

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-24-26L940-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-24-26L940-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient and Exam Light  
w/ Nature Pattern Lens  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

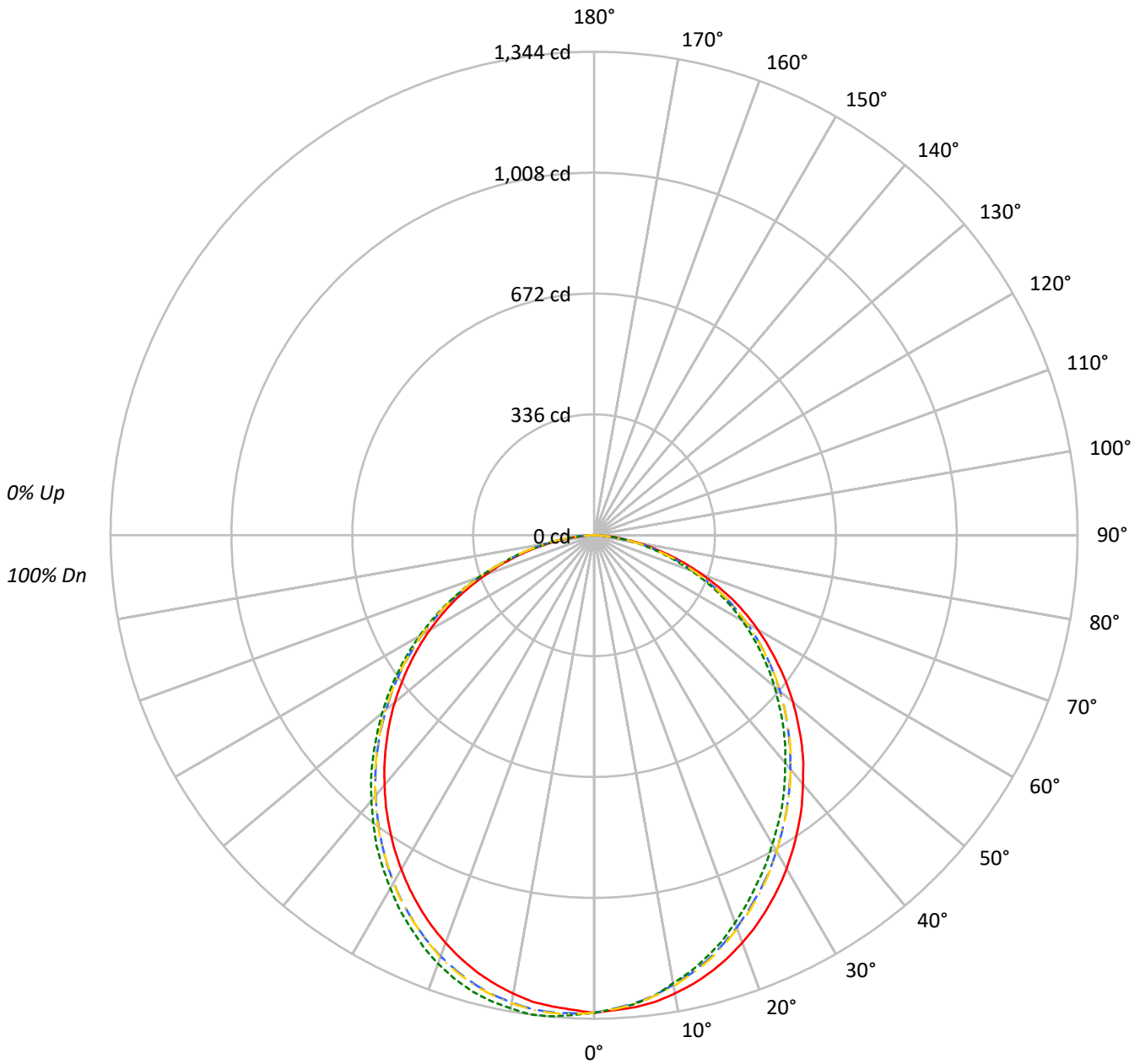
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3509.5 lumens  
Efficiency: N/A  
Efficacy: 62.7 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°	12250	12250	12250	12250
5°	12195	12115	12180	12433
10°	12117	11847	12124	12511
15°	12004	11587	12011	12533
20°	11833	11252	11842	12447
25°	11627	10896	11651	12269
30°	11402	10557	11419	12068
35°	11143	10282	11169	11871
40°	10872	9953	10911	11596
45°	10639	9684	10650	11331
50°	10362	9400	10385	11033
55°	10031	9091	10069	10721
60°	9710	8776	9724	10328
65°	9309	8392	9309	9870
70°	8643	7761	8624	9169
75°	7835	7030	7782	8252
80°	6753	6052	6626	7082
85°	5198	4626	5039	5695



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.4	3.6
10°-20°	355.0	10.1
20°-30°	525.6	15.0
30°-40°	616.6	17.6
40°-50°	624.9	17.8
50°-60°	554.6	15.8
60°-70°	416.4	11.9
70°-80°	231.2	6.6
80°-90°	59.7	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°	1005.9	28.7
0°-40°	1622.6	46.2
0°-60°	2802.1	79.8
0°-90°	3509.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3509.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1328	1328	1328	1328	1328	
5°	1317	1308	1315	1342	1317	125
15°	1257	1213	1258	1312	1257	354
25°	1142	1070	1144	1205	1142	526
35°	989	913	992	1054	989	619
45°	815	742	816	868	815	629
55°	624	565	626	666	624	558
65°	426	384	426	452	426	420
75°	220	197	218	232	220	234
85°	49	44	48	54	49	59
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°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1321.4	1324.5	1328.4	1324.5	1318.3	1315.1	1315.1	1314.4	1316.7	1317.5	1316.7
5°	1316.7	1318.3	1319.1	1314.4	1307.4	1303.5	1302.0	1301.1	1304.3	1308.1	1304.3
7.5°	1308.1	1307.4	1306.6	1300.4	1292.6	1287.1	1284.8	1284.0	1287.1	1291.0	1287.8
10°	1293.4	1292.6	1290.2	1282.4	1272.3	1265.3	1263.0	1260.7	1263.0	1264.5	1263.0
12.5°	1277.0	1273.8	1270.7	1262.1	1251.2	1243.5	1239.5	1236.4	1239.5	1241.9	1240.4
15°	1256.7	1252.1	1246.5	1237.2	1226.3	1217.7	1213.1	1209.9	1212.2	1213.1	1213.1
17.5°	1232.5	1227.1	1221.7	1209.9	1196.7	1187.4	1181.9	1177.9	1181.1	1182.6	1182.6
20°	1205.2	1199.1	1192.0	1179.5	1165.5	1155.4	1149.1	1144.5	1145.2	1146.0	1146.0
22.5°	1175.6	1167.8	1159.2	1146.0	1131.2	1120.3	1114.1	1108.6	1108.6	1109.4	1109.4
25°	1142.1	1133.5	1124.9	1111.7	1096.1	1084.5	1076.6	1071.2	1071.2	1070.3	1071.9
27.5°	1107.8	1098.5	1089.9	1075.9	1059.5	1047.8	1040.0	1034.5	1033.7	1033.0	1034.5
30°	1070.3	1059.5	1050.2	1035.3	1019.7	1008.0	1000.2	994.0	992.4	990.9	992.4
32.5°	1030.6	1020.5	1010.3	994.7	979.2	967.5	959.7	953.4	952.7	951.9	953.4
35°	989.3	978.4	969.0	954.3	938.6	927.0	918.4	912.9	912.9	912.9	912.9
37.5°	948.7	937.9	927.7	912.9	897.3	885.6	877.0	871.6	870.0	869.3	870.0
40°	902.7	893.4	884.1	870.0	854.4	842.7	835.7	829.5	828.0	826.4	828.7
42.5°	860.7	851.3	841.1	828.0	812.4	800.7	792.8	787.4	786.7	785.8	786.7
45°	815.4	804.5	794.4	781.9	767.9	757.0	749.2	743.8	742.9	742.2	742.9
47.5°	767.9	759.4	750.8	738.2	724.2	713.4	706.3	700.1	698.5	696.9	698.5
50°	721.9	712.5	703.9	692.2	679.1	668.9	662.6	657.2	655.6	654.9	655.6
52.5°	673.6	665.0	657.2	645.5	634.6	624.5	617.5	612.8	612.0	611.2	612.0
55°	623.6	615.9	608.9	599.5	588.6	579.2	573.0	567.6	566.8	565.2	566.8
57.5°	575.3	569.2	562.1	551.9	541.9	533.3	527.8	523.1	522.3	521.6	522.3
60°	526.2	520.0	513.7	505.2	495.0	486.4	481.7	477.9	476.3	475.6	476.3
62.5°	477.1	470.9	466.2	457.6	448.3	441.3	436.6	432.7	431.1	430.3	431.1
65°	426.4	421.0	415.5	407.7	400.7	395.3	390.6	386.7	385.1	384.4	384.4
67.5°	372.7	368.0	364.1	357.1	349.3	343.8	339.1	336.0	334.4	333.7	334.4
70°	320.4	316.5	312.7	307.1	300.9	296.2	293.1	290.0	288.5	287.7	287.7
72.5°	270.5	267.4	263.5	258.8	254.1	249.5	246.4	244.1	242.5	241.7	241.7
75°	219.8	216.8	215.2	211.2	206.6	203.5	200.4	198.8	197.2	197.2	197.2
77.5°	172.3	170.8	169.2	165.3	162.2	159.0	156.7	155.9	154.3	154.3	154.3
80°	127.1	126.3	125.5	123.2	120.0	116.9	115.3	114.6	113.9	113.9	113.9
82.5°	85.7	85.7	85.0	82.6	80.3	79.5	78.0	77.2	77.2	77.2	77.2
85°	49.1	49.1	49.1	48.3	46.7	46.7	45.2	44.4	43.7	43.7	43.7
87.5°	19.5	20.3	21.0	20.3	18.7	18.7	18.7	18.7	18.7	18.7	18.7
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°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1314.4	1316.0	1316.7	1320.7	1325.3	1328.4	1324.5	1320.7	1326.9	1333.9	1333.9
5°	1301.1	1302.7	1305.0	1309.7	1316.0	1319.8	1318.3	1315.1	1324.5	1332.3	1333.1
7.5°	1284.8	1286.4	1289.4	1294.1	1302.0	1307.4	1307.4	1308.1	1316.7	1326.1	1328.4
10°	1260.7	1264.5	1269.2	1276.2	1284.0	1291.0	1293.4	1294.1	1305.0	1315.1	1318.3
12.5°	1238.0	1241.9	1246.5	1254.4	1263.7	1271.5	1273.8	1277.0	1288.7	1300.4	1305.0
15°	1212.2	1216.2	1221.7	1229.4	1239.5	1248.1	1252.8	1257.5	1269.2	1281.7	1287.1
17.5°	1181.9	1185.8	1191.2	1200.5	1212.2	1222.4	1227.8	1233.4	1246.5	1259.8	1265.3
20°	1146.0	1151.5	1159.2	1168.6	1181.9	1193.5	1199.8	1206.1	1220.1	1233.4	1239.5
22.5°	1109.4	1115.6	1124.2	1135.1	1149.1	1161.6	1169.4	1177.2	1191.2	1204.5	1211.5
25°	1072.7	1079.8	1088.3	1100.0	1113.2	1125.8	1135.1	1144.5	1158.5	1172.5	1179.5
27.5°	1035.3	1041.6	1050.2	1061.8	1076.6	1089.9	1099.2	1109.4	1123.4	1138.2	1145.2
30°	994.0	1001.0	1008.8	1020.5	1036.9	1051.6	1061.0	1071.9	1086.0	1100.8	1107.8
32.5°	954.3	960.4	968.3	980.0	996.3	1011.9	1022.0	1033.0	1047.0	1061.8	1068.0
35°	912.9	919.1	927.7	939.4	955.7	970.6	980.7	991.6	1004.9	1018.9	1025.9
37.5°	872.4	878.6	887.1	898.9	914.4	929.3	939.4	950.3	963.6	976.9	983.0
40°	830.3	836.5	843.5	855.2	870.8	885.6	895.0	905.9	919.1	933.2	939.4
42.5°	787.4	793.7	802.2	813.9	828.7	842.0	852.1	862.3	874.7	887.1	893.4
45°	744.5	750.0	758.5	769.5	783.5	796.0	806.1	816.2	828.0	839.7	845.8
47.5°	700.1	706.3	713.4	724.2	738.2	751.5	761.7	771.0	781.9	793.7	799.1
50°	657.2	662.6	669.6	679.8	693.1	705.5	714.1	723.5	733.6	744.5	749.2
52.5°	612.8	618.2	625.2	635.4	646.3	657.9	665.8	674.4	684.5	694.6	699.3
55°	567.6	571.5	577.7	587.0	598.7	609.6	617.5	626.0	634.6	643.2	648.6
57.5°	523.1	527.8	534.0	542.6	552.7	562.9	569.9	576.9	585.5	594.0	597.9
60°	477.9	481.7	486.4	494.3	504.4	513.0	520.0	527.0	534.0	541.9	545.7
62.5°	431.9	435.8	440.4	448.3	456.9	464.6	470.9	477.1	483.3	490.4	494.3
65°	385.9	389.8	394.4	400.0	407.0	414.0	420.2	426.4	431.1	435.8	439.7
67.5°	336.0	339.9	344.6	349.3	355.5	362.5	367.2	372.7	377.3	382.8	385.1
70°	289.2	292.4	297.1	300.9	306.4	311.1	315.0	319.7	322.8	327.4	331.4
72.5°	243.2	246.4	250.2	254.1	257.2	261.2	265.8	269.8	273.6	278.4	279.9
75°	198.8	200.4	203.5	206.6	209.8	212.8	215.2	218.3	221.4	224.5	226.9
77.5°	155.2	156.7	159.8	162.2	164.5	166.8	168.4	169.9	173.1	175.4	177.8
80°	113.9	115.3	117.7	120.0	122.4	124.7	124.7	124.7	128.6	131.8	132.5
82.5°	77.2	78.0	79.5	81.0	82.6	84.2	84.2	83.4	85.7	88.1	89.6
85°	44.4	45.2	46.7	46.7	47.6	47.6	47.6	47.6	49.1	51.4	53.0
87.5°	17.9	17.9	18.7	18.7	19.5	19.5	18.7	17.9	19.5	21.9	22.6
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°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1330.8	1330.0	1332.3	1333.1	1334.7	1334.7	1335.4	1335.4	1333.9	1331.6	1332.3
5°	1331.6	1331.6	1333.9	1336.3	1339.4	1342.4	1340.1	1337.8	1336.3	1333.9	1333.1
7.5°	1327.7	1329.2	1331.6	1335.4	1339.4	1344.0	1340.9	1337.8	1333.9	1330.8	1329.2
10°	1318.3	1319.8	1323.7	1327.7	1331.6	1335.4	1332.3	1329.2	1326.1	1322.2	1320.7
12.5°	1306.6	1309.0	1313.7	1317.5	1321.4	1326.1	1322.2	1318.3	1314.4	1310.5	1308.1
15°	1289.4	1292.6	1298.0	1302.7	1308.1	1312.1	1309.0	1305.8	1301.1	1295.7	1291.8
17.5°	1267.7	1272.3	1277.8	1283.2	1287.8	1291.8	1289.4	1286.4	1280.8	1274.7	1270.0
20°	1243.5	1248.1	1252.8	1258.3	1263.7	1267.7	1264.5	1260.7	1255.1	1250.5	1245.8
22.5°	1215.4	1220.1	1225.5	1230.2	1234.9	1238.8	1234.9	1230.2	1225.5	1220.8	1216.2
25°	1183.4	1188.1	1194.4	1199.1	1202.1	1205.2	1202.1	1198.2	1193.5	1188.9	1184.2
27.5°	1149.9	1154.6	1160.8	1165.5	1168.6	1171.8	1168.6	1164.8	1160.1	1155.4	1150.7
30°	1112.5	1117.2	1123.4	1128.1	1130.4	1132.8	1129.6	1126.5	1122.6	1117.9	1113.2
32.5°	1072.7	1077.4	1082.1	1086.8	1090.6	1093.8	1090.6	1087.5	1082.9	1076.6	1071.9
35°	1030.6	1035.3	1040.8	1045.5	1050.2	1054.0	1049.3	1043.9	1040.0	1036.1	1032.2
37.5°	986.2	991.6	997.9	1003.3	1004.9	1008.0	1004.9	1001.8	997.9	994.0	989.3
40°	942.6	947.2	952.7	958.1	960.4	962.8	959.7	956.6	951.9	948.0	943.3
42.5°	897.3	902.0	906.7	911.3	914.4	917.6	914.4	909.8	906.7	903.6	899.7
45°	850.5	855.2	859.1	863.8	866.1	868.4	865.4	861.4	858.3	856.0	852.1
47.5°	803.0	806.8	810.8	814.7	816.2	818.6	815.4	813.1	810.8	808.4	805.4
50°	753.1	757.0	761.7	765.5	766.4	768.7	765.5	763.2	760.9	758.5	756.2
52.5°	703.9	707.1	711.0	714.9	716.5	718.1	714.9	711.8	709.4	707.9	705.5
55°	652.5	655.6	659.5	662.6	665.0	666.5	663.5	660.3	657.9	657.2	654.9
57.5°	601.1	604.2	608.1	611.2	612.8	614.3	611.2	608.1	606.5	604.9	603.4
60°	548.9	551.9	555.0	557.4	559.0	559.7	556.6	554.3	553.5	552.7	551.2
62.5°	497.4	499.0	502.0	503.6	505.2	506.0	503.6	502.0	501.3	500.5	499.7
65°	443.6	447.4	449.8	451.4	451.4	452.1	449.8	449.0	448.3	447.4	446.0
67.5°	388.3	391.4	393.0	394.4	394.4	394.4	394.4	394.4	393.7	392.1	390.6
70°	335.2	337.5	339.1	339.9	339.9	339.9	338.4	337.5	338.4	338.4	337.5
72.5°	281.4	283.0	283.8	284.5	283.8	283.8	283.8	285.4	285.4	284.5	283.0
75°	229.2	230.8	231.5	232.3	231.5	231.5	231.5	233.1	232.3	232.3	231.5
77.5°	180.1	180.9	180.9	181.6	180.9	180.9	181.6	183.2	182.5	182.5	182.5
80°	133.3	133.3	133.3	134.1	133.3	133.3	134.1	135.6	134.9	134.9	134.9
82.5°	90.4	91.2	91.2	91.2	92.0	92.8	92.8	92.8	92.8	92.8	92.0
85°	53.8	54.6	53.8	53.8	53.8	53.8	54.6	55.3	55.3	55.3	55.3
87.5°	23.4	24.2	23.4	22.6	21.9	21.9	23.4	25.0	25.0	24.2	24.2
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-24-26L940-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1327.7	1327.7	1327.7	1327.7
2.5°	1335.4	1335.4	1328.4	1321.4
5°	1334.7	1333.1	1325.3	1316.7
7.5°	1330.0	1327.7	1317.5	1308.1
10°	1319.1	1316.0	1305.0	1293.4
12.5°	1305.8	1301.1	1288.7	1277.0
15°	1288.7	1283.2	1270.0	1256.7
17.5°	1266.1	1259.8	1246.5	1232.5
20°	1241.9	1234.9	1220.1	1205.2
22.5°	1212.2	1206.1	1190.5	1175.6
25°	1180.3	1173.3	1157.7	1142.1
27.5°	1146.0	1138.2	1122.6	1107.8
30°	1108.6	1100.8	1085.2	1070.3
32.5°	1068.8	1062.6	1047.0	1030.6
35°	1028.3	1020.5	1004.9	989.3
37.5°	985.4	978.4	963.6	948.7
40°	940.2	933.2	917.6	902.7
42.5°	895.7	889.5	874.7	860.7
45°	848.2	842.0	828.0	815.4
47.5°	800.7	794.4	781.1	767.9
50°	752.4	746.1	733.6	721.9
52.5°	701.6	696.9	685.2	673.6
55°	650.9	645.5	633.8	623.6
57.5°	600.3	596.3	585.5	575.3
60°	548.0	543.3	534.8	526.2
62.5°	497.4	493.5	484.9	477.1
65°	443.6	440.4	433.4	426.4
67.5°	388.3	385.9	378.8	372.7
70°	335.2	331.4	325.8	320.4
72.5°	281.4	279.9	275.2	270.5
75°	229.9	228.4	223.8	219.8
77.5°	181.6	180.1	176.2	172.3
80°	134.1	133.3	130.2	127.1
82.5°	92.0	91.2	88.9	85.7
85°	55.3	53.8	51.4	49.1
87.5°	24.2	23.4	21.0	19.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)