

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: P232037

Luminaire Tested: **FVS4M-3-LD4-35-1HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232037  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-3-LD4-35-1HI-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
3FT LENGTH, 1-MODULE LED WITH PFS125 LENS  
Light Source: (84) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

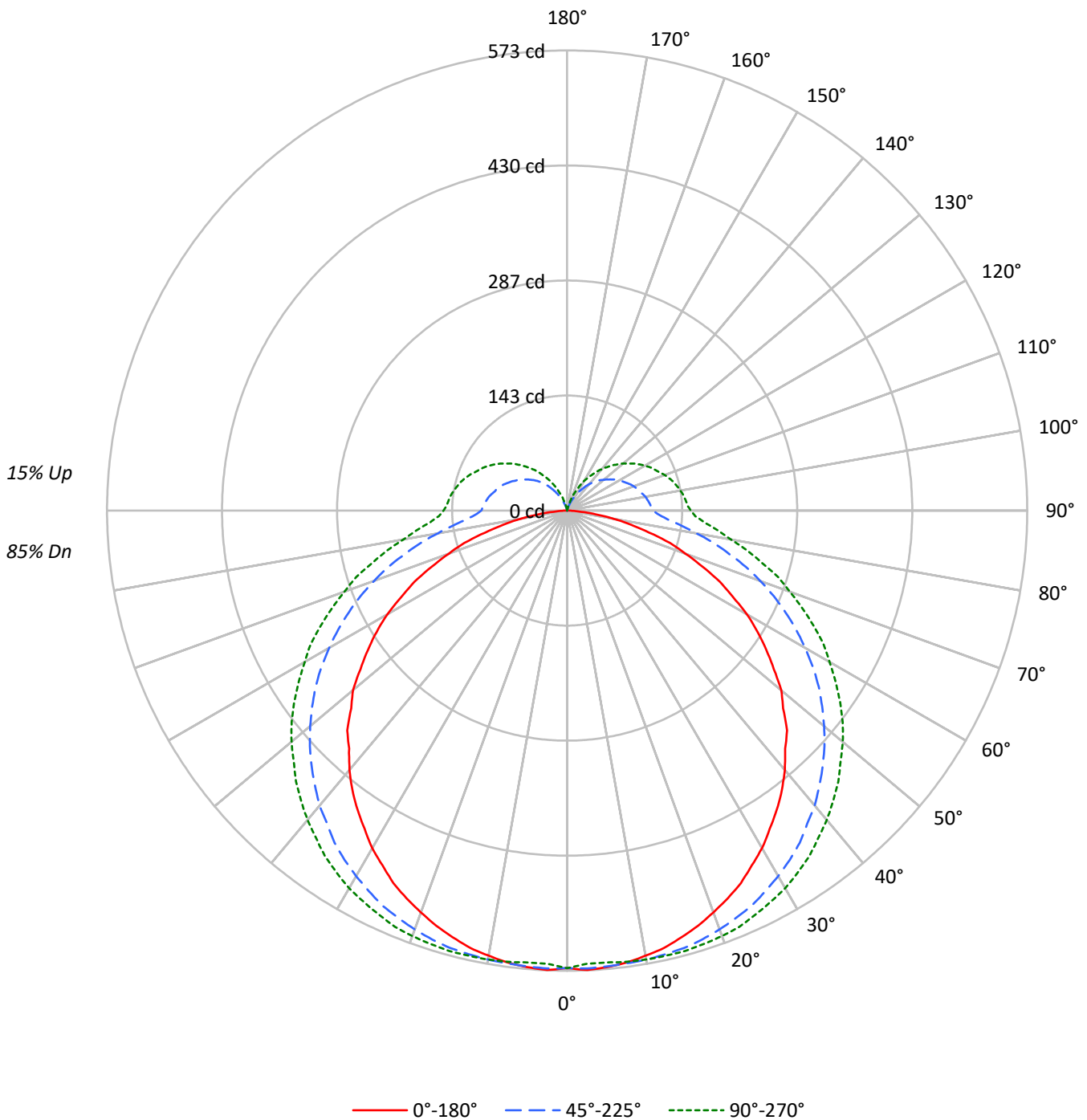
Lumens per Lamp: N/A  
Luminaire Lumens: 2443.0 lumens  
Efficiency: N/A  
Efficacy: 67.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 36.3  
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	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	103	98	93	88	99	94	89	85	87	83	80	80	77	75	74	72	70	67
2	93	84	76	70	89	81	74	68	75	69	64	69	64	60	64	60	57	54
3	84	73	64	57	80	70	62	56	65	58	53	60	55	50	56	51	47	44
4	77	64	55	48	73	62	53	47	57	50	44	53	47	42	49	44	40	37
5	70	57	48	41	67	55	46	40	51	44	38	47	41	36	44	39	34	32
6	65	51	42	35	62	49	41	34	46	38	33	43	36	31	40	34	30	27
7	60	46	37	31	57	44	36	30	41	34	29	39	32	28	36	31	26	24
8	56	42	33	27	53	40	32	27	38	31	26	35	29	24	33	28	23	21
9	52	38	30	24	50	37	29	24	35	28	23	33	26	22	30	25	21	19
10	48	35	27	22	46	34	26	21	32	25	21	30	24	20	28	23	19	17

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

	0°	45°	90°
0°	6728	6728	6728
5°	6728	6487	6362
10°	6673	6287	6156
15°	6612	6123	5979
20°	6538	5957	5816
25°	6475	5806	5651
30°	6382	5638	5502
35°	6277	5479	5336
40°	6167	5302	5158
45°	6078	5115	4984
50°	5940	4920	4800
55°	5714	4712	4599
60°	5502	4457	4372
65°	5152	4176	4134
70°	4604	3858	3847
75°	3897	3462	3536
80°	2930	3039	3196
85°	1375	2670	2959



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.2	2.2
10°-20°	158.6	6.5
20°-30°	248.3	10.2
30°-40°	311.6	12.8
40°-50°	340.9	14.0
50°-60°	332.7	13.6
60°-70°	286.1	11.7
70°-80°	208.1	8.5
80°-90°	127.8	5.2
90°-100°	99.1	4.1
100°-110°	87.4	3.6
110°-120°	71.7	2.9
120°-130°	53.7	2.2
130°-140°	35.5	1.5
140°-150°	19.3	0.8
150°-160°	7.2	0.3
160°-170°	1.0	0.0
170°-180°	0.0	0.0
0°-30°	461.0	18.9
0°-40°	772.7	31.6
0°-60°	1446.2	59.2
0°-90°	2068.2	84.7
90°-120°	258.1	10.6
90°-150°	366.7	15.0
90°-180°	375.0	15.3
0°-180°	2443.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	571	569	570	569	565	54
15°	550	554	564	568	568	155
25°	512	523	543	554	555	236
35°	455	476	505	522	526	285
45°	387	414	450	472	478	297
55°	303	339	382	408	415	271
65°	210	251	300	331	338	206
75°	106	155	209	241	251	113
85°	18	70	126	161	172	23
90°	0	51	107	143	154	1
95°	0	48	103	137	148	0
105°	0	42	93	127	137	0
115°	0	35	81	112	121	0
125°	0	28	68	94	102	0
135°	0	19	52	73	79	0
145°	0	9	33	50	55	0
155°	0	3	16	27	29	0
165°	1	0	2	4	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232037

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	569.7	569.7	569.7	569.7	569.7	569.7	569.7	569.7	569.7	569.7	569.7
2.5°	572.6	570.7	569.7	569.7	570.7	570.7	571.6	572.6	571.6	570.7	569.7
5°	570.7	568.7	567.7	567.7	568.7	569.7	569.7	570.7	570.7	569.7	569.7
7.5°	567.7	565.8	564.8	564.8	565.8	566.7	568.7	569.7	569.7	568.7	569.7
10°	562.8	560.9	559.9	560.9	561.8	563.8	565.8	566.7	567.7	567.7	567.7
12.5°	557.9	556.0	555.0	556.0	557.9	559.9	561.8	563.8	564.8	565.8	566.7
15°	550.1	549.1	548.1	550.1	552.0	555.0	557.9	559.9	561.8	563.8	564.8
17.5°	542.2	541.2	541.2	542.2	545.2	548.1	552.0	556.0	557.9	559.9	560.9
20°	532.4	531.4	531.4	534.4	537.3	541.2	545.2	550.1	552.0	555.0	556.9
22.5°	522.6	521.6	522.6	525.6	529.5	534.4	539.3	543.2	546.2	549.1	552.0
25°	511.8	510.9	511.8	515.8	519.7	525.6	531.4	535.4	539.3	543.2	546.2
27.5°	498.1	498.1	499.1	503.0	508.9	515.8	520.7	526.5	530.5	534.4	538.3
30°	485.4	484.4	486.3	491.2	497.1	505.0	510.9	516.7	521.6	525.6	529.5
32.5°	469.7	469.7	473.6	478.5	485.4	492.2	499.1	506.0	510.9	515.8	520.7
35°	455.0	455.0	456.9	464.8	471.6	479.5	487.3	493.2	499.1	505.0	508.9
37.5°	439.3	439.3	443.2	449.1	456.9	465.7	472.6	480.5	485.4	491.2	497.1
40°	421.6	422.6	426.5	433.4	442.2	450.1	458.9	466.7	473.6	479.5	484.4
42.5°	402.0	403.0	408.9	416.7	425.5	434.4	442.2	451.0	457.9	464.8	469.7
45°	387.3	385.3	392.2	400.1	408.9	418.7	427.5	436.3	443.2	450.1	455.9
47.5°	364.8	366.7	373.6	381.4	391.2	400.1	410.8	419.7	427.5	434.4	441.2
50°	348.1	348.1	354.0	362.8	372.6	382.4	393.2	402.0	409.9	417.7	424.6
52.5°	324.6	326.5	334.4	344.2	353.0	362.8	373.6	384.4	392.2	400.1	406.9
55°	303.0	304.9	313.8	322.6	332.4	345.1	354.9	363.8	373.6	382.4	389.3
57.5°	281.4	283.4	291.2	302.0	311.8	323.6	335.3	345.1	354.0	362.8	370.6
60°	258.9	260.8	268.7	279.4	290.2	302.0	312.8	323.6	333.4	342.2	351.0
62.5°	232.4	237.3	245.1	254.9	268.7	280.4	292.2	302.0	313.8	321.6	331.4
65°	209.8	212.8	221.6	232.4	244.2	256.9	269.6	280.4	290.2	300.0	308.9
67.5°	182.4	187.3	197.1	208.9	221.6	233.4	247.1	258.9	268.7	278.5	286.3
70°	156.9	161.8	172.6	185.3	196.1	209.8	222.6	234.3	245.1	255.9	263.8
72.5°	134.3	136.3	147.1	159.8	172.6	186.3	198.1	211.8	221.6	233.4	241.2
75°	105.9	112.8	121.6	135.3	148.1	162.8	174.5	187.3	198.1	208.9	216.7
77.5°	81.4	87.3	99.0	110.8	125.5	138.3	153.0	164.7	175.5	187.3	196.1
80°	58.8	64.7	74.5	89.2	101.0	116.7	129.4	142.2	153.9	163.7	173.6
82.5°	36.3	42.2	53.9	66.7	81.4	96.1	107.9	120.6	133.4	143.2	153.0
85°	17.6	24.5	35.3	49.0	61.8	77.5	91.2	103.0	115.7	125.5	136.3
87.5°	5.9	10.8	22.6	35.3	50.0	64.7	78.4	90.2	103.0	113.7	123.5
90°	0.0	4.9	16.7	29.4	44.1	57.9	71.6	84.3	96.1	106.9	116.7
92.5°	0.0	4.9	14.7	28.4	42.2	55.9	69.6	82.4	94.1	104.9	114.7
95°	0.0	3.9	13.7	27.5	41.2	54.9	67.7	80.4	92.2	103.0	112.8
97.5°	0.0	3.9	13.7	26.5	39.2	52.9	66.7	78.4	90.2	101.0	110.8
100°	0.0	3.9	12.7	24.5	38.2	51.0	64.7	76.5	88.2	99.0	108.8
102.5°	0.0	2.9	11.8	23.5	36.3	50.0	62.8	74.5	86.3	96.1	105.9
105°	0.0	2.9	11.8	22.6	35.3	48.0	60.8	72.6	83.3	93.1	103.0
107.5°	0.0	2.0	10.8	21.6	33.3	46.1	58.8	69.6	81.4	91.2	100.0
110°	0.0	2.0	9.8	20.6	32.4	44.1	55.9	67.7	78.4	88.2	97.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	2.0	8.8	19.6	30.4	42.2	53.9	64.7	75.5	85.3	93.1
115°	0.0	2.0	8.8	18.6	29.4	40.2	52.0	62.8	72.6	81.4	90.2
117.5°	0.0	1.0	7.8	16.7	27.5	38.2	49.0	59.8	69.6	78.4	86.3
120°	0.0	1.0	6.9	15.7	25.5	36.3	47.1	56.9	66.7	74.5	82.4
122.5°	0.0	1.0	5.9	14.7	24.5	34.3	44.1	53.9	62.8	71.6	79.4
125°	0.0	1.0	5.9	13.7	22.6	32.4	41.2	51.0	59.8	67.7	74.5
127.5°	0.0	1.0	4.9	11.8	20.6	29.4	39.2	48.0	55.9	63.7	70.6
130°	0.0	1.0	3.9	10.8	18.6	27.5	36.3	44.1	52.0	59.8	66.7
132.5°	0.0	0.0	2.9	8.8	16.7	25.5	33.3	41.2	49.0	55.9	61.8
135°	0.0	0.0	2.9	7.8	14.7	22.6	30.4	38.2	45.1	52.0	57.9
137.5°	0.0	0.0	2.0	6.9	12.7	19.6	27.5	34.3	41.2	48.0	52.9
140°	0.0	0.0	2.0	5.9	10.8	16.7	23.5	30.4	37.3	43.1	49.0
142.5°	0.0	0.0	1.0	3.9	8.8	14.7	20.6	26.5	32.4	38.2	44.1
145°	0.0	0.0	1.0	2.9	6.9	11.8	17.6	22.6	28.4	33.3	39.2
147.5°	0.0	0.0	1.0	2.0	5.9	9.8	14.7	18.6	23.5	28.4	33.3
150°	0.0	0.0	0.0	2.0	3.9	7.8	11.8	15.7	19.6	23.5	27.5
152.5°	0.0	0.0	0.0	1.0	2.9	5.9	8.8	12.7	15.7	18.6	22.6
155°	0.0	0.0	0.0	1.0	2.0	3.9	6.9	9.8	11.8	15.7	17.6
157.5°	1.0	0.0	0.0	1.0	1.0	2.9	4.9	6.9	8.8	10.8	12.7
160°	1.0	0.0	0.0	0.0	1.0	2.0	2.9	3.9	5.9	7.8	9.8
162.5°	1.0	1.0	0.0	0.0	0.0	1.0	2.0	2.9	3.9	4.9	5.9
165°	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	2.9
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°	569.7	569.7	569.7	569.7	569.7	569.7	569.7	569.7
2.5°	569.7	568.7	568.7	567.7	567.7	566.7	565.8	564.8
5°	569.7	568.7	568.7	568.7	567.7	566.7	565.8	564.8
7.5°	569.7	569.7	569.7	568.7	568.7	567.7	566.7	566.7
10°	568.7	568.7	569.7	569.7	569.7	568.7	567.7	567.7
12.5°	567.7	568.7	569.7	569.7	569.7	569.7	568.7	567.7
15°	565.8	567.7	567.7	568.7	568.7	568.7	567.7	567.7
17.5°	562.8	564.8	565.8	566.7	567.7	566.7	565.8	565.8
20°	558.9	561.8	562.8	563.8	564.8	564.8	563.8	563.8
22.5°	555.0	556.9	558.9	559.9	561.8	561.8	560.9	560.9
25°	549.1	551.1	553.0	555.0	556.0	556.0	556.0	555.0
27.5°	541.2	544.2	547.1	549.1	550.1	550.1	550.1	549.1
30°	533.4	536.3	539.3	541.2	543.2	543.2	543.2	543.2
32.5°	523.6	527.5	530.5	532.4	534.4	535.4	534.4	534.4
35°	513.8	517.7	520.7	522.6	524.6	525.6	524.6	525.6
37.5°	502.0	506.0	508.9	512.8	513.8	513.8	513.8	513.8
40°	489.3	493.2	497.1	500.1	502.0	502.0	503.0	503.0
42.5°	475.6	479.5	484.4	488.3	488.3	489.3	490.3	490.3
45°	461.8	465.7	470.7	473.6	475.6	477.5	476.5	477.5
47.5°	447.1	452.0	455.9	459.9	460.8	462.8	462.8	461.8
50°	431.4	436.3	440.3	444.2	447.1	447.1	448.1	448.1
52.5°	413.8	419.7	424.6	429.5	429.5	432.4	433.4	432.4
55°	396.1	401.0	405.9	410.8	412.8	413.8	414.8	414.8
57.5°	377.5	383.4	387.3	392.2	395.2	395.2	397.1	396.1
60°	357.9	363.8	368.7	372.6	376.5	377.5	379.5	377.5
62.5°	338.3	345.1	349.1	353.0	355.9	357.9	359.9	359.9
65°	317.7	323.6	328.5	333.4	335.3	336.3	339.3	338.3
67.5°	295.1	301.0	305.9	311.8	315.7	316.7	318.7	316.7
70°	272.6	279.4	285.3	289.3	291.2	295.1	294.2	295.1
72.5°	249.1	255.9	261.8	266.7	270.6	273.6	274.5	275.5
75°	225.5	234.3	239.2	243.2	248.1	249.1	252.0	251.0
77.5°	204.9	211.8	217.7	221.6	226.5	228.5	229.4	229.4
80°	181.4	189.2	195.1	201.0	203.0	205.9	208.9	206.9
82.5°	161.8	169.6	176.5	181.4	185.3	187.3	188.3	189.2
85°	144.1	152.0	158.8	163.7	167.7	170.6	172.6	171.6
87.5°	132.4	140.2	146.1	152.0	156.9	157.9	159.8	159.8
90°	125.5	133.4	140.2	145.1	149.0	152.0	153.0	153.9
92.5°	122.6	130.4	137.3	142.2	146.1	148.1	150.0	150.0
95°	120.6	128.4	134.3	140.2	144.1	146.1	148.1	148.1
97.5°	119.6	126.5	133.4	137.3	141.2	144.1	145.1	146.1
100°	116.7	124.5	130.4	135.3	139.2	141.2	143.2	143.2
102.5°	113.7	121.6	127.5	132.4	136.3	138.3	139.2	140.2
105°	110.8	118.6	124.5	129.4	132.4	135.3	136.3	137.3
107.5°	107.9	114.7	120.6	125.5	129.4	131.4	132.4	133.4
110°	104.9	111.8	117.7	122.6	125.5	127.5	129.4	129.4





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	101.0	107.9	113.7	118.6	121.6	123.5	124.5	124.5
115°	98.1	103.9	109.8	113.7	117.7	119.6	120.6	120.6
117.5°	94.1	100.0	105.9	109.8	112.8	114.7	115.7	116.7
120°	90.2	96.1	101.0	104.9	108.8	110.8	111.8	111.8
122.5°	85.3	91.2	97.1	101.0	103.9	105.9	106.9	106.9
125°	81.4	87.3	92.2	96.1	99.0	100.0	101.0	102.0
127.5°	76.5	82.4	87.3	91.2	93.1	95.1	96.1	96.1
130°	72.6	77.5	82.4	85.3	88.2	90.2	91.2	91.2
132.5°	67.7	72.6	77.5	80.4	82.4	84.3	85.3	85.3
135°	62.8	67.7	71.6	74.5	77.5	78.4	79.4	79.4
137.5°	57.9	62.8	66.7	69.6	71.6	72.6	73.5	73.5
140°	52.9	57.9	60.8	63.7	65.7	66.7	67.7	67.7
142.5°	48.0	52.0	55.9	57.9	59.8	60.8	61.8	61.8
145°	43.1	47.1	49.0	52.0	53.9	54.9	54.9	54.9
147.5°	37.3	42.2	44.1	46.1	48.0	48.0	49.0	49.0
150°	31.4	35.3	38.2	40.2	41.2	42.2	43.1	43.1
152.5°	25.5	29.4	32.4	34.3	35.3	36.3	37.3	36.3
155°	20.6	22.6	25.5	28.4	29.4	29.4	30.4	29.4
157.5°	14.7	16.7	19.6	21.6	23.5	23.5	23.5	23.5
160°	10.8	11.8	13.7	14.7	16.7	17.6	17.6	17.6
162.5°	6.9	7.8	8.8	9.8	9.8	11.8	11.8	10.8
165°	2.9	2.9	3.9	3.9	4.9	5.9	5.9	5.9
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

(END OF REPORT)