

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-34L930-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-34L930-UNV-NP  
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture EXAM Light w/ Nature Pattern Lens  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

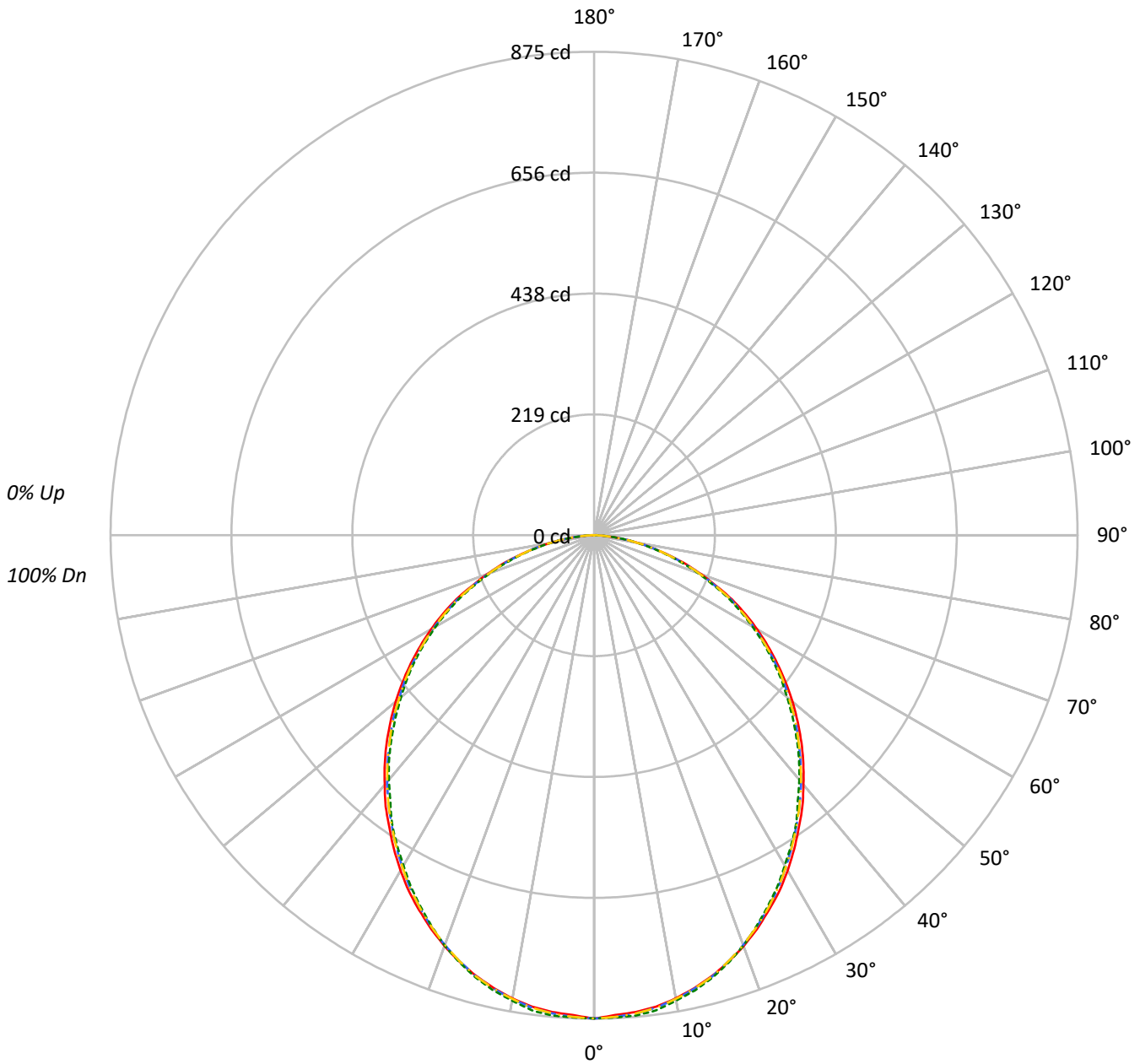
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2275.5 lumens  
Efficiency: N/A  
Efficacy: 61.8 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<sub>in</sub>): 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°	8069	8069	8069	8069
5°	8020	8081	8020	8081
10°	7974	8013	7974	8013
15°	7885	7915	7885	7915
20°	7770	7758	7770	7758
25°	7621	7556	7621	7556
30°	7463	7349	7463	7349
35°	7276	7181	7276	7181
40°	7099	6958	7099	6958
45°	6924	6757	6924	6757
50°	6729	6545	6729	6545
55°	6511	6355	6511	6355
60°	6287	6110	6287	6110
65°	6014	5829	6014	5829
70°	5560	5387	5560	5387
75°	5026	4873	5026	4873
80°	4309	4197	4309	4197
85°	3282	3282	3282	3282



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	3.6
10°-20°	233.1	10.2
20°-30°	343.6	15.1
30°-40°	401.1	17.6
40°-50°	404.4	17.8
50°-60°	357.4	15.7
60°-70°	267.3	11.7
70°-80°	148.1	6.5
80°-90°	38.0	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°	659.2	29.0
0°-40°	1060.3	46.6
0°-60°	1822.1	80.1
0°-90°	2275.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2275.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	875	875	875	875	875	
5°	866	872	866	872	866	82
15°	826	829	826	829	826	233
25°	749	742	749	742	749	345
35°	646	638	646	638	646	404
45°	531	518	531	518	531	409
55°	405	395	405	395	405	362
65°	276	267	276	267	276	271
75°	141	137	141	137	141	150
85°	31	31	31	31	31	37
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°	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6
2.5°	869.3	873.5	877.8	876.7	873.5	871.4	872.5	872.5	873.5	873.5	873.5
5°	866.0	870.4	873.5	872.5	869.3	868.2	868.2	868.2	870.4	872.5	870.4
7.5°	860.7	863.9	867.1	866.0	862.9	861.8	861.8	862.9	865.0	867.1	865.0
10°	851.1	855.3	858.6	856.4	853.2	851.1	851.1	851.1	853.2	855.3	853.2
12.5°	839.4	842.5	845.8	844.7	841.5	839.4	839.4	839.4	841.5	843.6	841.5
15°	825.5	828.7	831.9	830.8	827.6	825.5	825.5	825.5	827.6	828.7	827.6
17.5°	809.4	812.7	815.9	813.8	809.4	807.3	807.3	807.3	809.4	810.5	809.4
20°	791.4	794.5	796.6	794.5	790.2	788.1	787.0	787.0	789.1	790.2	789.1
22.5°	771.0	773.2	775.3	773.2	768.9	766.7	765.7	764.6	765.7	766.7	765.7
25°	748.6	750.7	752.9	750.7	746.5	743.2	742.2	741.1	742.2	742.2	742.2
27.5°	726.2	727.3	729.4	726.2	721.9	718.7	717.6	716.6	717.6	717.6	717.6
30°	700.5	701.6	703.8	700.5	695.2	692.0	690.9	689.8	689.8	689.8	689.8
32.5°	673.8	676.0	678.1	673.8	668.5	665.3	664.2	663.2	664.2	664.2	664.2
35°	646.0	647.2	649.3	646.0	640.7	637.6	635.4	634.3	636.5	637.6	636.5
37.5°	619.4	620.4	621.5	618.3	612.9	609.8	607.6	606.6	605.5	605.5	605.5
40°	589.4	590.5	592.7	589.4	584.2	581.0	578.8	577.7	577.7	577.7	577.7
42.5°	560.7	561.7	562.8	559.6	554.2	551.0	548.9	547.9	548.9	548.9	548.9
45°	530.7	530.7	531.8	528.6	524.3	521.1	519.0	517.9	517.9	517.9	517.9
47.5°	499.8	500.8	501.9	498.7	494.5	491.2	489.1	487.0	487.0	487.0	487.0
50°	468.8	468.8	469.9	466.6	462.4	459.2	458.1	457.0	456.0	456.0	456.0
52.5°	436.8	437.9	438.9	435.7	432.5	429.3	427.2	426.1	426.1	426.1	426.1
55°	404.8	404.8	405.8	403.7	400.4	397.3	395.1	394.1	395.1	395.1	395.1
57.5°	372.7	373.8	374.8	371.7	368.4	365.2	364.2	363.1	363.1	363.1	363.1
60°	340.7	340.7	341.7	339.6	336.3	333.2	332.1	331.1	331.1	331.1	331.1
62.5°	308.6	308.6	309.7	307.6	304.4	301.1	300.1	299.0	299.0	299.0	299.0
65°	275.5	275.5	275.5	273.4	271.3	270.1	269.1	268.0	267.0	267.0	267.0
67.5°	239.2	239.2	240.3	238.2	236.0	234.9	233.9	232.8	231.7	231.7	231.7
70°	206.1	206.1	207.2	206.1	203.9	202.9	201.8	200.7	199.7	199.7	199.7
72.5°	174.1	174.1	174.1	173.0	172.0	170.8	169.8	168.7	167.6	167.6	167.6
75°	141.0	141.0	142.0	141.0	139.9	138.9	137.7	137.7	136.7	136.7	136.7
77.5°	110.0	111.1	112.1	111.1	110.0	108.9	107.9	107.9	106.8	106.8	106.8
80°	81.1	82.2	83.3	82.2	81.1	80.1	79.0	79.0	79.0	79.0	79.0
82.5°	54.5	55.5	56.6	55.5	54.5	54.5	53.4	53.4	53.4	53.4	53.4
85°	31.0	32.0	33.1	33.1	32.0	32.0	31.0	31.0	31.0	31.0	31.0
87.5°	11.7	12.8	13.9	13.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6
2.5°	872.5	872.5	871.4	873.5	876.7	877.8	873.5	869.3	873.5	877.8	876.7
5°	868.2	868.2	868.2	869.3	872.5	873.5	870.4	866.0	870.4	873.5	872.5
7.5°	862.9	861.8	861.8	862.9	866.0	867.1	863.9	860.7	863.9	867.1	866.0
10°	851.1	851.1	851.1	853.2	856.4	858.6	855.3	851.1	855.3	858.6	856.4
12.5°	839.4	839.4	839.4	841.5	844.7	845.8	842.5	839.4	842.5	845.8	844.7
15°	825.5	825.5	825.5	827.6	830.8	831.9	828.7	825.5	828.7	831.9	830.8
17.5°	807.3	807.3	807.3	809.4	813.8	815.9	812.7	809.4	812.7	815.9	813.8
20°	787.0	787.0	788.1	790.2	794.5	796.6	794.5	791.4	794.5	796.6	794.5
22.5°	764.6	765.7	766.7	768.9	773.2	775.3	773.2	771.0	773.2	775.3	773.2
25°	741.1	742.2	743.2	746.5	750.7	752.9	750.7	748.6	750.7	752.9	750.7
27.5°	716.6	717.6	718.7	721.9	726.2	729.4	727.3	726.2	727.3	729.4	726.2
30°	689.8	690.9	692.0	695.2	700.5	703.8	701.6	700.5	701.6	703.8	700.5
32.5°	663.2	664.2	665.3	668.5	673.8	678.1	676.0	673.8	676.0	678.1	673.8
35°	634.3	635.4	637.6	640.7	646.0	649.3	647.2	646.0	647.2	649.3	646.0
37.5°	606.6	607.6	609.8	612.9	618.3	621.5	620.4	619.4	620.4	621.5	618.3
40°	577.7	578.8	581.0	584.2	589.4	592.7	590.5	589.4	590.5	592.7	589.4
42.5°	547.9	548.9	551.0	554.2	559.6	562.8	561.7	560.7	561.7	562.8	559.6
45°	517.9	519.0	521.1	524.3	528.6	531.8	530.7	530.7	530.7	531.8	528.6
47.5°	487.0	489.1	491.2	494.5	498.7	501.9	500.8	499.8	500.8	501.9	498.7
50°	457.0	458.1	459.2	462.4	466.6	469.9	468.8	468.8	468.8	469.9	466.6
52.5°	426.1	427.2	429.3	432.5	435.7	438.9	437.9	436.8	437.9	438.9	435.7
55°	394.1	395.1	397.3	400.4	403.7	405.8	404.8	404.8	404.8	405.8	403.7
57.5°	363.1	364.2	365.2	368.4	371.7	374.8	373.8	372.7	373.8	374.8	371.7
60°	331.1	332.1	333.2	336.3	339.6	341.7	340.7	340.7	340.7	341.7	339.6
62.5°	299.0	300.1	301.1	304.4	307.6	309.7	308.6	308.6	308.6	309.7	307.6
65°	268.0	269.1	270.1	271.3	273.4	275.5	275.5	275.5	275.5	275.5	273.4
67.5°	232.8	233.9	234.9	236.0	238.2	240.3	239.2	239.2	239.2	240.3	238.2
70°	200.7	201.8	202.9	203.9	206.1	207.2	206.1	206.1	206.1	207.2	206.1
72.5°	168.7	169.8	170.8	172.0	173.0	174.1	174.1	174.1	174.1	174.1	173.0
75°	137.7	137.7	138.9	139.9	141.0	142.0	141.0	141.0	141.0	142.0	141.0
77.5°	107.9	107.9	108.9	110.0	111.1	112.1	111.1	110.0	111.1	112.1	111.1
80°	79.0	79.0	80.1	81.1	82.2	83.3	82.2	81.1	82.2	83.3	82.2
82.5°	53.4	53.4	54.5	54.5	55.5	56.6	55.5	54.5	55.5	56.6	55.5
85°	31.0	31.0	32.0	32.0	33.1	33.1	32.0	31.0	32.0	33.1	33.1
87.5°	12.8	12.8	12.8	12.8	13.9	13.9	12.8	11.7	12.8	13.9	13.9
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°	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6	874.6
2.5°	873.5	871.4	872.5	872.5	873.5	873.5	873.5	872.5	872.5	871.4	873.5
5°	869.3	868.2	868.2	868.2	870.4	872.5	870.4	868.2	868.2	868.2	869.3
7.5°	862.9	861.8	861.8	862.9	865.0	867.1	865.0	862.9	861.8	861.8	862.9
10°	853.2	851.1	851.1	851.1	853.2	855.3	853.2	851.1	851.1	851.1	853.2
12.5°	841.5	839.4	839.4	839.4	841.5	843.6	841.5	839.4	839.4	839.4	841.5
15°	827.6	825.5	825.5	825.5	827.6	828.7	827.6	825.5	825.5	825.5	827.6
17.5°	809.4	807.3	807.3	807.3	809.4	810.5	809.4	807.3	807.3	807.3	809.4
20°	790.2	788.1	787.0	787.0	789.1	790.2	789.1	787.0	787.0	788.1	790.2
22.5°	768.9	766.7	765.7	764.6	765.7	766.7	765.7	764.6	765.7	766.7	768.9
25°	746.5	743.2	742.2	741.1	742.2	742.2	742.2	741.1	742.2	743.2	746.5
27.5°	721.9	718.7	717.6	716.6	717.6	717.6	717.6	716.6	717.6	718.7	721.9
30°	695.2	692.0	690.9	689.8	689.8	689.8	689.8	689.8	690.9	692.0	695.2
32.5°	668.5	665.3	664.2	663.2	664.2	664.2	664.2	663.2	664.2	665.3	668.5
35°	640.7	637.6	635.4	634.3	636.5	637.6	636.5	634.3	635.4	637.6	640.7
37.5°	612.9	609.8	607.6	606.6	605.5	605.5	605.5	606.6	607.6	609.8	612.9
40°	584.2	581.0	578.8	577.7	577.7	577.7	577.7	577.7	578.8	581.0	584.2
42.5°	554.2	551.0	548.9	547.9	548.9	548.9	548.9	547.9	548.9	551.0	554.2
45°	524.3	521.1	519.0	517.9	517.9	517.9	517.9	517.9	519.0	521.1	524.3
47.5°	494.5	491.2	489.1	487.0	487.0	487.0	487.0	487.0	489.1	491.2	494.5
50°	462.4	459.2	458.1	457.0	456.0	456.0	456.0	457.0	458.1	459.2	462.4
52.5°	432.5	429.3	427.2	426.1	426.1	426.1	426.1	426.1	427.2	429.3	432.5
55°	400.4	397.3	395.1	394.1	395.1	395.1	395.1	394.1	395.1	397.3	400.4
57.5°	368.4	365.2	364.2	363.1	363.1	363.1	363.1	363.1	364.2	365.2	368.4
60°	336.3	333.2	332.1	331.1	331.1	331.1	331.1	331.1	332.1	333.2	336.3
62.5°	304.4	301.1	300.1	299.0	299.0	299.0	299.0	299.0	300.1	301.1	304.4
65°	271.3	270.1	269.1	268.0	267.0	267.0	267.0	268.0	269.1	270.1	271.3
67.5°	236.0	234.9	233.9	232.8	231.7	231.7	231.7	232.8	233.9	234.9	236.0
70°	203.9	202.9	201.8	200.7	199.7	199.7	199.7	200.7	201.8	202.9	203.9
72.5°	172.0	170.8	169.8	168.7	167.6	167.6	167.6	168.7	169.8	170.8	172.0
75°	139.9	138.9	137.7	137.7	136.7	136.7	136.7	137.7	137.7	138.9	139.9
77.5°	110.0	108.9	107.9	107.9	106.8	106.8	106.8	107.9	107.9	108.9	110.0
80°	81.1	80.1	79.0	79.0	79.0	79.0	79.0	79.0	79.0	80.1	81.1
82.5°	54.5	54.5	53.4	53.4	53.4	53.4	53.4	53.4	53.4	54.5	54.5
85°	32.0	32.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	32.0	32.0
87.5°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
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):**

	330°	340°	350°	360°
0°	874.6	874.6	874.6	874.6
2.5°	876.7	877.8	873.5	869.3
5°	872.5	873.5	870.4	866.0
7.5°	866.0	867.1	863.9	860.7
10°	856.4	858.6	855.3	851.1
12.5°	844.7	845.8	842.5	839.4
15°	830.8	831.9	828.7	825.5
17.5°	813.8	815.9	812.7	809.4
20°	794.5	796.6	794.5	791.4
22.5°	773.2	775.3	773.2	771.0
25°	750.7	752.9	750.7	748.6
27.5°	726.2	729.4	727.3	726.2
30°	700.5	703.8	701.6	700.5
32.5°	673.8	678.1	676.0	673.8
35°	646.0	649.3	647.2	646.0
37.5°	618.3	621.5	620.4	619.4
40°	589.4	592.7	590.5	589.4
42.5°	559.6	562.8	561.7	560.7
45°	528.6	531.8	530.7	530.7
47.5°	498.7	501.9	500.8	499.8
50°	466.6	469.9	468.8	468.8
52.5°	435.7	438.9	437.9	436.8
55°	403.7	405.8	404.8	404.8
57.5°	371.7	374.8	373.8	372.7
60°	339.6	341.7	340.7	340.7
62.5°	307.6	309.7	308.6	308.6
65°	273.4	275.5	275.5	275.5
67.5°	238.2	240.3	239.2	239.2
70°	206.1	207.2	206.1	206.1
72.5°	173.0	174.1	174.1	174.1
75°	141.0	142.0	141.0	141.0
77.5°	111.1	112.1	111.1	110.0
80°	82.2	83.3	82.2	81.1
82.5°	55.5	56.6	55.5	54.5
85°	33.1	33.1	32.0	31.0
87.5°	13.9	13.9	12.8	11.7
90°	0.0	0.0	0.0	0.0

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