

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: P333577-830

Luminaire Tested: **S125RDIP-S850D1205U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333577-830  
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-S850D1205U830-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7602.7 lumens  
Efficiency: N/A  
Efficacy: 133.6 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

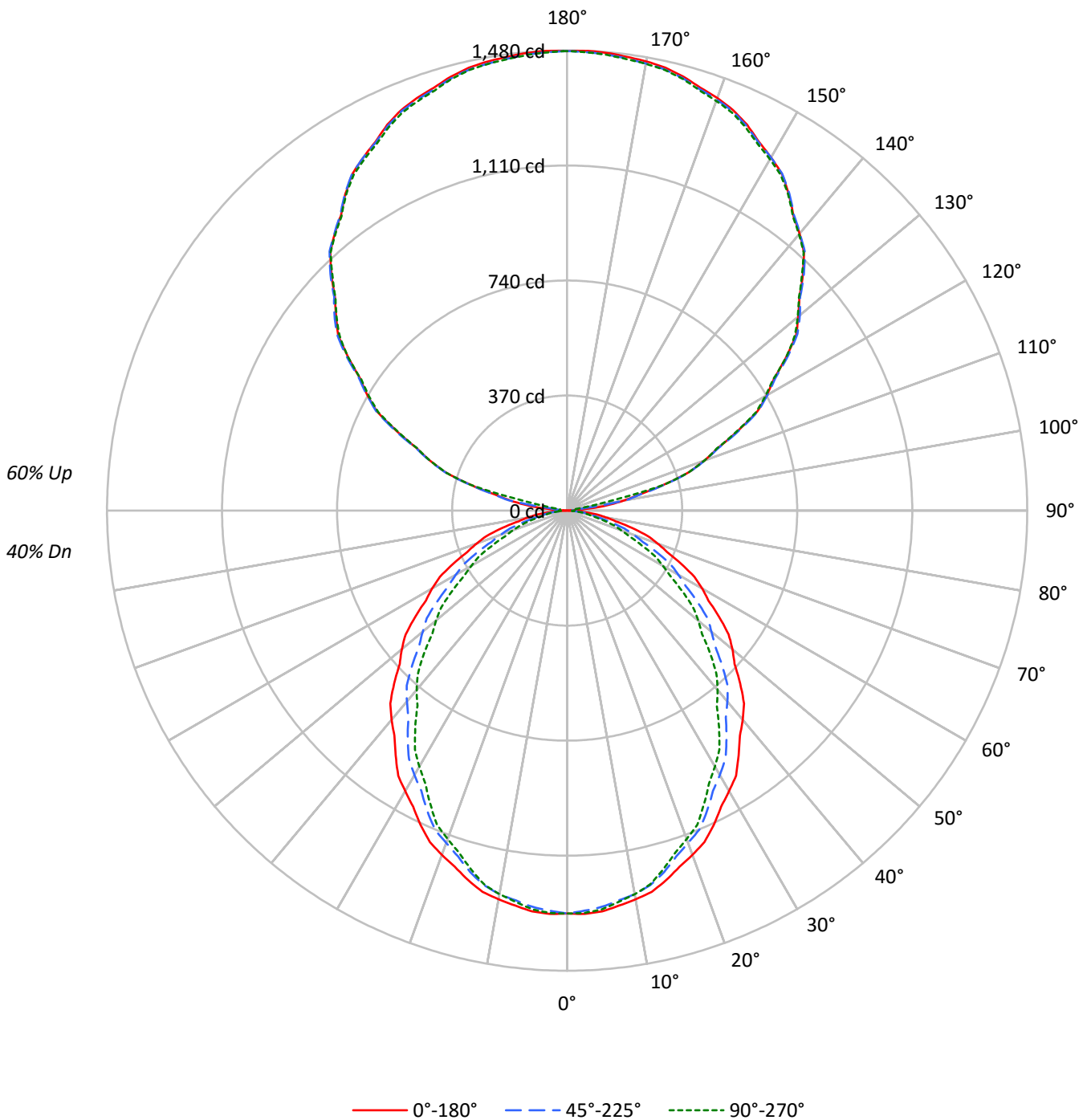
Input Watts (W): 56.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	40	34
2	87	80	74	69	79	73	68	64	60	57	53	48	46	44	37	36	34	29
3	80	71	63	58	72	65	58	53	53	49	45	43	40	37	33	31	29	25
4	73	62	55	49	66	57	51	45	47	42	38	38	35	32	30	27	25	21
5	67	56	48	42	61	51	44	39	42	37	33	34	31	28	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	24	22	19	16
7	57	45	37	32	52	41	35	30	35	29	26	28	24	21	22	19	17	15
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	20	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	17	15	13	11

**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	1.6
10°-20°	340.6	4.5
20°-30°	493.9	6.5
30°-40°	562.9	7.4
40°-50°	548.6	7.2
50°-60°	461.8	6.1
60°-70°	323.7	4.3
70°-80°	166.4	2.2
80°-90°	45.1	0.6
90°-100°	53.7	0.7
100°-110°	330.9	4.4
110°-120°	600.2	7.9
120°-130°	770.3	10.1
130°-140°	828.6	10.9
140°-150°	777.7	10.2
150°-160°	629.1	8.3
160°-170°	406.9	5.4
170°-180°	140.3	1.8
0°-30°	956.3	12.6
0°-40°	1519.2	20.0
0°-60°	2529.7	33.3
0°-90°	3064.9	40.3
90°-120°	984.9	13.0
90°-150°	3361.5	44.2
90°-180°	4538.0	59.7
0°-180°	7602.7	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	10	18	23	26	5
95°	62	57	18	23	23	80
105°	322	326	326	326	325	341
115°	605	610	611	607	600	599
125°	860	867	868	863	860	768
135°	1072	1078	1077	1074	1068	826
145°	1243	1245	1246	1246	1240	777
155°	1369	1363	1365	1368	1359	631
165°	1445	1439	1439	1445	1437	408
175°	1478	1472	1472	1480	1471	141
180°	1478	1478	1478	1478	1478	



TEST NUMBER: P333577-830

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**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	17.4	16.6	15.7	14.9	14.6	14.8	14.9	15.1	15.3	15.5
90°	1.1	3.0	5.0	7.0	8.9	10.7	12.4	14.1	15.8	17.5	18.8
92.5°	16.9	15.6	14.1	12.8	11.4	11.5	13.0	14.5	16.0	17.5	18.8
95°	62.4	61.7	61.0	60.2	59.5	54.6	45.2	36.0	26.8	17.5	18.8
97.5°	130.4	131.7	133.0	134.3	135.6	127.1	108.8	90.5	72.2	53.9	47.0
100°	182.9	183.7	184.4	185.1	185.9	186.7	187.7	188.7	189.6	190.6	154.3
102.5°	236.4	237.3	238.3	239.1	240.1	240.8	241.4	242.0	242.6	243.2	236.3
105°	322.1	323.0	324.0	325.0	325.9	326.4	326.4	326.4	326.4	326.4	326.4
107.5°	411.0	411.0	411.0	411.0	411.0	411.2	411.7	412.2	412.7	413.2	413.2
110°	468.8	468.8	468.8	468.8	468.8	469.1	469.6	470.0	470.5	471.0	470.3



TEST NUMBER: P333577-830

CATALOG NUMBER: S125RDIP-S850D1205U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	523.2	523.8	524.3	524.9	525.5	525.9	526.2	526.5	526.8	527.1	526.2
115°	604.6	605.9	607.1	608.3	609.5	610.3	610.5	610.8	611.0	611.2	610.3
117.5°	689.0	689.0	688.9	688.9	688.8	689.3	690.2	691.1	692.0	693.0	691.7
120°	741.6	741.3	741.1	740.8	740.6	740.8	741.6	742.3	743.0	743.8	743.3
122.5°	788.1	789.0	789.9	790.8	791.7	792.4	792.7	793.1	793.4	793.7	793.2
125°	859.9	861.6	863.3	865.0	866.7	867.5	867.5	867.5	867.5	867.5	866.6
127.5°	928.5	929.7	930.9	932.1	933.3	933.9	933.7	933.6	933.4	933.3	932.7
130°	970.5	971.8	973.0	974.2	975.4	976.1	976.4	976.7	976.9	977.1	976.4
132.5°	1012.6	1014.0	1015.4	1016.8	1018.2	1018.7	1018.1	1017.6	1017.1	1016.5	1016.4
135°	1072.4	1073.8	1075.3	1076.8	1078.3	1078.7	1078.3	1077.8	1077.2	1076.8	1076.3
137.5°	1127.4	1128.7	1129.9	1131.1	1132.5	1132.8	1132.5	1132.0	1131.5	1131.1	1131.2
140°	1163.3	1163.9	1164.3	1164.8	1165.3	1165.4	1165.2	1164.9	1164.7	1164.4	1164.9
142.5°	1195.7	1196.0	1196.4	1196.7	1196.9	1197.2	1197.6	1197.9	1198.3	1198.6	1198.7
145°	1243.3	1243.8	1244.3	1244.7	1245.2	1245.5	1245.5	1245.5	1245.5	1245.5	1245.8
147.5°	1284.9	1284.8	1284.7	1284.6	1284.5	1284.6	1284.9	1285.2	1285.5	1285.8	1286.1
150°	1311.2	1310.7	1310.2	1309.8	1309.3	1309.3	1309.8	1310.2	1310.7	1311.2	1311.6
152.5°	1336.6	1335.6	1334.5	1333.4	1332.3	1332.0	1332.6	1333.0	1333.5	1334.0	1334.5
155°	1369.2	1367.8	1366.3	1364.9	1363.4	1362.9	1363.4	1363.9	1364.4	1364.9	1365.6
157.5°	1394.5	1393.5	1392.7	1391.9	1390.9	1390.5	1390.6	1390.6	1390.7	1390.7	1391.5
160°	1412.0	1410.5	1409.1	1407.6	1406.2	1405.5	1405.8	1406.0	1406.3	1406.5	1407.5
162.5°	1426.0	1424.6	1423.1	1421.6	1420.1	1419.6	1419.8	1420.0	1420.3	1420.5	1421.9
165°	1444.8	1443.4	1441.9	1440.5	1439.0	1438.4	1438.6	1438.9	1439.1	1439.4	1440.9
167.5°	1458.9	1457.4	1455.9	1454.3	1452.8	1452.2	1452.5	1452.6	1452.9	1453.2	1454.9
170°	1466.8	1465.1	1463.3	1461.6	1459.9	1459.2	1459.4	1459.7	1459.9	1460.2	1462.2
172.5°	1472.0	1470.3	1468.6	1466.9	1465.2	1464.5	1465.0	1465.5	1465.8	1466.3	1468.1
175°	1477.7	1476.2	1474.8	1473.3	1471.9	1471.2	1471.5	1471.8	1472.0	1472.3	1474.1
177.5°	1480.4	1479.1	1478.0	1476.9	1475.6	1475.2	1475.4	1475.6	1475.7	1475.9	1477.3
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7



TEST NUMBER: P333577-830

CATALOG NUMBER: S125RDIP-S850D1205U830-4F0-1E-UDD-F

**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°	15.7	16.0	16.2	16.3	16.3	16.3	16.2	16.2
90°	20.0	21.2	22.4	23.4	24.1	24.8	25.5	26.3
92.5°	20.0	21.2	22.4	23.2	23.5	23.8	24.2	24.5
95°	20.0	21.2	22.4	23.0	23.0	23.0	23.0	23.0
97.5°	40.2	33.3	26.4	23.0	23.0	23.0	23.0	23.0
100°	118.1	81.8	45.5	26.9	25.9	25.0	23.9	23.0
102.5°	229.4	222.6	215.7	204.1	187.5	170.9	154.4	137.8
105°	326.4	326.4	326.4	326.3	326.0	325.8	325.6	325.4
107.5°	413.3	413.3	413.4	413.0	412.3	411.6	410.9	410.1
110°	469.6	468.8	468.1	467.9	468.1	468.3	468.6	468.8





TEST NUMBER: P333577-830

CATALOG NUMBER: S125RDIP-S850D1205U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	525.3	524.3	523.4	522.7	522.5	522.1	521.8	521.4
115°	609.3	608.3	607.4	606.1	604.6	603.2	601.7	600.3
117.5°	690.4	689.2	687.9	686.9	686.3	685.7	685.0	684.4
120°	742.8	742.3	741.9	741.0	739.8	738.6	737.4	736.1
122.5°	792.8	792.3	791.8	790.8	789.4	788.0	786.6	785.2
125°	865.6	864.6	863.7	862.8	862.0	861.4	860.6	859.9
127.5°	932.2	931.7	931.1	930.0	928.2	926.3	924.5	922.7
130°	975.6	974.9	974.2	973.2	971.9	970.8	969.6	968.4
132.5°	1016.2	1016.1	1016.0	1015.3	1014.1	1012.9	1011.6	1010.4
135°	1075.8	1075.3	1074.9	1073.8	1072.4	1070.9	1069.5	1068.0
137.5°	1131.3	1131.4	1131.5	1131.0	1129.6	1128.4	1127.1	1125.9
140°	1165.4	1165.8	1166.4	1165.8	1164.4	1163.0	1161.5	1160.1
142.5°	1198.8	1198.9	1199.0	1198.3	1196.8	1195.4	1193.9	1192.5
145°	1245.9	1246.2	1246.4	1245.9	1244.3	1242.9	1241.4	1240.0
147.5°	1286.4	1286.7	1286.9	1286.2	1284.5	1282.7	1281.0	1279.2
150°	1312.2	1312.7	1313.2	1312.4	1310.5	1308.5	1306.6	1304.7
152.5°	1334.9	1335.5	1336.0	1335.3	1333.5	1331.8	1330.0	1328.3
155°	1366.3	1367.1	1367.8	1367.2	1365.3	1363.3	1361.3	1359.4
157.5°	1392.3	1393.1	1393.8	1393.3	1391.3	1389.4	1387.4	1385.4
160°	1408.4	1409.4	1410.4	1409.9	1408.0	1406.0	1404.1	1402.1
162.5°	1423.2	1424.7	1426.0	1425.6	1423.4	1421.3	1419.2	1417.0
165°	1442.3	1443.8	1445.2	1444.9	1443.0	1441.1	1439.1	1437.2
167.5°	1456.7	1458.4	1460.2	1460.0	1457.7	1455.6	1453.4	1451.2
170°	1464.1	1466.0	1468.0	1467.8	1465.7	1463.5	1461.3	1459.1
172.5°	1469.8	1471.6	1473.3	1473.1	1470.9	1468.8	1466.5	1464.3
175°	1476.1	1478.1	1480.0	1479.9	1477.7	1475.6	1473.3	1471.1
177.5°	1478.7	1480.1	1481.4	1481.3	1479.8	1478.2	1476.6	1475.1
180°	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7	1477.7

(END OF REPORT)