

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: FAIL-SAFE

Report Number: P

Luminaire Tested: **4APN-24-26L935-UNV-NP**

Issue Date: 06/06/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 06/06/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN-24-26L935-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light  
w/ Nature Pattern Lens  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

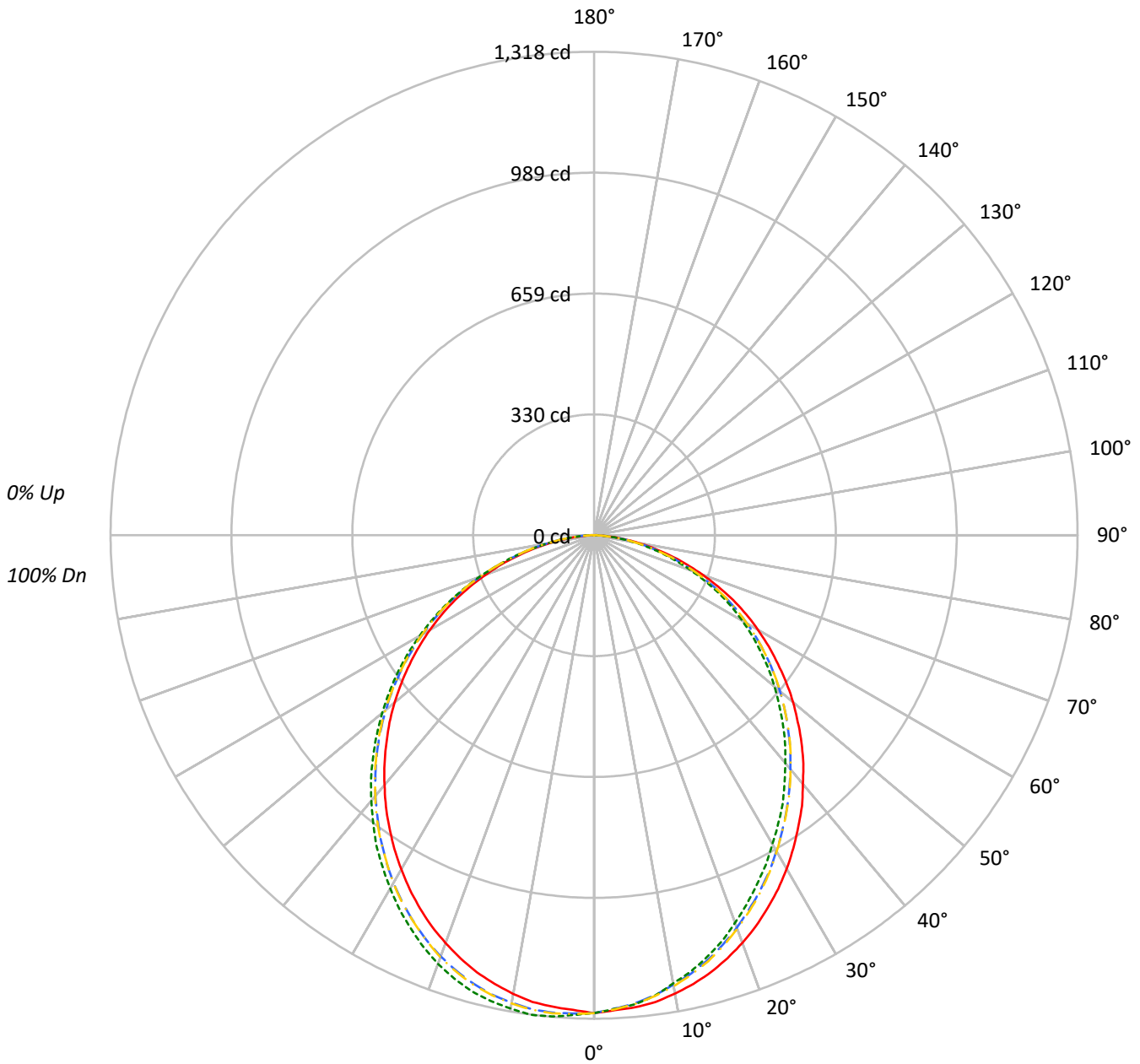
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3442.7 lumens  
Efficiency: N/A  
Efficacy: 61.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.32  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 56  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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



— 0°-180°    - - 45°-225°    - - - 90°-270°    - · - 135°-315°



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	66	88	78	71	65	75	69	64	73	67	63	70	66	62	62	62	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	41	41	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	36	36	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	32	32	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	29	29	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

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

	0°	90°	180°	270°
0°	12016	12016	12016	12016
5°	11963	11884	11949	12196
10°	11887	11622	11893	12274
15°	11775	11366	11782	12294
20°	11609	11038	11616	12209
25°	11406	10690	11429	12037
30°	11187	10356	11202	11838
35°	10931	10086	10957	11645
40°	10666	9763	10702	11376
45°	10437	9500	10449	11115
50°	10165	9221	10187	10824
55°	9841	8919	9878	10518
60°	9525	8608	9540	10132
65°	9132	8230	9132	9684
70°	8478	7613	8460	8994
75°	7689	6898	7636	8099
80°	6626	5935	6498	6944
85°	5102	4541	4944	5579



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.0	3.6
10°-20°	348.2	10.1
20°-30°	515.6	15.0
30°-40°	604.9	17.6
40°-50°	613.0	17.8
50°-60°	544.1	15.8
60°-70°	408.5	11.9
70°-80°	226.8	6.6
80°-90°	58.6	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	986.8	28.7
0°-40°	1591.7	46.2
0°-60°	2748.8	79.8
0°-90°	3442.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3442.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1302	1302	1302	1302	1302	
5°	1292	1283	1290	1317	1292	123
15°	1233	1190	1234	1287	1233	347
25°	1120	1050	1123	1182	1120	516
35°	970	896	973	1034	970	607
45°	800	728	801	852	800	617
55°	612	554	614	654	612	548
65°	418	377	418	444	418	412
75°	216	194	214	227	216	229
85°	48	43	47	53	48	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4
2.5°	1296.2	1299.4	1303.2	1299.4	1293.2	1290.2	1290.2	1289.4	1291.7	1292.5	1291.7
5°	1291.7	1293.2	1294.0	1289.4	1282.5	1278.7	1277.2	1276.4	1279.5	1283.2	1279.5
7.5°	1283.2	1282.5	1281.8	1275.7	1268.0	1262.7	1260.4	1259.5	1262.7	1266.5	1263.4
10°	1268.8	1268.0	1265.7	1258.1	1248.1	1241.2	1238.9	1236.6	1238.9	1240.5	1238.9
12.5°	1252.7	1249.7	1246.5	1238.2	1227.5	1219.8	1216.0	1212.9	1216.0	1218.2	1216.8
15°	1232.8	1228.2	1222.8	1213.7	1203.0	1194.5	1190.0	1186.9	1189.2	1190.0	1190.0
17.5°	1209.1	1203.8	1198.4	1186.9	1173.9	1164.8	1159.4	1155.5	1158.6	1160.2	1160.2
20°	1182.4	1176.2	1169.4	1157.1	1143.4	1133.4	1127.2	1122.7	1123.5	1124.2	1124.2
22.5°	1153.2	1145.6	1137.2	1124.2	1109.7	1098.9	1092.8	1087.5	1087.5	1088.2	1088.2
25°	1120.4	1111.9	1103.5	1090.5	1075.2	1063.8	1056.2	1050.8	1050.8	1050.1	1051.5
27.5°	1086.8	1077.5	1069.2	1055.4	1039.3	1027.8	1020.2	1014.8	1014.1	1013.3	1014.8
30°	1050.1	1039.3	1030.2	1015.6	1000.3	988.8	981.2	975.1	973.5	972.1	973.5
32.5°	1011.1	1001.1	991.2	975.8	960.5	949.1	941.5	935.3	934.5	933.8	935.3
35°	970.5	959.8	950.6	936.1	920.8	909.3	900.9	895.5	895.5	895.5	895.5
37.5°	930.8	920.0	910.1	895.5	880.2	868.8	860.4	855.0	853.5	852.8	853.5
40°	885.6	876.5	867.2	853.5	838.2	826.8	819.8	813.8	812.2	810.6	812.9
42.5°	844.3	835.1	825.2	812.2	796.9	785.5	777.8	772.5	771.6	770.9	771.6
45°	799.9	789.2	779.3	767.1	753.3	742.6	734.9	729.6	728.8	728.1	728.8
47.5°	753.3	744.9	736.5	724.2	710.5	699.8	692.9	686.8	685.2	683.7	685.2
50°	708.2	699.0	690.6	679.1	666.1	656.2	650.0	644.7	643.2	642.4	643.2
52.5°	660.8	652.3	644.7	633.2	622.5	612.6	605.7	601.1	600.3	599.6	600.3
55°	611.8	604.2	597.3	588.1	577.4	568.2	562.1	556.8	556.0	554.5	556.0
57.5°	564.4	558.3	551.4	541.5	531.5	523.1	517.7	513.2	512.4	511.6	512.4
60°	516.2	510.1	504.0	495.6	485.6	477.2	472.6	468.8	467.3	466.5	467.3
62.5°	468.0	461.9	457.3	448.9	439.7	432.9	428.3	424.5	422.9	422.2	422.9
65°	418.3	413.0	407.6	400.0	393.0	387.7	383.2	379.3	377.8	377.0	377.0
67.5°	365.6	361.0	357.2	350.3	342.6	337.3	332.7	329.6	328.0	327.3	328.0
70°	314.3	310.5	306.7	301.3	295.2	290.6	287.6	284.5	283.0	282.2	282.2
72.5°	265.4	262.3	258.5	253.9	249.3	244.7	241.7	239.4	237.9	237.0	237.0
75°	215.7	212.6	211.0	207.3	202.7	199.6	196.6	195.0	193.5	193.5	193.5
77.5°	169.0	167.5	166.0	162.1	159.0	156.0	153.7	153.0	151.4	151.4	151.4
80°	124.7	123.9	123.1	120.9	117.7	114.7	113.2	112.4	111.7	111.7	111.7
82.5°	84.1	84.1	83.3	81.0	78.7	78.0	76.4	75.7	75.7	75.7	75.7
85°	48.2	48.2	48.2	47.4	45.9	45.9	44.3	43.6	42.9	42.9	42.9
87.5°	19.1	19.9	20.7	19.9	18.3	18.3	18.3	18.3	18.3	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4
2.5°	1289.4	1290.9	1291.7	1295.5	1300.1	1303.2	1299.4	1295.5	1301.7	1308.5	1308.5
5°	1276.4	1277.9	1280.2	1284.8	1290.9	1294.8	1293.2	1290.2	1299.4	1307.0	1307.8
7.5°	1260.4	1261.8	1264.9	1269.5	1277.2	1282.5	1282.5	1283.2	1291.7	1300.8	1303.2
10°	1236.6	1240.5	1245.1	1251.9	1259.5	1266.5	1268.8	1269.5	1280.2	1290.2	1293.2
12.5°	1214.5	1218.2	1222.8	1230.5	1239.7	1247.4	1249.7	1252.7	1264.2	1275.7	1280.2
15°	1189.2	1193.1	1198.4	1206.1	1216.0	1224.4	1229.0	1233.5	1245.1	1257.2	1262.7
17.5°	1159.4	1163.2	1168.5	1177.8	1189.2	1199.2	1204.5	1209.8	1222.8	1235.8	1241.2
20°	1124.2	1129.5	1137.2	1146.4	1159.4	1170.8	1177.0	1183.1	1196.8	1209.8	1216.0
22.5°	1088.2	1094.4	1102.8	1113.5	1127.2	1139.5	1147.2	1154.8	1168.5	1181.5	1188.5
25°	1052.3	1059.2	1067.6	1079.1	1092.1	1104.4	1113.5	1122.7	1136.5	1150.2	1157.1
27.5°	1015.6	1021.8	1030.2	1041.6	1056.2	1069.2	1078.3	1088.2	1102.1	1116.5	1123.5
30°	975.1	981.9	989.6	1001.1	1017.2	1031.7	1040.8	1051.5	1065.3	1079.8	1086.8
32.5°	936.1	942.2	949.8	961.3	977.4	992.6	1002.6	1013.3	1027.1	1041.6	1047.8
35°	895.5	901.6	910.1	921.5	937.6	952.1	962.1	972.8	985.8	999.5	1006.5
37.5°	855.8	861.9	870.3	881.8	897.1	911.6	921.5	932.2	945.2	958.2	964.4
40°	814.5	820.6	827.5	838.9	854.2	868.8	877.9	888.6	901.6	915.5	921.5
42.5°	772.5	778.5	786.9	798.5	812.9	825.9	835.9	845.8	858.1	870.3	876.5
45°	730.3	735.7	744.1	754.8	768.6	780.8	790.8	800.8	812.2	823.6	829.8
47.5°	686.8	692.9	699.8	710.5	724.2	737.2	747.2	756.3	767.1	778.5	783.9
50°	644.7	650.0	656.9	666.9	679.9	692.1	700.5	709.7	719.6	730.3	734.9
52.5°	601.1	606.5	613.3	623.3	634.0	645.5	653.1	661.5	671.5	681.5	686.0
55°	556.8	560.6	566.7	575.9	587.3	598.0	605.7	614.1	622.5	630.9	636.3
57.5°	513.2	517.7	523.9	532.3	542.2	552.2	559.0	565.9	574.3	582.8	586.6
60°	468.8	472.6	477.2	484.9	494.8	503.2	510.1	517.0	523.9	531.5	535.3
62.5°	423.7	427.5	432.0	439.7	448.2	455.8	461.9	468.0	474.2	481.0	484.9
65°	378.6	382.4	387.0	392.3	399.2	406.0	412.2	418.3	422.9	427.5	431.3
67.5°	329.6	333.4	338.0	342.6	348.7	355.6	360.2	365.6	370.2	375.5	377.8
70°	283.7	286.8	291.4	295.2	300.6	305.2	309.0	313.6	316.6	321.2	325.0
72.5°	238.6	241.7	245.5	249.3	252.4	256.2	260.7	264.6	268.4	273.0	274.6
75°	195.0	196.6	199.6	202.7	205.7	208.7	211.0	214.2	217.2	220.3	222.6
77.5°	152.2	153.7	156.7	159.0	161.3	163.7	165.2	166.7	169.7	172.0	174.4
80°	111.7	113.2	115.4	117.7	120.0	122.3	122.3	122.3	126.2	129.3	130.0
82.5°	75.7	76.4	78.0	79.6	81.0	82.6	82.6	81.9	84.1	86.4	88.0
85°	43.6	44.3	45.9	45.9	46.7	46.7	46.7	46.7	48.2	50.4	52.0
87.5°	17.6	17.6	18.3	18.3	19.1	19.1	18.3	17.6	19.1	21.4	22.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4	1302.4
2.5°	1305.5	1304.7	1307.0	1307.8	1309.2	1309.2	1310.1	1310.1	1308.5	1306.2	1307.0
5°	1306.2	1306.2	1308.5	1310.8	1313.9	1316.9	1314.7	1312.4	1310.8	1308.5	1307.8
7.5°	1302.4	1303.9	1306.2	1310.1	1313.9	1318.5	1315.4	1312.4	1308.5	1305.5	1303.9
10°	1293.2	1294.8	1298.5	1302.4	1306.2	1310.1	1307.0	1303.9	1300.8	1297.1	1295.5
12.5°	1281.8	1284.1	1288.7	1292.5	1296.2	1300.8	1297.1	1293.2	1289.4	1285.5	1283.2
15°	1264.9	1268.0	1273.4	1277.9	1283.2	1287.1	1284.1	1281.0	1276.4	1271.1	1267.2
17.5°	1243.5	1248.1	1253.5	1258.8	1263.4	1267.2	1264.9	1261.8	1256.5	1250.4	1245.8
20°	1219.8	1224.4	1229.0	1234.4	1239.7	1243.5	1240.5	1236.6	1231.2	1226.7	1222.1
22.5°	1192.2	1196.8	1202.2	1206.8	1211.4	1215.2	1211.4	1206.8	1202.2	1197.6	1193.1
25°	1160.9	1165.5	1171.6	1176.2	1179.2	1182.4	1179.2	1175.5	1170.8	1166.2	1161.7
27.5°	1128.1	1132.6	1138.8	1143.4	1146.4	1149.5	1146.4	1142.5	1137.9	1133.4	1128.8
30°	1091.4	1095.9	1102.1	1106.6	1108.9	1111.2	1108.2	1105.1	1101.2	1096.7	1092.1
32.5°	1052.3	1056.9	1061.5	1066.1	1069.9	1072.9	1069.9	1066.8	1062.2	1056.2	1051.5
35°	1011.1	1015.6	1020.9	1025.5	1030.2	1033.9	1029.4	1024.1	1020.2	1016.4	1012.5
37.5°	967.5	972.8	978.9	984.2	985.8	988.8	985.8	982.8	978.9	975.1	970.5
40°	924.6	929.2	934.5	939.9	942.2	944.5	941.5	938.4	933.8	929.9	925.4
42.5°	880.2	884.8	889.5	894.0	897.1	900.1	897.1	892.5	889.5	886.4	882.5
45°	834.3	838.9	842.8	847.4	849.6	851.9	848.9	845.1	842.0	839.8	835.9
47.5°	787.8	791.5	795.3	799.2	800.8	803.0	799.9	797.6	795.3	793.1	790.0
50°	738.8	742.6	747.2	751.0	751.8	754.1	751.0	748.7	746.5	744.1	741.8
52.5°	690.6	693.6	697.5	701.3	702.8	704.3	701.3	698.2	695.9	694.5	692.1
55°	640.1	643.2	647.0	650.0	652.3	653.9	650.8	647.8	645.5	644.7	642.4
57.5°	589.6	592.7	596.5	599.6	601.1	602.6	599.6	596.5	595.0	593.5	591.9
60°	538.4	541.5	544.5	546.8	548.3	549.1	546.0	543.8	543.0	542.2	540.7
62.5°	487.9	489.5	492.5	494.0	495.6	496.3	494.0	492.5	491.7	491.0	490.2
65°	435.2	439.0	441.3	442.8	442.8	443.6	441.3	440.5	439.7	439.0	437.5
67.5°	380.9	383.9	385.5	387.0	387.0	387.0	387.0	387.0	386.2	384.7	383.2
70°	328.9	331.2	332.7	333.4	333.4	333.4	331.9	331.2	331.9	331.9	331.2
72.5°	276.0	277.6	278.4	279.2	278.4	278.4	278.4	279.9	279.9	279.2	277.6
75°	224.9	226.4	227.2	227.9	227.2	227.2	227.2	228.7	227.9	227.9	227.2
77.5°	176.7	177.4	177.4	178.2	177.4	177.4	178.2	179.7	179.0	179.0	179.0
80°	130.7	130.7	130.7	131.6	130.7	130.7	131.6	133.0	132.3	132.3	132.3
82.5°	88.7	89.4	89.4	89.4	90.3	91.0	91.0	91.0	91.0	91.0	90.3
85°	52.7	53.6	52.7	52.7	52.7	52.7	53.6	54.3	54.3	54.3	54.3
87.5°	23.0	23.7	23.0	22.2	21.4	21.4	23.0	24.4	24.4	23.7	23.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P  
 CATALOG NUMBER: 4APN-24-26L935-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1302.4	1302.4	1302.4	1302.4
2.5°	1310.1	1310.1	1303.2	1296.2
5°	1309.2	1307.8	1300.1	1291.7
7.5°	1304.7	1302.4	1292.5	1283.2
10°	1294.0	1290.9	1280.2	1268.8
12.5°	1281.0	1276.4	1264.2	1252.7
15°	1264.2	1258.8	1245.8	1232.8
17.5°	1242.0	1235.8	1222.8	1209.1
20°	1218.2	1211.4	1196.8	1182.4
22.5°	1189.2	1183.1	1167.8	1153.2
25°	1157.8	1150.9	1135.7	1120.4
27.5°	1124.2	1116.5	1101.2	1086.8
30°	1087.5	1079.8	1064.5	1050.1
32.5°	1048.5	1042.4	1027.1	1011.1
35°	1008.8	1001.1	985.8	970.5
37.5°	966.6	959.8	945.2	930.8
40°	922.3	915.5	900.1	885.6
42.5°	878.8	872.6	858.1	844.3
45°	832.1	825.9	812.2	799.9
47.5°	785.5	779.3	766.3	753.3
50°	738.0	731.9	719.6	708.2
52.5°	688.3	683.7	672.2	660.8
55°	638.6	633.2	621.8	611.8
57.5°	588.9	585.0	574.3	564.4
60°	537.6	533.0	524.6	516.2
62.5°	487.9	484.1	475.7	468.0
65°	435.2	432.0	425.2	418.3
67.5°	380.9	378.6	371.7	365.6
70°	328.9	325.0	319.7	314.3
72.5°	276.0	274.6	270.0	265.4
75°	225.6	224.0	219.5	215.7
77.5°	178.2	176.7	172.9	169.0
80°	131.6	130.7	127.7	124.7
82.5°	90.3	89.4	87.2	84.1
85°	54.3	52.7	50.4	48.2
87.5°	23.7	23.0	20.7	19.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)