

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-34L940-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-34L940-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

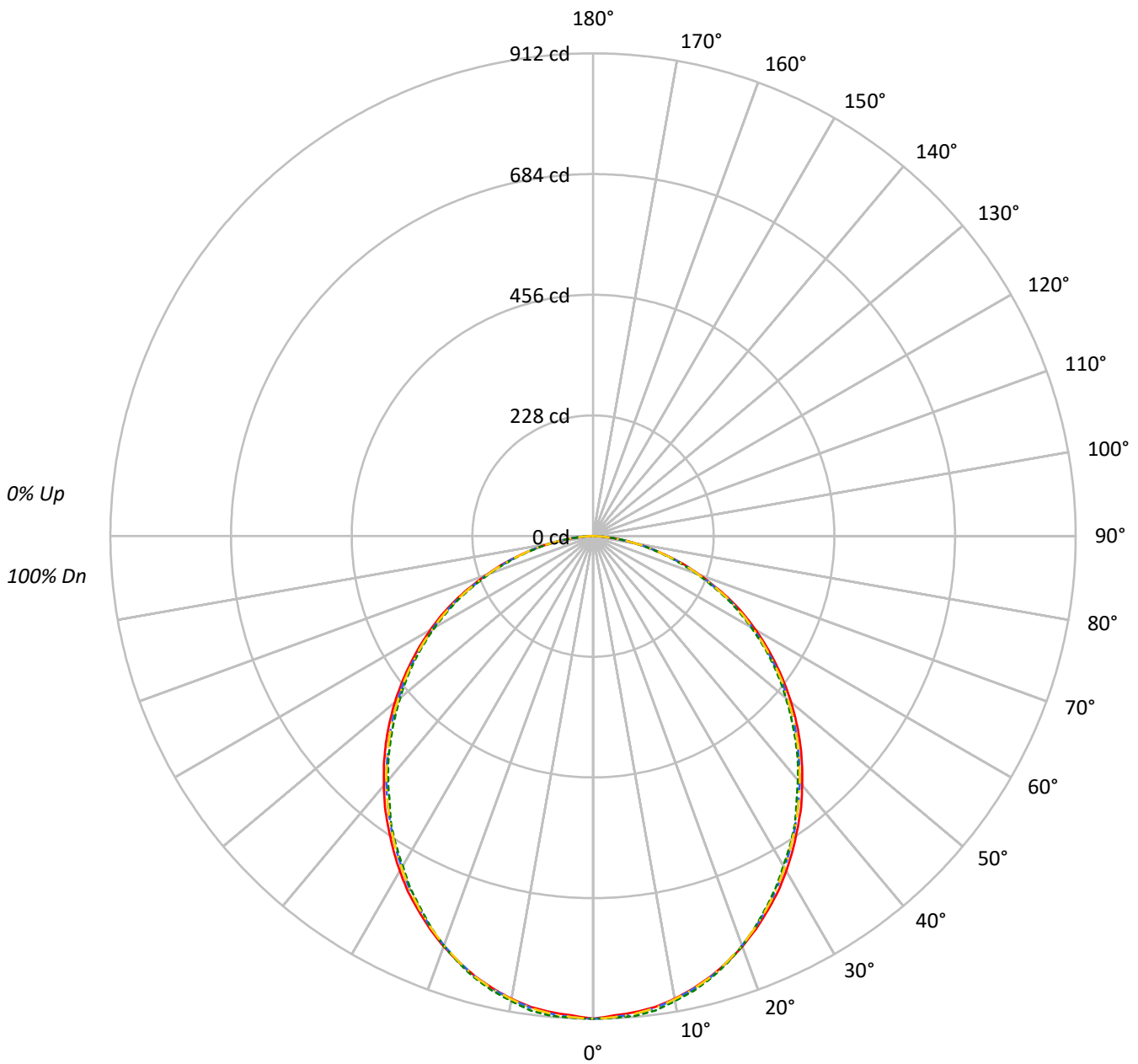
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2372.9 lumens
Efficiency: N/A
Efficacy: 64.5 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_{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	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°	8414	8414	8414	8414
5°	8364	8426	8364	8426
10°	8315	8357	8315	8357
15°	8222	8255	8222	8255
20°	8102	8091	8102	8091
25°	7948	7878	7948	7878
30°	7782	7664	7782	7664
35°	7588	7489	7588	7489
40°	7403	7255	7403	7255
45°	7222	7047	7222	7047
50°	7016	6825	7016	6825
55°	6790	6627	6790	6627
60°	6554	6370	6554	6370
65°	6272	6078	6272	6078
70°	5797	5619	5797	5619
75°	5240	5080	5240	5080
80°	4495	4378	4495	4378
85°	3419	3419	3419	3419



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.1	3.6
10°-20°	243.1	10.2
20°-30°	358.3	15.1
30°-40°	418.3	17.6
40°-50°	421.7	17.8
50°-60°	372.7	15.7
60°-70°	278.7	11.7
70°-80°	154.5	6.5
80°-90°	39.6	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°	687.5	29.0
0°-40°	1105.7	46.6
0°-60°	1900.1	80.1
0°-90°	2372.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2372.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	912	912	912	912	912	
5°	903	910	903	910	903	86
15°	861	864	861	864	861	243
25°	781	774	781	774	781	360
35°	674	665	674	665	674	422
45°	554	540	554	540	554	427
55°	422	412	422	412	422	378
65°	287	278	287	278	287	283
75°	147	142	147	142	147	156
85°	32	32	32	32	32	39
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°	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0
2.5°	906.5	910.9	915.4	914.3	910.9	908.7	909.8	909.8	910.9	910.9	910.9
5°	903.1	907.6	910.9	909.8	906.5	905.4	905.4	905.4	907.6	909.8	907.6
7.5°	897.6	900.9	904.2	903.1	899.8	898.7	898.7	899.8	902.0	904.2	902.0
10°	887.5	892.0	895.4	893.1	889.7	887.5	887.5	887.5	889.7	892.0	889.7
12.5°	875.3	878.7	882.0	880.9	877.6	875.3	875.3	875.3	877.6	879.8	877.6
15°	860.8	864.2	867.5	866.4	863.1	860.8	860.8	860.8	863.1	864.2	863.1
17.5°	844.1	847.5	850.8	848.6	844.1	841.9	841.9	841.9	844.1	845.2	844.1
20°	825.2	828.5	830.7	828.5	824.1	821.9	820.8	820.8	823.0	824.1	823.0
22.5°	804.0	806.3	808.5	806.3	801.8	799.6	798.5	797.3	798.5	799.6	798.5
25°	780.7	782.9	785.1	782.9	778.4	775.0	773.9	772.8	773.9	773.9	773.9
27.5°	757.2	758.3	760.6	757.2	752.8	749.5	748.4	747.2	748.4	748.4	748.4
30°	730.5	731.6	733.9	730.5	725.0	721.6	720.5	719.4	719.4	719.4	719.4
32.5°	702.7	704.9	707.2	702.7	697.1	693.8	692.7	691.6	692.7	692.7	692.7
35°	673.7	674.8	677.1	673.7	668.2	664.9	662.6	661.4	663.7	664.9	663.7
37.5°	645.9	647.0	648.2	644.8	639.2	635.9	633.6	632.5	631.4	631.4	631.4
40°	614.7	615.8	618.0	614.7	609.2	605.8	603.5	602.4	602.4	602.4	602.4
42.5°	584.6	585.7	586.9	583.5	578.0	574.6	572.4	571.3	572.4	572.4	572.4
45°	553.5	553.5	554.6	551.3	546.7	543.4	541.2	540.1	540.1	540.1	540.1
47.5°	521.2	522.3	523.4	520.1	515.6	512.3	510.1	507.8	507.8	507.8	507.8
50°	488.8	488.8	490.0	486.6	482.2	478.9	477.8	476.6	475.5	475.5	475.5
52.5°	455.5	456.6	457.7	454.4	451.0	447.6	445.4	444.3	444.3	444.3	444.3
55°	422.1	422.1	423.2	421.0	417.6	414.3	412.0	410.9	412.0	412.0	412.0
57.5°	388.6	389.7	390.8	387.5	384.2	380.9	379.8	378.7	378.7	378.7	378.7
60°	355.2	355.2	356.4	354.1	350.8	347.4	346.3	345.2	345.2	345.2	345.2
62.5°	321.9	321.9	323.0	320.8	317.4	314.0	312.9	311.8	311.8	311.8	311.8
65°	287.3	287.3	287.3	285.1	282.9	281.8	280.7	279.6	278.4	278.4	278.4
67.5°	249.5	249.5	250.6	248.3	246.1	245.0	243.9	242.8	241.7	241.7	241.7
70°	214.9	214.9	216.0	214.9	212.7	211.6	210.5	209.4	208.3	208.3	208.3
72.5°	181.5	181.5	181.5	180.4	179.3	178.2	177.0	175.9	174.8	174.8	174.8
75°	147.0	147.0	148.1	147.0	145.9	144.8	143.6	143.6	142.5	142.5	142.5
77.5°	114.7	115.8	116.9	115.8	114.7	113.6	112.5	112.5	111.4	111.4	111.4
80°	84.6	85.7	86.9	85.7	84.6	83.5	82.4	82.4	82.4	82.4	82.4
82.5°	56.8	57.9	59.0	57.9	56.8	56.8	55.7	55.7	55.7	55.7	55.7
85°	32.3	33.4	34.5	34.5	33.4	33.4	32.3	32.3	32.3	32.3	32.3
87.5°	12.3	13.4	14.5	14.5	13.4	13.4	13.4	13.4	13.4	13.4	13.4
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°	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0
2.5°	909.8	909.8	908.7	910.9	914.3	915.4	910.9	906.5	910.9	915.4	914.3
5°	905.4	905.4	905.4	906.5	909.8	910.9	907.6	903.1	907.6	910.9	909.8
7.5°	899.8	898.7	898.7	899.8	903.1	904.2	900.9	897.6	900.9	904.2	903.1
10°	887.5	887.5	887.5	889.7	893.1	895.4	892.0	887.5	892.0	895.4	893.1
12.5°	875.3	875.3	875.3	877.6	880.9	882.0	878.7	875.3	878.7	882.0	880.9
15°	860.8	860.8	860.8	863.1	866.4	867.5	864.2	860.8	864.2	867.5	866.4
17.5°	841.9	841.9	841.9	844.1	848.6	850.8	847.5	844.1	847.5	850.8	848.6
20°	820.8	820.8	821.9	824.1	828.5	830.7	828.5	825.2	828.5	830.7	828.5
22.5°	797.3	798.5	799.6	801.8	806.3	808.5	806.3	804.0	806.3	808.5	806.3
25°	772.8	773.9	775.0	778.4	782.9	785.1	782.9	780.7	782.9	785.1	782.9
27.5°	747.2	748.4	749.5	752.8	757.2	760.6	758.3	757.2	758.3	760.6	757.2
30°	719.4	720.5	721.6	725.0	730.5	733.9	731.6	730.5	731.6	733.9	730.5
32.5°	691.6	692.7	693.8	697.1	702.7	707.2	704.9	702.7	704.9	707.2	702.7
35°	661.4	662.6	664.9	668.2	673.7	677.1	674.8	673.7	674.8	677.1	673.7
37.5°	632.5	633.6	635.9	639.2	644.8	648.2	647.0	645.9	647.0	648.2	644.8
40°	602.4	603.5	605.8	609.2	614.7	618.0	615.8	614.7	615.8	618.0	614.7
42.5°	571.3	572.4	574.6	578.0	583.5	586.9	585.7	584.6	585.7	586.9	583.5
45°	540.1	541.2	543.4	546.7	551.3	554.6	553.5	553.5	553.5	554.6	551.3
47.5°	507.8	510.1	512.3	515.6	520.1	523.4	522.3	521.2	522.3	523.4	520.1
50°	476.6	477.8	478.9	482.2	486.6	490.0	488.8	488.8	488.8	490.0	486.6
52.5°	444.3	445.4	447.6	451.0	454.4	457.7	456.6	455.5	456.6	457.7	454.4
55°	410.9	412.0	414.3	417.6	421.0	423.2	422.1	422.1	422.1	423.2	421.0
57.5°	378.7	379.8	380.9	384.2	387.5	390.8	389.7	388.6	389.7	390.8	387.5
60°	345.2	346.3	347.4	350.8	354.1	356.4	355.2	355.2	355.2	356.4	354.1
62.5°	311.8	312.9	314.0	317.4	320.8	323.0	321.9	321.9	321.9	323.0	320.8
65°	279.6	280.7	281.8	282.9	285.1	287.3	287.3	287.3	287.3	287.3	285.1
67.5°	242.8	243.9	245.0	246.1	248.3	250.6	249.5	249.5	249.5	250.6	248.3
70°	209.4	210.5	211.6	212.7	214.9	216.0	214.9	214.9	214.9	216.0	214.9
72.5°	175.9	177.0	178.2	179.3	180.4	181.5	181.5	181.5	181.5	181.5	180.4
75°	143.6	143.6	144.8	145.9	147.0	148.1	147.0	147.0	147.0	148.1	147.0
77.5°	112.5	112.5	113.6	114.7	115.8	116.9	115.8	114.7	115.8	116.9	115.8
80°	82.4	82.4	83.5	84.6	85.7	86.9	85.7	84.6	85.7	86.9	85.7
82.5°	55.7	55.7	56.8	56.8	57.9	59.0	57.9	56.8	57.9	59.0	57.9
85°	32.3	32.3	33.4	33.4	34.5	34.5	33.4	32.3	33.4	34.5	34.5
87.5°	13.4	13.4	13.4	13.4	14.5	14.5	13.4	12.3	13.4	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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0	912.0
2.5°	910.9	908.7	909.8	909.8	910.9	910.9	910.9	909.8	909.8	908.7	910.9
5°	906.5	905.4	905.4	905.4	907.6	909.8	907.6	905.4	905.4	905.4	906.5
7.5°	899.8	898.7	898.7	899.8	902.0	904.2	902.0	899.8	898.7	898.7	899.8
10°	889.7	887.5	887.5	887.5	889.7	892.0	889.7	887.5	887.5	887.5	889.7
12.5°	877.6	875.3	875.3	875.3	877.6	879.8	877.6	875.3	875.3	875.3	877.6
15°	863.1	860.8	860.8	860.8	863.1	864.2	863.1	860.8	860.8	860.8	863.1
17.5°	844.1	841.9	841.9	841.9	844.1	845.2	844.1	841.9	841.9	841.9	844.1
20°	824.1	821.9	820.8	820.8	823.0	824.1	823.0	820.8	820.8	821.9	824.1
22.5°	801.8	799.6	798.5	797.3	798.5	799.6	798.5	797.3	798.5	799.6	801.8
25°	778.4	775.0	773.9	772.8	773.9	773.9	773.9	772.8	773.9	775.0	778.4
27.5°	752.8	749.5	748.4	747.2	748.4	748.4	748.4	747.2	748.4	749.5	752.8
30°	725.0	721.6	720.5	719.4	719.4	719.4	719.4	719.4	720.5	721.6	725.0
32.5°	697.1	693.8	692.7	691.6	692.7	692.7	692.7	691.6	692.7	693.8	697.1
35°	668.2	664.9	662.6	661.4	663.7	664.9	663.7	661.4	662.6	664.9	668.2
37.5°	639.2	635.9	633.6	632.5	631.4	631.4	631.4	632.5	633.6	635.9	639.2
40°	609.2	605.8	603.5	602.4	602.4	602.4	602.4	602.4	603.5	605.8	609.2
42.5°	578.0	574.6	572.4	571.3	572.4	572.4	572.4	571.3	572.4	574.6	578.0
45°	546.7	543.4	541.2	540.1	540.1	540.1	540.1	540.1	541.2	543.4	546.7
47.5°	515.6	512.3	510.1	507.8	507.8	507.8	507.8	507.8	510.1	512.3	515.6
50°	482.2	478.9	477.8	476.6	475.5	475.5	475.5	476.6	477.8	478.9	482.2
52.5°	451.0	447.6	445.4	444.3	444.3	444.3	444.3	444.3	445.4	447.6	451.0
55°	417.6	414.3	412.0	410.9	412.0	412.0	412.0	410.9	412.0	414.3	417.6
57.5°	384.2	380.9	379.8	378.7	378.7	378.7	378.7	378.7	379.8	380.9	384.2
60°	350.8	347.4	346.3	345.2	345.2	345.2	345.2	345.2	346.3	347.4	350.8
62.5°	317.4	314.0	312.9	311.8	311.8	311.8	311.8	311.8	312.9	314.0	317.4
65°	282.9	281.8	280.7	279.6	278.4	278.4	278.4	279.6	280.7	281.8	282.9
67.5°	246.1	245.0	243.9	242.8	241.7	241.7	241.7	242.8	243.9	245.0	246.1
70°	212.7	211.6	210.5	209.4	208.3	208.3	208.3	209.4	210.5	211.6	212.7
72.5°	179.3	178.2	177.0	175.9	174.8	174.8	174.8	175.9	177.0	178.2	179.3
75°	145.9	144.8	143.6	143.6	142.5	142.5	142.5	143.6	143.6	144.8	145.9
77.5°	114.7	113.6	112.5	112.5	111.4	111.4	111.4	112.5	112.5	113.6	114.7
80°	84.6	83.5	82.4	82.4	82.4	82.4	82.4	82.4	82.4	83.5	84.6
82.5°	56.8	56.8	55.7	55.7	55.7	55.7	55.7	55.7	55.7	56.8	56.8
85°	33.4	33.4	32.3	32.3	32.3	32.3	32.3	32.3	32.3	33.4	33.4
87.5°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
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°	912.0	912.0	912.0	912.0
2.5°	914.3	915.4	910.9	906.5
5°	909.8	910.9	907.6	903.1
7.5°	903.1	904.2	900.9	897.6
10°	893.1	895.4	892.0	887.5
12.5°	880.9	882.0	878.7	875.3
15°	866.4	867.5	864.2	860.8
17.5°	848.6	850.8	847.5	844.1
20°	828.5	830.7	828.5	825.2
22.5°	806.3	808.5	806.3	804.0
25°	782.9	785.1	782.9	780.7
27.5°	757.2	760.6	758.3	757.2
30°	730.5	733.9	731.6	730.5
32.5°	702.7	707.2	704.9	702.7
35°	673.7	677.1	674.8	673.7
37.5°	644.8	648.2	647.0	645.9
40°	614.7	618.0	615.8	614.7
42.5°	583.5	586.9	585.7	584.6
45°	551.3	554.6	553.5	553.5
47.5°	520.1	523.4	522.3	521.2
50°	486.6	490.0	488.8	488.8
52.5°	454.4	457.7	456.6	455.5
55°	421.0	423.2	422.1	422.1
57.5°	387.5	390.8	389.7	388.6
60°	354.1	356.4	355.2	355.2
62.5°	320.8	323.0	321.9	321.9
65°	285.1	287.3	287.3	287.3
67.5°	248.3	250.6	249.5	249.5
70°	214.9	216.0	214.9	214.9
72.5°	180.4	181.5	181.5	181.5
75°	147.0	148.1	147.0	147.0
77.5°	115.8	116.9	115.8	114.7
80°	85.7	86.9	85.7	84.6
82.5°	57.9	59.0	57.9	56.8
85°	34.5	34.5	33.4	32.3
87.5°	14.5	14.5	13.4	12.3
90°	0.0	0.0	0.0	0.0

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