

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: P332701-940

Luminaire Tested: **SA4XXDIP-C1195D1035U940-4F0-1E-UDD-D1**

Issue Date: 10/7/2019

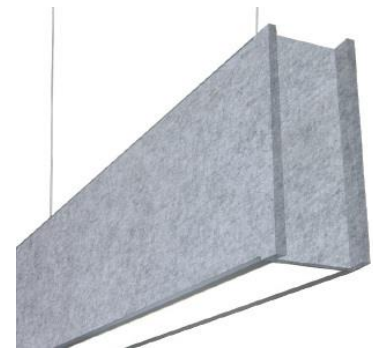
Test Information

Test Method: LM-79-08
Report Number: P332701-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
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-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7530.9 lumens
Efficiency: N/A
Efficacy: 112.7 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

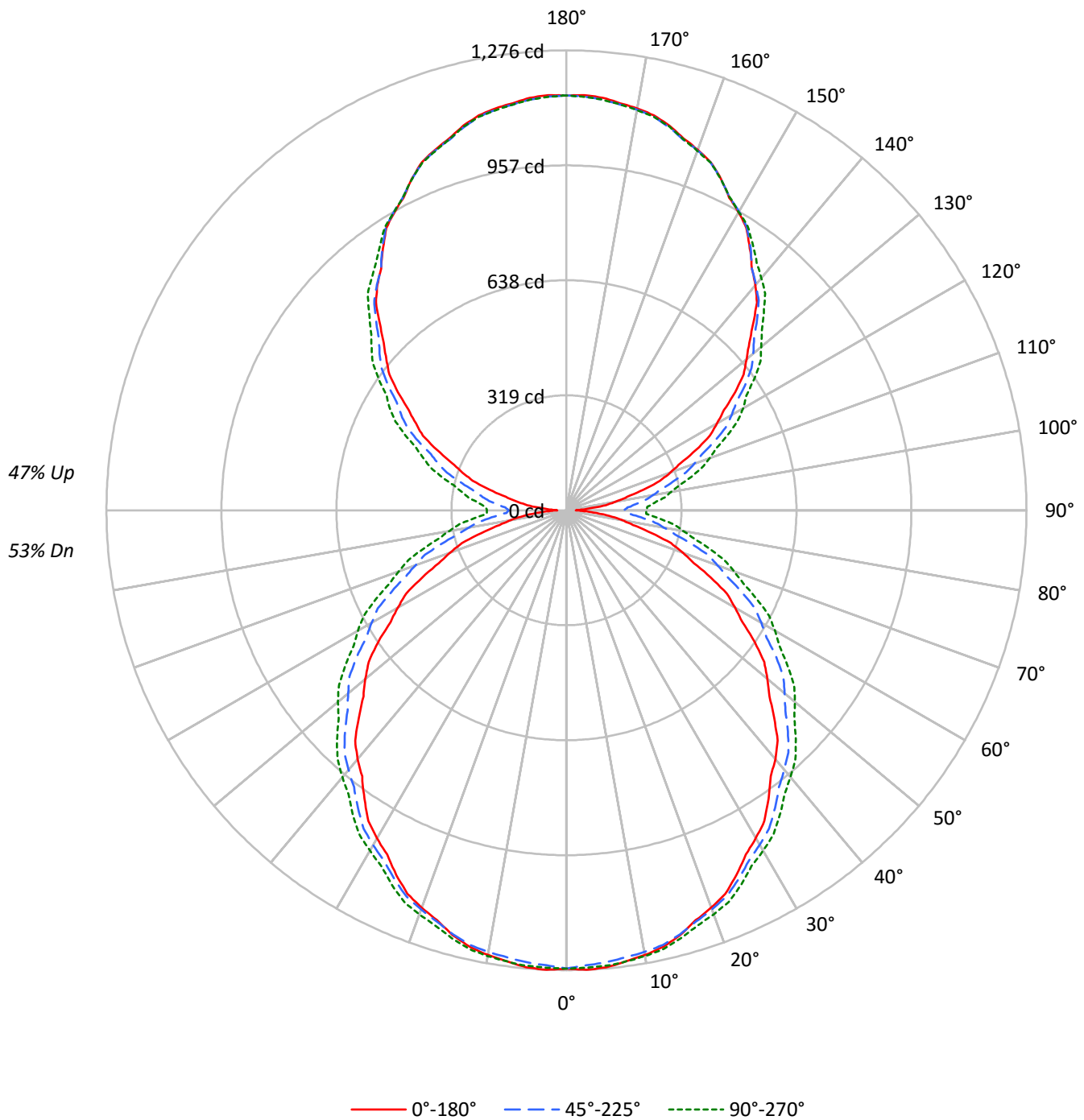
Input Watts (W): 66.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59
1	97	93	88	84	90	86	82	79	73	70	68	61	59	57	51	49	48
2	88	80	74	68	81	74	69	64	63	59	55	53	50	47	44	41	39
3	80	70	62	56	74	65	58	53	56	50	46	47	43	39	38	36	33
4	73	62	54	47	67	57	50	44	49	43	39	41	37	33	34	31	28
5	67	55	46	40	62	51	43	38	44	38	33	37	32	29	31	27	24
6	62	49	41	35	57	46	38	33	39	33	29	33	29	25	28	24	21
7	57	44	36	30	53	41	34	29	36	30	25	30	26	22	25	22	19
8	53	40	32	27	49	38	30	25	32	27	22	28	23	20	23	19	17
9	49	37	29	24	45	34	27	22	30	24	20	25	21	17	21	18	15
10	46	34	26	21	42	31	25	20	27	22	18	23	19	16	20	16	14

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	1.6
10°-20°	345.0	4.6
20°-30°	521.7	6.9
30°-40°	631.2	8.4
40°-50°	667.3	8.9
50°-60°	628.0	8.3
60°-70°	521.0	6.9
70°-80°	366.0	4.9
80°-90°	210.3	2.8
90°-100°	198.8	2.6
100°-110°	315.8	4.2
110°-120°	442.7	5.9
120°-130°	537.7	7.1
130°-140°	580.0	7.7
140°-150°	558.4	7.4
150°-160°	467.1	6.2
160°-170°	310.8	4.1
170°-180°	108.8	1.4
0°-30°	987.1	13.1
0°-40°	1618.2	21.5
0°-60°	2913.5	38.7
0°-90°	4010.8	53.3
90°-120°	957.2	12.7
90°-150°	2633.3	35.0
90°-180°	3520.0	46.7
0°-180°	7530.9	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	18
95°	72	127	192	231	246	74
105°	220	251	306	343	358	234
115°	397	411	453	482	493	392
125°	571	571	604	628	636	509
135°	732	737	747	767	774	566
145°	887	889	890	897	901	555
155°	1015	1015	1014	1017	1014	467
165°	1105	1102	1100	1105	1102	311
175°	1149	1145	1144	1149	1144	109
180°	1151	1151	1151	1151	1151	

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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°	40.7	54.6	68.5	82.3	96.2	110.5	125.2	139.9	154.6	169.3	179.1
95°	71.9	84.2	96.4	108.6	120.8	134.1	148.5	162.8	177.2	191.5	200.6
97.5°	110.0	120.5	130.9	141.3	151.7	164.2	178.6	193.1	207.6	222.0	231.0
100°	140.3	149.3	158.3	167.3	176.4	187.9	202.1	216.2	230.2	244.4	253.3
102.5°	173.0	180.6	188.1	195.6	203.1	213.7	227.5	241.2	254.9	268.6	277.4
105°	220.2	226.8	233.3	239.8	246.3	255.8	268.3	280.8	293.3	305.8	314.3
107.5°	272.4	277.9	283.3	288.7	294.2	302.5	313.6	324.9	336.0	347.2	355.5
110°	306.9	311.7	316.6	321.4	326.2	334.0	344.9	355.8	366.7	377.6	384.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	342.8	346.8	350.8	354.8	358.8	365.9	376.1	386.3	396.5	406.7	413.7
115°	396.6	399.5	402.3	405.1	408.0	414.3	424.0	433.7	443.4	453.2	459.9
117.5°	448.6	450.5	452.4	454.2	456.1	461.6	470.8	479.9	489.1	498.2	504.2
120°	482.4	484.1	485.9	487.6	489.4	494.5	503.1	511.7	520.3	528.9	534.2
122.5°	518.7	519.2	519.7	520.2	520.8	525.2	533.6	542.0	550.4	558.7	564.5
125°	570.9	570.5	570.2	569.9	569.6	573.3	581.0	588.7	596.5	604.1	609.8
127.5°	619.2	619.5	619.7	620.0	620.3	623.3	629.1	634.8	640.6	646.3	651.7
130°	652.2	652.5	652.8	653.1	653.4	656.0	661.0	666.1	671.2	676.3	681.5
132.5°	687.2	687.2	687.3	687.5	687.6	689.6	693.5	697.4	701.2	705.2	710.2
135°	731.8	733.0	734.1	735.4	736.6	738.2	740.5	742.7	744.8	747.1	751.8
137.5°	782.0	782.2	782.5	782.7	782.9	783.7	785.2	786.6	787.9	789.3	793.4
140°	815.5	815.6	815.6	815.7	815.7	816.0	816.3	816.6	816.9	817.3	821.2
142.5°	845.0	845.3	845.6	846.0	846.2	846.2	845.9	845.6	845.3	844.9	848.5
145°	887.0	887.5	888.0	888.4	888.9	889.2	889.5	889.7	889.8	890.0	891.7
147.5°	929.1	929.7	930.3	930.9	931.6	931.8	931.7	931.5	931.3	931.2	931.3
150°	954.7	955.1	955.6	956.1	956.5	956.8	956.8	956.8	956.8	956.8	956.8
152.5°	977.8	978.1	978.6	979.0	979.4	979.6	979.8	980.0	980.2	980.3	980.8
155°	1014.7	1014.7	1014.7	1014.7	1014.7	1014.6	1014.3	1014.1	1014.0	1013.8	1014.6
157.5°	1046.0	1045.6	1045.3	1044.9	1044.6	1044.4	1044.3	1044.3	1044.3	1044.2	1044.8
160°	1064.5	1064.3	1064.1	1063.9	1063.7	1063.5	1063.3	1063.1	1062.9	1062.7	1063.3
162.5°	1081.6	1081.1	1080.6	1080.0	1079.5	1079.1	1079.0	1078.8	1078.6	1078.3	1079.4
165°	1104.6	1103.9	1103.4	1102.8	1102.2	1101.7	1101.3	1100.9	1100.5	1100.1	1101.3
167.5°	1122.2	1121.3	1120.5	1119.7	1118.8	1118.5	1118.5	1118.6	1118.6	1118.7	1119.8
170°	1132.1	1131.1	1130.2	1129.2	1128.2	1127.7	1128.0	1128.2	1128.4	1128.5	1129.8
172.5°	1139.2	1138.4	1137.6	1136.8	1136.0	1135.5	1135.6	1135.6	1135.7	1135.7	1137.0
175°	1149.1	1148.1	1147.1	1146.1	1145.1	1144.5	1144.3	1144.1	1143.9	1143.7	1145.1
177.5°	1152.3	1151.5	1150.7	1149.9	1149.1	1148.7	1148.7	1148.7	1148.7	1148.7	1149.8
180°	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8

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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°	188.7	198.3	207.9	214.1	216.9	219.6	222.4	225.2
95°	209.8	218.9	228.1	234.1	236.9	239.8	242.6	245.5
97.5°	240.0	249.1	258.1	263.9	266.6	269.4	272.1	274.8
100°	262.3	271.2	280.2	285.7	287.9	290.2	292.4	294.6
102.5°	286.3	295.2	304.0	309.7	312.4	315.0	317.6	320.2
105°	322.8	331.4	339.8	345.6	348.7	351.9	355.0	358.1
107.5°	363.9	372.2	380.6	385.8	388.1	390.3	392.5	394.8
110°	391.3	398.2	405.1	410.1	413.2	416.3	419.5	422.6

TEST NUMBER: P332701-940

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.6	427.6	434.5	439.3	441.9	444.6	447.3	450.0
115°	466.7	473.5	480.3	484.6	486.7	488.7	490.7	492.8
117.5°	510.1	515.9	521.9	525.9	528.1	530.2	532.4	534.4
120°	539.6	544.8	550.2	554.4	557.3	560.2	563.1	566.1
122.5°	570.1	575.8	581.4	585.0	586.6	588.2	589.7	591.3
125°	615.4	621.0	626.6	630.2	631.7	633.2	634.7	636.2
127.5°	656.9	662.3	667.5	671.1	673.0	674.8	676.6	678.4
130°	686.9	692.1	697.5	700.6	701.8	702.8	704.0	705.1
132.5°	715.2	720.3	725.3	728.7	730.2	731.8	733.4	735.0
135°	756.4	761.1	765.8	768.7	770.1	771.3	772.7	774.0
137.5°	797.5	801.6	805.7	808.7	810.4	812.1	813.8	815.5
140°	825.1	829.0	832.9	835.5	837.0	838.3	839.7	841.1
142.5°	852.0	855.6	859.2	861.6	862.8	864.2	865.4	866.7
145°	893.5	895.2	896.9	898.0	898.8	899.4	900.1	900.7
147.5°	931.4	931.5	931.6	932.0	932.8	933.6	934.4	935.2
150°	956.8	956.8	956.8	956.7	956.5	956.3	956.1	955.9
152.5°	981.2	981.7	982.2	982.2	981.7	981.1	980.6	980.1
155°	1015.4	1016.1	1016.9	1016.9	1016.1	1015.4	1014.6	1013.8
157.5°	1045.4	1046.0	1046.6	1046.5	1045.9	1045.2	1044.6	1043.8
160°	1063.9	1064.5	1065.1	1064.9	1063.9	1062.9	1061.9	1061.0
162.5°	1080.5	1081.6	1082.6	1082.7	1081.7	1080.8	1079.8	1078.7
165°	1102.5	1103.7	1104.8	1105.0	1104.3	1103.5	1102.7	1101.9
167.5°	1121.0	1122.2	1123.4	1123.4	1122.1	1120.9	1119.6	1118.5
170°	1131.0	1132.1	1133.4	1133.2	1131.8	1130.4	1129.1	1127.7
172.5°	1138.4	1139.7	1141.1	1141.0	1139.7	1138.3	1136.9	1135.5
175°	1146.5	1147.9	1149.2	1149.2	1147.9	1146.5	1145.1	1143.7
177.5°	1150.9	1152.0	1153.2	1153.1	1151.8	1150.5	1149.2	1148.0
180°	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8	1150.8

(END OF REPORT)