

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-42L935-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-42L935-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

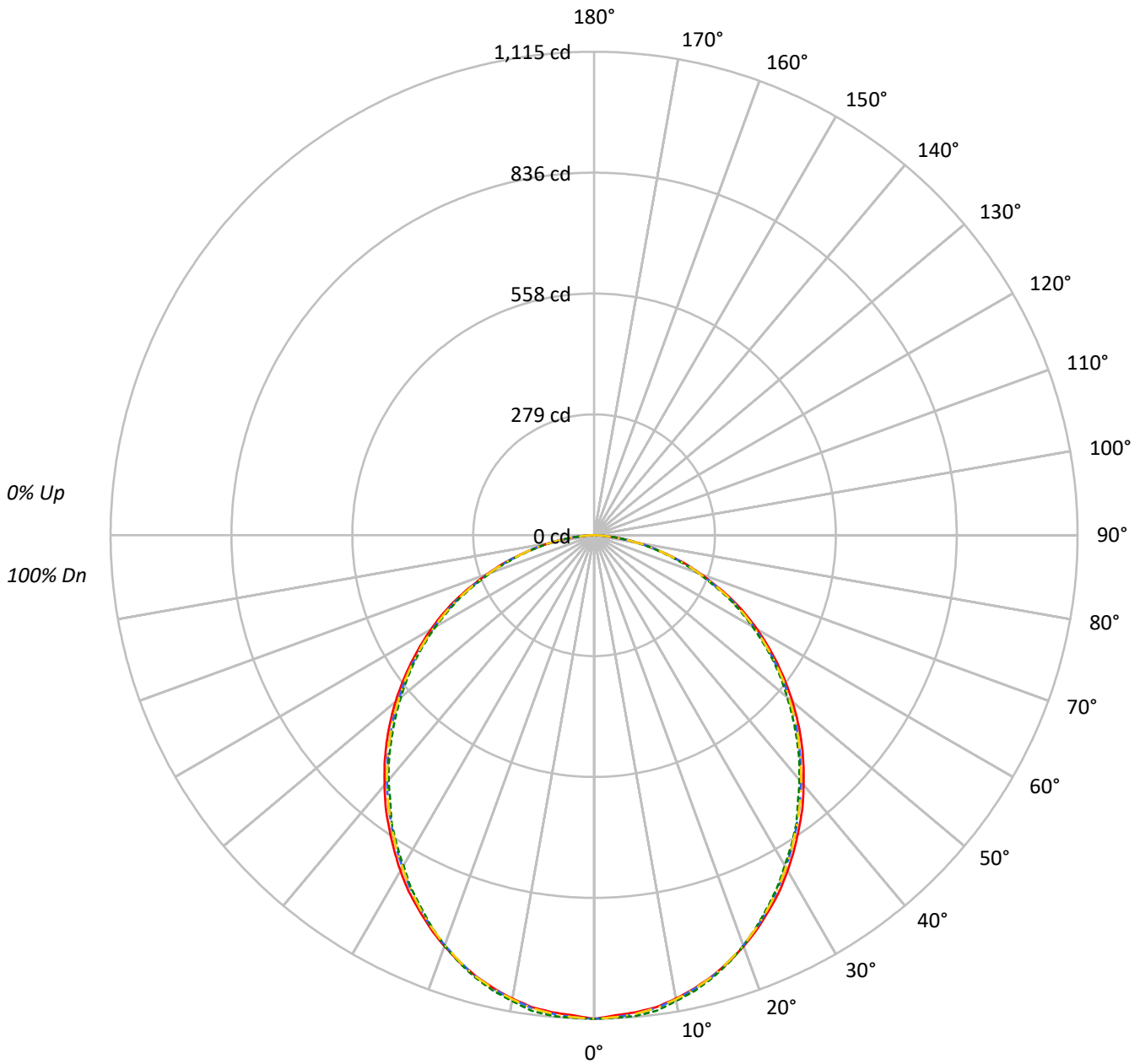
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2901.4 lumens
Efficiency: N/A
Efficacy: 62.8 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): 46.2
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	59	52	47	57	51	46	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10289	10289	10289	10289
5°	10227	10303	10227	10303
10°	10167	10218	10167	10218
15°	10054	10092	10054	10092
20°	9906	9894	9906	9894
25°	9717	9633	9717	9633
30°	9516	9371	9516	9371
35°	9279	9156	9279	9156
40°	9052	8873	9052	8873
45°	8829	8617	8829	8617
50°	8579	8345	8579	8345
55°	8300	8104	8300	8104
60°	8016	7789	8016	7789
65°	7669	7431	7669	7431
70°	7089	6871	7089	6871
75°	6406	6213	6406	6213
80°	5494	5356	5494	5356
85°	4181	4181	4181	4181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.3	3.6
10°-20°	297.2	10.2
20°-30°	438.1	15.1
30°-40°	511.4	17.6
40°-50°	515.6	17.8
50°-60°	455.7	15.7
60°-70°	340.8	11.7
70°-80°	188.9	6.5
80°-90°	48.4	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°	840.6	29.0
0°-40°	1352.0	46.6
0°-60°	2323.3	80.1
0°-90°	2901.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2901.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1115	1115	1115	1115	1115	
5°	1104	1112	1104	1112	1104	105
15°	1053	1057	1053	1057	1053	297
25°	954	946	954	946	954	440
35°	824	813	824	813	824	516
45°	677	660	677	660	677	522
55°	516	504	516	504	516	462
65°	351	340	351	340	351	346
75°	180	174	180	174	180	191
85°	40	40	40	40	40	48
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°	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2
2.5°	1108.4	1113.9	1119.3	1117.9	1113.9	1111.1	1112.5	1112.5	1113.9	1113.9	1113.9
5°	1104.3	1109.7	1113.9	1112.5	1108.4	1107.0	1107.0	1107.0	1109.7	1112.5	1109.7
7.5°	1097.5	1101.6	1105.7	1104.3	1100.2	1098.8	1098.8	1100.2	1102.9	1105.7	1102.9
10°	1085.2	1090.7	1094.8	1092.0	1088.0	1085.2	1085.2	1085.2	1088.0	1090.7	1088.0
12.5°	1070.3	1074.3	1078.5	1077.1	1073.0	1070.3	1070.3	1070.3	1073.0	1075.7	1073.0
15°	1052.6	1056.6	1060.8	1059.4	1055.3	1052.6	1052.6	1052.6	1055.3	1056.6	1055.3
17.5°	1032.2	1036.2	1040.3	1037.6	1032.2	1029.4	1029.4	1029.4	1032.2	1033.5	1032.2
20°	1008.9	1013.1	1015.8	1013.1	1007.7	1004.9	1003.5	1003.5	1006.3	1007.7	1006.3
22.5°	983.1	985.8	988.6	985.8	980.4	977.7	976.3	974.9	976.3	977.7	976.3
25°	954.5	957.2	960.0	957.2	951.8	947.7	946.3	945.0	946.3	946.3	946.3
27.5°	926.0	927.3	930.0	926.0	920.4	916.4	915.0	913.7	915.0	915.0	915.0
30°	893.2	894.6	897.3	893.2	886.4	882.4	881.0	879.6	879.6	879.6	879.6
32.5°	859.2	861.9	864.7	859.2	852.4	848.3	846.9	845.6	846.9	846.9	846.9
35°	823.8	825.2	827.9	823.8	817.0	812.9	810.2	808.8	811.5	812.9	811.5
37.5°	789.8	791.1	792.5	788.4	781.6	777.5	774.8	773.4	772.1	772.1	772.1
40°	751.6	753.0	755.8	751.6	744.8	740.7	738.1	736.7	736.7	736.7	736.7
42.5°	714.8	716.2	717.6	713.5	706.7	702.7	699.9	698.5	699.9	699.9	699.9
45°	676.7	676.7	678.1	674.0	668.5	664.5	661.7	660.4	660.4	660.4	660.4
47.5°	637.3	638.6	640.0	635.9	630.5	626.4	623.6	620.9	620.9	620.9	620.9
50°	597.7	597.7	599.1	595.1	589.6	585.5	584.2	582.8	581.4	581.4	581.4
52.5°	556.9	558.3	559.7	555.6	551.4	547.4	544.6	543.3	543.3	543.3	543.3
55°	516.0	516.0	517.4	514.7	510.6	506.5	503.8	502.5	503.8	503.8	503.8
57.5°	475.2	476.6	478.0	473.8	469.8	465.7	464.3	462.9	462.9	462.9	462.9
60°	434.4	434.4	435.7	433.0	428.9	424.9	423.5	422.1	422.1	422.1	422.1
62.5°	393.5	393.5	394.9	392.1	388.1	384.0	382.6	381.2	381.2	381.2	381.2
65°	351.3	351.3	351.3	348.6	345.8	344.5	343.2	341.8	340.4	340.4	340.4
67.5°	305.0	305.0	306.4	303.6	300.9	299.6	298.2	296.9	295.5	295.5	295.5
70°	262.8	262.8	264.2	262.8	260.1	258.7	257.3	255.9	254.7	254.7	254.7
72.5°	221.9	221.9	221.9	220.5	219.3	217.9	216.5	215.1	213.8	213.8	213.8
75°	179.7	179.7	181.1	179.7	178.4	177.0	175.6	175.6	174.3	174.3	174.3
77.5°	140.2	141.6	143.0	141.6	140.2	138.9	137.6	137.6	136.2	136.2	136.2
80°	103.4	104.8	106.2	104.8	103.4	102.2	100.8	100.8	100.8	100.8	100.8
82.5°	69.4	70.8	72.2	70.8	69.4	69.4	68.0	68.0	68.0	68.0	68.0
85°	39.5	40.8	42.2	42.2	40.8	40.8	39.5	39.5	39.5	39.5	39.5
87.5°	14.9	16.3	17.7	17.7	16.3	16.3	16.3	16.3	16.3	16.3	16.3
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°	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2
2.5°	1112.5	1112.5	1111.1	1113.9	1117.9	1119.3	1113.9	1108.4	1113.9	1119.3	1117.9
5°	1107.0	1107.0	1107.0	1108.4	1112.5	1113.9	1109.7	1104.3	1109.7	1113.9	1112.5
7.5°	1100.2	1098.8	1098.8	1100.2	1104.3	1105.7	1101.6	1097.5	1101.6	1105.7	1104.3
10°	1085.2	1085.2	1085.2	1088.0	1092.0	1094.8	1090.7	1085.2	1090.7	1094.8	1092.0
12.5°	1070.3	1070.3	1070.3	1073.0	1077.1	1078.5	1074.3	1070.3	1074.3	1078.5	1077.1
15°	1052.6	1052.6	1052.6	1055.3	1059.4	1060.8	1056.6	1052.6	1056.6	1060.8	1059.4
17.5°	1029.4	1029.4	1029.4	1032.2	1037.6	1040.3	1036.2	1032.2	1036.2	1040.3	1037.6
20°	1003.5	1003.5	1004.9	1007.7	1013.1	1015.8	1013.1	1008.9	1013.1	1015.8	1013.1
22.5°	974.9	976.3	977.7	980.4	985.8	988.6	985.8	983.1	985.8	988.6	985.8
25°	945.0	946.3	947.7	951.8	957.2	960.0	957.2	954.5	957.2	960.0	957.2
27.5°	913.7	915.0	916.4	920.4	926.0	930.0	927.3	926.0	927.3	930.0	926.0
30°	879.6	881.0	882.4	886.4	893.2	897.3	894.6	893.2	894.6	897.3	893.2
32.5°	845.6	846.9	848.3	852.4	859.2	864.7	861.9	859.2	861.9	864.7	859.2
35°	808.8	810.2	812.9	817.0	823.8	827.9	825.2	823.8	825.2	827.9	823.8
37.5°	773.4	774.8	777.5	781.6	788.4	792.5	791.1	789.8	791.1	792.5	788.4
40°	736.7	738.1	740.7	744.8	751.6	755.8	753.0	751.6	753.0	755.8	751.6
42.5°	698.5	699.9	702.7	706.7	713.5	717.6	716.2	714.8	716.2	717.6	713.5
45°	660.4	661.7	664.5	668.5	674.0	678.1	676.7	676.7	676.7	678.1	674.0
47.5°	620.9	623.6	626.4	630.5	635.9	640.0	638.6	637.3	638.6	640.0	635.9
50°	582.8	584.2	585.5	589.6	595.1	599.1	597.7	597.7	597.7	599.1	595.1
52.5°	543.3	544.6	547.4	551.4	555.6	559.7	558.3	556.9	558.3	559.7	555.6
55°	502.5	503.8	506.5	510.6	514.7	517.4	516.0	516.0	516.0	517.4	514.7
57.5°	462.9	464.3	465.7	469.8	473.8	478.0	476.6	475.2	476.6	478.0	473.8
60°	422.1	423.5	424.9	428.9	433.0	435.7	434.4	434.4	434.4	435.7	433.0
62.5°	381.2	382.6	384.0	388.1	392.1	394.9	393.5	393.5	393.5	394.9	392.1
65°	341.8	343.2	344.5	345.8	348.6	351.3	351.3	351.3	351.3	351.3	348.6
67.5°	296.9	298.2	299.6	300.9	303.6	306.4	305.0	305.0	305.0	306.4	303.6
70°	255.9	257.3	258.7	260.1	262.8	264.2	262.8	262.8	262.8	264.2	262.8
72.5°	215.1	216.5	217.9	219.3	220.5	221.9	221.9	221.9	221.9	221.9	220.5
75°	175.6	175.6	177.0	178.4	179.7	181.1	179.7	179.7	179.7	181.1	179.7
77.5°	137.6	137.6	138.9	140.2	141.6	143.0	141.6	140.2	141.6	143.0	141.6
80°	100.8	100.8	102.2	103.4	104.8	106.2	104.8	103.4	104.8	106.2	104.8
82.5°	68.0	68.0	69.4	69.4	70.8	72.2	70.8	69.4	70.8	72.2	70.8
85°	39.5	39.5	40.8	40.8	42.2	42.2	40.8	39.5	40.8	42.2	42.2
87.5°	16.3	16.3	16.3	16.3	17.7	17.7	16.3	14.9	16.3	17.7	17.7
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2	1115.2
2.5°	1113.9	1111.1	1112.5	1112.5	1113.9	1113.9	1113.9	1112.5	1112.5	1111.1	1113.9
5°	1108.4	1107.0	1107.0	1107.0	1109.7	1112.5	1109.7	1107.0	1107.0	1107.0	1108.4
7.5°	1100.2	1098.8	1098.8	1100.2	1102.9	1105.7	1102.9	1100.2	1098.8	1098.8	1100.2
10°	1088.0	1085.2	1085.2	1085.2	1088.0	1090.7	1088.0	1085.2	1085.2	1085.2	1088.0
12.5°	1073.0	1070.3	1070.3	1070.3	1073.0	1075.7	1073.0	1070.3	1070.3	1070.3	1073.0
15°	1055.3	1052.6	1052.6	1052.6	1055.3	1056.6	1055.3	1052.6	1052.6	1052.6	1055.3
17.5°	1032.2	1029.4	1029.4	1029.4	1032.2	1033.5	1032.2	1029.4	1029.4	1029.4	1032.2
20°	1007.7	1004.9	1003.5	1003.5	1006.3	1007.7	1006.3	1003.5	1003.5	1004.9	1007.7
22.5°	980.4	977.7	976.3	974.9	976.3	977.7	976.3	974.9	976.3	977.7	980.4
25°	951.8	947.7	946.3	945.0	946.3	946.3	946.3	945.0	946.3	947.7	951.8
27.5°	920.4	916.4	915.0	913.7	915.0	915.0	915.0	913.7	915.0	916.4	920.4
30°	886.4	882.4	881.0	879.6	879.6	879.6	879.6	879.6	881.0	882.4	886.4
32.5°	852.4	848.3	846.9	845.6	846.9	846.9	846.9	845.6	846.9	848.3	852.4
35°	817.0	812.9	810.2	808.8	811.5	812.9	811.5	808.8	810.2	812.9	817.0
37.5°	781.6	777.5	774.8	773.4	772.1	772.1	772.1	773.4	774.8	777.5	781.6
40°	744.8	740.7	738.1	736.7	736.7	736.7	736.7	736.7	738.1	740.7	744.8
42.5°	706.7	702.7	699.9	698.5	699.9	699.9	699.9	698.5	699.9	702.7	706.7
45°	668.5	664.5	661.7	660.4	660.4	660.4	660.4	660.4	661.7	664.5	668.5
47.5°	630.5	626.4	623.6	620.9	620.9	620.9	620.9	620.9	623.6	626.4	630.5
50°	589.6	585.5	584.2	582.8	581.4	581.4	581.4	582.8	584.2	585.5	589.6
52.5°	551.4	547.4	544.6	543.3	543.3	543.3	543.3	543.3	544.6	547.4	551.4
55°	510.6	506.5	503.8	502.5	503.8	503.8	503.8	502.5	503.8	506.5	510.6
57.5°	469.8	465.7	464.3	462.9	462.9	462.9	462.9	462.9	464.3	465.7	469.8
60°	428.9	424.9	423.5	422.1	422.1	422.1	422.1	422.1	423.5	424.9	428.9
62.5°	388.1	384.0	382.6	381.2	381.2	381.2	381.2	381.2	382.6	384.0	388.1
65°	345.8	344.5	343.2	341.8	340.4	340.4	340.4	341.8	343.2	344.5	345.8
67.5°	300.9	299.6	298.2	296.9	295.5	295.5	295.5	296.9	298.2	299.6	300.9
70°	260.1	258.7	257.3	255.9	254.7	254.7	254.7	255.9	257.3	258.7	260.1
72.5°	219.3	217.9	216.5	215.1	213.8	213.8	213.8	215.1	216.5	217.9	219.3
75°	178.4	177.0	175.6	175.6	174.3	174.3	174.3	175.6	175.6	177.0	178.4
77.5°	140.2	138.9	137.6	137.6	136.2	136.2	136.2	137.6	137.6	138.9	140.2
80°	103.4	102.2	100.8	100.8	100.8	100.8	100.8	100.8	100.8	102.2	103.4
82.5°	69.4	69.4	68.0	68.0	68.0	68.0	68.0	68.0	68.0	69.4	69.4
85°	40.8	40.8	39.5	39.5	39.5	39.5	39.5	39.5	39.5	40.8	40.8
87.5°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
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-42L935-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1115.2	1115.2	1115.2	1115.2
2.5°	1117.9	1119.3	1113.9	1108.4
5°	1112.5	1113.9	1109.7	1104.3
7.5°	1104.3	1105.7	1101.6	1097.5
10°	1092.0	1094.8	1090.7	1085.2
12.5°	1077.1	1078.5	1074.3	1070.3
15°	1059.4	1060.8	1056.6	1052.6
17.5°	1037.6	1040.3	1036.2	1032.2
20°	1013.1	1015.8	1013.1	1008.9
22.5°	985.8	988.6	985.8	983.1
25°	957.2	960.0	957.2	954.5
27.5°	926.0	930.0	927.3	926.0
30°	893.2	897.3	894.6	893.2
32.5°	859.2	864.7	861.9	859.2
35°	823.8	827.9	825.2	823.8
37.5°	788.4	792.5	791.1	789.8
40°	751.6	755.8	753.0	751.6
42.5°	713.5	717.6	716.2	714.8
45°	674.0	678.1	676.7	676.7
47.5°	635.9	640.0	638.6	637.3
50°	595.1	599.1	597.7	597.7
52.5°	555.6	559.7	558.3	556.9
55°	514.7	517.4	516.0	516.0
57.5°	473.8	478.0	476.6	475.2
60°	433.0	435.7	434.4	434.4
62.5°	392.1	394.9	393.5	393.5
65°	348.6	351.3	351.3	351.3
67.5°	303.6	306.4	305.0	305.0
70°	262.8	264.2	262.8	262.8
72.5°	220.5	221.9	221.9	221.9
75°	179.7	181.1	179.7	179.7
77.5°	141.6	143.0	141.6	140.2
80°	104.8	106.2	104.8	103.4
82.5°	70.8	72.2	70.8	69.4
85°	42.2	42.2	40.8	39.5
87.5°	17.7	17.7	16.3	14.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)