

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-34L935-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-34L935-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

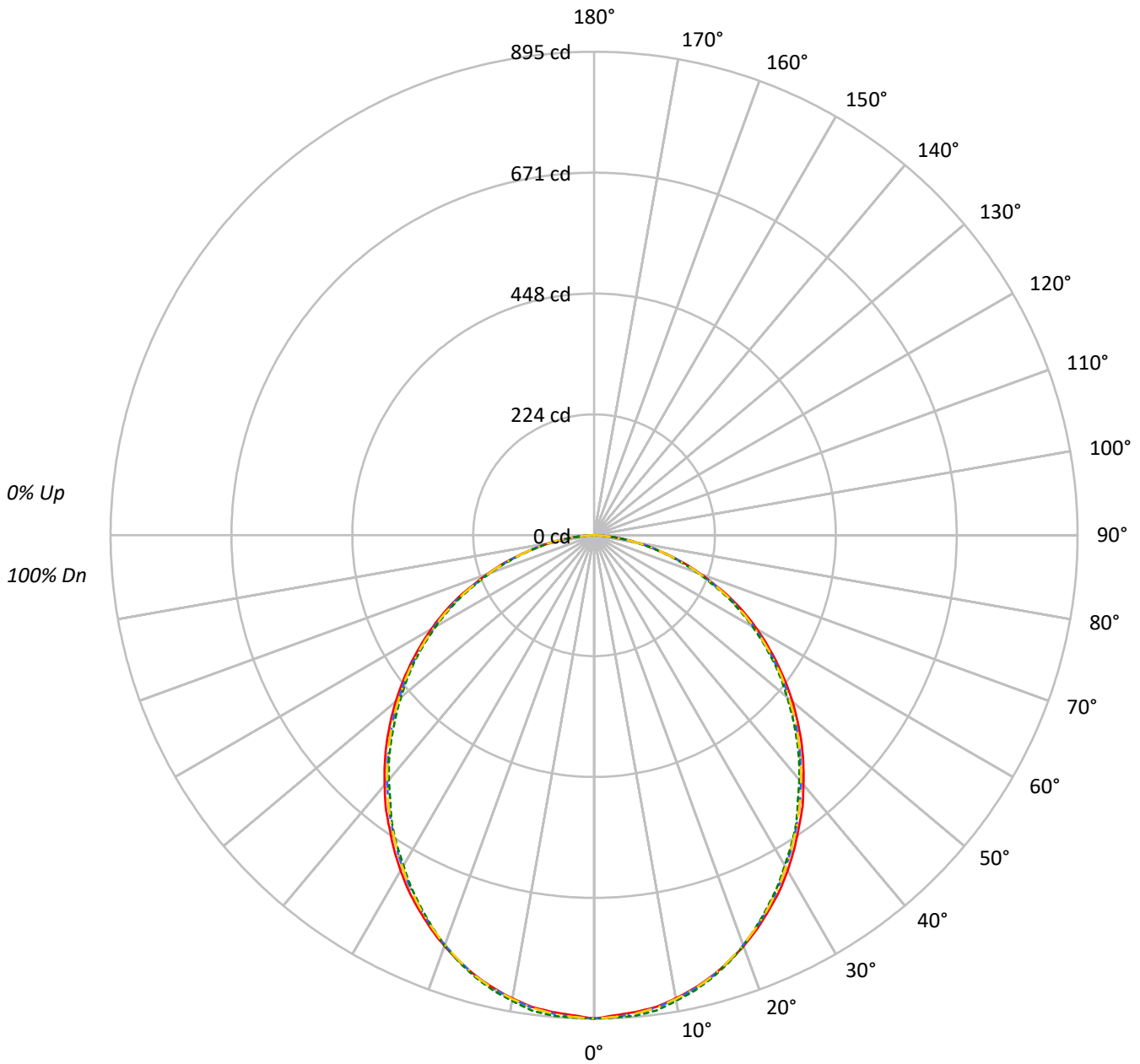
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2327.8 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): 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°	8255	8255	8255	8255
5°	8205	8266	8205	8266
10°	8156	8198	8156	8198
15°	8066	8097	8066	8097
20°	7948	7937	7948	7937
25°	7796	7730	7796	7730
30°	7635	7518	7635	7518
35°	7444	7346	7444	7346
40°	7263	7118	7263	7118
45°	7085	6914	7085	6914
50°	6882	6694	6882	6694
55°	6661	6502	6661	6502
60°	6431	6250	6431	6250
65°	6154	5962	6154	5962
70°	5689	5511	5689	5511
75°	5140	4987	5140	4987
80°	4410	4298	4410	4298
85°	3356	3356	3356	3356



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	3.6
10°-20°	238.5	10.2
20°-30°	351.5	15.1
30°-40°	410.3	17.6
40°-50°	413.7	17.8
50°-60°	365.6	15.7
60°-70°	273.4	11.7
70°-80°	151.6	6.5
80°-90°	38.8	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°	674.4	29.0
0°-40°	1084.7	46.6
0°-60°	1864.0	80.1
0°-90°	2327.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2327.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	895	895	895	895	895	
5°	886	892	886	892	886	84
15°	844	848	844	848	844	238
25°	766	759	766	759	766	353
35°	661	652	661	652	661	414
45°	543	530	543	530	543	419
55°	414	404	414	404	414	370
65°	282	273	282	273	282	278
75°	144	140	144	140	144	153
85°	32	32	32	32	32	38
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°	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7
2.5°	889.3	893.6	897.9	896.9	893.6	891.4	892.5	892.5	893.6	893.6	893.6
5°	885.9	890.4	893.6	892.5	889.3	888.2	888.2	888.2	890.4	892.5	890.4
7.5°	880.5	883.7	887.1	885.9	882.7	881.6	881.6	882.7	884.8	887.1	884.8
10°	870.6	875.1	878.3	876.1	872.9	870.6	870.6	870.6	872.9	875.1	872.9
12.5°	858.7	861.9	865.2	864.1	860.9	858.7	858.7	858.7	860.9	863.0	860.9
15°	844.5	847.7	851.0	849.9	846.7	844.5	844.5	844.5	846.7	847.7	846.7
17.5°	828.0	831.4	834.6	832.5	828.0	825.8	825.8	825.8	828.0	829.2	828.0
20°	809.5	812.7	815.0	812.7	808.4	806.2	805.1	805.1	807.3	808.4	807.3
22.5°	788.8	790.9	793.1	790.9	786.6	784.3	783.2	782.2	783.2	784.3	783.2
25°	765.8	767.9	770.1	767.9	763.6	760.4	759.3	758.2	759.3	759.3	759.3
27.5°	742.9	744.0	746.2	742.9	738.5	735.2	734.1	733.0	734.1	734.1	734.1
30°	716.7	717.7	719.9	716.7	711.1	707.9	706.8	705.7	705.7	705.7	705.7
32.5°	689.3	691.5	693.7	689.3	683.8	680.6	679.5	678.4	679.5	679.5	679.5
35°	660.9	662.0	664.2	660.9	655.4	652.2	650.0	648.9	651.1	652.2	651.1
37.5°	633.6	634.7	635.8	632.5	627.1	623.7	621.6	620.5	619.4	619.4	619.4
40°	603.0	604.1	606.3	603.0	597.5	594.3	592.1	591.0	591.0	591.0	591.0
42.5°	573.5	574.6	575.7	572.5	566.9	563.7	561.5	560.4	561.5	561.5	561.5
45°	543.0	543.0	544.1	540.8	536.4	533.1	530.9	529.9	529.9	529.9	529.9
47.5°	511.2	512.4	513.5	510.1	505.8	502.5	500.4	498.2	498.2	498.2	498.2
50°	479.5	479.5	480.6	477.4	473.0	469.8	468.7	467.5	466.4	466.4	466.4
52.5°	446.8	447.9	449.0	445.7	442.5	439.1	436.9	435.9	435.9	435.9	435.9
55°	414.1	414.1	415.1	413.0	409.6	406.4	404.2	403.1	404.2	404.2	404.2
57.5°	381.2	382.4	383.5	380.1	376.9	373.6	372.5	371.4	371.4	371.4	371.4
60°	348.5	348.5	349.6	347.4	344.1	340.9	339.8	338.7	338.7	338.7	338.7
62.5°	315.7	315.7	316.8	314.6	311.4	308.0	306.9	305.9	305.9	305.9	305.9
65°	281.9	281.9	281.9	279.6	277.5	276.4	275.3	274.2	273.1	273.1	273.1
67.5°	244.7	244.7	245.8	243.6	241.5	240.4	239.3	238.2	237.0	237.0	237.0
70°	210.9	210.9	212.0	210.9	208.6	207.5	206.4	205.4	204.3	204.3	204.3
72.5°	178.0	178.0	178.0	176.9	175.9	174.8	173.7	172.6	171.5	171.5	171.5
75°	144.2	144.2	145.3	144.2	143.1	142.0	140.9	140.9	139.9	139.9	139.9
77.5°	112.5	113.6	114.7	113.6	112.5	111.5	110.4	110.4	109.3	109.3	109.3
80°	83.0	84.1	85.2	84.1	83.0	82.0	80.9	80.9	80.9	80.9	80.9
82.5°	55.7	56.8	57.9	56.8	55.7	55.7	54.6	54.6	54.6	54.6	54.6
85°	31.7	32.7	33.8	33.8	32.7	32.7	31.7	31.7	31.7	31.7	31.7
87.5°	12.0	13.1	14.2	14.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1
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°	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7
2.5°	892.5	892.5	891.4	893.6	896.9	897.9	893.6	889.3	893.6	897.9	896.9
5°	888.2	888.2	888.2	889.3	892.5	893.6	890.4	885.9	890.4	893.6	892.5
7.5°	882.7	881.6	881.6	882.7	885.9	887.1	883.7	880.5	883.7	887.1	885.9
10°	870.6	870.6	870.6	872.9	876.1	878.3	875.1	870.6	875.1	878.3	876.1
12.5°	858.7	858.7	858.7	860.9	864.1	865.2	861.9	858.7	861.9	865.2	864.1
15°	844.5	844.5	844.5	846.7	849.9	851.0	847.7	844.5	847.7	851.0	849.9
17.5°	825.8	825.8	825.8	828.0	832.5	834.6	831.4	828.0	831.4	834.6	832.5
20°	805.1	805.1	806.2	808.4	812.7	815.0	812.7	809.5	812.7	815.0	812.7
22.5°	782.2	783.2	784.3	786.6	790.9	793.1	790.9	788.8	790.9	793.1	790.9
25°	758.2	759.3	760.4	763.6	767.9	770.1	767.9	765.8	767.9	770.1	767.9
27.5°	733.0	734.1	735.2	738.5	742.9	746.2	744.0	742.9	744.0	746.2	742.9
30°	705.7	706.8	707.9	711.1	716.7	719.9	717.7	716.7	717.7	719.9	716.7
32.5°	678.4	679.5	680.6	683.8	689.3	693.7	691.5	689.3	691.5	693.7	689.3
35°	648.9	650.0	652.2	655.4	660.9	664.2	662.0	660.9	662.0	664.2	660.9
37.5°	620.5	621.6	623.7	627.1	632.5	635.8	634.7	633.6	634.7	635.8	632.5
40°	591.0	592.1	594.3	597.5	603.0	606.3	604.1	603.0	604.1	606.3	603.0
42.5°	560.4	561.5	563.7	566.9	572.5	575.7	574.6	573.5	574.6	575.7	572.5
45°	529.9	530.9	533.1	536.4	540.8	544.1	543.0	543.0	543.0	544.1	540.8
47.5°	498.2	500.4	502.5	505.8	510.1	513.5	512.4	511.2	512.4	513.5	510.1
50°	467.5	468.7	469.8	473.0	477.4	480.6	479.5	479.5	479.5	480.6	477.4
52.5°	435.9	436.9	439.1	442.5	445.7	449.0	447.9	446.8	447.9	449.0	445.7
55°	403.1	404.2	406.4	409.6	413.0	415.1	414.1	414.1	414.1	415.1	413.0
57.5°	371.4	372.5	373.6	376.9	380.1	383.5	382.4	381.2	382.4	383.5	380.1
60°	338.7	339.8	340.9	344.1	347.4	349.6	348.5	348.5	348.5	349.6	347.4
62.5°	305.9	306.9	308.0	311.4	314.6	316.8	315.7	315.7	315.7	316.8	314.6
65°	274.2	275.3	276.4	277.5	279.6	281.9	281.9	281.9	281.9	281.9	279.6
67.5°	238.2	239.3	240.4	241.5	243.6	245.8	244.7	244.7	244.7	245.8	243.6
70°	205.4	206.4	207.5	208.6	210.9	212.0	210.9	210.9	210.9	212.0	210.9
72.5°	172.6	173.7	174.8	175.9	176.9	178.0	178.0	178.0	178.0	178.0	176.9
75°	140.9	140.9	142.0	143.1	144.2	145.3	144.2	144.2	144.2	145.3	144.2
77.5°	110.4	110.4	111.5	112.5	113.6	114.7	113.6	112.5	113.6	114.7	113.6
80°	80.9	80.9	82.0	83.0	84.1	85.2	84.1	83.0	84.1	85.2	84.1
82.5°	54.6	54.6	55.7	55.7	56.8	57.9	56.8	55.7	56.8	57.9	56.8
85°	31.7	31.7	32.7	32.7	33.8	33.8	32.7	31.7	32.7	33.8	33.8
87.5°	13.1	13.1	13.1	13.1	14.2	14.2	13.1	12.0	13.1	14.2	14.2
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°	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7	894.7
2.5°	893.6	891.4	892.5	892.5	893.6	893.6	893.6	892.5	892.5	891.4	893.6
5°	889.3	888.2	888.2	888.2	890.4	892.5	890.4	888.2	888.2	888.2	889.3
7.5°	882.7	881.6	881.6	882.7	884.8	887.1	884.8	882.7	881.6	881.6	882.7
10°	872.9	870.6	870.6	870.6	872.9	875.1	872.9	870.6	870.6	870.6	872.9
12.5°	860.9	858.7	858.7	858.7	860.9	863.0	860.9	858.7	858.7	858.7	860.9
15°	846.7	844.5	844.5	844.5	846.7	847.7	846.7	844.5	844.5	844.5	846.7
17.5°	828.0	825.8	825.8	825.8	828.0	829.2	828.0	825.8	825.8	825.8	828.0
20°	808.4	806.2	805.1	805.1	807.3	808.4	807.3	805.1	805.1	806.2	808.4
22.5°	786.6	784.3	783.2	782.2	783.2	784.3	783.2	782.2	783.2	784.3	786.6
25°	763.6	760.4	759.3	758.2	759.3	759.3	759.3	758.2	759.3	760.4	763.6
27.5°	738.5	735.2	734.1	733.0	734.1	734.1	734.1	733.0	734.1	735.2	738.5
30°	711.1	707.9	706.8	705.7	705.7	705.7	705.7	705.7	706.8	707.9	711.1
32.5°	683.8	680.6	679.5	678.4	679.5	679.5	679.5	678.4	679.5	680.6	683.8
35°	655.4	652.2	650.0	648.9	651.1	652.2	651.1	648.9	650.0	652.2	655.4
37.5°	627.1	623.7	621.6	620.5	619.4	619.4	619.4	620.5	621.6	623.7	627.1
40°	597.5	594.3	592.1	591.0	591.0	591.0	591.0	591.0	592.1	594.3	597.5
42.5°	566.9	563.7	561.5	560.4	561.5	561.5	561.5	560.4	561.5	563.7	566.9
45°	536.4	533.1	530.9	529.9	529.9	529.9	529.9	529.9	530.9	533.1	536.4
47.5°	505.8	502.5	500.4	498.2	498.2	498.2	498.2	498.2	500.4	502.5	505.8
50°	473.0	469.8	468.7	467.5	466.4	466.4	466.4	467.5	468.7	469.8	473.0
52.5°	442.5	439.1	436.9	435.9	435.9	435.9	435.9	435.9	436.9	439.1	442.5
55°	409.6	406.4	404.2	403.1	404.2	404.2	404.2	403.1	404.2	406.4	409.6
57.5°	376.9	373.6	372.5	371.4	371.4	371.4	371.4	371.4	372.5	373.6	376.9
60°	344.1	340.9	339.8	338.7	338.7	338.7	338.7	338.7	339.8	340.9	344.1
62.5°	311.4	308.0	306.9	305.9	305.9	305.9	305.9	305.9	306.9	308.0	311.4
65°	277.5	276.4	275.3	274.2	273.1	273.1	273.1	274.2	275.3	276.4	277.5
67.5°	241.5	240.4	239.3	238.2	237.0	237.0	237.0	238.2	239.3	240.4	241.5
70°	208.6	207.5	206.4	205.4	204.3	204.3	204.3	205.4	206.4	207.5	208.6
72.5°	175.9	174.8	173.7	172.6	171.5	171.5	171.5	172.6	173.7	174.8	175.9
75°	143.1	142.0	140.9	140.9	139.9	139.9	139.9	140.9	140.9	142.0	143.1
77.5°	112.5	111.5	110.4	110.4	109.3	109.3	109.3	110.4	110.4	111.5	112.5
80°	83.0	82.0	80.9	80.9	80.9	80.9	80.9	80.9	80.9	82.0	83.0
82.5°	55.7	55.7	54.6	54.6	54.6	54.6	54.6	54.6	54.6	55.7	55.7
85°	32.7	32.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	32.7	32.7
87.5°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
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°	894.7	894.7	894.7	894.7
2.5°	896.9	897.9	893.6	889.3
5°	892.5	893.6	890.4	885.9
7.5°	885.9	887.1	883.7	880.5
10°	876.1	878.3	875.1	870.6
12.5°	864.1	865.2	861.9	858.7
15°	849.9	851.0	847.7	844.5
17.5°	832.5	834.6	831.4	828.0
20°	812.7	815.0	812.7	809.5
22.5°	790.9	793.1	790.9	788.8
25°	767.9	770.1	767.9	765.8
27.5°	742.9	746.2	744.0	742.9
30°	716.7	719.9	717.7	716.7
32.5°	689.3	693.7	691.5	689.3
35°	660.9	664.2	662.0	660.9
37.5°	632.5	635.8	634.7	633.6
40°	603.0	606.3	604.1	603.0
42.5°	572.5	575.7	574.6	573.5
45°	540.8	544.1	543.0	543.0
47.5°	510.1	513.5	512.4	511.2
50°	477.4	480.6	479.5	479.5
52.5°	445.7	449.0	447.9	446.8
55°	413.0	415.1	414.1	414.1
57.5°	380.1	383.5	382.4	381.2
60°	347.4	349.6	348.5	348.5
62.5°	314.6	316.8	315.7	315.7
65°	279.6	281.9	281.9	281.9
67.5°	243.6	245.8	244.7	244.7
70°	210.9	212.0	210.9	210.9
72.5°	176.9	178.0	178.0	178.0
75°	144.2	145.3	144.2	144.2
77.5°	113.6	114.7	113.6	112.5
80°	84.1	85.2	84.1	83.0
82.5°	56.8	57.9	56.8	55.7
85°	33.8	33.8	32.7	31.7
87.5°	14.2	14.2	13.1	12.0
90°	0.0	0.0	0.0	0.0

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