

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: P241317

Luminaire Tested: **FVS8M-2-LD4-30-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241317  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-3)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-2-LD4-30-1HI-P125-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 1-MODULE LED WITH P125 LENS  
Light Source: (42) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

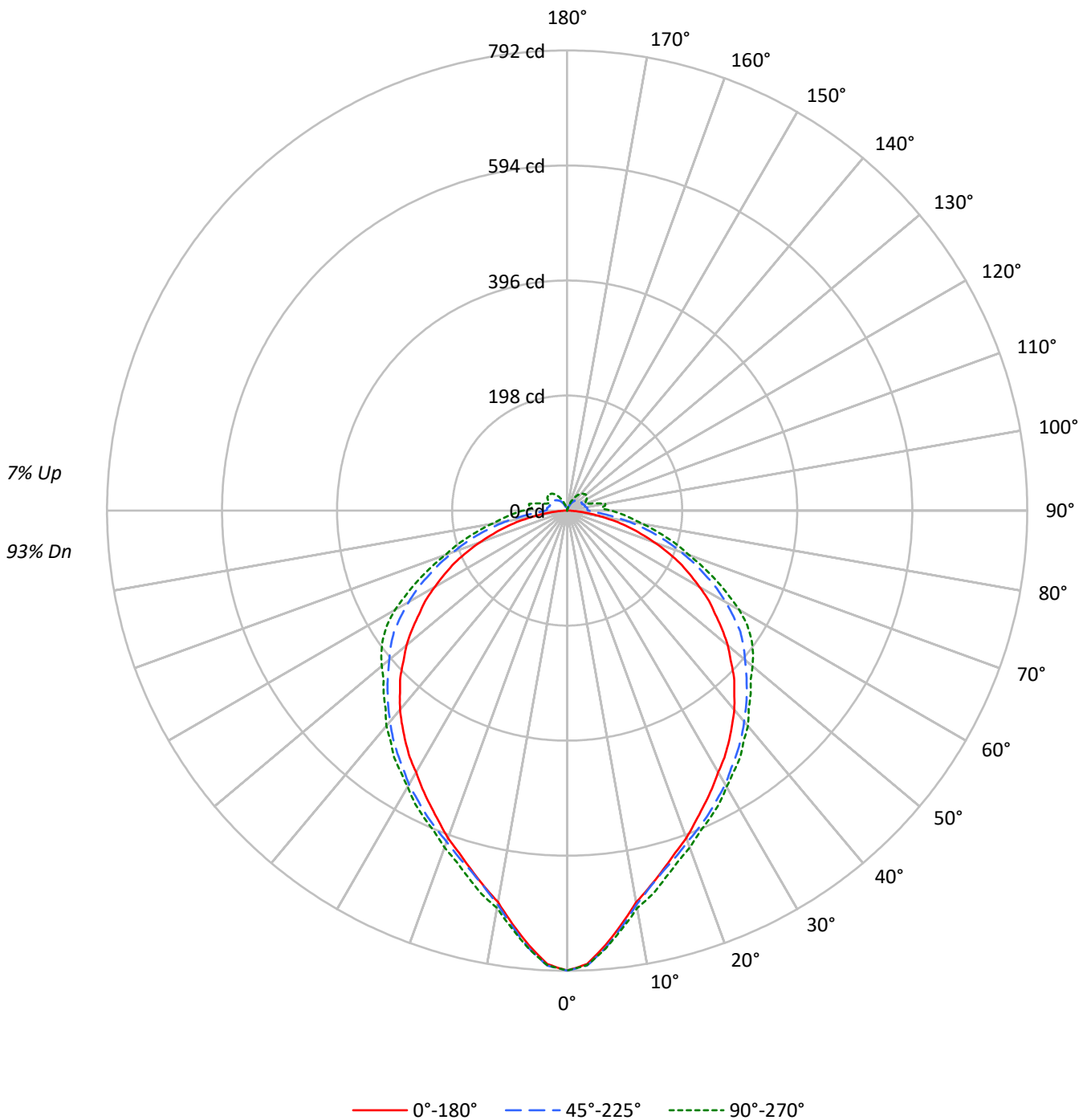
Lumens per Lamp: N/A  
Luminaire Lumens: 2109.0 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.04 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 22.3  
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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CATALOG NUMBER: FVS8M-2-LD4-30-1HI-P125-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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	97	93	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	81	75	93	85	79	73	81	75	71	76	72	68	72	69	65	63
3	88	77	68	62	85	75	67	61	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	56	50	60	53	49	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	45	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

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

	0°	45°	90°
0°	7116	7116	7116
5°	6732	6694	6697
10°	6162	6052	6099
15°	5826	5641	5742
20°	5578	5379	5452
25°	5343	5194	5230
30°	5162	5026	5042
35°	5045	4859	4918
40°	4926	4710	4777
45°	4787	4573	4631
50°	4616	4447	4589
55°	4384	4362	4591
60°	4166	4125	4422
65°	3902	3817	4043
70°	3453	3446	3614
75°	2929	3023	3313
80°	2119	2454	2987
85°	1070	1794	2897



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.9	3.3
10°-20°	181.9	8.6
20°-30°	264.9	12.6
30°-40°	317.2	15.0
40°-50°	333.6	15.8
50°-60°	317.4	15.0
60°-70°	252.0	12.0
70°-80°	158.7	7.5
80°-90°	69.0	3.3
90°-100°	35.3	1.7
100°-110°	29.9	1.4
110°-120°	23.2	1.1
120°-130°	21.8	1.0
130°-140°	17.5	0.8
140°-150°	11.2	0.5
150°-160°	4.7	0.2
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	516.7	24.5
0°-40°	833.9	39.5
0°-60°	1484.8	70.4
0°-90°	1964.5	93.1
90°-120°	88.4	4.2
90°-150°	138.9	6.6
90°-180°	145.0	6.9
0°-180°	2109.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	751	756	756	758	757	70
15°	639	639	641	648	654	180
25°	558	566	576	584	583	258
35°	485	498	510	518	519	304
45°	406	415	437	445	447	312
55°	311	330	364	384	387	279
65°	214	232	262	276	282	211
75°	109	128	157	173	176	115
85°	20	36	60	84	101	25
90°	0	15	37	58	75	1
95°	0	14	35	46	60	0
105°	0	14	31	44	47	0
115°	0	13	28	33	35	0
125°	0	12	28	38	41	0
135°	0	9	25	36	40	0
145°	0	7	20	29	33	0
155°	0	3	10	17	19	0
165°	0	0	2	5	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241317

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6
2.5°	781.3	782.2	781.3	782.2	783.2	784.1	783.2	784.1	784.1	785.1	784.1
5°	751.2	752.2	753.1	755.0	755.9	755.9	755.0	755.9	755.9	755.0	755.9
7.5°	718.3	717.4	718.3	719.3	719.3	720.2	720.2	718.3	719.3	719.3	722.1
10°	684.5	685.4	684.5	685.4	684.5	684.5	684.5	685.4	685.4	686.3	688.2
12.5°	661.9	661.9	660.0	660.0	661.0	661.0	661.0	661.0	660.0	661.9	662.8
15°	639.3	642.2	640.3	641.2	639.3	639.3	638.4	638.4	639.3	637.5	641.2
17.5°	617.7	620.5	619.6	620.5	620.5	618.6	618.6	619.6	620.5	620.5	624.3
20°	599.8	599.8	599.8	601.7	602.7	603.6	602.7	602.7	604.5	605.5	606.4
22.5°	578.2	579.2	582.9	582.9	582.0	583.9	582.9	585.7	587.6	588.6	591.4
25°	558.5	562.2	563.2	562.2	565.1	566.0	566.9	571.6	570.7	572.6	576.3
27.5°	539.7	541.6	544.4	546.3	549.1	547.2	549.1	551.9	551.0	558.5	559.4
30°	519.9	524.6	525.6	528.4	528.4	528.4	533.1	534.0	538.7	540.6	544.4
32.5°	503.9	504.9	507.7	510.5	511.5	514.3	516.2	518.0	520.9	522.7	525.6
35°	485.1	488.9	488.0	490.8	493.6	498.3	498.3	500.2	502.1	507.7	509.6
37.5°	466.3	469.2	469.2	473.9	475.7	478.6	475.7	484.2	487.0	489.8	492.7
40°	447.5	449.4	451.3	453.2	455.1	456.9	459.8	464.5	468.2	471.0	473.9
42.5°	425.9	428.7	430.6	432.5	436.3	438.1	441.0	443.8	449.4	452.2	456.0
45°	406.2	408.0	409.9	411.8	415.6	414.6	419.3	425.0	430.6	433.4	437.2
47.5°	381.7	385.5	389.2	390.2	393.0	396.8	398.6	405.2	410.9	412.7	418.4
50°	361.0	361.0	365.7	368.6	371.4	376.1	378.0	383.6	390.2	395.8	399.6
52.5°	336.6	339.4	342.2	346.0	350.7	353.5	356.3	362.9	371.4	378.9	382.7
55°	311.2	314.0	318.7	322.5	327.2	330.0	334.7	342.2	349.8	356.3	363.9
57.5°	289.6	289.6	292.4	297.1	302.7	306.5	310.3	318.7	328.1	330.9	339.4
60°	263.3	266.1	268.9	273.6	279.2	283.0	285.8	294.3	301.8	309.3	315.0
62.5°	237.9	240.7	243.5	248.2	254.8	258.6	261.4	268.9	277.4	283.0	290.5
65°	214.4	213.4	217.2	222.8	229.4	232.2	235.0	243.5	250.1	255.7	262.3
67.5°	187.1	189.9	192.7	197.4	203.1	206.8	209.7	217.2	222.8	229.4	236.0
70°	159.8	162.7	165.5	172.1	177.7	179.6	182.4	189.9	194.6	204.0	208.7
72.5°	133.5	136.3	140.1	144.8	151.4	153.3	157.0	162.7	170.2	176.8	182.4
75°	109.1	111.9	113.8	118.5	124.1	127.9	130.7	137.3	143.9	150.4	157.0
77.5°	84.6	86.5	89.3	94.0	98.7	102.5	104.4	110.9	117.5	124.1	130.7
80°	59.2	62.1	64.9	69.6	74.3	78.0	80.9	87.4	93.1	99.7	105.3
82.5°	37.6	39.5	43.2	48.0	52.7	54.5	58.3	63.0	69.6	75.2	80.9
85°	19.7	21.6	24.4	28.2	33.8	35.7	38.5	43.2	48.9	54.5	60.2
87.5°	7.5	8.5	11.3	15.0	18.8	21.6	24.4	29.1	33.8	39.5	45.1
90°	0.0	1.9	4.7	8.5	12.2	15.0	16.9	21.6	26.3	31.0	36.7
92.5°	0.0	0.9	3.8	7.5	12.2	14.1	16.0	20.7	25.4	30.1	34.8
95°	0.0	0.9	3.8	7.5	12.2	14.1	16.0	20.7	25.4	30.1	34.8
97.5°	0.0	0.9	3.8	7.5	12.2	14.1	16.0	20.7	25.4	30.1	34.8
100°	0.0	0.9	3.8	7.5	12.2	14.1	16.0	20.7	25.4	30.1	32.9
102.5°	0.0	0.9	3.8	7.5	11.3	14.1	16.0	20.7	25.4	29.1	32.0
105°	0.0	0.9	3.8	7.5	11.3	14.1	16.0	20.7	24.4	28.2	31.0
107.5°	0.0	0.9	3.8	7.5	11.3	13.2	16.0	19.7	23.5	27.3	31.0
110°	0.0	0.9	2.8	6.6	11.3	13.2	15.0	19.7	23.5	27.3	30.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.9	2.8	6.6	11.3	13.2	15.0	19.7	22.6	26.3	29.1
115°	0.0	0.9	2.8	6.6	10.3	13.2	15.0	18.8	22.6	25.4	28.2
117.5°	0.0	0.9	2.8	6.6	10.3	13.2	15.0	18.8	22.6	25.4	28.2
120°	0.0	0.0	2.8	6.6	10.3	12.2	15.0	18.8	22.6	25.4	28.2
122.5°	0.0	0.0	2.8	6.6	10.3	12.2	15.0	18.8	22.6	25.4	28.2
125°	0.0	0.0	2.8	5.6	10.3	12.2	14.1	18.8	21.6	25.4	28.2
127.5°	0.0	0.0	1.9	5.6	9.4	11.3	14.1	17.9	21.6	25.4	28.2
130°	0.0	0.0	1.9	5.6	8.5	11.3	13.2	17.9	20.7	24.4	27.3
132.5°	0.0	0.0	1.9	4.7	8.5	10.3	12.2	16.9	20.7	23.5	26.3
135°	0.0	0.0	1.9	4.7	7.5	9.4	11.3	15.0	18.8	22.6	25.4
137.5°	0.0	0.0	0.9	3.8	7.5	8.5	10.3	14.1	17.9	20.7	23.5
140°	0.0	0.0	0.9	3.8	6.6	8.5	10.3	13.2	16.9	19.7	22.6
142.5°	0.0	0.0	0.9	2.8	5.6	7.5	9.4	12.2	15.0	18.8	21.6
145°	0.0	0.0	0.9	2.8	4.7	6.6	8.5	11.3	14.1	16.9	19.7
147.5°	0.0	0.0	0.9	1.9	3.8	5.6	6.6	10.3	12.2	15.0	17.9
150°	0.0	0.0	0.0	1.9	3.8	4.7	5.6	8.5	11.3	13.2	16.0
152.5°	0.0	0.0	0.0	0.9	2.8	3.8	4.7	6.6	8.5	11.3	13.2
155°	0.0	0.0	0.0	0.9	1.9	2.8	3.8	4.7	6.6	8.5	10.3
157.5°	0.0	0.0	0.0	0.0	0.9	1.9	1.9	3.8	4.7	6.6	8.5
160°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	1.9	3.8	4.7	5.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.9	1.9	2.8	3.8
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.9	1.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9
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°	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6	791.6
2.5°	784.1	784.1	784.1	783.2	783.2	783.2	783.2	783.2	784.1	783.2
5°	756.9	756.9	755.9	756.9	757.8	756.9	757.8	756.9	756.9	756.9
7.5°	723.0	723.0	723.0	723.0	724.0	724.0	724.0	724.9	725.8	725.8
10°	689.2	690.1	690.1	690.1	690.1	692.0	692.9	692.9	693.9	694.8
12.5°	663.8	663.8	666.6	670.4	671.3	673.2	675.1	674.1	674.1	676.9
15°	643.1	645.9	646.9	646.9	647.8	648.7	651.6	652.5	651.6	654.4
17.5°	625.2	625.2	629.9	630.9	630.9	631.8	631.8	632.8	632.8	633.7
20°	609.2	610.2	612.1	613.0	614.9	615.8	617.7	616.8	618.6	616.8
22.5°	592.3	593.3	598.9	599.8	599.8	598.9	597.0	598.9	598.9	598.0
25°	577.3	580.1	582.0	584.8	583.9	584.8	585.7	583.9	582.9	582.9
27.5°	561.3	563.2	566.9	567.9	567.9	566.0	566.0	566.0	565.1	567.9
30°	547.2	551.0	551.9	549.1	550.0	552.8	553.8	552.8	551.0	549.1
32.5°	528.4	530.3	533.1	539.7	538.7	537.8	533.1	532.2	532.2	533.1
35°	511.5	515.2	519.9	517.1	518.0	518.0	519.9	519.0	515.2	519.0
37.5°	494.5	500.2	500.2	504.9	503.0	501.1	498.3	500.2	499.2	499.2
40°	476.7	479.5	484.2	483.3	482.3	484.2	484.2	484.2	484.2	484.2
42.5°	458.8	462.6	462.6	463.5	467.3	468.2	467.3	460.7	463.5	462.6
45°	439.1	442.8	444.7	446.6	444.7	443.8	445.7	446.6	444.7	446.6
47.5°	422.1	422.1	427.8	426.8	426.8	428.7	426.8	426.8	425.9	428.7
50°	403.3	409.0	409.9	412.7	412.7	411.8	411.8	412.7	416.5	416.5
52.5°	388.3	393.9	397.7	398.6	398.6	401.5	404.3	403.3	405.2	403.3
55°	369.5	373.3	378.0	380.8	384.5	384.5	384.5	386.4	386.4	387.4
57.5°	346.0	349.8	352.6	359.2	361.0	360.1	361.0	364.8	363.9	367.6
60°	320.6	325.3	329.1	330.0	331.9	333.8	334.7	336.6	338.5	342.2
62.5°	294.3	298.0	302.7	301.8	303.7	305.6	307.4	308.4	312.1	311.2
65°	268.0	270.8	273.6	274.5	276.4	274.5	278.3	280.2	280.2	282.1
67.5°	241.6	243.5	247.3	248.2	249.2	249.2	248.2	251.0	252.0	252.0
70°	213.4	218.1	220.9	222.8	221.9	222.8	221.9	221.9	223.8	222.8
72.5°	188.0	191.8	194.6	197.4	197.4	197.4	197.4	198.4	199.3	200.3
75°	161.7	166.4	171.1	172.1	173.0	173.0	174.9	175.8	175.8	175.8
77.5°	135.4	141.0	144.8	147.6	148.6	150.4	151.4	153.3	153.3	153.3
80°	110.0	115.6	119.4	124.1	126.0	126.9	128.8	131.6	131.6	131.6
82.5°	86.5	92.1	97.8	100.6	103.4	106.2	109.1	110.9	112.8	114.7
85°	64.9	71.5	77.1	81.8	83.7	85.6	89.3	94.0	98.7	100.6
87.5°	50.8	55.5	61.1	65.8	68.6	71.5	76.2	79.9	85.6	88.4
90°	41.4	46.1	51.7	57.4	58.3	60.2	63.0	67.7	71.5	75.2
92.5°	39.5	44.2	48.0	48.9	49.8	50.8	52.7	55.5	59.2	63.0
95°	40.4	42.3	43.2	45.1	46.1	48.0	49.8	53.6	58.3	60.2
97.5°	37.6	39.5	42.3	45.1	46.1	48.0	51.7	57.4	63.0	65.8
100°	35.7	39.5	42.3	45.1	47.0	48.9	54.5	61.1	65.8	66.8
102.5°	35.7	38.5	41.4	45.1	47.0	48.9	53.6	56.4	56.4	56.4
105°	34.8	37.6	40.4	43.2	44.2	45.1	47.0	47.0	47.0	47.0
107.5°	33.8	35.7	38.5	39.5	39.5	40.4	40.4	40.4	40.4	39.5
110°	32.0	33.8	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7





TEST NUMBER: P241317

CATALOG NUMBER: FVS8M-2-LD4-30-1HI-P125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	31.0	32.9	32.9	33.8	33.8	33.8	33.8	34.8	33.8	33.8
115°	30.1	32.0	32.0	32.9	32.9	32.9	33.8	34.8	34.8	34.8
117.5°	30.1	32.0	32.9	33.8	33.8	34.8	35.7	36.7	36.7	36.7
120°	30.1	32.0	33.8	34.8	35.7	35.7	37.6	38.5	38.5	38.5
122.5°	31.0	32.9	34.8	35.7	36.7	37.6	38.5	39.5	40.4	40.4
125°	31.0	32.9	35.7	36.7	37.6	37.6	38.5	40.4	40.4	41.4
127.5°	30.1	32.9	35.7	36.7	37.6	38.5	39.5	40.4	41.4	41.4
130°	30.1	32.9	34.8	36.7	37.6	38.5	39.5	40.4	41.4	42.3
132.5°	29.1	31.0	33.8	35.7	36.7	37.6	38.5	40.4	41.4	41.4
135°	28.2	30.1	32.9	34.8	35.7	36.7	38.5	39.5	40.4	40.4
137.5°	26.3	29.1	31.0	32.9	33.8	34.8	36.7	38.5	38.5	39.5
140°	25.4	27.3	30.1	32.0	32.9	33.8	34.8	36.7	37.6	37.6
142.5°	23.5	26.3	28.2	30.1	31.0	32.0	32.9	34.8	35.7	35.7
145°	21.6	24.4	26.3	28.2	29.1	30.1	31.0	32.0	32.9	32.9
147.5°	19.7	22.6	24.4	25.4	26.3	27.3	28.2	29.1	30.1	30.1
150°	17.9	19.7	21.6	22.6	23.5	24.4	25.4	25.4	26.3	26.3
152.5°	15.0	16.9	18.8	19.7	20.7	20.7	21.6	22.6	22.6	22.6
155°	12.2	14.1	15.0	16.0	16.9	17.9	17.9	18.8	18.8	18.8
157.5°	9.4	11.3	12.2	13.2	14.1	14.1	15.0	15.0	15.0	15.0
160°	6.6	8.5	9.4	10.3	10.3	10.3	11.3	11.3	11.3	11.3
162.5°	4.7	5.6	6.6	7.5	7.5	7.5	7.5	8.5	8.5	8.5
165°	2.8	3.8	3.8	4.7	4.7	4.7	5.6	5.6	5.6	5.6
167.5°	0.9	1.9	1.9	2.8	2.8	2.8	2.8	2.8	3.8	3.8
170°	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)