

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: P231992

Luminaire Tested: **FVS4M-4-LD4-30-2LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231992  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-4-LD4-30-2LO-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
4FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

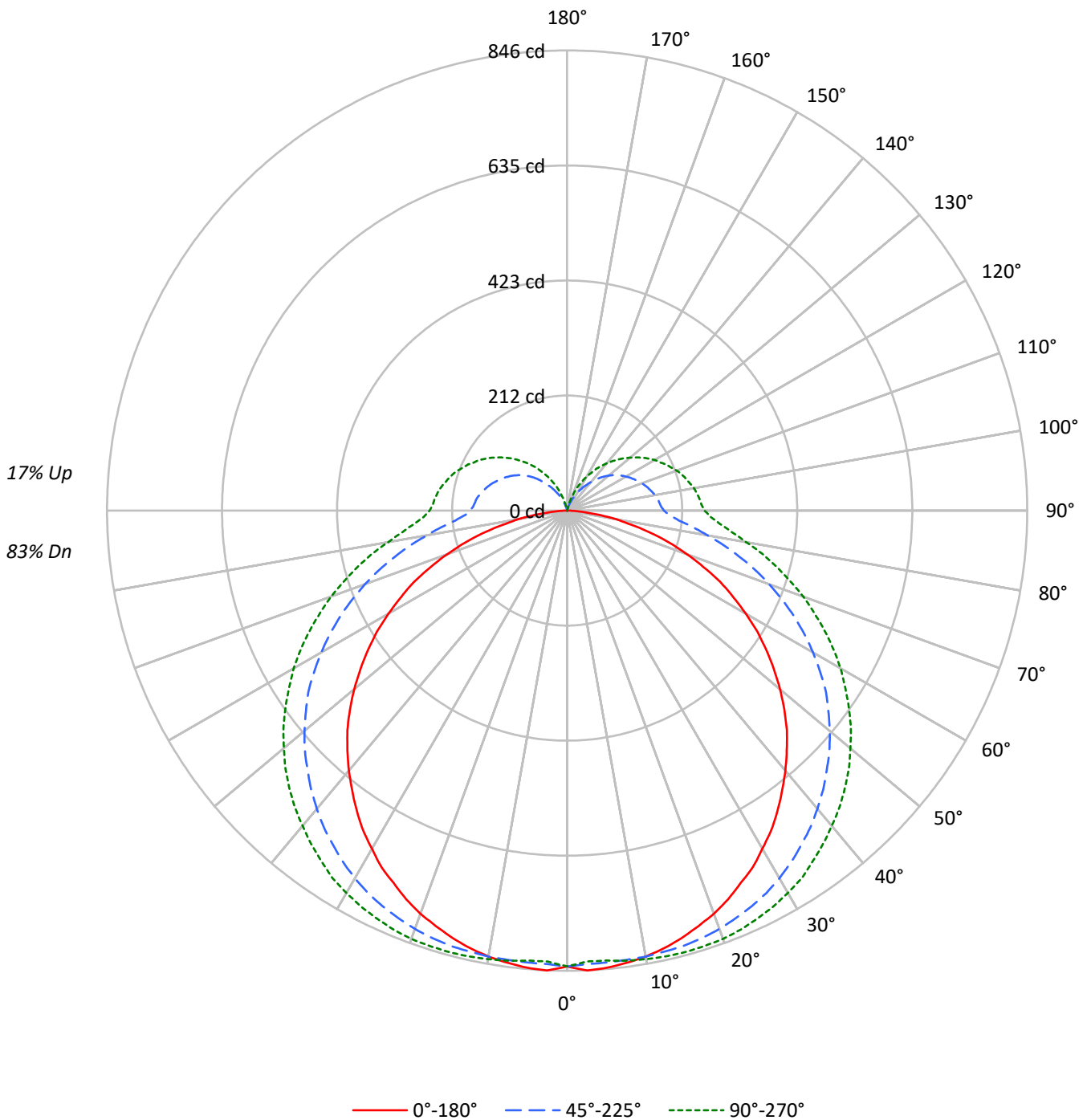
Lumens per Lamp: N/A  
Luminaire Lumens: 3756.0 lumens  
Efficiency: N/A  
Efficacy: 65.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.52  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 57.4  
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	87	87	87	83
1	103	97	92	88	98	93	89	85	86	82	79	79	76	74	73	71	68	65
2	93	83	76	69	88	80	73	67	74	68	63	68	63	59	63	59	56	52
3	84	72	64	57	80	70	62	55	64	57	52	59	54	49	55	50	46	43
4	76	64	54	47	73	61	53	46	57	49	44	52	46	41	48	43	39	36
5	70	56	47	40	67	54	46	39	50	43	37	47	40	35	43	38	33	31
6	64	51	41	35	61	49	40	34	45	38	32	42	36	31	39	33	29	27
7	59	46	37	30	57	44	36	30	41	34	28	38	32	27	35	30	26	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	21
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	32	25	20	29	24	19	28	22	18	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7613	7613	7613
5°	7660	7311	7195
10°	7613	7104	6985
15°	7553	6936	6807
20°	7490	6780	6649
25°	7401	6626	6482
30°	7321	6471	6323
35°	7227	6298	6148
40°	7107	6127	5969
45°	6995	5942	5798
50°	6820	5758	5601
55°	6614	5558	5395
60°	6344	5283	5171
65°	6044	4985	4908
70°	5488	4640	4630
75°	4753	4238	4318
80°	3718	3800	3969
85°	1898	3428	3739



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.8	2.1
10°-20°	234.4	6.2
20°-30°	368.7	9.8
30°-40°	465.2	12.4
40°-50°	511.9	13.6
50°-60°	503.1	13.4
60°-70°	437.4	11.6
70°-80°	325.2	8.7
80°-90°	207.6	5.5
90°-100°	163.9	4.4
100°-110°	145.2	3.9
110°-120°	119.3	3.2
120°-130°	89.7	2.4
130°-140°	59.0	1.6
140°-150°	31.9	0.8
150°-160°	12.1	0.3
160°-170°	1.6	0.0
170°-180°	0.0	0.0
0°-30°	683.0	18.2
0°-40°	1148.2	30.6
0°-60°	2163.2	57.6
0°-90°	3133.3	83.4
90°-120°	428.4	11.4
90°-150°	609.0	16.2
90°-180°	623.0	16.6
0°-180°	3756.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	844	840	834	835	830	80
15°	814	818	828	841	840	230
25°	755	776	803	826	828	349
35°	674	708	750	782	787	422
45°	571	618	675	714	722	440
55°	447	510	581	622	632	399
65°	311	381	460	510	522	305
75°	160	240	328	382	398	169
85°	28	115	206	263	282	36
90°	0	85	178	235	253	1
95°	0	80	170	227	244	0
105°	0	70	156	210	226	0
115°	0	59	136	186	201	0
125°	0	46	113	157	169	0
135°	0	31	85	123	133	0
145°	1	16	54	86	94	0
155°	1	6	25	43	51	0
165°	1	0	4	7	12	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°	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0
2.5°	846.4	845.0	842.9	842.2	842.9	842.9	842.9	841.5	838.0	834.6	834.6
5°	843.6	842.9	840.1	839.4	840.1	840.8	840.8	839.4	836.6	833.9	833.9
7.5°	838.7	838.0	835.9	835.2	836.6	837.3	838.0	836.6	835.2	833.2	833.9
10°	832.5	831.1	829.7	829.0	830.4	832.5	833.9	833.9	833.2	832.5	834.6
12.5°	824.1	823.4	821.4	822.1	824.1	827.6	829.7	831.1	831.1	830.4	833.9
15°	813.7	813.7	812.3	813.0	815.8	820.7	824.1	826.2	826.9	828.3	831.8
17.5°	801.2	801.9	800.5	801.9	807.5	813.0	817.9	820.0	822.1	824.1	829.0
20°	788.7	788.7	787.3	790.8	796.4	803.3	808.2	812.3	815.1	818.6	823.4
22.5°	773.5	773.5	773.5	777.6	784.6	791.5	799.1	804.0	807.5	810.9	817.2
25°	755.4	757.5	756.8	763.0	771.4	780.4	787.3	792.2	797.8	802.6	809.6
27.5°	739.4	738.0	739.4	746.4	756.1	764.4	774.2	779.7	786.0	792.9	799.8
30°	717.9	717.2	720.7	729.0	738.7	749.9	758.9	765.8	773.5	780.4	788.7
32.5°	697.8	695.7	700.6	711.0	720.7	733.9	742.2	749.9	757.5	766.5	774.8
35°	674.2	673.5	679.0	689.4	701.9	714.4	725.5	734.6	742.2	750.5	761.0
37.5°	649.2	652.0	656.8	667.2	681.1	694.3	705.4	714.4	723.5	734.6	745.0
40°	624.2	625.6	631.1	644.3	658.9	672.8	684.6	692.9	705.4	715.8	726.2
42.5°	597.8	597.1	608.2	621.4	635.3	650.6	662.4	673.5	685.3	696.4	707.5
45°	571.4	569.3	580.4	595.0	610.3	626.3	640.2	652.6	663.8	674.9	686.0
47.5°	541.6	542.3	554.1	568.6	585.3	601.3	620.7	628.3	640.2	654.0	665.1
50°	511.0	511.0	524.9	540.9	556.8	575.6	589.5	603.4	617.9	630.4	642.2
52.5°	479.1	481.8	494.3	512.4	531.1	547.1	561.7	578.4	592.2	605.4	617.2
55°	447.1	449.9	465.9	481.8	502.0	518.6	534.6	549.9	564.5	581.1	591.5
57.5°	414.5	418.7	433.2	450.6	469.4	488.8	506.8	521.4	537.4	551.3	564.5
60°	379.1	385.3	399.2	416.6	438.1	457.5	474.9	490.9	506.8	522.1	534.6
62.5°	344.4	349.9	365.2	383.3	404.8	426.3	441.6	461.0	477.0	491.6	505.5
65°	311.0	315.2	331.9	349.9	371.5	390.9	410.3	428.4	444.4	460.3	474.9
67.5°	271.5	279.1	295.1	315.2	336.7	356.9	375.6	395.1	412.4	427.7	442.3
70°	234.7	241.6	257.6	279.1	302.0	324.2	343.7	361.7	379.8	395.1	409.6
72.5°	197.9	205.5	221.5	240.9	264.5	285.4	306.9	327.0	346.5	362.4	377.0
75°	160.4	167.3	185.4	206.9	230.5	249.3	273.6	292.3	311.0	327.7	344.4
77.5°	120.8	131.2	147.9	170.8	193.0	216.6	238.8	259.0	277.0	295.1	312.4
80°	91.0	96.5	112.5	137.5	159.0	183.3	204.1	225.6	245.8	261.8	277.7
82.5°	55.5	63.9	84.0	103.5	129.8	150.7	174.3	195.1	214.5	232.6	247.9
85°	28.5	37.5	54.9	78.5	102.8	127.1	147.2	168.7	188.2	205.5	221.5
87.5°	8.3	16.7	36.1	58.3	82.6	106.9	129.1	150.0	169.4	187.5	203.4
90°	0.0	8.3	27.1	49.3	72.9	96.5	118.7	140.2	159.7	177.7	193.7
92.5°	0.0	7.6	25.0	46.5	70.1	93.0	115.3	136.1	154.8	172.9	188.9
95°	0.0	6.9	23.6	45.1	68.0	91.0	113.2	134.0	152.7	170.1	186.1
97.5°	0.0	6.2	22.2	43.0	66.0	88.2	110.4	131.2	150.0	168.0	184.0
100°	0.0	5.6	21.5	41.7	63.9	85.4	107.6	127.8	146.5	163.9	179.8
102.5°	0.0	4.9	20.1	39.6	61.1	83.3	104.1	124.3	143.0	159.7	175.7
105°	0.0	4.9	18.7	38.2	59.0	80.5	100.7	120.8	138.9	155.5	171.5
107.5°	0.0	4.2	18.1	36.1	56.9	77.1	97.2	116.6	134.7	151.4	166.6
110°	0.0	3.5	16.7	34.7	54.2	74.3	94.4	113.2	130.5	146.5	161.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	2.8	15.3	32.6	51.4	70.8	90.3	108.3	125.7	140.9	155.5
115°	0.0	2.1	14.6	30.5	49.3	68.0	86.1	104.1	120.8	136.1	150.0
117.5°	0.0	1.4	13.2	28.5	46.5	64.6	82.6	100.0	115.9	130.5	144.4
120°	0.0	1.4	11.8	27.1	43.7	61.1	78.5	95.1	111.1	125.0	138.2
122.5°	0.0	0.7	10.4	25.0	41.0	57.6	74.3	90.3	104.8	119.4	131.9
125°	0.0	0.7	9.0	22.9	38.2	54.2	70.1	85.4	100.0	113.2	125.7
127.5°	0.0	0.7	7.6	20.1	34.7	50.0	65.3	79.8	94.4	106.9	118.7
130°	0.0	0.7	6.2	18.1	31.2	45.8	60.4	74.3	88.2	100.0	111.8
132.5°	0.0	0.7	4.9	15.3	27.8	41.0	54.2	68.0	80.5	93.0	104.1
135°	0.0	0.0	3.5	13.2	24.3	36.8	48.6	61.1	73.6	85.4	96.5
137.5°	0.7	0.7	2.8	11.1	21.5	31.9	43.7	54.9	66.0	77.1	88.2
140°	0.7	0.7	2.1	9.0	18.1	28.5	38.2	48.6	59.0	68.7	78.5
142.5°	0.7	0.7	1.4	6.9	15.3	24.3	33.3	43.0	52.1	60.4	69.4
145°	0.7	0.7	1.4	4.9	12.5	20.1	29.2	36.8	45.1	53.5	60.4
147.5°	0.7	0.7	0.7	3.5	9.7	16.7	24.3	31.2	38.9	45.8	52.1
150°	0.7	0.7	0.7	2.8	7.6	13.9	20.1	25.7	32.6	38.2	44.4
152.5°	0.7	0.7	0.7	2.1	5.6	11.1	16.0	21.5	26.4	31.9	36.1
155°	0.7	0.7	0.7	1.4	3.5	7.6	12.5	16.7	20.8	25.0	29.2
157.5°	0.7	0.7	0.7	0.7	2.1	4.9	9.0	12.5	16.0	18.7	22.9
160°	0.7	0.7	0.7	0.7	1.4	2.8	5.6	8.3	11.1	13.9	16.0
162.5°	0.7	0.7	0.7	0.0	0.7	1.4	2.8	4.9	6.9	9.0	10.4
165°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	1.4	2.8	4.2	4.9
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°	838.0	838.0	838.0	838.0	838.0	838.0	838.0	838.0
2.5°	835.2	835.9	835.2	834.6	833.2	831.8	830.4	829.7
5°	835.2	835.9	835.2	835.2	833.9	832.5	831.1	830.4
7.5°	836.6	837.3	837.3	837.3	837.3	836.6	835.2	834.6
10°	837.3	839.4	840.1	840.1	840.1	839.4	838.7	837.3
12.5°	837.3	840.1	840.8	841.5	842.2	841.5	840.1	839.4
15°	835.9	839.4	840.8	841.5	842.2	842.2	840.8	840.1
17.5°	833.9	837.3	839.4	840.1	841.5	840.8	840.1	839.4
20°	829.0	833.2	835.9	838.0	838.7	839.4	838.7	838.0
22.5°	823.4	827.6	831.1	833.2	834.6	835.2	834.6	833.9
25°	815.8	820.7	824.8	826.9	828.3	829.7	829.0	827.6
27.5°	806.8	811.6	815.8	818.6	821.4	821.4	821.4	820.7
30°	795.0	801.2	805.4	808.9	810.9	812.3	812.3	811.6
32.5°	783.2	789.4	793.6	797.8	799.8	800.5	801.2	801.9
35°	768.6	774.8	780.4	783.9	786.6	788.0	788.0	787.3
37.5°	752.6	760.3	765.8	769.3	773.5	773.5	773.5	772.8
40°	734.6	741.5	748.5	752.6	756.8	757.5	756.8	756.8
42.5°	717.2	724.2	730.4	735.3	738.0	739.4	740.1	740.8
45°	696.4	704.7	711.0	716.5	719.3	721.4	722.1	722.1
47.5°	674.2	683.2	690.1	695.0	699.2	701.9	700.6	702.6
50°	652.6	660.3	668.6	672.8	676.9	680.4	679.7	679.7
52.5°	628.3	636.0	644.3	650.6	654.0	656.8	657.5	657.5
55°	602.0	611.0	619.3	624.9	629.0	631.1	632.5	632.5
57.5°	575.6	584.6	592.2	599.9	604.0	607.5	607.5	606.1
60°	547.1	556.8	565.2	571.4	578.4	579.1	579.7	580.4
62.5°	518.0	527.7	536.7	544.3	547.8	551.3	553.4	552.0
65°	487.4	495.7	507.5	512.4	517.3	519.3	522.8	522.1
67.5°	456.9	467.3	474.9	483.2	488.8	489.5	493.7	491.6
70°	422.1	432.6	443.7	449.2	455.5	457.5	459.6	461.7
72.5°	390.2	401.3	410.3	418.7	422.1	425.6	428.4	429.1
75°	356.9	370.1	377.0	386.0	390.9	393.7	397.8	398.5
77.5°	323.5	335.3	345.8	352.0	358.3	361.7	364.5	367.3
80°	290.9	301.3	313.1	322.2	328.4	331.2	334.7	334.0
82.5°	261.8	273.6	284.0	291.6	298.6	302.7	306.2	306.2
85°	237.5	250.6	259.0	267.3	273.6	277.7	281.2	281.9
87.5°	219.4	231.2	242.3	249.3	256.2	260.4	263.1	263.8
90°	208.3	220.8	231.2	239.5	245.8	250.0	252.7	252.7
92.5°	203.4	215.2	226.3	234.0	240.2	244.4	246.5	247.2
95°	200.7	212.5	222.9	231.2	237.5	241.6	243.7	244.4
97.5°	197.9	209.7	219.4	228.4	234.0	238.1	240.2	240.9
100°	193.7	205.5	215.9	223.6	230.5	234.0	236.1	236.8
102.5°	189.5	200.7	211.1	218.7	225.0	228.4	231.2	231.2
105°	184.7	197.2	206.2	213.8	220.1	224.3	225.6	226.3
107.5°	179.8	191.6	201.3	209.0	214.5	218.0	220.8	220.8
110°	175.0	186.1	195.1	202.7	208.3	211.8	213.8	214.5





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	168.7	179.8	188.9	196.5	201.3	204.8	206.9	206.9
115°	162.5	173.6	182.6	190.2	195.1	198.6	200.0	200.7
117.5°	156.2	166.6	175.7	182.6	187.5	190.9	192.3	192.3
120°	150.0	160.4	168.7	175.7	180.5	183.3	185.4	186.1
122.5°	143.0	152.7	161.1	168.0	172.9	175.7	177.0	177.7
125°	136.1	145.8	153.4	159.7	164.6	167.3	169.4	169.4
127.5°	129.1	138.2	145.8	151.4	155.5	158.3	159.7	160.4
130°	121.5	129.1	136.8	142.3	147.2	149.3	151.4	151.4
132.5°	113.9	121.5	128.4	134.7	137.5	140.2	142.3	142.3
135°	106.2	113.2	120.1	125.0	128.4	131.2	132.6	132.6
137.5°	97.9	105.5	111.8	115.9	119.4	121.5	122.9	123.6
140°	88.9	97.2	102.1	106.2	109.7	111.8	113.2	113.2
142.5°	78.5	86.8	93.0	97.9	100.0	101.4	103.5	103.5
145°	68.7	76.4	84.0	88.2	91.0	92.3	93.0	93.7
147.5°	59.0	66.0	72.9	77.8	80.5	81.2	81.9	81.9
150°	50.0	55.5	61.8	68.0	70.1	71.5	72.2	72.9
152.5°	41.7	45.8	51.4	56.2	60.4	61.1	61.8	61.8
155°	33.3	37.5	41.0	45.1	50.0	50.7	51.4	51.4
157.5°	25.7	28.5	31.2	34.0	38.2	41.0	41.0	41.7
160°	18.1	20.8	22.2	24.3	27.1	30.5	30.5	30.5
162.5°	11.8	13.2	14.6	15.3	16.7	19.4	20.8	20.8
165°	6.2	6.2	6.9	7.6	8.3	9.0	11.1	11.8
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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