

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: P231892

Luminaire Tested: **FVS4M-2-LD4-30-1HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231892  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-4)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-2-LD4-30-1HI-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 1-MODULE LED WITH PFS125 LENS  
Light Source: (42) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

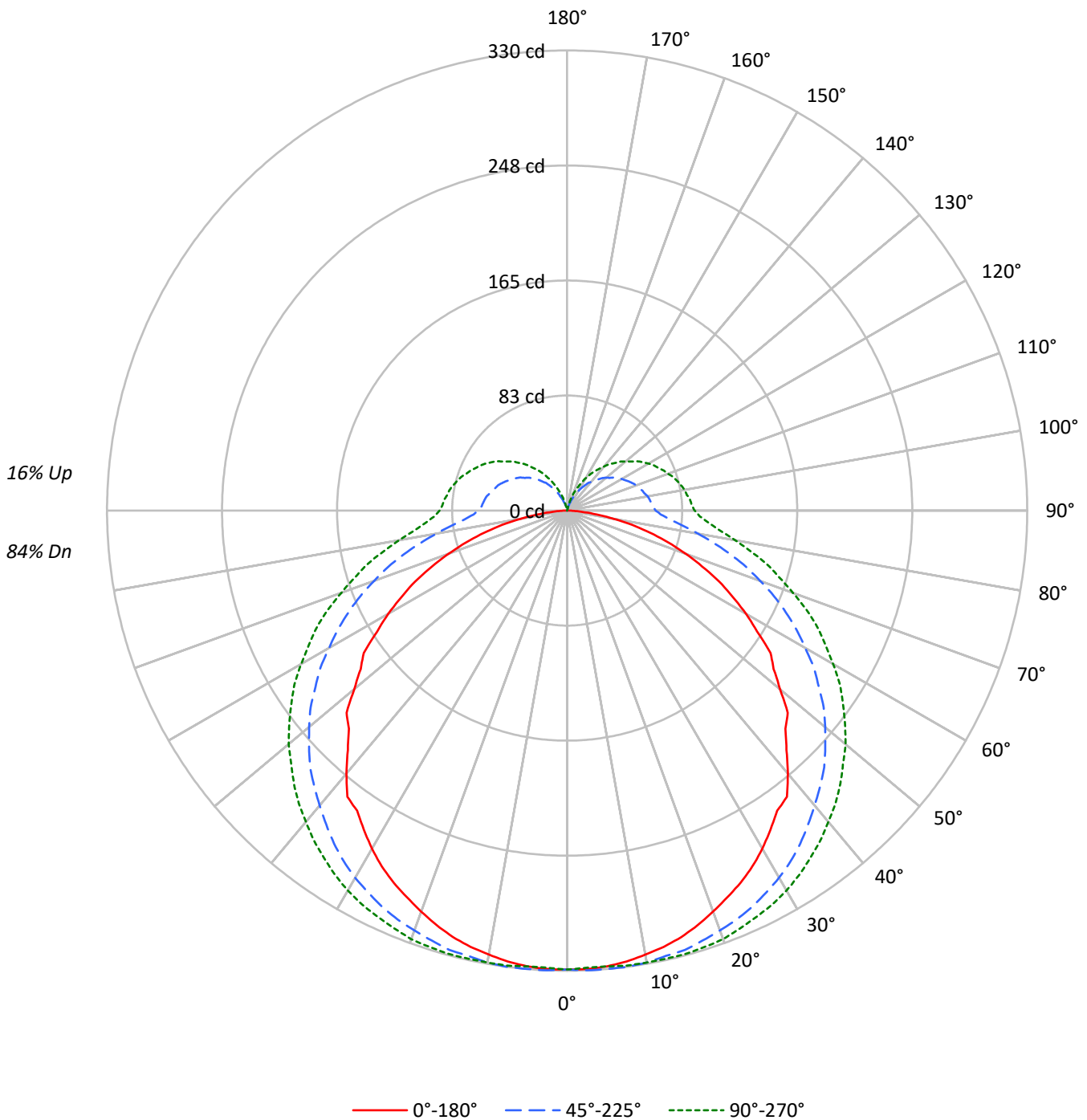
Lumens per Lamp: N/A  
Luminaire Lumens: 1425.0 lumens  
Efficiency: N/A  
Efficacy: 64.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 22.2  
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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CATALOG NUMBER: FVS4M-2-LD4-30-1HI-PFS125-UNV-EDC1

### 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	50	30	10	0	
RCR																						
0	115	115	115	115	111	111	111	111	102	102	102	95	95	95	87	87	87	84				
1	103	98	93	88	99	94	89	85	86	83	80	80	77	74	74	71	69	66				
2	93	84	76	70	89	81	74	68	74	69	64	69	64	60	63	60	56	53				
3	84	73	64	57	80	70	62	56	65	58	53	60	54	50	55	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	47	41	67	55	46	40	51	43	38	47	41	36	44	38	34	31				
6	65	51	42	35	62	49	40	34	46	38	33	42	36	31	39	34	30	27				
7	60	46	37	31	57	44	36	30	41	34	29	39	32	27	36	30	26	24				
8	55	42	33	27	53	40	32	27	38	31	25	35	29	24	33	27	23	21				
9	52	38	30	24	49	37	29	24	35	28	23	32	26	22	30	25	21	19				
10	48	35	27	22	46	34	26	21	32	25	20	30	24	20	28	23	19	17				

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

	0°	45°	90°
0°	5914	5914	5914
5°	5869	5707	5624
10°	5800	5525	5431
15°	5740	5360	5275
20°	5651	5195	5134
25°	5583	5057	4980
30°	5500	4910	4849
35°	5394	4753	4696
40°	5340	4581	4548
45°	5123	4437	4402
50°	4988	4252	4250
55°	4893	4049	4075
60°	4555	3822	3883
65°	4228	3578	3686
70°	3744	3283	3416
75°	3133	2962	3177
80°	2243	2597	2872
85°	1032	2301	2676



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.4	2.2
10°-20°	91.7	6.4
20°-30°	143.5	10.1
30°-40°	180.2	12.6
40°-50°	197.2	13.8
50°-60°	192.5	13.5
60°-70°	165.3	11.6
70°-80°	120.9	8.5
80°-90°	75.3	5.3
90°-100°	58.9	4.1
100°-110°	52.2	3.7
110°-120°	43.0	3.0
120°-130°	32.6	2.3
130°-140°	22.0	1.5
140°-150°	12.4	0.9
150°-160°	5.0	0.4
160°-170°	0.8	0.1
170°-180°	0.0	0.0
0°-30°	266.6	18.7
0°-40°	446.8	31.4
0°-60°	836.4	58.7
0°-90°	1198.0	84.1
90°-120°	154.1	10.8
90°-150°	221.2	15.5
90°-180°	227.0	15.9
0°-180°	1425.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	329	329	329	329	329	
5°	328	329	330	330	328	31
15°	317	319	326	329	329	89
25°	294	302	314	320	321	136
35°	263	275	292	301	304	165
45°	221	239	261	273	277	172
55°	178	195	220	237	242	157
65°	120	144	173	192	198	118
75°	62	90	121	141	148	65
85°	11	41	74	95	102	14
90°	0	31	64	85	91	1
95°	0	28	61	82	88	0
105°	0	25	56	75	82	0
115°	0	21	49	67	72	0
125°	0	17	41	57	62	0
135°	0	12	32	44	48	0
145°	0	8	22	32	35	0
155°	0	3	11	18	19	0
165°	0	1	2	4	5	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231892

CATALOG NUMBER: FVS4M-2-LD4-30-1HI-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1
2.5°	329.1	330.0	329.1	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0
5°	328.1	328.1	328.1	329.1	329.1	329.1	329.1	330.0	330.0	330.0	330.0
7.5°	326.2	327.1	327.1	327.1	328.1	328.1	328.1	329.1	329.1	329.1	330.0
10°	323.3	324.2	324.2	325.2	326.2	326.2	326.2	326.2	327.1	328.1	329.1
12.5°	320.4	320.4	321.4	321.4	322.3	322.3	323.3	324.2	325.2	326.2	327.1
15°	316.6	316.6	317.5	318.5	319.4	319.4	320.4	322.3	323.3	325.2	326.2
17.5°	311.7	311.7	312.7	313.7	314.6	315.6	316.6	318.5	320.4	322.3	323.3
20°	306.0	306.9	307.9	308.9	310.8	311.7	312.7	314.6	316.6	319.4	320.4
22.5°	300.2	301.2	303.1	304.0	306.0	306.9	307.9	310.8	312.7	314.6	317.5
25°	294.4	295.4	296.3	298.3	301.2	302.1	303.1	306.0	308.9	310.8	313.7
27.5°	287.7	288.6	289.6	291.5	294.4	296.3	297.3	300.2	303.1	306.0	308.9
30°	280.0	281.0	281.9	284.8	287.7	289.6	291.5	294.4	297.3	301.2	304.0
32.5°	271.3	273.3	274.2	278.1	281.0	282.9	284.8	287.7	291.5	295.4	298.3
35°	262.7	264.6	265.6	269.4	272.3	275.2	276.1	280.0	283.8	287.7	291.5
37.5°	258.8	254.0	256.9	260.7	263.6	266.5	268.4	272.3	276.1	281.0	283.8
40°	246.3	244.4	246.3	251.1	255.0	256.9	259.8	264.6	268.4	273.3	276.1
42.5°	232.8	233.8	236.7	241.5	245.4	248.2	251.1	255.0	259.8	264.6	268.4
45°	221.3	223.2	226.1	230.9	235.7	238.6	241.5	246.3	251.1	255.9	260.7
47.5°	214.6	211.7	215.5	220.3	225.1	228.0	230.9	235.7	241.5	246.3	251.1
50°	199.2	201.1	204.9	209.8	214.6	218.4	220.3	226.1	231.9	236.7	241.5
52.5°	186.7	188.6	192.4	198.2	203.0	206.9	209.8	215.5	221.3	226.1	231.9
55°	178.0	177.0	180.9	185.7	192.4	195.3	198.2	204.0	209.8	215.5	220.3
57.5°	161.6	163.6	168.4	174.2	179.9	182.8	186.7	192.4	198.2	204.0	209.8
60°	148.2	150.1	154.9	160.7	167.4	170.3	174.2	179.9	186.7	191.5	197.2
62.5°	133.7	135.7	141.4	147.2	153.9	157.8	161.6	167.4	174.2	179.9	185.7
65°	120.3	122.2	128.0	133.7	140.5	144.3	148.2	154.9	160.7	167.4	173.2
67.5°	104.9	107.8	112.6	120.3	127.0	130.9	133.7	141.4	149.1	153.9	160.7
70°	90.4	92.4	99.1	105.8	113.5	116.4	120.3	128.0	134.7	141.4	147.2
72.5°	76.0	78.9	83.7	91.4	99.1	103.0	106.8	114.5	121.2	128.0	134.7
75°	61.6	64.5	70.2	77.9	85.6	89.5	93.3	101.0	108.7	115.5	121.2
77.5°	48.1	51.0	56.8	64.5	72.2	76.0	79.9	87.6	95.3	102.0	107.8
80°	33.7	36.6	43.3	51.0	58.7	62.5	67.4	75.0	81.8	89.5	95.3
82.5°	21.2	25.0	30.8	38.5	47.1	51.0	55.8	62.5	70.2	77.9	83.7
85°	10.6	14.4	20.2	28.9	37.5	41.4	45.2	52.9	60.6	68.3	74.1
87.5°	4.8	7.7	13.5	21.2	29.8	33.7	38.5	46.2	53.9	60.6	67.4
90°	0.0	3.8	10.6	18.3	26.0	30.8	34.6	42.3	50.0	56.8	63.5
92.5°	0.0	2.9	9.6	17.3	25.0	28.9	33.7	41.4	49.1	55.8	61.6
95°	0.0	2.9	8.7	16.4	24.1	27.9	32.7	40.4	47.1	54.8	60.6
97.5°	0.0	2.9	8.7	15.4	24.1	27.9	31.8	39.4	46.2	53.9	59.7
100°	0.0	2.9	7.7	15.4	23.1	26.9	30.8	38.5	45.2	52.0	58.7
102.5°	0.0	1.9	7.7	14.4	22.1	26.0	29.8	37.5	44.3	51.0	56.8
105°	0.0	1.9	7.7	13.5	21.2	25.0	28.9	35.6	43.3	50.0	55.8
107.5°	0.0	1.9	6.7	13.5	20.2	24.1	27.9	34.6	41.4	48.1	53.9
110°	0.0	1.9	6.7	12.5	19.2	23.1	26.9	33.7	40.4	47.1	52.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.9	5.8	12.5	19.2	22.1	26.0	32.7	39.4	45.2	51.0
115°	0.0	1.0	5.8	11.5	18.3	21.2	25.0	30.8	37.5	43.3	49.1
117.5°	0.0	1.0	5.8	10.6	17.3	20.2	23.1	29.8	35.6	41.4	47.1
120°	0.0	1.0	4.8	10.6	16.4	19.2	22.1	28.9	34.6	39.4	45.2
122.5°	0.0	1.0	4.8	9.6	15.4	18.3	21.2	26.9	32.7	38.5	43.3
125°	0.0	1.0	3.8	8.7	14.4	17.3	20.2	26.0	30.8	36.6	41.4
127.5°	0.0	1.0	3.8	7.7	13.5	16.4	19.2	24.1	28.9	34.6	38.5
130°	0.0	1.0	2.9	7.7	12.5	14.4	17.3	22.1	27.9	32.7	36.6
132.5°	0.0	1.0	2.9	6.7	11.5	13.5	16.4	21.2	26.0	29.8	34.6
135°	0.0	1.0	2.9	5.8	10.6	12.5	14.4	19.2	24.1	27.9	31.8
137.5°	0.0	1.0	1.9	5.8	9.6	11.5	13.5	18.3	22.1	26.0	29.8
140°	0.0	0.0	1.9	4.8	8.7	10.6	12.5	16.4	20.2	24.1	26.9
142.5°	0.0	0.0	1.0	3.8	6.7	8.7	10.6	14.4	18.3	21.2	25.0
145°	0.0	0.0	1.0	2.9	5.8	7.7	9.6	12.5	16.4	19.2	22.1
147.5°	0.0	0.0	1.0	2.9	4.8	6.7	7.7	10.6	13.5	16.4	19.2
150°	0.0	0.0	1.0	1.9	3.8	4.8	6.7	8.7	11.5	14.4	16.4
152.5°	0.0	0.0	1.0	1.0	2.9	3.8	4.8	6.7	9.6	11.5	13.5
155°	0.0	0.0	1.0	1.0	1.9	2.9	3.8	5.8	7.7	9.6	10.6
157.5°	0.0	0.0	0.0	1.0	1.9	1.9	2.9	3.8	5.8	6.7	8.7
160°	0.0	0.0	0.0	1.0	1.0	1.0	1.9	2.9	3.8	4.8	5.8
162.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.9	1.9	2.9	3.8
165°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.9	1.9
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1	329.1
2.5°	330.0	330.0	330.0	329.1	329.1	329.1	329.1	328.1	328.1	328.1
5°	330.0	330.0	330.0	330.0	330.0	329.1	329.1	328.1	328.1	328.1
7.5°	330.0	330.0	330.0	330.0	330.0	330.0	329.1	329.1	329.1	329.1
10°	329.1	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	329.1
12.5°	328.1	329.1	329.1	330.0	330.0	330.0	330.0	329.1	329.1	329.1
15°	327.1	328.1	329.1	329.1	329.1	330.0	330.0	329.1	329.1	329.1
17.5°	325.2	326.2	327.1	327.1	328.1	328.1	328.1	328.1	328.1	328.1
20°	322.3	323.3	325.2	326.2	326.2	326.2	326.2	327.1	327.1	327.1
22.5°	319.4	320.4	322.3	323.3	323.3	324.2	324.2	324.2	324.2	324.2
25°	315.6	317.5	318.5	319.4	320.4	321.4	321.4	321.4	322.3	321.4
27.5°	311.7	313.7	315.6	316.6	316.6	317.5	318.5	318.5	318.5	318.5
30°	306.0	308.9	309.8	311.7	312.7	312.7	313.7	314.6	314.6	314.6
32.5°	301.2	303.1	306.0	306.9	307.9	308.9	308.9	309.8	309.8	309.8
35°	294.4	296.3	299.2	301.2	301.2	302.1	303.1	304.0	304.0	304.0
37.5°	286.7	290.6	292.5	294.4	295.4	295.4	297.3	298.3	298.3	298.3
40°	280.0	282.9	285.8	287.7	288.6	288.6	290.6	290.6	291.5	291.5
42.5°	271.3	275.2	278.1	280.0	281.0	281.9	282.9	283.8	284.8	284.8
45°	264.6	267.5	270.4	272.3	273.3	274.2	276.1	277.1	277.1	277.1
47.5°	255.0	258.8	261.7	263.6	264.6	266.5	267.5	268.4	268.4	268.4
50°	245.4	249.2	253.0	255.9	255.9	257.9	258.8	260.7	260.7	260.7
52.5°	235.7	239.6	243.4	246.3	247.3	248.2	250.2	251.1	252.1	251.1
55°	225.1	229.0	232.8	235.7	236.7	237.7	239.6	240.5	241.5	241.5
57.5°	213.6	218.4	222.3	225.1	226.1	227.1	229.0	230.9	230.9	231.9
60°	203.0	206.9	210.7	213.6	215.5	216.5	218.4	219.4	220.3	220.3
62.5°	190.5	195.3	200.1	203.0	204.0	205.9	206.9	207.8	208.8	208.8
65°	178.0	182.8	187.6	190.5	192.4	193.4	195.3	196.3	197.2	198.2
67.5°	166.5	170.3	175.1	178.0	179.0	180.9	182.8	184.7	185.7	185.7
70°	153.0	157.8	161.6	165.5	167.4	168.4	170.3	171.3	173.2	172.2
72.5°	139.5	144.3	150.1	153.0	153.9	155.9	157.8	159.7	160.7	159.7
75°	127.0	131.8	136.6	139.5	141.4	142.4	145.3	147.2	147.2	148.2
77.5°	113.5	119.3	124.1	127.0	128.9	129.9	132.8	133.7	134.7	134.7
80°	101.0	106.8	110.6	114.5	117.4	117.4	120.3	121.2	122.2	122.2
82.5°	89.5	95.3	100.1	103.0	104.9	106.8	108.7	109.7	110.6	110.6
85°	79.9	85.6	89.5	94.3	95.3	97.2	99.1	101.0	102.0	102.0
87.5°	73.1	78.9	82.7	86.6	88.5	90.4	92.4	94.3	95.3	95.3
90°	69.3	75.0	78.9	82.7	84.7	86.6	88.5	90.4	91.4	91.4
92.5°	67.4	73.1	77.9	80.8	82.7	84.7	86.6	88.5	89.5	89.5
95°	66.4	72.2	76.0	79.9	81.8	82.7	85.6	86.6	87.6	88.5
97.5°	65.4	70.2	75.0	78.9	80.8	81.8	84.7	85.6	86.6	86.6
100°	64.5	69.3	74.1	77.0	78.9	80.8	82.7	84.7	84.7	85.6
102.5°	62.5	67.4	72.2	76.0	77.0	78.9	80.8	82.7	83.7	83.7
105°	60.6	66.4	70.2	74.1	75.0	77.0	78.9	80.8	81.8	81.8
107.5°	59.7	64.5	68.3	72.2	73.1	75.0	77.0	78.9	79.9	79.9
110°	57.7	62.5	66.4	70.2	71.2	73.1	75.0	76.0	77.0	77.0





TEST NUMBER: P231892

CATALOG NUMBER: FVS4M-2-LD4-30-1HI-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	55.8	60.6	64.5	67.4	69.3	70.2	72.2	74.1	75.0	75.0
115°	53.9	58.7	62.5	65.4	67.4	68.3	70.2	71.2	72.2	72.2
117.5°	52.0	55.8	59.7	63.5	64.5	65.4	67.4	69.3	69.3	70.2
120°	50.0	53.9	57.7	60.6	61.6	63.5	64.5	66.4	66.4	67.4
122.5°	47.1	52.0	54.8	57.7	59.7	60.6	62.5	63.5	63.5	64.5
125°	45.2	49.1	52.9	55.8	56.8	57.7	59.7	60.6	60.6	61.6
127.5°	43.3	46.2	50.0	52.9	53.9	54.8	56.8	57.7	57.7	57.7
130°	40.4	44.3	47.1	50.0	51.0	52.0	52.9	53.9	54.8	54.8
132.5°	38.5	41.4	44.3	47.1	48.1	49.1	50.0	51.0	52.0	52.0
135°	35.6	38.5	41.4	43.3	44.3	45.2	47.1	48.1	48.1	48.1
137.5°	32.7	35.6	38.5	40.4	41.4	42.3	43.3	44.3	45.2	45.2
140°	29.8	32.7	35.6	37.5	38.5	39.4	40.4	41.4	41.4	41.4
142.5°	27.9	29.8	32.7	34.6	35.6	35.6	36.6	37.5	37.5	37.5
145°	25.0	26.9	28.9	30.8	31.8	32.7	33.7	33.7	34.6	34.6
147.5°	22.1	24.1	26.0	27.9	28.9	28.9	29.8	30.8	30.8	30.8
150°	19.2	21.2	23.1	24.1	25.0	25.0	26.0	26.9	26.9	26.9
152.5°	16.4	18.3	20.2	21.2	21.2	22.1	23.1	23.1	23.1	23.1
155°	13.5	14.4	16.4	17.3	18.3	18.3	19.2	19.2	19.2	19.2
157.5°	9.6	11.5	12.5	14.4	14.4	15.4	15.4	15.4	15.4	15.4
160°	7.7	8.7	9.6	10.6	11.5	11.5	11.5	12.5	12.5	12.5
162.5°	4.8	5.8	5.8	6.7	7.7	7.7	8.7	8.7	8.7	8.7
165°	2.9	2.9	3.8	3.8	3.8	4.8	4.8	4.8	4.8	4.8
167.5°	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
172.5°	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
177.5°	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

(END OF REPORT)