

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: P241570

Luminaire Tested: **FVS8M-3-LD4-35-1HI-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241570  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-35-1HI-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 1-MODULE LED WITH OPAL LENS  
Light Source: (84) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

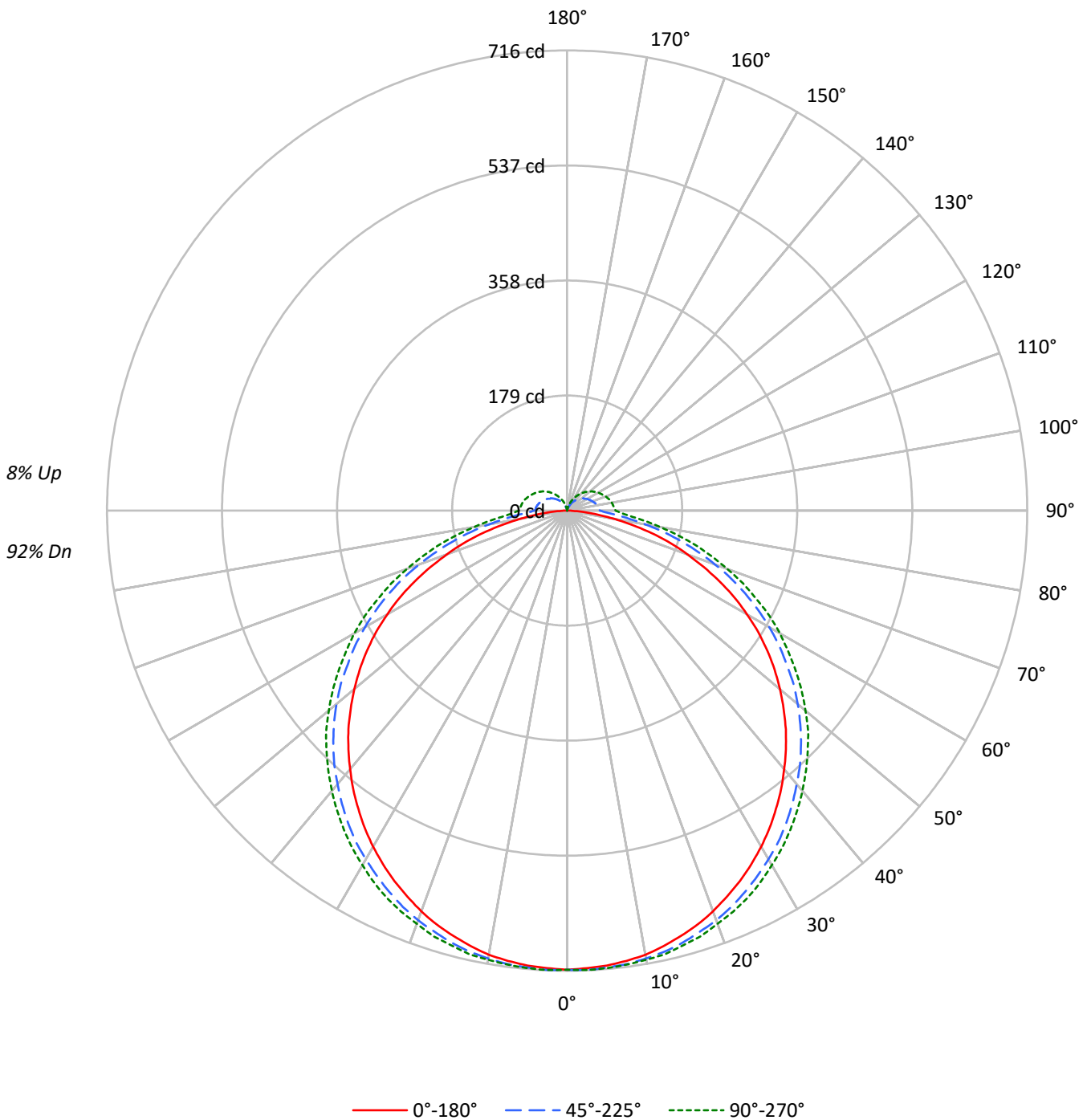
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2448.0 lumens  
Efficiency: N/A  
Efficacy: 68.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 36  
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	71	68	65	62
3	87	76	68	61	84	74	66	60	70	63	58	66	61	56	63	58	54	52
4	80	67	58	51	77	65	57	51	62	55	49	59	53	48	56	50	46	44
5	73	60	51	44	70	58	50	43	55	48	42	53	46	41	50	44	40	38
6	67	54	45	38	65	52	44	38	50	42	37	47	41	36	45	39	35	33
7	62	49	40	33	60	47	39	33	45	38	32	43	37	32	41	35	31	29
8	58	44	36	30	56	43	35	29	41	34	29	39	33	28	38	32	28	25
9	54	41	32	27	52	40	32	26	38	31	26	36	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	21

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

	0°	45°	90°
0°	4173	4173	4173
5°	4147	4112	4108
10°	4124	4056	4046
15°	4086	3997	3989
20°	4048	3935	3929
25°	4003	3866	3874
30°	3955	3794	3800
35°	3899	3724	3729
40°	3840	3639	3650
45°	3781	3554	3566
50°	3702	3451	3466
55°	3608	3314	3343
60°	3471	3171	3210
65°	3271	2976	3020
70°	2979	2720	2788
75°	2581	2390	2520
80°	1942	1968	2168
85°	1036	1562	1834



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.8	2.8
10°-20°	196.0	8.0
20°-30°	300.9	12.3
30°-40°	369.5	15.1
40°-50°	393.8	16.1
50°-60°	369.1	15.1
60°-70°	296.8	12.1
70°-80°	188.4	7.7
80°-90°	81.1	3.3
90°-100°	47.5	1.9
100°-110°	42.2	1.7
110°-120°	34.8	1.4
120°-130°	26.4	1.1
130°-140°	17.9	0.7
140°-150°	10.2	0.4
150°-160°	4.4	0.2
160°-170°	1.0	0.0
170°-180°	0.0	0.0
0°-30°	564.7	23.1
0°-40°	934.3	38.2
0°-60°	1697.2	69.3
0°-90°	2263.6	92.5
90°-120°	124.5	5.1
90°-150°	179.0	7.3
90°-180°	184.0	7.5
0°-180°	2448.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	715	715	715	715	715	
5°	711	711	714	715	715	68
15°	685	688	696	699	700	193
25°	636	643	655	663	665	293
35°	566	579	594	604	606	355
45°	481	497	515	525	529	371
55°	380	397	417	431	434	340
65°	263	281	306	320	324	259
75°	136	159	183	199	206	144
85°	24	48	76	93	98	31
90°	1	24	51	70	76	1
95°	0	22	49	67	72	0
105°	0	20	45	62	68	0
115°	0	17	39	55	60	0
125°	0	13	32	46	51	0
135°	0	10	26	36	41	0
145°	1	6	18	26	29	1
155°	1	2	9	16	18	0
165°	1	1	3	5	7	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°	22.5°	25°	30°	35°	40°	45°
0°	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6
2.5°	712.6	712.6	711.6	712.6	712.6	713.6	713.6	714.6	715.5	716.5	715.5
5°	710.6	709.6	709.6	710.6	710.6	710.6	711.6	712.6	713.6	713.6	713.6
7.5°	706.7	705.7	705.7	706.7	706.7	707.7	707.7	709.6	710.6	710.6	711.6
10°	701.8	700.8	700.8	700.8	701.8	702.8	702.8	704.7	706.7	707.7	707.7
12.5°	694.0	694.0	693.0	694.9	694.9	695.9	697.9	699.8	700.8	701.8	702.8
15°	685.1	685.1	685.1	686.1	687.1	688.1	690.0	692.0	694.0	694.9	695.9
17.5°	675.3	675.3	675.3	676.3	678.3	679.3	681.2	683.2	685.1	686.1	687.1
20°	663.6	662.6	663.6	665.5	667.5	668.5	669.5	673.4	675.3	677.3	678.3
22.5°	649.9	649.9	650.8	652.8	655.7	656.7	657.7	660.6	663.6	665.5	667.5
25°	636.1	636.1	637.1	639.1	642.0	643.0	645.0	648.9	650.8	652.8	654.8
27.5°	620.5	620.5	621.4	624.4	628.3	629.3	630.3	634.2	637.1	639.1	641.0
30°	603.8	603.8	605.8	608.7	611.6	613.6	615.6	619.5	622.4	624.4	626.3
32.5°	586.1	586.1	588.1	591.0	595.0	596.9	598.9	602.8	605.8	608.7	611.6
35°	566.5	567.5	570.5	572.4	576.3	579.3	581.2	585.2	588.1	591.0	594.0
37.5°	546.9	546.9	548.9	552.8	557.7	558.7	562.6	566.5	569.5	573.4	575.4
40°	525.4	526.4	528.3	533.2	538.1	539.1	542.0	546.9	549.9	553.8	555.8
42.5°	503.8	504.8	507.7	512.6	515.6	518.5	521.5	525.4	528.3	533.2	536.2
45°	481.3	480.3	485.2	490.1	493.0	497.0	498.9	503.8	508.7	511.7	514.6
47.5°	456.8	458.7	462.6	465.6	470.5	473.4	475.4	480.3	484.2	488.1	492.1
50°	432.3	433.2	438.1	442.1	446.0	447.9	451.9	456.8	460.7	463.6	468.5
52.5°	406.8	408.7	411.7	414.6	420.5	423.4	426.4	430.3	436.2	440.1	444.0
55°	380.3	381.3	384.2	389.1	395.0	397.0	398.9	404.8	409.7	412.7	416.6
57.5°	352.9	353.8	357.8	361.7	365.6	370.5	372.5	376.4	382.3	387.2	391.1
60°	323.5	324.4	328.4	332.3	337.2	341.1	344.0	349.9	353.8	358.7	363.6
62.5°	294.1	294.1	299.0	301.9	308.8	312.7	313.7	319.5	325.4	329.3	335.2
65°	262.7	264.6	267.6	273.5	279.4	281.3	284.3	290.1	295.0	300.9	305.8
67.5°	230.3	232.3	237.2	241.1	248.0	251.9	253.9	258.8	266.6	271.5	276.4
70°	199.0	203.9	205.8	210.7	216.6	220.5	223.5	229.4	234.3	240.1	245.0
72.5°	169.6	170.6	173.5	180.4	186.2	189.2	193.1	197.0	203.9	209.8	213.7
75°	136.2	138.2	142.1	149.0	154.9	158.8	160.7	167.6	172.5	177.4	183.3
77.5°	103.9	106.8	112.7	117.6	124.5	127.4	131.3	137.2	143.1	148.0	152.9
80°	74.5	77.4	82.3	88.2	95.1	98.0	101.9	108.8	113.7	119.6	123.5
82.5°	48.0	50.0	55.9	61.8	67.6	71.6	74.5	81.4	87.2	92.1	97.0
85°	24.5	27.4	32.3	38.2	44.1	48.0	51.0	57.8	64.7	70.6	75.5
87.5°	8.8	10.8	15.7	22.5	28.4	31.4	35.3	41.2	48.0	53.9	58.8
90°	1.0	2.9	7.8	13.7	20.6	24.5	27.4	34.3	40.2	46.1	51.0
92.5°	0.0	2.0	6.9	12.7	19.6	22.5	26.5	32.3	38.2	44.1	49.0
95°	0.0	2.0	6.9	12.7	18.6	22.5	25.5	31.4	38.2	43.1	49.0
97.5°	0.0	2.0	5.9	11.8	18.6	21.6	24.5	31.4	37.2	43.1	48.0
100°	0.0	2.0	5.9	11.8	17.6	20.6	24.5	30.4	36.3	42.1	47.0
102.5°	0.0	2.0	5.9	10.8	17.6	20.6	23.5	29.4	35.3	41.2	46.1
105°	0.0	2.0	5.9	10.8	16.7	19.6	22.5	28.4	34.3	39.2	45.1
107.5°	0.0	1.0	4.9	9.8	15.7	18.6	21.6	27.4	33.3	38.2	43.1
110°	0.0	1.0	4.9	9.8	15.7	18.6	20.6	26.5	32.3	37.2	42.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.0	4.9	8.8	14.7	17.6	20.6	25.5	31.4	36.3	40.2
115°	0.0	1.0	3.9	8.8	13.7	16.7	19.6	24.5	29.4	34.3	39.2
117.5°	0.0	1.0	3.9	7.8	12.7	15.7	18.6	23.5	28.4	33.3	37.2
120°	0.0	1.0	3.9	7.8	12.7	14.7	17.6	22.5	27.4	31.4	36.3
122.5°	0.0	1.0	2.9	6.9	11.8	13.7	16.7	21.6	25.5	30.4	34.3
125°	0.0	1.0	2.9	6.9	10.8	12.7	15.7	19.6	24.5	28.4	32.3
127.5°	0.0	1.0	2.9	5.9	9.8	12.7	14.7	18.6	23.5	27.4	31.4
130°	0.0	0.0	2.0	5.9	9.8	11.8	13.7	17.6	21.6	25.5	29.4
132.5°	0.0	0.0	2.0	4.9	8.8	10.8	12.7	16.7	20.6	23.5	27.4
135°	0.0	1.0	2.0	3.9	7.8	9.8	11.8	14.7	18.6	22.5	25.5
137.5°	0.0	1.0	1.0	3.9	6.9	8.8	10.8	13.7	17.6	20.6	23.5
140°	1.0	1.0	1.0	2.9	5.9	7.8	8.8	12.7	15.7	18.6	21.6
142.5°	1.0	1.0	1.0	2.9	4.9	6.9	7.8	10.8	13.7	16.7	19.6
145°	1.0	1.0	1.0	2.0	3.9	5.9	6.9	9.8	12.7	14.7	17.6
147.5°	1.0	1.0	1.0	2.0	3.9	4.9	5.9	7.8	10.8	12.7	15.7
150°	1.0	1.0	1.0	1.0	2.9	3.9	4.9	6.9	8.8	10.8	13.7
152.5°	1.0	1.0	1.0	1.0	2.0	2.9	3.9	5.9	7.8	9.8	10.8
155°	1.0	1.0	1.0	1.0	2.0	2.0	2.9	4.9	5.9	7.8	8.8
157.5°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.9	4.9	5.9	6.9
160°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	3.9	4.9	5.9
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9	3.9
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9
167.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
170°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6
2.5°	715.5	715.5	716.5	716.5	715.5	716.5	716.5	715.5	715.5	715.5
5°	713.6	713.6	714.6	714.6	714.6	714.6	714.6	714.6	713.6	714.6
7.5°	711.6	711.6	711.6	712.6	712.6	712.6	712.6	712.6	712.6	712.6
10°	707.7	708.7	708.7	709.6	709.6	709.6	710.6	709.6	709.6	709.6
12.5°	702.8	703.8	704.7	705.7	704.7	705.7	705.7	705.7	705.7	706.7
15°	696.9	697.9	697.9	698.9	698.9	699.8	699.8	699.8	699.8	699.8
17.5°	689.1	690.0	691.0	692.0	693.0	692.0	693.0	693.0	694.0	694.0
20°	679.3	681.2	682.2	683.2	684.2	683.2	684.2	684.2	685.1	684.2
22.5°	668.5	670.4	671.4	673.4	673.4	674.4	674.4	675.3	674.4	675.3
25°	656.7	658.7	659.7	661.6	662.6	662.6	663.6	663.6	663.6	664.6
27.5°	643.0	645.0	645.9	647.9	647.9	648.9	649.9	649.9	650.8	651.8
30°	629.3	630.3	633.2	634.2	635.2	635.2	636.1	637.1	637.1	637.1
32.5°	613.6	614.6	617.5	618.5	619.5	620.5	621.4	621.4	621.4	622.4
35°	595.9	598.9	599.9	602.8	603.8	604.8	604.8	605.8	604.8	605.8
37.5°	578.3	581.2	582.2	584.2	585.2	586.1	587.1	587.1	588.1	588.1
40°	558.7	561.6	563.6	565.6	566.5	567.5	567.5	568.5	570.5	569.5
42.5°	539.1	540.1	544.0	546.0	546.0	547.9	548.9	548.9	549.9	549.9
45°	517.5	520.5	522.4	524.4	525.4	526.4	527.3	528.3	528.3	529.3
47.5°	495.0	498.9	500.9	503.8	503.8	504.8	506.8	506.8	506.8	508.7
50°	471.5	474.4	478.3	479.3	480.3	481.3	482.2	483.2	484.2	484.2
52.5°	447.0	450.9	452.8	455.8	456.8	456.8	458.7	459.7	459.7	459.7
55°	421.5	425.4	427.4	429.3	431.3	432.3	432.3	434.2	435.2	434.2
57.5°	394.0	397.0	399.9	403.8	404.8	405.8	405.8	406.8	409.7	407.8
60°	365.6	369.5	372.5	376.4	377.4	377.4	378.3	380.3	381.3	382.3
62.5°	338.2	343.1	345.0	348.0	348.0	350.9	351.9	352.9	353.8	354.8
65°	308.8	312.7	315.6	318.6	320.5	320.5	323.5	325.4	325.4	324.4
67.5°	279.4	283.3	287.2	289.2	291.1	291.1	293.1	295.0	295.0	296.0
70°	249.9	252.9	256.8	259.7	261.7	261.7	263.7	265.6	265.6	264.6
72.5°	218.6	221.5	226.4	228.4	230.3	231.3	233.3	234.3	235.2	235.2
75°	188.2	192.1	195.1	198.0	199.0	200.9	202.9	203.9	204.9	205.8
77.5°	156.8	162.7	165.7	169.6	169.6	171.5	175.5	174.5	175.5	175.5
80°	128.4	133.3	136.2	140.2	141.1	142.1	144.1	146.0	147.0	147.0
82.5°	102.9	106.8	110.8	112.7	115.7	115.7	117.6	119.6	120.6	121.5
85°	80.4	84.3	88.2	92.1	93.1	94.1	97.0	98.0	98.0	98.0
87.5°	64.7	68.6	72.5	75.5	77.4	78.4	80.4	81.4	83.3	83.3
90°	55.9	60.8	64.7	67.6	69.6	70.6	72.5	74.5	74.5	75.5
92.5°	54.9	58.8	62.7	65.7	66.7	68.6	70.6	71.6	72.5	73.5
95°	53.9	57.8	61.8	64.7	66.7	67.6	69.6	71.6	71.6	72.5
97.5°	52.9	56.9	60.8	63.7	65.7	66.7	68.6	70.6	71.6	71.6
100°	51.9	55.9	59.8	62.7	64.7	65.7	67.6	68.6	69.6	70.6
102.5°	51.0	54.9	58.8	61.8	62.7	63.7	66.7	67.6	68.6	68.6
105°	49.0	52.9	56.9	59.8	61.8	62.7	64.7	66.7	66.7	67.6
107.5°	48.0	51.9	55.9	58.8	59.8	60.8	62.7	64.7	65.7	65.7
110°	46.1	50.0	53.9	56.9	58.8	59.8	61.8	62.7	63.7	63.7





TEST NUMBER: P241570

CATALOG NUMBER: FVS8M-3-LD4-35-1HI-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	45.1	49.0	51.9	54.9	56.9	57.8	59.8	60.8	61.8	61.8
115°	43.1	47.0	50.0	52.9	54.9	55.9	57.8	58.8	59.8	59.8
117.5°	41.2	45.1	49.0	51.0	52.9	53.9	55.9	56.9	57.8	57.8
120°	40.2	43.1	47.0	49.0	51.0	51.9	52.9	54.9	55.9	55.9
122.5°	38.2	42.1	45.1	47.0	48.0	49.0	51.0	51.9	52.9	53.9
125°	36.3	40.2	42.1	45.1	46.1	47.0	49.0	50.0	51.0	51.0
127.5°	34.3	37.2	40.2	43.1	44.1	45.1	47.0	48.0	48.0	49.0
130°	32.3	35.3	38.2	40.2	41.2	42.1	44.1	45.1	46.1	46.1
132.5°	30.4	33.3	36.3	38.2	39.2	40.2	41.2	42.1	43.1	43.1
135°	28.4	31.4	33.3	35.3	36.3	37.2	39.2	40.2	40.2	41.2
137.5°	26.5	29.4	31.4	33.3	34.3	35.3	36.3	37.2	38.2	38.2
140°	24.5	26.5	29.4	30.4	31.4	32.3	33.3	34.3	35.3	35.3
142.5°	22.5	24.5	26.5	28.4	29.4	29.4	30.4	31.4	32.3	32.3
145°	20.6	22.5	24.5	25.5	26.5	27.4	28.4	29.4	29.4	29.4
147.5°	17.6	19.6	21.6	23.5	23.5	24.5	25.5	26.5	26.5	26.5
150°	15.7	17.6	19.6	20.6	21.6	21.6	22.5	23.5	23.5	23.5
152.5°	12.7	14.7	16.7	17.6	18.6	18.6	19.6	20.6	20.6	20.6
155°	10.8	12.7	13.7	15.7	15.7	16.7	16.7	17.6	17.6	17.6
157.5°	8.8	9.8	11.8	12.7	13.7	13.7	13.7	14.7	14.7	14.7
160°	6.9	7.8	8.8	9.8	10.8	10.8	11.8	11.8	11.8	11.8
162.5°	4.9	5.9	6.9	6.9	7.8	7.8	8.8	8.8	8.8	8.8
165°	2.9	3.9	3.9	4.9	4.9	5.9	5.9	5.9	6.9	6.9
167.5°	2.0	2.0	2.9	2.9	2.9	2.9	3.9	3.9	3.9	3.9
170°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0
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)