

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-37L940-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-37L940-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

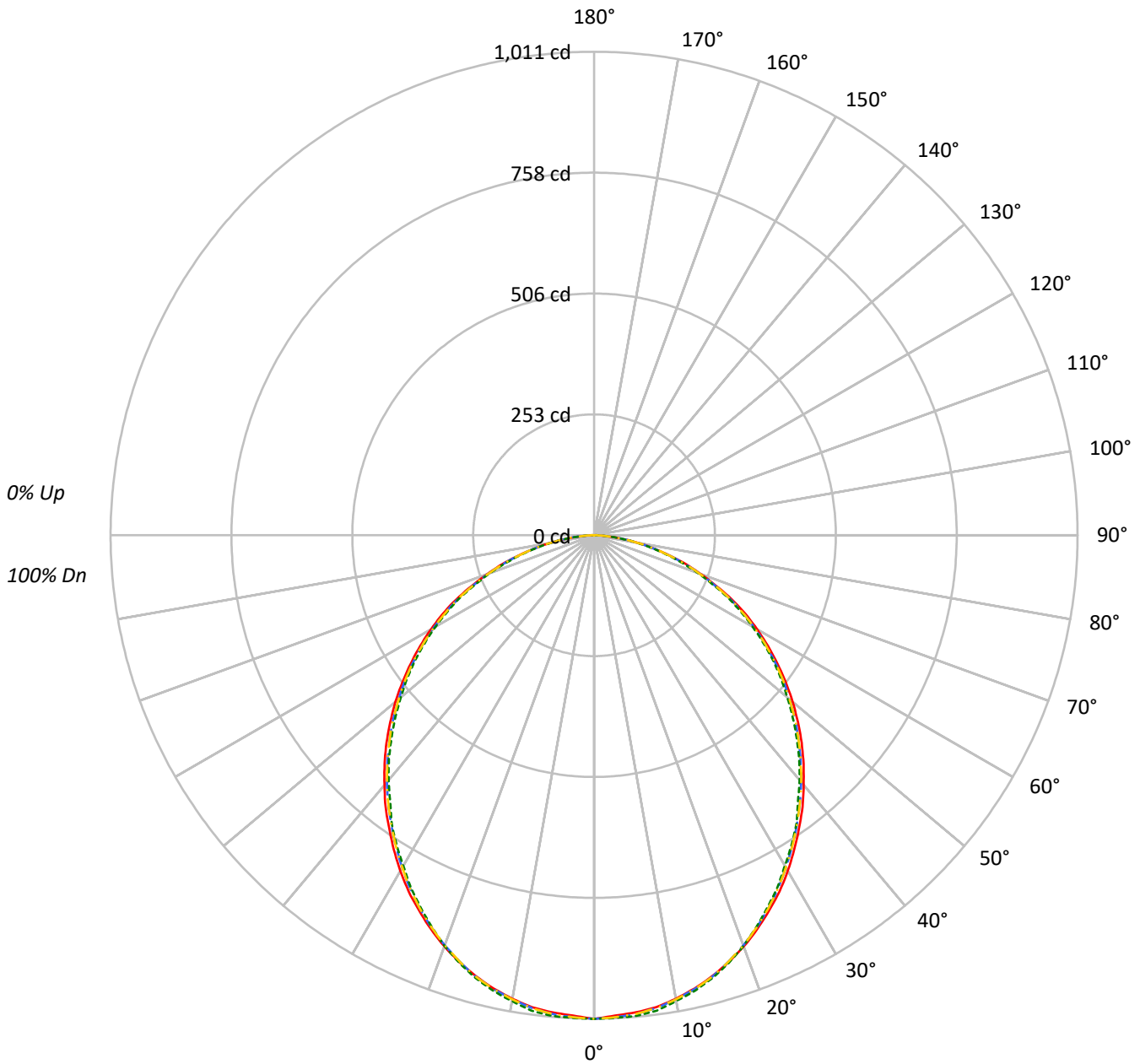
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2631.6 lumens  
Efficiency: N/A  
Efficacy: 64.5 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 (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



— 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°	9331	9331	9331	9331
5°	9276	9345	9276	9345
10°	9221	9267	9221	9267
15°	9118	9153	9118	9153
20°	8986	8973	8986	8973
25°	8814	8737	8814	8737
30°	8631	8499	8631	8499
35°	8416	8304	8416	8304
40°	8210	8048	8210	8048
45°	8009	7814	8009	7814
50°	7781	7570	7781	7570
55°	7530	7349	7530	7349
60°	7270	7064	7270	7064
65°	6955	6741	6955	6741
70°	6428	6231	6428	6231
75°	5811	5636	5811	5636
80°	4989	4856	4989	4856
85°	3790	3790	3790	3790



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	3.6
10°-20°	269.6	10.2
20°-30°	397.3	15.1
30°-40°	463.9	17.6
40°-50°	467.7	17.8
50°-60°	413.3	15.7
60°-70°	309.1	11.7
70°-80°	171.3	6.5
80°-90°	43.9	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°	762.4	29.0
0°-40°	1226.2	46.6
0°-60°	2107.2	80.1
0°-90°	2631.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2631.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1011	1011	1011	1011	1011	
5°	1002	1009	1002	1009	1002	95
15°	955	958	955	958	955	269
25°	866	858	866	858	866	399
35°	747	737	747	737	747	468
45°	614	599	614	599	614	473
55°	468	457	468	457	468	419
65°	319	309	319	309	319	314
75°	163	158	163	158	163	173
85°	36	36	36	36	36	43
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°	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4
2.5°	1005.3	1010.2	1015.2	1013.9	1010.2	1007.7	1009.0	1009.0	1010.2	1010.2	1010.2
5°	1001.6	1006.5	1010.2	1009.0	1005.3	1004.1	1004.1	1004.1	1006.5	1009.0	1006.5
7.5°	995.4	999.1	1002.9	1001.6	997.9	996.7	996.7	997.9	1000.4	1002.9	1000.4
10°	984.3	989.2	992.9	990.5	986.7	984.3	984.3	984.3	986.7	989.2	986.7
12.5°	970.7	974.4	978.1	976.9	973.2	970.7	970.7	970.7	973.2	975.7	973.2
15°	954.6	958.3	962.1	960.8	957.1	954.6	954.6	954.6	957.1	958.3	957.1
17.5°	936.1	939.8	943.6	941.1	936.1	933.6	933.6	933.6	936.1	937.4	936.1
20°	915.2	918.9	921.3	918.9	913.9	911.4	910.2	910.2	912.7	913.9	912.7
22.5°	891.7	894.2	896.6	894.2	889.2	886.7	885.5	884.3	885.5	886.7	885.5
25°	865.8	868.2	870.6	868.2	863.3	859.6	858.3	857.1	858.3	858.3	858.3
27.5°	839.8	841.0	843.5	839.8	834.9	831.2	829.9	828.7	829.9	829.9	829.9
30°	810.2	811.4	813.8	810.2	804.0	800.3	799.0	797.8	797.8	797.8	797.8
32.5°	779.3	781.8	784.3	779.3	773.1	769.4	768.2	766.9	768.2	768.2	768.2
35°	747.2	748.4	750.9	747.2	741.0	737.3	734.8	733.5	736.0	737.3	736.0
37.5°	716.3	717.5	718.8	715.1	708.9	705.1	702.7	701.5	700.3	700.3	700.3
40°	681.7	682.9	685.4	681.7	675.5	671.9	669.4	668.2	668.2	668.2	668.2
42.5°	648.4	649.6	650.8	647.2	641.0	637.3	634.8	633.6	634.8	634.8	634.8
45°	613.8	613.8	615.1	611.3	606.4	602.7	600.2	598.9	598.9	598.9	598.9
47.5°	578.0	579.2	580.5	576.7	571.8	568.1	565.6	563.2	563.2	563.2	563.2
50°	542.1	542.1	543.4	539.7	534.8	531.1	529.8	528.6	527.4	527.4	527.4
52.5°	505.1	506.4	507.6	503.9	500.2	496.5	494.0	492.8	492.8	492.8	492.8
55°	468.1	468.1	469.3	466.8	463.1	459.4	456.9	455.7	456.9	456.9	456.9
57.5°	431.0	432.2	433.5	429.7	426.1	422.4	421.2	419.9	419.9	419.9	419.9
60°	394.0	394.0	395.2	392.8	389.0	385.3	384.1	382.8	382.8	382.8	382.8
62.5°	356.9	356.9	358.1	355.7	352.0	348.2	347.0	345.8	345.8	345.8	345.8
65°	318.6	318.6	318.6	316.2	313.7	312.5	311.2	310.0	308.8	308.8	308.8
67.5°	276.6	276.6	277.9	275.4	272.9	271.7	270.4	269.2	268.0	268.0	268.0
70°	238.3	238.3	239.6	238.3	235.8	234.6	233.5	232.2	231.0	231.0	231.0
72.5°	201.3	201.3	201.3	200.1	198.9	197.6	196.4	195.1	193.9	193.9	193.9
75°	163.0	163.0	164.3	163.0	161.8	160.5	159.3	159.3	158.1	158.1	158.1
77.5°	127.2	128.4	129.6	128.4	127.2	125.9	124.7	124.7	123.5	123.5	123.5
80°	93.9	95.1	96.3	95.1	93.9	92.7	91.4	91.4	91.4	91.4	91.4
82.5°	63.0	64.3	65.5	64.3	63.0	63.0	61.8	61.8	61.8	61.8	61.8
85°	35.8	37.1	38.3	38.3	37.1	37.1	35.8	35.8	35.8	35.8	35.8
87.5°	13.6	14.8	16.0	16.0	14.8	14.8	14.8	14.8	14.8	14.8	14.8
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°	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4
2.5°	1009.0	1009.0	1007.7	1010.2	1013.9	1015.2	1010.2	1005.3	1010.2	1015.2	1013.9
5°	1004.1	1004.1	1004.1	1005.3	1009.0	1010.2	1006.5	1001.6	1006.5	1010.2	1009.0
7.5°	997.9	996.7	996.7	997.9	1001.6	1002.9	999.1	995.4	999.1	1002.9	1001.6
10°	984.3	984.3	984.3	986.7	990.5	992.9	989.2	984.3	989.2	992.9	990.5
12.5°	970.7	970.7	970.7	973.2	976.9	978.1	974.4	970.7	974.4	978.1	976.9
15°	954.6	954.6	954.6	957.1	960.8	962.1	958.3	954.6	958.3	962.1	960.8
17.5°	933.6	933.6	933.6	936.1	941.1	943.6	939.8	936.1	939.8	943.6	941.1
20°	910.2	910.2	911.4	913.9	918.9	921.3	918.9	915.2	918.9	921.3	918.9
22.5°	884.3	885.5	886.7	889.2	894.2	896.6	894.2	891.7	894.2	896.6	894.2
25°	857.1	858.3	859.6	863.3	868.2	870.6	868.2	865.8	868.2	870.6	868.2
27.5°	828.7	829.9	831.2	834.9	839.8	843.5	841.0	839.8	841.0	843.5	839.8
30°	797.8	799.0	800.3	804.0	810.2	813.8	811.4	810.2	811.4	813.8	810.2
32.5°	766.9	768.2	769.4	773.1	779.3	784.3	781.8	779.3	781.8	784.3	779.3
35°	733.5	734.8	737.3	741.0	747.2	750.9	748.4	747.2	748.4	750.9	747.2
37.5°	701.5	702.7	705.1	708.9	715.1	718.8	717.5	716.3	717.5	718.8	715.1
40°	668.2	669.4	671.9	675.5	681.7	685.4	682.9	681.7	682.9	685.4	681.7
42.5°	633.6	634.8	637.3	641.0	647.2	650.8	649.6	648.4	649.6	650.8	647.2
45°	598.9	600.2	602.7	606.4	611.3	615.1	613.8	613.8	613.8	615.1	611.3
47.5°	563.2	565.6	568.1	571.8	576.7	580.5	579.2	578.0	579.2	580.5	576.7
50°	528.6	529.8	531.1	534.8	539.7	543.4	542.1	542.1	542.1	543.4	539.7
52.5°	492.8	494.0	496.5	500.2	503.9	507.6	506.4	505.1	506.4	507.6	503.9
55°	455.7	456.9	459.4	463.1	466.8	469.3	468.1	468.1	468.1	469.3	466.8
57.5°	419.9	421.2	422.4	426.1	429.7	433.5	432.2	431.0	432.2	433.5	429.7
60°	382.8	384.1	385.3	389.0	392.8	395.2	394.0	394.0	394.0	395.2	392.8
62.5°	345.8	347.0	348.2	352.0	355.7	358.1	356.9	356.9	356.9	358.1	355.7
65°	310.0	311.2	312.5	313.7	316.2	318.6	318.6	318.6	318.6	318.6	316.2
67.5°	269.2	270.4	271.7	272.9	275.4	277.9	276.6	276.6	276.6	277.9	275.4
70°	232.2	233.5	234.6	235.8	238.3	239.6	238.3	238.3	238.3	239.6	238.3
72.5°	195.1	196.4	197.6	198.9	200.1	201.3	201.3	201.3	201.3	201.3	200.1
75°	159.3	159.3	160.5	161.8	163.0	164.3	163.0	163.0	163.0	164.3	163.0
77.5°	124.7	124.7	125.9	127.2	128.4	129.6	128.4	127.2	128.4	129.6	128.4
80°	91.4	91.4	92.7	93.9	95.1	96.3	95.1	93.9	95.1	96.3	95.1
82.5°	61.8	61.8	63.0	63.0	64.3	65.5	64.3	63.0	64.3	65.5	64.3
85°	35.8	35.8	37.1	37.1	38.3	38.3	37.1	35.8	37.1	38.3	38.3
87.5°	14.8	14.8	14.8	14.8	16.0	16.0	14.8	13.6	14.8	16.0	16.0
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°	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4	1011.4
2.5°	1010.2	1007.7	1009.0	1009.0	1010.2	1010.2	1010.2	1009.0	1009.0	1007.7	1010.2
5°	1005.3	1004.1	1004.1	1004.1	1006.5	1009.0	1006.5	1004.1	1004.1	1004.1	1005.3
7.5°	997.9	996.7	996.7	997.9	1000.4	1002.9	1000.4	997.9	996.7	996.7	997.9
10°	986.7	984.3	984.3	984.3	986.7	989.2	986.7	984.3	984.3	984.3	986.7
12.5°	973.2	970.7	970.7	970.7	973.2	975.7	973.2	970.7	970.7	970.7	973.2
15°	957.1	954.6	954.6	954.6	957.1	958.3	957.1	954.6	954.6	954.6	957.1
17.5°	936.1	933.6	933.6	933.6	936.1	937.4	936.1	933.6	933.6	933.6	936.1
20°	913.9	911.4	910.2	910.2	912.7	913.9	912.7	910.2	910.2	911.4	913.9
22.5°	889.2	886.7	885.5	884.3	885.5	886.7	885.5	884.3	885.5	886.7	889.2
25°	863.3	859.6	858.3	857.1	858.3	858.3	858.3	857.1	858.3	859.6	863.3
27.5°	834.9	831.2	829.9	828.7	829.9	829.9	829.9	828.7	829.9	831.2	834.9
30°	804.0	800.3	799.0	797.8	797.8	797.8	797.8	797.8	799.0	800.3	804.0
32.5°	773.1	769.4	768.2	766.9	768.2	768.2	768.2	766.9	768.2	769.4	773.1
35°	741.0	737.3	734.8	733.5	736.0	737.3	736.0	733.5	734.8	737.3	741.0
37.5°	708.9	705.1	702.7	701.5	700.3	700.3	700.3	701.5	702.7	705.1	708.9
40°	675.5	671.9	669.4	668.2	668.2	668.2	668.2	668.2	669.4	671.9	675.5
42.5°	641.0	637.3	634.8	633.6	634.8	634.8	634.8	633.6	634.8	637.3	641.0
45°	606.4	602.7	600.2	598.9	598.9	598.9	598.9	598.9	600.2	602.7	606.4
47.5°	571.8	568.1	565.6	563.2	563.2	563.2	563.2	563.2	565.6	568.1	571.8
50°	534.8	531.1	529.8	528.6	527.4	527.4	527.4	528.6	529.8	531.1	534.8
52.5°	500.2	496.5	494.0	492.8	492.8	492.8	492.8	492.8	494.0	496.5	500.2
55°	463.1	459.4	456.9	455.7	456.9	456.9	456.9	455.7	456.9	459.4	463.1
57.5°	426.1	422.4	421.2	419.9	419.9	419.9	419.9	419.9	421.2	422.4	426.1
60°	389.0	385.3	384.1	382.8	382.8	382.8	382.8	382.8	384.1	385.3	389.0
62.5°	352.0	348.2	347.0	345.8	345.8	345.8	345.8	345.8	347.0	348.2	352.0
65°	313.7	312.5	311.2	310.0	308.8	308.8	308.8	310.0	311.2	312.5	313.7
67.5°	272.9	271.7	270.4	269.2	268.0	268.0	268.0	269.2	270.4	271.7	272.9
70°	235.8	234.6	233.5	232.2	231.0	231.0	231.0	232.2	233.5	234.6	235.8
72.5°	198.9	197.6	196.4	195.1	193.9	193.9	193.9	195.1	196.4	197.6	198.9
75°	161.8	160.5	159.3	159.3	158.1	158.1	158.1	159.3	159.3	160.5	161.8
77.5°	127.2	125.9	124.7	124.7	123.5	123.5	123.5	124.7	124.7	125.9	127.2
80°	93.9	92.7	91.4	91.4	91.4	91.4	91.4	91.4	91.4	92.7	93.9
82.5°	63.0	63.0	61.8	61.8	61.8	61.8	61.8	61.8	61.8	63.0	63.0
85°	37.1	37.1	35.8	35.8	35.8	35.8	35.8	35.8	35.8	37.1	37.1
87.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
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-37L940-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1011.4	1011.4	1011.4	1011.4
2.5°	1013.9	1015.2	1010.2	1005.3
5°	1009.0	1010.2	1006.5	1001.6
7.5°	1001.6	1002.9	999.1	995.4
10°	990.5	992.9	989.2	984.3
12.5°	976.9	978.1	974.4	970.7
15°	960.8	962.1	958.3	954.6
17.5°	941.1	943.6	939.8	936.1
20°	918.9	921.3	918.9	915.2
22.5°	894.2	896.6	894.2	891.7
25°	868.2	870.6	868.2	865.8
27.5°	839.8	843.5	841.0	839.8
30°	810.2	813.8	811.4	810.2
32.5°	779.3	784.3	781.8	779.3
35°	747.2	750.9	748.4	747.2
37.5°	715.1	718.8	717.5	716.3
40°	681.7	685.4	682.9	681.7
42.5°	647.2	650.8	649.6	648.4
45°	611.3	615.1	613.8	613.8
47.5°	576.7	580.5	579.2	578.0
50°	539.7	543.4	542.1	542.1
52.5°	503.9	507.6	506.4	505.1
55°	466.8	469.3	468.1	468.1
57.5°	429.7	433.5	432.2	431.0
60°	392.8	395.2	394.0	394.0
62.5°	355.7	358.1	356.9	356.9
65°	316.2	318.6	318.6	318.6
67.5°	275.4	277.9	276.6	276.6
70°	238.3	239.6	238.3	238.3
72.5°	200.1	201.3	201.3	201.3
75°	163.0	164.3	163.0	163.0
77.5°	128.4	129.6	128.4	127.2
80°	95.1	96.3	95.1	93.9
82.5°	64.3	65.5	64.3	63.0
85°	38.3	38.3	37.1	35.8
87.5°	16.0	16.0	14.8	13.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)