

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-35L930-X-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-35L930-X-UNV-NP
Description: ArcMed Patient Recessed 4 FT x6 IN Fixture Ambient Light w/ Nature Pattern Lens
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

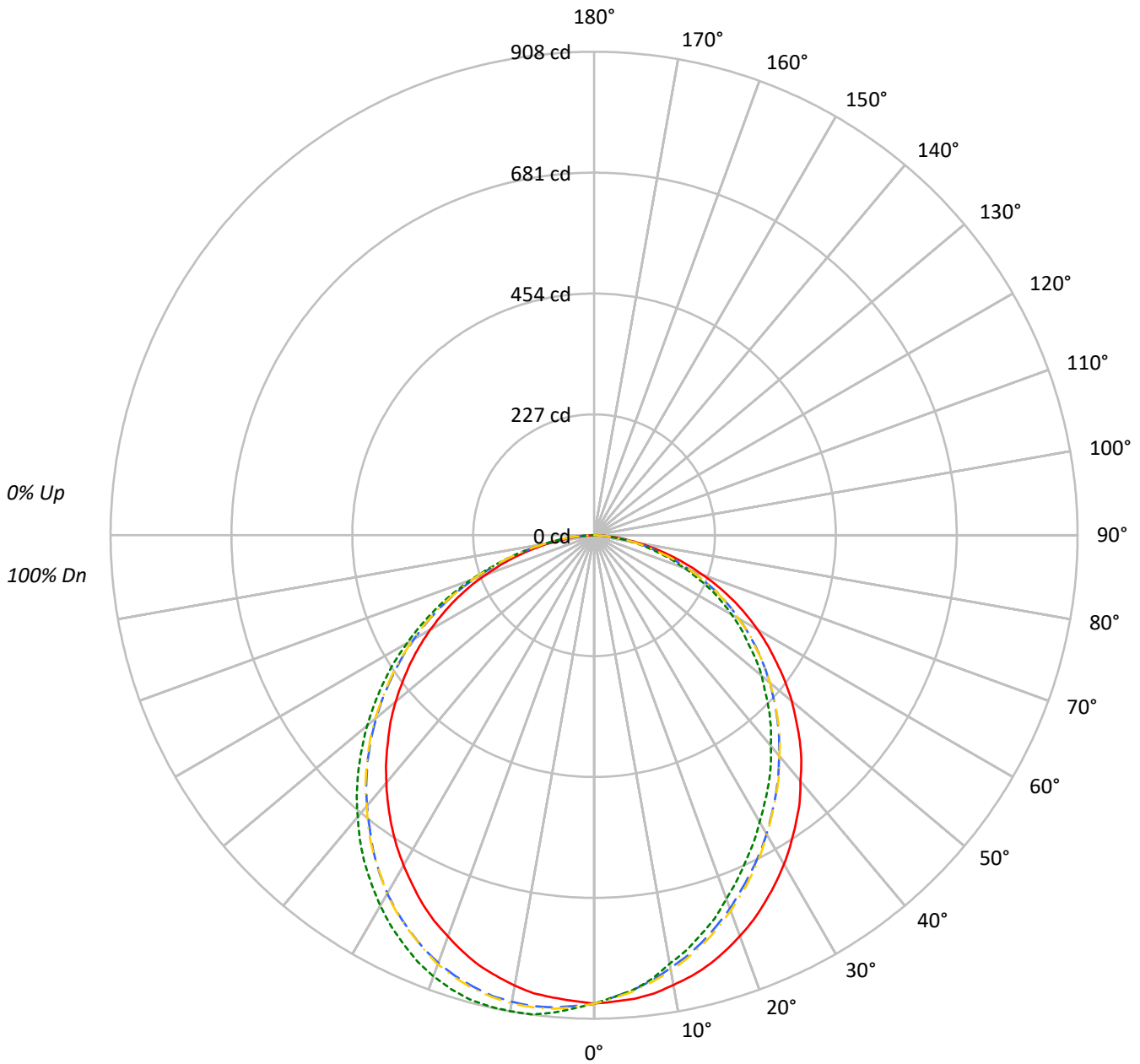
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2359.1 lumens
Efficiency: N/A
Efficacy: 58.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
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	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	53	53	53	51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	41	41	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	27	27	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	8115	8115	8115	8115
5°	8092	7934	8073	8340
10°	8035	7653	8046	8502
15°	7975	7413	7984	8620
20°	7864	7132	7874	8656
25°	7739	6867	7769	8620
30°	7600	6625	7623	8555
35°	7442	6433	7475	8461
40°	7263	6219	7311	8318
45°	7128	6063	7141	8167
50°	6956	5898	6983	7983
55°	6740	5681	6786	7763
60°	6536	5508	6554	7492
65°	6279	5279	6279	7167
70°	5851	4885	5824	6682
75°	5322	4435	5247	5996
80°	4601	3804	4442	5127
85°	3578	2837	3366	4213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	3.5
10°-20°	235.9	10.0
20°-30°	350.7	14.9
30°-40°	413.3	17.5
40°-50°	420.8	17.8
50°-60°	374.9	15.9
60°-70°	282.5	12.0
70°-80°	157.1	6.7
80°-90°	40.8	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°	669.7	28.4
0°-40°	1083.0	45.9
0°-60°	1878.7	79.6
0°-90°	2359.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2359.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	880	880	880	880	880	
5°	874	857	872	900	874	83
15°	835	776	836	902	835	235
25°	760	675	763	847	760	350
35°	661	571	664	751	661	413
45°	546	465	547	626	546	421
55°	419	353	422	483	419	375
65°	288	242	288	328	288	284
75°	149	124	147	168	149	159
85°	34	27	32	40	34	41
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°	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6
2.5°	876.6	876.6	877.7	873.7	868.7	866.7	865.7	864.7	866.7	867.7	866.7
5°	873.7	871.7	869.6	864.7	858.8	854.8	852.8	851.7	853.8	856.7	853.8
7.5°	867.7	863.7	859.8	852.8	845.8	839.8	836.8	834.9	836.8	839.8	837.8
10°	857.7	852.8	846.8	838.8	828.9	821.9	818.9	816.0	816.9	816.9	816.9
12.5°	847.8	840.8	833.9	823.9	812.9	805.0	800.0	796.1	798.0	799.0	799.0
15°	834.9	825.9	816.0	805.0	794.0	785.1	779.1	775.1	776.1	776.1	777.2
17.5°	818.9	809.0	799.0	786.1	773.2	763.2	756.2	751.2	753.3	754.3	755.2
20°	801.0	790.1	779.1	765.2	751.2	740.3	733.4	727.4	726.4	726.4	727.4
22.5°	782.1	770.1	757.2	742.3	727.4	715.5	708.5	702.5	701.5	701.5	702.5
25°	760.2	747.3	734.4	719.4	703.5	691.6	682.6	676.7	675.6	674.6	676.7
27.5°	737.3	724.4	711.4	696.6	679.6	667.7	658.7	652.8	650.7	649.7	651.8
30°	713.4	698.5	684.6	668.6	653.8	641.8	632.9	625.9	623.9	621.9	623.9
32.5°	687.5	672.7	657.8	641.8	626.9	615.0	605.9	599.0	597.0	596.1	598.0
35°	660.7	645.8	631.8	615.9	601.1	589.1	580.1	574.1	572.2	571.2	572.2
37.5°	633.9	618.9	605.0	589.1	574.1	562.2	553.3	547.3	546.3	545.3	546.3
40°	603.0	590.1	576.2	561.2	546.3	534.3	527.4	520.4	518.4	516.4	519.5
42.5°	576.2	563.2	549.2	535.3	520.4	508.5	500.6	494.6	492.5	491.5	492.5
45°	546.3	532.4	518.4	505.4	491.5	480.6	472.6	466.7	465.7	464.7	465.7
47.5°	514.5	502.5	490.6	477.6	463.7	452.7	445.8	439.8	437.9	435.8	437.9
50°	484.6	472.6	460.7	448.7	435.8	425.9	419.0	413.0	411.9	410.9	411.9
52.5°	452.7	440.8	429.8	417.9	407.0	397.0	390.1	385.1	384.1	383.1	384.1
55°	419.0	409.0	399.0	389.1	378.1	369.2	363.2	357.2	355.2	353.2	355.2
57.5°	387.1	378.1	368.2	358.2	348.2	340.3	334.3	329.3	328.3	327.4	328.3
60°	354.2	346.3	337.4	328.3	318.5	310.4	305.5	301.5	299.5	298.5	299.5
62.5°	321.4	313.5	306.5	297.5	288.6	282.6	277.6	273.6	271.6	270.7	271.6
65°	287.6	280.6	273.6	265.7	258.7	252.7	247.7	243.8	242.8	241.8	241.8
67.5°	252.7	246.7	240.8	233.8	225.9	219.9	214.9	212.0	211.0	209.9	211.0
70°	216.9	212.0	206.0	200.0	194.0	189.1	186.1	183.1	182.1	181.1	181.1
72.5°	183.1	179.1	174.2	169.2	164.2	159.2	156.2	154.3	153.2	152.2	152.2
75°	149.3	145.3	142.3	138.3	133.3	130.4	127.3	125.4	124.4	124.4	124.4
77.5°	117.4	114.4	111.5	107.5	104.5	101.5	99.5	98.5	97.5	97.5	97.5
80°	86.6	84.5	82.6	80.6	77.6	74.6	73.7	72.7	71.6	71.6	71.6
82.5°	58.7	57.7	55.7	53.8	51.7	50.7	49.8	48.8	48.8	48.8	48.8
85°	33.8	32.8	31.8	30.9	29.9	29.9	28.9	27.8	26.8	26.8	26.8
87.5°	13.9	13.9	13.9	12.9	12.0	12.0	12.0	12.0	12.0	12.0	12.0
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°	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6
2.5°	864.7	866.7	868.7	871.7	874.6	877.7	876.6	875.6	879.6	884.6	885.6
5°	851.7	853.8	856.7	861.7	866.7	870.6	871.7	871.7	879.6	886.6	888.6
7.5°	835.9	838.8	842.8	847.8	854.8	860.7	863.7	867.7	875.6	884.6	888.6
10°	816.0	820.9	826.8	833.9	840.8	847.8	853.8	858.8	868.7	878.7	884.6
12.5°	798.0	803.0	809.0	816.9	825.9	834.9	840.8	847.8	859.8	871.7	878.7
15°	778.2	783.1	790.1	798.0	807.9	817.9	826.8	835.9	847.8	860.7	868.7
17.5°	756.2	761.2	768.2	778.2	789.0	800.0	810.0	819.9	833.9	847.8	856.7
20°	729.4	736.3	745.3	755.2	768.2	781.1	791.1	802.0	816.9	831.8	841.8
22.5°	703.5	710.5	720.5	732.3	746.3	760.2	772.2	784.1	800.0	815.0	825.9
25°	678.6	686.6	696.6	708.5	721.4	735.3	749.3	763.2	779.1	795.0	806.0
27.5°	653.8	660.7	670.7	682.6	697.5	711.4	725.4	739.4	756.2	773.2	785.1
30°	625.9	633.9	642.8	654.7	670.7	686.6	700.5	715.5	732.3	749.3	761.2
32.5°	600.0	607.0	615.9	627.9	643.8	659.7	674.6	690.6	706.5	723.4	735.3
35°	574.1	581.1	590.1	602.0	617.9	633.9	648.8	663.7	679.6	695.6	707.5
37.5°	548.3	555.2	564.2	576.2	591.1	607.0	620.9	635.8	651.8	667.7	678.6
40°	521.4	528.4	535.3	547.3	562.2	578.1	592.0	607.0	622.9	638.9	649.7
42.5°	494.6	501.5	510.4	522.4	536.3	550.2	564.2	578.1	593.0	608.0	618.9
45°	467.6	473.6	482.6	493.5	507.5	520.4	534.3	547.3	562.2	576.2	587.0
47.5°	439.8	445.8	452.7	463.7	477.6	491.5	505.4	518.4	531.3	545.3	555.2
50°	413.0	419.0	426.9	436.8	449.8	462.7	474.6	486.5	499.5	512.4	521.4
52.5°	385.1	391.0	398.0	408.0	419.0	430.9	441.8	453.7	465.7	477.6	486.5
55°	357.2	361.2	367.1	376.1	388.1	400.0	410.9	421.9	432.9	442.8	451.8
57.5°	329.3	334.3	341.3	349.3	359.2	369.2	379.1	389.1	399.0	409.0	416.9
60°	301.5	305.5	310.4	317.4	327.4	336.3	346.3	355.2	364.2	373.1	380.1
62.5°	272.6	276.6	281.6	288.6	296.5	304.4	313.5	321.4	329.3	337.4	344.3
65°	242.8	246.7	251.7	257.7	264.7	271.6	279.6	287.6	293.6	299.5	306.5
67.5°	212.0	215.9	220.9	225.9	231.9	238.8	245.8	252.7	258.7	264.7	269.7
70°	182.1	185.0	190.0	194.0	199.0	203.9	209.9	215.9	219.9	224.9	230.9
72.5°	153.2	156.2	160.2	164.2	167.2	171.1	177.1	182.1	187.1	193.1	196.0
75°	125.4	127.3	130.4	133.3	136.4	139.3	143.3	147.2	151.2	154.3	158.2
77.5°	97.5	99.5	102.5	104.5	106.5	108.4	111.5	114.4	117.4	119.4	123.4
80°	71.6	73.7	75.6	77.6	79.6	81.6	82.6	83.6	87.6	90.5	92.6
82.5°	48.8	49.8	50.7	52.7	53.8	54.8	55.7	55.7	57.7	59.7	62.7
85°	27.8	28.9	29.9	29.9	29.9	29.9	30.9	31.8	32.8	34.9	36.8
87.5°	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0	12.9	14.9	16.0
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6	879.6
2.5°	884.6	885.6	887.6	888.6	889.5	889.5	890.6	891.6	889.5	887.6	886.6
5°	889.5	890.6	893.5	896.6	898.5	900.5	899.5	898.5	896.6	893.5	891.6
7.5°	890.6	893.5	896.6	900.5	903.5	907.5	905.5	903.5	899.5	895.5	892.6
10°	887.6	891.6	896.6	901.5	904.5	907.5	905.5	903.5	899.5	894.5	890.6
12.5°	883.6	888.6	894.5	899.5	902.5	906.5	903.5	900.5	895.5	890.6	885.6
15°	874.6	880.6	887.6	893.5	898.5	902.5	899.5	897.6	891.6	884.6	877.7
17.5°	863.7	871.7	878.7	885.6	889.5	893.5	891.6	889.5	882.6	874.6	866.7
20°	850.7	858.8	865.7	872.7	877.7	881.6	878.7	875.6	868.7	861.7	853.8
22.5°	834.9	842.8	850.7	857.7	862.7	866.7	862.7	857.7	850.7	843.8	835.9
25°	815.0	823.9	832.8	839.8	842.8	846.8	842.8	838.8	831.8	824.9	816.0
27.5°	795.0	804.0	812.9	819.9	822.9	826.8	822.9	818.9	812.0	805.0	796.1
30°	772.2	781.1	790.1	797.1	800.0	803.0	799.0	795.0	789.0	782.1	773.2
32.5°	746.3	755.2	762.2	769.1	773.2	777.2	773.2	770.1	763.2	754.3	745.3
35°	718.4	727.4	736.3	743.3	747.3	751.2	746.3	741.3	735.3	728.4	720.5
37.5°	687.5	697.5	707.5	715.5	718.4	722.4	718.4	713.4	707.5	700.5	691.6
40°	658.7	667.7	676.7	684.6	687.5	690.6	686.6	682.6	675.6	668.6	659.7
42.5°	628.9	637.8	645.8	652.8	655.7	659.7	655.7	650.7	645.8	639.8	631.8
45°	597.0	605.9	612.9	620.0	622.9	625.9	621.9	616.9	611.9	607.0	599.0
47.5°	564.2	572.2	579.1	586.1	588.1	591.1	587.0	584.1	579.1	574.1	567.2
50°	530.3	538.4	545.3	551.3	553.3	556.2	552.3	548.3	544.3	540.3	534.3
52.5°	495.6	502.5	509.5	515.4	517.4	519.5	515.4	511.4	507.5	503.5	497.5
55°	459.7	466.7	473.6	478.6	480.6	482.6	478.6	475.7	471.7	468.7	462.7
57.5°	423.9	430.9	436.8	441.8	443.8	445.8	441.8	437.9	434.8	431.9	426.9
60°	387.1	394.1	399.0	403.0	404.9	406.0	402.0	399.0	397.0	395.1	390.1
62.5°	351.3	356.3	361.2	364.2	366.2	367.1	364.2	362.2	360.2	358.2	354.2
65°	313.5	319.4	323.3	326.4	327.4	328.3	325.4	323.3	321.4	319.4	316.4
67.5°	275.6	280.6	283.6	286.6	287.6	287.6	287.6	286.6	284.6	281.6	278.6
70°	237.8	241.8	244.8	246.7	247.7	247.7	245.8	243.8	243.8	242.8	240.8
72.5°	199.0	202.0	203.9	206.0	206.0	206.0	206.0	207.0	206.0	203.9	201.0
75°	162.2	165.2	167.2	168.2	168.2	168.2	168.2	169.2	168.2	167.2	165.2
77.5°	127.3	129.4	130.4	131.4	131.4	131.4	132.3	133.3	132.3	131.4	130.4
80°	94.5	95.5	96.5	97.5	96.5	96.5	97.5	99.5	98.5	97.5	96.5
82.5°	64.6	65.6	66.7	66.7	67.7	68.7	68.7	68.7	68.7	67.7	66.7
85°	38.8	39.8	39.8	39.8	39.8	39.8	40.8	41.8	41.8	40.8	40.8
87.5°	17.9	18.9	17.9	16.9	16.0	16.0	17.9	19.9	19.9	18.9	18.9
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°	879.6	879.6	879.6	879.6
2.5°	887.6	886.6	881.6	876.6
5°	890.6	887.6	880.6	873.7
7.5°	890.6	886.6	876.6	867.7
10°	885.6	879.6	868.7	857.7
12.5°	879.6	872.7	859.8	847.8
15°	870.6	862.7	848.8	834.9
17.5°	857.7	847.8	833.9	818.9
20°	844.8	833.9	816.9	801.0
22.5°	826.8	816.9	799.0	782.1
25°	807.0	796.1	778.2	760.2
27.5°	786.1	773.2	755.2	737.3
30°	762.2	749.3	731.3	713.4
32.5°	736.3	724.4	706.5	687.5
35°	710.5	697.5	679.6	660.7
37.5°	681.6	669.6	651.8	633.9
40°	650.7	638.9	620.9	603.0
42.5°	621.9	610.9	593.0	576.2
45°	590.1	579.1	562.2	546.3
47.5°	557.3	546.3	530.3	514.5
50°	525.4	514.5	499.5	484.6
52.5°	489.6	480.6	466.7	452.7
55°	454.7	445.8	431.9	419.0
57.5°	419.9	411.9	399.0	387.1
60°	383.1	375.2	365.2	354.2
62.5°	348.2	341.3	331.4	321.4
65°	311.5	305.5	296.5	287.6
67.5°	273.6	268.7	260.7	252.7
70°	235.8	229.9	223.9	216.9
72.5°	198.0	195.0	189.1	183.1
75°	162.2	159.2	154.3	149.3
77.5°	128.3	125.4	121.4	117.4
80°	94.5	92.6	89.5	86.6
82.5°	65.6	63.7	61.7	58.7
85°	39.8	37.8	35.9	33.8
87.5°	17.9	16.9	14.9	13.9
90°	0.0	0.0	0.0	0.0

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