

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: P332315

Luminaire Tested: **S123RDIP-S775D805U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332315
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S775D805U835-4F0-1E-UDD-F
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6128.5 lumens
Efficiency: N/A
Efficacy: 133.5 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

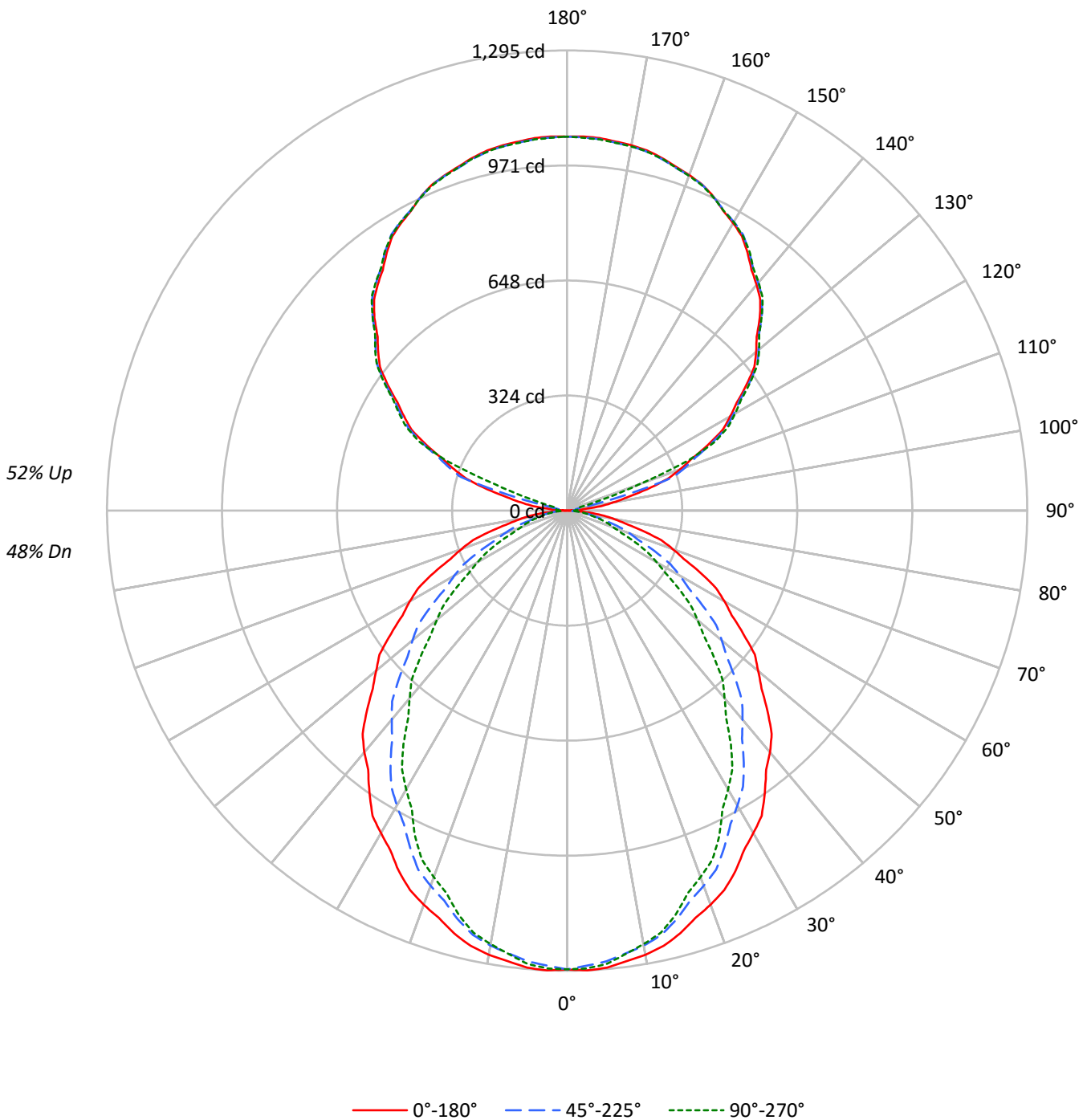
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48				48
1	98	93	90	86	90	86	83	80	72	70	68	60	58	57	48	47	46				41	
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	39				35	
3	81	72	65	59	75	67	61	56	56	52	48	47	44	41	38	36	34				30	
4	75	64	56	50	68	59	53	47	50	45	41	42	38	35	34	32	29				26	
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	31	28	26				22	
6	63	51	43	38	58	48	41	36	41	35	31	34	30	27	28	25	23				20	
7	59	46	39	33	54	43	36	31	37	32	28	31	27	24	26	23	20				18	
8	54	42	35	29	50	39	33	28	34	28	25	29	24	21	24	21	18				16	
9	51	39	31	26	47	36	29	25	31	26	22	26	22	19	22	19	17				14	
10	47	35	28	24	44	33	27	22	29	23	20	24	20	18	20	17	15				13	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13897	13897	13897
5°	13950	13758	13837
10°	13871	13585	13539
15°	13722	13266	13127
20°	13518	12869	12569
25°	13307	12423	12025
30°	13027	11908	11257
35°	12741	11393	10553
40°	12476	10784	9681
45°	12129	10185	8894
50°	11747	9503	8013
55°	11357	8724	7191
60°	11001	7890	6288
65°	10534	6986	5387
70°	9951	5866	4349
75°	9100	4616	4092
80°	8114	4091	3763
85°	6854	3619	3359



TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	2.0
10°-20°	337.3	5.5
20°-30°	485.7	7.9
30°-40°	547.1	8.9
40°-50°	523.4	8.5
50°-60°	428.6	7.0
60°-70°	289.2	4.7
70°-80°	145.5	2.4
80°-90°	41.4	0.7
90°-100°	38.3	0.6
100°-110°	182.3	3.0
110°-120°	438.0	7.1
120°-130°	557.7	9.1
130°-140°	595.9	9.7
140°-150°	557.2	9.1
150°-160°	449.5	7.3
160°-170°	290.1	4.7
170°-180°	100.0	1.6
0°-30°	944.3	15.4
0°-40°	1491.4	24.3
0°-60°	2443.4	39.9
0°-90°	2919.5	47.6
90°-120°	658.6	10.7
90°-150°	2369.4	38.7
90°-180°	3209.0	52.4
0°-180°	6128.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1291	1285	1273	1282	1281	122
15°	1231	1219	1190	1185	1178	347
25°	1120	1093	1046	1025	1012	515
35°	970	930	867	823	803	607
45°	797	748	669	611	584	615
55°	605	552	465	406	383	542
65°	414	355	274	225	212	409
75°	219	168	111	101	98	233
85°	56	34	29	27	27	62
90°	1	9	19	22	24	5
95°	48	18	24	29	30	59
105°	233	237	171	41	34	247
115°	437	442	449	456	460	431
125°	616	622	625	627	629	550
135°	767	772	775	777	775	590
145°	885	890	892	894	894	554
155°	975	973	974	978	973	449
165°	1028	1026	1025	1031	1026	290
175°	1052	1049	1049	1054	1048	100
180°	1052	1052	1052	1052	1052	



TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1
2.5°	1295.2	1294.5	1293.7	1293.0	1292.3	1290.8	1288.5	1286.3	1284.1	1281.8	1283.9
5°	1291.1	1289.9	1288.7	1287.6	1286.4	1284.4	1281.6	1278.8	1276.0	1273.3	1275.3
7.5°	1279.1	1277.9	1276.6	1275.3	1274.1	1271.6	1268.0	1264.4	1260.8	1257.1	1258.3
10°	1269.1	1267.4	1265.8	1264.2	1262.5	1259.6	1255.4	1251.3	1247.1	1242.9	1243.1
12.5°	1254.8	1253.0	1251.2	1249.4	1247.6	1244.1	1239.0	1233.9	1228.7	1223.6	1223.5
15°	1231.4	1228.8	1226.2	1223.7	1221.1	1216.6	1210.1	1203.6	1197.0	1190.5	1189.4
17.5°	1201.8	1198.9	1195.9	1192.9	1189.9	1184.3	1176.0	1167.7	1159.4	1151.2	1148.7
20°	1180.1	1176.3	1172.6	1168.9	1165.2	1158.9	1150.0	1141.2	1132.4	1123.5	1120.5
22.5°	1155.8	1151.5	1147.2	1142.9	1138.6	1131.8	1122.4	1113.0	1103.6	1094.2	1090.4
25°	1120.4	1114.6	1108.7	1102.9	1097.1	1088.8	1078.1	1067.4	1056.7	1046.0	1041.1
27.5°	1077.4	1071.0	1064.6	1058.2	1051.8	1042.6	1030.7	1018.8	1006.8	994.9	988.1
30°	1048.1	1041.1	1034.2	1027.2	1020.2	1010.2	997.2	984.1	971.1	958.1	950.2
32.5°	1018.8	1010.9	1003.0	995.1	987.2	976.3	962.5	948.8	935.0	921.2	912.6
35°	969.6	961.2	952.8	944.5	936.1	924.7	910.3	895.8	881.4	867.0	857.0
37.5°	919.8	910.4	901.1	891.8	882.5	870.2	854.8	839.4	824.0	808.6	797.2
40°	887.9	877.7	867.4	857.2	847.0	833.6	817.1	800.6	784.0	767.5	755.4
42.5°	851.9	841.7	831.4	821.2	811.0	797.3	780.2	763.1	746.1	729.0	715.8
45°	796.8	786.4	775.9	765.4	754.9	740.8	722.8	704.9	687.0	669.1	655.8
47.5°	741.8	730.3	718.8	707.3	695.8	681.1	663.2	645.2	627.3	609.4	595.0
50°	701.5	690.6	679.7	668.7	657.8	642.9	624.1	605.2	586.4	567.5	553.1
52.5°	665.5	653.7	641.8	629.9	618.1	602.8	584.1	565.5	546.8	528.1	513.2
55°	605.2	593.8	582.4	571.0	559.6	544.0	524.2	504.5	484.7	464.9	451.4
57.5°	549.5	537.1	524.7	512.2	499.8	483.7	463.8	443.9	424.0	404.2	391.4
60°	511.0	498.2	485.4	472.6	459.8	443.7	424.4	405.1	385.8	366.5	353.9
62.5°	472.4	459.6	446.8	434.0	421.3	405.2	385.9	366.6	347.3	327.9	316.1
65°	413.6	400.8	388.0	375.2	362.4	346.9	328.8	310.6	292.5	274.3	262.9
67.5°	354.8	341.8	328.9	315.9	303.0	287.8	270.4	253.0	235.6	218.2	209.7
70°	316.2	303.7	291.1	278.5	266.0	251.5	235.2	219.0	202.7	186.4	178.2
72.5°	277.7	265.3	252.9	240.5	228.2	214.6	199.8	185.0	170.2	155.4	148.7
75°	218.8	207.7	196.5	185.3	174.2	162.2	149.4	136.6	123.8	111.0	108.7
77.5°	165.2	155.1	145.0	134.9	124.8	115.7	107.4	99.2	91.0	82.7	81.5
80°	130.9	121.3	111.8	102.3	92.7	85.5	80.6	75.7	70.9	66.0	65.3
82.5°	98.2	90.0	81.7	73.5	65.3	60.0	57.7	55.4	53.2	50.9	50.2
85°	55.5	50.4	45.3	40.1	35.0	32.1	31.4	30.7	30.0	29.3	28.9
87.5°	20.3	18.6	16.9	15.2	13.5	12.8	13.3	13.7	14.2	14.6	14.6
90°	0.8	2.5	4.3	6.0	7.7	9.7	12.0	14.2	16.5	18.8	19.5
92.5°	14.5	14.1	13.6	13.1	12.6	13.2	14.9	16.6	18.3	20.0	21.1
95°	47.7	40.6	33.4	26.3	19.2	16.6	18.5	20.4	22.3	24.2	25.5
97.5°	95.8	92.7	89.5	86.3	83.1	75.2	62.7	50.2	37.7	25.2	26.6
100°	132.1	135.6	139.1	142.5	146.0	134.2	107.1	80.0	52.9	25.8	27.2
102.5°	173.4	175.9	178.4	180.9	183.4	169.9	140.3	110.6	81.0	51.4	47.1
105°	233.0	234.9	236.8	238.7	240.6	233.8	218.1	202.5	186.8	171.2	140.5
107.5°	295.8	297.4	298.9	300.4	301.9	303.9	306.4	308.9	311.3	313.8	291.3
110°	337.7	339.1	340.5	341.9	343.3	344.9	346.9	348.8	350.7	352.6	346.9



TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	377.8	379.0	380.3	381.5	382.8	384.3	386.3	388.2	390.1	392.0	392.1
115°	437.0	438.1	439.1	440.2	441.2	442.5	444.1	445.6	447.2	448.8	450.5
117.5°	494.4	495.7	497.0	498.3	499.5	500.6	501.4	502.2	503.0	503.8	505.2
120°	530.1	531.6	533.2	534.7	536.3	537.4	537.9	538.4	538.9	539.4	540.8
122.5°	566.3	567.6	568.9	570.2	571.5	572.4	573.1	573.8	574.4	575.1	576.1
125°	616.1	617.4	618.8	620.2	621.6	622.7	623.4	624.0	624.7	625.4	625.8
127.5°	664.2	665.6	667.0	668.4	669.8	670.9	671.7	672.6	673.4	674.2	674.8
130°	694.2	695.6	697.0	698.4	699.8	700.8	701.5	702.2	702.9	703.6	704.3
132.5°	723.0	724.4	725.8	727.2	728.6	729.5	730.1	730.6	731.2	731.8	732.5
135°	766.9	768.0	769.0	770.1	771.1	772.0	772.7	773.4	774.1	774.8	775.3
137.5°	804.5	805.8	807.1	808.4	809.7	810.6	811.0	811.4	811.7	812.1	813.0
140°	829.5	830.5	831.6	832.6	833.7	834.4	835.0	835.5	836.0	836.5	837.2
142.5°	852.6	853.7	854.7	855.8	856.8	857.6	858.1	858.6	859.1	859.7	860.2
145°	885.0	886.2	887.4	888.6	889.9	890.6	891.0	891.3	891.7	892.0	892.4
147.5°	915.5	916.3	917.1	917.9	918.7	919.3	919.6	919.9	920.3	920.6	921.0
150°	934.2	934.8	935.3	935.8	936.3	936.8	937.1	937.5	937.8	938.2	938.5
152.5°	951.1	951.4	951.6	951.9	952.1	952.3	952.5	952.7	953.0	953.2	953.8
155°	974.9	974.6	974.2	973.9	973.5	973.4	973.6	973.8	973.9	974.1	975.0
157.5°	993.3	993.3	993.3	993.2	993.2	993.1	992.9	992.8	992.6	992.4	993.5
160°	1004.6	1004.4	1004.3	1004.1	1003.9	1003.7	1003.6	1003.4	1003.2	1003.0	1004.1
162.5°	1015.2	1014.8	1014.3	1013.9	1013.4	1013.1	1012.9	1012.8	1012.6	1012.4	1013.6
165°	1028.1	1027.5	1027.0	1026.5	1026.0	1025.6	1025.5	1025.3	1025.1	1024.9	1026.3
167.5°	1038.1	1037.4	1036.7	1036.0	1035.3	1034.9	1034.9	1034.9	1034.9	1034.9	1036.3
170°	1043.7	1043.0	1042.3	1041.6	1040.9	1040.6	1040.6	1040.6	1040.6	1040.6	1042.0
172.5°	1047.4	1046.6	1045.8	1044.9	1044.1	1043.8	1043.9	1044.0	1044.2	1044.3	1045.7
175°	1052.3	1051.4	1050.6	1049.7	1048.8	1048.5	1048.6	1048.8	1049.0	1049.2	1050.4
177.5°	1053.5	1052.9	1052.2	1051.5	1050.8	1050.5	1050.6	1050.8	1050.9	1051.0	1052.2
180°	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3



TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1	1291.1
2.5°	1285.9	1288.0	1290.0	1290.9	1290.5	1290.1	1289.7	1289.4
5°	1277.4	1279.5	1281.6	1282.4	1282.0	1281.5	1281.0	1280.6
7.5°	1259.5	1260.6	1261.8	1262.0	1261.2	1260.4	1259.6	1258.8
10°	1243.4	1243.6	1243.8	1243.4	1242.2	1241.0	1239.9	1238.7
12.5°	1223.3	1223.2	1223.1	1222.3	1221.0	1219.6	1218.3	1216.9
15°	1188.2	1187.0	1185.9	1184.5	1182.9	1181.2	1179.6	1178.0
17.5°	1146.2	1143.8	1141.3	1138.9	1136.4	1134.0	1131.6	1129.2
20°	1117.5	1114.4	1111.4	1108.5	1105.7	1102.9	1100.1	1097.3
22.5°	1086.7	1082.9	1079.1	1075.9	1073.3	1070.7	1068.1	1065.5
25°	1036.3	1031.4	1026.5	1022.8	1020.2	1017.6	1015.1	1012.5
27.5°	981.3	974.6	967.8	962.4	958.5	954.6	950.7	946.8
30°	942.3	934.3	926.4	920.6	916.9	913.2	909.4	905.7
32.5°	903.9	895.3	886.6	880.3	876.4	872.5	868.6	864.7
35°	847.0	837.0	827.0	819.9	815.7	811.5	807.3	803.1
37.5°	785.8	774.5	763.1	754.9	749.7	744.5	739.4	734.2
40°	743.3	731.2	719.1	710.4	705.0	699.7	694.3	689.0
42.5°	702.5	689.3	676.1	667.1	662.3	657.5	652.7	647.9
45°	642.6	629.3	616.0	606.6	601.0	595.4	589.9	584.3
47.5°	580.5	566.1	551.7	542.0	537.0	532.0	527.1	522.1
50°	538.7	524.2	509.8	499.9	494.6	489.2	483.9	478.5
52.5°	498.2	483.2	468.2	458.3	453.5	448.7	443.9	439.1
55°	437.9	424.4	410.9	401.8	397.2	392.5	387.9	383.2
57.5°	378.7	365.9	353.2	344.8	340.9	336.9	332.9	329.0
60°	341.3	328.8	316.2	308.0	304.0	300.0	296.1	292.1
62.5°	304.3	292.5	280.7	272.7	268.5	264.4	260.3	256.1
65°	251.5	240.1	228.7	221.7	219.2	216.6	214.1	211.5
67.5°	201.2	192.7	184.1	178.5	175.8	173.0	170.3	167.5
70°	170.1	161.9	153.8	148.5	145.9	143.3	140.8	138.2
72.5°	142.1	135.4	128.8	124.9	123.8	122.8	121.7	120.6
75°	106.3	104.0	101.7	100.3	99.8	99.4	98.9	98.4
77.5°	80.2	78.9	77.7	76.8	76.4	75.9	75.4	75.0
80°	64.6	63.9	63.2	62.6	62.1	61.7	61.2	60.7
82.5°	49.5	48.8	48.1	47.7	47.6	47.5	47.4	47.3
85°	28.4	27.9	27.5	27.2	27.2	27.2	27.2	27.2
87.5°	14.5	14.5	14.5	14.4	14.3	14.1	14.0	13.9
90°	20.2	20.8	21.5	22.1	22.4	22.8	23.1	23.5
92.5°	22.2	23.3	24.5	25.1	25.3	25.5	25.7	26.0
95°	26.7	27.9	29.1	29.7	29.7	29.7	29.7	29.7
97.5°	28.0	29.3	30.7	31.5	31.7	31.9	32.0	32.2
100°	28.6	30.0	31.4	32.1	32.3	32.5	32.7	32.8
102.5°	42.8	38.5	34.2	32.2	32.5	32.8	33.1	33.5
105°	109.7	79.0	48.2	33.0	33.4	33.7	34.1	34.4
107.5°	268.7	246.2	223.6	200.7	177.6	154.4	131.2	108.0
110°	341.1	335.4	329.7	314.4	289.5	264.7	239.8	215.0



TEST NUMBER: P332315

CATALOG NUMBER: S123RDIP-S775D805U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	392.2	392.3	392.4	389.8	384.6	379.3	374.1	368.9
115°	452.2	454.0	455.7	456.9	457.6	458.3	459.0	459.7
117.5°	506.6	508.0	509.3	510.1	510.3	510.4	510.5	510.7
120°	542.2	543.6	545.0	545.7	545.7	545.7	545.7	545.7
122.5°	577.0	578.0	579.0	579.5	579.7	579.8	580.0	580.1
125°	626.1	626.5	626.8	627.2	627.5	627.9	628.2	628.6
127.5°	675.3	675.9	676.4	676.5	676.2	675.9	675.5	675.2
130°	705.0	705.7	706.4	706.6	706.2	705.9	705.5	705.2
132.5°	733.1	733.8	734.5	734.6	734.2	733.7	733.2	732.7
135°	775.8	776.3	776.8	776.8	776.3	775.8	775.3	774.8
137.5°	813.8	814.6	815.5	815.7	815.4	815.0	814.7	814.3
140°	837.9	838.6	839.3	839.5	839.1	838.8	838.4	838.1
142.5°	860.8	861.3	861.9	861.9	861.4	860.9	860.5	860.0
145°	892.7	893.1	893.4	893.6	893.6	893.6	893.6	893.6
147.5°	921.3	921.7	922.0	921.8	921.0	920.2	919.4	918.6
150°	938.8	939.2	939.5	939.5	938.9	938.4	937.9	937.4
152.5°	954.4	955.0	955.7	955.6	954.8	954.0	953.2	952.4
155°	975.9	976.7	977.6	977.5	976.5	975.4	974.4	973.3
157.5°	994.5	995.5	996.6	996.4	995.1	993.7	992.4	991.0
160°	1005.1	1006.2	1007.2	1007.1	1005.9	1004.7	1003.5	1002.3
162.5°	1014.8	1016.0	1017.1	1017.2	1016.1	1015.0	1014.0	1012.9
165°	1027.7	1029.1	1030.5	1030.6	1029.4	1028.1	1026.9	1025.7
167.5°	1037.7	1039.1	1040.5	1040.5	1039.1	1037.7	1036.3	1034.9
170°	1043.3	1044.7	1046.1	1046.1	1044.7	1043.3	1042.0	1040.6
172.5°	1047.1	1048.5	1049.9	1049.8	1048.3	1046.8	1045.2	1043.7
175°	1051.6	1052.8	1054.0	1053.9	1052.6	1051.2	1049.8	1048.4
177.5°	1053.3	1054.4	1055.5	1055.4	1054.0	1052.6	1051.2	1049.8
180°	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3	1052.3

(END OF REPORT)