

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: P333567-840

Luminaire Tested: **S125RDIP-S850D810U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333567-840  
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-S850D810U840-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6219.7 lumens  
Efficiency: N/A  
Efficacy: 135.5 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

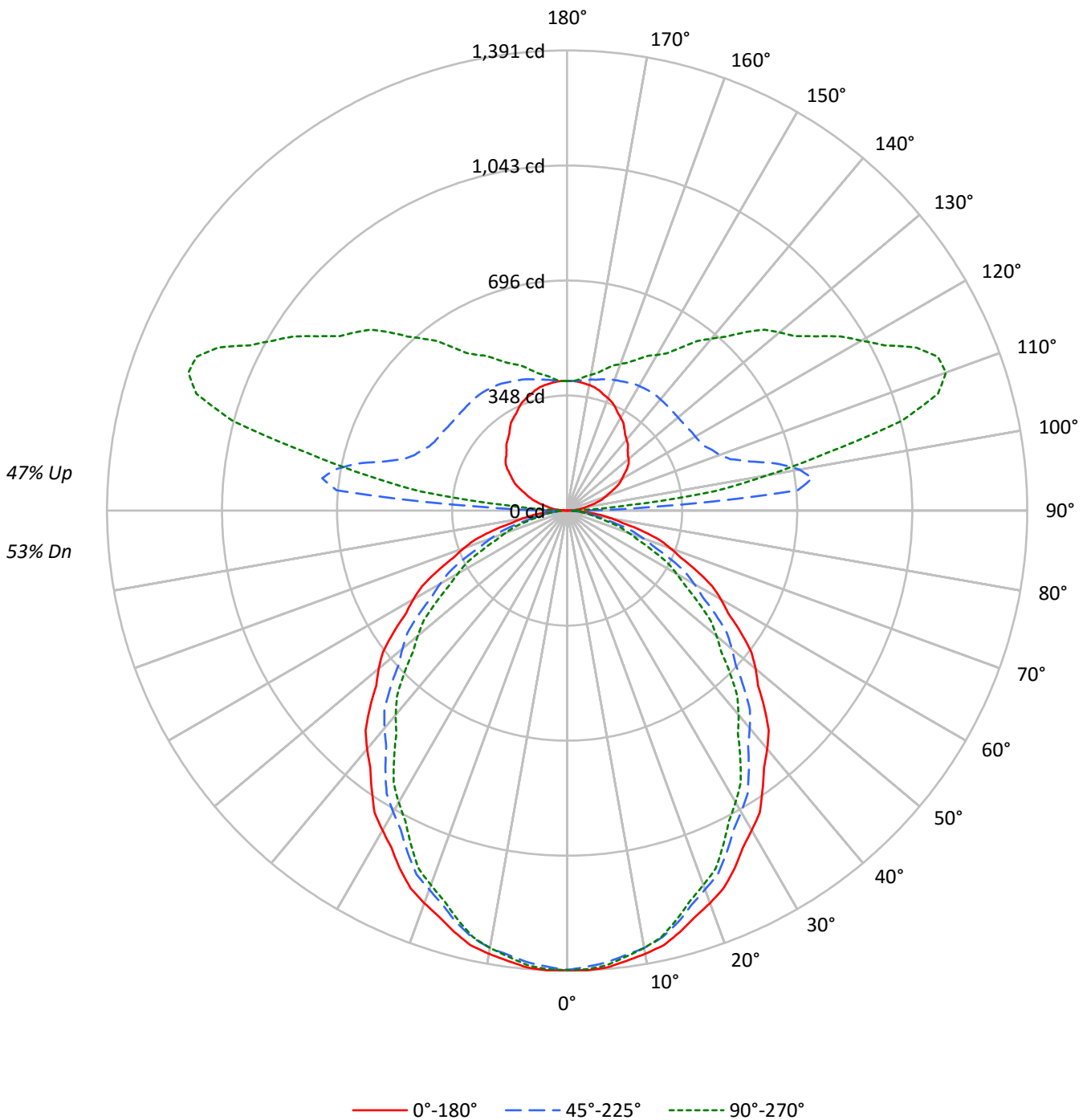
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	99	94	91	87	91	88	84	81	75	72	70	63	61	60	52	51	50	45
2	90	83	77	72	83	77	72	67	66	62	58	56	53	50	46	44	42	38
3	82	73	66	60	76	68	61	56	58	53	49	49	46	43	41	39	36	32
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	31	28
5	69	58	50	44	64	54	47	41	46	41	37	40	35	32	33	30	28	24
6	64	52	44	38	59	48	41	36	42	36	32	36	32	28	30	27	24	22
7	59	47	39	33	55	44	37	32	38	32	28	33	28	25	28	24	22	19
8	55	43	35	30	51	40	33	28	35	29	25	30	26	22	25	22	20	17
9	51	39	31	26	47	37	30	25	32	26	23	28	23	20	24	20	18	16
10	48	36	29	24	44	34	27	23	29	24	20	26	21	18	22	19	16	14

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

	0°	45°	90°
0°	8969	8969	8969
5°	8989	8887	8941
10°	8921	8804	8804
15°	8815	8625	8555
20°	8678	8376	8276
25°	8521	8131	7952
30°	8322	7845	7594
35°	8121	7550	7194
40°	7932	7242	6800
45°	7701	6898	6370
50°	7471	6523	5923
55°	7203	6164	5444
60°	6935	5730	4930
65°	6619	5225	4343
70°	6258	4594	3743
75°	5759	3873	3114
80°	5069	3042	2615
85°	4276	2482	2334



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.6	2.1
10°-20°	364.9	5.9
20°-30°	529.2	8.5
30°-40°	603.1	9.7
40°-50°	587.8	9.5
50°-60°	494.8	8.0
60°-70°	346.9	5.6
70°-80°	178.3	2.9
80°-90°	47.2	0.8
90°-100°	283.9	4.6
100°-110°	610.3	9.8
110°-120°	572.7	9.2
120°-130°	464.2	7.5
130°-140°	372.5	6.0
140°-150°	281.1	4.5
150°-160°	197.9	3.2
160°-170°	116.6	1.9
170°-180°	37.9	0.6
0°-30°	1024.6	16.5
0°-40°	1627.7	26.2
0°-60°	2710.4	43.6
0°-90°	3282.7	52.8
90°-120°	1466.9	23.6
90°-150°	2584.6	41.6
90°-180°	2937.0	47.2
0°-180°	6219.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1386	1382	1371	1381	1379	131
15°	1318	1311	1290	1289	1280	371
25°	1196	1179	1141	1128	1116	550
35°	1030	1004	958	928	912	645
45°	843	811	755	715	697	650
55°	640	605	547	502	484	572
65°	433	396	342	301	284	429
75°	231	199	155	133	125	244
85°	58	40	34	32	32	65
90°	1	7	13	17	18	4
95°	26	77	700	317	186	28
105°	89	125	572	1127	1046	94
115°	160	192	460	991	1166	157
125°	221	259	441	788	918	196
135°	259	311	438	660	763	201
145°	302	346	439	547	602	189
155°	344	370	428	484	504	158
165°	376	386	411	436	442	106
175°	391	391	394	399	397	37
180°	392	392	392	392	392	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1391.1	1390.6	1390.0	1389.5	1388.9	1387.7	1385.8	1383.9	1382.1	1380.2	1382.1
5°	1386.5	1385.6	1384.6	1383.7	1382.8	1381.1	1378.5	1375.9	1373.3	1370.8	1373.1
7.5°	1372.9	1372.0	1371.1	1370.2	1369.4	1367.4	1364.3	1361.2	1358.2	1355.0	1356.7
10°	1360.3	1359.6	1358.9	1358.2	1357.5	1355.5	1352.3	1349.0	1345.7	1342.5	1343.1
12.5°	1346.0	1345.1	1344.2	1343.4	1342.5	1339.9	1335.4	1331.1	1326.8	1322.3	1322.8
15°	1318.4	1317.0	1315.6	1314.1	1312.7	1309.6	1304.7	1299.8	1294.9	1290.0	1289.8
17.5°	1287.1	1285.0	1282.8	1280.7	1278.5	1274.3	1268.2	1262.0	1255.9	1249.7	1248.6
20°	1262.7	1260.4	1258.1	1255.8	1253.4	1248.5	1241.1	1233.7	1226.2	1218.7	1217.6
22.5°	1235.9	1233.6	1231.2	1228.9	1226.6	1221.5	1213.7	1205.9	1198.0	1190.2	1187.9
25°	1195.7	1192.1	1188.6	1185.2	1181.6	1175.6	1167.0	1158.3	1149.7	1141.1	1138.1
27.5°	1149.5	1145.3	1141.0	1136.8	1132.6	1125.8	1116.6	1107.3	1098.1	1088.8	1084.6
30°	1115.9	1111.5	1107.1	1102.7	1098.2	1091.1	1081.4	1071.6	1061.8	1052.0	1046.6
32.5°	1083.2	1078.0	1072.9	1067.7	1062.5	1054.9	1045.0	1035.0	1025.0	1015.0	1009.2
35°	1030.0	1024.3	1018.8	1013.1	1007.5	999.5	989.1	978.6	968.1	957.6	950.8
37.5°	977.7	970.9	964.1	957.3	950.5	941.7	930.9	920.0	909.2	898.4	890.3
40°	940.8	933.8	926.8	919.8	912.8	903.7	892.5	881.3	870.2	859.0	850.1
42.5°	902.2	895.0	887.9	880.6	873.4	864.1	852.5	841.0	829.4	817.9	809.4
45°	843.2	836.5	829.7	822.9	816.2	806.4	793.6	780.8	768.0	755.2	745.8
47.5°	782.2	775.1	767.9	760.8	753.7	743.7	730.7	717.8	704.9	692.0	682.4
50°	743.6	735.9	728.2	720.5	712.9	702.4	689.0	675.8	662.5	649.2	639.4
52.5°	701.7	693.8	685.9	678.0	670.1	659.9	647.4	634.9	622.3	609.8	599.3
55°	639.7	632.3	624.9	617.4	610.0	599.7	586.6	573.6	560.6	547.4	536.9
57.5°	577.2	569.3	561.3	553.3	545.4	535.1	522.5	509.9	497.4	484.7	474.5
60°	536.9	528.9	520.7	512.5	504.3	494.0	481.4	468.8	456.3	443.6	433.4
62.5°	494.2	486.5	478.7	470.8	463.0	452.8	440.0	427.3	414.4	401.7	392.2
65°	433.1	425.3	417.3	409.4	401.4	391.3	379.0	366.6	354.3	341.9	332.5
67.5°	372.5	364.6	356.7	348.8	340.8	330.9	319.1	307.3	295.5	283.6	275.1
70°	331.4	323.5	315.6	307.6	299.7	289.9	278.3	266.6	255.0	243.3	236.1
72.5°	291.1	283.4	275.7	267.9	260.2	250.9	239.9	229.0	218.1	207.2	200.6
75°	230.8	223.8	216.7	209.7	202.8	194.4	184.6	174.8	165.0	155.2	150.1
77.5°	170.8	165.1	159.6	154.0	148.3	141.7	133.8	126.0	118.2	110.4	106.7
80°	136.3	130.8	125.1	119.6	114.0	108.0	101.4	94.8	88.4	81.8	79.7
82.5°	102.8	97.8	92.7	87.7	82.6	77.9	73.4	69.0	64.4	60.0	59.0
85°	57.7	53.5	49.3	45.1	40.9	38.2	37.1	35.9	34.7	33.5	33.3
87.5°	19.5	18.3	17.4	16.4	15.3	14.9	14.8	15.0	14.9	15.1	15.2
90°	0.8	1.6	3.1	4.7	6.4	7.9	8.7	10.3	11.0	12.6	13.4
92.5°	9.6	11.7	18.3	28.1	41.7	64.7	107.9	180.2	258.6	254.6	206.1
95°	26.1	26.9	33.1	41.8	59.2	94.7	179.3	352.9	570.9	699.6	684.6
97.5°	43.2	44.2	48.7	57.4	72.9	98.6	154.4	281.8	509.8	747.1	866.2
100°	55.2	56.9	60.0	68.7	83.7	107.3	153.2	255.8	454.8	713.1	910.4
102.5°	68.6	69.5	72.0	81.3	95.0	118.2	158.9	245.1	413.1	653.0	883.9
105°	89.3	89.3	93.2	101.1	113.7	135.8	170.6	240.9	372.7	572.5	799.1
107.5°	109.5	111.0	114.8	121.3	134.4	154.3	187.9	248.1	355.7	517.1	712.6
110°	124.0	125.5	128.7	135.8	147.6	168.1	200.6	255.1	350.6	491.1	663.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	138.5	140.1	142.6	149.7	161.6	181.5	212.6	263.9	350.6	475.9	626.6
115°	159.5	161.1	163.5	170.6	182.4	202.2	231.4	277.1	352.9	459.6	586.6
117.5°	178.4	180.9	183.4	190.5	203.9	223.0	250.6	292.4	358.2	451.5	562.8
120°	191.1	193.5	196.6	203.7	217.1	236.9	264.5	302.5	363.2	447.7	549.6
122.5°	204.4	206.1	208.6	215.7	230.5	250.1	277.8	313.8	367.6	444.5	538.2
125°	221.1	222.7	226.6	233.7	248.7	269.2	295.3	329.2	375.1	440.6	522.7
127.5°	234.2	236.6	241.7	250.6	266.6	287.1	312.3	343.5	383.4	438.7	508.5
130°	242.4	244.8	251.1	261.4	277.9	298.5	323.0	352.9	388.5	437.5	499.1
132.5°	248.7	251.8	259.3	270.8	288.0	308.6	333.1	361.1	394.2	437.5	491.5
135°	259.0	262.2	271.7	284.3	300.8	322.1	346.7	372.7	401.9	437.5	482.4
137.5°	272.0	274.3	283.2	295.8	312.0	334.0	356.3	381.2	409.0	438.4	474.4
140°	279.5	281.9	291.3	304.0	319.0	340.3	363.2	386.9	412.1	439.0	470.6
142.5°	288.3	290.1	298.9	311.5	326.0	346.0	367.6	390.1	414.0	439.7	467.5
145°	301.6	303.2	311.1	322.1	336.4	354.6	375.1	394.8	416.2	439.0	462.7
147.5°	315.5	316.5	323.3	333.6	345.9	361.8	379.8	397.7	416.9	437.0	457.8
150°	323.8	325.3	330.8	341.1	352.1	365.6	382.9	399.5	416.9	435.0	454.0
152.5°	332.5	333.6	338.4	347.4	357.9	370.0	386.1	400.8	416.3	432.5	449.6
155°	344.3	344.3	349.0	356.9	364.8	375.9	389.3	401.9	414.5	428.0	442.2
157.5°	354.7	354.6	358.3	365.1	372.0	380.4	391.9	402.7	412.5	423.2	435.3
160°	361.6	360.8	364.1	369.5	375.9	382.9	393.2	402.7	410.6	420.1	429.6
162.5°	367.3	366.6	369.7	374.6	379.6	385.5	394.5	402.0	408.7	416.3	424.4
165°	375.9	374.3	376.7	380.6	383.7	388.5	394.8	401.1	405.9	410.6	416.9
167.5°	381.5	380.7	382.1	384.4	386.6	389.6	394.8	399.2	401.4	405.1	409.5
170°	385.4	384.6	385.4	386.9	388.5	390.8	394.8	398.0	399.5	401.9	405.1
172.5°	387.9	386.5	387.2	388.8	389.7	390.8	394.2	396.7	397.0	398.1	400.6
175°	390.8	389.3	390.1	390.8	390.8	390.8	393.2	394.8	394.0	394.0	394.8
177.5°	392.2	391.0	391.0	391.6	391.0	391.0	392.2	392.9	391.6	391.6	392.2
180°	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1383.9	1385.8	1387.7	1388.6	1388.4	1388.2	1388.0	1387.8
5°	1375.4	1377.8	1380.1	1381.1	1380.6	1380.1	1379.7	1379.2
7.5°	1358.4	1360.0	1361.6	1362.1	1361.6	1361.1	1360.6	1360.1
10°	1343.8	1344.5	1345.2	1345.2	1344.5	1343.8	1343.1	1342.5
12.5°	1323.3	1323.8	1324.3	1324.1	1323.0	1321.9	1320.9	1319.8
15°	1289.6	1289.3	1289.1	1288.0	1285.9	1283.7	1281.6	1279.5
17.5°	1247.4	1246.3	1245.1	1243.6	1241.9	1240.2	1238.5	1236.8
20°	1216.4	1215.2	1214.1	1212.4	1210.3	1208.2	1206.1	1204.1
22.5°	1185.6	1183.4	1181.0	1179.0	1177.3	1175.6	1173.9	1172.2
25°	1135.1	1132.1	1129.0	1126.2	1123.6	1121.1	1118.5	1115.9
27.5°	1080.4	1076.1	1071.9	1068.5	1066.1	1063.6	1061.2	1058.6
30°	1041.3	1035.9	1030.5	1026.8	1024.7	1022.6	1020.5	1018.3
32.5°	1003.2	997.2	991.4	987.0	984.4	981.8	979.1	976.4
35°	944.0	937.3	930.5	925.5	922.2	919.0	915.7	912.4
37.5°	882.2	874.0	866.0	860.3	857.2	853.9	850.8	847.7
40°	841.2	832.4	823.5	817.7	815.0	812.1	809.3	806.6
42.5°	800.9	792.4	784.0	777.6	773.6	769.4	765.3	761.2
45°	736.5	727.2	717.8	711.4	707.9	704.5	700.9	697.4
47.5°	672.8	663.2	653.6	646.8	643.0	639.1	635.2	631.4
50°	629.7	619.9	610.1	603.4	600.0	596.4	592.9	589.5
52.5°	588.8	578.1	567.6	560.6	557.1	553.6	550.2	546.6
55°	526.5	516.0	505.5	498.4	494.7	491.0	487.3	483.5
57.5°	464.2	454.0	443.7	437.0	433.6	430.3	427.1	423.7
60°	423.1	412.8	402.6	395.8	392.2	388.8	385.3	381.7
62.5°	382.6	373.1	363.7	357.2	353.7	350.1	346.7	343.2
65°	323.3	314.0	304.6	298.2	294.7	291.2	287.7	284.2
67.5°	266.5	258.0	249.4	243.8	241.1	238.2	235.4	232.7
70°	228.8	221.7	214.4	209.4	206.6	203.8	201.1	198.2
72.5°	193.9	187.2	180.6	176.3	174.4	172.6	170.8	168.8
75°	145.0	139.9	134.7	131.4	129.7	128.1	126.4	124.8
77.5°	103.1	99.6	95.9	93.6	92.4	91.2	90.0	88.8
80°	77.7	75.5	73.4	72.1	71.7	71.2	70.7	70.3
82.5°	58.1	57.1	56.0	55.4	55.1	54.9	54.6	54.3
85°	33.1	32.8	32.6	32.4	32.1	31.9	31.7	31.5
87.5°	15.5	15.6	15.8	16.0	15.8	15.6	15.6	15.3
90°	14.2	15.0	15.8	17.4	17.4	17.4	18.2	18.2
92.5°	140.0	101.6	76.4	64.7	54.6	52.7	51.6	50.4
95°	567.7	447.7	350.6	284.3	228.2	204.5	198.2	185.5
97.5°	845.6	761.3	666.7	574.5	525.7	481.5	458.6	448.5
100°	971.2	932.5	851.2	769.1	714.6	657.7	628.5	615.9
102.5°	1013.5	1037.4	998.4	942.8	884.5	844.0	812.3	802.8
105°	988.6	1096.8	1131.6	1122.9	1097.5	1071.5	1055.7	1046.2
107.5°	899.5	1043.9	1133.1	1174.3	1187.1	1186.9	1181.7	1175.4
110°	833.8	983.8	1095.2	1162.3	1197.8	1212.8	1218.4	1218.4





TEST NUMBER: P333567-840

CATALOG NUMBER: S125RDIP-S850D810U840-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	782.0	924.4	1037.0	1116.2	1168.1	1193.9	1207.6	1213.4
115°	717.0	839.4	947.6	1033.6	1095.2	1133.1	1155.2	1165.5
117.5°	675.0	780.4	873.6	952.6	1014.2	1053.3	1075.3	1081.6
120°	652.2	747.0	833.8	903.3	961.7	999.7	1021.0	1027.2
122.5°	635.2	723.0	800.3	865.5	917.6	952.3	973.6	979.3
125°	610.4	690.9	759.6	816.5	860.7	893.0	910.4	918.3
127.5°	585.1	660.2	724.4	777.6	817.7	846.3	862.7	866.2
130°	569.3	638.8	700.3	751.7	791.2	817.3	833.0	837.8
132.5°	553.5	618.5	674.5	723.9	763.4	789.4	804.0	809.3
135°	533.0	587.4	638.0	683.0	717.7	743.8	758.0	762.8
137.5°	515.6	559.7	601.7	639.9	671.1	694.7	707.8	713.1
140°	506.1	543.2	579.6	612.7	642.0	662.5	674.3	678.2
142.5°	498.0	529.4	560.6	589.4	614.2	631.6	642.8	646.0
145°	487.2	511.7	536.1	557.4	576.4	589.9	598.5	601.7
147.5°	477.1	497.0	515.7	531.9	546.8	557.6	562.7	564.1
150°	471.4	488.8	503.7	518.0	529.9	539.3	542.5	543.2
152.5°	465.0	480.6	494.3	505.3	515.3	522.9	526.0	526.8
155°	455.7	468.3	479.3	488.0	495.8	501.4	503.7	504.5
157.5°	446.2	456.6	465.0	471.9	478.1	482.6	484.8	484.6
160°	439.8	447.7	455.7	461.1	466.7	470.6	472.2	471.4
162.5°	432.8	440.1	446.8	451.6	456.0	459.2	459.6	459.4
165°	423.2	428.8	433.5	437.5	440.6	442.2	442.2	442.2
167.5°	414.0	417.7	421.3	424.1	425.8	427.2	426.6	426.4
170°	409.0	411.4	413.7	415.4	416.9	417.7	417.7	416.9
172.5°	403.3	405.7	407.5	408.4	408.7	410.1	408.9	408.1
175°	397.2	397.2	398.8	398.8	398.8	399.5	398.0	397.2
177.5°	392.9	393.5	393.5	393.5	392.9	393.5	391.6	391.6
180°	391.6	391.6	391.6	391.6	391.6	391.6	391.6	391.6

(END OF REPORT)