

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: P332346-935

Luminaire Tested: **S123RDIP-S1000D805U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332346-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S1000D805U935-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 805 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5641.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

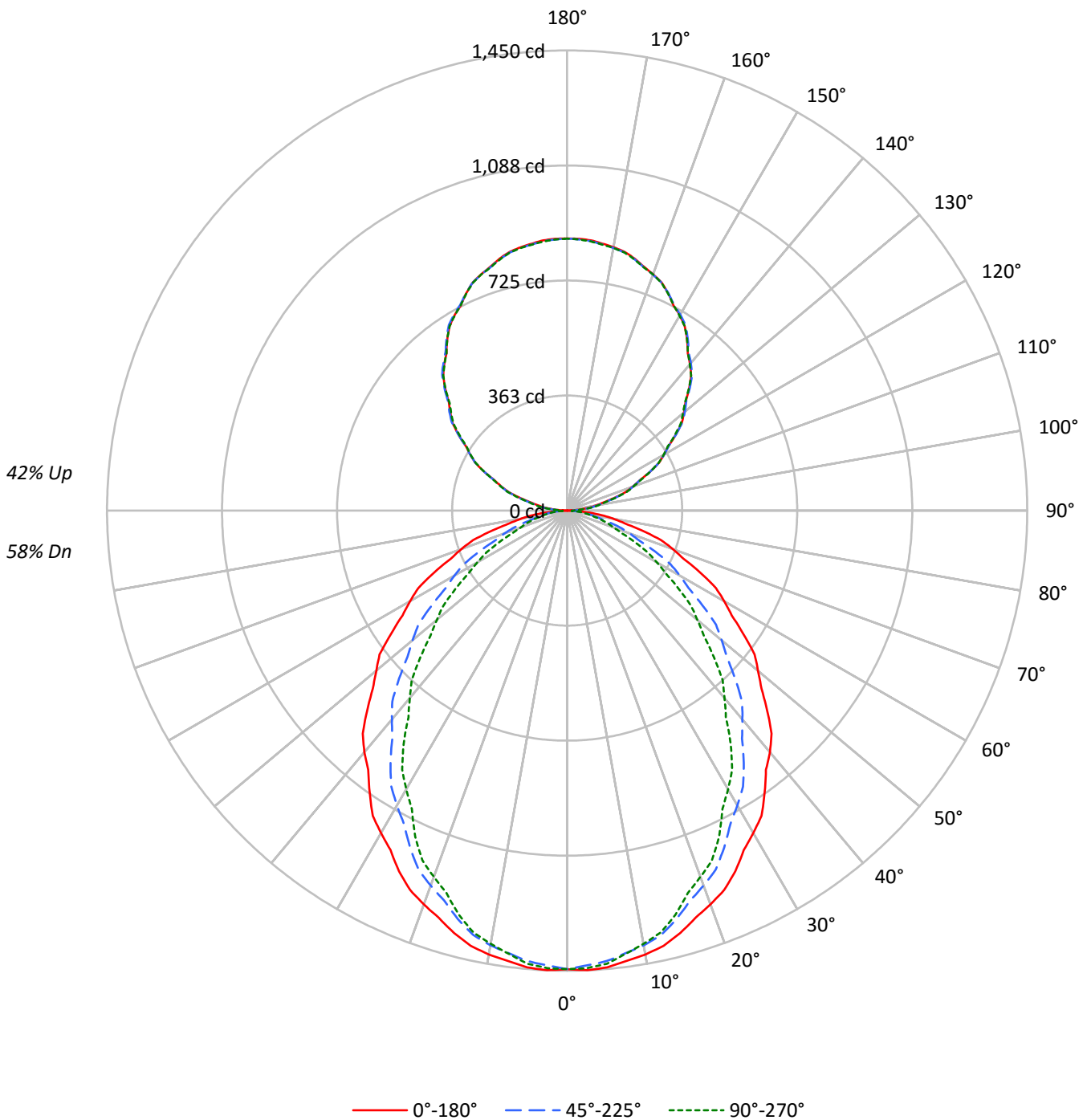
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63
1	100	96	92	88	93	89	86	83	78	75	73	67	65	63	57	55	54
2	91	84	78	73	85	79	73	69	68	64	61	59	56	53	50	48	46
3	84	74	67	61	78	69	63	58	61	56	52	52	49	46	45	42	40
4	77	66	58	52	71	62	55	49	54	49	44	47	43	39	40	37	35
5	70	59	51	45	66	55	48	43	49	43	39	42	38	34	36	33	30
6	65	53	45	39	61	50	43	37	44	38	34	38	34	30	33	30	27
7	60	48	40	35	56	45	38	33	40	34	30	35	30	27	30	27	24
8	56	44	36	31	52	41	34	29	37	31	27	32	28	24	28	24	22
9	52	40	33	27	49	38	31	26	34	28	24	30	25	22	26	22	20
10	49	37	30	25	46	35	28	24	31	26	22	27	23	20	24	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15553	15553	15553
5°	15612	15397	15486
10°	15524	15204	15152
15°	15357	14848	14692
20°	15128	14403	14068
25°	14892	13904	13459
30°	14579	13328	12599
35°	14259	12750	11811
40°	13964	12069	10835
45°	13575	11399	9954
50°	13147	10637	8967
55°	12710	9764	8049
60°	12312	8831	7037
65°	11790	7819	6029
70°	11138	6565	4869
75°	10189	5165	4579
80°	9081	4575	4209
85°	7669	4051	3767



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.7	2.4
10°-20°	377.5	6.7
20°-30°	543.6	9.6
30°-40°	612.3	10.9
40°-50°	585.8	10.4
50°-60°	479.7	8.5
60°-70°	323.7	5.7
70°-80°	162.8	2.9
80°-90°	45.6	0.8
90°-100°	55.8	1.0
100°-110°	167.1	3.0
110°-120°	284.2	5.0
120°-130°	373.8	6.6
130°-140°	420.2	7.4
140°-150°	413.0	7.3
150°-160°	347.7	6.2
160°-170°	231.4	4.1
170°-180°	81.0	1.4
0°-30°	1056.8	18.7
0°-40°	1669.1	29.6
0°-60°	2734.6	48.5
0°-90°	3266.7	57.9
90°-120°	507.1	9.0
90°-150°	1714.1	30.4
90°-180°	2374.0	42.1
0°-180°	5641.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1445	1439	1425	1435	1433	137
15°	1378	1364	1332	1326	1318	388
25°	1254	1223	1171	1147	1133	576
35°	1085	1041	970	922	899	679
45°	892	837	749	684	654	688
55°	677	618	520	455	429	607
65°	463	397	307	252	237	458
75°	245	188	124	113	110	261
85°	62	38	33	31	30	70
90°	1	8	16	19	20	6
95°	40	44	50	52	52	45
105°	151	153	159	159	160	162
115°	286	288	287	287	287	283
125°	419	421	419	417	414	373
135°	543	547	547	544	543	418
145°	659	660	662	662	659	411
155°	755	755	755	758	753	347
165°	822	820	820	824	819	232
175°	855	852	852	856	852	81
180°	857	857	857	857	857	



TEST NUMBER: P332346-935

CATALOG NUMBER: S123RDIP-S1000D805U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9
2.5°	1449.6	1448.7	1447.9	1447.1	1446.2	1444.6	1442.1	1439.6	1437.1	1434.6	1436.8
5°	1444.9	1443.6	1442.3	1441.0	1439.7	1437.4	1434.3	1431.2	1428.1	1425.0	1427.3
7.5°	1431.5	1430.1	1428.7	1427.3	1425.9	1423.1	1419.1	1415.1	1411.0	1407.0	1408.3
10°	1420.3	1418.5	1416.6	1414.8	1413.0	1409.7	1405.1	1400.3	1395.7	1391.0	1391.3
12.5°	1404.4	1402.3	1400.3	1398.3	1396.2	1392.3	1386.6	1380.9	1375.2	1369.4	1369.2
15°	1378.1	1375.3	1372.3	1369.5	1366.7	1361.6	1354.3	1346.9	1339.7	1332.4	1331.1
17.5°	1345.1	1341.7	1338.4	1335.1	1331.7	1325.4	1316.1	1306.9	1297.6	1288.3	1285.6
20°	1320.7	1316.6	1312.3	1308.2	1304.0	1297.0	1287.1	1277.2	1267.3	1257.4	1254.0
22.5°	1293.5	1288.7	1283.9	1279.1	1274.4	1266.7	1256.1	1245.6	1235.1	1224.6	1220.4
25°	1253.9	1247.4	1240.9	1234.3	1227.9	1218.6	1206.6	1194.6	1182.7	1170.7	1165.2
27.5°	1205.8	1198.7	1191.5	1184.3	1177.1	1166.8	1153.5	1140.1	1126.8	1113.5	1105.9
30°	1173.0	1165.2	1157.4	1149.6	1141.8	1130.6	1116.0	1101.4	1086.8	1072.3	1063.4
32.5°	1140.2	1131.4	1122.5	1113.6	1104.8	1092.7	1077.3	1061.9	1046.4	1031.0	1021.3
35°	1085.1	1075.7	1066.3	1057.0	1047.7	1034.8	1018.7	1002.5	986.4	970.3	959.1
37.5°	1029.3	1018.9	1008.5	998.1	987.7	973.9	956.7	939.4	922.1	904.9	892.2
40°	993.8	982.3	970.8	959.3	947.9	932.9	914.5	896.0	877.4	858.9	845.4
42.5°	953.4	941.9	930.5	919.0	907.6	892.3	873.2	854.1	835.0	815.9	801.1
45°	891.8	880.0	868.3	856.6	844.9	829.1	809.0	788.9	768.9	748.8	734.0
47.5°	830.2	817.3	804.4	791.5	778.7	762.2	742.2	722.1	702.1	682.0	665.9
50°	785.1	772.9	760.7	748.5	736.2	719.5	698.4	677.3	656.3	635.2	619.0
52.5°	744.9	731.6	718.2	705.0	691.7	674.6	653.8	632.8	612.0	591.1	574.3
55°	677.3	664.6	651.8	639.0	626.3	608.8	586.7	564.6	542.4	520.3	505.2
57.5°	615.0	601.1	587.2	573.3	559.4	541.3	519.0	496.8	474.6	452.4	438.1
60°	571.9	557.6	543.2	528.9	514.5	496.6	475.0	453.4	431.8	410.2	396.1
62.5°	528.7	514.4	500.1	485.8	471.5	453.5	431.9	410.3	388.7	367.0	353.8
65°	462.9	448.6	434.2	419.9	405.6	388.3	368.0	347.7	327.4	307.0	294.3
67.5°	397.0	382.5	368.1	353.6	339.1	322.1	302.6	283.2	263.7	244.2	234.7
70°	353.9	339.8	325.8	311.7	297.6	281.5	263.3	245.0	226.8	208.6	199.5
72.5°	310.7	297.0	283.1	269.2	255.4	240.1	223.6	207.1	190.5	173.9	166.4
75°	245.0	232.4	219.9	207.4	194.9	181.5	167.2	152.8	138.5	124.2	121.6
77.5°	184.9	173.6	162.3	151.0	139.7	129.4	120.2	111.0	101.8	92.6	91.2
80°	146.5	135.8	125.1	114.4	103.8	95.7	90.2	84.7	79.3	73.8	73.0
82.5°	109.9	100.7	91.5	82.2	73.0	67.2	64.6	62.1	59.5	56.9	56.1
85°	62.1	56.4	50.6	44.9	39.2	35.9	35.1	34.4	33.6	32.8	32.3
87.5°	22.6	20.7	18.7	16.6	14.6	13.9	14.3	14.6	15.1	15.4	15.3
90°	0.7	2.2	3.7	5.2	6.6	8.4	10.3	12.2	14.2	16.2	16.8
92.5°	16.3	17.3	18.3	19.4	20.3	21.4	22.6	23.7	24.7	25.8	26.3
95°	39.7	40.7	41.8	42.9	43.9	45.0	46.2	47.4	48.6	49.9	50.5
97.5°	70.5	71.3	72.1	72.8	73.7	74.5	75.3	76.2	77.1	77.9	78.6
100°	91.5	92.5	93.3	94.3	95.1	96.0	96.7	97.5	98.2	98.9	99.4
102.5°	115.8	116.3	116.8	117.4	118.0	118.7	119.7	120.7	121.7	122.7	123.1
105°	151.4	151.8	152.1	152.4	152.7	153.5	154.8	156.2	157.6	158.9	158.9
107.5°	193.0	193.1	193.3	193.5	193.6	194.0	194.6	195.1	195.6	196.1	196.7
110°	218.8	219.0	219.4	219.6	220.0	220.2	220.6	220.8	221.2	221.4	222.1



TEST NUMBER: P332346-935

CATALOG NUMBER: S123RDIP-S1000D805U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	245.7	245.9	246.1	246.2	246.4	246.5	246.6	246.7	246.8	246.8	247.5
115°	286.1	286.5	287.0	287.4	287.9	288.0	287.7	287.4	287.1	286.8	286.9
117.5°	326.7	327.1	327.4	327.6	328.0	327.9	327.5	327.1	326.7	326.3	326.3
120°	352.1	352.9	353.9	354.7	355.7	355.8	355.0	354.2	353.5	352.8	352.6
122.5°	378.5	379.1	379.8	380.4	381.1	381.3	380.8	380.5	380.0	379.7	379.3
125°	418.7	419.1	419.6	420.1	420.5	420.6	420.3	420.0	419.7	419.4	418.8
127.5°	455.9	456.8	457.8	458.7	459.7	460.0	459.7	459.3	459.0	458.7	457.9
130°	480.6	481.8	483.0	484.2	485.4	485.8	485.3	484.9	484.5	484.0	483.4
132.5°	505.4	506.6	507.8	509.0	510.2	510.7	510.3	510.0	509.6	509.3	508.6
135°	543.2	544.2	545.0	546.0	546.8	547.3	547.1	546.9	546.7	546.6	546.0
137.5°	578.2	579.0	579.7	580.5	581.3	581.8	582.2	582.6	583.0	583.3	582.7
140°	602.4	603.2	604.0	604.8	605.5	605.9	606.1	606.2	606.4	606.5	606.4
142.5°	624.6	625.3	626.0	626.8	627.6	628.1	628.4	628.6	628.9	629.1	629.0
145°	659.0	659.4	659.6	660.0	660.2	660.6	661.1	661.5	661.9	662.4	662.3
147.5°	689.2	689.7	690.3	690.8	691.4	691.8	692.2	692.7	693.1	693.5	693.5
150°	710.2	710.5	710.8	711.1	711.4	711.7	712.0	712.3	712.6	712.9	712.9
152.5°	727.5	727.8	728.2	728.7	729.1	729.4	729.6	729.8	730.0	730.1	730.4
155°	754.6	754.6	754.6	754.6	754.6	754.7	754.8	755.0	755.2	755.3	755.9
157.5°	777.7	777.6	777.4	777.2	777.1	777.1	777.1	777.3	777.4	777.5	778.2
160°	792.3	792.0	791.7	791.4	791.1	791.0	791.0	791.0	791.0	791.0	791.7
162.5°	805.2	804.9	804.4	804.0	803.6	803.4	803.6	803.7	803.7	803.9	804.6
165°	821.9	821.5	821.0	820.6	820.1	819.9	819.9	819.9	819.9	819.9	820.8
167.5°	835.3	834.7	834.1	833.4	832.8	832.7	832.8	832.8	833.0	833.1	834.1
170°	842.8	842.2	841.6	841.0	840.4	840.1	840.1	840.1	840.1	840.1	841.2
172.5°	848.7	848.2	847.6	847.0	846.4	846.0	846.0	846.0	846.0	846.0	847.0
175°	854.9	854.3	853.8	853.2	852.6	852.2	852.2	852.2	852.2	852.2	853.2
177.5°	857.5	857.0	856.5	856.0	855.6	855.3	855.3	855.3	855.3	855.3	856.0
180°	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0



TEST NUMBER: P332346-935

CATALOG NUMBER: S123RDIP-S1000D805U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9	1444.9
2.5°	1439.2	1441.5	1443.7	1444.7	1444.2	1443.9	1443.5	1443.0
5°	1429.7	1432.0	1434.3	1435.3	1434.8	1434.3	1433.7	1433.2
7.5°	1409.5	1410.8	1412.1	1412.4	1411.4	1410.6	1409.7	1408.8
10°	1391.5	1391.8	1392.1	1391.5	1390.2	1388.9	1387.6	1386.3
12.5°	1369.1	1369.0	1368.8	1368.0	1366.5	1364.9	1363.5	1361.9
15°	1329.8	1328.5	1327.2	1325.6	1323.8	1322.0	1320.2	1318.4
17.5°	1282.8	1280.0	1277.3	1274.5	1271.9	1269.1	1266.4	1263.7
20°	1250.6	1247.2	1243.9	1240.6	1237.5	1234.3	1231.2	1228.1
22.5°	1216.2	1211.9	1207.7	1204.1	1201.3	1198.3	1195.4	1192.5
25°	1159.8	1154.3	1148.8	1144.6	1141.8	1138.9	1136.1	1133.2
27.5°	1098.3	1090.7	1083.1	1077.1	1072.7	1068.3	1063.9	1059.6
30°	1054.6	1045.7	1036.8	1030.4	1026.1	1022.0	1017.8	1013.7
32.5°	1011.6	1001.9	992.2	985.2	980.9	976.5	972.1	967.7
35°	947.9	936.7	925.5	917.6	912.9	908.2	903.5	898.8
37.5°	879.5	866.8	854.1	844.8	839.0	833.3	827.5	821.7
40°	831.9	818.4	804.8	795.0	789.0	783.1	777.1	771.1
42.5°	786.3	771.5	756.6	746.6	741.2	735.9	730.5	725.1
45°	719.1	704.3	689.4	678.9	672.6	666.4	660.1	653.9
47.5°	649.7	633.6	617.4	606.6	601.0	595.5	589.9	584.3
50°	602.9	586.7	570.6	559.5	553.5	547.5	541.6	535.5
52.5°	557.6	540.8	524.0	512.9	507.6	502.2	496.9	491.5
55°	490.1	475.0	459.9	449.7	444.5	439.3	434.1	428.9
57.5°	423.8	409.5	395.3	385.9	381.5	377.0	372.6	368.2
60°	382.0	368.0	353.9	344.7	340.3	335.8	331.4	326.9
62.5°	340.5	327.4	314.1	305.1	300.6	295.9	291.3	286.6
65°	281.5	268.7	256.0	248.1	245.3	242.5	239.6	236.7
67.5°	225.2	215.6	206.1	199.8	196.7	193.6	190.5	187.5
70°	190.4	181.2	172.1	166.2	163.2	160.4	157.6	154.7
72.5°	159.0	151.5	144.1	139.8	138.6	137.4	136.2	135.0
75°	119.0	116.4	113.8	112.3	111.8	111.2	110.6	110.1
77.5°	89.8	88.3	87.0	86.0	85.5	85.0	84.5	83.9
80°	72.2	71.5	70.7	70.1	69.6	69.1	68.4	67.9
82.5°	55.4	54.6	53.8	53.4	53.3	53.2	53.0	53.0
85°	31.8	31.3	30.7	30.5	30.5	30.5	30.5	30.5
87.5°	15.2	15.2	15.1	15.0	14.8	14.6	14.5	14.4
90°	17.4	17.9	18.5	19.0	19.3	19.6	19.9	20.2
92.5°	26.8	27.3	27.7	27.9	27.7	27.6	27.4	27.2
95°	51.0	51.6	52.2	52.5	52.5	52.5	52.5	52.5
97.5°	79.3	80.0	80.7	81.0	80.9	80.9	80.8	80.8
100°	99.9	100.3	100.7	101.2	101.4	101.7	102.0	102.3
102.5°	123.6	124.0	124.4	124.7	124.6	124.5	124.5	124.4
105°	158.9	158.9	158.9	159.0	159.3	159.6	159.9	160.2
107.5°	197.1	197.6	198.1	198.2	198.0	197.9	197.7	197.5
110°	222.7	223.3	223.9	224.0	223.7	223.4	223.1	222.8



TEST NUMBER: P332346-935

CATALOG NUMBER: S123RDIP-S1000D805U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	248.2	248.9	249.7	249.9	249.9	249.9	249.8	249.8
115°	287.1	287.2	287.4	287.4	287.2	287.1	286.9	286.8
117.5°	326.3	326.2	326.2	326.0	325.6	325.2	324.8	324.3
120°	352.4	352.3	352.1	351.9	351.6	351.3	351.0	350.7
122.5°	378.9	378.5	378.2	377.7	377.3	376.9	376.4	376.0
125°	418.2	417.6	417.0	416.4	415.8	415.2	414.6	414.0
127.5°	457.0	456.2	455.4	454.6	453.9	453.2	452.5	451.9
130°	482.8	482.2	481.6	480.8	479.7	478.7	477.7	476.6
132.5°	507.9	507.1	506.4	505.7	504.9	504.0	503.3	502.5
135°	545.4	544.8	544.2	543.8	543.5	543.2	542.9	542.6
137.5°	582.1	581.5	580.8	580.2	579.7	579.1	578.6	578.0
140°	606.2	606.1	605.9	605.4	604.2	603.2	602.2	601.2
142.5°	628.9	628.7	628.5	628.1	627.2	626.5	625.6	624.8
145°	662.1	661.9	661.8	661.4	660.8	660.2	659.6	659.0
147.5°	693.5	693.5	693.5	693.0	692.2	691.2	690.3	689.5
150°	712.9	712.9	712.9	712.5	711.5	710.7	709.7	708.9
152.5°	730.6	730.8	731.1	730.8	730.0	729.3	728.5	727.7
155°	756.5	757.1	757.7	757.4	756.4	755.4	754.3	753.3
157.5°	778.8	779.4	780.0	779.9	779.1	778.3	777.4	776.5
160°	792.5	793.2	793.9	794.0	793.4	792.8	792.2	791.6
162.5°	805.4	806.2	806.9	806.8	805.8	804.9	803.9	803.0
165°	821.7	822.6	823.5	823.5	822.4	821.3	820.3	819.2
167.5°	835.0	835.9	836.8	836.8	835.9	835.0	834.1	833.1
170°	842.2	843.3	844.3	844.3	843.3	842.2	841.2	840.1
172.5°	847.9	848.9	849.7	849.7	848.6	847.6	846.5	845.5
175°	854.0	854.9	855.8	855.7	854.7	853.7	852.6	851.5
177.5°	856.8	857.5	858.2	858.2	857.3	856.4	855.7	854.8
180°	857.0	857.0	857.0	857.0	857.0	857.0	857.0	857.0

(END OF REPORT)