

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: P332700-940

Luminaire Tested: **SA4XXDIP-C1195D1035U940-4F0-1E-UDD-D**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332700-940  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C1195D1035U940-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1035 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8019.4 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: General Diffuse

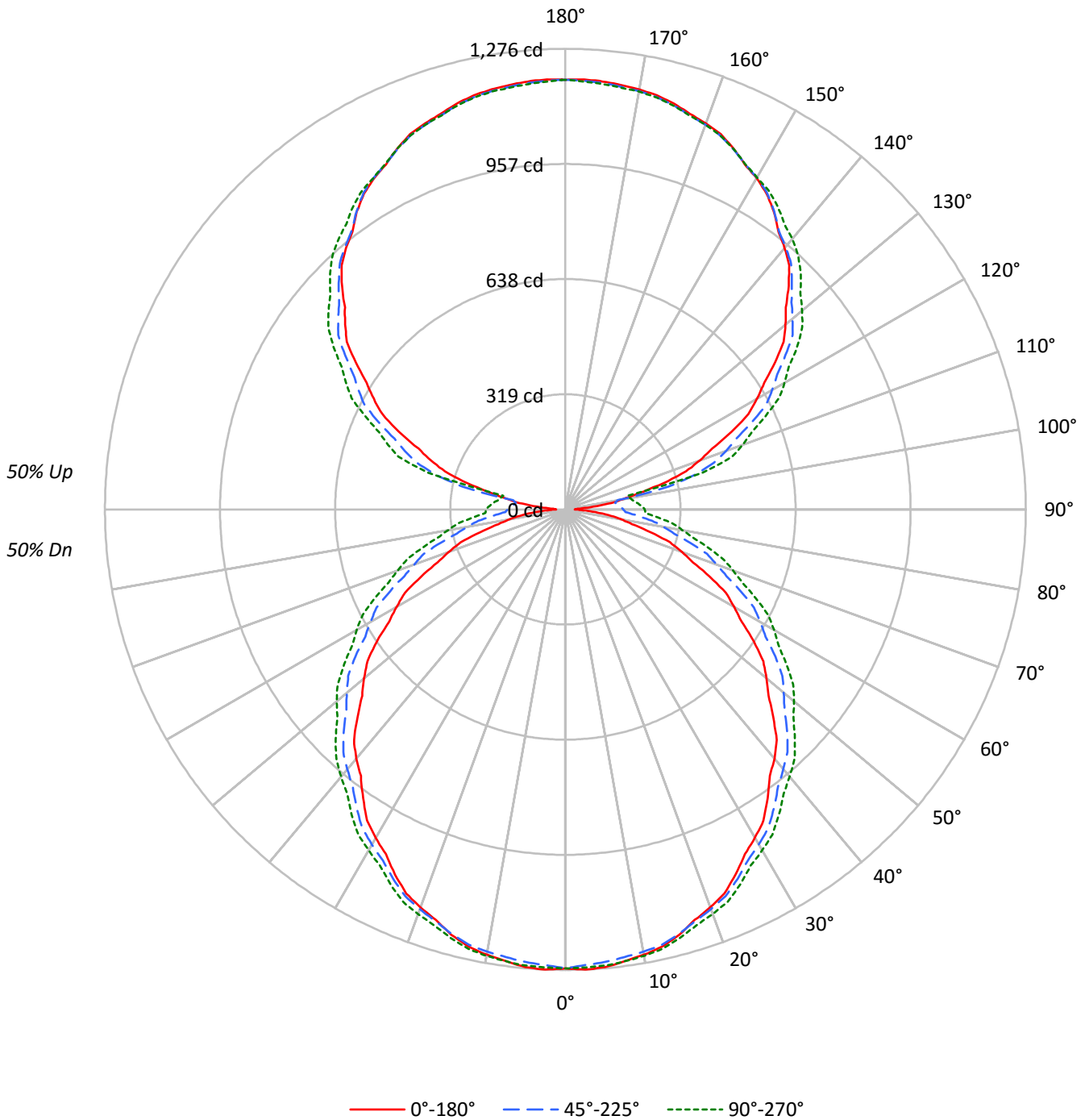
Input Watts (W): 66.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	97	92	88	84	89	85	81	78	72	69	66	59	57	56	48	47	45	40				
2	88	80	73	68	80	74	68	63	62	58	54	51	48	46	42	39	37	33				
3	80	70	62	56	73	64	58	52	54	49	45	45	41	38	37	34	31	27				
4	73	61	53	47	67	57	50	44	48	42	38	40	36	32	32	29	27	23				
5	67	55	46	40	61	51	43	37	43	37	33	36	31	28	29	26	23	20				
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	26	23	20	17				
7	57	44	36	30	52	41	34	28	35	29	25	29	25	21	24	20	18	15				
8	53	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13				
9	49	36	29	24	45	34	27	22	29	23	20	25	20	17	20	17	14	12				
10	46	33	26	21	42	31	24	20	27	21	18	23	18	15	19	15	13	11				

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

	0°	45°	90°
0°	10266	10266	10266
5°	10297	10032	10061
10°	10234	9869	9861
15°	10142	9679	9625
20°	10004	9469	9396
25°	9848	9234	9144
30°	9679	9000	8885
35°	9488	8760	8658
40°	9335	8533	8422
45°	9109	8323	8219
50°	8917	8080	8004
55°	8719	7852	7753
60°	8410	7562	7524
65°	8071	7250	7242
70°	7660	6893	6914
75°	7091	6501	6617
80°	6453	6124	6326
85°	5641	5792	6154



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.4	1.5
10°-20°	345.0	4.3
20°-30°	521.7	6.5
30°-40°	631.2	7.9
40°-50°	667.3	8.3
50°-60°	628.0	7.8
60°-70°	521.0	6.5
70°-80°	366.0	4.6
80°-90°	210.3	2.6
90°-100°	163.6	2.0
100°-110°	350.5	4.4
110°-120°	557.5	7.0
120°-130°	664.7	8.3
130°-140°	689.2	8.6
140°-150°	633.6	7.9
150°-160°	508.5	6.3
160°-170°	328.0	4.1
170°-180°	113.0	1.4
0°-30°	987.1	12.3
0°-40°	1618.2	20.2
0°-60°	2913.5	36.3
0°-90°	4010.8	50.0
90°-120°	1071.6	13.4
90°-150°	3059.1	38.1
90°-180°	4009.0	50.0
0°-180°	8019.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1272	1272	1272	1272	1272	
5°	1273	1268	1259	1269	1269	121
15°	1220	1221	1218	1229	1229	344
25°	1116	1125	1129	1144	1146	514
35°	977	994	1008	1027	1032	611
45°	814	842	869	892	900	629
55°	638	668	710	738	748	568
65°	441	487	535	570	582	437
75°	245	298	357	396	410	260
85°	75	136	199	240	256	80
90°	25	92	160	205	220	17
95°	68	87	144	186	201	78
105°	281	316	372	412	395	295
115°	509	526	569	601	612	501
125°	709	713	745	774	784	633
135°	875	875	888	912	923	675
145°	1007	1008	1008	1018	1026	629
155°	1103	1104	1101	1104	1102	508
165°	1163	1159	1159	1165	1158	329
175°	1190	1185	1186	1193	1183	113
180°	1190	1190	1190	1190	1190	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1276.1	1275.3	1274.6	1273.8	1273.1	1271.7	1269.6	1267.7	1265.6	1263.6	1265.3
5°	1272.9	1272.0	1271.0	1270.2	1269.2	1267.6	1265.3	1263.1	1261.0	1258.7	1261.2
7.5°	1262.1	1261.6	1261.0	1260.4	1259.9	1258.6	1256.9	1255.0	1253.1	1251.3	1254.2
10°	1253.0	1252.7	1252.4	1252.1	1251.8	1250.8	1249.2	1247.7	1246.1	1244.5	1247.3
12.5°	1240.5	1240.5	1240.4	1240.3	1240.3	1239.7	1238.6	1237.5	1236.4	1235.4	1238.0
15°	1220.3	1220.6	1220.9	1221.2	1221.6	1221.2	1220.3	1219.3	1218.3	1217.5	1220.3
17.5°	1192.7	1193.6	1194.5	1195.5	1196.4	1196.9	1196.7	1196.4	1196.2	1196.1	1199.0
20°	1173.3	1174.2	1175.2	1176.2	1177.1	1177.7	1178.0	1178.4	1178.7	1179.0	1182.1
22.5°	1151.6	1152.8	1154.1	1155.2	1156.5	1157.4	1157.9	1158.5	1159.0	1159.6	1162.8
25°	1116.3	1118.2	1120.2	1122.0	1123.9	1125.3	1126.3	1127.2	1128.2	1129.2	1132.7
27.5°	1077.0	1079.9	1082.6	1085.4	1088.2	1090.3	1091.7	1093.2	1094.7	1096.1	1099.3
30°	1050.8	1053.4	1055.9	1058.5	1061.0	1063.4	1065.5	1067.7	1070.0	1072.2	1075.7
32.5°	1022.3	1025.4	1028.4	1031.4	1034.5	1037.2	1039.7	1042.2	1044.6	1047.1	1051.1
35°	976.8	980.6	984.4	988.2	991.9	995.4	998.6	1001.7	1005.0	1008.1	1012.5
37.5°	930.9	935.3	939.7	944.1	948.4	952.5	956.4	960.4	964.3	968.2	972.8
40°	901.3	905.4	909.5	913.6	917.7	922.0	926.5	930.9	935.3	939.8	944.5
42.5°	867.2	871.7	876.4	881.0	885.6	890.6	895.7	900.9	906.1	911.3	916.6
45°	814.5	820.5	826.5	832.5	838.5	844.5	850.5	856.6	862.6	868.6	874.0
47.5°	764.0	770.3	776.5	782.7	788.9	795.5	802.5	809.4	816.4	823.3	828.8
50°	727.6	734.6	741.5	748.5	755.5	762.4	769.4	776.3	783.3	790.2	796.6
52.5°	691.2	698.1	705.1	712.0	719.0	726.5	734.4	742.4	750.4	758.4	764.7
55°	637.9	644.5	651.2	657.8	664.5	672.5	682.1	691.5	701.1	710.5	716.8
57.5°	578.4	586.7	594.9	603.1	611.3	620.1	629.5	639.0	648.5	657.8	665.4
60°	539.7	547.9	556.1	564.4	572.6	581.9	592.4	602.8	613.2	623.7	631.0
62.5°	502.0	511.0	520.0	529.1	538.0	547.7	558.2	568.6	579.1	589.5	596.7
65°	441.4	451.6	461.6	471.8	481.9	492.3	503.1	513.9	524.6	535.4	543.3
67.5°	383.0	393.8	404.6	415.3	426.1	437.2	448.7	460.2	471.7	483.3	491.3
70°	343.1	353.9	364.7	375.4	386.2	397.6	409.6	421.6	433.6	445.7	454.2
72.5°	304.4	315.4	326.5	337.4	348.5	360.3	373.2	385.9	398.7	411.5	419.8
75°	245.0	256.6	268.3	280.0	291.8	304.3	317.5	330.8	344.1	357.4	366.2
77.5°	189.4	201.8	214.2	226.6	239.0	252.2	266.1	280.0	293.9	307.8	316.8
80°	155.2	167.8	180.5	193.1	205.8	219.1	233.0	247.0	260.9	274.8	284.3
82.5°	121.0	134.2	147.4	160.5	173.7	187.3	201.2	215.1	229.0	242.9	252.6
85°	75.4	88.7	102.0	115.3	128.6	142.4	156.6	170.9	185.1	199.4	208.8
87.5°	42.7	56.0	69.4	82.8	96.0	109.9	124.0	138.2	152.4	166.5	175.9
90°	25.4	40.3	55.1	69.9	84.8	99.8	114.9	130.2	145.3	160.5	170.9
92.5°	32.8	44.4	55.9	67.4	78.9	92.3	107.5	122.6	137.8	153.0	163.1
95°	67.5	71.2	74.9	78.6	82.3	90.8	104.0	117.1	130.3	143.5	153.2
97.5°	120.7	133.9	147.1	160.3	173.5	175.5	166.2	157.0	147.8	138.6	147.0
100°	161.7	173.4	185.2	197.0	208.8	207.2	192.3	177.3	162.4	147.4	152.6
102.5°	208.7	218.5	228.3	238.1	248.0	257.2	265.6	274.2	282.7	291.2	263.2
105°	280.8	288.3	295.8	303.3	310.9	320.9	333.6	346.3	359.0	371.7	381.4
107.5°	350.1	355.9	361.7	367.5	373.2	382.3	394.8	407.2	419.5	432.0	440.7
110°	395.9	401.0	406.0	411.0	416.1	424.7	436.9	449.2	461.5	473.8	481.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	440.4	445.4	450.4	455.4	460.4	468.4	479.6	490.6	501.8	512.9	519.9
115°	508.8	512.3	515.7	519.2	522.5	529.2	539.2	549.1	559.0	569.0	576.3
117.5°	571.8	574.3	576.8	579.3	581.8	587.9	597.8	607.6	617.5	627.4	633.9
120°	613.3	615.1	616.8	618.6	620.3	625.6	634.6	643.6	652.6	661.6	668.2
122.5°	653.2	653.9	654.5	655.2	655.9	660.7	669.6	678.6	687.5	696.4	703.0
125°	708.9	709.4	709.9	710.3	710.9	714.8	722.4	729.9	737.4	744.8	751.4
127.5°	762.8	762.7	762.5	762.4	762.3	765.7	772.7	779.7	786.7	793.6	799.2
130°	796.6	796.4	796.3	796.2	796.0	798.8	804.5	810.1	815.8	821.4	827.3
132.5°	828.6	828.6	828.7	828.7	828.8	831.2	836.0	840.8	845.5	850.3	856.0
135°	875.2	875.0	874.9	874.6	874.4	875.8	878.9	881.8	884.8	887.9	893.3
137.5°	917.7	917.5	917.3	917.0	916.9	917.7	919.6	921.6	923.5	925.4	930.5
140°	945.6	945.7	945.7	945.7	945.8	946.3	947.0	947.7	948.4	949.1	953.8
142.5°	969.3	970.0	970.6	971.3	971.9	972.2	972.3	972.3	972.4	972.4	976.5
145°	1007.3	1007.6	1007.9	1008.2	1008.4	1008.5	1008.5	1008.5	1008.5	1008.5	1010.7
147.5°	1037.8	1038.6	1039.4	1040.1	1040.9	1041.3	1041.0	1040.8	1040.6	1040.4	1040.8
150°	1059.8	1060.3	1060.8	1061.2	1061.8	1061.8	1061.7	1061.5	1061.3	1061.0	1061.0
152.5°	1077.2	1077.8	1078.3	1078.9	1079.5	1079.6	1079.2	1078.9	1078.5	1078.2	1078.5
155°	1103.0	1103.1	1103.3	1103.5	1103.7	1103.5	1103.0	1102.3	1101.7	1101.2	1101.9
157.5°	1124.8	1124.7	1124.5	1124.4	1124.4	1123.9	1123.3	1122.6	1122.0	1121.2	1122.3
160°	1137.6	1137.0	1136.5	1135.9	1135.2	1134.9	1134.7	1134.4	1134.3	1134.1	1135.2
162.5°	1149.1	1148.3	1147.5	1146.7	1146.0	1145.6	1145.3	1145.1	1145.0	1144.8	1145.9
165°	1163.4	1162.4	1161.5	1160.5	1159.5	1159.0	1159.0	1159.0	1159.0	1159.0	1160.6
167.5°	1174.8	1173.8	1172.8	1171.8	1170.7	1170.2	1170.0	1169.9	1169.8	1169.7	1171.4
170°	1181.2	1180.1	1178.8	1177.7	1176.5	1176.0	1176.2	1176.4	1176.6	1176.8	1178.4
172.5°	1185.5	1184.4	1183.1	1182.0	1180.8	1180.3	1180.4	1180.7	1180.9	1181.1	1182.7
175°	1190.2	1189.0	1187.8	1186.6	1185.4	1184.9	1185.1	1185.4	1185.5	1185.7	1187.5
177.5°	1192.3	1191.1	1190.1	1189.0	1187.8	1187.5	1187.8	1188.1	1188.4	1188.7	1190.0
180°	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1267.1	1268.9	1270.7	1271.4	1271.1	1270.9	1270.7	1270.4
5°	1263.8	1266.3	1268.8	1270.0	1269.6	1269.4	1269.0	1268.7
7.5°	1257.0	1259.9	1262.8	1264.0	1263.6	1263.4	1263.0	1262.8
10°	1250.2	1253.0	1255.9	1257.1	1256.9	1256.5	1256.2	1255.9
12.5°	1240.5	1243.1	1245.7	1247.1	1247.0	1246.9	1246.8	1246.8
15°	1223.2	1226.0	1228.8	1230.1	1229.8	1229.5	1229.1	1228.8
17.5°	1201.9	1204.8	1207.7	1209.1	1208.8	1208.5	1208.3	1208.0
20°	1185.4	1188.5	1191.7	1193.2	1193.2	1193.2	1193.2	1193.2
22.5°	1165.9	1169.1	1172.2	1174.1	1174.7	1175.1	1175.6	1176.2
25°	1136.1	1139.6	1143.1	1145.0	1145.3	1145.6	1145.9	1146.2
27.5°	1102.6	1105.8	1109.0	1110.8	1111.3	1111.6	1112.0	1112.3
30°	1079.1	1082.6	1086.1	1088.2	1088.8	1089.4	1090.0	1090.7
32.5°	1055.1	1059.1	1063.1	1065.4	1066.0	1066.7	1067.3	1067.9
35°	1017.0	1021.4	1025.8	1028.5	1029.5	1030.5	1031.4	1032.3
37.5°	977.2	981.7	986.2	989.0	990.0	991.0	992.0	993.0
40°	949.2	954.0	958.8	961.8	963.0	964.3	965.5	966.8
42.5°	921.8	927.0	932.3	935.4	936.5	937.5	938.4	939.5
45°	879.3	884.8	890.1	893.6	895.2	896.7	898.3	899.9
47.5°	834.5	840.0	845.6	849.3	851.2	853.1	855.0	856.9
50°	802.9	809.2	815.6	819.7	821.6	823.5	825.4	827.2
52.5°	771.1	777.4	783.6	787.8	789.7	791.6	793.4	795.4
55°	723.2	729.5	735.8	739.9	741.8	743.8	745.6	747.5
57.5°	672.9	680.5	688.0	692.6	694.4	696.2	697.9	699.7
60°	638.2	645.5	652.7	657.6	660.2	662.7	665.3	667.8
62.5°	604.0	611.4	618.6	623.5	626.1	628.6	631.1	633.6
65°	551.2	559.1	567.0	572.2	574.8	577.3	579.9	582.4
67.5°	499.4	507.4	515.4	520.7	523.2	525.6	528.1	530.6
70°	462.8	471.3	479.8	485.3	487.4	489.6	491.9	494.1
72.5°	428.1	436.4	444.7	450.0	452.5	455.0	457.4	459.9
75°	375.1	384.0	392.8	398.7	401.5	404.4	407.2	410.1
77.5°	325.8	334.8	343.8	349.8	352.8	355.9	358.9	361.9
80°	293.8	303.3	312.8	318.8	321.3	323.9	326.4	329.0
82.5°	262.4	272.2	281.9	288.2	291.0	293.7	296.5	299.3
85°	218.3	227.8	237.3	243.6	246.8	249.9	253.2	256.3
87.5°	185.4	194.7	204.2	210.4	213.2	216.1	218.9	221.8
90°	181.3	191.6	202.0	208.7	211.6	214.5	217.4	220.3
92.5°	173.3	183.3	193.4	199.8	202.4	205.0	207.6	210.3
95°	162.9	172.6	182.4	188.8	191.8	194.8	197.9	201.0
97.5°	155.3	163.8	172.2	177.8	180.7	183.7	186.6	189.5
100°	157.7	162.9	168.1	171.9	174.3	176.7	179.1	181.6
102.5°	235.2	207.2	179.3	166.6	169.1	171.6	174.1	176.6
105°	391.1	400.8	410.5	413.0	408.4	403.9	399.2	394.7
107.5°	449.3	458.0	466.6	472.4	475.5	478.5	481.5	484.6
110°	489.1	496.8	504.4	509.8	512.9	516.0	519.2	522.3





TEST NUMBER: P332700-940

CATALOG NUMBER: SA4XXDIP-C1195D1035U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	526.8	533.7	540.6	545.8	549.1	552.3	555.6	558.9
115°	583.7	591.0	598.4	603.2	605.4	607.6	609.8	612.1
117.5°	640.3	646.8	653.4	657.9	660.3	662.8	665.2	667.7
120°	675.0	681.7	688.5	692.9	695.0	697.1	699.3	701.4
122.5°	709.6	716.1	722.7	726.9	728.8	730.7	732.6	734.5
125°	758.1	764.7	771.3	775.7	777.8	779.9	781.9	784.1
127.5°	804.9	810.4	816.0	819.7	821.7	823.8	825.7	827.8
130°	833.2	839.1	845.0	848.9	850.8	852.7	854.6	856.5
132.5°	861.7	867.3	872.9	876.6	878.3	880.1	881.8	883.6
135°	898.8	904.2	909.7	913.6	915.9	918.1	920.4	922.7
137.5°	935.6	940.6	945.7	949.0	950.4	951.9	953.3	954.8
140°	958.5	963.2	968.0	971.2	972.9	974.7	976.5	978.3
142.5°	980.5	984.5	988.6	991.3	992.7	994.1	995.4	996.8
145°	1012.7	1014.9	1016.9	1018.9	1020.5	1022.2	1023.8	1025.5
147.5°	1041.3	1041.7	1042.1	1042.9	1044.1	1045.3	1046.5	1047.8
150°	1061.0	1061.0	1061.0	1061.1	1061.4	1061.6	1061.8	1061.9
152.5°	1078.8	1079.1	1079.4	1079.5	1079.4	1079.3	1079.1	1079.1
155°	1102.7	1103.5	1104.3	1104.4	1103.8	1103.2	1102.6	1102.1
157.5°	1123.3	1124.4	1125.3	1125.3	1124.4	1123.3	1122.3	1121.2
160°	1136.5	1137.6	1138.8	1138.8	1137.6	1136.5	1135.2	1134.1
162.5°	1147.1	1148.3	1149.5	1149.4	1148.1	1146.7	1145.4	1144.1
165°	1162.2	1163.8	1165.3	1165.2	1163.4	1161.6	1159.8	1158.1
167.5°	1173.1	1174.9	1176.6	1176.5	1174.6	1172.6	1170.5	1168.6
170°	1180.0	1181.5	1183.1	1182.9	1181.0	1179.0	1177.0	1175.0
172.5°	1184.3	1185.8	1187.4	1187.1	1185.0	1182.9	1180.7	1178.6
175°	1189.3	1191.1	1192.8	1192.5	1190.2	1187.8	1185.4	1183.0
177.5°	1191.2	1192.5	1193.8	1193.5	1191.6	1189.7	1187.8	1185.9
180°	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2

(END OF REPORT)