

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: P241543

Luminaire Tested: **FVS8M-2-LD4-40-2STD-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241543  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-9)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-2-LD4-40-2STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 2-MODULE LED WITH OPAL LENS  
Light Source: (84) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

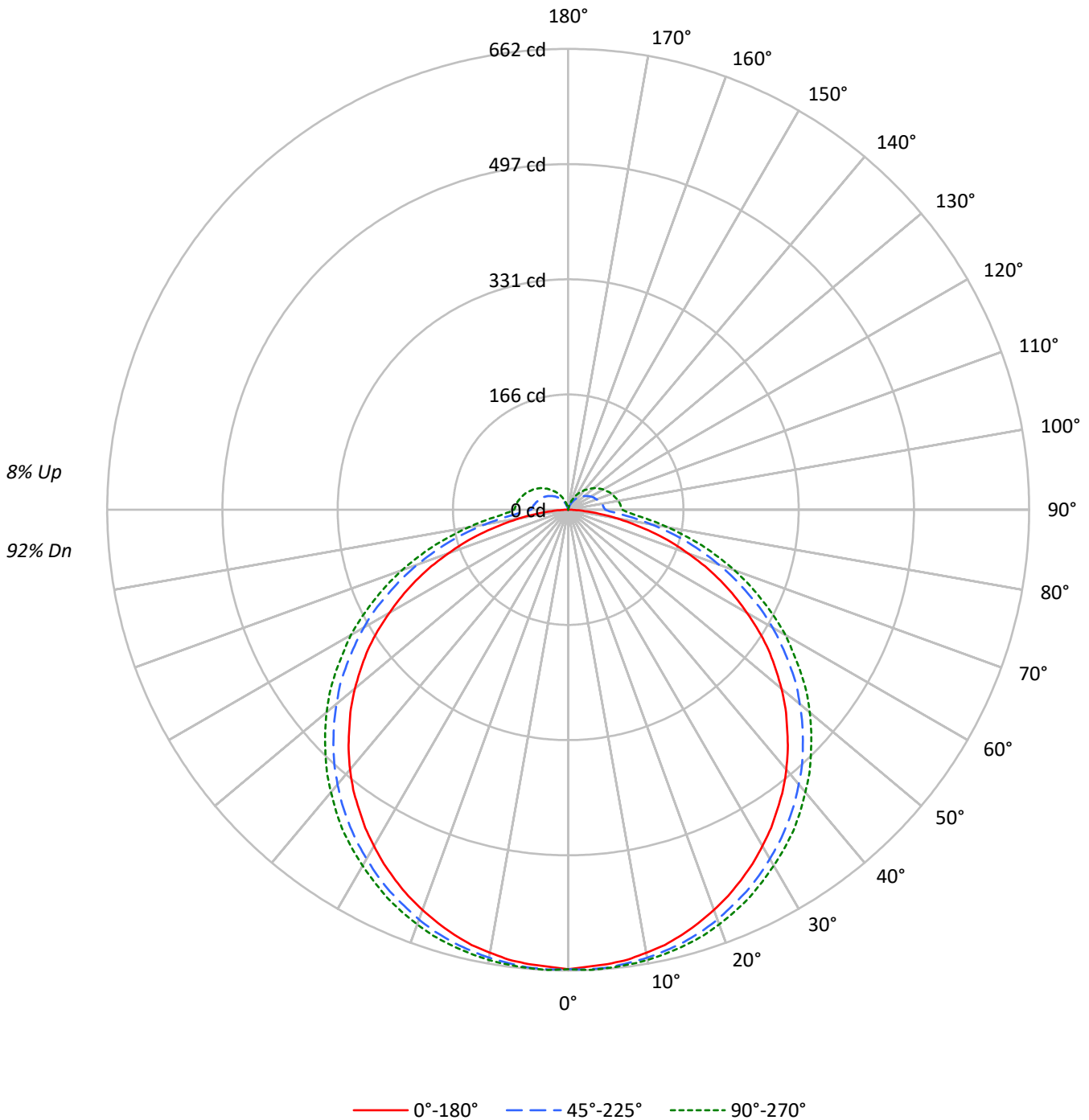
Lumens per Lamp: N/A  
Luminaire Lumens: 2303.0 lumens  
Efficiency: N/A  
Efficacy: 68.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.33 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 33.6  
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	113	113	113	113	106	106	106	100	100	100	94	94	94	92
1	106	101	96	92	102	98	93	89	92	88	85	86	84	81	81	79	77	74
2	96	87	80	74	92	84	78	72	79	74	69	75	70	66	71	67	64	61
3	87	76	67	61	84	74	66	60	70	63	57	66	60	55	62	57	53	51
4	79	67	58	51	76	65	57	50	61	54	49	58	52	47	55	50	46	43
5	73	60	50	44	70	58	49	43	55	47	42	52	46	41	49	44	39	37
6	67	54	44	38	65	52	44	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	31	26	36	30	25	34	29	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	20

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

	0°	45°	90°
0°	5933	5933	5933
5°	5872	5846	5849
10°	5817	5748	5766
15°	5763	5656	5685
20°	5689	5558	5603
25°	5618	5456	5519
30°	5538	5346	5422
35°	5452	5241	5339
40°	5364	5120	5227
45°	5241	4986	5114
50°	5110	4831	4990
55°	4951	4653	4834
60°	4691	4440	4658
65°	4397	4147	4401
70°	3946	3800	4118
75°	3343	3376	3751
80°	2520	2825	3291
85°	1293	2271	2877



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.7	2.7
10°-20°	181.1	7.9
20°-30°	278.2	12.1
30°-40°	342.2	14.9
40°-50°	365.3	15.9
50°-60°	343.5	14.9
60°-70°	277.7	12.1
70°-80°	179.2	7.8
80°-90°	80.9	3.5
90°-100°	49.3	2.1
100°-110°	43.7	1.9
110°-120°	36.2	1.6
120°-130°	27.6	1.2
130°-140°	18.8	0.8
140°-150°	10.8	0.5
150°-160°	4.7	0.2
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	522.0	22.7
0°-40°	864.2	37.5
0°-60°	1573.0	68.3
0°-90°	2110.8	91.7
90°-120°	129.2	5.6
90°-150°	186.4	8.1
90°-180°	192.0	8.3
0°-180°	2303.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	655	656	660	661	661	62
15°	632	636	643	647	648	178
25°	587	594	605	612	615	271
35°	524	535	550	559	564	328
45°	445	458	477	489	493	343
55°	351	367	388	403	408	313
65°	242	261	285	303	307	238
75°	124	148	175	192	199	132
85°	24	48	76	93	100	29
90°	0	25	53	71	78	1
95°	0	23	51	69	75	0
105°	0	20	46	64	70	0
115°	0	17	41	56	62	0
125°	0	14	34	48	53	0
135°	0	11	27	38	43	0
145°	0	7	19	28	31	0
155°	1	2	11	17	19	0
165°	1	1	3	7	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°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	656.9	656.9	656.9	656.9	657.7	657.7	658.5	659.3	659.3	660.1	661.0
5°	655.2	654.4	655.2	655.2	656.0	656.0	656.9	657.7	658.5	659.3	660.1
7.5°	652.0	651.1	652.0	652.8	652.8	653.6	653.6	654.4	655.2	656.0	656.9
10°	646.2	646.2	647.0	647.9	648.7	648.7	649.5	650.3	651.1	652.8	653.6
12.5°	640.5	639.7	640.5	641.3	642.1	642.9	642.9	644.6	646.2	647.0	648.7
15°	632.3	632.3	633.1	633.9	634.8	635.6	636.4	638.8	639.7	641.3	642.9
17.5°	622.5	623.3	623.3	624.9	626.6	627.4	628.2	629.8	632.3	633.1	635.6
20°	611.8	612.6	612.6	614.3	615.9	617.6	618.4	620.8	623.3	624.9	626.6
22.5°	600.4	600.4	601.2	603.6	605.3	606.1	607.7	610.2	611.8	614.3	615.9
25°	587.2	587.2	588.9	590.5	593.0	593.8	595.4	597.9	600.4	602.8	605.3
27.5°	573.3	573.3	575.0	577.4	579.9	580.7	582.3	585.6	588.1	590.5	593.0
30°	557.8	558.6	560.2	562.7	565.1	566.8	568.4	570.9	573.3	576.6	579.1
32.5°	542.2	542.2	543.8	546.3	549.6	551.2	553.7	556.1	559.4	562.7	565.1
35°	524.2	525.0	526.6	530.7	532.4	534.8	536.5	539.7	543.8	546.3	549.6
37.5°	507.0	507.8	508.6	511.9	515.2	517.6	519.3	522.5	525.8	529.1	533.2
40°	487.3	487.3	489.8	493.9	496.3	498.8	500.4	504.5	507.8	511.9	515.2
42.5°	466.8	466.8	470.1	472.6	476.7	479.1	480.8	484.9	489.0	493.1	497.2
45°	444.7	446.4	448.8	452.1	457.0	457.8	460.3	464.4	469.3	473.4	476.7
47.5°	423.4	424.3	426.7	430.8	434.9	438.2	439.8	443.1	448.0	452.9	456.2
50°	399.7	401.3	403.8	407.9	412.0	415.3	417.7	421.8	426.7	430.8	434.1
52.5°	375.1	376.8	380.0	384.9	389.9	391.5	394.0	398.9	404.6	407.9	412.8
55°	351.4	352.2	355.5	359.6	365.3	366.9	369.4	374.3	379.2	384.1	388.2
57.5°	324.3	325.2	329.3	334.2	338.3	341.5	344.0	349.7	354.6	359.6	363.7
60°	296.5	298.9	303.0	308.8	312.9	316.1	318.6	323.5	328.4	333.3	339.1
62.5°	269.5	271.1	276.0	280.1	285.8	288.3	291.6	297.3	302.2	307.1	313.7
65°	241.6	243.3	246.5	252.3	258.8	261.3	264.5	269.5	275.2	280.9	285.0
67.5°	212.9	215.4	219.5	223.6	229.3	232.6	235.1	242.4	247.3	253.1	258.0
70°	182.6	185.1	190.0	195.7	201.5	205.6	208.0	213.8	220.3	225.2	230.1
72.5°	155.6	155.6	160.5	167.1	173.6	176.9	180.2	186.7	191.7	195.7	202.3
75°	124.5	127.0	132.7	138.4	145.8	148.2	151.5	157.3	164.6	169.5	175.3
77.5°	95.8	100.7	104.0	109.8	117.1	120.4	123.7	129.4	136.8	142.5	147.4
80°	70.4	72.9	77.0	82.7	90.9	92.6	96.6	103.2	108.9	114.7	121.2
82.5°	45.0	47.5	52.4	58.2	65.5	68.8	72.1	78.6	84.4	90.9	96.6
85°	23.8	26.2	31.1	37.7	45.0	48.3	51.6	57.3	63.9	70.4	76.2
87.5°	9.0	11.5	16.4	22.9	29.5	32.8	36.0	42.6	49.1	54.9	60.6
90°	0.0	3.3	9.0	14.7	22.1	25.4	28.7	35.2	41.8	47.5	53.2
92.5°	0.0	2.5	7.4	13.1	20.5	23.8	27.0	33.6	40.1	45.9	51.6
95°	0.0	2.5	6.6	13.1	19.7	22.9	26.2	32.8	39.3	45.0	50.8
97.5°	0.0	2.5	6.6	12.3	18.8	22.1	25.4	31.9	38.5	44.2	50.0
100°	0.0	1.6	6.6	12.3	18.0	21.3	24.6	31.1	37.7	43.4	48.3
102.5°	0.0	1.6	5.7	11.5	18.0	21.3	23.8	30.3	36.0	41.8	47.5
105°	0.0	1.6	5.7	11.5	17.2	20.5	23.8	29.5	35.2	41.0	45.9
107.5°	0.0	1.6	5.7	10.6	16.4	19.7	22.9	28.7	34.4	40.1	45.0
110°	0.0	1.6	4.9	9.8	15.6	18.8	22.1	27.8	33.6	38.5	43.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.6	4.9	9.8	15.6	18.0	21.3	27.0	31.9	37.7	41.8
115°	0.0	0.8	4.1	9.0	14.7	17.2	19.7	25.4	31.1	36.0	41.0
117.5°	0.0	0.8	4.1	9.0	13.9	16.4	18.8	24.6	29.5	34.4	39.3
120°	0.0	0.8	4.1	8.2	13.1	15.6	18.0	23.8	28.7	32.8	37.7
122.5°	0.0	0.8	3.3	7.4	12.3	14.7	17.2	22.1	27.0	31.9	36.0
125°	0.0	0.8	3.3	7.4	11.5	13.9	16.4	21.3	25.4	30.3	34.4
127.5°	0.0	0.8	3.3	6.6	10.6	13.1	15.6	19.7	24.6	28.7	31.9
130°	0.0	0.8	2.5	5.7	9.8	12.3	13.9	18.8	22.9	27.0	30.3
132.5°	0.0	0.8	2.5	5.7	9.0	11.5	13.1	17.2	21.3	25.4	28.7
135°	0.0	0.8	1.6	4.9	8.2	10.6	12.3	16.4	19.7	23.8	27.0
137.5°	0.0	0.0	1.6	4.1	7.4	9.0	11.5	14.7	18.0	22.1	24.6
140°	0.0	0.0	1.6	4.1	6.6	8.2	9.8	13.1	16.4	19.7	22.9
142.5°	0.0	0.0	0.8	3.3	5.7	7.4	9.0	12.3	15.6	18.0	21.3
145°	0.0	0.0	0.8	2.5	4.9	6.6	8.2	10.6	13.9	16.4	18.8
147.5°	0.0	0.0	0.8	2.5	4.1	5.7	6.6	9.8	12.3	14.7	17.2
150°	0.0	0.0	0.8	1.6	3.3	4.1	5.7	8.2	10.6	13.1	14.7
152.5°	0.8	0.0	0.8	0.8	2.5	3.3	4.1	6.6	9.0	10.6	13.1
155°	0.8	0.0	0.8	0.8	1.6	2.5	3.3	4.9	6.6	9.0	10.6
157.5°	0.8	0.8	0.0	0.8	1.6	1.6	2.5	4.1	5.7	6.6	8.2
160°	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.5	4.1	4.9	6.6
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.5	3.3	4.9
165°	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	1.6	2.5	3.3
167.5°	0.8	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	1.6	1.6
170°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8
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°	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1	660.1
2.5°	661.0	661.0	661.0	661.8	661.8	661.8	661.8	661.0	661.0	661.8
5°	660.1	660.1	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
7.5°	657.7	658.5	658.5	659.3	659.3	659.3	659.3	659.3	659.3	659.3
10°	654.4	655.2	656.0	656.0	656.9	656.9	656.9	656.9	656.9	656.9
12.5°	649.5	651.1	652.0	652.0	652.8	652.0	652.8	652.8	652.8	652.8
15°	643.8	645.4	646.2	646.2	647.0	647.0	647.0	647.9	647.9	647.9
17.5°	636.4	638.0	638.8	639.7	640.5	640.5	641.3	641.3	641.3	642.1
20°	628.2	629.8	630.7	632.3	632.3	632.3	633.1	633.1	633.9	633.9
22.5°	618.4	620.0	621.6	623.3	623.3	623.3	624.1	624.9	624.9	624.9
25°	607.7	608.5	610.2	611.8	611.8	612.6	614.3	614.3	614.3	615.1
27.5°	595.4	597.1	599.5	599.5	601.2	601.2	602.0	602.8	602.8	602.8
30°	582.3	584.0	586.4	587.2	588.9	588.9	589.7	590.5	590.5	590.5
32.5°	567.6	570.0	571.7	574.1	574.1	575.0	576.6	576.6	577.4	577.4
35°	552.8	555.3	556.9	558.6	559.4	560.2	561.0	561.9	562.7	563.5
37.5°	534.8	538.1	540.6	543.0	543.8	543.8	545.5	546.3	547.1	547.1
40°	517.6	520.9	522.5	525.0	526.6	526.6	528.3	529.1	529.9	529.9
42.5°	499.6	502.9	506.2	507.8	508.6	508.6	510.3	511.9	511.9	512.7
45°	480.0	484.0	487.3	489.0	489.0	489.8	491.4	493.1	493.1	493.1
47.5°	460.3	462.8	465.2	468.5	469.3	470.9	471.8	471.8	472.6	473.4
50°	439.0	441.5	444.7	447.2	448.8	449.6	451.3	451.3	452.9	452.9
52.5°	415.3	419.3	422.6	425.1	425.9	427.5	428.4	430.0	430.8	431.6
55°	392.3	395.6	398.9	401.3	403.0	403.8	406.2	407.1	407.9	407.9
57.5°	367.7	371.8	375.1	377.6	378.4	380.0	381.7	383.3	384.1	383.3
60°	343.2	347.3	349.7	352.2	354.6	355.5	356.3	358.7	359.6	360.4
62.5°	317.0	320.2	323.5	326.8	327.6	330.1	331.7	332.5	332.5	334.2
65°	289.9	294.0	298.1	300.6	303.0	303.9	305.5	306.3	308.0	307.1
67.5°	262.9	267.0	271.1	273.6	275.2	276.8	278.5	280.1	280.9	280.9
70°	235.1	240.0	242.4	246.5	248.2	249.0	250.6	252.3	252.3	253.9
72.5°	207.2	211.3	215.4	219.5	219.5	222.8	223.6	226.1	225.2	226.1
75°	180.2	183.5	187.6	190.0	192.5	193.3	196.6	197.4	197.4	199.0
77.5°	151.5	157.3	159.7	163.8	167.1	166.3	168.7	170.4	172.0	170.4
80°	124.5	130.2	134.3	136.8	138.4	140.1	142.5	142.5	145.0	145.0
82.5°	101.6	106.5	109.8	113.0	114.7	116.3	117.9	119.6	120.4	121.2
85°	81.1	84.4	88.5	92.6	93.4	95.0	97.5	98.3	99.9	99.9
87.5°	65.5	69.6	73.7	77.0	79.4	80.3	82.7	83.5	84.4	85.2
90°	58.2	62.2	66.3	70.4	71.3	72.9	75.4	76.2	77.8	77.8
92.5°	56.5	60.6	64.7	68.0	69.6	71.3	72.9	74.5	75.4	76.2
95°	55.7	59.8	63.9	67.2	68.8	70.4	72.1	73.7	74.5	75.4
97.5°	54.9	59.0	63.1	66.3	68.0	69.6	71.3	72.9	73.7	74.5
100°	53.2	58.2	61.4	65.5	66.3	68.0	70.4	72.1	72.9	72.9
102.5°	52.4	56.5	60.6	63.9	65.5	66.3	68.8	70.4	71.3	71.3
105°	50.8	54.9	59.0	62.2	63.9	65.5	67.2	68.8	69.6	69.6
107.5°	50.0	54.1	57.3	60.6	62.2	63.9	65.5	67.2	68.0	68.0
110°	48.3	52.4	55.7	59.0	60.6	61.4	63.9	65.5	66.3	66.3





TEST NUMBER: P241543

CATALOG NUMBER: FVS8M-2-LD4-40-2STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	46.7	50.8	54.1	57.3	59.0	59.8	62.2	63.1	63.9	64.7
115°	45.0	49.1	52.4	55.7	56.5	58.2	59.8	61.4	62.2	62.2
117.5°	43.4	46.7	50.8	53.2	54.9	55.7	57.3	59.0	59.8	59.8
120°	41.8	45.0	48.3	51.6	52.4	54.1	55.7	56.5	57.3	58.2
122.5°	40.1	43.4	46.7	49.1	50.8	51.6	53.2	54.9	55.7	55.7
125°	37.7	41.0	44.2	46.7	48.3	49.1	50.8	52.4	52.4	53.2
127.5°	36.0	39.3	42.6	45.0	45.9	46.7	48.3	50.0	50.8	50.8
130°	34.4	36.9	40.1	42.6	43.4	44.2	45.9	46.7	47.5	48.3
132.5°	31.9	35.2	37.7	40.1	41.0	41.8	43.4	44.2	45.0	45.0
135°	30.3	32.8	35.2	37.7	38.5	39.3	41.0	41.8	42.6	42.6
137.5°	27.8	30.3	32.8	35.2	36.0	36.9	37.7	39.3	39.3	39.3
140°	25.4	27.8	30.3	31.9	33.6	33.6	35.2	36.0	36.9	36.9
142.5°	23.8	25.4	27.8	29.5	30.3	31.1	31.9	33.6	33.6	33.6
145°	21.3	23.8	25.4	27.0	27.8	28.7	29.5	30.3	31.1	31.1
147.5°	18.8	21.3	22.9	24.6	25.4	25.4	27.0	27.0	27.8	27.8
150°	17.2	18.8	20.5	22.1	22.1	22.9	23.8	24.6	24.6	24.6
152.5°	14.7	16.4	18.0	18.8	19.7	19.7	21.3	21.3	22.1	22.1
155°	12.3	13.9	15.6	16.4	17.2	17.2	18.0	18.0	18.8	18.8
157.5°	9.8	11.5	13.1	13.9	13.9	14.7	14.7	15.6	15.6	15.6
160°	7.4	9.0	9.8	10.6	11.5	11.5	12.3	12.3	13.1	13.1
162.5°	5.7	6.6	7.4	8.2	9.0	9.0	9.8	9.8	9.8	9.8
165°	4.1	4.1	4.9	5.7	6.6	6.6	6.6	6.6	7.4	7.4
167.5°	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1	4.1	4.1
170°	0.8	0.8	1.6	1.6	1.6	1.6	2.5	2.5	2.5	2.5
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)