

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-X-37L850-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-X-37L850-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

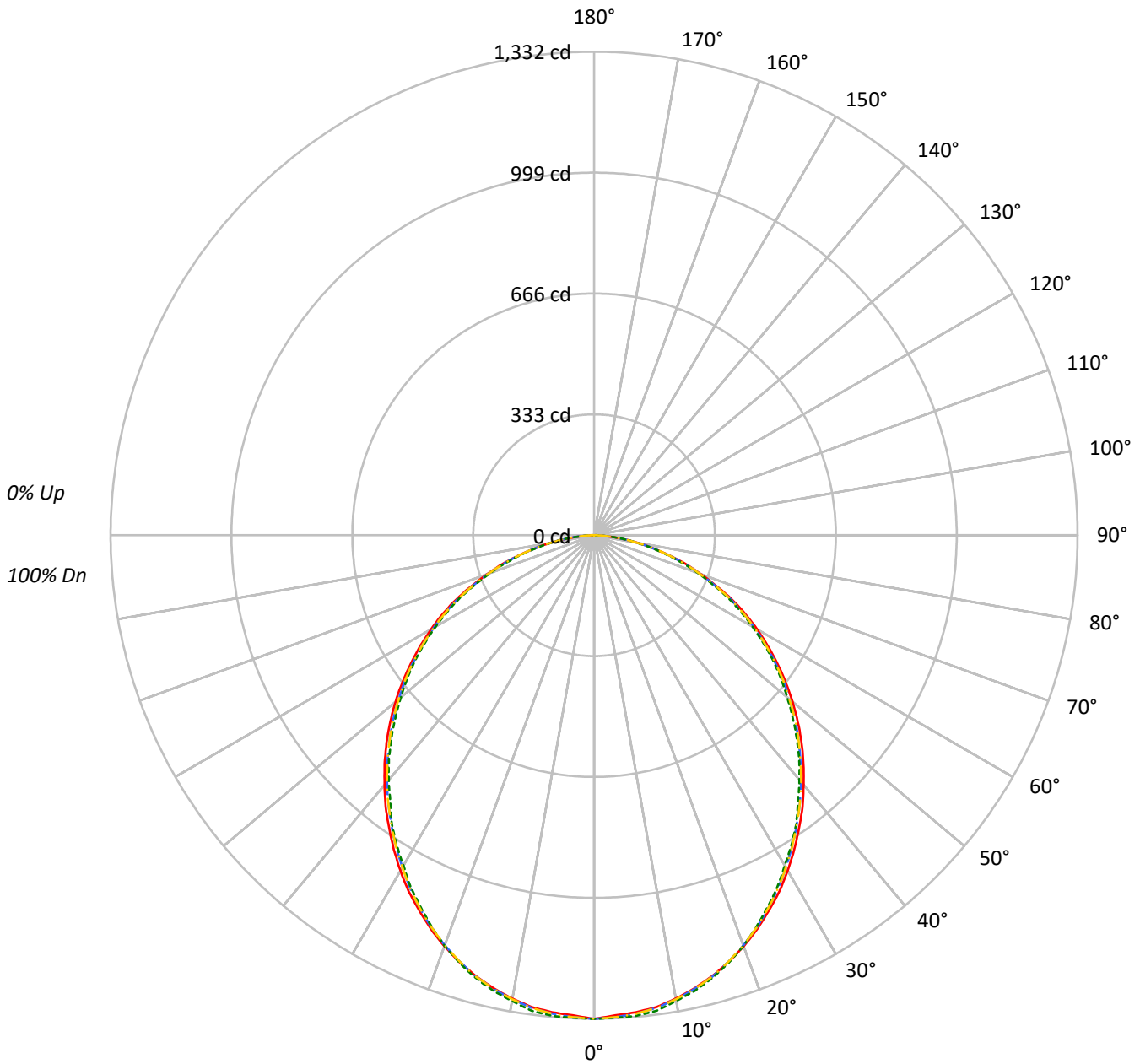
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3466.1 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 40.8  
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				
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	73	73	73	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	62	62	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	53	53	53	51
5	76	64	55	48	74	63	54	48	60	53	47	59	52	47	57	51	46	46	46	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	41	41	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	36	36	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	33	33	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	30	30	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	27	27	27	25

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

	0°	90°	180°	270°
0°	12292	12292	12292	12292
5°	12218	12308	12218	12308
10°	12145	12207	12145	12207
15°	12010	12057	12010	12057
20°	11834	11819	11834	11819
25°	11608	11509	11608	11509
30°	11368	11195	11368	11195
35°	11084	10938	11084	10938
40°	10814	10599	10814	10599
45°	10549	10295	10549	10295
50°	10250	9970	10250	9970
55°	9917	9682	9917	9682
60°	9575	9304	9575	9304
65°	9162	8879	9162	8879
70°	8468	8206	8468	8206
75°	7653	7422	7653	7422
80°	6567	6397	6567	6397
85°	4997	4997	4997	4997



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.7	3.6
10°-20°	355.1	10.2
20°-30°	523.4	15.1
30°-40°	611.0	17.6
40°-50°	616.0	17.8
50°-60°	544.4	15.7
60°-70°	407.1	11.7
70°-80°	225.7	6.5
80°-90°	57.9	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°	1004.2	29.0
0°-40°	1615.2	46.6
0°-60°	2775.5	80.1
0°-90°	3466.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3466.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1332	1332	1332	1332	1332	
5°	1319	1329	1319	1329	1319	125
15°	1257	1262	1257	1262	1257	354
25°	1140	1131	1140	1131	1140	525
35°	984	971	984	971	984	616
45°	808	789	808	789	808	623
55°	616	602	616	602	616	551
65°	420	407	420	407	420	413
75°	215	208	215	208	215	228
85°	47	47	47	47	47	57
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°	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3
2.5°	1324.1	1330.6	1337.2	1335.5	1330.6	1327.4	1329.0	1329.0	1330.6	1330.6	1330.6
5°	1319.2	1325.7	1330.6	1329.0	1324.1	1322.5	1322.5	1322.5	1325.7	1329.0	1325.7
7.5°	1311.1	1316.0	1320.9	1319.2	1314.4	1312.7	1312.7	1314.4	1317.6	1320.9	1317.6
10°	1296.4	1303.0	1307.9	1304.6	1299.7	1296.4	1296.4	1296.4	1299.7	1303.0	1299.7
12.5°	1278.5	1283.4	1288.3	1286.7	1281.9	1278.5	1278.5	1278.5	1281.9	1285.1	1281.9
15°	1257.4	1262.3	1267.2	1265.5	1260.7	1257.4	1257.4	1257.4	1260.7	1262.3	1260.7
17.5°	1233.0	1237.9	1242.8	1239.5	1233.0	1229.8	1229.8	1229.8	1233.0	1234.7	1233.0
20°	1205.3	1210.2	1213.5	1210.2	1203.8	1200.5	1198.9	1198.9	1202.1	1203.8	1202.1
22.5°	1174.4	1177.8	1181.0	1177.8	1171.2	1168.0	1166.3	1164.7	1166.3	1168.0	1166.3
25°	1140.3	1143.6	1146.8	1143.6	1137.0	1132.2	1130.6	1128.9	1130.6	1130.6	1130.6
27.5°	1106.1	1107.8	1111.0	1106.1	1099.7	1094.8	1093.1	1091.5	1093.1	1093.1	1093.1
30°	1067.1	1068.7	1072.0	1067.1	1059.0	1054.1	1052.5	1050.8	1050.8	1050.8	1050.8
32.5°	1026.5	1029.7	1032.9	1026.5	1018.3	1013.5	1011.8	1010.1	1011.8	1011.8	1011.8
35°	984.1	985.8	989.0	984.1	976.0	971.1	967.9	966.3	969.5	971.1	969.5
37.5°	943.5	945.1	946.7	941.8	933.7	928.8	925.6	923.9	922.4	922.4	922.4
40°	897.9	899.6	902.8	897.9	889.8	884.9	881.7	880.0	880.0	880.0	880.0
42.5°	854.0	855.6	857.3	852.4	844.3	839.4	836.2	834.5	836.2	836.2	836.2
45°	808.5	808.5	810.1	805.2	798.7	793.8	790.6	789.0	789.0	789.0	789.0
47.5°	761.3	763.0	764.5	759.6	753.2	748.3	745.0	741.7	741.7	741.7	741.7
50°	714.1	714.1	715.7	710.9	704.3	699.4	697.9	696.2	694.6	694.6	694.6
52.5°	665.3	667.0	668.5	663.7	658.8	653.9	650.7	649.1	649.1	649.1	649.1
55°	616.5	616.5	618.1	614.9	610.0	605.1	601.9	600.2	601.9	601.9	601.9
57.5°	567.7	569.3	571.0	566.1	561.2	556.3	554.7	553.1	553.1	553.1	553.1
60°	518.9	518.9	520.6	517.2	512.4	507.6	505.9	504.2	504.2	504.2	504.2
62.5°	470.1	470.1	471.7	468.5	463.6	458.7	457.1	455.5	455.5	455.5	455.5
65°	419.7	419.7	419.7	416.5	413.1	411.6	409.9	408.3	406.7	406.7	406.7
67.5°	364.4	364.4	366.0	362.7	359.5	357.8	356.3	354.6	353.0	353.0	353.0
70°	313.9	313.9	315.6	313.9	310.7	309.1	307.5	305.8	304.2	304.2	304.2
72.5°	265.2	265.2	265.2	263.5	261.9	260.3	258.6	257.1	255.4	255.4	255.4
75°	214.7	214.7	216.4	214.7	213.1	211.5	209.8	209.8	208.2	208.2	208.2
77.5°	167.5	169.2	170.8	169.2	167.5	166.0	164.3	164.3	162.6	162.6	162.6
80°	123.6	125.3	126.9	125.3	123.6	122.0	120.4	120.4	120.4	120.4	120.4
82.5°	83.0	84.5	86.2	84.5	83.0	83.0	81.3	81.3	81.3	81.3	81.3
85°	47.2	48.8	50.4	50.4	48.8	48.8	47.2	47.2	47.2	47.2	47.2
87.5°	17.9	19.5	21.1	21.1	19.5	19.5	19.5	19.5	19.5	19.5	19.5
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°	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3
2.5°	1329.0	1329.0	1327.4	1330.6	1335.5	1337.2	1330.6	1324.1	1330.6	1337.2	1335.5
5°	1322.5	1322.5	1322.5	1324.1	1329.0	1330.6	1325.7	1319.2	1325.7	1330.6	1329.0
7.5°	1314.4	1312.7	1312.7	1314.4	1319.2	1320.9	1316.0	1311.1	1316.0	1320.9	1319.2
10°	1296.4	1296.4	1296.4	1299.7	1304.6	1307.9	1303.0	1296.4	1303.0	1307.9	1304.6
12.5°	1278.5	1278.5	1278.5	1281.9	1286.7	1288.3	1283.4	1278.5	1283.4	1288.3	1286.7
15°	1257.4	1257.4	1257.4	1260.7	1265.5	1267.2	1262.3	1257.4	1262.3	1267.2	1265.5
17.5°	1229.8	1229.8	1229.8	1233.0	1239.5	1242.8	1237.9	1233.0	1237.9	1242.8	1239.5
20°	1198.9	1198.9	1200.5	1203.8	1210.2	1213.5	1210.2	1205.3	1210.2	1213.5	1210.2
22.5°	1164.7	1166.3	1168.0	1171.2	1177.8	1181.0	1177.8	1174.4	1177.8	1181.0	1177.8
25°	1128.9	1130.6	1132.2	1137.0	1143.6	1146.8	1143.6	1140.3	1143.6	1146.8	1143.6
27.5°	1091.5	1093.1	1094.8	1099.7	1106.1	1111.0	1107.8	1106.1	1107.8	1111.0	1106.1
30°	1050.8	1052.5	1054.1	1059.0	1067.1	1072.0	1068.7	1067.1	1068.7	1072.0	1067.1
32.5°	1010.1	1011.8	1013.5	1018.3	1026.5	1032.9	1029.7	1026.5	1029.7	1032.9	1026.5
35°	966.3	967.9	971.1	976.0	984.1	989.0	985.8	984.1	985.8	989.0	984.1
37.5°	923.9	925.6	928.8	933.7	941.8	946.7	945.1	943.5	945.1	946.7	941.8
40°	880.0	881.7	884.9	889.8	897.9	902.8	899.6	897.9	899.6	902.8	897.9
42.5°	834.5	836.2	839.4	844.3	852.4	857.3	855.6	854.0	855.6	857.3	852.4
45°	789.0	790.6	793.8	798.7	805.2	810.1	808.5	808.5	808.5	810.1	805.2
47.5°	741.7	745.0	748.3	753.2	759.6	764.5	763.0	761.3	763.0	764.5	759.6
50°	696.2	697.9	699.4	704.3	710.9	715.7	714.1	714.1	714.1	715.7	710.9
52.5°	649.1	650.7	653.9	658.8	663.7	668.5	667.0	665.3	667.0	668.5	663.7
55°	600.2	601.9	605.1	610.0	614.9	618.1	616.5	616.5	616.5	618.1	614.9
57.5°	553.1	554.7	556.3	561.2	566.1	571.0	569.3	567.7	569.3	571.0	566.1
60°	504.2	505.9	507.6	512.4	517.2	520.6	518.9	518.9	518.9	520.6	517.2
62.5°	455.5	457.1	458.7	463.6	468.5	471.7	470.1	470.1	470.1	471.7	468.5
65°	408.3	409.9	411.6	413.1	416.5	419.7	419.7	419.7	419.7	419.7	416.5
67.5°	354.6	356.3	357.8	359.5	362.7	366.0	364.4	364.4	364.4	366.0	362.7
70°	305.8	307.5	309.1	310.7	313.9	315.6	313.9	313.9	313.9	315.6	313.9
72.5°	257.1	258.6	260.3	261.9	263.5	265.2	265.2	265.2	265.2	265.2	263.5
75°	209.8	209.8	211.5	213.1	214.7	216.4	214.7	214.7	214.7	216.4	214.7
77.5°	164.3	164.3	166.0	167.5	169.2	170.8	169.2	167.5	169.2	170.8	169.2
80°	120.4	120.4	122.0	123.6	125.3	126.9	125.3	123.6	125.3	126.9	125.3
82.5°	81.3	81.3	83.0	83.0	84.5	86.2	84.5	83.0	84.5	86.2	84.5
85°	47.2	47.2	48.8	48.8	50.4	50.4	48.8	47.2	48.8	50.4	50.4
87.5°	19.5	19.5	19.5	19.5	21.1	21.1	19.5	17.9	19.5	21.1	21.1
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°	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3	1332.3
2.5°	1330.6	1327.4	1329.0	1329.0	1330.6	1330.6	1330.6	1329.0	1329.0	1327.4	1330.6
5°	1324.1	1322.5	1322.5	1322.5	1325.7	1329.0	1325.7	1322.5	1322.5	1322.5	1324.1
7.5°	1314.4	1312.7	1312.7	1314.4	1317.6	1320.9	1317.6	1314.4	1312.7	1312.7	1314.4
10°	1299.7	1296.4	1296.4	1296.4	1299.7	1303.0	1299.7	1296.4	1296.4	1296.4	1299.7
12.5°	1281.9	1278.5	1278.5	1278.5	1281.9	1285.1	1281.9	1278.5	1278.5	1278.5	1281.9
15°	1260.7	1257.4	1257.4	1257.4	1260.7	1262.3	1260.7	1257.4	1257.4	1257.4	1260.7
17.5°	1233.0	1229.8	1229.8	1229.8	1233.0	1234.7	1233.0	1229.8	1229.8	1229.8	1233.0
20°	1203.8	1200.5	1198.9	1198.9	1202.1	1203.8	1202.1	1198.9	1198.9	1200.5	1203.8
22.5°	1171.2	1168.0	1166.3	1164.7	1166.3	1168.0	1166.3	1164.7	1166.3	1168.0	1171.2
25°	1137.0	1132.2	1130.6	1128.9	1130.6	1130.6	1130.6	1128.9	1130.6	1132.2	1137.0
27.5°	1099.7	1094.8	1093.1	1091.5	1093.1	1093.1	1093.1	1091.5	1093.1	1094.8	1099.7
30°	1059.0	1054.1	1052.5	1050.8	1050.8	1050.8	1050.8	1050.8	1052.5	1054.1	1059.0
32.5°	1018.3	1013.5	1011.8	1010.1	1011.8	1011.8	1011.8	1010.1	1011.8	1013.5	1018.3
35°	976.0	971.1	967.9	966.3	969.5	971.1	969.5	966.3	967.9	971.1	976.0
37.5°	933.7	928.8	925.6	923.9	922.4	922.4	922.4	923.9	925.6	928.8	933.7
40°	889.8	884.9	881.7	880.0	880.0	880.0	880.0	880.0	881.7	884.9	889.8
42.5°	844.3	839.4	836.2	834.5	836.2	836.2	836.2	834.5	836.2	839.4	844.3
45°	798.7	793.8	790.6	789.0	789.0	789.0	789.0	789.0	790.6	793.8	798.7
47.5°	753.2	748.3	745.0	741.7	741.7	741.7	741.7	741.7	745.0	748.3	753.2
50°	704.3	699.4	697.9	696.2	694.6	694.6	694.6	696.2	697.9	699.4	704.3
52.5°	658.8	653.9	650.7	649.1	649.1	649.1	649.1	649.1	650.7	653.9	658.8
55°	610.0	605.1	601.9	600.2	601.9	601.9	601.9	600.2	601.9	605.1	610.0
57.5°	561.2	556.3	554.7	553.1	553.1	553.1	553.1	553.1	554.7	556.3	561.2
60°	512.4	507.6	505.9	504.2	504.2	504.2	504.2	504.2	505.9	507.6	512.4
62.5°	463.6	458.7	457.1	455.5	455.5	455.5	455.5	455.5	457.1	458.7	463.6
65°	413.1	411.6	409.9	408.3	406.7	406.7	406.7	408.3	409.9	411.6	413.1
67.5°	359.5	357.8	356.3	354.6	353.0	353.0	353.0	354.6	356.3	357.8	359.5
70°	310.7	309.1	307.5	305.8	304.2	304.2	304.2	305.8	307.5	309.1	310.7
72.5°	261.9	260.3	258.6	257.1	255.4	255.4	255.4	257.1	258.6	260.3	261.9
75°	213.1	211.5	209.8	209.8	208.2	208.2	208.2	209.8	209.8	211.5	213.1
77.5°	167.5	166.0	164.3	164.3	162.6	162.6	162.6	164.3	164.3	166.0	167.5
80°	123.6	122.0	120.4	120.4	120.4	120.4	120.4	120.4	120.4	122.0	123.6
82.5°	83.0	83.0	81.3	81.3	81.3	81.3	81.3	81.3	81.3	83.0	83.0
85°	48.8	48.8	47.2	47.2	47.2	47.2	47.2	47.2	47.2	48.8	48.8
87.5°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
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-X-37L850-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1332.3	1332.3	1332.3	1332.3
2.5°	1335.5	1337.2	1330.6	1324.1
5°	1329.0	1330.6	1325.7	1319.2
7.5°	1319.2	1320.9	1316.0	1311.1
10°	1304.6	1307.9	1303.0	1296.4
12.5°	1286.7	1288.3	1283.4	1278.5
15°	1265.5	1267.2	1262.3	1257.4
17.5°	1239.5	1242.8	1237.9	1233.0
20°	1210.2	1213.5	1210.2	1205.3
22.5°	1177.8	1181.0	1177.8	1174.4
25°	1143.6	1146.8	1143.6	1140.3
27.5°	1106.1	1111.0	1107.8	1106.1
30°	1067.1	1072.0	1068.7	1067.1
32.5°	1026.5	1032.9	1029.7	1026.5
35°	984.1	989.0	985.8	984.1
37.5°	941.8	946.7	945.1	943.5
40°	897.9	902.8	899.6	897.9
42.5°	852.4	857.3	855.6	854.0
45°	805.2	810.1	808.5	808.5
47.5°	759.6	764.5	763.0	761.3
50°	710.9	715.7	714.1	714.1
52.5°	663.7	668.5	667.0	665.3
55°	614.9	618.1	616.5	616.5
57.5°	566.1	571.0	569.3	567.7
60°	517.2	520.6	518.9	518.9
62.5°	468.5	471.7	470.1	470.1
65°	416.5	419.7	419.7	419.7
67.5°	362.7	366.0	364.4	364.4
70°	313.9	315.6	313.9	313.9
72.5°	263.5	265.2	265.2	265.2
75°	214.7	216.4	214.7	214.7
77.5°	169.2	170.8	169.2	167.5
80°	125.3	126.9	125.3	123.6
82.5°	84.5	86.2	84.5	83.0
85°	50.4	50.4	48.8	47.2
87.5°	21.1	21.1	19.5	17.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)