

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: P333573-840

Luminaire Tested: **S125RDIP-S850D1035U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333573-840  
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-S850D1035U840-4F0-1E-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: 7033.1 lumens  
Efficiency: N/A  
Efficacy: 135.3 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

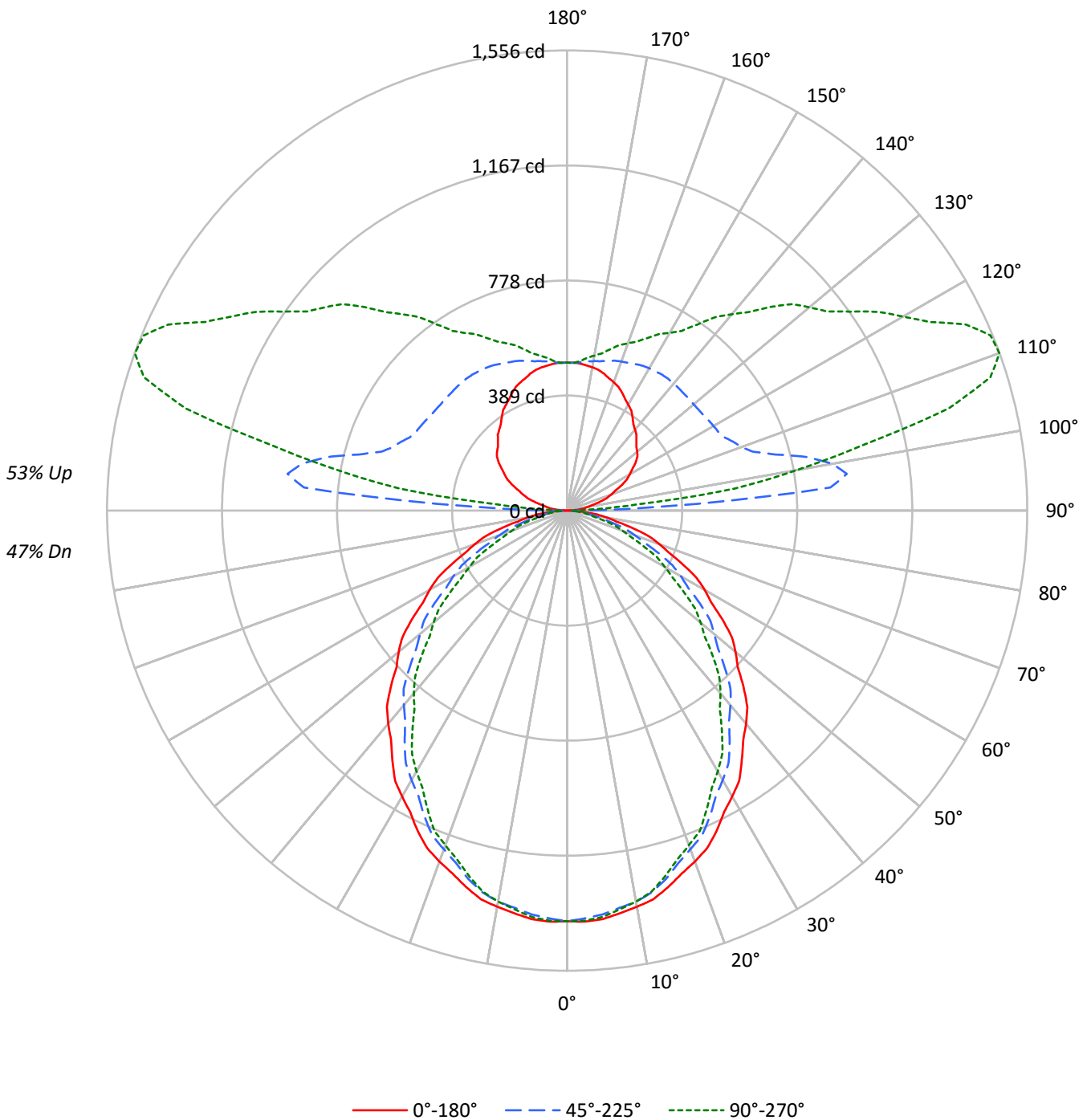
Input Watts (W): 52  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	97	93	89	86	89	86	82	79	72	69	67	59	57	56	47	46	45	40
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	42	40	38	34
3	81	72	65	59	74	66	60	55	56	51	47	46	43	40	37	35	33	29
4	74	64	56	50	68	59	52	47	50	45	40	41	37	34	33	31	28	25
5	68	57	49	43	62	52	45	40	44	39	35	37	33	30	30	27	25	22
6	63	51	43	37	58	47	40	35	40	35	31	34	29	26	27	24	22	19
7	58	46	38	33	53	43	36	31	36	31	27	31	26	23	25	22	20	17
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	18	15
9	50	38	31	26	46	35	29	24	30	25	21	26	22	19	21	18	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	14	13

**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	1.9
10°-20°	364.9	5.2
20°-30°	529.2	7.5
30°-40°	603.1	8.6
40°-50°	587.8	8.4
50°-60°	494.8	7.0
60°-70°	346.9	4.9
70°-80°	178.3	2.5
80°-90°	47.8	0.7
90°-100°	362.4	5.2
100°-110°	779.1	11.1
110°-120°	731.2	10.4
120°-130°	592.6	8.4
130°-140°	475.6	6.8
140°-150°	358.9	5.1
150°-160°	252.6	3.6
160°-170°	148.9	2.1
170°-180°	48.4	0.7
0°-30°	1024.6	14.6
0°-40°	1627.7	23.1
0°-60°	2710.4	38.5
0°-90°	3283.3	46.7
90°-120°	1872.8	26.6
90°-150°	3299.8	46.9
90°-180°	3750.0	53.3
0°-180°	7033.1	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	9	16	21	23	5
95°	33	98	893	405	237	35
105°	114	159	731	1439	1336	120
115°	204	246	587	1265	1488	200
125°	282	331	562	1006	1172	250
135°	331	398	558	843	974	257
145°	385	441	560	698	768	241
155°	440	473	546	618	644	202
165°	480	493	524	556	564	135
175°	499	499	503	509	507	47
180°	500	500	500	500	500	



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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	18.4	17.5	16.6	15.7	15.3	15.3	15.6	15.6	15.9	16.1
90°	1.0	2.0	4.0	6.1	8.1	10.1	11.1	13.1	14.1	16.2	17.2
92.5°	12.3	14.9	23.4	35.9	53.2	82.7	137.7	230.0	330.2	325.0	263.1
95°	33.2	34.2	42.3	53.4	75.6	121.0	228.8	450.6	728.9	893.2	874.0
97.5°	55.2	56.5	62.1	73.2	93.1	125.8	197.2	359.7	650.9	953.9	1105.9
100°	70.6	72.6	76.6	87.7	106.8	137.1	195.6	326.6	580.7	910.3	1162.4
102.5°	87.6	88.7	91.9	103.8	121.4	150.8	202.9	313.0	527.5	833.7	1128.5
105°	113.9	113.9	119.0	129.1	145.2	173.4	217.7	307.5	475.8	730.8	1020.3
107.5°	139.8	141.8	146.5	154.8	171.6	197.0	239.9	316.8	454.0	660.1	909.7
110°	158.2	160.3	164.3	173.4	188.5	214.7	256.1	325.6	447.6	627.0	846.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	176.8	178.8	182.1	191.2	206.2	231.7	271.4	336.9	447.6	607.7	800.0
115°	203.7	205.6	208.6	217.7	232.9	258.1	295.4	353.9	450.6	586.7	749.0
117.5°	227.8	230.9	234.1	243.2	260.3	284.7	320.0	373.2	457.3	576.4	718.6
120°	244.0	247.0	251.1	260.1	277.2	302.5	337.7	386.1	463.7	571.6	701.7
122.5°	260.9	263.1	266.3	275.4	294.2	319.4	354.7	400.6	469.4	567.5	687.1
125°	282.3	284.3	289.3	298.4	317.6	343.8	377.1	420.4	478.9	562.5	667.4
127.5°	299.0	302.1	308.5	320.0	340.3	366.6	398.6	438.5	489.6	560.1	649.2
130°	309.5	312.6	320.6	333.7	354.9	381.0	412.3	450.6	496.0	558.5	637.1
132.5°	317.6	321.3	331.0	345.8	367.8	393.9	425.3	461.1	503.2	558.5	627.4
135°	330.6	334.7	346.8	362.9	384.1	411.3	442.5	475.8	513.1	558.5	615.9
137.5°	347.2	350.2	361.5	377.7	398.4	426.5	454.8	486.8	522.2	559.7	605.7
140°	356.9	359.9	372.0	388.1	407.3	434.5	463.7	494.0	526.2	560.5	600.9
142.5°	368.2	370.4	381.6	397.8	416.2	441.7	469.4	498.0	528.7	561.3	596.8
145°	385.1	387.1	397.2	411.3	429.5	452.6	478.9	504.0	531.3	560.5	590.8
147.5°	402.8	404.0	412.7	425.9	441.5	461.9	484.9	507.7	532.3	557.8	584.5
150°	413.3	415.4	422.4	435.6	449.6	466.8	489.0	510.1	532.3	555.4	579.7
152.5°	424.6	425.9	432.1	443.5	456.9	472.4	493.0	511.7	531.5	552.3	574.0
155°	439.5	439.5	445.6	455.7	465.7	479.9	497.0	513.1	529.3	546.4	564.5
157.5°	452.8	452.6	457.5	466.2	475.0	485.7	500.4	514.1	526.6	540.4	555.6
160°	461.7	460.7	464.7	471.8	479.9	489.0	502.0	514.1	524.2	536.3	548.5
162.5°	469.0	468.0	472.0	478.3	484.7	492.2	503.6	513.3	521.8	531.5	542.0
165°	479.9	477.9	480.9	485.9	490.0	496.0	504.0	512.1	518.2	524.2	532.3
167.5°	487.2	486.1	488.0	490.8	493.6	497.4	504.0	509.7	512.5	517.2	522.8
170°	492.0	491.0	492.0	494.0	496.0	499.0	504.0	508.1	510.1	513.1	517.2
172.5°	495.2	493.4	494.4	496.3	497.6	499.0	503.2	506.4	506.9	508.3	511.5
175°	499.0	497.0	498.0	499.0	499.0	499.0	502.0	504.0	503.0	503.0	504.0
177.5°	500.8	499.2	499.2	500.0	499.2	499.2	500.8	501.6	500.0	500.0	500.8
180°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0



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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°	16.3	16.5	16.7	17.0	16.8	16.6	16.6	16.4
90°	18.2	19.2	20.2	22.2	22.2	22.2	23.2	23.2
92.5°	178.6	129.7	97.6	82.7	69.8	67.4	65.9	64.3
95°	724.9	571.6	447.6	362.9	291.3	261.2	253.1	236.9
97.5°	1079.5	972.0	851.2	733.5	671.3	614.7	585.5	572.6
100°	1240.0	1190.6	1086.7	981.9	912.3	839.8	802.4	786.4
102.5°	1294.0	1324.4	1274.7	1203.7	1129.3	1077.7	1037.1	1025.0
105°	1262.1	1400.3	1444.6	1433.5	1401.3	1368.1	1347.9	1335.7
107.5°	1148.4	1332.7	1446.6	1499.2	1515.6	1515.4	1508.7	1500.7
110°	1064.6	1256.1	1398.3	1484.0	1529.3	1548.4	1555.5	1555.5





TEST NUMBER: P333573-840

CATALOG NUMBER: S125RDIP-S850D1035U840-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	998.5	1180.3	1324.0	1425.1	1491.4	1524.3	1541.9	1549.0
115°	915.3	1071.7	1209.7	1319.6	1398.3	1446.6	1474.9	1488.0
117.5°	861.7	996.4	1115.4	1216.2	1294.8	1344.8	1372.8	1380.9
120°	832.7	953.7	1064.6	1153.3	1227.9	1276.3	1303.5	1311.6
122.5°	810.9	923.0	1021.8	1104.9	1171.4	1215.8	1243.0	1250.3
125°	779.3	882.1	969.8	1042.4	1098.8	1140.1	1162.4	1172.5
127.5°	747.0	843.0	924.8	992.8	1044.0	1080.5	1101.5	1105.9
130°	726.9	815.6	894.2	959.8	1010.2	1043.4	1063.6	1069.6
132.5°	706.7	789.7	861.1	924.2	974.6	1007.9	1026.4	1033.3
135°	680.4	750.0	814.6	872.0	916.4	949.7	967.8	973.8
137.5°	658.3	714.6	768.2	817.0	856.7	887.0	903.7	910.3
140°	646.2	693.6	739.9	782.3	819.6	845.9	860.9	866.0
142.5°	635.7	675.8	715.8	752.5	784.2	806.3	820.6	824.9
145°	622.0	653.3	684.5	711.8	735.9	753.1	764.2	768.2
147.5°	609.2	634.5	658.5	679.0	698.2	712.0	718.4	720.2
150°	601.9	624.0	643.2	661.4	676.4	688.5	692.6	693.6
152.5°	593.8	613.5	631.1	645.2	657.9	667.6	671.6	672.6
155°	581.7	597.8	612.0	623.0	633.1	640.2	643.2	644.2
157.5°	569.6	582.9	593.8	602.5	610.4	616.1	618.9	618.7
160°	561.5	571.6	581.7	588.8	595.8	600.9	602.9	601.9
162.5°	552.7	561.9	570.4	576.6	582.1	586.3	586.7	586.5
165°	540.4	547.4	553.5	558.5	562.5	564.5	564.5	564.5
167.5°	528.7	533.3	538.0	541.6	543.6	545.4	544.6	544.4
170°	522.2	525.2	528.3	530.3	532.3	533.3	533.3	532.3
172.5°	514.9	518.0	520.2	521.4	521.8	523.6	522.0	521.0
175°	507.1	507.1	509.1	509.1	509.1	510.1	508.1	507.1
177.5°	501.6	502.4	502.4	502.4	501.6	502.4	500.0	500.0
180°	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0

(END OF REPORT)