

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: P241550

Luminaire Tested: **FVS8M-2-LD4-35-3LO-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241550  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-14)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-2-LD4-35-3LO-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 3-MODULE LED WITH OPAL LENS  
Light Source: (126) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

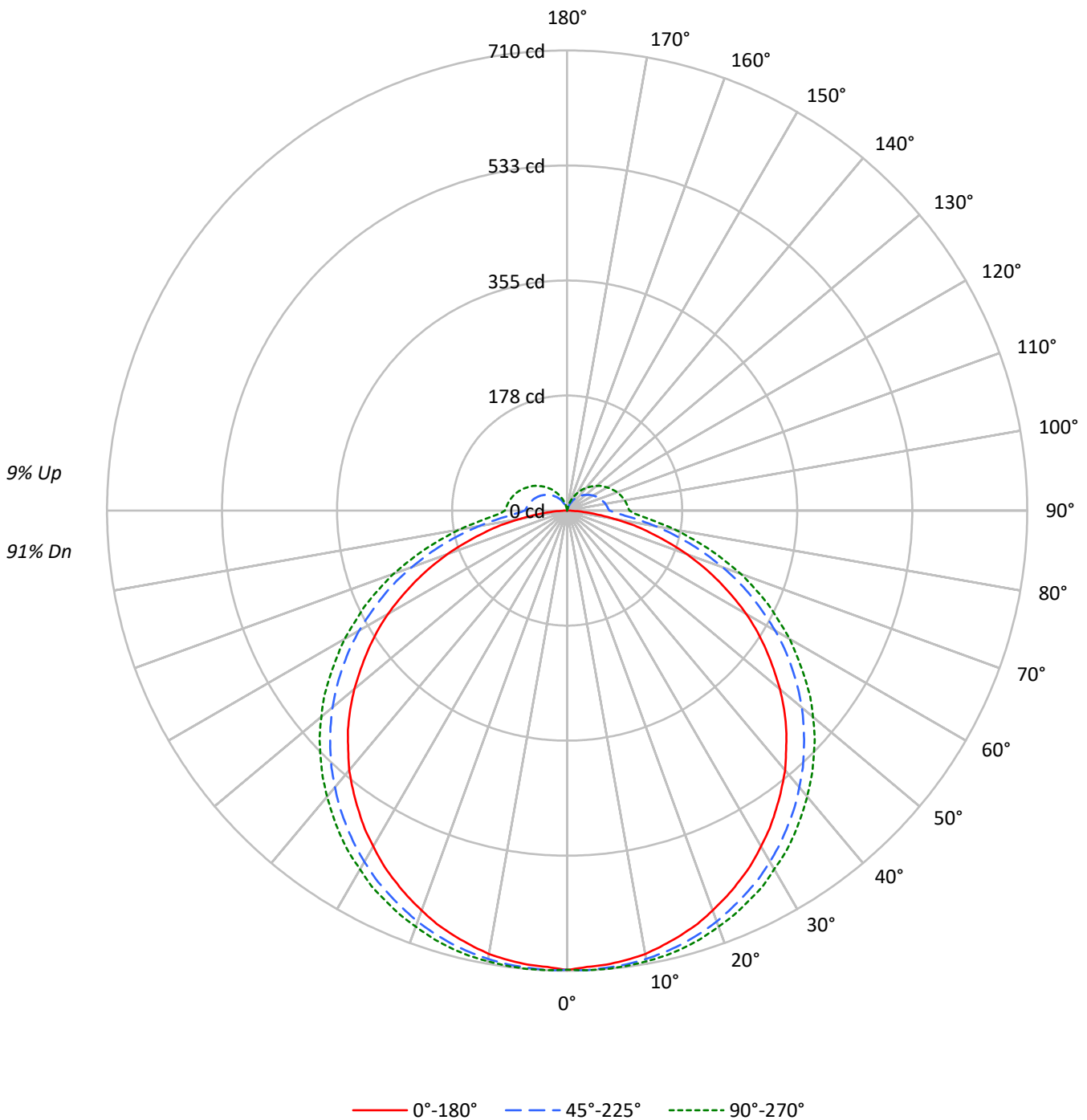
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2538.0 lumens  
Efficiency: N/A  
Efficacy: 70.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' 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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CATALOG NUMBER: FVS8M-2-LD4-35-3LO-O-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241550

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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	113	113	113	113	106	106	106	99	99	99	93	93	93	91
1	105	100	96	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	95	87	79	73	92	84	77	72	79	73	69	74	70	66	70	66	63	60
3	87	76	67	60	83	73	65	59	69	62	57	65	59	55	61	57	53	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	31
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30	28
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	35	29	25	34	28	24	22
10	50	37	29	24	48	36	28	23	34	27	23	33	27	22	31	26	22	20

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

	0°	45°	90°
0°	6369	6369	6369
5°	6301	6270	6281
10°	6254	6178	6199
15°	6182	6085	6128
20°	6106	5985	6039
25°	6027	5879	5956
30°	5942	5776	5867
35°	5848	5661	5786
40°	5757	5540	5684
45°	5636	5407	5580
50°	5480	5262	5457
55°	5281	5073	5295
60°	5050	4853	5125
65°	4699	4566	4904
70°	4247	4213	4619
75°	3571	3761	4227
80°	2663	3212	3829
85°	1412	2667	3447



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.3	2.7
10°-20°	194.8	7.7
20°-30°	299.8	11.8
30°-40°	369.7	14.6
40°-50°	395.7	15.6
50°-60°	373.8	14.7
60°-70°	304.8	12.0
70°-80°	199.7	7.9
80°-90°	94.8	3.7
90°-100°	60.9	2.4
100°-110°	54.0	2.1
110°-120°	44.7	1.8
120°-130°	34.1	1.3
130°-140°	23.2	0.9
140°-150°	13.4	0.5
150°-160°	5.8	0.2
160°-170°	1.3	0.1
170°-180°	0.0	0.0
0°-30°	561.9	22.1
0°-40°	931.6	36.7
0°-60°	1701.1	67.0
0°-90°	2300.5	90.6
90°-120°	159.6	6.3
90°-150°	230.3	9.1
90°-180°	238.0	9.4
0°-180°	2538.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	703	705	708	710	710	67
15°	678	683	692	696	698	191
25°	630	639	652	661	664	290
35°	562	576	594	606	611	352
45°	478	494	517	533	538	368
55°	375	397	423	441	447	335
65°	258	282	314	334	342	255
75°	133	162	195	218	224	142
85°	26	55	90	112	120	31
90°	0	31	65	89	96	1
95°	0	28	62	85	93	0
105°	0	25	57	79	86	0
115°	0	21	50	70	77	0
125°	0	17	42	60	66	0
135°	1	13	33	48	53	0
145°	1	8	24	34	39	0
155°	1	3	13	21	23	0
165°	1	1	4	8	9	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241550

CATALOG NUMBER: FVS8M-2-LD4-35-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6
2.5°	704.9	704.9	705.5	706.2	706.2	706.8	706.8	707.4	708.6	709.2	709.8
5°	703.1	703.1	703.7	704.3	704.9	704.9	705.5	706.2	706.8	707.4	708.0
7.5°	699.5	699.5	700.1	700.7	701.3	701.9	701.9	702.5	703.7	704.9	706.2
10°	694.7	694.1	694.7	695.3	695.9	696.5	697.7	698.9	700.1	701.9	702.5
12.5°	686.8	687.4	687.4	688.6	689.8	691.0	691.0	692.9	694.7	696.5	697.7
15°	678.3	678.3	678.9	680.8	682.0	683.2	683.8	686.2	688.0	689.8	691.6
17.5°	668.7	668.7	669.9	671.1	672.9	674.1	675.3	677.1	679.6	682.0	683.8
20°	656.6	657.2	658.4	660.2	662.6	663.8	664.4	667.5	670.5	672.3	674.7
22.5°	643.9	643.9	645.7	648.1	650.5	651.7	652.9	656.0	659.0	661.4	663.8
25°	630.0	630.6	632.4	634.8	637.2	639.0	640.3	644.5	646.9	649.3	652.3
27.5°	615.5	615.5	617.9	620.3	623.3	624.5	627.0	630.0	633.6	636.6	640.3
30°	598.5	599.1	602.2	605.2	607.6	610.6	611.8	615.5	619.1	622.1	625.7
32.5°	581.6	581.6	584.0	588.3	590.7	593.1	594.9	599.1	603.4	607.0	610.6
35°	562.3	564.1	566.5	570.1	573.7	576.2	578.0	582.2	587.0	590.1	593.7
37.5°	542.9	544.1	547.1	550.8	554.4	556.8	559.2	564.1	568.3	572.5	576.8
40°	523.0	523.0	526.0	530.8	535.1	536.9	539.3	544.1	548.4	553.2	557.4
42.5°	500.0	501.2	504.8	509.1	513.9	516.3	518.7	523.6	528.4	533.2	538.1
45°	478.2	478.8	482.5	486.7	491.5	494.5	497.6	501.8	507.8	512.1	516.9
47.5°	454.0	455.3	458.9	463.7	468.6	472.2	474.0	479.4	484.9	490.3	495.2
50°	428.6	429.9	434.1	440.1	445.0	446.8	450.4	457.1	461.9	467.9	472.8
52.5°	401.4	404.5	409.9	414.1	419.6	422.6	425.6	431.1	438.3	443.2	448.6
55°	374.8	376.7	381.5	386.9	393.6	396.6	399.6	405.7	412.9	418.4	423.2
57.5°	348.2	350.1	354.9	359.7	367.0	370.0	373.6	380.3	386.3	391.2	397.8
60°	319.2	320.4	325.9	332.5	338.6	342.8	345.2	352.5	358.5	364.6	370.6
62.5°	288.4	292.0	296.2	303.5	309.5	315.0	317.4	323.5	330.7	336.8	341.6
65°	258.2	261.2	266.0	273.9	279.9	282.3	287.2	293.8	301.1	308.3	313.8
67.5°	227.3	231.6	234.6	243.0	251.5	253.9	258.8	264.2	272.7	279.3	285.4
70°	196.5	198.9	204.3	212.2	218.9	223.1	226.7	234.6	241.8	249.7	255.1
72.5°	164.4	168.1	174.1	180.8	189.8	192.9	197.1	203.7	212.8	219.5	224.9
75°	133.0	136.0	141.5	150.5	158.4	162.0	166.3	174.1	182.0	189.2	195.3
77.5°	105.2	106.4	112.5	120.3	128.2	132.4	136.6	144.5	152.4	160.8	166.3
80°	74.4	78.0	83.4	91.3	99.8	104.0	108.2	115.5	123.3	130.6	137.8
82.5°	47.2	50.8	56.8	64.7	73.8	76.8	81.6	90.7	97.3	104.0	111.8
85°	26.0	28.4	33.9	42.3	50.8	55.0	59.2	67.7	75.0	82.2	89.5
87.5°	9.1	12.1	18.1	26.0	34.5	38.7	42.9	51.4	58.6	66.5	73.8
90°	0.0	4.2	10.3	18.1	26.6	30.8	35.1	42.9	51.4	58.6	65.3
92.5°	0.0	3.0	9.1	16.3	24.8	29.0	33.3	41.7	49.6	56.8	63.5
95°	0.0	2.4	8.5	15.7	24.2	28.4	32.6	40.5	48.4	55.6	62.3
97.5°	0.0	2.4	7.9	15.1	23.6	27.2	31.4	39.9	47.2	54.4	61.1
100°	0.0	2.4	7.9	14.5	23.0	26.6	30.8	38.7	45.9	53.2	59.9
102.5°	0.0	2.4	7.3	14.5	21.8	26.0	29.6	37.5	44.7	52.0	58.6
105°	0.0	1.8	6.7	13.9	21.2	24.8	29.0	36.3	43.5	50.8	56.8
107.5°	0.0	1.8	6.7	13.3	20.6	24.2	27.8	35.1	42.3	49.0	55.6
110°	0.0	1.8	6.0	12.7	19.3	23.0	27.2	34.5	41.1	47.8	53.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.8	6.0	12.1	18.7	22.4	26.0	32.6	39.9	45.9	52.0
115°	0.0	1.2	5.4	11.5	17.5	21.2	24.8	31.4	38.1	44.1	50.2
117.5°	0.0	1.2	4.8	10.9	16.9	20.0	23.6	30.2	36.9	42.9	48.4
120°	0.0	1.2	4.8	10.3	16.3	19.3	22.4	29.0	35.1	41.1	46.6
122.5°	0.0	0.6	4.2	9.7	15.1	18.1	21.2	27.2	33.3	39.3	44.1
125°	0.0	0.6	4.2	8.5	14.5	16.9	20.0	26.0	31.4	36.9	42.3
127.5°	0.0	0.6	3.6	7.9	13.3	16.3	18.7	24.8	30.2	35.1	39.9
130°	0.0	0.6	3.0	7.3	12.1	15.1	17.5	23.0	28.4	33.3	37.5
132.5°	0.0	0.6	3.0	6.7	11.5	13.9	16.3	21.2	26.6	30.8	35.7
135°	0.6	0.6	2.4	6.0	10.3	12.7	15.1	20.0	24.8	29.0	33.3
137.5°	0.0	0.6	1.8	5.4	9.7	11.5	13.9	18.1	23.0	26.6	30.8
140°	0.0	0.6	1.8	4.8	8.5	10.3	12.7	16.9	20.6	24.8	28.4
142.5°	0.6	0.6	1.2	4.2	7.3	9.1	10.9	15.1	18.7	22.4	26.0
145°	0.6	0.6	0.6	3.0	6.0	7.9	9.7	13.3	16.9	20.6	23.6
147.5°	0.6	0.6	0.6	2.4	5.4	6.7	8.5	11.5	15.1	18.1	21.2
150°	0.6	0.6	0.6	1.8	4.2	5.4	6.7	9.7	12.7	15.7	18.7
152.5°	0.6	0.6	0.6	1.2	3.0	4.2	5.4	7.9	10.9	13.3	15.7
155°	0.6	0.6	0.6	1.2	2.4	3.0	4.2	6.7	8.5	10.9	13.3
157.5°	0.6	0.6	0.6	0.6	1.8	2.4	3.0	4.8	6.7	8.5	10.3
160°	0.6	0.6	0.6	0.6	1.2	1.8	1.8	3.6	4.8	6.7	7.9
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.2	2.4	3.0	4.2	5.4
165°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.8	3.0	3.6
167.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.2	1.8
170°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.6	0.6
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



TEST NUMBER: P241550

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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6	708.6
2.5°	709.8	710.4	710.4	710.4	710.4	710.4	710.4	710.4	710.4	709.8
5°	708.6	709.2	709.2	709.8	709.8	709.8	709.8	709.8	709.8	709.8
7.5°	706.8	707.4	708.0	708.6	708.6	708.6	708.6	708.6	708.6	708.6
10°	703.7	704.3	705.5	705.5	706.2	706.2	706.2	706.2	706.8	706.2
12.5°	698.9	700.1	701.3	701.9	701.9	702.5	702.5	702.5	703.1	703.1
15°	692.9	694.1	695.3	695.9	696.5	697.1	697.1	697.7	697.7	698.3
17.5°	685.6	687.4	688.6	689.2	689.8	690.4	690.4	691.0	691.6	691.6
20°	677.1	678.3	680.2	680.8	681.4	682.0	683.2	683.2	683.8	683.2
22.5°	666.2	668.7	670.5	671.7	672.3	672.3	673.5	674.7	674.7	674.7
25°	654.8	657.2	659.6	660.8	661.4	661.4	663.2	663.2	663.8	663.8
27.5°	642.1	645.1	646.9	648.7	649.3	649.9	650.5	651.7	652.3	653.6
30°	628.2	630.6	633.0	635.4	636.0	636.6	637.8	638.4	639.6	639.0
32.5°	613.7	616.1	619.1	621.5	622.1	622.1	623.9	623.9	625.1	626.3
35°	597.3	600.4	602.8	605.2	606.4	606.4	608.8	609.4	610.6	610.6
37.5°	579.8	584.0	585.8	588.9	590.1	590.7	592.5	592.5	593.7	593.7
40°	561.7	564.7	568.3	570.1	571.3	573.1	573.7	576.2	576.2	576.2
42.5°	542.3	544.7	549.6	551.4	553.2	553.2	555.0	556.2	557.4	558.0
45°	521.8	524.8	528.4	531.4	532.6	533.8	535.1	536.3	538.1	538.1
47.5°	499.4	504.2	506.6	510.3	511.5	512.7	514.5	515.7	516.9	518.1
50°	476.4	481.2	485.5	487.9	488.5	490.3	492.1	493.3	494.5	495.2
52.5°	452.8	457.1	460.7	464.3	465.5	468.6	468.6	470.4	471.6	472.8
55°	428.6	432.3	437.1	439.5	441.3	441.9	445.6	446.8	446.8	446.8
57.5°	402.0	407.5	410.5	415.3	416.0	417.2	419.0	421.4	421.4	421.4
60°	375.4	380.3	384.5	387.5	390.0	390.0	393.0	395.4	396.0	396.6
62.5°	348.2	352.5	357.3	360.3	362.7	364.0	365.8	368.2	369.4	368.2
65°	319.2	324.1	328.9	332.5	334.3	335.5	338.0	339.8	341.6	342.2
67.5°	290.8	295.0	300.5	304.7	305.9	308.3	310.2	311.4	312.6	312.6
70°	261.2	266.6	271.5	275.1	275.7	278.1	281.1	282.9	282.3	284.8
72.5°	231.6	237.0	241.2	246.1	246.7	248.5	250.9	252.7	253.3	253.9
75°	201.3	208.0	211.6	215.8	217.6	218.9	221.9	224.3	224.3	224.3
77.5°	172.3	177.7	182.0	185.6	188.0	189.8	192.9	194.7	194.7	195.3
80°	142.7	149.9	153.6	157.8	160.8	162.0	164.4	166.9	167.5	168.7
82.5°	117.3	123.9	128.2	132.4	134.8	137.2	138.4	140.9	141.5	141.5
85°	95.5	101.0	105.8	110.0	112.5	114.3	116.7	117.9	119.7	119.7
87.5°	79.8	84.6	90.1	94.3	96.1	97.9	100.4	102.2	104.0	103.4
90°	71.9	77.4	82.2	86.5	88.9	90.7	92.5	94.9	96.1	96.1
92.5°	69.5	75.0	80.4	84.6	86.5	87.7	90.7	92.5	93.7	94.3
95°	68.3	74.4	79.2	83.4	85.2	87.1	89.5	91.3	92.5	93.1
97.5°	67.7	73.2	78.0	82.2	84.0	85.9	88.3	90.1	91.3	91.9
100°	65.9	71.3	76.8	81.0	82.2	84.0	87.1	88.9	90.1	90.1
102.5°	64.7	70.1	75.0	79.2	81.0	82.2	85.2	87.1	88.3	88.3
105°	62.9	68.3	73.2	77.4	79.2	80.4	83.4	85.2	85.9	86.5
107.5°	61.1	66.5	71.3	75.0	76.8	78.6	81.0	82.8	84.0	84.6
110°	59.2	64.7	68.9	73.2	75.0	76.2	79.2	80.4	81.6	82.2





TEST NUMBER: P241550

CATALOG NUMBER: FVS8M-2-LD4-35-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	57.4	62.3	67.1	70.7	72.5	73.8	76.2	78.6	79.2	79.8
115°	55.6	60.5	64.7	68.3	70.1	71.3	73.8	75.6	76.8	76.8
117.5°	53.2	58.0	62.3	65.9	67.7	68.9	71.3	73.2	73.8	74.4
120°	51.4	56.2	59.9	63.5	65.3	66.5	68.3	70.1	71.3	71.3
122.5°	49.0	53.8	57.4	61.1	62.3	63.5	65.9	67.7	68.3	68.3
125°	46.6	51.4	55.0	58.0	59.9	61.1	62.9	64.7	65.3	65.9
127.5°	44.7	48.4	52.6	55.6	56.8	58.0	59.9	61.7	62.3	62.9
130°	42.3	45.9	49.6	52.6	53.8	55.0	56.8	58.0	59.2	59.2
132.5°	39.3	43.5	46.6	49.6	50.8	51.4	53.8	55.0	55.6	55.6
135°	36.9	40.5	43.5	46.6	47.8	48.4	50.2	51.4	52.6	52.6
137.5°	34.5	37.5	40.5	43.5	44.1	45.3	47.2	48.4	49.0	49.0
140°	32.0	35.1	37.5	39.9	41.1	41.7	43.5	44.7	45.3	45.3
142.5°	29.0	32.0	34.5	36.9	38.1	38.7	39.9	41.1	41.7	42.3
145°	26.6	29.0	31.4	33.9	34.5	35.1	36.9	37.5	38.1	38.7
147.5°	23.6	26.0	28.4	30.2	30.8	32.0	33.3	33.9	34.5	34.5
150°	21.2	23.0	25.4	27.2	27.8	28.4	29.6	30.2	30.8	30.8
152.5°	18.1	20.6	22.4	23.6	24.2	24.8	26.0	26.6	27.2	27.2
155°	15.7	17.5	18.7	20.6	21.2	21.8	22.4	23.0	23.0	23.0
157.5°	12.7	14.5	15.7	16.9	17.5	18.1	18.7	19.3	19.3	20.0
160°	9.7	11.5	12.7	13.9	13.9	14.5	15.1	15.7	15.7	15.7
162.5°	7.3	8.5	9.7	10.3	10.9	10.9	12.1	12.1	12.1	12.1
165°	4.2	5.4	6.0	7.3	7.9	7.9	8.5	8.5	8.5	9.1
167.5°	2.4	3.0	3.6	4.2	4.8	4.8	5.4	5.4	5.4	5.4
170°	0.6	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
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)