

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: P232067

Luminaire Tested: **FVS4M-3-LD4-50-2LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232067
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-29)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-3-LD4-50-2LO-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

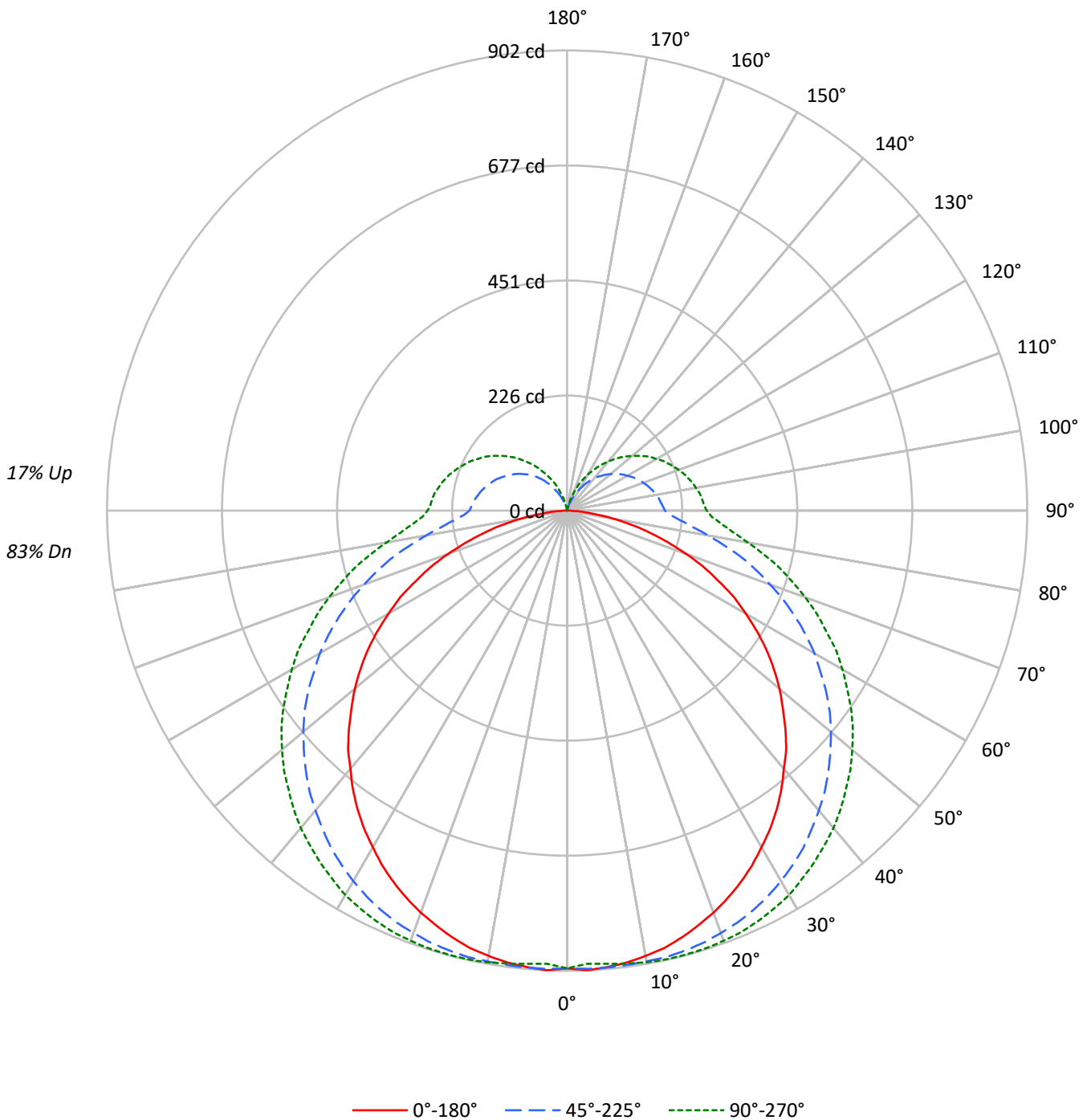
Lumens per Lamp: N/A
Luminaire Lumens: 4042.0 lumens
Efficiency: N/A
Efficacy: 71.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 56.8
Input Voltage (V): 120
Input Current (Ain): 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





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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	0
RCR																		
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	103	97	92	88	98	93	89	84	86	82	79	79	76	73	73	70	68	65
2	92	83	76	69	88	80	73	67	74	68	63	68	63	59	62	59	55	52
3	84	72	64	57	80	69	61	55	64	57	52	59	53	49	54	50	46	43
4	76	64	54	47	73	61	53	46	56	49	43	52	46	41	48	43	39	36
5	70	56	47	40	66	54	46	39	50	43	37	46	40	35	43	38	33	31
6	64	50	41	35	61	49	40	34	45	38	32	42	35	31	39	33	29	26
7	59	46	37	30	57	44	35	30	41	33	28	38	32	27	35	30	25	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	20
9	51	38	29	24	49	37	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	31	25	20	29	23	19	27	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10597	10597	10597
5°	10588	10238	10045
10°	10510	9937	9750
15°	10416	9695	9489
20°	10298	9455	9256
25°	10175	9234	9034
30°	10018	8996	8813
35°	9875	8755	8559
40°	9666	8485	8330
45°	9491	8227	8066
50°	9273	7953	7814
55°	9005	7641	7537
60°	8595	7289	7215
65°	8048	6874	6851
70°	7284	6383	6473
75°	6212	5866	6053
80°	4635	5210	5550
85°	2468	4744	5245



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	2.1
10°-20°	251.2	6.2
20°-30°	394.8	9.8
30°-40°	497.6	12.3
40°-50°	547.6	13.5
50°-60°	538.5	13.3
60°-70°	468.6	11.6
70°-80°	348.8	8.6
80°-90°	223.6	5.5
90°-100°	177.6	4.4
100°-110°	157.8	3.9
110°-120°	130.4	3.2
120°-130°	98.9	2.4
130°-140°	66.6	1.6
140°-150°	37.2	0.9
150°-160°	14.8	0.4
160°-170°	2.3	0.1
170°-180°	0.0	0.0
0°-30°	731.6	18.1
0°-40°	1229.2	30.4
0°-60°	2315.3	57.3
0°-90°	3356.3	83.0
90°-120°	465.9	11.5
90°-150°	668.6	16.5
90°-180°	686.0	17.0
0°-180°	4042.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	898	897	899	897	892	85
15°	867	875	893	902	901	245
25°	804	829	864	885	887	371
35°	716	756	807	838	843	447
45°	605	660	724	764	773	466
55°	478	544	620	667	680	426
65°	328	405	494	547	561	325
75°	169	256	354	410	430	178
85°	32	121	223	284	304	38
90°	1	91	191	255	274	2
95°	1	86	184	246	265	1
105°	1	76	169	228	246	1
115°	1	65	149	202	218	1
125°	1	52	125	172	186	1
135°	1	38	97	135	147	1
145°	1	22	65	96	105	1
155°	1	9	32	54	60	0
165°	1	1	7	12	15	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	897.3	897.3	897.3	897.3	897.3	897.3	897.3	897.3	897.3	897.3	897.3
2.5°	901.8	900.0	897.3	897.3	899.1	900.0	901.8	901.8	900.9	899.1	898.2
5°	898.2	897.3	894.6	894.6	896.4	898.2	900.0	900.0	900.0	899.1	898.2
7.5°	893.7	891.8	890.0	890.0	892.8	894.6	897.3	898.2	899.1	898.2	899.1
10°	886.4	885.5	883.7	884.6	887.3	890.0	892.8	895.5	897.3	897.3	899.1
12.5°	878.3	876.5	874.7	876.5	880.1	883.7	889.1	891.8	894.6	896.4	897.3
15°	866.6	865.7	864.8	867.5	872.0	877.4	882.8	887.3	890.0	892.8	895.5
17.5°	853.0	853.0	853.0	856.6	862.1	869.3	874.7	880.1	884.6	888.2	891.8
20°	838.6	837.7	838.6	844.0	852.1	858.5	865.7	872.0	877.4	881.0	885.5
22.5°	822.3	822.3	824.1	829.6	838.6	847.6	854.8	862.1	868.4	873.8	878.3
25°	804.3	805.2	807.9	814.2	824.1	833.2	842.2	850.3	858.5	863.9	870.2
27.5°	784.4	784.4	788.9	797.1	807.9	817.8	827.8	836.8	845.8	852.1	858.5
30°	761.9	763.7	768.2	779.0	789.8	801.6	811.5	822.3	830.5	838.6	845.8
32.5°	740.2	741.1	746.5	757.3	770.9	782.6	793.5	806.1	814.2	823.2	831.4
35°	715.8	717.6	724.0	735.7	749.2	762.8	775.4	787.1	797.1	807.0	815.1
37.5°	689.6	692.4	700.5	712.2	726.7	740.2	753.7	766.4	778.1	787.1	798.0
40°	660.8	665.3	673.4	688.7	703.2	716.7	731.2	743.8	756.4	767.3	778.1
42.5°	635.5	637.3	647.2	662.6	678.8	695.1	709.5	723.0	735.7	747.4	756.4
45°	604.8	609.3	619.2	633.7	650.8	668.9	686.9	696.9	711.3	724.0	734.8
47.5°	573.2	578.6	591.3	607.5	624.7	640.9	656.2	673.4	686.9	699.6	712.2
50°	543.4	548.8	560.6	578.6	594.9	612.9	631.0	646.3	660.8	675.2	686.9
52.5°	510.9	515.4	529.9	547.0	566.0	584.0	601.2	619.2	633.7	649.0	660.8
55°	477.5	482.0	496.5	514.5	534.4	554.2	571.4	590.4	603.9	620.1	633.7
57.5°	441.4	449.5	461.3	480.2	500.1	519.9	539.8	557.9	574.1	588.5	603.9
60°	404.4	412.5	427.9	446.8	465.8	487.4	507.3	525.4	542.5	559.7	572.3
62.5°	369.2	375.5	390.9	410.7	431.5	452.2	474.8	492.0	511.8	527.2	542.5
65°	327.7	336.7	353.9	373.7	394.5	416.1	436.9	457.7	476.6	493.8	509.1
67.5°	289.8	297.0	316.8	334.9	357.5	379.1	404.4	423.4	442.3	459.5	473.9
70°	248.2	260.0	273.5	298.8	320.5	344.8	365.6	387.3	406.2	423.4	439.6
72.5°	206.7	218.4	237.4	258.2	281.6	306.9	328.6	349.3	369.2	388.2	403.5
75°	168.8	177.8	197.7	220.3	245.5	267.2	289.8	313.2	334.0	353.9	368.3
77.5°	130.0	140.8	158.0	180.5	205.8	232.9	255.5	276.2	297.9	315.0	334.0
80°	93.0	102.0	121.9	143.5	169.7	195.0	219.4	241.9	261.8	280.7	297.9
82.5°	57.8	68.6	87.6	113.7	138.1	164.3	186.9	209.4	231.1	249.1	266.3
85°	31.6	39.7	60.5	83.0	109.2	133.6	159.8	181.4	204.0	223.0	241.9
87.5°	10.8	19.9	38.8	63.2	89.4	112.8	139.0	161.6	182.3	202.2	220.3
90°	0.9	9.9	29.8	53.3	78.5	103.8	128.2	150.7	172.4	191.4	209.4
92.5°	0.9	9.0	27.1	50.6	75.8	100.2	124.6	147.1	167.9	187.8	204.9
95°	0.9	8.1	26.2	48.7	74.0	98.4	121.9	144.4	165.2	184.1	201.3
97.5°	0.9	8.1	25.3	47.8	71.3	95.7	119.2	141.7	162.5	181.4	198.6
100°	0.9	7.2	23.5	45.1	69.5	93.0	116.4	138.1	158.9	176.9	195.0
102.5°	0.9	6.3	22.6	44.2	66.8	90.3	112.8	134.5	154.4	173.3	190.5
105°	0.9	6.3	21.7	42.4	65.0	87.6	109.2	130.9	150.7	168.8	185.0
107.5°	0.9	5.4	20.8	40.6	62.3	84.9	106.5	127.3	146.2	164.3	180.5
110°	0.9	5.4	19.9	38.8	59.6	81.2	102.9	122.8	141.7	158.9	175.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	4.5	18.1	37.0	56.9	78.5	98.4	119.2	137.2	154.4	169.7
115°	0.9	4.5	17.2	35.2	55.1	74.9	94.8	113.7	131.8	148.9	163.4
117.5°	0.9	3.6	16.2	33.4	52.4	71.3	91.2	109.2	127.3	142.6	157.1
120°	0.9	3.6	14.4	30.7	48.7	67.7	86.7	104.7	121.0	136.3	150.7
122.5°	0.9	2.7	13.5	28.9	46.9	64.1	82.1	99.3	116.4	130.9	144.4
125°	0.9	2.7	12.6	27.1	43.3	60.5	77.6	94.8	110.1	124.6	137.2
127.5°	0.9	1.8	10.8	24.4	40.6	56.9	73.1	89.4	103.8	118.3	130.9
130°	0.9	1.8	9.9	22.6	37.9	53.3	68.6	83.9	98.4	111.0	122.8
132.5°	0.9	1.8	8.1	19.9	34.3	49.6	64.1	78.5	92.1	104.7	115.5
135°	0.9	1.8	7.2	18.1	30.7	45.1	58.7	72.2	85.8	96.6	107.4
137.5°	0.9	0.9	6.3	15.3	27.1	40.6	53.3	66.8	78.5	90.3	100.2
140°	0.9	0.9	4.5	12.6	23.5	35.2	46.9	59.6	71.3	82.1	92.1
142.5°	0.9	0.9	3.6	10.8	19.9	30.7	41.5	53.3	63.2	74.0	83.9
145°	0.9	0.9	2.7	9.0	17.2	26.2	35.2	46.0	55.1	65.0	74.0
147.5°	0.9	0.9	2.7	7.2	14.4	21.7	30.7	38.8	47.8	56.9	64.1
150°	0.9	0.9	1.8	5.4	10.8	18.1	25.3	32.5	40.6	46.9	56.0
152.5°	0.9	0.9	1.8	3.6	8.1	14.4	20.8	27.1	33.4	39.7	46.0
155°	0.9	0.9	0.9	2.7	6.3	10.8	16.2	21.7	26.2	31.6	37.0
157.5°	0.9	0.9	0.9	1.8	4.5	7.2	11.7	16.2	20.8	24.4	28.9
160°	0.9	0.9	0.9	1.8	2.7	5.4	8.1	11.7	15.3	18.1	20.8
162.5°	0.9	0.9	0.9	0.9	1.8	2.7	5.4	8.1	9.9	11.7	14.4
165°	0.9	0.9	0.9	0.9	0.9	1.8	2.7	3.6	5.4	7.2	8.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	897.3	897.3	897.3	897.3	897.3	897.3	897.3	897.3
2.5°	897.3	896.4	895.5	894.6	893.7	891.8	890.0	889.1
5°	898.2	898.2	897.3	896.4	895.5	893.7	891.8	891.8
7.5°	899.1	900.0	900.0	900.0	899.1	898.2	896.4	895.5
10°	900.9	900.9	901.8	901.8	901.8	900.9	900.0	899.1
12.5°	900.0	900.9	902.7	903.6	903.6	902.7	900.9	900.9
15°	898.2	900.0	901.8	902.7	903.6	902.7	900.9	900.9
17.5°	894.6	897.3	900.0	901.8	901.8	901.8	900.9	900.0
20°	890.0	892.8	895.5	898.2	899.1	899.1	898.2	897.3
22.5°	882.8	887.3	890.9	893.7	894.6	894.6	893.7	893.7
25°	874.7	879.2	883.7	886.4	888.2	889.1	888.2	887.3
27.5°	864.8	869.3	873.8	877.4	879.2	880.1	880.1	879.2
30°	853.9	858.5	863.0	867.5	869.3	870.2	870.2	870.2
32.5°	838.6	844.9	850.3	853.9	857.5	857.5	857.5	856.6
35°	822.3	829.6	835.0	840.4	842.2	844.0	844.0	843.1
37.5°	804.3	813.3	818.7	823.2	826.9	827.8	826.9	827.8
40°	786.2	793.5	802.5	805.2	808.8	811.5	810.6	812.4
42.5°	766.4	774.5	781.7	788.0	790.7	791.7	792.6	793.5
45°	745.6	752.8	761.9	766.4	770.0	772.7	772.7	772.7
47.5°	722.1	732.1	740.2	745.6	749.2	751.9	751.0	752.8
50°	697.8	707.7	716.7	721.2	726.7	727.6	728.5	729.4
52.5°	672.5	682.4	691.5	697.8	700.5	703.2	705.0	705.9
55°	645.4	655.3	663.5	670.7	675.2	677.9	677.9	679.7
57.5°	616.5	627.4	637.3	641.8	646.3	649.9	651.7	650.8
60°	587.6	597.6	604.8	613.8	619.2	621.9	622.9	622.9
62.5°	552.4	566.0	574.1	584.9	587.6	591.3	592.2	594.9
65°	523.6	533.5	544.3	549.7	557.0	558.8	561.5	560.6
67.5°	488.4	501.9	510.0	518.1	525.4	528.1	528.1	529.9
70°	452.2	466.7	474.8	484.7	489.3	494.7	497.4	496.5
72.5°	418.8	430.6	441.4	449.5	455.9	459.5	460.4	462.2
75°	384.5	396.3	406.2	414.3	422.5	425.2	427.9	429.7
77.5°	347.5	358.4	371.9	380.9	386.3	391.8	393.6	393.6
80°	313.2	325.9	336.7	346.6	352.0	357.5	361.1	359.3
82.5°	280.7	294.3	307.8	315.9	322.3	327.7	329.5	328.6
85°	255.5	269.0	279.8	288.9	296.1	301.5	303.3	304.2
87.5°	235.6	249.1	260.9	269.9	276.2	280.7	282.5	284.3
90°	224.8	238.3	250.0	259.1	265.4	269.9	272.6	273.5
92.5°	220.3	233.8	244.6	253.7	260.9	265.4	267.2	268.1
95°	217.5	230.2	241.9	250.9	257.3	261.8	264.5	265.4
97.5°	213.9	227.5	238.3	247.3	253.7	259.1	260.9	261.8
100°	209.4	223.0	233.8	242.8	249.1	253.7	256.4	256.4
102.5°	204.9	218.4	229.3	238.3	244.6	249.1	250.9	251.8
105°	200.4	213.0	223.9	232.0	238.3	242.8	245.5	245.5
107.5°	195.0	207.6	217.5	226.6	232.9	236.5	239.2	240.1
110°	189.6	201.3	212.1	220.3	226.6	230.2	232.9	232.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	183.2	195.0	205.8	213.0	219.4	223.9	225.7	225.7
115°	176.9	188.7	198.6	205.8	212.1	215.7	218.4	218.4
117.5°	170.6	182.3	191.4	198.6	204.0	208.5	210.3	211.2
120°	163.4	174.2	184.1	191.4	196.8	200.4	202.2	202.2
122.5°	156.2	167.0	176.9	183.2	188.7	191.4	194.1	195.0
125°	148.9	159.8	168.8	174.2	179.6	183.2	185.0	186.0
127.5°	141.7	150.7	159.8	166.1	170.6	174.2	176.0	176.0
130°	133.6	142.6	150.7	157.1	161.6	164.3	166.1	167.0
132.5°	125.5	134.5	141.7	148.0	152.6	155.3	156.2	157.1
135°	117.3	125.5	131.8	138.1	142.6	144.4	146.2	147.1
137.5°	108.3	116.4	123.7	129.1	131.8	134.5	135.4	136.3
140°	100.2	107.4	113.7	118.3	121.9	123.7	125.5	125.5
142.5°	91.2	98.4	103.8	108.3	111.0	113.7	115.5	114.6
145°	82.1	89.4	93.9	98.4	101.1	102.9	103.8	104.7
147.5°	73.1	79.4	83.9	88.5	90.3	92.1	93.0	92.1
150°	61.4	68.6	74.0	77.6	79.4	81.2	82.1	81.2
152.5°	51.5	58.7	64.1	66.8	68.6	69.5	70.4	70.4
155°	41.5	46.9	52.4	56.0	57.8	58.7	59.6	60.5
157.5°	32.5	37.0	39.7	45.1	47.8	47.8	47.8	47.8
160°	24.4	27.1	29.8	33.4	36.1	37.0	37.0	37.0
162.5°	16.2	18.1	19.9	22.6	24.4	26.2	26.2	26.2
165°	9.0	9.9	11.7	12.6	12.6	15.3	16.2	15.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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