

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: P333565-840

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333565-840
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-S850D810U840-4F0-1E-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: 6554.4 lumens
Efficiency: N/A
Efficacy: 142.8 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

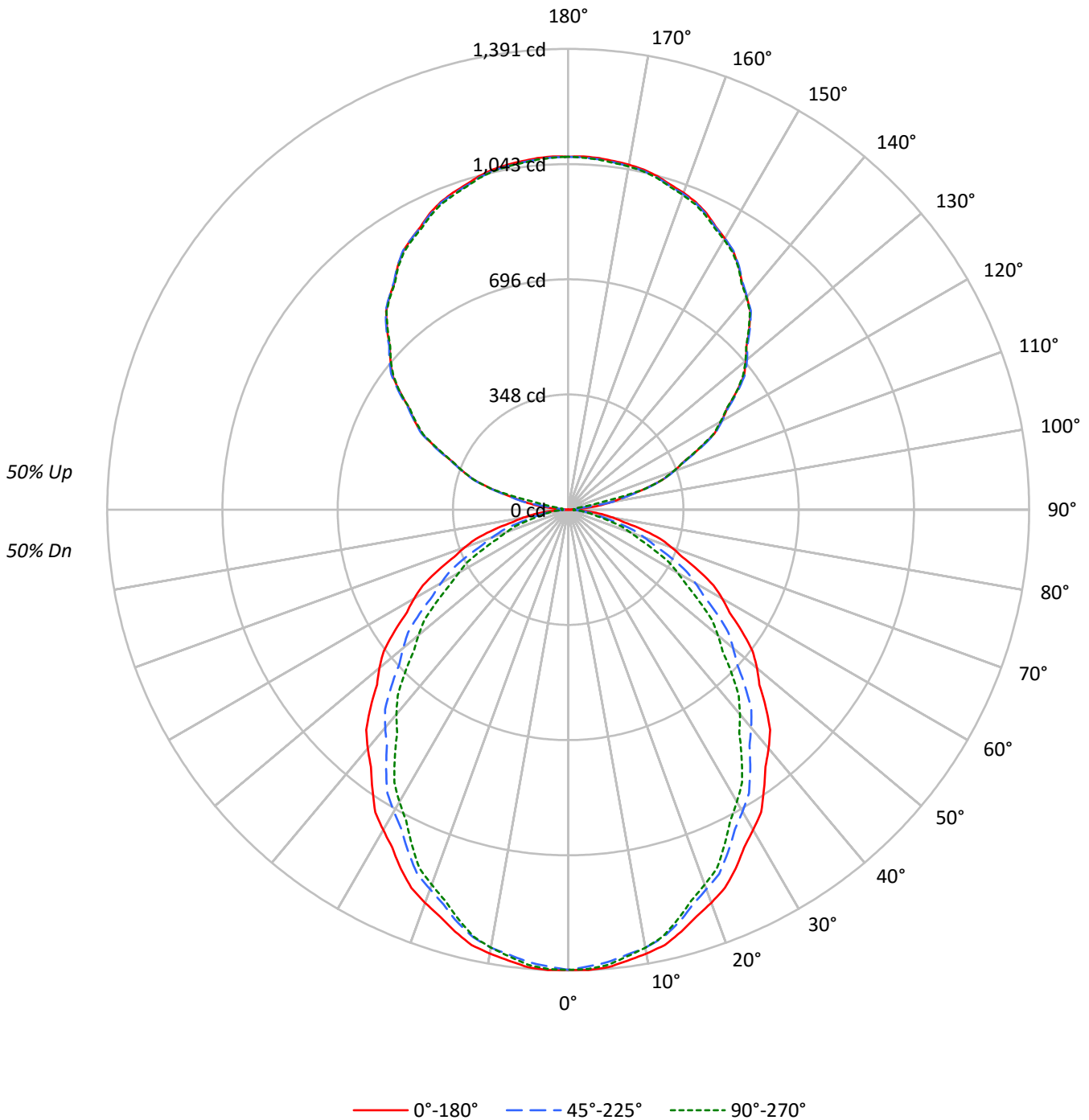
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	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	2.0
10°-20°	364.9	5.6
20°-30°	529.2	8.1
30°-40°	603.1	9.2
40°-50°	587.8	9.0
50°-60°	494.8	7.5
60°-70°	346.9	5.3
70°-80°	178.3	2.7
80°-90°	47.2	0.7
90°-100°	38.7	0.6
100°-110°	238.6	3.6
110°-120°	432.8	6.6
120°-130°	555.4	8.5
130°-140°	597.4	9.1
140°-150°	560.7	8.6
150°-160°	453.6	6.9
160°-170°	293.3	4.5
170°-180°	101.2	1.5
0°-30°	1024.6	15.6
0°-40°	1627.7	24.8
0°-60°	2710.4	41.4
0°-90°	3282.8	50.1
90°-120°	710.1	10.8
90°-150°	2423.5	37.0
90°-180°	3272.0	49.9
0°-180°	6554.4	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	19	5
95°	45	41	13	16	17	57
105°	232	235	235	235	235	246
115°	436	440	441	437	433	432
125°	620	625	626	622	620	554
135°	773	778	776	775	770	596
145°	896	898	898	898	894	560
155°	987	983	984	986	980	455
165°	1042	1037	1038	1042	1036	294
175°	1065	1061	1062	1067	1061	101
180°	1065	1065	1065	1065	1065	



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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	18.5	17.4	16.4	15.3	14.8	14.9	14.9	15.0	15.1	15.2
90°	0.8	2.2	3.6	5.0	6.4	7.7	9.0	10.2	11.4	12.6	13.5
92.5°	12.1	11.2	10.2	9.2	8.3	8.3	9.4	10.5	11.5	12.6	13.5
95°	45.0	44.5	43.9	43.4	42.9	39.3	32.6	26.0	19.3	12.6	13.5
97.5°	94.0	94.9	95.8	96.8	97.8	91.7	78.5	65.2	52.0	38.9	33.9
100°	131.9	132.4	132.9	133.5	134.0	134.6	135.3	136.0	136.7	137.4	111.3
102.5°	170.5	171.1	171.8	172.4	173.1	173.6	174.1	174.5	174.9	175.3	170.4
105°	232.2	232.9	233.6	234.3	235.0	235.3	235.3	235.3	235.3	235.3	235.3
107.5°	296.3	296.3	296.3	296.3	296.3	296.5	296.8	297.2	297.5	297.9	297.9
110°	338.0	338.0	338.0	338.0	338.0	338.2	338.5	338.9	339.2	339.6	339.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	377.2	377.6	378.0	378.5	378.9	379.2	379.4	379.6	379.8	380.0	379.4
115°	436.0	436.9	437.7	438.6	439.5	440.0	440.2	440.3	440.5	440.7	440.0
117.5°	496.8	496.8	496.7	496.7	496.7	497.0	497.6	498.3	499.0	499.6	498.7
120°	534.6	534.5	534.3	534.1	533.9	534.1	534.6	535.2	535.7	536.2	535.9
122.5°	568.2	568.9	569.5	570.2	570.8	571.3	571.5	571.8	572.0	572.3	571.9
125°	620.0	621.2	622.4	623.7	624.9	625.5	625.5	625.5	625.5	625.5	624.8
127.5°	669.4	670.2	671.2	672.1	672.9	673.3	673.2	673.1	673.0	672.9	672.5
130°	699.7	700.6	701.5	702.4	703.3	703.8	704.0	704.1	704.3	704.5	704.0
132.5°	730.0	731.0	732.1	733.1	734.2	734.5	734.1	733.7	733.3	732.9	732.8
135°	773.2	774.3	775.3	776.4	777.4	777.7	777.4	777.0	776.7	776.4	776.0
137.5°	812.8	813.7	814.7	815.6	816.5	816.8	816.5	816.2	815.9	815.5	815.6
140°	838.7	839.1	839.4	839.8	840.1	840.2	840.0	839.9	839.7	839.5	839.9
142.5°	862.1	862.3	862.5	862.7	862.9	863.1	863.4	863.6	863.9	864.1	864.2
145°	896.4	896.8	897.1	897.5	897.8	898.0	898.0	898.0	898.0	898.0	898.2
147.5°	926.3	926.3	926.2	926.1	926.1	926.1	926.3	926.6	926.9	927.1	927.3
150°	945.3	945.0	944.6	944.3	943.9	943.9	944.3	944.6	945.0	945.3	945.7
152.5°	963.7	962.9	962.1	961.4	960.6	960.4	960.7	961.1	961.4	961.8	962.1
155°	987.2	986.1	985.1	984.0	983.0	982.6	983.0	983.3	983.7	984.0	984.5
157.5°	1005.3	1004.7	1004.1	1003.5	1002.8	1002.5	1002.6	1002.6	1002.6	1002.7	1003.2
160°	1018.0	1016.9	1015.9	1014.8	1013.8	1013.4	1013.5	1013.7	1013.9	1014.0	1014.7
162.5°	1028.1	1027.0	1026.0	1024.9	1023.9	1023.5	1023.6	1023.8	1024.0	1024.2	1025.1
165°	1041.7	1040.7	1039.6	1038.5	1037.4	1037.0	1037.2	1037.4	1037.5	1037.7	1038.8
167.5°	1051.8	1050.8	1049.7	1048.5	1047.4	1047.0	1047.1	1047.3	1047.5	1047.7	1048.9
170°	1057.5	1056.2	1055.0	1053.8	1052.6	1052.1	1052.2	1052.4	1052.6	1052.8	1054.2
172.5°	1061.3	1060.1	1058.8	1057.6	1056.3	1055.9	1056.2	1056.5	1056.8	1057.1	1058.4
175°	1065.4	1064.3	1063.3	1062.3	1061.2	1060.8	1060.9	1061.1	1061.3	1061.5	1062.9
177.5°	1067.3	1066.4	1065.6	1064.8	1063.9	1063.6	1063.7	1063.8	1064.0	1064.1	1065.1
180°	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4



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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	15.7	15.9	15.9	15.8	15.7	15.7	15.6
90°	14.4	15.2	16.2	16.9	17.4	17.9	18.4	19.0
92.5°	14.4	15.2	16.2	16.7	17.0	17.2	17.5	17.7
95°	14.4	15.2	16.2	16.6	16.6	16.6	16.6	16.6
97.5°	29.0	24.0	19.1	16.6	16.6	16.6	16.6	16.6
100°	85.1	59.0	32.8	19.4	18.7	18.0	17.3	16.6
102.5°	165.4	160.5	155.5	147.1	135.1	123.2	111.3	99.4
105°	235.3	235.3	235.3	235.3	235.1	234.9	234.7	234.6
107.5°	298.0	298.0	298.0	297.8	297.3	296.7	296.2	295.7
110°	338.5	338.0	337.5	337.3	337.5	337.7	337.8	338.0



TEST NUMBER: P333565-840

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	378.7	378.0	377.4	376.9	376.7	376.4	376.2	376.0
115°	439.3	438.6	437.9	437.0	436.0	434.8	433.8	432.8
117.5°	497.8	496.9	495.9	495.2	494.8	494.3	493.9	493.4
120°	535.5	535.2	534.8	534.2	533.3	532.5	531.6	530.7
122.5°	571.6	571.2	570.9	570.2	569.2	568.2	567.1	566.1
125°	624.1	623.4	622.7	622.1	621.6	621.0	620.5	620.0
127.5°	672.1	671.8	671.4	670.4	669.2	667.9	666.6	665.3
130°	703.4	702.9	702.4	701.7	700.7	699.9	699.0	698.1
132.5°	732.7	732.6	732.5	732.0	731.1	730.2	729.3	728.5
135°	775.7	775.3	775.0	774.3	773.2	772.1	771.0	770.0
137.5°	815.7	815.7	815.8	815.4	814.5	813.5	812.6	811.7
140°	840.2	840.6	840.9	840.6	839.5	838.5	837.4	836.4
142.5°	864.3	864.3	864.4	863.9	862.9	861.8	860.8	859.7
145°	898.3	898.5	898.7	898.2	897.2	896.2	895.0	894.0
147.5°	927.5	927.7	927.9	927.4	926.0	924.8	923.5	922.3
150°	946.0	946.4	946.7	946.2	944.8	943.4	942.0	940.6
152.5°	962.5	962.8	963.2	962.7	961.5	960.2	959.0	957.7
155°	985.1	985.6	986.1	985.7	984.3	982.9	981.5	980.1
157.5°	1003.8	1004.4	1004.9	1004.5	1003.1	1001.7	1000.3	998.9
160°	1015.4	1016.1	1016.8	1016.5	1015.1	1013.7	1012.3	1010.9
162.5°	1026.1	1027.1	1028.0	1027.8	1026.2	1024.7	1023.2	1021.7
165°	1039.9	1040.9	1042.0	1041.8	1040.4	1038.9	1037.5	1036.1
167.5°	1050.3	1051.5	1052.8	1052.6	1051.0	1049.5	1047.8	1046.3
170°	1055.5	1056.9	1058.3	1058.2	1056.7	1055.1	1053.5	1052.0
172.5°	1059.7	1061.0	1062.3	1062.1	1060.5	1058.9	1057.3	1055.7
175°	1064.2	1065.6	1067.0	1066.9	1065.4	1063.8	1062.3	1060.7
177.5°	1066.1	1067.0	1068.0	1068.0	1066.8	1065.7	1064.6	1063.5
180°	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4	1065.4

(END OF REPORT)