

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: P241575

Luminaire Tested: **FVS8M-3-LD4-40-2LO-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241575  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-40-2LO-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 2-MODULE LED WITH OPAL LENS  
Light Source: (168) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

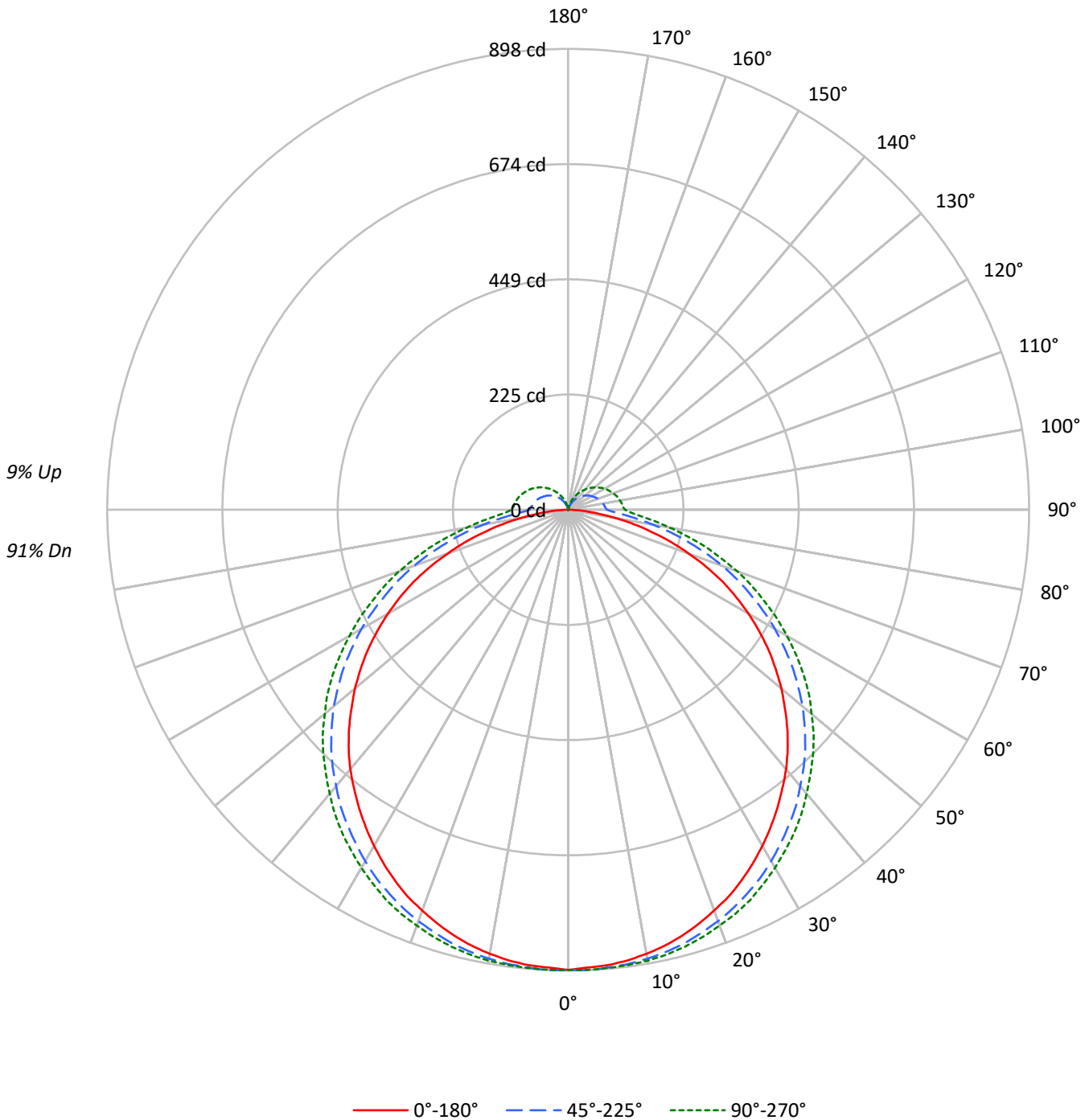
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3156.9 lumens  
Efficiency: N/A  
Efficacy: 77.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 40.7  
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-3-LD4-40-2LO-O-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241575

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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	91
1	106	101	96	92	102	97	93	89	92	88	85	86	83	81	81	79	77	74
2	96	87	80	74	92	84	78	72	79	74	69	75	70	66	70	67	64	61
3	87	76	67	61	84	74	66	59	69	63	57	65	60	55	62	57	53	51
4	79	67	58	51	76	65	57	50	61	54	48	58	52	47	55	50	45	43
5	73	60	50	43	70	58	49	43	55	47	42	52	45	40	49	44	39	37
6	67	53	44	38	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	40	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

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

	0°	45°	90°
0°	5237	5237	5237
5°	5200	5161	5152
10°	5163	5092	5088
15°	5123	5024	5023
20°	5071	4950	4952
25°	5022	4873	4891
30°	4954	4791	4807
35°	4889	4701	4728
40°	4826	4604	4631
45°	4743	4510	4545
50°	4641	4389	4429
55°	4520	4240	4307
60°	4351	4058	4130
65°	4127	3814	3920
70°	3746	3542	3684
75°	3214	3143	3366
80°	2440	2672	2961
85°	1345	2191	2627



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.2	2.7
10°-20°	246.3	7.8
20°-30°	378.9	12.0
30°-40°	466.6	14.8
40°-50°	498.8	15.8
50°-60°	470.1	14.9
60°-70°	381.4	12.1
70°-80°	246.8	7.8
80°-90°	112.8	3.6
90°-100°	69.7	2.2
100°-110°	61.8	2.0
110°-120°	51.0	1.6
120°-130°	38.6	1.2
130°-140°	26.2	0.8
140°-150°	14.9	0.5
150°-160°	6.3	0.2
160°-170°	1.4	0.0
170°-180°	0.0	0.0
0°-30°	710.4	22.5
0°-40°	1177.0	37.3
0°-60°	2145.9	68.0
0°-90°	2886.9	91.4
90°-120°	182.4	5.8
90°-150°	262.2	8.3
90°-180°	270.0	8.6
0°-180°	3156.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	891	892	896	897	896	85
15°	859	864	875	880	881	242
25°	798	808	825	834	839	368
35°	710	728	750	764	768	444
45°	604	626	653	668	675	465
55°	476	502	533	552	560	425
65°	331	359	392	415	421	327
75°	170	203	241	264	275	180
85°	32	66	106	132	140	39
90°	1	35	75	102	110	2
95°	1	32	72	98	106	0
105°	1	29	66	90	99	0
115°	1	24	57	80	88	1
125°	1	20	48	68	75	1
135°	1	14	38	54	60	0
145°	1	8	26	39	43	0
155°	1	3	14	23	26	0
165°	1	1	4	8	10	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241575

CATALOG NUMBER: FVS8M-3-LD4-40-2LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8
2.5°	892.9	893.6	893.6	893.6	894.2	894.9	895.5	896.8	897.5	898.1	898.1
5°	891.0	891.0	891.0	891.0	891.6	892.3	893.6	894.2	894.9	895.5	895.5
7.5°	885.8	886.4	886.4	886.4	887.1	887.7	888.4	890.3	891.6	892.3	892.9
10°	878.6	879.9	879.9	879.9	880.6	881.9	882.5	884.5	886.4	887.7	888.4
12.5°	870.2	870.2	870.8	870.8	872.8	873.4	875.4	878.0	879.3	881.2	882.5
15°	859.1	859.8	859.8	860.4	863.0	864.3	865.6	868.2	871.5	872.8	874.7
17.5°	846.1	846.8	848.1	848.7	851.3	853.3	854.6	857.8	861.1	863.0	864.3
20°	831.2	832.5	833.1	835.1	838.3	840.3	841.6	845.5	848.7	850.7	853.3
22.5°	816.2	816.2	817.5	820.1	823.4	826.0	827.9	831.2	835.1	837.0	840.3
25°	798.0	798.0	800.0	803.2	806.5	808.4	810.4	814.9	819.5	822.7	825.3
27.5°	777.9	778.5	781.1	784.4	788.3	791.5	792.8	798.0	801.9	806.5	809.7
30°	756.4	758.4	761.0	764.2	769.4	772.0	774.6	779.2	783.7	788.3	790.9
32.5°	733.7	735.0	739.5	742.8	748.0	751.2	753.8	759.0	763.6	767.5	770.7
35°	710.3	711.6	715.5	720.1	725.9	728.5	730.4	736.9	742.8	746.7	749.9
37.5°	685.0	687.6	690.8	695.4	702.5	705.1	707.7	713.6	719.4	723.3	728.5
40°	660.3	660.9	664.8	671.3	677.2	679.1	683.0	690.2	694.7	699.9	703.2
42.5°	633.0	633.6	637.5	644.0	649.9	653.8	657.7	664.2	669.4	674.6	679.1
45°	603.7	605.7	609.6	616.1	621.9	626.5	629.7	636.9	642.7	647.3	653.1
47.5°	572.5	575.1	579.7	586.2	592.7	597.2	600.5	607.0	614.1	619.3	624.5
50°	542.0	545.2	549.1	556.3	562.8	567.3	569.9	577.1	583.6	590.1	595.9
52.5°	509.5	512.1	517.3	524.4	530.9	535.5	538.1	546.5	553.7	558.9	564.1
55°	476.4	479.0	484.2	490.6	498.4	501.7	505.6	514.0	520.5	527.0	532.9
57.5°	441.3	444.5	449.7	456.9	464.0	467.3	471.2	479.0	487.4	493.2	498.4
60°	405.5	407.5	412.7	421.1	427.6	431.5	436.1	443.2	451.7	458.2	465.3
62.5°	369.1	371.1	376.3	384.7	392.5	395.1	400.3	408.8	415.3	423.7	428.9
65°	331.4	334.0	339.2	345.1	354.8	358.7	362.6	371.1	378.2	385.4	391.9
67.5°	291.8	293.1	300.9	308.0	314.5	320.4	324.9	333.4	341.2	349.0	356.8
70°	250.2	253.4	259.9	268.4	276.2	281.4	284.6	294.4	302.8	312.6	319.1
72.5°	210.6	215.1	221.6	228.8	236.6	243.0	246.9	255.4	263.8	272.3	280.1
75°	169.6	174.8	182.0	189.8	198.2	202.8	209.3	217.7	226.2	234.0	241.1
77.5°	131.3	134.5	143.6	151.4	161.8	165.7	169.6	179.4	187.8	196.3	204.7
80°	93.6	97.5	105.3	114.4	124.1	128.0	133.2	142.3	151.4	159.9	167.7
82.5°	60.4	64.3	70.8	79.9	89.7	94.2	99.4	108.5	118.3	126.7	134.5
85°	31.8	35.1	42.2	51.3	61.1	66.3	70.2	80.6	88.4	98.8	105.9
87.5°	11.7	14.3	20.8	31.2	40.3	46.1	50.0	59.8	68.9	77.3	85.8
90°	0.6	4.5	11.7	20.8	30.5	35.1	40.3	50.0	59.1	67.6	75.4
92.5°	0.0	3.2	10.4	18.8	28.6	33.8	38.3	47.4	56.5	65.0	72.8
95°	0.6	3.2	9.7	18.2	27.9	32.5	37.7	46.8	55.2	63.7	71.5
97.5°	0.0	2.6	9.1	17.5	26.6	31.8	36.4	45.5	54.6	62.4	70.2
100°	0.6	2.6	8.4	16.9	26.0	30.5	35.1	44.2	53.3	61.1	68.9
102.5°	0.0	2.6	8.4	16.2	25.3	29.9	34.4	42.9	51.3	59.8	66.9
105°	0.6	1.9	7.8	15.6	24.0	28.6	33.1	41.6	50.0	57.8	65.6
107.5°	0.0	1.9	7.1	14.9	23.4	27.3	31.8	40.3	48.7	56.5	63.7
110°	0.6	1.9	7.1	14.3	22.1	26.6	30.5	39.0	46.8	54.6	61.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	1.3	6.5	13.6	21.4	25.3	29.2	37.7	45.5	52.6	59.8
115°	0.6	1.3	5.8	13.0	20.1	24.0	27.9	35.7	43.5	50.7	57.2
117.5°	0.6	1.3	5.8	11.7	19.5	22.7	26.6	34.4	41.6	48.7	55.2
120°	0.6	1.3	5.2	11.0	18.2	21.4	25.3	32.5	39.6	46.8	52.6
122.5°	0.6	0.6	4.5	10.4	16.9	20.8	24.0	31.2	37.7	44.2	50.7
125°	0.6	0.6	3.9	9.7	16.2	19.5	22.7	29.2	35.7	42.2	48.1
127.5°	0.6	0.6	3.9	9.1	14.9	18.2	21.4	27.3	33.8	39.6	45.5
130°	0.6	0.6	3.2	7.8	13.6	16.9	19.5	26.0	31.8	37.7	42.9
132.5°	0.6	0.6	2.6	7.1	12.3	15.6	18.2	24.0	29.9	35.1	40.3
135°	0.6	0.6	2.6	6.5	11.7	14.3	16.9	22.1	27.3	32.5	37.7
137.5°	0.6	0.6	1.9	5.2	9.7	12.3	14.9	20.1	25.3	29.9	34.4
140°	0.6	0.6	1.3	4.5	8.4	11.0	13.6	18.2	23.4	27.9	31.8
142.5°	0.6	0.6	1.3	3.9	7.8	9.7	11.7	16.2	20.8	25.3	29.2
145°	0.6	0.6	1.3	3.2	6.5	7.8	9.7	13.6	18.2	22.1	26.0
147.5°	0.6	0.6	0.6	2.6	5.2	6.5	8.4	11.7	15.6	19.5	22.7
150°	0.6	0.6	0.6	1.9	4.5	5.8	7.1	9.7	13.0	16.2	19.5
152.5°	0.6	0.6	0.6	1.3	3.2	4.5	5.8	8.4	11.0	13.6	16.2
155°	0.6	0.6	0.6	1.3	2.6	3.2	4.5	6.5	9.1	11.0	13.6
157.5°	0.6	0.6	0.6	1.3	1.9	2.6	3.2	5.2	6.5	8.4	11.0
160°	0.6	0.6	0.6	0.6	1.3	1.9	2.6	3.2	5.2	6.5	7.8
162.5°	1.3	1.3	0.6	0.6	1.3	1.3	1.9	2.6	3.2	4.5	5.8
165°	1.3	1.3	1.3	0.6	0.6	0.6	1.3	1.9	2.6	3.2	3.9
167.5°	1.3	1.3	1.3	1.3	0.6	0.6	0.6	0.6	1.3	1.9	1.9
170°	1.3	1.3	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.6	1.3
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°	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8	896.8
2.5°	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1	897.5	897.5
5°	895.5	895.5	896.2	896.8	896.8	896.8	896.8	896.2	896.2	896.2
7.5°	892.9	894.2	894.9	894.9	894.9	894.9	895.5	895.5	894.9	894.9
10°	889.0	889.7	891.0	891.6	891.6	891.6	891.6	892.3	892.3	892.3
12.5°	883.8	884.5	885.1	886.4	886.4	887.1	887.7	887.1	888.4	887.7
15°	875.4	877.3	878.6	879.3	879.9	879.9	880.6	881.2	881.2	881.2
17.5°	866.3	867.6	869.5	870.8	870.8	872.1	871.5	872.8	873.4	872.8
20°	854.6	856.5	858.5	859.8	861.1	861.1	861.7	862.4	862.4	862.4
22.5°	842.2	844.2	846.1	848.1	848.7	849.4	850.7	851.3	851.3	852.0
25°	827.3	829.9	832.5	833.8	834.4	835.7	836.4	837.0	837.7	839.0
27.5°	811.7	814.3	816.9	818.8	818.8	820.8	822.1	822.7	822.7	822.7
30°	794.1	796.7	798.7	801.9	801.9	802.6	803.9	805.8	805.2	805.8
32.5°	774.6	777.9	780.5	781.8	783.7	785.0	785.0	787.0	788.3	787.0
35°	753.8	757.1	760.3	762.3	764.2	764.2	766.8	766.8	768.1	768.1
37.5°	732.4	735.0	738.2	740.2	742.1	744.1	745.4	745.4	746.0	746.7
40°	707.7	711.0	715.5	718.8	719.4	720.1	722.0	722.7	724.0	722.7
42.5°	683.0	686.9	690.8	694.1	694.1	696.0	697.3	698.6	699.3	698.6
45°	656.4	661.6	664.2	668.1	668.1	670.0	671.3	673.9	674.6	674.6
47.5°	628.4	633.0	637.5	641.4	641.4	643.4	644.0	646.0	646.6	648.6
50°	600.5	605.0	608.3	612.8	613.5	614.8	616.7	618.0	618.7	618.7
52.5°	570.6	574.5	578.4	581.6	584.2	584.2	587.5	588.1	588.8	591.4
55°	538.7	543.3	547.2	551.7	551.7	553.0	555.0	556.3	558.2	559.5
57.5°	504.9	509.5	515.3	517.3	519.9	521.2	523.8	524.4	525.1	526.4
60°	470.5	475.7	479.6	483.5	485.4	486.7	488.7	490.6	491.9	491.9
62.5°	436.1	439.3	445.2	449.7	451.0	453.6	454.9	456.2	457.5	458.2
65°	399.0	404.2	410.1	413.3	415.3	415.3	418.5	421.1	420.5	421.1
67.5°	362.0	367.8	371.7	376.3	378.2	380.2	383.4	384.1	386.0	386.7
70°	323.6	330.8	335.3	338.6	341.8	341.2	345.7	346.4	348.3	349.6
72.5°	286.6	291.8	298.3	301.5	303.5	304.8	307.4	309.3	309.3	310.6
75°	248.2	253.4	258.6	263.8	263.8	267.7	270.3	272.9	272.9	274.9
77.5°	209.9	217.7	222.9	226.2	228.8	230.7	232.7	235.9	235.3	235.9
80°	173.5	180.0	185.2	190.4	192.4	194.3	196.3	198.9	200.2	200.8
82.5°	140.4	146.9	152.7	157.3	159.2	161.8	165.1	167.0	167.7	169.6
85°	112.4	118.9	124.8	130.0	131.9	133.2	136.5	138.4	139.7	140.4
87.5°	92.9	99.4	105.3	109.8	111.8	113.7	117.0	118.9	120.9	120.9
90°	82.5	89.0	94.9	99.4	102.0	104.0	107.2	109.2	110.5	110.5
92.5°	79.9	85.8	91.6	96.2	98.8	100.7	103.3	105.3	107.2	107.2
95°	78.6	85.1	90.3	94.9	97.5	99.4	102.0	104.6	105.9	105.9
97.5°	77.3	83.8	89.0	93.6	96.2	98.1	100.7	102.7	104.0	104.6
100°	75.4	81.9	87.7	92.3	94.2	96.2	99.4	101.4	102.7	102.7
102.5°	74.1	79.9	85.8	90.3	92.3	94.2	96.8	99.4	100.1	100.7
105°	72.1	78.0	83.8	88.4	90.3	92.3	94.9	96.8	98.1	98.8
107.5°	70.2	76.0	81.2	85.8	87.7	89.7	92.9	94.9	96.2	96.2
110°	68.2	74.1	79.3	83.2	85.8	87.1	90.3	92.3	93.6	93.6





TEST NUMBER: P241575

CATALOG NUMBER: FVS8M-3-LD4-40-2LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	65.6	71.5	76.7	80.6	82.5	84.5	87.1	89.0	90.3	91.0
115°	63.7	68.9	74.1	78.0	79.9	81.9	84.5	86.4	87.7	87.7
117.5°	61.1	66.3	70.8	75.4	77.3	78.6	81.2	83.2	84.5	85.1
120°	58.5	63.7	68.2	72.1	74.1	75.4	78.0	79.9	81.2	81.9
122.5°	55.9	61.1	65.6	69.5	70.8	72.1	74.7	76.7	78.0	78.6
125°	53.3	57.8	62.4	66.3	67.6	68.9	71.5	73.4	74.1	74.7
127.5°	50.7	55.2	59.1	63.0	64.3	65.6	68.2	69.5	70.8	71.5
130°	47.4	52.0	55.9	59.1	61.1	62.4	64.3	66.3	66.9	67.6
132.5°	44.8	48.7	52.6	55.9	57.2	58.5	61.1	62.4	63.7	63.7
135°	41.6	45.5	49.4	52.6	53.9	55.2	57.2	58.5	59.1	59.8
137.5°	39.0	42.9	46.1	48.7	50.0	51.3	53.3	54.6	55.2	55.9
140°	35.7	39.0	42.2	44.8	46.1	47.4	49.4	50.7	51.3	51.3
142.5°	32.5	35.7	39.0	41.6	42.9	43.5	45.5	46.1	46.8	47.4
145°	29.9	32.5	35.1	37.7	39.0	39.6	40.9	42.2	42.9	42.9
147.5°	26.6	29.2	31.8	33.8	35.1	35.7	37.0	38.3	39.0	39.0
150°	22.7	26.0	27.9	29.9	31.2	31.8	33.1	33.8	34.4	34.4
152.5°	19.5	22.1	24.7	26.6	27.3	27.9	29.2	29.9	30.5	30.5
155°	16.2	18.2	20.8	22.7	23.4	24.0	24.7	25.3	26.0	26.0
157.5°	13.0	14.9	16.9	18.8	19.5	20.1	20.8	21.4	21.4	22.1
160°	9.7	11.0	13.0	14.9	15.6	16.2	16.9	16.9	17.5	17.5
162.5°	7.1	8.4	9.7	11.0	11.0	12.3	13.0	13.6	13.6	13.6
165°	4.5	5.8	6.5	7.1	7.8	8.4	9.1	9.1	9.7	9.7
167.5°	2.6	3.2	3.9	4.5	4.5	5.2	5.2	5.8	5.8	5.8
170°	1.3	1.3	1.9	1.9	1.9	1.9	2.6	2.6	2.6	3.2
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)