

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: P231922

Luminaire Tested: **FVS4M-2-LD4-40-2LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231922  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-9)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-2-LD4-40-2LO-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (84) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

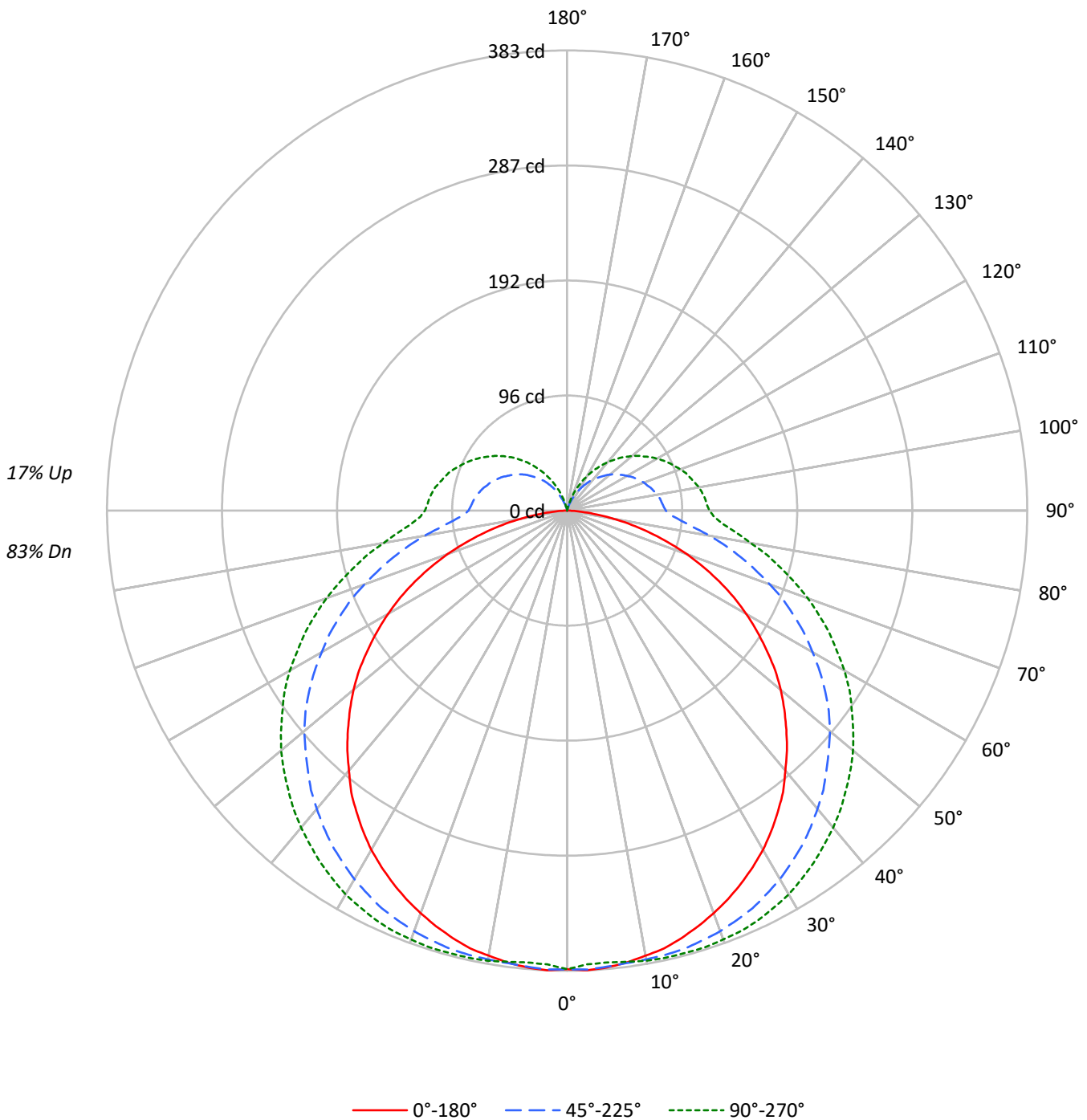
Lumens per Lamp: N/A  
Luminaire Lumens: 1713.0 lumens  
Efficiency: N/A  
Efficacy: 71.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.51  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 24.1  
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

TEST NUMBER: P231922

CATALOG NUMBER: FVS4M-2-LD4-40-2LO-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	0
RCR																		
0	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	103	97	92	87	98	93	89	84	86	82	79	79	76	73	73	70	68	65
2	92	83	76	69	88	80	73	67	74	68	63	68	63	59	62	59	55	52
3	84	72	64	57	80	69	61	55	64	57	52	59	53	49	54	50	46	43
4	76	64	54	47	73	61	53	46	56	49	43	52	46	41	48	43	39	36
5	70	56	47	40	66	54	46	39	50	43	37	46	40	35	43	38	33	31
6	64	50	41	35	61	49	40	34	45	38	32	42	35	30	39	33	29	26
7	59	45	36	30	57	44	35	29	41	33	28	38	32	27	35	30	25	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	20
9	51	38	29	24	49	36	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	31	25	20	29	23	19	27	22	18	16

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

	0°	45°	90°
0°	6860	6860	6860
5°	6827	6590	6470
10°	6749	6368	6279
15°	6677	6203	6108
20°	6585	6041	5963
25°	6495	5887	5829
30°	6403	5720	5686
35°	6279	5555	5527
40°	6125	5377	5374
45°	5973	5194	5216
50°	5814	5026	5065
55°	5575	4821	4880
60°	5292	4572	4697
65°	4910	4316	4478
70°	4390	4004	4230
75°	3616	3653	3940
80°	2609	3272	3643
85°	1197	2950	3424



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.3	2.1
10°-20°	106.2	6.2
20°-30°	167.0	9.7
30°-40°	210.6	12.3
40°-50°	231.8	13.5
50°-60°	228.1	13.3
60°-70°	198.7	11.6
70°-80°	148.4	8.7
80°-90°	95.8	5.6
90°-100°	76.5	4.5
100°-110°	67.5	3.9
110°-120°	55.3	3.2
120°-130°	41.5	2.4
130°-140°	27.6	1.6
140°-150°	15.1	0.9
150°-160°	5.7	0.3
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	309.5	18.1
0°-40°	520.1	30.4
0°-60°	980.0	57.2
0°-90°	1422.9	83.1
90°-120°	199.4	11.6
90°-150°	283.7	16.6
90°-180°	290.0	16.9
0°-180°	1713.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	382	381	381	380	378	36
15°	368	369	378	381	381	104
25°	342	350	365	374	376	158
35°	306	319	341	354	358	191
45°	258	278	305	324	328	199
55°	203	229	262	283	289	181
65°	140	171	209	233	241	138
75°	71	108	150	176	184	76
85°	12	52	95	122	130	16
90°	0	39	82	110	118	1
95°	0	36	79	106	115	0
105°	0	32	72	98	106	0
115°	0	27	63	86	94	0
125°	0	21	52	73	78	0
135°	0	15	40	57	62	0
145°	0	8	27	40	43	0
155°	1	2	12	21	23	0
165°	0	0	1	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231922

CATALOG NUMBER: FVS4M-2-LD4-40-2LO-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7
2.5°	383.0	382.4	382.4	382.4	382.4	382.4	382.4	382.4	382.4	382.4	382.4
5°	381.7	381.1	381.1	381.1	381.1	381.1	381.7	381.1	381.7	381.1	381.1
7.5°	379.3	378.7	378.7	378.7	378.7	379.3	379.3	379.3	379.3	379.9	379.9
10°	376.2	375.6	375.6	375.6	376.2	376.2	376.8	377.5	378.7	379.3	379.9
12.5°	373.2	371.9	372.6	371.9	372.6	373.2	374.4	376.2	377.5	378.7	379.9
15°	368.3	367.0	367.7	367.7	368.3	370.1	371.9	373.8	375.6	377.5	378.7
17.5°	362.7	362.1	362.1	362.1	364.6	366.4	368.9	371.3	373.2	375.0	376.8
20°	356.6	356.0	356.0	356.6	359.1	362.1	364.6	367.7	370.1	372.6	375.0
22.5°	349.9	349.3	349.3	351.1	353.6	357.2	360.3	363.4	366.4	368.9	371.9
25°	342.5	342.5	342.5	345.0	348.0	351.7	355.4	358.5	362.1	365.2	368.3
27.5°	334.6	334.0	334.6	337.6	341.3	345.6	349.3	352.9	356.6	359.7	362.7
30°	326.0	324.8	326.0	329.7	334.0	338.2	342.5	346.8	350.5	354.2	357.8
32.5°	316.2	315.6	316.8	321.1	325.4	330.3	335.2	339.5	343.8	347.4	351.7
35°	305.8	304.5	306.4	311.9	316.8	321.7	326.6	331.5	336.4	340.7	345.0
37.5°	295.3	294.1	296.6	302.1	307.0	312.5	318.0	323.5	328.4	332.7	337.0
40°	282.5	282.5	285.5	291.1	296.6	302.7	308.2	314.3	319.9	324.1	329.0
42.5°	270.8	270.8	274.5	280.0	286.2	292.3	301.5	307.0	310.1	315.6	320.5
45°	258.0	258.0	262.3	268.4	274.5	281.3	288.0	294.1	300.2	305.2	311.3
47.5°	245.1	245.1	250.6	256.7	263.5	270.8	277.0	283.7	289.8	295.3	301.5
50°	232.2	231.6	237.1	243.9	251.2	261.0	265.9	272.7	278.8	285.5	291.1
52.5°	218.1	218.1	224.3	231.0	238.4	245.7	253.7	261.0	268.4	274.5	280.0
55°	202.8	203.4	209.6	216.9	225.5	232.8	240.8	248.2	254.9	262.3	268.4
57.5°	187.5	188.7	195.5	203.4	210.8	219.4	227.3	235.3	242.7	249.4	255.5
60°	172.2	173.4	180.1	187.5	196.1	204.7	213.9	221.8	229.2	235.9	242.7
62.5°	156.3	157.5	164.2	172.8	182.0	190.6	199.1	207.7	215.1	223.0	229.8
65°	139.7	141.5	148.9	156.9	166.1	175.2	184.4	193.0	201.0	208.9	215.1
67.5°	122.6	125.6	132.4	141.5	150.7	159.9	169.1	178.3	186.9	194.9	201.0
70°	106.0	108.5	115.2	125.6	134.8	144.6	153.8	163.6	172.2	179.5	186.3
72.5°	88.2	91.9	99.9	108.5	118.9	128.7	138.5	147.7	156.9	164.2	171.6
75°	71.1	74.8	82.7	93.1	102.3	113.4	122.6	132.4	140.9	149.5	157.5
77.5°	55.1	58.8	66.8	76.6	87.0	97.4	107.2	117.0	126.8	134.8	141.5
80°	39.2	42.9	51.5	61.3	71.7	82.1	93.1	102.3	111.5	120.1	126.8
82.5°	24.5	28.8	37.4	47.8	58.2	68.6	79.0	88.8	98.0	106.0	114.0
85°	12.3	16.5	25.1	36.2	46.6	57.0	68.0	77.2	86.4	95.0	102.3
87.5°	4.3	8.6	16.5	27.6	38.0	48.4	58.8	68.6	78.4	86.4	93.8
90°	0.0	4.3	12.9	23.3	33.7	44.7	55.1	65.0	73.5	82.1	90.1
92.5°	0.0	3.7	11.6	21.4	32.5	42.9	53.3	63.1	72.3	80.3	88.2
95°	0.0	3.7	11.0	20.8	31.3	41.7	52.1	61.9	71.1	79.0	86.4
97.5°	0.0	3.1	10.4	20.2	30.0	41.1	50.9	60.7	69.2	77.8	85.2
100°	0.0	3.1	9.8	19.0	29.4	39.2	49.6	58.8	67.4	76.0	83.3
102.5°	0.0	2.5	9.2	18.4	28.2	38.0	47.8	57.0	66.2	74.1	81.5
105°	0.0	2.5	8.6	17.8	27.0	36.8	46.6	55.8	64.3	72.3	79.0
107.5°	0.0	1.8	8.6	16.5	25.7	35.5	44.7	53.9	61.9	69.9	77.2
110°	0.0	1.8	8.0	15.9	25.1	34.3	43.5	52.1	60.0	68.0	74.8



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CATALOG NUMBER: FVS4M-2-LD4-40-2LO-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.2	7.4	14.7	23.9	32.5	41.7	50.2	58.2	65.6	71.7
115°	0.0	1.2	6.7	14.1	22.7	31.3	39.8	47.8	55.8	63.1	69.2
117.5°	0.0	0.6	6.1	12.9	21.4	29.4	38.0	46.0	53.3	60.7	66.8
120°	0.0	0.6	5.5	12.3	20.2	28.2	36.2	43.5	50.9	57.6	63.7
122.5°	0.0	0.6	4.9	11.0	19.0	26.3	34.3	41.7	48.4	55.1	60.7
125°	0.0	0.6	4.3	10.4	17.2	24.5	31.9	39.2	46.0	52.1	58.2
127.5°	0.0	0.6	3.7	9.2	15.9	23.3	30.0	36.8	43.5	49.6	55.1
130°	0.0	0.6	3.1	8.6	14.7	21.4	28.2	34.3	40.4	46.6	51.5
132.5°	0.0	0.0	2.5	7.4	12.9	19.6	25.7	31.9	38.0	43.5	48.4
135°	0.0	0.0	1.8	6.1	11.6	17.8	23.9	29.4	34.9	39.8	44.7
137.5°	0.0	0.0	1.2	5.5	10.4	15.9	21.4	27.0	31.9	36.8	41.1
140°	0.0	0.0	0.6	4.3	9.2	14.1	19.0	24.5	29.4	33.7	38.0
142.5°	0.0	0.0	0.6	3.1	7.4	12.3	16.5	21.4	26.3	30.6	34.3
145°	0.0	0.0	0.0	2.5	5.5	9.8	14.1	18.4	23.3	27.0	30.6
147.5°	0.0	0.0	0.0	1.8	4.3	8.0	11.6	15.3	19.6	23.3	27.0
150°	0.0	0.0	0.0	0.6	3.1	6.1	9.8	12.9	16.5	19.6	22.7
152.5°	0.0	0.0	0.0	0.6	2.5	4.9	7.4	10.4	12.9	15.9	19.0
155°	0.6	0.0	0.0	0.0	1.2	3.1	5.5	7.4	9.8	12.3	14.7
157.5°	0.0	0.0	0.0	0.0	0.6	1.8	3.7	5.5	7.4	9.2	11.0
160°	0.6	0.0	0.0	0.0	0.0	0.6	1.8	3.1	4.9	6.1	7.4
162.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.6	1.2	2.5	3.7	4.3
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.8
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°	381.7	381.7	381.7	381.7	381.7	381.7	381.7	381.7
2.5°	381.7	381.1	380.5	379.9	379.3	378.7	378.1	378.1
5°	380.5	380.5	379.9	379.3	378.7	378.1	377.5	377.5
7.5°	380.5	380.5	380.5	379.9	379.9	379.3	378.7	378.7
10°	380.5	381.1	381.1	381.1	381.1	380.5	380.5	380.5
12.5°	380.5	381.7	381.7	381.7	381.7	381.7	381.7	381.1
15°	379.9	380.5	381.1	381.7	381.7	381.7	381.1	381.1
17.5°	378.7	379.9	380.5	381.1	381.1	381.1	381.1	381.1
20°	376.2	378.1	378.7	379.9	379.9	380.5	379.9	379.9
22.5°	373.8	375.6	376.8	377.5	378.1	378.7	378.7	378.7
25°	370.1	372.6	373.8	375.0	375.6	376.2	376.2	376.2
27.5°	365.8	368.3	370.1	371.3	371.9	372.6	372.6	372.6
30°	360.9	362.7	365.2	367.0	367.7	368.3	368.3	368.9
32.5°	354.8	357.2	359.7	361.5	362.1	362.7	363.4	363.4
35°	348.0	351.1	352.9	355.4	356.6	357.2	357.2	357.8
37.5°	341.3	344.4	346.2	348.7	349.9	350.5	351.1	351.1
40°	332.7	336.4	338.9	341.3	342.5	343.8	343.8	344.4
42.5°	324.8	328.4	330.9	333.3	335.2	336.4	337.0	337.0
45°	315.6	319.2	322.3	324.8	326.6	327.8	328.4	328.4
47.5°	305.8	310.1	313.7	316.2	318.0	319.2	319.9	319.9
50°	295.3	300.2	303.3	306.4	308.2	309.4	310.1	310.7
52.5°	284.9	289.2	292.9	296.0	298.4	299.6	300.2	300.2
55°	273.3	278.2	281.3	284.9	287.4	288.0	289.2	289.2
57.5°	261.6	265.9	269.6	273.3	275.1	277.0	278.2	278.8
60°	248.8	253.1	257.4	261.0	263.5	265.3	265.9	266.5
62.5°	235.9	240.8	245.1	248.2	250.6	252.5	253.7	253.1
65°	221.8	226.7	231.0	234.7	237.7	239.6	240.2	240.8
67.5°	207.7	213.9	217.5	221.2	223.7	226.1	226.7	226.7
70°	193.0	199.1	204.0	206.5	209.6	211.4	213.2	213.2
72.5°	178.3	183.8	188.7	192.4	194.9	197.3	198.5	198.5
75°	163.0	168.5	174.0	177.7	180.8	182.6	183.2	183.8
77.5°	148.3	154.4	159.3	163.0	166.1	167.9	169.1	170.3
80°	133.6	139.7	144.6	148.9	151.3	153.8	155.0	155.0
82.5°	120.7	126.8	131.7	136.0	138.5	140.9	141.5	142.2
85°	109.1	115.8	120.1	124.4	127.5	129.3	130.5	130.5
87.5°	101.1	107.2	112.1	116.4	119.5	121.3	122.6	122.6
90°	96.8	102.9	107.8	112.1	115.2	117.0	118.3	118.3
92.5°	95.0	101.1	106.0	110.3	112.7	115.2	116.4	116.4
95°	93.8	99.3	104.2	108.5	111.5	114.0	114.6	115.2
97.5°	91.9	98.0	102.9	107.2	109.7	112.1	113.4	113.4
100°	90.1	95.6	100.5	104.8	107.8	109.7	110.9	111.5
102.5°	87.6	93.8	98.7	102.3	105.4	107.2	108.5	108.5
105°	85.8	91.3	96.2	99.9	102.9	104.8	106.0	106.0
107.5°	83.3	88.8	93.8	97.4	99.9	102.3	102.9	103.6
110°	80.9	86.4	90.7	94.4	97.4	99.3	99.9	100.5





TEST NUMBER: P231922

CATALOG NUMBER: FVS4M-2-LD4-40-2LO-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	77.8	83.3	87.6	91.3	93.8	95.6	96.8	96.8
115°	75.4	80.3	84.6	88.2	90.7	92.5	93.8	93.8
117.5°	72.3	77.2	81.5	84.6	87.0	88.8	90.1	90.1
120°	69.2	74.1	78.4	81.5	83.9	85.8	86.4	86.4
122.5°	66.2	71.1	74.8	77.8	80.3	81.5	82.7	82.7
125°	63.1	67.4	71.1	74.1	76.6	77.8	78.4	78.4
127.5°	59.4	63.7	67.4	70.5	72.3	74.1	74.1	74.8
130°	56.4	60.0	63.7	66.2	68.0	69.9	70.5	70.5
132.5°	52.7	56.4	59.4	61.9	64.3	65.6	65.6	66.2
135°	49.0	52.7	55.8	58.2	60.0	60.7	61.9	61.9
137.5°	45.3	48.4	51.5	53.9	55.8	56.4	57.0	57.0
140°	41.7	44.7	47.2	49.6	50.9	52.1	52.7	52.7
142.5°	37.4	40.4	42.9	44.7	46.6	47.2	47.8	47.8
145°	33.7	36.2	38.6	40.4	41.7	42.9	42.9	42.9
147.5°	30.0	32.5	34.3	36.2	37.4	38.0	38.0	38.0
150°	25.7	28.2	30.0	31.3	32.5	33.1	33.1	33.1
152.5°	21.4	23.9	25.1	26.3	27.6	28.2	28.2	28.8
155°	17.2	19.0	20.8	22.1	22.7	23.3	23.3	23.3
157.5°	12.9	14.7	15.9	17.2	17.8	18.4	18.4	18.4
160°	8.6	10.4	11.6	12.9	13.5	13.5	13.5	13.5
162.5°	5.5	6.1	6.7	8.0	8.6	8.6	8.6	8.6
165°	2.5	2.5	3.1	3.7	3.7	4.3	4.3	4.3
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)