

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: P709098

Luminaire Tested: **4APN-X-34L940-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709098
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APN-X-34L940-UNV
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

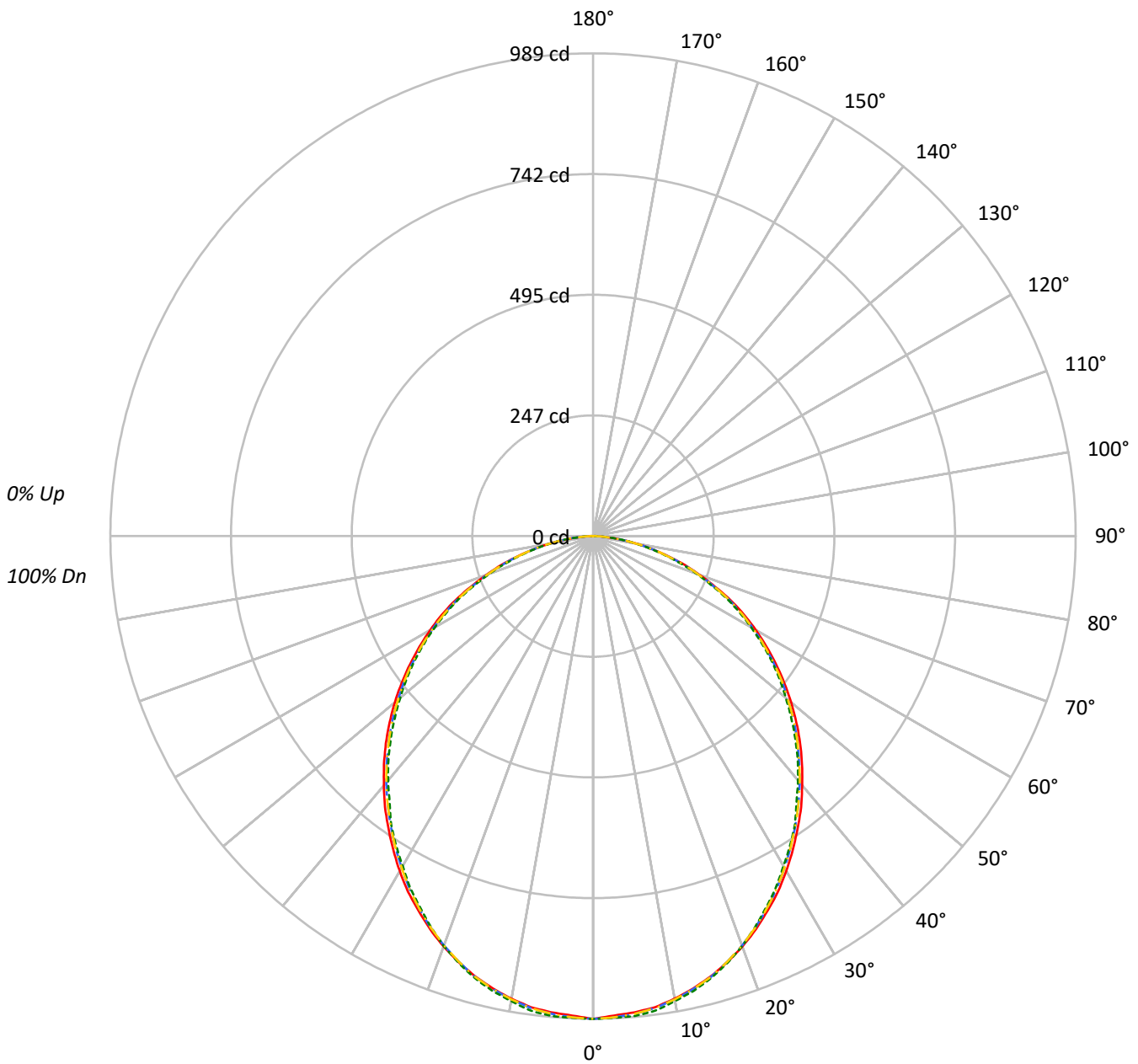
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2573.6 lumens
Efficiency: N/A
Efficacy: 69.9 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 (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°	9127	9127	9127	9127
5°	9072	9139	9072	9139
10°	9018	9064	9018	9064
15°	8917	8953	8917	8953
20°	8787	8776	8787	8776
25°	8619	8545	8619	8545
30°	8441	8313	8441	8313
35°	8230	8122	8230	8122
40°	8030	7870	8030	7870
45°	7833	7643	7833	7643
50°	7610	7402	7610	7402
55°	7364	7189	7364	7189
60°	7110	6909	7110	6909
65°	6803	6593	6803	6593
70°	6288	6094	6288	6094
75°	5682	5511	5682	5511
80°	4877	4750	4877	4750
85°	3705	3705	3705	3705



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	3.6
10°-20°	263.7	10.2
20°-30°	388.6	15.1
30°-40°	453.6	17.6
40°-50°	457.4	17.8
50°-60°	404.2	15.7
60°-70°	302.3	11.7
70°-80°	167.6	6.5
80°-90°	43.0	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°	745.6	29.0
0°-40°	1199.3	46.6
0°-60°	2060.8	80.1
0°-90°	2573.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2573.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	989	989	989	989	989	
5°	980	987	980	987	980	93
15°	934	937	934	937	934	263
25°	847	839	847	839	847	390
35°	731	721	731	721	731	457
45°	600	586	600	586	600	463
55°	458	447	458	447	458	409
65°	312	302	312	302	312	307
75°	159	155	159	155	159	170
85°	35	35	35	35	35	42
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°	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2
2.5°	983.2	988.0	992.8	991.6	988.0	985.6	986.8	986.8	988.0	988.0	988.0
5°	979.5	984.4	988.0	986.8	983.2	982.0	982.0	982.0	984.4	986.8	984.4
7.5°	973.5	977.1	980.7	979.5	975.9	974.7	974.7	975.9	978.3	980.7	978.3
10°	962.6	967.5	971.1	968.7	965.0	962.6	962.6	962.6	965.0	967.5	965.0
12.5°	949.3	953.0	956.6	955.4	951.8	949.3	949.3	949.3	951.8	954.2	951.8
15°	933.6	937.3	940.9	939.7	936.1	933.6	933.6	933.6	936.1	937.3	936.1
17.5°	915.5	919.2	922.8	920.4	915.5	913.1	913.1	913.1	915.5	916.7	915.5
20°	895.0	898.6	901.0	898.6	893.8	891.4	890.2	890.2	892.6	893.8	892.6
22.5°	872.0	874.5	876.9	874.5	869.6	867.2	866.0	864.8	866.0	867.2	866.0
25°	846.7	849.1	851.5	849.1	844.3	840.6	839.4	838.2	839.4	839.4	839.4
27.5°	821.3	822.5	824.9	821.3	816.5	812.9	811.7	810.4	811.7	811.7	811.7
30°	792.3	793.5	796.0	792.3	786.3	782.7	781.5	780.3	780.3	780.3	780.3
32.5°	762.1	764.5	767.0	762.1	756.1	752.5	751.3	750.1	751.3	751.3	751.3
35°	730.7	731.9	734.4	730.7	724.7	721.1	718.7	717.4	719.9	721.1	719.9
37.5°	700.5	701.7	703.0	699.3	693.3	689.7	687.2	686.0	684.8	684.8	684.8
40°	666.7	667.9	670.3	666.7	660.7	657.1	654.6	653.4	653.4	653.4	653.4
42.5°	634.1	635.3	636.5	632.9	626.9	623.2	620.8	619.6	620.8	620.8	620.8
45°	600.3	600.3	601.5	597.9	593.0	589.4	587.0	585.8	585.8	585.8	585.8
47.5°	565.3	566.5	567.7	564.1	559.2	555.6	553.2	550.8	550.8	550.8	550.8
50°	530.2	530.2	531.4	527.8	523.0	519.4	518.2	516.9	515.7	515.7	515.7
52.5°	494.0	495.2	496.4	492.8	489.2	485.5	483.1	481.9	481.9	481.9	481.9
55°	457.8	457.8	459.0	456.6	452.9	449.3	446.9	445.7	446.9	446.9	446.9
57.5°	421.5	422.7	423.9	420.3	416.7	413.1	411.9	410.7	410.7	410.7	410.7
60°	385.3	385.3	386.5	384.1	380.5	376.8	375.6	374.4	374.4	374.4	374.4
62.5°	349.1	349.1	350.3	347.9	344.2	340.6	339.4	338.2	338.2	338.2	338.2
65°	311.6	311.6	311.6	309.2	306.8	305.6	304.4	303.2	302.0	302.0	302.0
67.5°	270.6	270.6	271.8	269.3	266.9	265.7	264.5	263.3	262.1	262.1	262.1
70°	233.1	233.1	234.3	233.1	230.7	229.5	228.3	227.1	225.9	225.9	225.9
72.5°	196.9	196.9	196.9	195.7	194.5	193.3	192.0	190.8	189.6	189.6	189.6
75°	159.4	159.4	160.6	159.4	158.2	157.0	155.8	155.8	154.6	154.6	154.6
77.5°	124.4	125.6	126.8	125.6	124.4	123.2	122.0	122.0	120.8	120.8	120.8
80°	91.8	93.0	94.2	93.0	91.8	90.6	89.4	89.4	89.4	89.4	89.4
82.5°	61.6	62.8	64.0	62.8	61.6	61.6	60.4	60.4	60.4	60.4	60.4
85°	35.0	36.2	37.4	37.4	36.2	36.2	35.0	35.0	35.0	35.0	35.0
87.5°	13.3	14.5	15.7	15.7	14.5	14.5	14.5	14.5	14.5	14.5	14.5
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°	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2
2.5°	986.8	986.8	985.6	988.0	991.6	992.8	988.0	983.2	988.0	992.8	991.6
5°	982.0	982.0	982.0	983.2	986.8	988.0	984.4	979.5	984.4	988.0	986.8
7.5°	975.9	974.7	974.7	975.9	979.5	980.7	977.1	973.5	977.1	980.7	979.5
10°	962.6	962.6	962.6	965.0	968.7	971.1	967.5	962.6	967.5	971.1	968.7
12.5°	949.3	949.3	949.3	951.8	955.4	956.6	953.0	949.3	953.0	956.6	955.4
15°	933.6	933.6	933.6	936.1	939.7	940.9	937.3	933.6	937.3	940.9	939.7
17.5°	913.1	913.1	913.1	915.5	920.4	922.8	919.2	915.5	919.2	922.8	920.4
20°	890.2	890.2	891.4	893.8	898.6	901.0	898.6	895.0	898.6	901.0	898.6
22.5°	864.8	866.0	867.2	869.6	874.5	876.9	874.5	872.0	874.5	876.9	874.5
25°	838.2	839.4	840.6	844.3	849.1	851.5	849.1	846.7	849.1	851.5	849.1
27.5°	810.4	811.7	812.9	816.5	821.3	824.9	822.5	821.3	822.5	824.9	821.3
30°	780.3	781.5	782.7	786.3	792.3	796.0	793.5	792.3	793.5	796.0	792.3
32.5°	750.1	751.3	752.5	756.1	762.1	767.0	764.5	762.1	764.5	767.0	762.1
35°	717.4	718.7	721.1	724.7	730.7	734.4	731.9	730.7	731.9	734.4	730.7
37.5°	686.0	687.2	689.7	693.3	699.3	703.0	701.7	700.5	701.7	703.0	699.3
40°	653.4	654.6	657.1	660.7	666.7	670.3	667.9	666.7	667.9	670.3	666.7
42.5°	619.6	620.8	623.2	626.9	632.9	636.5	635.3	634.1	635.3	636.5	632.9
45°	585.8	587.0	589.4	593.0	597.9	601.5	600.3	600.3	600.3	601.5	597.9
47.5°	550.8	553.2	555.6	559.2	564.1	567.7	566.5	565.3	566.5	567.7	564.1
50°	516.9	518.2	519.4	523.0	527.8	531.4	530.2	530.2	530.2	531.4	527.8
52.5°	481.9	483.1	485.5	489.2	492.8	496.4	495.2	494.0	495.2	496.4	492.8
55°	445.7	446.9	449.3	452.9	456.6	459.0	457.8	457.8	457.8	459.0	456.6
57.5°	410.7	411.9	413.1	416.7	420.3	423.9	422.7	421.5	422.7	423.9	420.3
60°	374.4	375.6	376.8	380.5	384.1	386.5	385.3	385.3	385.3	386.5	384.1
62.5°	338.2	339.4	340.6	344.2	347.9	350.3	349.1	349.1	349.1	350.3	347.9
65°	303.2	304.4	305.6	306.8	309.2	311.6	311.6	311.6	311.6	311.6	309.2
67.5°	263.3	264.5	265.7	266.9	269.3	271.8	270.6	270.6	270.6	271.8	269.3
70°	227.1	228.3	229.5	230.7	233.1	234.3	233.1	233.1	233.1	234.3	233.1
72.5°	190.8	192.0	193.3	194.5	195.7	196.9	196.9	196.9	196.9	196.9	195.7
75°	155.8	155.8	157.0	158.2	159.4	160.6	159.4	159.4	159.4	160.6	159.4
77.5°	122.0	122.0	123.2	124.4	125.6	126.8	125.6	124.4	125.6	126.8	125.6
80°	89.4	89.4	90.6	91.8	93.0	94.2	93.0	91.8	93.0	94.2	93.0
82.5°	60.4	60.4	61.6	61.6	62.8	64.0	62.8	61.6	62.8	64.0	62.8
85°	35.0	35.0	36.2	36.2	37.4	37.4	36.2	35.0	36.2	37.4	37.4
87.5°	14.5	14.5	14.5	14.5	15.7	15.7	14.5	13.3	14.5	15.7	15.7
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°	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2	989.2
2.5°	988.0	985.6	986.8	986.8	988.0	988.0	988.0	986.8	986.8	985.6	988.0
5°	983.2	982.0	982.0	982.0	984.4	986.8	984.4	982.0	982.0	982.0	983.2
7.5°	975.9	974.7	974.7	975.9	978.3	980.7	978.3	975.9	974.7	974.7	975.9
10°	965.0	962.6	962.6	962.6	965.0	967.5	965.0	962.6	962.6	962.6	965.0
12.5°	951.8	949.3	949.3	949.3	951.8	954.2	951.8	949.3	949.3	949.3	951.8
15°	936.1	933.6	933.6	933.6	936.1	937.3	936.1	933.6	933.6	933.6	936.1
17.5°	915.5	913.1	913.1	913.1	915.5	916.7	915.5	913.1	913.1	913.1	915.5
20°	893.8	891.4	890.2	890.2	892.6	893.8	892.6	890.2	890.2	891.4	893.8
22.5°	869.6	867.2	866.0	864.8	866.0	867.2	866.0	864.8	866.0	867.2	869.6
25°	844.3	840.6	839.4	838.2	839.4	839.4	839.4	838.2	839.4	840.6	844.3
27.5°	816.5	812.9	811.7	810.4	811.7	811.7	811.7	810.4	811.7	812.9	816.5
30°	786.3	782.7	781.5	780.3	780.3	780.3	780.3	780.3	781.5	782.7	786.3
32.5°	756.1	752.5	751.3	750.1	751.3	751.3	751.3	750.1	751.3	752.5	756.1
35°	724.7	721.1	718.7	717.4	719.9	721.1	719.9	717.4	718.7	721.1	724.7
37.5°	693.3	689.7	687.2	686.0	684.8	684.8	684.8	686.0	687.2	689.7	693.3
40°	660.7	657.1	654.6	653.4	653.4	653.4	653.4	653.4	654.6	657.1	660.7
42.5°	626.9	623.2	620.8	619.6	620.8	620.8	620.8	619.6	620.8	623.2	626.9
45°	593.0	589.4	587.0	585.8	585.8	585.8	585.8	585.8	587.0	589.4	593.0
47.5°	559.2	555.6	553.2	550.8	550.8	550.8	550.8	550.8	553.2	555.6	559.2
50°	523.0	519.4	518.2	516.9	515.7	515.7	515.7	516.9	518.2	519.4	523.0
52.5°	489.2	485.5	483.1	481.9	481.9	481.9	481.9	481.9	483.1	485.5	489.2
55°	452.9	449.3	446.9	445.7	446.9	446.9	446.9	445.7	446.9	449.3	452.9
57.5°	416.7	413.1	411.9	410.7	410.7	410.7	410.7	410.7	411.9	413.1	416.7
60°	380.5	376.8	375.6	374.4	374.4	374.4	374.4	374.4	375.6	376.8	380.5
62.5°	344.2	340.6	339.4	338.2	338.2	338.2	338.2	338.2	339.4	340.6	344.2
65°	306.8	305.6	304.4	303.2	302.0	302.0	302.0	303.2	304.4	305.6	306.8
67.5°	266.9	265.7	264.5	263.3	262.1	262.1	262.1	263.3	264.5	265.7	266.9
70°	230.7	229.5	228.3	227.1	225.9	225.9	225.9	227.1	228.3	229.5	230.7
72.5°	194.5	193.3	192.0	190.8	189.6	189.6	189.6	190.8	192.0	193.3	194.5
75°	158.2	157.0	155.8	155.8	154.6	154.6	154.6	155.8	155.8	157.0	158.2
77.5°	124.4	123.2	122.0	122.0	120.8	120.8	120.8	122.0	122.0	123.2	124.4
80°	91.8	90.6	89.4	89.4	89.4	89.4	89.4	89.4	89.4	90.6	91.8
82.5°	61.6	61.6	60.4	60.4	60.4	60.4	60.4	60.4	60.4	61.6	61.6
85°	36.2	36.2	35.0	35.0	35.0	35.0	35.0	35.0	35.0	36.2	36.2
87.5°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
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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 CATALOG NUMBER: 4APN-X-34L940-UNV

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	989.2	989.2	989.2	989.2
2.5°	991.6	992.8	988.0	983.2
5°	986.8	988.0	984.4	979.5
7.5°	979.5	980.7	977.1	973.5
10°	968.7	971.1	967.5	962.6
12.5°	955.4	956.6	953.0	949.3
15°	939.7	940.9	937.3	933.6
17.5°	920.4	922.8	919.2	915.5
20°	898.6	901.0	898.6	895.0
22.5°	874.5	876.9	874.5	872.0
25°	849.1	851.5	849.1	846.7
27.5°	821.3	824.9	822.5	821.3
30°	792.3	796.0	793.5	792.3
32.5°	762.1	767.0	764.5	762.1
35°	730.7	734.4	731.9	730.7
37.5°	699.3	703.0	701.7	700.5
40°	666.7	670.3	667.9	666.7
42.5°	632.9	636.5	635.3	634.1
45°	597.9	601.5	600.3	600.3
47.5°	564.1	567.7	566.5	565.3
50°	527.8	531.4	530.2	530.2
52.5°	492.8	496.4	495.2	494.0
55°	456.6	459.0	457.8	457.8
57.5°	420.3	423.9	422.7	421.5
60°	384.1	386.5	385.3	385.3
62.5°	347.9	350.3	349.1	349.1
65°	309.2	311.6	311.6	311.6
67.5°	269.3	271.8	270.6	270.6
70°	233.1	234.3	233.1	233.1
72.5°	195.7	196.9	196.9	196.9
75°	159.4	160.6	159.4	159.4
77.5°	125.6	126.8	125.6	124.4
80°	93.0	94.2	93.0	91.8
82.5°	62.8	64.0	62.8	61.6
85°	37.4	37.4	36.2	35.0
87.5°	15.7	15.7	14.5	13.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)