

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-37L935-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-37L935-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

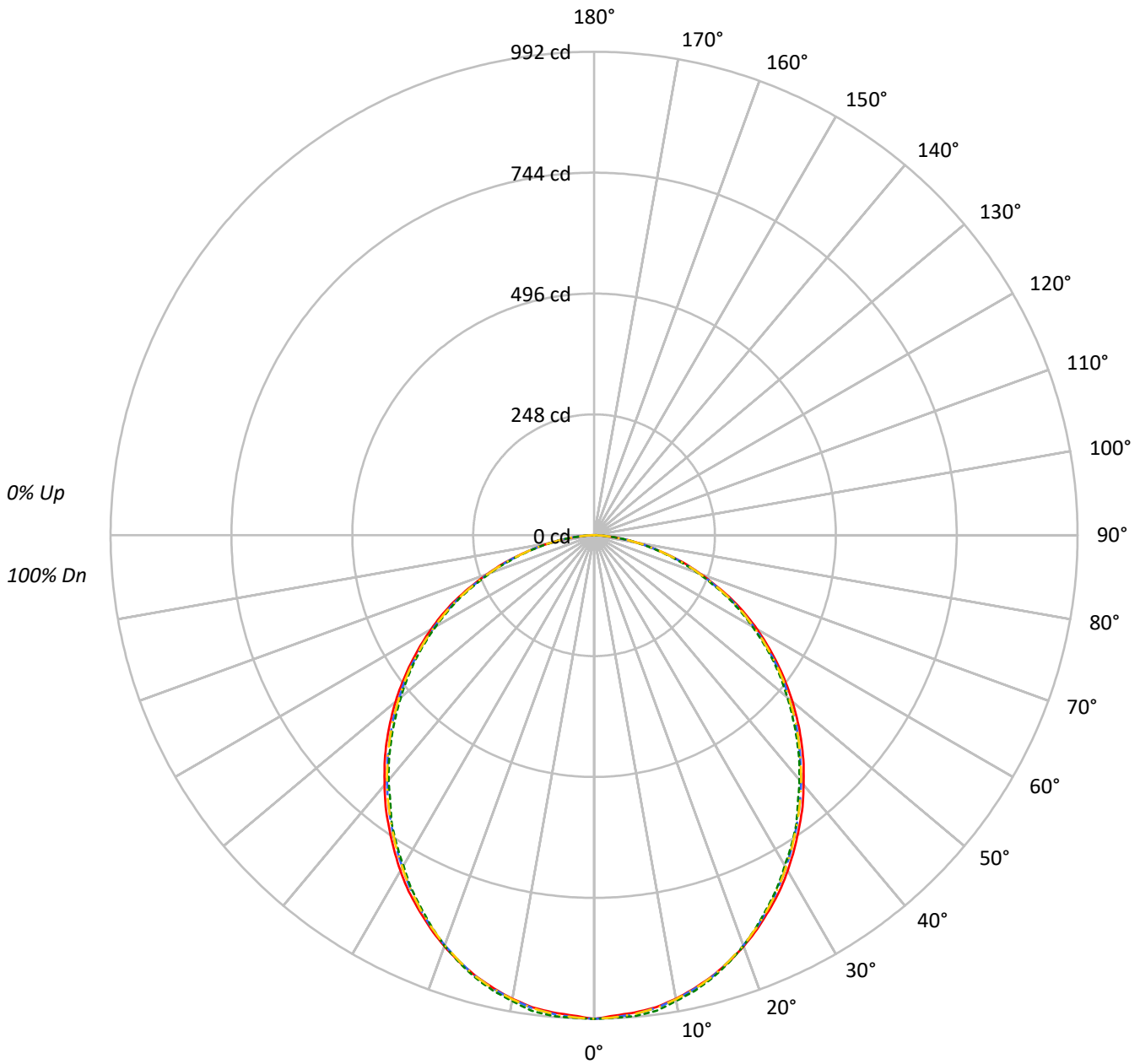
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2581.5 lumens
Efficiency: N/A
Efficacy: 63.3 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 (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% Up
100% Dn

— 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	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°	9155	9155	9155	9155
5°	9100	9167	9100	9167
10°	9046	9091	9046	9091
15°	8945	8980	8945	8980
20°	8815	8803	8815	8803
25°	8646	8572	8646	8572
30°	8467	8337	8467	8337
35°	8256	8147	8256	8147
40°	8054	7894	8054	7894
45°	7857	7667	7857	7667
50°	7633	7425	7633	7425
55°	7386	7211	7386	7211
60°	7132	6929	7132	6929
65°	6824	6613	6824	6613
70°	6307	6110	6307	6110
75°	5700	5529	5700	5529
80°	4893	4761	4893	4761
85°	3716	3716	3716	3716



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	3.6
10°-20°	264.5	10.2
20°-30°	389.8	15.1
30°-40°	455.0	17.6
40°-50°	458.8	17.8
50°-60°	405.5	15.7
60°-70°	303.2	11.7
70°-80°	168.1	6.5
80°-90°	43.1	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°	747.9	29.0
0°-40°	1202.9	46.6
0°-60°	2067.1	80.1
0°-90°	2581.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2581.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	992	992	992	992	992	
5°	983	990	983	990	983	93
15°	936	940	936	940	936	264
25°	849	842	849	842	849	391
35°	733	723	733	723	733	459
45°	602	588	602	588	602	464
55°	459	448	459	448	459	411
65°	313	303	313	303	313	308
75°	160	155	160	155	160	170
85°	35	35	35	35	35	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°	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3
2.5°	986.2	991.1	995.9	994.7	991.1	988.6	989.8	989.8	991.1	991.1	991.1
5°	982.6	987.4	991.1	989.8	986.2	985.0	985.0	985.0	987.4	989.8	987.4
7.5°	976.5	980.1	983.8	982.6	978.9	977.7	977.7	978.9	981.3	983.8	981.3
10°	965.6	970.4	974.1	971.6	968.0	965.6	965.6	965.6	968.0	970.4	968.0
12.5°	952.2	955.8	959.5	958.3	954.6	952.2	952.2	952.2	954.6	957.1	954.6
15°	936.5	940.2	943.8	942.6	939.0	936.5	936.5	936.5	939.0	940.2	939.0
17.5°	918.3	922.0	925.6	923.2	918.3	915.9	915.9	915.9	918.3	919.5	918.3
20°	897.8	901.3	903.7	901.3	896.6	894.1	892.9	892.9	895.3	896.6	895.3
22.5°	874.7	877.1	879.6	877.1	872.3	869.9	868.6	867.4	868.6	869.9	868.6
25°	849.3	851.7	854.1	851.7	846.9	843.2	842.0	840.8	842.0	842.0	842.0
27.5°	823.8	825.0	827.5	823.8	819.0	815.3	814.1	812.9	814.1	814.1	814.1
30°	794.8	796.0	798.4	794.8	788.7	785.1	783.9	782.6	782.6	782.6	782.6
32.5°	764.4	766.9	769.3	764.4	758.4	754.7	753.6	752.4	753.6	753.6	753.6
35°	733.0	734.2	736.6	733.0	726.9	723.3	720.8	719.6	722.0	723.3	722.0
37.5°	702.7	703.9	705.1	701.5	695.4	691.8	689.4	688.2	686.9	686.9	686.9
40°	668.7	669.9	672.4	668.7	662.7	659.0	656.6	655.4	655.4	655.4	655.4
42.5°	636.1	637.3	638.5	634.8	628.8	625.1	622.7	621.5	622.7	622.7	622.7
45°	602.2	602.2	603.4	599.7	594.9	591.2	588.8	587.6	587.6	587.6	587.6
47.5°	567.0	568.2	569.4	565.7	560.9	557.3	554.9	552.5	552.5	552.5	552.5
50°	531.8	531.8	533.1	529.4	524.6	520.9	519.7	518.5	517.3	517.3	517.3
52.5°	495.5	496.7	498.0	494.3	490.7	487.0	484.6	483.4	483.4	483.4	483.4
55°	459.2	459.2	460.4	458.0	454.4	450.7	448.3	447.1	448.3	448.3	448.3
57.5°	422.8	424.0	425.2	421.6	417.9	414.3	413.1	411.9	411.9	411.9	411.9
60°	386.5	386.5	387.7	385.3	381.6	378.0	376.8	375.5	375.5	375.5	375.5
62.5°	350.1	350.1	351.4	348.9	345.3	341.6	340.4	339.2	339.2	339.2	339.2
65°	312.6	312.6	312.6	310.2	307.8	306.5	305.3	304.1	302.9	302.9	302.9
67.5°	271.3	271.3	272.6	270.1	267.7	266.6	265.4	264.2	262.9	262.9	262.9
70°	233.8	233.8	235.0	233.8	231.4	230.2	228.9	227.7	226.5	226.5	226.5
72.5°	197.5	197.5	197.5	196.3	195.1	193.8	192.6	191.4	190.2	190.2	190.2
75°	159.9	159.9	161.2	159.9	158.7	157.5	156.3	156.3	155.1	155.1	155.1
77.5°	124.7	126.0	127.2	126.0	124.7	123.5	122.3	122.3	121.2	121.2	121.2
80°	92.1	93.3	94.5	93.3	92.1	90.9	89.6	89.6	89.6	89.6	89.6
82.5°	61.8	63.0	64.2	63.0	61.8	61.8	60.6	60.6	60.6	60.6	60.6
85°	35.1	36.3	37.5	37.5	36.3	36.3	35.1	35.1	35.1	35.1	35.1
87.5°	13.4	14.6	15.8	15.8	14.6	14.6	14.6	14.6	14.6	14.6	14.6
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3
2.5°	989.8	989.8	988.6	991.1	994.7	995.9	991.1	986.2	991.1	995.9	994.7
5°	985.0	985.0	985.0	986.2	989.8	991.1	987.4	982.6	987.4	991.1	989.8
7.5°	978.9	977.7	977.7	978.9	982.6	983.8	980.1	976.5	980.1	983.8	982.6
10°	965.6	965.6	965.6	968.0	971.6	974.1	970.4	965.6	970.4	974.1	971.6
12.5°	952.2	952.2	952.2	954.6	958.3	959.5	955.8	952.2	955.8	959.5	958.3
15°	936.5	936.5	936.5	939.0	942.6	943.8	940.2	936.5	940.2	943.8	942.6
17.5°	915.9	915.9	915.9	918.3	923.2	925.6	922.0	918.3	922.0	925.6	923.2
20°	892.9	892.9	894.1	896.6	901.3	903.7	901.3	897.8	901.3	903.7	901.3
22.5°	867.4	868.6	869.9	872.3	877.1	879.6	877.1	874.7	877.1	879.6	877.1
25°	840.8	842.0	843.2	846.9	851.7	854.1	851.7	849.3	851.7	854.1	851.7
27.5°	812.9	814.1	815.3	819.0	823.8	827.5	825.0	823.8	825.0	827.5	823.8
30°	782.6	783.9	785.1	788.7	794.8	798.4	796.0	794.8	796.0	798.4	794.8
32.5°	752.4	753.6	754.7	758.4	764.4	769.3	766.9	764.4	766.9	769.3	764.4
35°	719.6	720.8	723.3	726.9	733.0	736.6	734.2	733.0	734.2	736.6	733.0
37.5°	688.2	689.4	691.8	695.4	701.5	705.1	703.9	702.7	703.9	705.1	701.5
40°	655.4	656.6	659.0	662.7	668.7	672.4	669.9	668.7	669.9	672.4	668.7
42.5°	621.5	622.7	625.1	628.8	634.8	638.5	637.3	636.1	637.3	638.5	634.8
45°	587.6	588.8	591.2	594.9	599.7	603.4	602.2	602.2	602.2	603.4	599.7
47.5°	552.5	554.9	557.3	560.9	565.7	569.4	568.2	567.0	568.2	569.4	565.7
50°	518.5	519.7	520.9	524.6	529.4	533.1	531.8	531.8	531.8	533.1	529.4
52.5°	483.4	484.6	487.0	490.7	494.3	498.0	496.7	495.5	496.7	498.0	494.3
55°	447.1	448.3	450.7	454.4	458.0	460.4	459.2	459.2	459.2	460.4	458.0
57.5°	411.9	413.1	414.3	417.9	421.6	425.2	424.0	422.8	424.0	425.2	421.6
60°	375.5	376.8	378.0	381.6	385.3	387.7	386.5	386.5	386.5	387.7	385.3
62.5°	339.2	340.4	341.6	345.3	348.9	351.4	350.1	350.1	350.1	351.4	348.9
65°	304.1	305.3	306.5	307.8	310.2	312.6	312.6	312.6	312.6	312.6	310.2
67.5°	264.2	265.4	266.6	267.7	270.1	272.6	271.3	271.3	271.3	272.6	270.1
70°	227.7	228.9	230.2	231.4	233.8	235.0	233.8	233.8	233.8	235.0	233.8
72.5°	191.4	192.6	193.8	195.1	196.3	197.5	197.5	197.5	197.5	197.5	196.3
75°	156.3	156.3	157.5	158.7	159.9	161.2	159.9	159.9	159.9	161.2	159.9
77.5°	122.3	122.3	123.5	124.7	126.0	127.2	126.0	124.7	126.0	127.2	126.0
80°	89.6	89.6	90.9	92.1	93.3	94.5	93.3	92.1	93.3	94.5	93.3
82.5°	60.6	60.6	61.8	61.8	63.0	64.2	63.0	61.8	63.0	64.2	63.0
85°	35.1	35.1	36.3	36.3	37.5	37.5	36.3	35.1	36.3	37.5	37.5
87.5°	14.6	14.6	14.6	14.6	15.8	15.8	14.6	13.4	14.6	15.8	15.8
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3	992.3
2.5°	991.1	988.6	989.8	989.8	991.1	991.1	991.1	989.8	989.8	988.6	991.1
5°	986.2	985.0	985.0	985.0	987.4	989.8	987.4	985.0	985.0	985.0	986.2
7.5°	978.9	977.7	977.7	978.9	981.3	983.8	981.3	978.9	977.7	977.7	978.9
10°	968.0	965.6	965.6	965.6	968.0	970.4	968.0	965.6	965.6	965.6	968.0
12.5°	954.6	952.2	952.2	952.2	954.6	957.1	954.6	952.2	952.2	952.2	954.6
15°	939.0	936.5	936.5	936.5	939.0	940.2	939.0	936.5	936.5	936.5	939.0
17.5°	918.3	915.9	915.9	915.9	918.3	919.5	918.3	915.9	915.9	915.9	918.3
20°	896.6	894.1	892.9	892.9	895.3	896.6	895.3	892.9	892.9	894.1	896.6
22.5°	872.3	869.9	868.6	867.4	868.6	869.9	868.6	867.4	868.6	869.9	872.3
25°	846.9	843.2	842.0	840.8	842.0	842.0	842.0	840.8	842.0	843.2	846.9
27.5°	819.0	815.3	814.1	812.9	814.1	814.1	814.1	812.9	814.1	815.3	819.0
30°	788.7	785.1	783.9	782.6	782.6	782.6	782.6	782.6	783.9	785.1	788.7
32.5°	758.4	754.7	753.6	752.4	753.6	753.6	753.6	752.4	753.6	754.7	758.4
35°	726.9	723.3	720.8	719.6	722.0	723.3	722.0	719.6	720.8	723.3	726.9
37.5°	695.4	691.8	689.4	688.2	686.9	686.9	686.9	688.2	689.4	691.8	695.4
40°	662.7	659.0	656.6	655.4	655.4	655.4	655.4	655.4	656.6	659.0	662.7
42.5°	628.8	625.1	622.7	621.5	622.7	622.7	622.7	621.5	622.7	625.1	628.8
45°	594.9	591.2	588.8	587.6	587.6	587.6	587.6	587.6	588.8	591.2	594.9
47.5°	560.9	557.3	554.9	552.5	552.5	552.5	552.5	552.5	554.9	557.3	560.9
50°	524.6	520.9	519.7	518.5	517.3	517.3	517.3	518.5	519.7	520.9	524.6
52.5°	490.7	487.0	484.6	483.4	483.4	483.4	483.4	483.4	484.6	487.0	490.7
55°	454.4	450.7	448.3	447.1	448.3	448.3	448.3	447.1	448.3	450.7	454.4
57.5°	417.9	414.3	413.1	411.9	411.9	411.9	411.9	411.9	413.1	414.3	417.9
60°	381.6	378.0	376.8	375.5	375.5	375.5	375.5	375.5	376.8	378.0	381.6
62.5°	345.3	341.6	340.4	339.2	339.2	339.2	339.2	339.2	340.4	341.6	345.3
65°	307.8	306.5	305.3	304.1	302.9	302.9	302.9	304.1	305.3	306.5	307.8
67.5°	267.7	266.6	265.4	264.2	262.9	262.9	262.9	264.2	265.4	266.6	267.7
70°	231.4	230.2	228.9	227.7	226.5	226.5	226.5	227.7	228.9	230.2	231.4
72.5°	195.1	193.8	192.6	191.4	190.2	190.2	190.2	191.4	192.6	193.8	195.1
75°	158.7	157.5	156.3	156.3	155.1	155.1	155.1	156.3	156.3	157.5	158.7
77.5°	124.7	123.5	122.3	122.3	121.2	121.2	121.2	122.3	122.3	123.5	124.7
80°	92.1	90.9	89.6	89.6	89.6	89.6	89.6	89.6	89.6	90.9	92.1
82.5°	61.8	61.8	60.6	60.6	60.6	60.6	60.6	60.6	60.6	61.8	61.8
85°	36.3	36.3	35.1	35.1	35.1	35.1	35.1	35.1	35.1	36.3	36.3
87.5°	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
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):

	330°	340°	350°	360°
0°	992.3	992.3	992.3	992.3
2.5°	994.7	995.9	991.1	986.2
5°	989.8	991.1	987.4	982.6
7.5°	982.6	983.8	980.1	976.5
10°	971.6	974.1	970.4	965.6
12.5°	958.3	959.5	955.8	952.2
15°	942.6	943.8	940.2	936.5
17.5°	923.2	925.6	922.0	918.3
20°	901.3	903.7	901.3	897.8
22.5°	877.1	879.6	877.1	874.7
25°	851.7	854.1	851.7	849.3
27.5°	823.8	827.5	825.0	823.8
30°	794.8	798.4	796.0	794.8
32.5°	764.4	769.3	766.9	764.4
35°	733.0	736.6	734.2	733.0
37.5°	701.5	705.1	703.9	702.7
40°	668.7	672.4	669.9	668.7
42.5°	634.8	638.5	637.3	636.1
45°	599.7	603.4	602.2	602.2
47.5°	565.7	569.4	568.2	567.0
50°	529.4	533.1	531.8	531.8
52.5°	494.3	498.0	496.7	495.5
55°	458.0	460.4	459.2	459.2
57.5°	421.6	425.2	424.0	422.8
60°	385.3	387.7	386.5	386.5
62.5°	348.9	351.4	350.1	350.1
65°	310.2	312.6	312.6	312.6
67.5°	270.1	272.6	271.3	271.3
70°	233.8	235.0	233.8	233.8
72.5°	196.3	197.5	197.5	197.5
75°	159.9	161.2	159.9	159.9
77.5°	126.0	127.2	126.0	124.7
80°	93.3	94.5	93.3	92.1
82.5°	63.0	64.2	63.0	61.8
85°	37.5	37.5	36.3	35.1
87.5°	15.8	15.8	14.6	13.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)