

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-42L930-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-42L930-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

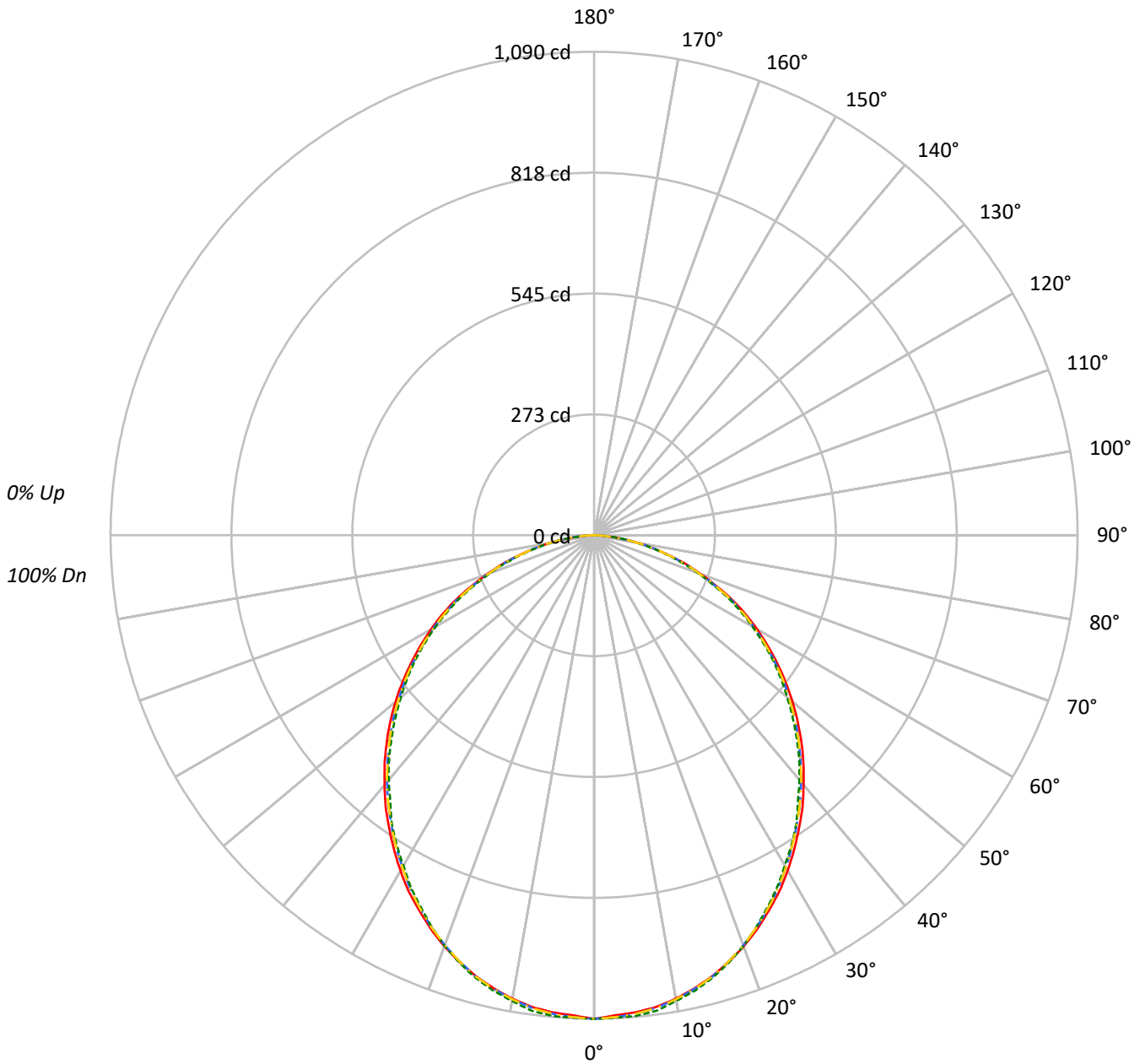
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2836.2 lumens
Efficiency: N/A
Efficacy: 61.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 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

TEST NUMBER: P
CATALOG NUMBER: 4APN-X-42L930-UNV-NP

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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 CATALOG NUMBER: 4APN-X-42L930-UNV-NP

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	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°	10058	10058	10058	10058
5°	9998	10072	9998	10072
10°	9939	9989	9939	9989
15°	9829	9866	9829	9866
20°	9685	9671	9685	9671
25°	9499	9418	9499	9418
30°	9302	9161	9302	9161
35°	9070	8951	9070	8951
40°	8849	8673	8849	8673
45°	8631	8424	8631	8424
50°	8388	8157	8388	8157
55°	8115	7922	8115	7922
60°	7835	7613	7835	7613
65°	7497	7263	7497	7263
70°	6930	6714	6930	6714
75°	6263	6074	6263	6074
80°	5372	5233	5372	5233
85°	4086	4086	4086	4086



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-42L930-UNV-NP

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.9	3.6
10°-20°	290.6	10.2
20°-30°	428.2	15.1
30°-40°	499.9	17.6
40°-50°	504.0	17.8
50°-60°	445.5	15.7
60°-70°	333.1	11.7
70°-80°	184.7	6.5
80°-90°	47.4	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°	821.7	29.0
0°-40°	1321.6	46.6
0°-60°	2271.1	80.1
0°-90°	2836.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2836.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1090	1090	1090	1090	1090	
5°	1080	1088	1080	1088	1080	102
15°	1029	1033	1029	1033	1029	290
25°	933	925	933	925	933	430
35°	805	795	805	795	805	504
45°	662	646	662	646	662	510
55°	504	492	504	492	504	451
65°	343	333	343	333	343	338
75°	176	170	176	170	176	187
85°	39	39	39	39	39	47
90°	0	0	0	0	0	



TEST NUMBER: P

CATALOG NUMBER: 4APN-X-42L930-UNV-NP

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2
2.5°	1083.5	1088.8	1094.1	1092.8	1088.8	1086.1	1087.5	1087.5	1088.8	1088.8	1088.8
5°	1079.5	1084.8	1088.8	1087.5	1083.5	1082.2	1082.2	1082.2	1084.8	1087.5	1084.8
7.5°	1072.8	1076.8	1080.9	1079.5	1075.5	1074.1	1074.1	1075.5	1078.2	1080.9	1078.2
10°	1060.9	1066.2	1070.2	1067.5	1063.5	1060.9	1060.9	1060.9	1063.5	1066.2	1063.5
12.5°	1046.2	1050.3	1054.2	1052.8	1048.9	1046.2	1046.2	1046.2	1048.9	1051.5	1048.9
15°	1029.0	1032.9	1036.9	1035.6	1031.5	1029.0	1029.0	1029.0	1031.5	1032.9	1031.5
17.5°	1008.9	1012.9	1017.0	1014.3	1008.9	1006.3	1006.3	1006.3	1008.9	1010.2	1008.9
20°	986.4	990.3	993.0	990.3	985.0	982.3	981.0	981.0	983.7	985.0	983.7
22.5°	961.0	963.7	966.3	963.7	958.3	955.7	954.4	953.1	954.4	955.7	954.4
25°	933.1	935.7	938.4	935.7	930.4	926.4	925.1	923.8	925.1	925.1	925.1
27.5°	905.1	906.4	909.1	905.1	899.8	895.8	894.4	893.1	894.4	894.4	894.4
30°	873.1	874.5	877.2	873.1	866.5	862.5	861.2	859.9	859.9	859.9	859.9
32.5°	839.9	842.5	845.2	839.9	833.2	829.2	828.0	826.6	828.0	828.0	828.0
35°	805.3	806.7	809.3	805.3	798.6	794.7	792.0	790.6	793.3	794.7	793.3
37.5°	772.0	773.4	774.7	770.7	764.1	760.0	757.4	756.0	754.7	754.7	754.7
40°	734.7	736.1	738.7	734.7	728.1	724.1	721.5	720.1	720.1	720.1	720.1
42.5°	698.8	700.2	701.5	697.5	690.9	686.8	684.1	682.8	684.1	684.1	684.1
45°	661.5	661.5	662.8	658.9	653.5	649.5	646.9	645.6	645.6	645.6	645.6
47.5°	622.9	624.3	625.6	621.6	616.3	612.3	609.6	607.0	607.0	607.0	607.0
50°	584.4	584.4	585.7	581.7	576.3	572.4	571.0	569.7	568.3	568.3	568.3
52.5°	544.4	545.7	547.0	543.1	539.1	535.1	532.5	531.1	531.1	531.1	531.1
55°	504.5	504.5	505.8	503.1	499.2	495.1	492.5	491.1	492.5	492.5	492.5
57.5°	464.5	465.9	467.2	463.2	459.2	455.2	453.9	452.5	452.5	452.5	452.5
60°	424.6	424.6	426.0	423.3	419.3	415.3	414.0	412.6	412.6	412.6	412.6
62.5°	384.7	384.7	386.0	383.4	379.3	375.3	374.1	372.7	372.7	372.7	372.7
65°	343.4	343.4	343.4	340.8	338.1	336.7	335.4	334.1	332.7	332.7	332.7
67.5°	298.2	298.2	299.5	296.8	294.2	292.8	291.5	290.2	288.9	288.9	288.9
70°	256.9	256.9	258.3	256.9	254.2	252.9	251.6	250.2	248.9	248.9	248.9
72.5°	216.9	216.9	216.9	215.7	214.3	213.0	211.6	210.3	209.0	209.0	209.0
75°	175.7	175.7	177.0	175.7	174.4	173.1	171.7	171.7	170.4	170.4	170.4
77.5°	137.1	138.4	139.8	138.4	137.1	135.8	134.4	134.4	133.1	133.1	133.1
80°	101.1	102.5	103.8	102.5	101.1	99.9	98.5	98.5	98.5	98.5	98.5
82.5°	67.9	69.2	70.5	69.2	67.9	67.9	66.6	66.6	66.6	66.6	66.6
85°	38.6	39.9	41.3	41.3	39.9	39.9	38.6	38.6	38.6	38.6	38.6
87.5°	14.7	16.0	17.3	17.3	16.0	16.0	16.0	16.0	16.0	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



TEST NUMBER: P

CATALOG NUMBER: 4APN-X-42L930-UNV-NP

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2
2.5°	1087.5	1087.5	1086.1	1088.8	1092.8	1094.1	1088.8	1083.5	1088.8	1094.1	1092.8
5°	1082.2	1082.2	1082.2	1083.5	1087.5	1088.8	1084.8	1079.5	1084.8	1088.8	1087.5
7.5°	1075.5	1074.1	1074.1	1075.5	1079.5	1080.9	1076.8	1072.8	1076.8	1080.9	1079.5
10°	1060.9	1060.9	1060.9	1063.5	1067.5	1070.2	1066.2	1060.9	1066.2	1070.2	1067.5
12.5°	1046.2	1046.2	1046.2	1048.9	1052.8	1054.2	1050.3	1046.2	1050.3	1054.2	1052.8
15°	1029.0	1029.0	1029.0	1031.5	1035.6	1036.9	1032.9	1029.0	1032.9	1036.9	1035.6
17.5°	1006.3	1006.3	1006.3	1008.9	1014.3	1017.0	1012.9	1008.9	1012.9	1017.0	1014.3
20°	981.0	981.0	982.3	985.0	990.3	993.0	990.3	986.4	990.3	993.0	990.3
22.5°	953.1	954.4	955.7	958.3	963.7	966.3	963.7	961.0	963.7	966.3	963.7
25°	923.8	925.1	926.4	930.4	935.7	938.4	935.7	933.1	935.7	938.4	935.7
27.5°	893.1	894.4	895.8	899.8	905.1	909.1	906.4	905.1	906.4	909.1	905.1
30°	859.9	861.2	862.5	866.5	873.1	877.2	874.5	873.1	874.5	877.2	873.1
32.5°	826.6	828.0	829.2	833.2	839.9	845.2	842.5	839.9	842.5	845.2	839.9
35°	790.6	792.0	794.7	798.6	805.3	809.3	806.7	805.3	806.7	809.3	805.3
37.5°	756.0	757.4	760.0	764.1	770.7	774.7	773.4	772.0	773.4	774.7	770.7
40°	720.1	721.5	724.1	728.1	734.7	738.7	736.1	734.7	736.1	738.7	734.7
42.5°	682.8	684.1	686.8	690.9	697.5	701.5	700.2	698.8	700.2	701.5	697.5
45°	645.6	646.9	649.5	653.5	658.9	662.8	661.5	661.5	661.5	662.8	658.9
47.5°	607.0	609.6	612.3	616.3	621.6	625.6	624.3	622.9	624.3	625.6	621.6
50°	569.7	571.0	572.4	576.3	581.7	585.7	584.4	584.4	584.4	585.7	581.7
52.5°	531.1	532.5	535.1	539.1	543.1	547.0	545.7	544.4	545.7	547.0	543.1
55°	491.1	492.5	495.1	499.2	503.1	505.8	504.5	504.5	504.5	505.8	503.1
57.5°	452.5	453.9	455.2	459.2	463.2	467.2	465.9	464.5	465.9	467.2	463.2
60°	412.6	414.0	415.3	419.3	423.3	426.0	424.6	424.6	424.6	426.0	423.3
62.5°	372.7	374.1	375.3	379.3	383.4	386.0	384.7	384.7	384.7	386.0	383.4
65°	334.1	335.4	336.7	338.1	340.8	343.4	343.4	343.4	343.4	343.4	340.8
67.5°	290.2	291.5	292.8	294.2	296.8	299.5	298.2	298.2	298.2	299.5	296.8
70°	250.2	251.6	252.9	254.2	256.9	258.3	256.9	256.9	256.9	258.3	256.9
72.5°	210.3	211.6	213.0	214.3	215.7	216.9	216.9	216.9	216.9	216.9	215.7
75°	171.7	171.7	173.1	174.4	175.7	177.0	175.7	175.7	175.7	177.0	175.7
77.5°	134.4	134.4	135.8	137.1	138.4	139.8	138.4	137.1	138.4	139.8	138.4
80°	98.5	98.5	99.9	101.1	102.5	103.8	102.5	101.1	102.5	103.8	102.5
82.5°	66.6	66.6	67.9	67.9	69.2	70.5	69.2	67.9	69.2	70.5	69.2
85°	38.6	38.6	39.9	39.9	41.3	41.3	39.9	38.6	39.9	41.3	41.3
87.5°	16.0	16.0	16.0	16.0	17.3	17.3	16.0	14.7	16.0	17.3	17.3
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-42L930-UNV-NP

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2	1090.2
2.5°	1088.8	1086.1	1087.5	1087.5	1088.8	1088.8	1088.8	1087.5	1087.5	1086.1	1088.8
5°	1083.5	1082.2	1082.2	1082.2	1084.8	1087.5	1084.8	1082.2	1082.2	1082.2	1083.5
7.5°	1075.5	1074.1	1074.1	1075.5	1078.2	1080.9	1078.2	1075.5	1074.1	1074.1	1075.5
10°	1063.5	1060.9	1060.9	1060.9	1063.5	1066.2	1063.5	1060.9	1060.9	1060.9	1063.5
12.5°	1048.9	1046.2	1046.2	1046.2	1048.9	1051.5	1048.9	1046.2	1046.2	1046.2	1048.9
15°	1031.5	1029.0	1029.0	1029.0	1031.5	1032.9	1031.5	1029.0	1029.0	1029.0	1031.5
17.5°	1008.9	1006.3	1006.3	1006.3	1008.9	1010.2	1008.9	1006.3	1006.3	1006.3	1008.9
20°	985.0	982.3	981.0	981.0	983.7	985.0	983.7	981.0	981.0	982.3	985.0
22.5°	958.3	955.7	954.4	953.1	954.4	955.7	954.4	953.1	954.4	955.7	958.3
25°	930.4	926.4	925.1	923.8	925.1	925.1	925.1	923.8	925.1	926.4	930.4
27.5°	899.8	895.8	894.4	893.1	894.4	894.4	894.4	893.1	894.4	895.8	899.8
30°	866.5	862.5	861.2	859.9	859.9	859.9	859.9	859.9	861.2	862.5	866.5
32.5°	833.2	829.2	828.0	826.6	828.0	828.0	828.0	826.6	828.0	829.2	833.2
35°	798.6	794.7	792.0	790.6	793.3	794.7	793.3	790.6	792.0	794.7	798.6
37.5°	764.1	760.0	757.4	756.0	754.7	754.7	754.7	756.0	757.4	760.0	764.1
40°	728.1	724.1	721.5	720.1	720.1	720.1	720.1	720.1	721.5	724.1	728.1
42.5°	690.9	686.8	684.1	682.8	684.1	684.1	684.1	682.8	684.1	686.8	690.9
45°	653.5	649.5	646.9	645.6	645.6	645.6	645.6	645.6	646.9	649.5	653.5
47.5°	616.3	612.3	609.6	607.0	607.0	607.0	607.0	607.0	609.6	612.3	616.3
50°	576.3	572.4	571.0	569.7	568.3	568.3	568.3	569.7	571.0	572.4	576.3
52.5°	539.1	535.1	532.5	531.1	531.1	531.1	531.1	531.1	532.5	535.1	539.1
55°	499.2	495.1	492.5	491.1	492.5	492.5	492.5	491.1	492.5	495.1	499.2
57.5°	459.2	455.2	453.9	452.5	452.5	452.5	452.5	452.5	453.9	455.2	459.2
60°	419.3	415.3	414.0	412.6	412.6	412.6	412.6	412.6	414.0	415.3	419.3
62.5°	379.3	375.3	374.1	372.7	372.7	372.7	372.7	372.7	374.1	375.3	379.3
65°	338.1	336.7	335.4	334.1	332.7	332.7	332.7	334.1	335.4	336.7	338.1
67.5°	294.2	292.8	291.5	290.2	288.9	288.9	288.9	290.2	291.5	292.8	294.2
70°	254.2	252.9	251.6	250.2	248.9	248.9	248.9	250.2	251.6	252.9	254.2
72.5°	214.3	213.0	211.6	210.3	209.0	209.0	209.0	210.3	211.6	213.0	214.3
75°	174.4	173.1	171.7	171.7	170.4	170.4	170.4	171.7	171.7	173.1	174.4
77.5°	137.1	135.8	134.4	134.4	133.1	133.1	133.1	134.4	134.4	135.8	137.1
80°	101.1	99.9	98.5	98.5	98.5	98.5	98.5	98.5	98.5	99.9	101.1
82.5°	67.9	67.9	66.6	66.6	66.6	66.6	66.6	66.6	66.6	67.9	67.9
85°	39.9	39.9	38.6	38.6	38.6	38.6	38.6	38.6	38.6	39.9	39.9
87.5°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	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



TEST NUMBER: P
 CATALOG NUMBER: 4APN-X-42L930-UNV-NP

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1090.2	1090.2	1090.2	1090.2
2.5°	1092.8	1094.1	1088.8	1083.5
5°	1087.5	1088.8	1084.8	1079.5
7.5°	1079.5	1080.9	1076.8	1072.8
10°	1067.5	1070.2	1066.2	1060.9
12.5°	1052.8	1054.2	1050.3	1046.2
15°	1035.6	1036.9	1032.9	1029.0
17.5°	1014.3	1017.0	1012.9	1008.9
20°	990.3	993.0	990.3	986.4
22.5°	963.7	966.3	963.7	961.0
25°	935.7	938.4	935.7	933.1
27.5°	905.1	909.1	906.4	905.1
30°	873.1	877.2	874.5	873.1
32.5°	839.9	845.2	842.5	839.9
35°	805.3	809.3	806.7	805.3
37.5°	770.7	774.7	773.4	772.0
40°	734.7	738.7	736.1	734.7
42.5°	697.5	701.5	700.2	698.8
45°	658.9	662.8	661.5	661.5
47.5°	621.6	625.6	624.3	622.9
50°	581.7	585.7	584.4	584.4
52.5°	543.1	547.0	545.7	544.4
55°	503.1	505.8	504.5	504.5
57.5°	463.2	467.2	465.9	464.5
60°	423.3	426.0	424.6	424.6
62.5°	383.4	386.0	384.7	384.7
65°	340.8	343.4	343.4	343.4
67.5°	296.8	299.5	298.2	298.2
70°	256.9	258.3	256.9	256.9
72.5°	215.7	216.9	216.9	216.9
75°	175.7	177.0	175.7	175.7
77.5°	138.4	139.8	138.4	137.1
80°	102.5	103.8	102.5	101.1
82.5°	69.2	70.5	69.2	67.9
85°	41.3	41.3	39.9	38.6
87.5°	17.3	17.3	16.0	14.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)