

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: P232031

Luminaire Tested: **FVS4M-3-LD4-50-1LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232031
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-LD4-50-1LO-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PFS125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

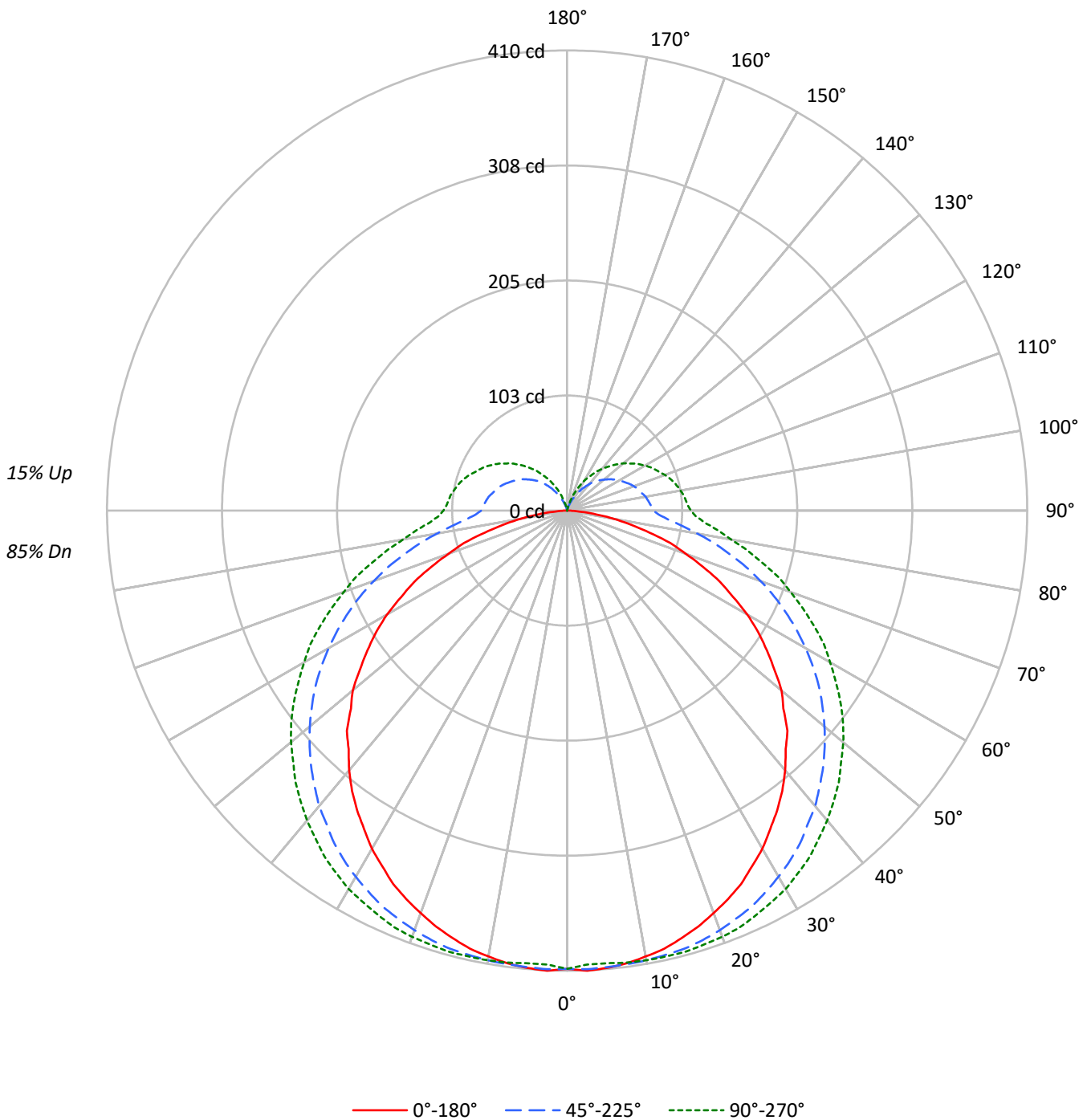
Lumens per Lamp: N/A
Luminaire Lumens: 1751.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 21.3
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°	4822	4822	4822
5°	4821	4649	4559
10°	4783	4506	4413
15°	4739	4388	4286
20°	4686	4269	4168
25°	4642	4161	4050
30°	4574	4041	3943
35°	4499	3926	3824
40°	4420	3801	3697
45°	4356	3666	3573
50°	4258	3527	3441
55°	4096	3378	3296
60°	3942	3195	3134
65°	3694	2994	2963
70°	3298	2765	2757
75°	2793	2481	2534
80°	2103	2179	2291
85°	992	1915	2121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	2.2
10°-20°	113.6	6.5
20°-30°	177.9	10.2
30°-40°	223.4	12.8
40°-50°	244.3	14.0
50°-60°	238.5	13.6
60°-70°	205.0	11.7
70°-80°	149.2	8.5
80°-90°	91.6	5.2
90°-100°	71.0	4.1
100°-110°	62.7	3.6
110°-120°	51.4	2.9
120°-130°	38.5	2.2
130°-140°	25.5	1.5
140°-150°	13.8	0.8
150°-160°	5.1	0.3
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	330.4	18.9
0°-40°	553.8	31.6
0°-60°	1036.6	59.2
0°-90°	1482.4	84.7
90°-120°	185.0	10.6
90°-150°	262.8	15.0
90°-180°	269.0	15.4
0°-180°	1751.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	409	408	408	408	405	39
15°	394	397	404	407	407	111
25°	367	375	389	397	398	169
35°	326	341	362	374	377	204
45°	278	297	323	338	342	213
55°	217	243	274	293	297	194
65°	150	180	215	237	242	148
75°	76	111	150	173	180	81
85°	13	50	90	116	123	17
90°	0	37	77	102	110	1
95°	0	34	74	98	106	0
105°	0	30	67	91	98	0
115°	0	25	58	80	86	0
125°	0	20	48	68	73	0
135°	0	13	37	52	57	0
145°	0	7	24	36	39	0
155°	0	2	11	19	21	0
165°	1	0	1	3	4	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°	408.3	408.3	408.3	408.3	408.3	408.3	408.3	408.3	408.3	408.3	408.3
2.5°	410.4	409.0	408.3	408.3	409.0	409.0	409.7	410.4	409.7	409.0	408.3
5°	409.0	407.6	406.9	406.9	407.6	408.3	408.3	409.0	409.0	408.3	408.3
7.5°	406.9	405.5	404.8	404.8	405.5	406.2	407.6	408.3	408.3	407.6	408.3
10°	403.4	402.0	401.3	402.0	402.7	404.1	405.5	406.2	406.9	406.9	406.9
12.5°	399.9	398.5	397.8	398.5	399.9	401.3	402.7	404.1	404.8	405.5	406.2
15°	394.3	393.6	392.9	394.3	395.7	397.8	399.9	401.3	402.7	404.1	404.8
17.5°	388.6	387.9	387.9	388.6	390.7	392.9	395.7	398.5	399.9	401.3	402.0
20°	381.6	380.9	380.9	383.0	385.1	387.9	390.7	394.3	395.7	397.8	399.2
22.5°	374.6	373.9	374.6	376.7	379.5	383.0	386.5	389.3	391.4	393.6	395.7
25°	366.9	366.1	366.9	369.7	372.5	376.7	380.9	383.7	386.5	389.3	391.4
27.5°	357.0	357.0	357.7	360.5	364.7	369.7	373.2	377.4	380.2	383.0	385.8
30°	347.9	347.2	348.6	352.1	356.3	361.9	366.1	370.4	373.9	376.7	379.5
32.5°	336.6	336.6	339.4	343.0	347.9	352.8	357.7	362.6	366.1	369.7	373.2
35°	326.1	326.1	327.5	333.1	338.0	343.7	349.3	353.5	357.7	361.9	364.7
37.5°	314.8	314.8	317.7	321.9	327.5	333.8	338.7	344.4	347.9	352.1	356.3
40°	302.2	302.9	305.7	310.6	317.0	322.6	328.9	334.5	339.4	343.7	347.2
42.5°	288.1	288.8	293.1	298.7	305.0	311.3	317.0	323.3	328.2	333.1	336.6
45°	277.6	276.2	281.1	286.7	293.1	300.1	306.4	312.7	317.7	322.6	326.8
47.5°	261.4	262.8	267.8	273.4	280.4	286.7	294.5	300.8	306.4	311.3	316.3
50°	249.5	249.5	253.7	260.0	267.1	274.1	281.8	288.1	293.8	299.4	304.3
52.5°	232.6	234.0	239.6	246.7	253.0	260.0	267.8	275.5	281.1	286.7	291.7
55°	217.2	218.6	224.9	231.2	238.2	247.4	254.4	260.7	267.8	274.1	279.0
57.5°	201.7	203.1	208.7	216.5	223.5	231.9	240.4	247.4	253.7	260.0	265.7
60°	185.5	186.9	192.6	200.3	208.0	216.5	224.2	231.9	238.9	245.3	251.6
62.5°	166.6	170.1	175.7	182.7	192.6	201.0	209.4	216.5	224.9	230.5	237.5
65°	150.4	152.5	158.8	166.6	175.0	184.1	193.3	201.0	208.0	215.1	221.4
67.5°	130.7	134.2	141.3	149.7	158.8	167.3	177.1	185.5	192.6	199.6	205.2
70°	112.4	116.0	123.7	132.8	140.6	150.4	159.5	168.0	175.7	183.4	189.0
72.5°	96.3	97.7	105.4	114.6	123.7	133.5	142.0	151.8	158.8	167.3	172.9
75°	75.9	80.8	87.1	97.0	106.1	116.7	125.1	134.2	142.0	149.7	155.3
77.5°	58.3	62.5	71.0	79.4	90.0	99.1	109.6	118.1	125.8	134.2	140.6
80°	42.2	46.4	53.4	64.0	72.4	83.6	92.8	101.9	110.3	117.4	124.4
82.5°	26.0	30.2	38.7	47.8	58.3	68.9	77.3	86.4	95.6	102.6	109.6
85°	12.7	17.6	25.3	35.1	44.3	55.5	65.4	73.8	82.9	90.0	97.7
87.5°	4.2	7.7	16.2	25.3	35.8	46.4	56.2	64.7	73.8	81.5	88.6
90°	0.0	3.5	11.9	21.1	31.6	41.5	51.3	60.4	68.9	76.6	83.6
92.5°	0.0	3.5	10.5	20.4	30.2	40.1	49.9	59.0	67.5	75.2	82.2
95°	0.0	2.8	9.8	19.7	29.5	39.4	48.5	57.6	66.1	73.8	80.8
97.5°	0.0	2.8	9.8	19.0	28.1	38.0	47.8	56.2	64.7	72.4	79.4
100°	0.0	2.8	9.1	17.6	27.4	36.5	46.4	54.8	63.3	71.0	78.0
102.5°	0.0	2.1	8.4	16.9	26.0	35.8	45.0	53.4	61.8	68.9	75.9
105°	0.0	2.1	8.4	16.2	25.3	34.4	43.6	52.0	59.7	66.8	73.8
107.5°	0.0	1.4	7.7	15.5	23.9	33.0	42.2	49.9	58.3	65.4	71.7
110°	0.0	1.4	7.0	14.8	23.2	31.6	40.1	48.5	56.2	63.3	69.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.4	6.3	14.1	21.8	30.2	38.7	46.4	54.1	61.1	66.8
115°	0.0	1.4	6.3	13.4	21.1	28.8	37.2	45.0	52.0	58.3	64.7
117.5°	0.0	0.7	5.6	11.9	19.7	27.4	35.1	42.9	49.9	56.2	61.8
120°	0.0	0.7	4.9	11.2	18.3	26.0	33.7	40.8	47.8	53.4	59.0
122.5°	0.0	0.7	4.2	10.5	17.6	24.6	31.6	38.7	45.0	51.3	56.9
125°	0.0	0.7	4.2	9.8	16.2	23.2	29.5	36.5	42.9	48.5	53.4
127.5°	0.0	0.7	3.5	8.4	14.8	21.1	28.1	34.4	40.1	45.7	50.6
130°	0.0	0.7	2.8	7.7	13.4	19.7	26.0	31.6	37.2	42.9	47.8
132.5°	0.0	0.0	2.1	6.3	11.9	18.3	23.9	29.5	35.1	40.1	44.3
135°	0.0	0.0	2.1	5.6	10.5	16.2	21.8	27.4	32.3	37.2	41.5
137.5°	0.0	0.0	1.4	4.9	9.1	14.1	19.7	24.6	29.5	34.4	38.0
140°	0.0	0.0	1.4	4.2	7.7	11.9	16.9	21.8	26.7	30.9	35.1
142.5°	0.0	0.0	0.7	2.8	6.3	10.5	14.8	19.0	23.2	27.4	31.6
145°	0.0	0.0	0.7	2.1	4.9	8.4	12.7	16.2	20.4	23.9	28.1
147.5°	0.0	0.0	0.7	1.4	4.2	7.0	10.5	13.4	16.9	20.4	23.9
150°	0.0	0.0	0.0	1.4	2.8	5.6	8.4	11.2	14.1	16.9	19.7
152.5°	0.0	0.0	0.0	0.7	2.1	4.2	6.3	9.1	11.2	13.4	16.2
155°	0.0	0.0	0.0	0.7	1.4	2.8	4.9	7.0	8.4	11.2	12.7
157.5°	0.7	0.0	0.0	0.7	0.7	2.1	3.5	4.9	6.3	7.7	9.1
160°	0.7	0.0	0.0	0.0	0.7	1.4	2.1	2.8	4.2	5.6	7.0
162.5°	0.7	0.7	0.0	0.0	0.0	0.7	1.4	2.1	2.8	3.5	4.2
165°	0.7	0.7	0.0	0.0	0.0	0.0	0.7	0.7	1.4	1.4	2.1
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°	408.3	408.3	408.3	408.3	408.3	408.3	408.3	408.3
2.5°	408.3	407.6	407.6	406.9	406.9	406.2	405.5	404.8
5°	408.3	407.6	407.6	407.6	406.9	406.2	405.5	404.8
7.5°	408.3	408.3	408.3	407.6	407.6	406.9	406.2	406.2
10°	407.6	407.6	408.3	408.3	408.3	407.6	406.9	406.9
12.5°	406.9	407.6	408.3	408.3	408.3	408.3	407.6	406.9
15°	405.5	406.9	406.9	407.6	407.6	407.6	406.9	406.9
17.5°	403.4	404.8	405.5	406.2	406.9	406.2	405.5	405.5
20°	400.6	402.7	403.4	404.1	404.8	404.8	404.1	404.1
22.5°	397.8	399.2	400.6	401.3	402.7	402.7	402.0	402.0
25°	393.6	395.0	396.4	397.8	398.5	398.5	398.5	397.8
27.5°	387.9	390.0	392.2	393.6	394.3	394.3	394.3	393.6
30°	382.3	384.4	386.5	387.9	389.3	389.3	389.3	389.3
32.5°	375.3	378.1	380.2	381.6	383.0	383.7	383.0	383.0
35°	368.3	371.1	373.2	374.6	376.0	376.7	376.0	376.7
37.5°	359.8	362.6	364.7	367.6	368.3	368.3	368.3	368.3
40°	350.7	353.5	356.3	358.4	359.8	359.8	360.5	360.5
42.5°	340.8	343.7	347.2	350.0	350.0	350.7	351.4	351.4
45°	331.0	333.8	337.3	339.4	340.8	342.3	341.6	342.3
47.5°	320.5	324.0	326.8	329.6	330.3	331.7	331.7	331.0
50°	309.2	312.7	315.5	318.4	320.5	320.5	321.2	321.2
52.5°	296.6	300.8	304.3	307.8	307.8	309.9	310.6	309.9
55°	283.9	287.4	291.0	294.5	295.9	296.6	297.3	297.3
57.5°	270.6	274.8	277.6	281.1	283.2	283.2	284.6	283.9
60°	256.5	260.7	264.2	267.1	269.9	270.6	272.0	270.6
62.5°	242.5	247.4	250.2	253.0	255.1	256.5	257.9	257.9
65°	227.7	231.9	235.4	238.9	240.4	241.1	243.2	242.5
67.5°	211.5	215.8	219.3	223.5	226.3	227.0	228.4	227.0
70°	195.4	200.3	204.5	207.3	208.7	211.5	210.8	211.5
72.5°	178.5	183.4	187.6	191.2	194.0	196.1	196.8	197.5
75°	161.6	168.0	171.5	174.3	177.8	178.5	180.6	179.9
77.5°	146.9	151.8	156.0	158.8	162.3	163.7	164.5	164.5
80°	130.0	135.6	139.9	144.1	145.5	147.6	149.7	148.3
82.5°	116.0	121.6	126.5	130.0	132.8	134.2	134.9	135.6
85°	103.3	108.9	113.9	117.4	120.2	122.3	123.7	123.0
87.5°	94.9	100.5	104.7	108.9	112.4	113.1	114.6	114.6
90°	90.0	95.6	100.5	104.0	106.8	108.9	109.6	110.3
92.5°	87.8	93.5	98.4	101.9	104.7	106.1	107.5	107.5
95°	86.4	92.1	96.3	100.5	103.3	104.7	106.1	106.1
97.5°	85.7	90.7	95.6	98.4	101.2	103.3	104.0	104.7
100°	83.6	89.3	93.5	97.0	99.8	101.2	102.6	102.6
102.5°	81.5	87.1	91.4	94.9	97.7	99.1	99.8	100.5
105°	79.4	85.0	89.3	92.8	94.9	97.0	97.7	98.4
107.5°	77.3	82.2	86.4	90.0	92.8	94.2	94.9	95.6
110°	75.2	80.1	84.3	87.8	90.0	91.4	92.8	92.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	72.4	77.3	81.5	85.0	87.1	88.6	89.3	89.3
115°	70.3	74.5	78.7	81.5	84.3	85.7	86.4	86.4
117.5°	67.5	71.7	75.9	78.7	80.8	82.2	82.9	83.6
120°	64.7	68.9	72.4	75.2	78.0	79.4	80.1	80.1
122.5°	61.1	65.4	69.6	72.4	74.5	75.9	76.6	76.6
125°	58.3	62.5	66.1	68.9	71.0	71.7	72.4	73.1
127.5°	54.8	59.0	62.5	65.4	66.8	68.2	68.9	68.9
130°	52.0	55.5	59.0	61.1	63.3	64.7	65.4	65.4
132.5°	48.5	52.0	55.5	57.6	59.0	60.4	61.1	61.1
135°	45.0	48.5	51.3	53.4	55.5	56.2	56.9	56.9
137.5°	41.5	45.0	47.8	49.9	51.3	52.0	52.7	52.7
140°	38.0	41.5	43.6	45.7	47.1	47.8	48.5	48.5
142.5°	34.4	37.2	40.1	41.5	42.9	43.6	44.3	44.3
145°	30.9	33.7	35.1	37.2	38.7	39.4	39.4	39.4
147.5°	26.7	30.2	31.6	33.0	34.4	34.4	35.1	35.1
150°	22.5	25.3	27.4	28.8	29.5	30.2	30.9	30.9
152.5°	18.3	21.1	23.2	24.6	25.3	26.0	26.7	26.0
155°	14.8	16.2	18.3	20.4	21.1	21.1	21.8	21.1
157.5°	10.5	11.9	14.1	15.5	16.9	16.9	16.9	16.9
160°	7.7	8.4	9.8	10.5	11.9	12.7	12.7	12.7
162.5°	4.9	5.6	6.3	7.0	7.0	8.4	8.4	7.7
165°	2.1	2.1	2.8	2.8	3.5	4.2	4.2	4.2
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)