

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: P232035

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232035  
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-LD4-50-1STD-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**

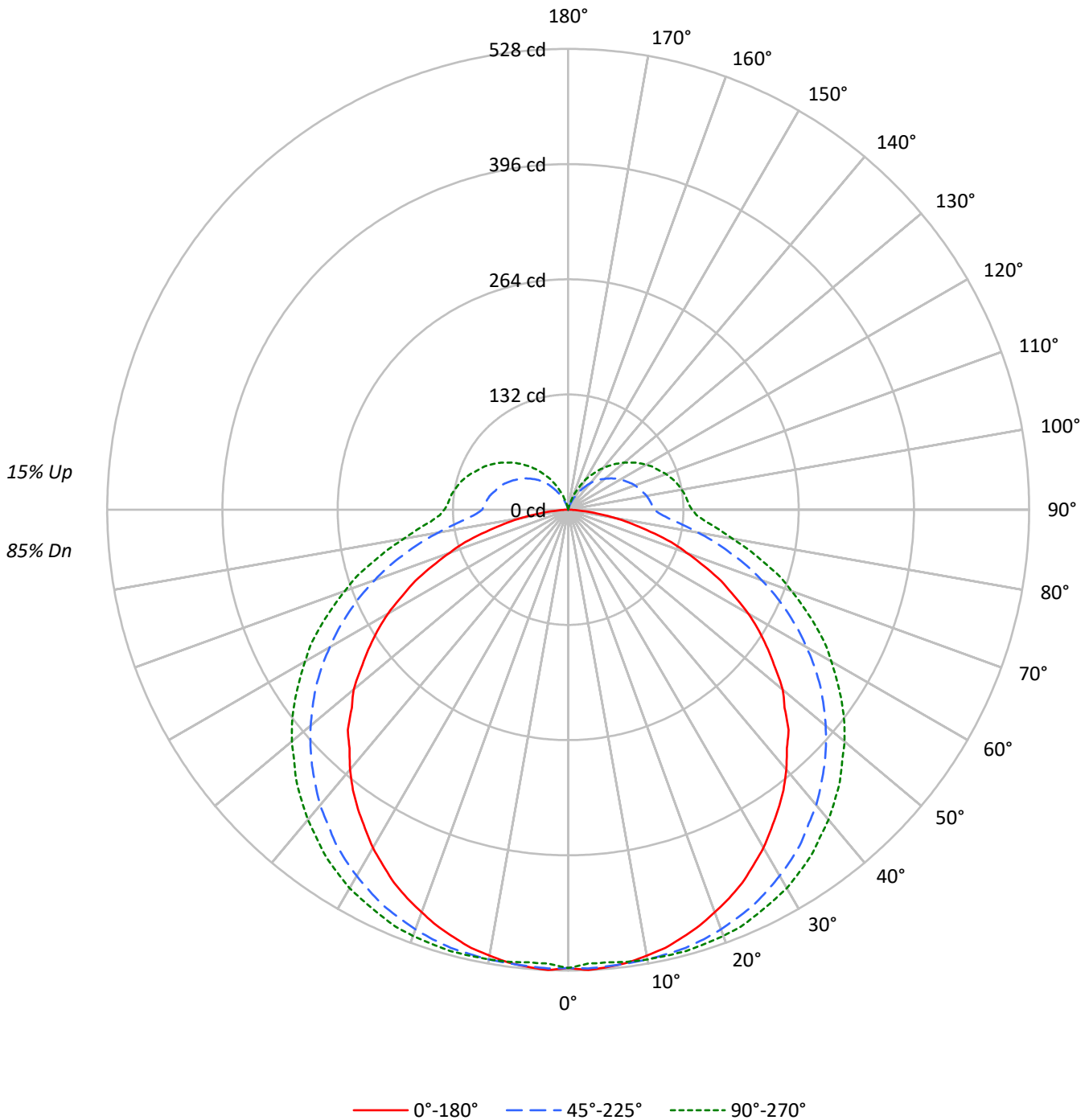
Lumens per Lamp: N/A  
Luminaire Lumens: 2252.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 28.5  
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°	6201	6201	6201
5°	6201	5979	5864
10°	6152	5795	5675
15°	6095	5644	5512
20°	6027	5491	5361
25°	5969	5352	5209
30°	5883	5197	5071
35°	5786	5050	4919
40°	5686	4888	4755
45°	5602	4715	4595
50°	5476	4535	4425
55°	5267	4344	4239
60°	5071	4108	4031
65°	4750	3851	3810
70°	4243	3556	3547
75°	3592	3190	3260
80°	2701	2801	2946
85°	1273	2462	2728



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.0	2.2
10°-20°	146.2	6.5
20°-30°	228.8	10.2
30°-40°	287.3	12.8
40°-50°	314.2	14.0
50°-60°	306.7	13.6
60°-70°	263.7	11.7
70°-80°	191.8	8.5
80°-90°	117.8	5.2
90°-100°	91.3	4.1
100°-110°	80.6	3.6
110°-120°	66.1	2.9
120°-130°	49.5	2.2
130°-140°	32.7	1.5
140°-150°	17.8	0.8
150°-160°	6.6	0.3
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	425.0	18.9
0°-40°	712.2	31.6
0°-60°	1333.1	59.2
0°-90°	1906.5	84.7
90°-120°	238.0	10.6
90°-150°	338.0	15.0
90°-180°	345.0	15.3
0°-180°	2252.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	526	525	525	524	521	50
15°	507	510	520	524	523	143
25°	472	482	501	511	512	217
35°	419	438	466	481	484	262
45°	357	381	415	435	440	274
55°	279	312	352	376	382	250
65°	193	231	277	305	312	190
75°	98	143	192	222	231	104
85°	16	64	116	149	158	22
90°	0	47	98	132	142	1
95°	0	44	95	127	136	0
105°	0	38	86	117	126	0
115°	0	32	75	103	111	0
125°	0	25	62	87	94	0
135°	0	17	48	67	73	0
145°	0	9	31	47	51	0
155°	0	3	14	25	27	0
165°	1	0	2	4	5	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°	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1
2.5°	527.9	526.0	525.1	525.1	526.0	526.0	527.0	527.9	527.0	526.0	525.1
5°	526.0	524.2	523.3	523.3	524.2	525.1	525.1	526.0	526.0	525.1	525.1
7.5°	523.3	521.5	520.6	520.6	521.5	522.4	524.2	525.1	525.1	524.2	525.1
10°	518.8	517.0	516.1	517.0	517.9	519.7	521.5	522.4	523.3	523.3	523.3
12.5°	514.3	512.5	511.6	512.5	514.3	516.1	517.9	519.7	520.6	521.5	522.4
15°	507.1	506.2	505.3	507.1	508.9	511.6	514.3	516.1	517.9	519.7	520.6
17.5°	499.8	498.9	498.9	499.8	502.5	505.3	508.9	512.5	514.3	516.1	517.0
20°	490.8	489.9	489.9	492.6	495.3	498.9	502.5	507.1	508.9	511.6	513.4
22.5°	481.8	480.9	481.8	484.5	488.1	492.6	497.1	500.7	503.5	506.2	508.9
25°	471.8	470.9	471.8	475.4	479.0	484.5	489.9	493.5	497.1	500.7	503.5
27.5°	459.2	459.2	460.1	463.7	469.1	475.4	480.0	485.4	489.0	492.6	496.2
30°	447.4	446.5	448.3	452.8	458.3	465.5	470.9	476.3	480.9	484.5	488.1
32.5°	433.0	433.0	436.6	441.1	447.4	453.7	460.1	466.4	470.9	475.4	480.0
35°	419.4	419.4	421.2	428.4	434.8	442.0	449.2	454.6	460.1	465.5	469.1
37.5°	404.9	404.9	408.5	414.0	421.2	429.3	435.7	442.9	447.4	452.8	458.3
40°	388.7	389.6	393.2	399.5	407.6	414.9	423.0	430.2	436.6	442.0	446.5
42.5°	370.6	371.5	376.9	384.1	392.3	400.4	407.6	415.8	422.1	428.4	433.0
45°	357.0	355.2	361.5	368.8	376.9	385.9	394.1	402.2	408.5	414.9	420.3
47.5°	336.2	338.0	344.4	351.6	360.6	368.8	378.7	386.9	394.1	400.4	406.7
50°	320.9	320.9	326.3	334.4	343.5	352.5	362.4	370.6	377.8	385.0	391.4
52.5°	299.2	301.0	308.2	317.3	325.4	334.4	344.4	354.3	361.5	368.8	375.1
55°	279.3	281.1	289.2	297.4	306.4	318.2	327.2	335.3	344.4	352.5	358.8
57.5°	259.4	261.2	268.4	278.4	287.4	298.3	309.1	318.2	326.3	334.4	341.7
60°	238.6	240.4	247.7	257.6	267.5	278.4	288.3	298.3	307.3	315.4	323.6
62.5°	214.2	218.7	226.0	235.0	247.7	258.5	269.4	278.4	289.2	296.5	305.5
65°	193.4	196.1	204.3	214.2	225.1	236.8	248.6	258.5	267.5	276.6	284.7
67.5°	168.1	172.6	181.7	192.5	204.3	215.1	227.8	238.6	247.7	256.7	263.9
70°	144.6	149.1	159.1	170.8	180.8	193.4	205.2	216.0	226.0	235.9	243.1
72.5°	123.8	125.6	135.6	147.3	159.1	171.7	182.6	195.2	204.3	215.1	222.4
75°	97.6	103.9	112.1	124.7	136.5	150.0	160.9	172.6	182.6	192.5	199.8
77.5°	75.0	80.4	91.3	102.1	115.7	127.4	141.0	151.8	161.8	172.6	180.8
80°	54.2	59.7	68.7	82.3	93.1	107.6	119.3	131.1	141.9	150.9	160.0
82.5°	33.4	38.9	49.7	61.5	75.0	88.6	99.4	111.2	122.9	132.0	141.0
85°	16.3	22.6	32.5	45.2	56.9	71.4	84.1	94.9	106.7	115.7	125.6
87.5°	5.4	9.9	20.8	32.5	46.1	59.7	72.3	83.2	94.9	104.8	113.9
90°	0.0	4.5	15.4	27.1	40.7	53.3	66.0	77.7	88.6	98.5	107.6
92.5°	0.0	4.5	13.6	26.2	38.9	51.5	64.2	75.9	86.8	96.7	105.8
95°	0.0	3.6	12.7	25.3	38.0	50.6	62.4	74.1	85.0	94.9	103.9
97.5°	0.0	3.6	12.7	24.4	36.2	48.8	61.5	72.3	83.2	93.1	102.1
100°	0.0	3.6	11.8	22.6	35.3	47.0	59.7	70.5	81.3	91.3	100.3
102.5°	0.0	2.7	10.8	21.7	33.4	46.1	57.8	68.7	79.5	88.6	97.6
105°	0.0	2.7	10.8	20.8	32.5	44.3	56.0	66.9	76.8	85.9	94.9
107.5°	0.0	1.8	9.9	19.9	30.7	42.5	54.2	64.2	75.0	84.1	92.2
110°	0.0	1.8	9.0	19.0	29.8	40.7	51.5	62.4	72.3	81.3	89.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.8	8.1	18.1	28.0	38.9	49.7	59.7	69.6	78.6	85.9
115°	0.0	1.8	8.1	17.2	27.1	37.1	47.9	57.8	66.9	75.0	83.2
117.5°	0.0	0.9	7.2	15.4	25.3	35.3	45.2	55.1	64.2	72.3	79.5
120°	0.0	0.9	6.3	14.5	23.5	33.4	43.4	52.4	61.5	68.7	75.9
122.5°	0.0	0.9	5.4	13.6	22.6	31.6	40.7	49.7	57.8	66.0	73.2
125°	0.0	0.9	5.4	12.7	20.8	29.8	38.0	47.0	55.1	62.4	68.7
127.5°	0.0	0.9	4.5	10.8	19.0	27.1	36.2	44.3	51.5	58.8	65.1
130°	0.0	0.9	3.6	9.9	17.2	25.3	33.4	40.7	47.9	55.1	61.5
132.5°	0.0	0.0	2.7	8.1	15.4	23.5	30.7	38.0	45.2	51.5	56.9
135°	0.0	0.0	2.7	7.2	13.6	20.8	28.0	35.3	41.6	47.9	53.3
137.5°	0.0	0.0	1.8	6.3	11.8	18.1	25.3	31.6	38.0	44.3	48.8
140°	0.0	0.0	1.8	5.4	9.9	15.4	21.7	28.0	34.3	39.8	45.2
142.5°	0.0	0.0	0.9	3.6	8.1	13.6	19.0	24.4	29.8	35.3	40.7
145°	0.0	0.0	0.9	2.7	6.3	10.8	16.3	20.8	26.2	30.7	36.2
147.5°	0.0	0.0	0.9	1.8	5.4	9.0	13.6	17.2	21.7	26.2	30.7
150°	0.0	0.0	0.0	1.8	3.6	7.2	10.8	14.5	18.1	21.7	25.3
152.5°	0.0	0.0	0.0	0.9	2.7	5.4	8.1	11.8	14.5	17.2	20.8
155°	0.0	0.0	0.0	0.9	1.8	3.6	6.3	9.0	10.8	14.5	16.3
157.5°	0.9	0.0	0.0	0.9	0.9	2.7	4.5	6.3	8.1	9.9	11.8
160°	0.9	0.0	0.0	0.0	0.9	1.8	2.7	3.6	5.4	7.2	9.0
162.5°	0.9	0.9	0.0	0.0	0.0	0.9	1.8	2.7	3.6	4.5	5.4
165°	0.9	0.9	0.0	0.0	0.0	0.0	0.9	0.9	1.8	1.8	2.7
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°	525.1	525.1	525.1	525.1	525.1	525.1	525.1	525.1
2.5°	525.1	524.2	524.2	523.3	523.3	522.4	521.5	520.6
5°	525.1	524.2	524.2	524.2	523.3	522.4	521.5	520.6
7.5°	525.1	525.1	525.1	524.2	524.2	523.3	522.4	522.4
10°	524.2	524.2	525.1	525.1	525.1	524.2	523.3	523.3
12.5°	523.3	524.2	525.1	525.1	525.1	525.1	524.2	523.3
15°	521.5	523.3	523.3	524.2	524.2	524.2	523.3	523.3
17.5°	518.8	520.6	521.5	522.4	523.3	522.4	521.5	521.5
20°	515.2	517.9	518.8	519.7	520.6	520.6	519.7	519.7
22.5°	511.6	513.4	515.2	516.1	517.9	517.9	517.0	517.0
25°	506.2	508.0	509.8	511.6	512.5	512.5	512.5	511.6
27.5°	498.9	501.6	504.4	506.2	507.1	507.1	507.1	506.2
30°	491.7	494.4	497.1	498.9	500.7	500.7	500.7	500.7
32.5°	482.7	486.3	489.0	490.8	492.6	493.5	492.6	492.6
35°	473.6	477.2	480.0	481.8	483.6	484.5	483.6	484.5
37.5°	462.8	466.4	469.1	472.7	473.6	473.6	473.6	473.6
40°	451.0	454.6	458.3	461.0	462.8	462.8	463.7	463.7
42.5°	438.4	442.0	446.5	450.1	450.1	451.0	451.9	451.9
45°	425.7	429.3	433.9	436.6	438.4	440.2	439.3	440.2
47.5°	412.2	416.7	420.3	423.9	424.8	426.6	426.6	425.7
50°	397.7	402.2	405.8	409.5	412.2	412.2	413.1	413.1
52.5°	381.4	386.9	391.4	395.9	395.9	398.6	399.5	398.6
55°	365.2	369.7	374.2	378.7	380.5	381.4	382.3	382.3
57.5°	348.0	353.4	357.0	361.5	364.3	364.3	366.1	365.2
60°	329.9	335.3	339.9	343.5	347.1	348.0	349.8	348.0
62.5°	311.8	318.2	321.8	325.4	328.1	329.9	331.7	331.7
65°	292.9	298.3	302.8	307.3	309.1	310.0	312.7	311.8
67.5°	272.1	277.5	282.0	287.4	291.0	291.9	293.8	291.9
70°	251.3	257.6	263.0	266.6	268.4	272.1	271.2	272.1
72.5°	229.6	235.9	241.3	245.9	249.5	252.2	253.1	254.0
75°	207.9	216.0	220.5	224.2	228.7	229.6	232.3	231.4
77.5°	188.9	195.2	200.7	204.3	208.8	210.6	211.5	211.5
80°	167.2	174.4	179.9	185.3	187.1	189.8	192.5	190.7
82.5°	149.1	156.4	162.7	167.2	170.8	172.6	173.5	174.4
85°	132.9	140.1	146.4	150.9	154.6	157.3	159.1	158.2
87.5°	122.0	129.3	134.7	140.1	144.6	145.5	147.3	147.3
90°	115.7	122.9	129.3	133.8	137.4	140.1	141.0	141.9
92.5°	113.0	120.2	126.5	131.1	134.7	136.5	138.3	138.3
95°	111.2	118.4	123.8	129.3	132.9	134.7	136.5	136.5
97.5°	110.3	116.6	122.9	126.5	130.2	132.9	133.8	134.7
100°	107.6	114.8	120.2	124.7	128.3	130.2	132.0	132.0
102.5°	104.8	112.1	117.5	122.0	125.6	127.4	128.3	129.3
105°	102.1	109.4	114.8	119.3	122.0	124.7	125.6	126.5
107.5°	99.4	105.8	111.2	115.7	119.3	121.1	122.0	122.9
110°	96.7	103.0	108.5	113.0	115.7	117.5	119.3	119.3





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CATALOG NUMBER: FVS4M-3-LD4-50-1STD-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	93.1	99.4	104.8	109.4	112.1	113.9	114.8	114.8
115°	90.4	95.8	101.2	104.8	108.5	110.3	111.2	111.2
117.5°	86.8	92.2	97.6	101.2	103.9	105.8	106.7	107.6
120°	83.2	88.6	93.1	96.7	100.3	102.1	103.0	103.0
122.5°	78.6	84.1	89.5	93.1	95.8	97.6	98.5	98.5
125°	75.0	80.4	85.0	88.6	91.3	92.2	93.1	94.0
127.5°	70.5	75.9	80.4	84.1	85.9	87.7	88.6	88.6
130°	66.9	71.4	75.9	78.6	81.3	83.2	84.1	84.1
132.5°	62.4	66.9	71.4	74.1	75.9	77.7	78.6	78.6
135°	57.8	62.4	66.0	68.7	71.4	72.3	73.2	73.2
137.5°	53.3	57.8	61.5	64.2	66.0	66.9	67.8	67.8
140°	48.8	53.3	56.0	58.8	60.6	61.5	62.4	62.4
142.5°	44.3	47.9	51.5	53.3	55.1	56.0	56.9	56.9
145°	39.8	43.4	45.2	47.9	49.7	50.6	50.6	50.6
147.5°	34.3	38.9	40.7	42.5	44.3	44.3	45.2	45.2
150°	28.9	32.5	35.3	37.1	38.0	38.9	39.8	39.8
152.5°	23.5	27.1	29.8	31.6	32.5	33.4	34.3	33.4
155°	19.0	20.8	23.5	26.2	27.1	27.1	28.0	27.1
157.5°	13.6	15.4	18.1	19.9	21.7	21.7	21.7	21.7
160°	9.9	10.8	12.7	13.6	15.4	16.3	16.3	16.3
162.5°	6.3	7.2	8.1	9.0	9.0	10.8	10.8	9.9
165°	2.7	2.7	3.6	3.6	4.5	5.4	5.4	5.4
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)