

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-34L835-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-34L835-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

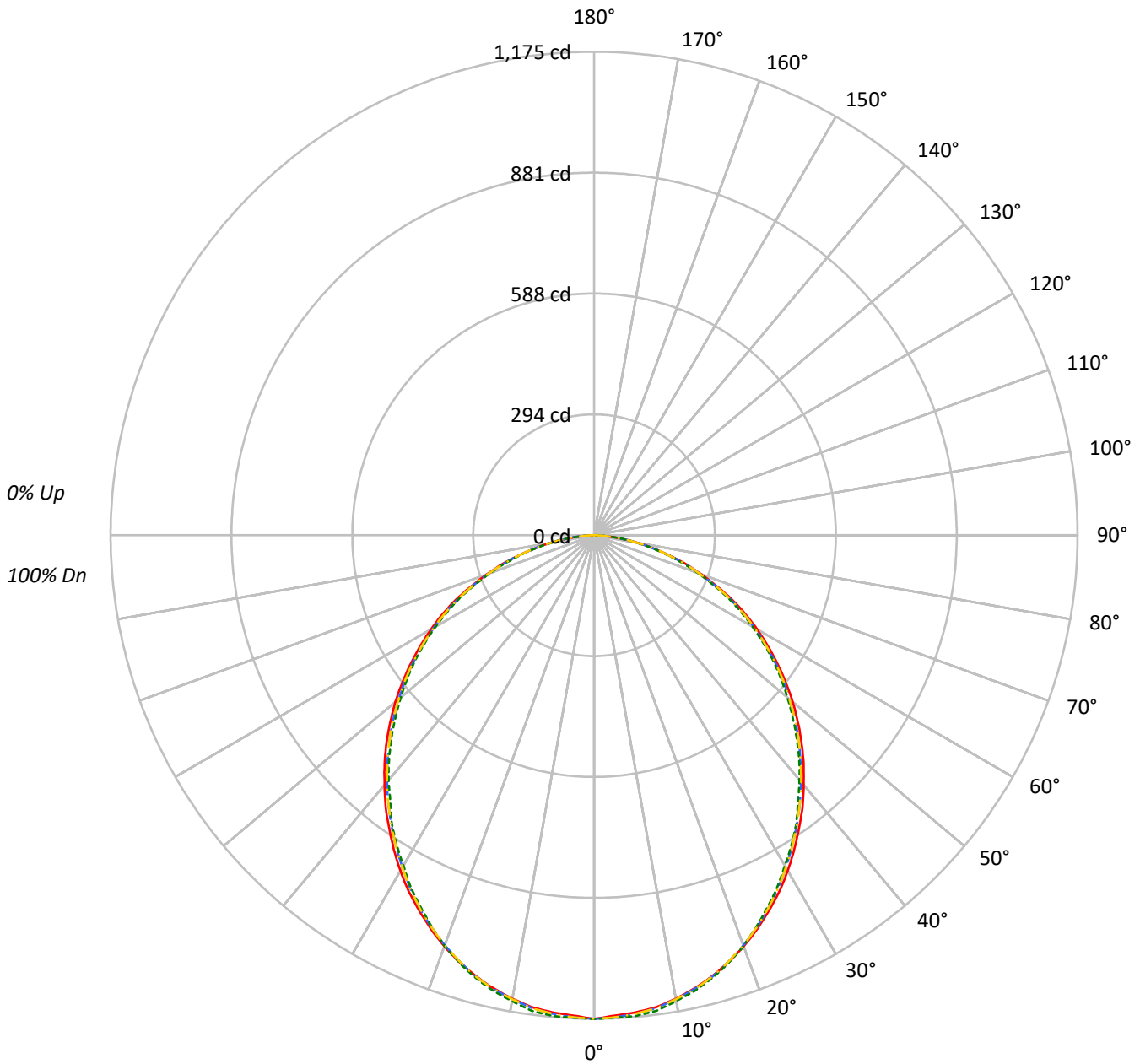
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3057.9 lumens  
Efficiency: N/A  
Efficacy: 83.1 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): 36.8  
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°	10844	10844	10844	10844
5°	10778	10859	10778	10859
10°	10715	10769	10715	10769
15°	10597	10638	10597	10638
20°	10441	10427	10441	10427
25°	10241	10154	10241	10154
30°	10030	9877	10030	9877
35°	9779	9649	9779	9649
40°	9541	9351	9541	9351
45°	9307	9081	9307	9081
50°	9043	8796	9043	8796
55°	8749	8541	8749	8541
60°	8448	8209	8448	8209
65°	8084	7833	8084	7833
70°	7472	7240	7472	7240
75°	6755	6548	6755	6548
80°	5797	5643	5797	5643
85°	4404	4404	4404	4404



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.9	3.6
10°-20°	313.3	10.2
20°-30°	461.7	15.1
30°-40°	539.0	17.6
40°-50°	543.4	17.8
50°-60°	480.3	15.7
60°-70°	359.2	11.7
70°-80°	199.1	6.5
80°-90°	51.0	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°	885.9	29.0
0°-40°	1424.9	46.6
0°-60°	2448.6	80.1
0°-90°	3057.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3057.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1175	1175	1175	1175	1175	
5°	1164	1172	1164	1172	1164	111
15°	1109	1114	1109	1114	1109	313
25°	1006	997	1006	997	1006	464
35°	868	857	868	857	868	544
45°	713	696	713	696	713	550
55°	544	531	544	531	544	486
65°	370	359	370	359	370	365
75°	190	184	190	184	190	201
85°	42	42	42	42	42	50
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°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1168.2	1173.9	1179.7	1178.2	1173.9	1171.0	1172.5	1172.5	1173.9	1173.9	1173.9
5°	1163.8	1169.6	1173.9	1172.5	1168.2	1166.7	1166.7	1166.7	1169.6	1172.5	1169.6
7.5°	1156.6	1161.0	1165.3	1163.8	1159.6	1158.1	1158.1	1159.6	1162.5	1165.3	1162.5
10°	1143.7	1149.5	1153.8	1150.9	1146.7	1143.7	1143.7	1143.7	1146.7	1149.5	1146.7
12.5°	1128.0	1132.3	1136.6	1135.2	1130.8	1128.0	1128.0	1128.0	1130.8	1133.7	1130.8
15°	1109.4	1113.7	1117.9	1116.5	1112.2	1109.4	1109.4	1109.4	1112.2	1113.7	1112.2
17.5°	1087.8	1092.1	1096.4	1093.6	1087.8	1084.9	1084.9	1084.9	1087.8	1089.3	1087.8
20°	1063.4	1067.7	1070.6	1067.7	1062.0	1059.1	1057.6	1057.6	1060.6	1062.0	1060.6
22.5°	1036.1	1039.0	1041.9	1039.0	1033.3	1030.4	1029.0	1027.6	1029.0	1030.4	1029.0
25°	1006.0	1008.9	1011.7	1008.9	1003.1	998.8	997.4	995.9	997.4	997.4	997.4
27.5°	975.8	977.3	980.2	975.8	970.1	965.8	964.4	962.9	964.4	964.4	964.4
30°	941.5	942.8	945.7	941.5	934.3	929.9	928.5	927.1	927.1	927.1	927.1
32.5°	905.6	908.4	911.3	905.6	898.4	894.1	892.6	891.2	892.6	892.6	892.6
35°	868.2	869.6	872.6	868.2	861.1	856.7	853.9	852.5	855.3	856.7	855.3
37.5°	832.4	833.8	835.2	830.9	823.7	819.5	816.6	815.1	813.7	813.7	813.7
40°	792.2	793.6	796.5	792.2	785.0	780.7	777.8	776.4	776.4	776.4	776.4
42.5°	753.5	754.8	756.3	752.0	744.8	740.6	737.6	736.2	737.6	737.6	737.6
45°	713.3	713.3	714.6	710.4	704.6	700.4	697.5	696.0	696.0	696.0	696.0
47.5°	671.6	673.1	674.5	670.2	664.5	660.2	657.3	654.4	654.4	654.4	654.4
50°	630.0	630.0	631.5	627.1	621.4	617.1	615.6	614.2	612.8	612.8	612.8
52.5°	586.9	588.4	589.8	585.6	581.2	576.9	574.0	572.6	572.6	572.6	572.6
55°	543.9	543.9	545.4	542.5	538.2	533.8	531.0	529.6	531.0	531.0	531.0
57.5°	500.8	502.3	503.7	499.4	495.1	490.8	489.4	487.9	487.9	487.9	487.9
60°	457.8	457.8	459.2	456.4	452.1	447.7	446.3	444.9	444.9	444.9	444.9
62.5°	414.7	414.7	416.2	413.3	409.0	404.7	403.3	401.8	401.8	401.8	401.8
65°	370.3	370.3	370.3	367.4	364.6	363.1	361.6	360.2	358.8	358.8	358.8
67.5°	321.5	321.5	322.9	320.0	317.2	315.7	314.3	312.8	311.5	311.5	311.5
70°	277.0	277.0	278.4	277.0	274.1	272.6	271.3	269.8	268.4	268.4	268.4
72.5°	233.9	233.9	233.9	232.5	231.1	229.6	228.2	226.7	225.3	225.3	225.3
75°	189.5	189.5	190.9	189.5	188.0	186.5	185.1	185.1	183.7	183.7	183.7
77.5°	147.8	149.3	150.7	149.3	147.8	146.4	144.9	144.9	143.6	143.6	143.6
80°	109.1	110.5	111.9	110.5	109.1	107.6	106.2	106.2	106.2	106.2	106.2
82.5°	73.2	74.6	76.1	74.6	73.2	73.2	71.7	71.7	71.7	71.7	71.7
85°	41.6	43.1	44.5	44.5	43.1	43.1	41.6	41.6	41.6	41.6	41.6
87.5°	15.8	17.2	18.6	18.6	17.2	17.2	17.2	17.2	17.2	17.2	17.2
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1172.5	1172.5	1171.0	1173.9	1178.2	1179.7	1173.9	1168.2	1173.9	1179.7	1178.2
5°	1166.7	1166.7	1166.7	1168.2	1172.5	1173.9	1169.6	1163.8	1169.6	1173.9	1172.5
7.5°	1159.6	1158.1	1158.1	1159.6	1163.8	1165.3	1161.0	1156.6	1161.0	1165.3	1163.8
10°	1143.7	1143.7	1143.7	1146.7	1150.9	1153.8	1149.5	1143.7	1149.5	1153.8	1150.9
12.5°	1128.0	1128.0	1128.0	1130.8	1135.2	1136.6	1132.3	1128.0	1132.3	1136.6	1135.2
15°	1109.4	1109.4	1109.4	1112.2	1116.5	1117.9	1113.7	1109.4	1113.7	1117.9	1116.5
17.5°	1084.9	1084.9	1084.9	1087.8	1093.6	1096.4	1092.1	1087.8	1092.1	1096.4	1093.6
20°	1057.6	1057.6	1059.1	1062.0	1067.7	1070.6	1067.7	1063.4	1067.7	1070.6	1067.7
22.5°	1027.6	1029.0	1030.4	1033.3	1039.0	1041.9	1039.0	1036.1	1039.0	1041.9	1039.0
25°	995.9	997.4	998.8	1003.1	1008.9	1011.7	1008.9	1006.0	1008.9	1011.7	1008.9
27.5°	962.9	964.4	965.8	970.1	975.8	980.2	977.3	975.8	977.3	980.2	975.8
30°	927.1	928.5	929.9	934.3	941.5	945.7	942.8	941.5	942.8	945.7	941.5
32.5°	891.2	892.6	894.1	898.4	905.6	911.3	908.4	905.6	908.4	911.3	905.6
35°	852.5	853.9	856.7	861.1	868.2	872.6	869.6	868.2	869.6	872.6	868.2
37.5°	815.1	816.6	819.5	823.7	830.9	835.2	833.8	832.4	833.8	835.2	830.9
40°	776.4	777.8	780.7	785.0	792.2	796.5	793.6	792.2	793.6	796.5	792.2
42.5°	736.2	737.6	740.6	744.8	752.0	756.3	754.8	753.5	754.8	756.3	752.0
45°	696.0	697.5	700.4	704.6	710.4	714.6	713.3	713.3	713.3	714.6	710.4
47.5°	654.4	657.3	660.2	664.5	670.2	674.5	673.1	671.6	673.1	674.5	670.2
50°	614.2	615.6	617.1	621.4	627.1	631.5	630.0	630.0	630.0	631.5	627.1
52.5°	572.6	574.0	576.9	581.2	585.6	589.8	588.4	586.9	588.4	589.8	585.6
55°	529.6	531.0	533.8	538.2	542.5	545.4	543.9	543.9	543.9	545.4	542.5
57.5°	487.9	489.4	490.8	495.1	499.4	503.7	502.3	500.8	502.3	503.7	499.4
60°	444.9	446.3	447.7	452.1	456.4	459.2	457.8	457.8	457.8	459.2	456.4
62.5°	401.8	403.3	404.7	409.0	413.3	416.2	414.7	414.7	414.7	416.2	413.3
65°	360.2	361.6	363.1	364.6	367.4	370.3	370.3	370.3	370.3	370.3	367.4
67.5°	312.8	314.3	315.7	317.2	320.0	322.9	321.5	321.5	321.5	322.9	320.0
70°	269.8	271.3	272.6	274.1	277.0	278.4	277.0	277.0	277.0	278.4	277.0
72.5°	226.7	228.2	229.6	231.1	232.5	233.9	233.9	233.9	233.9	233.9	232.5
75°	185.1	185.1	186.5	188.0	189.5	190.9	189.5	189.5	189.5	190.9	189.5
77.5°	144.9	144.9	146.4	147.8	149.3	150.7	149.3	147.8	149.3	150.7	149.3
80°	106.2	106.2	107.6	109.1	110.5	111.9	110.5	109.1	110.5	111.9	110.5
82.5°	71.7	71.7	73.2	73.2	74.6	76.1	74.6	73.2	74.6	76.1	74.6
85°	41.6	41.6	43.1	43.1	44.5	44.5	43.1	41.6	43.1	44.5	44.5
87.5°	17.2	17.2	17.2	17.2	18.6	18.6	17.2	15.8	17.2	18.6	18.6
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°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1173.9	1171.0	1172.5	1172.5	1173.9	1173.9	1173.9	1172.5	1172.5	1171.0	1173.9
5°	1168.2	1166.7	1166.7	1166.7	1169.6	1172.5	1169.6	1166.7	1166.7	1166.7	1168.2
7.5°	1159.6	1158.1	1158.1	1159.6	1162.5	1165.3	1162.5	1159.6	1158.1	1158.1	1159.6
10°	1146.7	1143.7	1143.7	1143.7	1146.7	1149.5	1146.7	1143.7	1143.7	1143.7	1146.7
12.5°	1130.8	1128.0	1128.0	1128.0	1130.8	1133.7	1130.8	1128.0	1128.0	1128.0	1130.8
15°	1112.2	1109.4	1109.4	1109.4	1112.2	1113.7	1112.2	1109.4	1109.4	1109.4	1112.2
17.5°	1087.8	1084.9	1084.9	1084.9	1087.8	1089.3	1087.8	1084.9	1084.9	1084.9	1087.8
20°	1062.0	1059.1	1057.6	1057.6	1060.6	1062.0	1060.6	1057.6	1057.6	1059.1	1062.0
22.5°	1033.3	1030.4	1029.0	1027.6	1029.0	1030.4	1029.0	1027.6	1029.0	1030.4	1033.3
25°	1003.1	998.8	997.4	995.9	997.4	997.4	997.4	995.9	997.4	998.8	1003.1
27.5°	970.1	965.8	964.4	962.9	964.4	964.4	964.4	962.9	964.4	965.8	970.1
30°	934.3	929.9	928.5	927.1	927.1	927.1	927.1	927.1	928.5	929.9	934.3
32.5°	898.4	894.1	892.6	891.2	892.6	892.6	892.6	891.2	892.6	894.1	898.4
35°	861.1	856.7	853.9	852.5	855.3	856.7	855.3	852.5	853.9	856.7	861.1
37.5°	823.7	819.5	816.6	815.1	813.7	813.7	813.7	815.1	816.6	819.5	823.7
40°	785.0	780.7	777.8	776.4	776.4	776.4	776.4	776.4	777.8	780.7	785.0
42.5°	744.8	740.6	737.6	736.2	737.6	737.6	737.6	736.2	737.6	740.6	744.8
45°	704.6	700.4	697.5	696.0	696.0	696.0	696.0	696.0	697.5	700.4	704.6
47.5°	664.5	660.2	657.3	654.4	654.4	654.4	654.4	654.4	657.3	660.2	664.5
50°	621.4	617.1	615.6	614.2	612.8	612.8	612.8	614.2	615.6	617.1	621.4
52.5°	581.2	576.9	574.0	572.6	572.6	572.6	572.6	572.6	574.0	576.9	581.2
55°	538.2	533.8	531.0	529.6	531.0	531.0	531.0	529.6	531.0	533.8	538.2
57.5°	495.1	490.8	489.4	487.9	487.9	487.9	487.9	487.9	489.4	490.8	495.1
60°	452.1	447.7	446.3	444.9	444.9	444.9	444.9	444.9	446.3	447.7	452.1
62.5°	409.0	404.7	403.3	401.8	401.8	401.8	401.8	401.8	403.3	404.7	409.0
65°	364.6	363.1	361.6	360.2	358.8	358.8	358.8	360.2	361.6	363.1	364.6
67.5°	317.2	315.7	314.3	312.8	311.5	311.5	311.5	312.8	314.3	315.7	317.2
70°	274.1	272.6	271.3	269.8	268.4	268.4	268.4	269.8	271.3	272.6	274.1
72.5°	231.1	229.6	228.2	226.7	225.3	225.3	225.3	226.7	228.2	229.6	231.1
75°	188.0	186.5	185.1	185.1	183.7	183.7	183.7	185.1	185.1	186.5	188.0
77.5°	147.8	146.4	144.9	144.9	143.6	143.6	143.6	144.9	144.9	146.4	147.8
80°	109.1	107.6	106.2	106.2	106.2	106.2	106.2	106.2	106.2	107.6	109.1
82.5°	73.2	73.2	71.7	71.7	71.7	71.7	71.7	71.7	71.7	73.2	73.2
85°	43.1	43.1	41.6	41.6	41.6	41.6	41.6	41.6	41.6	43.1	43.1
87.5°	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
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-X-34L835-UNV-NP

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	1175.4	1175.4	1175.4	1175.4
2.5°	1178.2	1179.7	1173.9	1168.2
5°	1172.5	1173.9	1169.6	1163.8
7.5°	1163.8	1165.3	1161.0	1156.6
10°	1150.9	1153.8	1149.5	1143.7
12.5°	1135.2	1136.6	1132.3	1128.0
15°	1116.5	1117.9	1113.7	1109.4
17.5°	1093.6	1096.4	1092.1	1087.8
20°	1067.7	1070.6	1067.7	1063.4
22.5°	1039.0	1041.9	1039.0	1036.1
25°	1008.9	1011.7	1008.9	1006.0
27.5°	975.8	980.2	977.3	975.8
30°	941.5	945.7	942.8	941.5
32.5°	905.6	911.3	908.4	905.6
35°	868.2	872.6	869.6	868.2
37.5°	830.9	835.2	833.8	832.4
40°	792.2	796.5	793.6	792.2
42.5°	752.0	756.3	754.8	753.5
45°	710.4	714.6	713.3	713.3
47.5°	670.2	674.5	673.1	671.6
50°	627.1	631.5	630.0	630.0
52.5°	585.6	589.8	588.4	586.9
55°	542.5	545.4	543.9	543.9
57.5°	499.4	503.7	502.3	500.8
60°	456.4	459.2	457.8	457.8
62.5°	413.3	416.2	414.7	414.7
65°	367.4	370.3	370.3	370.3
67.5°	320.0	322.9	321.5	321.5
70°	277.0	278.4	277.0	277.0
72.5°	232.5	233.9	233.9	233.9
75°	189.5	190.9	189.5	189.5
77.5°	149.3	150.7	149.3	147.8
80°	110.5	111.9	110.5	109.1
82.5°	74.6	76.1	74.6	73.2
85°	44.5	44.5	43.1	41.6
87.5°	18.6	18.6	17.2	15.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)