.2	154.0	144.9	140.1
77.5°	159.4	154.1	148.9	143.7	138.5	132.2	124.9	117.6	110.3	103.0	99.6
80°	127.2	122.1	116.8	111.6	106.4	100.8	94.6	88.5	82.5	76.3	74.4
82.5°	96.0	91.2	86.5	81.8	77.1	72.7	68.5	64.4	60.1	56.0	55.0
85°	53.8	50.0	46.0	42.1	38.2	35.6	34.6	33.5	32.4	31.3	31.1
87.5°	18.2	17.2	16.3	15.5	14.6	14.3	14.3	14.5	14.5	14.8	15.0
90°	0.9	1.9	3.8	5.7	7.5	9.4	10.4	12.3	13.2	15.1	16.0
92.5°	11.5	13.9	21.9	33.5	49.7	77.2	128.6	214.7	308.2	303.3	245.5
95°	31.0	32.0	39.5	49.9	70.6	112.9	213.6	420.6	680.3	833.7	815.8
97.5°	51.6	52.7	58.0	68.3	86.9	117.4	184.1	335.7	607.5	890.3	1032.2
100°	65.9	67.8	71.5	81.8	99.7	128.0	182.6	304.8	542.0	849.6	1084.9
102.5°	81.7	82.8	85.8	96.9	113.3	140.7	189.4	292.1	492.3	778.2	1053.3
105°	106.3	106.3	111.0	120.5	135.5	161.8	203.2	287.0	444.1	682.1	952.3
107.5°	130.4	132.3	136.8	144.5	160.1	183.9	223.9	295.7	423.8	616.1	849.0
110°	147.7	149.6	153.4	161.8	176.0	200.4	239.0	303.9	417.7	585.2	790.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	165.0	166.9	169.9	178.4	192.5	216.2	253.3	314.4	417.7	567.2	746.7
115°	190.1	191.9	194.7	203.2	217.4	240.9	275.7	330.3	420.6	547.6	699.1
117.5°	212.6	215.5	218.5	227.0	243.0	265.7	298.7	348.4	426.8	538.0	670.7
120°	227.7	230.5	234.3	242.8	258.7	282.3	315.2	360.3	432.8	533.5	654.9
122.5°	243.6	245.5	248.5	257.0	274.6	298.1	331.0	373.9	438.1	529.7	641.3
125°	263.4	265.3	270.0	278.5	296.4	320.8	351.9	392.4	447.0	525.0	622.9
127.5°	279.1	281.9	287.9	298.7	317.6	342.1	372.0	409.3	456.9	522.7	606.0
130°	288.9	291.7	299.3	311.4	331.2	355.6	384.8	420.6	463.0	521.2	594.7
132.5°	296.4	299.9	309.0	322.7	343.3	367.7	396.9	430.4	469.7	521.2	585.6
135°	308.6	312.4	323.7	338.7	358.4	383.9	413.0	444.1	478.9	521.2	574.9
137.5°	324.0	326.9	337.4	352.5	371.8	398.0	424.5	454.3	487.4	522.4	565.3
140°	333.1	335.9	347.2	362.2	380.1	405.6	432.8	461.1	491.2	523.1	560.8
142.5°	343.7	345.7	356.2	371.3	388.4	412.3	438.1	464.8	493.4	523.9	557.0
145°	359.4	361.3	370.7	383.9	400.9	422.4	447.0	470.4	495.9	523.1	551.4
147.5°	376.0	377.1	385.2	397.5	412.1	431.1	452.6	473.8	496.8	520.7	545.5
150°	385.8	387.7	394.3	406.5	419.6	435.6	456.4	476.1	496.8	518.4	541.0
152.5°	396.3	397.5	403.3	414.0	426.4	440.9	460.1	477.6	496.1	515.5	535.7
155°	410.2	410.2	415.8	425.3	434.7	447.9	463.8	478.9	494.0	510.0	526.9
157.5°	422.6	422.4	427.0	435.1	443.4	453.4	467.0	479.8	491.5	504.4	518.6
160°	430.9	430.0	433.8	440.4	447.9	456.4	468.5	479.8	489.3	500.6	511.9
162.5°	437.7	436.8	440.5	446.4	452.4	459.4	470.0	479.1	487.0	496.1	505.9
165°	447.9	446.0	448.8	453.6	457.3	463.0	470.4	478.0	483.6	489.3	496.8
167.5°	454.7	453.7	455.4	458.1	460.7	464.2	470.4	475.7	478.3	482.7	488.0
170°	459.2	458.3	459.2	461.1	463.0	465.7	470.4	474.2	476.1	478.9	482.7
172.5°	462.2	460.5	461.5	463.3	464.4	465.7	469.7	472.7	473.1	474.4	477.4
175°	465.7	463.8	464.8	465.7	465.7	465.7	468.5	470.4	469.5	469.5	470.4
177.5°	467.4	465.9	465.9	466.7	465.9	465.9	467.4	468.2	466.7	466.7	467.4
180°	466.7	466.7	466.7	466.7	466.7	466.7	466.7	466.7	466.7	466.7	466.7



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1291.7	1293.5	1295.1	1296.0	1295.8	1295.6	1295.4	1295.2
5°	1283.7	1285.9	1288.1	1289.0	1288.5	1288.1	1287.7	1287.2
7.5°	1267.8	1269.3	1270.8	1271.3	1270.8	1270.4	1269.9	1269.4
10°	1254.2	1254.9	1255.6	1255.6	1254.9	1254.2	1253.6	1253.0
12.5°	1235.1	1235.6	1236.1	1235.9	1234.8	1233.8	1232.8	1231.8
15°	1203.6	1203.3	1203.2	1202.1	1200.1	1198.2	1196.2	1194.2
17.5°	1164.2	1163.2	1162.1	1160.7	1159.1	1157.5	1155.9	1154.3
20°	1135.3	1134.2	1133.1	1131.6	1129.6	1127.7	1125.7	1123.8
22.5°	1106.5	1104.5	1102.3	1100.4	1098.8	1097.2	1095.6	1094.0
25°	1059.4	1056.6	1053.8	1051.1	1048.7	1046.3	1044.0	1041.5
27.5°	1008.3	1004.4	1000.4	997.3	995.0	992.7	990.4	988.1
30°	971.9	966.9	961.8	958.4	956.4	954.4	952.4	950.5
32.5°	936.3	930.8	925.3	921.2	918.8	916.3	913.8	911.3
35°	881.1	874.8	868.5	863.8	860.7	857.7	854.7	851.6
37.5°	823.4	815.8	808.2	803.0	800.0	797.0	794.1	791.2
40°	785.1	776.9	768.6	763.2	760.6	758.0	755.4	752.8
42.5°	747.5	739.6	731.7	725.8	722.0	718.1	714.3	710.5
45°	687.4	678.7	670.0	664.0	660.7	657.5	654.2	650.9
47.5°	627.9	619.0	610.0	603.7	600.1	596.5	592.9	589.3
50°	587.7	578.5	569.4	563.2	560.0	556.7	553.4	550.2
52.5°	549.5	539.6	529.8	523.2	520.0	516.7	513.5	510.2
55°	491.4	481.6	471.8	465.1	461.8	458.3	454.8	451.3
57.5°	433.3	423.8	414.2	407.8	404.7	401.6	398.6	395.5
60°	394.9	385.3	375.8	369.4	366.1	362.9	359.6	356.3
62.5°	357.1	348.3	339.4	333.4	330.1	326.8	323.6	320.3
65°	301.7	293.0	284.3	278.3	275.0	271.8	268.5	265.2
67.5°	248.7	240.8	232.8	227.5	225.0	222.3	219.7	217.2
70°	213.6	206.9	200.1	195.5	192.8	190.2	187.7	185.0
72.5°	181.0	174.7	168.5	164.6	162.8	161.1	159.4	157.6
75°	135.3	130.5	125.7	122.6	121.0	119.5	118.0	116.5
77.5°	96.2	92.9	89.5	87.4	86.2	85.1	84.0	82.8
80°	72.5	70.5	68.5	67.3	66.9	66.4	66.0	65.6
82.5°	54.2	53.3	52.3	51.7	51.5	51.3	51.0	50.7
85°	30.9	30.6	30.4	30.3	30.0	29.8	29.6	29.4
87.5°	15.2	15.4	15.6	15.8	15.6	15.5	15.5	15.3
90°	17.0	17.9	18.9	20.7	20.7	20.7	21.7	21.7
92.5°	166.7	121.0	91.0	77.2	65.1	62.9	61.5	60.0
95°	676.6	533.5	417.7	338.7	271.9	243.7	236.2	221.1
97.5°	1007.6	907.2	794.5	684.6	626.5	573.7	546.5	534.4
100°	1157.3	1111.3	1014.3	916.4	851.5	783.8	748.9	734.0
102.5°	1207.8	1236.1	1189.7	1123.4	1054.0	1005.9	968.0	956.7
105°	1178.0	1306.9	1348.3	1337.9	1307.9	1276.9	1258.0	1246.7
107.5°	1071.9	1243.9	1350.2	1399.3	1414.6	1414.4	1408.2	1400.6
110°	993.6	1172.3	1305.0	1385.1	1427.4	1445.2	1451.8	1451.8





TEST NUMBER: P333573-830

CATALOG NUMBER: S125RDIP-S850D1035U830-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	931.9	1101.6	1235.8	1330.1	1391.9	1422.7	1439.1	1445.8
115°	854.3	1000.2	1129.1	1231.6	1305.0	1350.2	1376.6	1388.8
117.5°	804.3	930.0	1041.0	1135.1	1208.5	1255.2	1281.3	1288.8
120°	777.2	890.1	993.6	1076.4	1146.0	1191.2	1216.6	1224.2
122.5°	756.9	861.5	953.7	1031.2	1093.3	1134.7	1160.2	1167.0
125°	727.4	823.3	905.1	972.9	1025.6	1064.1	1084.9	1094.3
127.5°	697.2	786.8	863.2	926.6	974.4	1008.4	1028.0	1032.2
130°	678.4	761.2	834.6	895.8	942.8	973.8	992.7	998.3
132.5°	659.6	737.1	803.7	862.6	909.6	940.8	958.0	964.4
135°	635.1	700.0	760.3	813.9	855.3	886.4	903.2	908.9
137.5°	614.4	666.9	717.0	762.5	799.6	827.8	843.5	849.6
140°	603.1	647.3	690.6	730.2	765.0	789.5	803.5	808.2
142.5°	593.3	630.7	668.1	702.3	731.9	752.5	765.9	769.9
145°	580.5	609.7	638.9	664.3	686.8	702.9	713.2	717.0
147.5°	568.5	592.2	614.6	633.8	651.7	664.5	670.5	672.2
150°	561.8	582.4	600.3	617.3	631.3	642.6	646.4	647.3
152.5°	554.2	572.6	589.0	602.2	614.1	623.1	626.8	627.7
155°	542.9	558.0	571.2	581.5	590.9	597.5	600.3	601.2
157.5°	531.6	544.0	554.2	562.3	569.7	575.0	577.7	577.5
160°	524.1	533.5	542.9	549.5	556.1	560.8	562.7	561.8
162.5°	515.9	524.4	532.3	538.2	543.3	547.2	547.6	547.4
165°	504.4	511.0	516.6	521.2	525.0	526.9	526.9	526.9
167.5°	493.4	497.8	502.1	505.5	507.4	509.1	508.3	508.1
170°	487.4	490.2	493.0	494.9	496.8	497.8	497.8	496.8
172.5°	480.6	483.4	485.5	486.6	487.0	488.7	487.2	486.3
175°	473.3	473.3	475.1	475.1	475.1	476.1	474.2	473.3
177.5°	468.2	468.9	468.9	468.9	468.2	468.9	466.7	466.7
180°	466.7	466.7	466.7	466.7	466.7	466.7	466.7	466.7

(END OF REPORT)