

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

Luminaire Tested: **SA4XXRDIP-C795D1035U835-4F0-1E-UDD-F**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P332946
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-C795D1035U835-4F0-1E-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

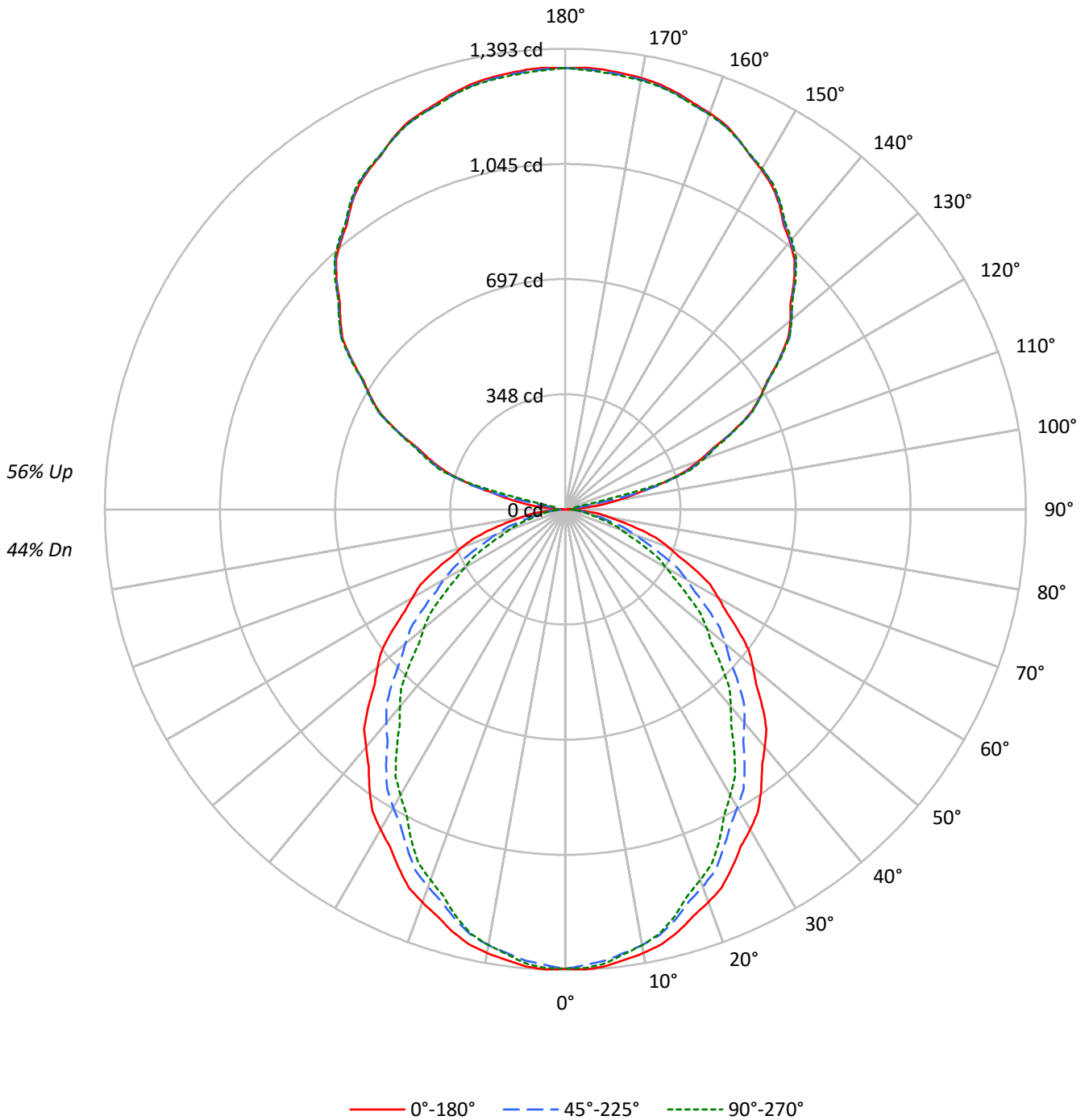
Lumens per Lamp: N/A
Luminaire Lumens: 7342.0 lumens
Efficiency: N/A
Efficacy: 141.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

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



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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	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°	11215	11215	11215
5°	11240	11102	11171
10°	11170	10969	10969
15°	11041	10739	10659
20°	10865	10436	10244
25°	10640	10081	9825
30°	10421	9707	9300
35°	10178	9319	8774
40°	9887	8878	8205
45°	9618	8440	7626
50°	9311	7935	7013
55°	8983	7410	6348
60°	8622	6835	5667
65°	8290	6117	4999
70°	7808	5323	4244
75°	7199	4414	3450
80°	6281	3361	3166
85°	5317	3057	2853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	1.8
10°-20°	363.9	5.0
20°-30°	525.5	7.2
30°-40°	595.6	8.1
40°-50°	575.2	7.8
50°-60°	478.3	6.5
60°-70°	330.3	4.5
70°-80°	167.4	2.3
80°-90°	46.8	0.6
90°-100°	45.7	0.6
100°-110°	291.1	4.0
110°-120°	556.8	7.6
120°-130°	706.8	9.6
130°-140°	756.2	10.3
140°-150°	707.2	9.6
150°-160°	570.3	7.8
160°-170°	367.8	5.0
170°-180°	126.8	1.7
0°-30°	1019.8	13.9
0°-40°	1615.5	22.0
0°-60°	2668.9	36.4
0°-90°	3213.4	43.8
90°-120°	893.5	12.2
90°-150°	3063.7	41.7
90°-180°	4129.0	56.2
0°-180°	7342.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1387	1382	1370	1380	1378	132
15°	1321	1311	1285	1282	1275	372
25°	1194	1174	1132	1114	1103	550
35°	1033	998	946	910	890	645
45°	842	802	739	689	668	649
55°	638	594	526	473	451	571
65°	434	387	320	276	262	428
75°	231	191	142	118	111	244
85°	57	37	33	31	31	65
90°	3	14	22	28	30	5
95°	55	23	22	28	29	71
105°	300	306	312	318	284	314
115°	561	564	563	565	565	552
125°	789	792	791	794	795	704
135°	978	978	981	983	985	753
145°	1128	1131	1131	1132	1134	705
155°	1237	1238	1235	1238	1236	570
165°	1305	1300	1300	1307	1299	369
175°	1335	1329	1330	1338	1327	127
180°	1335	1335	1335	1335	1335	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2
2.5°	1392.6	1391.8	1391.0	1390.3	1389.5	1388.1	1386.0	1384.0	1381.9	1379.8	1381.9
5°	1387.0	1386.1	1385.1	1384.2	1383.2	1381.4	1378.5	1375.7	1372.8	1370.0	1372.4
7.5°	1374.5	1373.5	1372.5	1371.5	1370.5	1368.2	1364.5	1360.8	1357.1	1353.4	1354.9
10°	1362.6	1361.4	1360.2	1359.0	1357.8	1355.1	1350.9	1346.6	1342.4	1338.1	1339.0
12.5°	1347.2	1345.9	1344.5	1343.1	1341.8	1338.6	1333.6	1328.5	1323.5	1318.5	1319.1
15°	1321.1	1319.0	1316.8	1314.7	1312.6	1308.6	1302.6	1296.7	1290.8	1284.9	1284.4
17.5°	1289.4	1286.3	1283.2	1280.2	1277.1	1272.0	1264.9	1257.8	1250.7	1243.6	1242.3
20°	1264.7	1261.6	1258.6	1255.5	1252.4	1246.9	1238.8	1230.8	1222.7	1214.7	1212.8
22.5°	1237.5	1234.0	1230.6	1227.1	1223.7	1217.6	1209.0	1200.4	1191.8	1183.2	1180.4
25°	1194.5	1190.2	1186.0	1181.7	1177.5	1170.5	1160.8	1151.1	1141.4	1131.7	1127.7
27.5°	1149.4	1144.1	1138.7	1133.4	1128.0	1120.2	1109.8	1099.5	1089.1	1078.8	1073.8
30°	1117.9	1112.0	1106.1	1100.2	1094.3	1085.8	1074.7	1063.6	1052.4	1041.3	1035.4
32.5°	1084.7	1078.1	1071.4	1064.7	1058.1	1049.0	1037.5	1026.0	1014.5	1003.0	996.2
35°	1032.8	1025.3	1017.7	1010.1	1002.6	992.9	981.1	969.2	957.4	945.6	937.6
37.5°	977.3	969.5	961.7	953.9	946.1	935.7	922.6	909.5	896.4	883.3	874.3
40°	938.2	930.4	922.6	914.8	907.0	896.3	882.8	869.4	855.9	842.4	832.5
42.5°	900.7	892.5	884.4	876.2	868.0	856.9	842.9	828.8	814.8	800.7	790.6
45°	842.4	833.7	824.9	816.2	807.4	796.0	781.8	767.6	753.4	739.3	727.7
47.5°	782.2	773.2	764.2	755.1	746.1	734.2	719.5	704.7	690.0	675.2	663.2
50°	741.4	732.2	722.9	713.7	704.5	692.3	677.2	662.1	646.9	631.8	620.0
52.5°	699.7	690.7	681.6	672.6	663.6	651.3	635.8	620.3	604.8	589.3	577.3
55°	638.2	628.7	619.3	609.8	600.4	588.0	572.6	557.2	541.9	526.5	514.2
57.5°	577.4	567.5	557.7	547.9	538.0	525.5	510.4	495.3	480.2	465.0	452.6
60°	534.0	524.5	515.1	505.6	496.1	483.9	468.7	453.6	438.5	423.3	411.0
62.5°	494.8	485.0	475.2	465.3	455.5	442.8	427.3	411.8	396.3	380.8	369.4
65°	434.0	423.8	413.6	403.5	393.3	380.7	365.5	350.4	335.3	320.2	310.0
67.5°	370.8	361.1	351.3	341.6	331.8	320.0	305.9	291.9	277.8	263.8	255.0
70°	330.8	320.9	310.9	301.0	291.1	279.4	265.9	252.4	239.0	225.5	217.7
72.5°	288.3	279.3	270.3	261.3	252.3	241.5	228.8	216.0	203.3	190.6	183.9
75°	230.8	222.1	213.3	204.6	195.8	185.9	174.8	163.7	152.6	141.5	136.0
77.5°	172.5	165.1	157.7	150.3	142.8	134.6	125.7	116.7	107.7	98.7	95.5
80°	135.1	128.2	121.4	114.5	107.7	100.7	93.6	86.5	79.4	72.3	71.6
82.5°	102.8	96.5	90.2	83.9	77.6	72.4	68.4	64.3	60.2	56.2	55.6
85°	57.4	52.7	48.0	43.3	38.5	35.8	35.1	34.4	33.7	33.0	32.5
87.5°	20.2	19.1	18.1	17.1	16.1	15.6	15.8	16.0	16.1	16.3	16.4
90°	3.0	5.4	7.9	10.3	12.8	14.9	16.6	18.4	20.2	22.0	23.3
92.5°	12.6	12.7	12.8	13.0	13.1	14.1	15.8	17.6	19.4	21.2	22.5
95°	54.9	47.4	39.8	32.3	24.7	21.1	21.3	21.5	21.7	22.0	23.3
97.5°	116.6	121.3	126.0	130.7	135.4	125.4	100.6	75.9	51.1	26.4	26.5
100°	163.7	167.7	171.7	175.7	179.7	166.4	135.8	105.2	74.5	43.9	40.2
102.5°	216.4	219.4	222.3	225.2	228.1	227.6	223.6	219.6	215.6	211.6	170.9
105°	300.5	301.8	303.1	304.5	305.8	307.0	308.1	309.2	310.4	311.5	313.5
107.5°	378.5	379.2	379.9	380.5	381.2	382.3	383.8	385.3	386.8	388.3	389.3
110°	431.3	431.9	432.6	433.2	433.9	434.9	436.2	437.6	438.9	440.2	440.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	482.4	483.6	484.8	486.0	487.2	488.1	488.7	489.3	489.9	490.5	490.5
115°	561.0	561.7	562.4	563.0	563.7	563.9	563.7	563.5	563.2	563.0	563.5
117.5°	631.9	632.8	633.7	634.6	635.5	636.1	636.6	637.1	637.6	638.1	638.0
120°	679.8	680.7	681.6	682.5	683.4	683.7	683.5	683.3	683.0	682.8	683.3
122.5°	724.5	725.1	725.6	726.1	726.7	727.1	727.4	727.7	728.0	728.3	728.6
125°	788.6	789.5	790.4	791.3	792.2	792.4	792.0	791.5	791.1	790.6	791.3
127.5°	849.3	849.5	849.8	850.0	850.2	850.8	851.9	852.9	853.9	854.9	854.8
130°	888.5	888.7	888.9	889.1	889.3	889.8	890.5	891.1	891.8	892.5	892.7
132.5°	924.4	924.8	925.2	925.6	926.0	926.6	927.5	928.3	929.1	930.0	930.2
135°	978.3	978.1	977.9	977.6	977.4	977.7	978.6	979.5	980.4	981.3	981.7
137.5°	1026.0	1026.1	1026.2	1026.3	1026.4	1026.9	1027.9	1028.9	1029.8	1030.8	1031.3
140°	1057.2	1057.6	1058.1	1058.5	1058.9	1059.4	1059.8	1060.3	1060.7	1061.2	1061.8
142.5°	1085.1	1085.9	1086.7	1087.5	1088.3	1088.8	1089.1	1089.4	1089.6	1089.9	1090.4
145°	1128.0	1128.7	1129.4	1130.0	1130.7	1131.0	1131.0	1131.0	1131.0	1131.0	1131.3
147.5°	1162.2	1163.4	1164.7	1165.9	1167.2	1167.7	1167.4	1167.2	1167.0	1166.8	1167.0
150°	1186.9	1187.8	1188.7	1189.6	1190.5	1190.8	1190.6	1190.4	1190.2	1189.9	1189.9
152.5°	1207.7	1208.4	1209.1	1209.8	1210.5	1210.7	1210.3	1209.9	1209.5	1209.1	1209.5
155°	1236.9	1237.1	1237.3	1237.5	1237.7	1237.5	1236.9	1236.2	1235.5	1234.9	1235.7
157.5°	1261.4	1261.3	1261.1	1261.0	1260.9	1260.4	1259.7	1258.9	1258.2	1257.4	1258.6
160°	1275.8	1275.1	1274.5	1273.8	1273.1	1272.7	1272.5	1272.2	1272.0	1271.8	1273.1
162.5°	1288.6	1287.7	1286.9	1286.0	1285.2	1284.7	1284.4	1284.2	1284.0	1283.8	1285.1
165°	1304.7	1303.6	1302.5	1301.4	1300.3	1299.7	1299.7	1299.7	1299.7	1299.7	1301.5
167.5°	1317.5	1316.4	1315.2	1314.1	1312.9	1312.3	1312.1	1312.0	1311.9	1311.7	1313.7
170°	1324.7	1323.4	1322.0	1320.7	1319.4	1318.8	1319.0	1319.3	1319.5	1319.7	1321.5
172.5°	1329.5	1328.2	1326.8	1325.5	1324.2	1323.6	1323.8	1324.1	1324.3	1324.5	1326.3
175°	1334.7	1333.4	1332.0	1330.7	1329.4	1328.8	1329.0	1329.3	1329.5	1329.7	1331.7
177.5°	1337.1	1335.8	1334.6	1333.4	1332.1	1331.7	1332.0	1332.4	1332.7	1333.1	1334.5
180°	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2	1389.2
2.5°	1384.0	1386.0	1388.1	1389.1	1388.9	1388.7	1388.5	1388.3
5°	1374.7	1377.1	1379.5	1380.4	1379.9	1379.5	1379.0	1378.5
7.5°	1356.4	1358.0	1359.5	1359.8	1359.1	1358.3	1357.6	1356.8
10°	1340.0	1340.9	1341.9	1341.9	1340.9	1340.0	1339.0	1338.1
12.5°	1319.7	1320.2	1320.8	1320.4	1319.1	1317.8	1316.4	1315.1
15°	1284.0	1283.5	1283.0	1282.0	1280.3	1278.6	1277.0	1275.3
17.5°	1241.0	1239.7	1238.3	1236.4	1233.9	1231.4	1228.9	1226.4
20°	1210.9	1209.0	1207.1	1204.7	1201.6	1198.5	1195.4	1192.4
22.5°	1177.6	1174.7	1171.9	1169.2	1166.7	1164.2	1161.7	1159.2
25°	1123.7	1119.7	1115.7	1112.5	1110.1	1107.8	1105.4	1103.0
27.5°	1068.8	1063.9	1058.9	1054.7	1051.3	1047.9	1044.5	1041.1
30°	1029.5	1023.6	1017.7	1012.8	1009.1	1005.3	1001.5	997.7
32.5°	989.3	982.5	975.6	970.4	966.8	963.2	959.6	956.0
35°	929.5	921.5	913.5	907.3	903.1	898.8	894.5	890.3
37.5°	865.3	856.3	847.3	840.7	836.5	832.2	828.0	823.7
40°	822.6	812.6	802.7	795.6	791.4	787.1	782.9	778.6
42.5°	780.5	770.4	760.3	753.0	748.5	744.1	739.7	735.2
45°	716.1	704.5	692.9	685.0	680.7	676.5	672.2	668.0
47.5°	651.2	639.2	627.2	618.8	614.2	609.5	604.8	600.1
50°	608.2	596.4	584.5	576.4	571.9	567.4	562.9	558.4
52.5°	565.3	553.3	541.2	532.9	528.2	523.5	518.9	514.2
55°	501.9	489.6	477.4	469.0	464.5	460.0	455.5	451.0
57.5°	440.1	427.6	415.1	407.2	403.8	400.4	397.0	393.6
60°	398.8	386.5	374.2	366.1	362.4	358.6	354.8	351.0
62.5°	358.1	346.8	335.4	328.2	325.2	322.2	319.1	316.1
65°	299.8	289.7	279.5	273.0	270.2	267.3	264.5	261.7
67.5°	246.3	237.6	228.8	222.9	219.8	216.6	213.5	210.4
70°	209.9	202.1	194.3	189.2	186.9	184.5	182.1	179.8
72.5°	177.3	170.6	163.9	159.5	157.4	155.2	153.0	150.8
75°	130.6	125.2	119.7	116.3	114.9	113.5	112.0	110.6
77.5°	92.4	89.2	86.0	84.2	83.8	83.4	83.0	82.5
80°	70.9	70.2	69.5	69.0	68.8	68.5	68.3	68.1
82.5°	55.1	54.6	54.1	53.7	53.5	53.2	53.0	52.8
85°	32.0	31.6	31.1	30.8	30.8	30.8	30.8	30.8
87.5°	16.5	16.5	16.6	16.8	17.1	17.3	17.6	17.9
90°	24.6	26.0	27.3	28.2	28.6	29.1	29.5	29.9
92.5°	23.8	25.2	26.5	27.2	27.3	27.4	27.5	27.6
95°	24.6	26.0	27.3	28.1	28.3	28.5	28.7	28.9
97.5°	26.6	26.8	26.9	27.1	27.3	27.5	27.7	28.0
100°	36.4	32.6	28.8	27.1	27.3	27.5	27.7	28.0
102.5°	130.3	89.6	48.9	28.6	28.6	28.7	28.7	28.8
105°	315.5	317.4	319.4	316.5	308.5	300.5	292.5	284.5
107.5°	390.3	391.3	392.2	393.1	394.0	394.8	395.7	396.5
110°	441.1	441.6	442.0	442.6	443.2	443.9	444.6	445.2



TEST NUMBER: P332946

CATALOG NUMBER: SA4XXRDIP-C795D1035U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	490.4	490.3	490.2	490.6	491.4	492.3	493.1	493.9
115°	563.9	564.4	564.8	565.0	565.0	565.0	565.0	565.0
117.5°	637.9	637.8	637.7	637.7	637.6	637.5	637.4	637.3
120°	683.7	684.1	684.6	684.6	684.1	683.7	683.3	682.8
122.5°	728.9	729.1	729.4	729.3	728.9	728.4	728.0	727.5
125°	792.0	792.6	793.3	793.7	794.0	794.2	794.4	794.6
127.5°	854.7	854.5	854.4	854.2	854.1	853.9	853.7	853.5
130°	892.9	893.1	893.3	893.5	893.5	893.5	893.5	893.5
132.5°	930.4	930.7	930.9	930.9	930.7	930.5	930.4	930.2
135°	982.2	982.6	983.1	983.5	984.0	984.4	984.8	985.3
137.5°	1031.8	1032.3	1032.8	1032.9	1032.8	1032.7	1032.5	1032.4
140°	1062.5	1063.2	1063.8	1064.3	1064.5	1064.7	1064.9	1065.2
142.5°	1090.9	1091.4	1091.9	1092.1	1092.2	1092.2	1092.3	1092.3
145°	1131.5	1131.7	1131.9	1132.3	1132.7	1133.1	1133.6	1134.0
147.5°	1167.1	1167.3	1167.5	1167.7	1167.9	1168.1	1168.4	1168.6
150°	1189.9	1189.9	1189.9	1190.0	1190.3	1190.5	1190.7	1190.9
152.5°	1209.8	1210.2	1210.5	1210.6	1210.5	1210.4	1210.2	1210.1
155°	1236.6	1237.5	1238.4	1238.5	1237.9	1237.2	1236.5	1235.9
157.5°	1259.7	1260.9	1262.0	1262.0	1260.9	1259.7	1258.6	1257.4
160°	1274.5	1275.8	1277.1	1277.1	1275.8	1274.5	1273.1	1271.8
162.5°	1286.4	1287.8	1289.1	1289.0	1287.5	1286.0	1284.5	1283.0
165°	1303.3	1305.1	1306.8	1306.7	1304.7	1302.7	1300.7	1298.7
167.5°	1315.6	1317.6	1319.5	1319.4	1317.2	1315.0	1312.7	1310.5
170°	1323.3	1325.0	1326.8	1326.6	1324.4	1322.2	1319.9	1317.7
172.5°	1328.1	1329.8	1331.6	1331.3	1328.9	1326.5	1324.1	1321.7
175°	1333.7	1335.7	1337.7	1337.3	1334.7	1332.0	1329.4	1326.7
177.5°	1335.9	1337.3	1338.8	1338.4	1336.3	1334.2	1332.0	1329.9
180°	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7

(END OF REPORT)