

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: P332946-830

Luminaire Tested: **SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332946-830
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: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

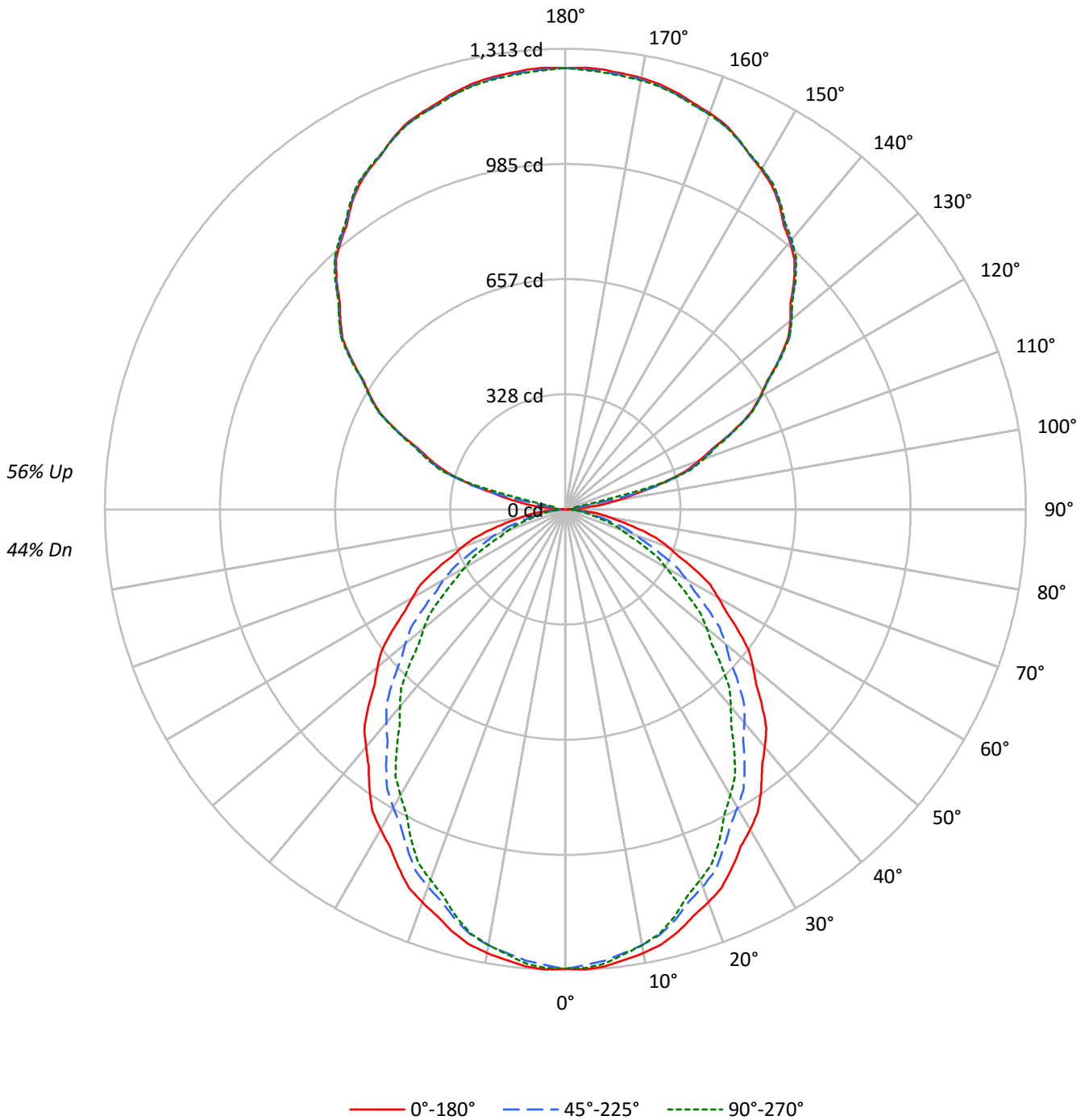
Lumens per Lamp: N/A
Luminaire Lumens: 6920.1 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 52
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



TEST NUMBER: P332946-830
CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P332946-830

CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	50	50	50	44				
1	97	92	89	85	88	85	82	79	70	68	66	57	56	54	45	44	43	37				
2	88	81	75	70	80	74	69	65	62	58	55	50	48	46	40	38	37	32				
3	81	71	64	59	73	66	59	54	55	50	46	45	41	39	35	33	31	27				
4	74	63	56	50	67	58	51	46	49	44	40	40	36	33	32	29	27	23				
5	68	56	48	43	62	52	45	40	44	38	34	36	32	29	29	26	24	20				
6	62	51	43	37	57	47	40	35	39	34	30	33	29	25	26	23	21	18				
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16				
8	54	41	34	29	49	38	32	27	33	27	24	27	23	20	22	19	17	14				
9	50	38	31	26	46	35	29	24	30	25	21	25	21	18	20	17	15	13				
10	47	35	28	23	43	32	26	22	28	22	19	23	19	16	19	16	14	12				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10571	10571	10571
5°	10594	10464	10529
10°	10528	10339	10339
15°	10407	10122	10046
20°	10241	9836	9655
25°	10029	9502	9260
30°	9822	9149	8766
35°	9594	8784	8270
40°	9319	8368	7734
45°	9065	7955	7188
50°	8776	7479	6610
55°	8466	6984	5983
60°	8126	6442	5341
65°	7815	5765	4713
70°	7360	5016	4001
75°	6784	4161	3250
80°	5918	3166	2985
85°	5011	2881	2686



TEST NUMBER: P332946-830

CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.0	1.8
10°-20°	343.0	5.0
20°-30°	495.3	7.2
30°-40°	561.4	8.1
40°-50°	542.1	7.8
50°-60°	450.8	6.5
60°-70°	311.3	4.5
70°-80°	157.8	2.3
80°-90°	44.1	0.6
90°-100°	43.0	0.6
100°-110°	274.3	4.0
110°-120°	524.8	7.6
120°-130°	666.2	9.6
130°-140°	712.8	10.3
140°-150°	666.5	9.6
150°-160°	537.5	7.8
160°-170°	346.7	5.0
170°-180°	119.5	1.7
0°-30°	961.2	13.9
0°-40°	1522.6	22.0
0°-60°	2515.6	36.4
0°-90°	3028.7	43.8
90°-120°	842.2	12.2
90°-150°	2887.7	41.7
90°-180°	3891.0	56.2
0°-180°	6920.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1309	1309	1309	1309	1309	
5°	1307	1303	1291	1301	1299	124
15°	1245	1235	1211	1209	1202	351
25°	1126	1106	1067	1050	1040	519
35°	974	940	891	858	839	608
45°	794	756	697	649	630	612
55°	602	560	496	446	425	538
65°	409	365	302	260	247	404
75°	218	180	133	111	104	230
85°	54	35	31	29	29	61
90°	3	13	21	26	28	5
95°	52	22	21	26	27	67
105°	283	289	294	300	268	296
115°	529	531	531	532	532	520
125°	743	747	745	748	749	663
135°	922	921	925	927	929	710
145°	1063	1066	1066	1067	1069	664
155°	1166	1166	1164	1167	1165	537
165°	1230	1225	1225	1232	1224	347
175°	1258	1253	1253	1261	1250	120
180°	1258	1258	1258	1258	1258	



TEST NUMBER: P332946-830

CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4
2.5°	1312.6	1311.8	1311.1	1310.4	1309.7	1308.3	1306.4	1304.5	1302.5	1300.5	1302.5
5°	1307.3	1306.5	1305.5	1304.7	1303.7	1302.0	1299.3	1296.7	1293.9	1291.3	1293.5
7.5°	1295.5	1294.6	1293.6	1292.7	1291.8	1289.6	1286.1	1282.6	1279.1	1275.6	1277.1
10°	1284.3	1283.2	1282.0	1280.9	1279.8	1277.2	1273.3	1269.2	1265.3	1261.2	1262.1
12.5°	1269.8	1268.6	1267.2	1265.9	1264.7	1261.7	1257.0	1252.2	1247.5	1242.7	1243.3
15°	1245.2	1243.2	1241.1	1239.2	1237.2	1233.4	1227.8	1222.2	1216.6	1211.1	1210.6
17.5°	1215.3	1212.4	1209.5	1206.6	1203.7	1198.9	1192.2	1185.5	1178.8	1172.1	1170.9
20°	1192.0	1189.1	1186.3	1183.4	1180.4	1175.3	1167.6	1160.1	1152.4	1144.9	1143.1
22.5°	1166.4	1163.1	1159.9	1156.6	1153.4	1147.6	1139.5	1131.4	1123.3	1115.2	1112.6
25°	1125.9	1121.8	1117.9	1113.8	1109.8	1103.2	1094.1	1085.0	1075.8	1066.7	1062.9
27.5°	1083.4	1078.4	1073.3	1068.3	1063.2	1055.8	1046.0	1036.3	1026.5	1016.8	1012.1
30°	1053.7	1048.1	1042.5	1037.0	1031.4	1023.4	1013.0	1002.5	991.9	981.5	975.9
32.5°	1022.4	1016.2	1009.8	1003.5	997.3	988.7	977.9	967.0	956.2	945.4	939.0
35°	973.5	966.4	959.2	952.1	945.0	935.9	924.7	913.5	902.4	891.3	883.7
37.5°	921.1	913.8	906.4	899.1	891.7	881.9	869.6	857.2	844.9	832.5	824.1
40°	884.3	876.9	869.6	862.2	854.9	844.8	832.1	819.4	806.7	794.0	784.7
42.5°	848.9	841.2	833.6	825.9	818.1	807.7	794.5	781.2	768.0	754.7	745.2
45°	794.0	785.8	777.5	769.3	761.0	750.3	736.9	723.5	710.1	696.8	685.9
47.5°	737.3	728.8	720.3	711.7	703.2	692.0	678.2	664.2	650.4	636.4	625.1
50°	698.8	690.1	681.4	672.7	664.0	652.5	638.3	624.1	609.7	595.5	584.4
52.5°	659.5	651.0	642.4	634.0	625.5	613.9	599.3	584.7	570.0	555.4	544.1
55°	601.5	592.6	583.7	574.8	565.9	554.2	539.7	525.2	510.8	496.2	484.7
57.5°	544.2	534.9	525.7	516.4	507.1	495.3	481.1	466.8	452.6	438.3	426.6
60°	503.3	494.4	485.5	476.5	467.6	456.1	441.8	427.5	413.3	399.0	387.4
62.5°	466.4	457.1	447.9	438.6	429.3	417.4	402.7	388.1	373.5	358.9	348.2
65°	409.1	399.4	389.8	380.3	370.7	358.8	344.5	330.3	316.0	301.8	292.2
67.5°	349.5	340.4	331.1	322.0	312.7	301.6	288.3	275.1	261.8	248.6	240.3
70°	311.8	302.5	293.0	283.7	274.4	263.3	250.6	237.9	225.3	212.5	205.2
72.5°	271.7	263.3	254.8	246.3	237.8	227.6	215.7	203.6	191.6	179.6	173.3
75°	217.5	209.3	201.0	192.8	184.5	175.2	164.8	154.3	143.8	133.4	128.2
77.5°	162.6	155.6	148.6	141.7	134.6	126.9	118.5	110.0	101.5	93.0	90.0
80°	127.3	120.8	114.4	107.9	101.5	94.9	88.2	81.5	74.8	68.1	67.5
82.5°	96.9	91.0	85.0	79.1	73.1	68.2	64.5	60.6	56.7	53.0	52.4
85°	54.1	49.7	45.2	40.8	36.3	33.7	33.1	32.4	31.8	31.1	30.6
87.5°	19.0	18.0	17.1	16.1	15.2	14.7	14.9	15.1	15.2	15.4	15.5
90°	2.8	5.1	7.4	9.7	12.1	14.0	15.6	17.3	19.0	20.7	22.0
92.5°	11.9	12.0	12.1	12.3	12.3	13.3	14.9	16.6	18.3	20.0	21.2
95°	51.7	44.7	37.5	30.4	23.3	19.9	20.1	20.3	20.5	20.7	22.0
97.5°	109.9	114.3	118.8	123.2	127.6	118.2	94.8	71.5	48.2	24.9	25.0
100°	154.3	158.1	161.8	165.6	169.4	156.8	128.0	99.2	70.2	41.4	37.9
102.5°	204.0	206.8	209.5	212.3	215.0	214.5	210.8	207.0	203.2	199.4	161.1
105°	283.2	284.5	285.7	287.0	288.2	289.4	290.4	291.4	292.6	293.6	295.5
107.5°	356.8	357.4	358.1	358.6	359.3	360.3	361.7	363.2	364.6	366.0	366.9
110°	406.5	407.1	407.7	408.3	409.0	409.9	411.1	412.5	413.7	414.9	415.4



TEST NUMBER: P332946-830

CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	454.7	455.8	456.9	458.1	459.2	460.1	460.6	461.2	461.8	462.3	462.3
115°	528.8	529.4	530.1	530.7	531.3	531.5	531.3	531.1	530.8	530.7	531.1
117.5°	595.6	596.4	597.3	598.1	599.0	599.6	600.0	600.5	601.0	601.4	601.3
120°	640.7	641.6	642.4	643.3	644.1	644.4	644.2	644.0	643.8	643.6	644.0
122.5°	682.9	683.4	683.9	684.4	684.9	685.3	685.6	685.9	686.2	686.5	686.7
125°	743.3	744.1	745.0	745.8	746.7	746.9	746.5	746.0	745.6	745.2	745.8
127.5°	800.5	800.7	801.0	801.2	801.3	801.9	803.0	803.9	804.8	805.8	805.7
130°	837.4	837.6	837.8	838.0	838.2	838.7	839.3	839.9	840.6	841.2	841.4
132.5°	871.3	871.7	872.0	872.4	872.8	873.4	874.2	875.0	875.7	876.6	876.8
135°	922.1	921.9	921.7	921.4	921.2	921.5	922.4	923.2	924.1	924.9	925.3
137.5°	967.0	967.1	967.2	967.3	967.4	967.9	968.8	969.8	970.6	971.6	972.0
140°	996.5	996.8	997.3	997.7	998.1	998.5	998.9	999.4	999.8	1000.2	1000.8
142.5°	1022.8	1023.5	1024.3	1025.0	1025.8	1026.2	1026.5	1026.8	1027.0	1027.3	1027.7
145°	1063.2	1063.8	1064.5	1065.1	1065.7	1066.0	1066.0	1066.0	1066.0	1066.0	1066.3
147.5°	1095.4	1096.6	1097.8	1098.9	1100.1	1100.6	1100.3	1100.1	1099.9	1099.8	1099.9
150°	1118.7	1119.6	1120.4	1121.2	1122.1	1122.4	1122.2	1122.0	1121.8	1121.5	1121.5
152.5°	1138.3	1139.0	1139.6	1140.3	1140.9	1141.1	1140.8	1140.4	1140.0	1139.6	1140.0
155°	1165.8	1166.0	1166.2	1166.4	1166.6	1166.4	1165.8	1165.2	1164.5	1163.9	1164.7
157.5°	1188.9	1188.8	1188.6	1188.5	1188.5	1188.0	1187.3	1186.6	1185.9	1185.2	1186.3
160°	1202.5	1201.8	1201.3	1200.6	1200.0	1199.6	1199.4	1199.1	1198.9	1198.7	1200.0
162.5°	1214.6	1213.7	1213.0	1212.1	1211.4	1210.9	1210.6	1210.4	1210.2	1210.0	1211.3
165°	1229.7	1228.7	1227.7	1226.6	1225.6	1225.0	1225.0	1225.0	1225.0	1225.0	1226.7
167.5°	1241.8	1240.8	1239.6	1238.6	1237.5	1236.9	1236.7	1236.6	1236.5	1236.3	1238.2
170°	1248.6	1247.4	1246.0	1244.8	1243.6	1243.0	1243.2	1243.5	1243.7	1243.9	1245.6
172.5°	1253.1	1251.9	1250.6	1249.3	1248.1	1247.5	1247.7	1248.0	1248.2	1248.4	1250.1
175°	1258.0	1256.8	1255.5	1254.2	1253.0	1252.5	1252.6	1252.9	1253.1	1253.3	1255.2
177.5°	1260.3	1259.0	1257.9	1256.8	1255.6	1255.2	1255.5	1255.8	1256.1	1256.5	1257.8
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0



TEST NUMBER: P332946-830

CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4	1309.4
2.5°	1304.5	1306.4	1308.3	1309.3	1309.1	1308.9	1308.7	1308.5
5°	1295.7	1298.0	1300.2	1301.1	1300.6	1300.2	1299.8	1299.3
7.5°	1278.5	1280.0	1281.4	1281.7	1281.0	1280.3	1279.6	1278.8
10°	1263.0	1263.9	1264.8	1264.8	1263.9	1263.0	1262.1	1261.2
12.5°	1243.9	1244.3	1244.9	1244.5	1243.3	1242.1	1240.8	1239.5
15°	1210.2	1209.8	1209.3	1208.3	1206.7	1205.1	1203.6	1202.0
17.5°	1169.7	1168.5	1167.2	1165.4	1163.0	1160.6	1158.3	1155.9
20°	1141.3	1139.5	1137.7	1135.5	1132.6	1129.6	1126.7	1123.9
22.5°	1109.9	1107.2	1104.6	1102.0	1099.7	1097.3	1095.0	1092.6
25°	1059.1	1055.4	1051.6	1048.6	1046.3	1044.1	1041.9	1039.6
27.5°	1007.4	1002.8	998.1	994.1	990.9	987.7	984.5	981.3
30°	970.3	964.8	959.2	954.6	951.1	947.5	944.0	940.4
32.5°	932.5	926.0	919.5	914.6	911.3	907.9	904.5	901.1
35°	876.1	868.6	861.0	855.2	851.2	847.2	843.1	839.1
37.5°	815.6	807.1	798.6	792.4	788.4	784.4	780.4	776.4
40°	775.3	765.9	756.6	749.9	745.9	741.9	737.9	733.9
42.5°	735.7	726.1	716.6	709.7	705.5	701.3	697.2	693.0
45°	675.0	664.0	653.1	645.6	641.6	637.6	633.6	629.6
47.5°	613.8	602.5	591.2	583.2	578.9	574.5	570.0	565.6
50°	573.3	562.1	550.9	543.3	539.0	534.8	530.6	526.3
52.5°	532.8	521.5	510.1	502.3	497.9	493.4	489.1	484.7
55°	473.1	461.5	450.0	442.1	437.8	433.6	429.3	425.1
57.5°	414.8	403.0	391.2	383.8	380.6	377.4	374.2	371.0
60°	375.9	364.3	352.7	345.1	341.6	338.0	334.4	330.8
62.5°	337.5	326.9	316.1	309.3	306.5	303.7	300.8	297.9
65°	282.6	273.1	263.4	257.3	254.7	251.9	249.3	246.7
67.5°	232.1	223.9	215.7	210.1	207.2	204.2	201.2	198.3
70°	197.8	190.5	183.1	178.3	176.2	173.9	171.6	169.5
72.5°	167.1	160.8	154.5	150.3	148.4	146.3	144.2	142.1
75°	123.1	118.0	112.8	109.6	108.3	107.0	105.6	104.2
77.5°	87.1	84.1	81.1	79.4	79.0	78.6	78.2	77.8
80°	66.8	66.2	65.5	65.0	64.8	64.6	64.4	64.2
82.5°	51.9	51.5	51.0	50.6	50.4	50.1	50.0	49.8
85°	30.2	29.8	29.3	29.0	29.0	29.0	29.0	29.0
87.5°	15.6	15.6	15.6	15.8	16.1	16.3	16.6	16.9
90°	23.2	24.5	25.7	26.6	27.0	27.4	27.8	28.2
92.5°	22.4	23.8	25.0	25.6	25.7	25.8	25.9	26.0
95°	23.2	24.5	25.7	26.5	26.7	26.9	27.1	27.2
97.5°	25.1	25.3	25.4	25.5	25.7	25.9	26.1	26.4
100°	34.3	30.7	27.1	25.5	25.7	25.9	26.1	26.4
102.5°	122.8	84.5	46.1	27.0	27.0	27.1	27.1	27.1
105°	297.4	299.2	301.0	298.3	290.8	283.2	275.7	268.2
107.5°	367.9	368.8	369.7	370.5	371.4	372.1	373.0	373.7
110°	415.8	416.2	416.6	417.2	417.7	418.4	419.1	419.6



TEST NUMBER: P332946-830

CATALOG NUMBER: SA4XXRDIP-C795D1035U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	462.2	462.1	462.0	462.4	463.2	464.0	464.8	465.5
115°	531.5	532.0	532.3	532.5	532.5	532.5	532.5	532.5
117.5°	601.2	601.2	601.1	601.1	601.0	600.9	600.8	600.7
120°	644.4	644.8	645.3	645.3	644.8	644.4	644.0	643.6
122.5°	687.0	687.2	687.5	687.4	687.0	686.5	686.2	685.7
125°	746.5	747.1	747.7	748.1	748.4	748.6	748.8	748.9
127.5°	805.6	805.4	805.3	805.1	805.0	804.8	804.6	804.5
130°	841.6	841.8	842.0	842.2	842.2	842.2	842.2	842.2
132.5°	876.9	877.2	877.4	877.4	877.2	877.0	876.9	876.8
135°	925.8	926.1	926.6	927.0	927.5	927.8	928.2	928.7
137.5°	972.5	973.0	973.5	973.6	973.5	973.4	973.2	973.1
140°	1001.5	1002.1	1002.7	1003.1	1003.3	1003.5	1003.7	1004.0
142.5°	1028.2	1028.7	1029.2	1029.4	1029.4	1029.4	1029.5	1029.5
145°	1066.5	1066.7	1066.9	1067.2	1067.6	1068.0	1068.5	1068.8
147.5°	1100.0	1100.2	1100.4	1100.6	1100.8	1101.0	1101.3	1101.5
150°	1121.5	1121.5	1121.5	1121.6	1121.9	1122.1	1122.3	1122.5
152.5°	1140.3	1140.7	1140.9	1141.0	1140.9	1140.9	1140.7	1140.6
155°	1165.5	1166.4	1167.2	1167.3	1166.8	1166.1	1165.5	1164.9
157.5°	1187.3	1188.5	1189.5	1189.5	1188.5	1187.3	1186.3	1185.2
160°	1201.3	1202.5	1203.7	1203.7	1202.5	1201.3	1200.0	1198.7
162.5°	1212.5	1213.8	1215.0	1214.9	1213.5	1212.1	1210.7	1209.3
165°	1228.4	1230.1	1231.7	1231.6	1229.7	1227.9	1226.0	1224.1
167.5°	1240.0	1241.9	1243.7	1243.6	1241.5	1239.4	1237.3	1235.2
170°	1247.3	1248.9	1250.6	1250.4	1248.3	1246.2	1244.1	1242.0
172.5°	1251.8	1253.4	1255.1	1254.8	1252.5	1250.3	1248.0	1245.8
175°	1257.1	1259.0	1260.8	1260.5	1258.0	1255.5	1253.0	1250.5
177.5°	1259.1	1260.5	1261.9	1261.5	1259.5	1257.5	1255.5	1253.5
180°	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0	1258.0

(END OF REPORT)