

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-22L950-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-22L950-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

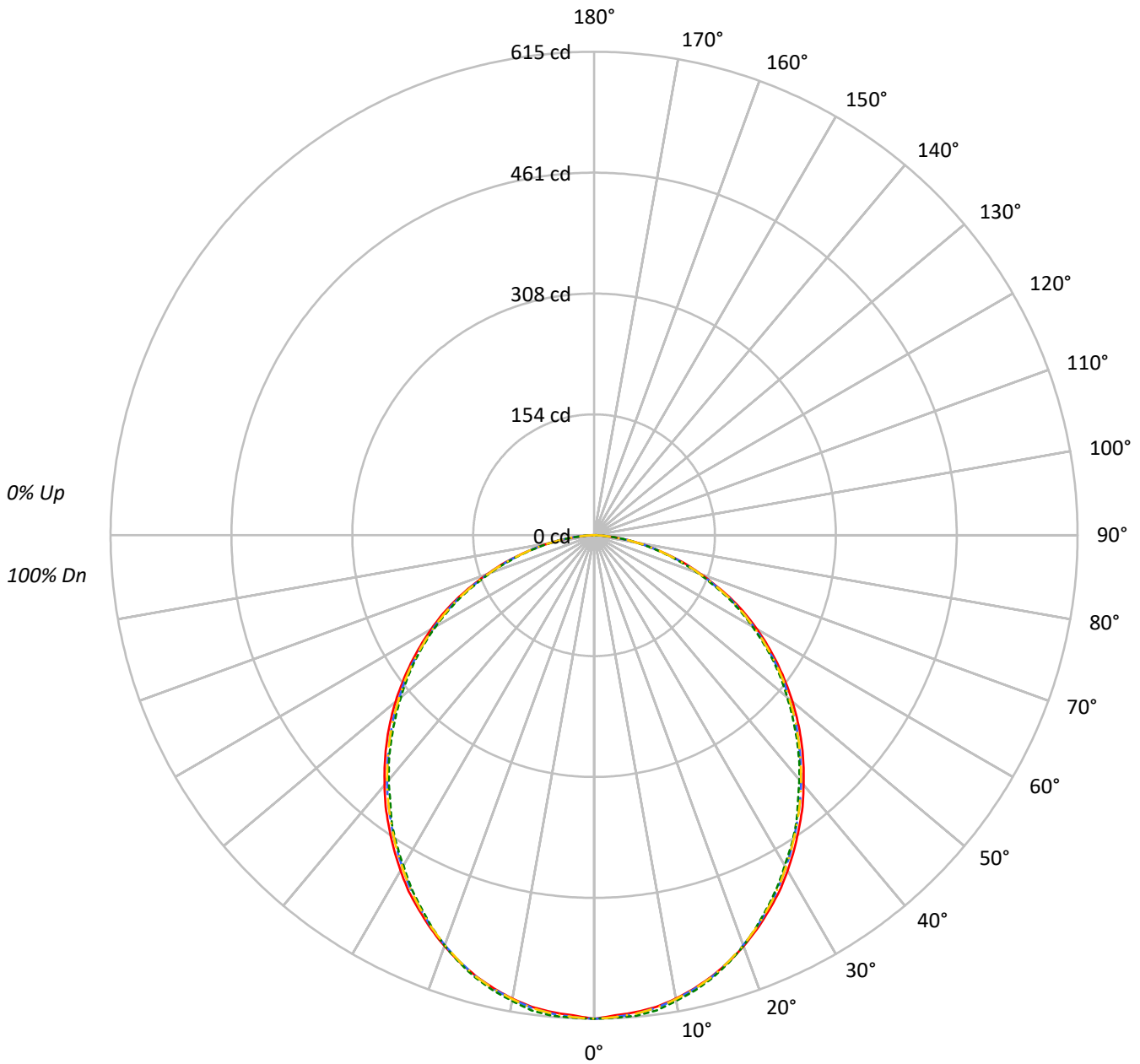
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1600.1 lumens
Efficiency: N/A
Efficacy: 66.7 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): 24
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				
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°	5675	5675	5675	5675
5°	5640	5682	5640	5682
10°	5607	5635	5607	5635
15°	5545	5566	5545	5566
20°	5463	5456	5463	5456
25°	5359	5313	5359	5313
30°	5248	5168	5248	5168
35°	5118	5049	5118	5049
40°	4992	4892	4992	4892
45°	4869	4752	4869	4752
50°	4732	4603	4732	4603
55°	4578	4470	4578	4470
60°	4419	4296	4419	4296
65°	4229	4098	4229	4098
70°	3909	3787	3909	3787
75°	3533	3429	3533	3429
80°	3034	2954	3034	2954
85°	2308	2308	2308	2308



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	3.6
10°-20°	163.9	10.2
20°-30°	241.6	15.1
30°-40°	282.0	17.6
40°-50°	284.3	17.8
50°-60°	251.3	15.7
60°-70°	187.9	11.7
70°-80°	104.2	6.5
80°-90°	26.7	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°	463.6	29.0
0°-40°	745.6	46.6
0°-60°	1281.3	80.1
0°-90°	1600.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1600.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	615	615	615	615	615	
5°	609	614	609	614	609	58
15°	580	583	580	583	580	164
25°	526	522	526	522	526	243
35°	454	448	454	448	454	284
45°	373	364	373	364	373	288
55°	285	278	285	278	285	255
65°	194	188	194	188	194	191
75°	99	96	99	96	99	105
85°	22	22	22	22	22	26
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°	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1
2.5°	611.3	614.2	617.3	616.5	614.2	612.8	613.5	613.5	614.2	614.2	614.2
5°	609.0	612.0	614.2	613.5	611.3	610.5	610.5	610.5	612.0	613.5	612.0
7.5°	605.3	607.5	609.7	609.0	606.8	606.0	606.0	606.8	608.2	609.7	608.2
10°	598.5	601.5	603.7	602.3	600.0	598.5	598.5	598.5	600.0	601.5	600.0
12.5°	590.3	592.5	594.8	594.0	591.7	590.3	590.3	590.3	591.7	593.2	591.7
15°	580.5	582.7	585.0	584.3	582.0	580.5	580.5	580.5	582.0	582.7	582.0
17.5°	569.2	571.5	573.8	572.2	569.2	567.7	567.7	567.7	569.2	570.0	569.2
20°	556.4	558.7	560.2	558.7	555.7	554.2	553.5	553.5	555.0	555.7	555.0
22.5°	542.1	543.7	545.2	543.7	540.7	539.2	538.4	537.7	538.4	539.2	538.4
25°	526.4	527.9	529.4	527.9	524.9	522.7	521.9	521.1	521.9	521.9	521.9
27.5°	510.6	511.4	512.9	510.6	507.7	505.3	504.6	503.9	504.6	504.6	504.6
30°	492.6	493.4	494.8	492.6	488.8	486.6	485.9	485.1	485.1	485.1	485.1
32.5°	473.8	475.4	476.9	473.8	470.1	467.8	467.1	466.3	467.1	467.1	467.1
35°	454.4	455.1	456.6	454.4	450.6	448.3	446.8	446.1	447.5	448.3	447.5
37.5°	435.6	436.3	437.0	434.8	431.0	428.8	427.3	426.5	425.8	425.8	425.8
40°	414.5	415.3	416.7	414.5	410.8	408.5	407.0	406.2	406.2	406.2	406.2
42.5°	394.2	395.0	395.7	393.5	389.7	387.5	385.9	385.2	385.9	385.9	385.9
45°	373.2	373.2	374.0	371.8	368.7	366.5	364.9	364.2	364.2	364.2	364.2
47.5°	351.5	352.2	352.9	350.7	347.7	345.5	343.9	342.4	342.4	342.4	342.4
50°	329.7	329.7	330.4	328.1	325.2	322.9	322.1	321.4	320.7	320.7	320.7
52.5°	307.1	307.9	308.6	306.4	304.2	301.9	300.4	299.7	299.7	299.7	299.7
55°	284.6	284.6	285.4	283.9	281.6	279.4	277.9	277.1	277.9	277.9	277.9
57.5°	262.0	262.9	263.6	261.3	259.1	256.8	256.0	255.3	255.3	255.3	255.3
60°	239.5	239.5	240.3	238.8	236.6	234.3	233.5	232.8	232.8	232.8	232.8
62.5°	217.0	217.0	217.8	216.3	214.0	211.8	211.0	210.3	210.3	210.3	210.3
65°	193.7	193.7	193.7	192.2	190.8	190.0	189.2	188.5	187.7	187.7	187.7
67.5°	168.2	168.2	169.0	167.4	166.0	165.2	164.5	163.7	162.9	162.9	162.9
70°	144.9	144.9	145.7	144.9	143.5	142.6	141.9	141.2	140.4	140.4	140.4
72.5°	122.4	122.4	122.4	121.6	120.9	120.1	119.4	118.7	117.9	117.9	117.9
75°	99.1	99.1	99.9	99.1	98.4	97.6	96.9	96.9	96.2	96.2	96.2
77.5°	77.4	78.1	78.8	78.1	77.4	76.6	75.9	75.9	75.1	75.1	75.1
80°	57.1	57.8	58.5	57.8	57.1	56.3	55.6	55.6	55.6	55.6	55.6
82.5°	38.3	39.1	39.8	39.1	38.3	38.3	37.5	37.5	37.5	37.5	37.5
85°	21.8	22.5	23.2	23.2	22.5	22.5	21.8	21.8	21.8	21.8	21.8
87.5°	8.3	9.0	9.8	9.8	9.0	9.0	9.0	9.0	9.0	9.0	9.0
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°	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1
2.5°	613.5	613.5	612.8	614.2	616.5	617.3	614.2	611.3	614.2	617.3	616.5
5°	610.5	610.5	610.5	611.3	613.5	614.2	612.0	609.0	612.0	614.2	613.5
7.5°	606.8	606.0	606.0	606.8	609.0	609.7	607.5	605.3	607.5	609.7	609.0
10°	598.5	598.5	598.5	600.0	602.3	603.7	601.5	598.5	601.5	603.7	602.3
12.5°	590.3	590.3	590.3	591.7	594.0	594.8	592.5	590.3	592.5	594.8	594.0
15°	580.5	580.5	580.5	582.0	584.3	585.0	582.7	580.5	582.7	585.0	584.3
17.5°	567.7	567.7	567.7	569.2	572.2	573.8	571.5	569.2	571.5	573.8	572.2
20°	553.5	553.5	554.2	555.7	558.7	560.2	558.7	556.4	558.7	560.2	558.7
22.5°	537.7	538.4	539.2	540.7	543.7	545.2	543.7	542.1	543.7	545.2	543.7
25°	521.1	521.9	522.7	524.9	527.9	529.4	527.9	526.4	527.9	529.4	527.9
27.5°	503.9	504.6	505.3	507.7	510.6	512.9	511.4	510.6	511.4	512.9	510.6
30°	485.1	485.9	486.6	488.8	492.6	494.8	493.4	492.6	493.4	494.8	492.6
32.5°	466.3	467.1	467.8	470.1	473.8	476.9	475.4	473.8	475.4	476.9	473.8
35°	446.1	446.8	448.3	450.6	454.4	456.6	455.1	454.4	455.1	456.6	454.4
37.5°	426.5	427.3	428.8	431.0	434.8	437.0	436.3	435.6	436.3	437.0	434.8
40°	406.2	407.0	408.5	410.8	414.5	416.7	415.3	414.5	415.3	416.7	414.5
42.5°	385.2	385.9	387.5	389.7	393.5	395.7	395.0	394.2	395.0	395.7	393.5
45°	364.2	364.9	366.5	368.7	371.8	374.0	373.2	373.2	373.2	374.0	371.8
47.5°	342.4	343.9	345.5	347.7	350.7	352.9	352.2	351.5	352.2	352.9	350.7
50°	321.4	322.1	322.9	325.2	328.1	330.4	329.7	329.7	329.7	330.4	328.1
52.5°	299.7	300.4	301.9	304.2	306.4	308.6	307.9	307.1	307.9	308.6	306.4
55°	277.1	277.9	279.4	281.6	283.9	285.4	284.6	284.6	284.6	285.4	283.9
57.5°	255.3	256.0	256.8	259.1	261.3	263.6	262.9	262.0	262.9	263.6	261.3
60°	232.8	233.5	234.3	236.6	238.8	240.3	239.5	239.5	239.5	240.3	238.8
62.5°	210.3	211.0	211.8	214.0	216.3	217.8	217.0	217.0	217.0	217.8	216.3
65°	188.5	189.2	190.0	190.8	192.2	193.7	193.7	193.7	193.7	193.7	192.2
67.5°	163.7	164.5	165.2	166.0	167.4	169.0	168.2	168.2	168.2	169.0	167.4
70°	141.2	141.9	142.6	143.5	144.9	145.7	144.9	144.9	144.9	145.7	144.9
72.5°	118.7	119.4	120.1	120.9	121.6	122.4	122.4	122.4	122.4	122.4	121.6
75°	96.9	96.9	97.6	98.4	99.1	99.9	99.1	99.1	99.1	99.9	99.1
77.5°	75.9	75.9	76.6	77.4	78.1	78.8	78.1	77.4	78.1	78.8	78.1
80°	55.6	55.6	56.3	57.1	57.8	58.5	57.8	57.1	57.8	58.5	57.8
82.5°	37.5	37.5	38.3	38.3	39.1	39.8	39.1	38.3	39.1	39.8	39.1
85°	21.8	21.8	22.5	22.5	23.2	23.2	22.5	21.8	22.5	23.2	23.2
87.5°	9.0	9.0	9.0	9.0	9.8	9.8	9.0	8.3	9.0	9.8	9.8
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°	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1	615.1
2.5°	614.2	612.8	613.5	613.5	614.2	614.2	614.2	613.5	613.5	612.8	614.2
5°	611.3	610.5	610.5	610.5	612.0	613.5	612.0	610.5	610.5	610.5	611.3
7.5°	606.8	606.0	606.0	606.8	608.2	609.7	608.2	606.8	606.0	606.0	606.8
10°	600.0	598.5	598.5	598.5	600.0	601.5	600.0	598.5	598.5	598.5	600.0
12.5°	591.7	590.3	590.3	590.3	591.7	593.2	591.7	590.3	590.3	590.3	591.7
15°	582.0	580.5	580.5	580.5	582.0	582.7	582.0	580.5	580.5	580.5	582.0
17.5°	569.2	567.7	567.7	567.7	569.2	570.0	569.2	567.7	567.7	567.7	569.2
20°	555.7	554.2	553.5	553.5	555.0	555.7	555.0	553.5	553.5	554.2	555.7
22.5°	540.7	539.2	538.4	537.7	538.4	539.2	538.4	537.7	538.4	539.2	540.7
25°	524.9	522.7	521.9	521.1	521.9	521.9	521.9	521.1	521.9	522.7	524.9
27.5°	507.7	505.3	504.6	503.9	504.6	504.6	504.6	503.9	504.6	505.3	507.7
30°	488.8	486.6	485.9	485.1	485.1	485.1	485.1	485.1	485.9	486.6	488.8
32.5°	470.1	467.8	467.1	466.3	467.1	467.1	467.1	466.3	467.1	467.8	470.1
35°	450.6	448.3	446.8	446.1	447.5	448.3	447.5	446.1	446.8	448.3	450.6
37.5°	431.0	428.8	427.3	426.5	425.8	425.8	425.8	426.5	427.3	428.8	431.0
40°	410.8	408.5	407.0	406.2	406.2	406.2	406.2	406.2	407.0	408.5	410.8
42.5°	389.7	387.5	385.9	385.2	385.9	385.9	385.9	385.2	385.9	387.5	389.7
45°	368.7	366.5	364.9	364.2	364.2	364.2	364.2	364.2	364.9	366.5	368.7
47.5°	347.7	345.5	343.9	342.4	342.4	342.4	342.4	342.4	343.9	345.5	347.7
50°	325.2	322.9	322.1	321.4	320.7	320.7	320.7	321.4	322.1	322.9	325.2
52.5°	304.2	301.9	300.4	299.7	299.7	299.7	299.7	299.7	300.4	301.9	304.2
55°	281.6	279.4	277.9	277.1	277.9	277.9	277.9	277.1	277.9	279.4	281.6
57.5°	259.1	256.8	256.0	255.3	255.3	255.3	255.3	255.3	256.0	256.8	259.1
60°	236.6	234.3	233.5	232.8	232.8	232.8	232.8	232.8	233.5	234.3	236.6
62.5°	214.0	211.8	211.0	210.3	210.3	210.3	210.3	210.3	211.0	211.8	214.0
65°	190.8	190.0	189.2	188.5	187.7	187.7	187.7	188.5	189.2	190.0	190.8
67.5°	166.0	165.2	164.5	163.7	162.9	162.9	162.9	163.7	164.5	165.2	166.0
70°	143.5	142.6	141.9	141.2	140.4	140.4	140.4	141.2	141.9	142.6	143.5
72.5°	120.9	120.1	119.4	118.7	117.9	117.9	117.9	118.7	119.4	120.1	120.9
75°	98.4	97.6	96.9	96.9	96.2	96.2	96.2	96.9	96.9	97.6	98.4
77.5°	77.4	76.6	75.9	75.9	75.1	75.1	75.1	75.9	75.9	76.6	77.4
80°	57.1	56.3	55.6	55.6	55.6	55.6	55.6	55.6	55.6	56.3	57.1
82.5°	38.3	38.3	37.5	37.5	37.5	37.5	37.5	37.5	37.5	38.3	38.3
85°	22.5	22.5	21.8	21.8	21.8	21.8	21.8	21.8	21.8	22.5	22.5
87.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
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
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CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	615.1	615.1	615.1	615.1
2.5°	616.5	617.3	614.2	611.3
5°	613.5	614.2	612.0	609.0
7.5°	609.0	609.7	607.5	605.3
10°	602.3	603.7	601.5	598.5
12.5°	594.0	594.8	592.5	590.3
15°	584.3	585.0	582.7	580.5
17.5°	572.2	573.8	571.5	569.2
20°	558.7	560.2	558.7	556.4
22.5°	543.7	545.2	543.7	542.1
25°	527.9	529.4	527.9	526.4
27.5°	510.6	512.9	511.4	510.6
30°	492.6	494.8	493.4	492.6
32.5°	473.8	476.9	475.4	473.8
35°	454.4	456.6	455.1	454.4
37.5°	434.8	437.0	436.3	435.6
40°	414.5	416.7	415.3	414.5
42.5°	393.5	395.7	395.0	394.2
45°	371.8	374.0	373.2	373.2
47.5°	350.7	352.9	352.2	351.5
50°	328.1	330.4	329.7	329.7
52.5°	306.4	308.6	307.9	307.1
55°	283.9	285.4	284.6	284.6
57.5°	261.3	263.6	262.9	262.0
60°	238.8	240.3	239.5	239.5
62.5°	216.3	217.8	217.0	217.0
65°	192.2	193.7	193.7	193.7
67.5°	167.4	169.0	168.2	168.2
70°	144.9	145.7	144.9	144.9
72.5°	121.6	122.4	122.4	122.4
75°	99.1	99.9	99.1	99.1
77.5°	78.1	78.8	78.1	77.4
80°	57.8	58.5	57.8	57.1
82.5°	39.1	39.8	39.1	38.3
85°	23.2	23.2	22.5	21.8
87.5°	9.8	9.8	9.0	8.3
90°	0.0	0.0	0.0	0.0

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