

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: P241321

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241321  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-8)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-2-LD4-30-2LO-P125-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 2-MODULE LED WITH P125 LENS  
Light Source: (84) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

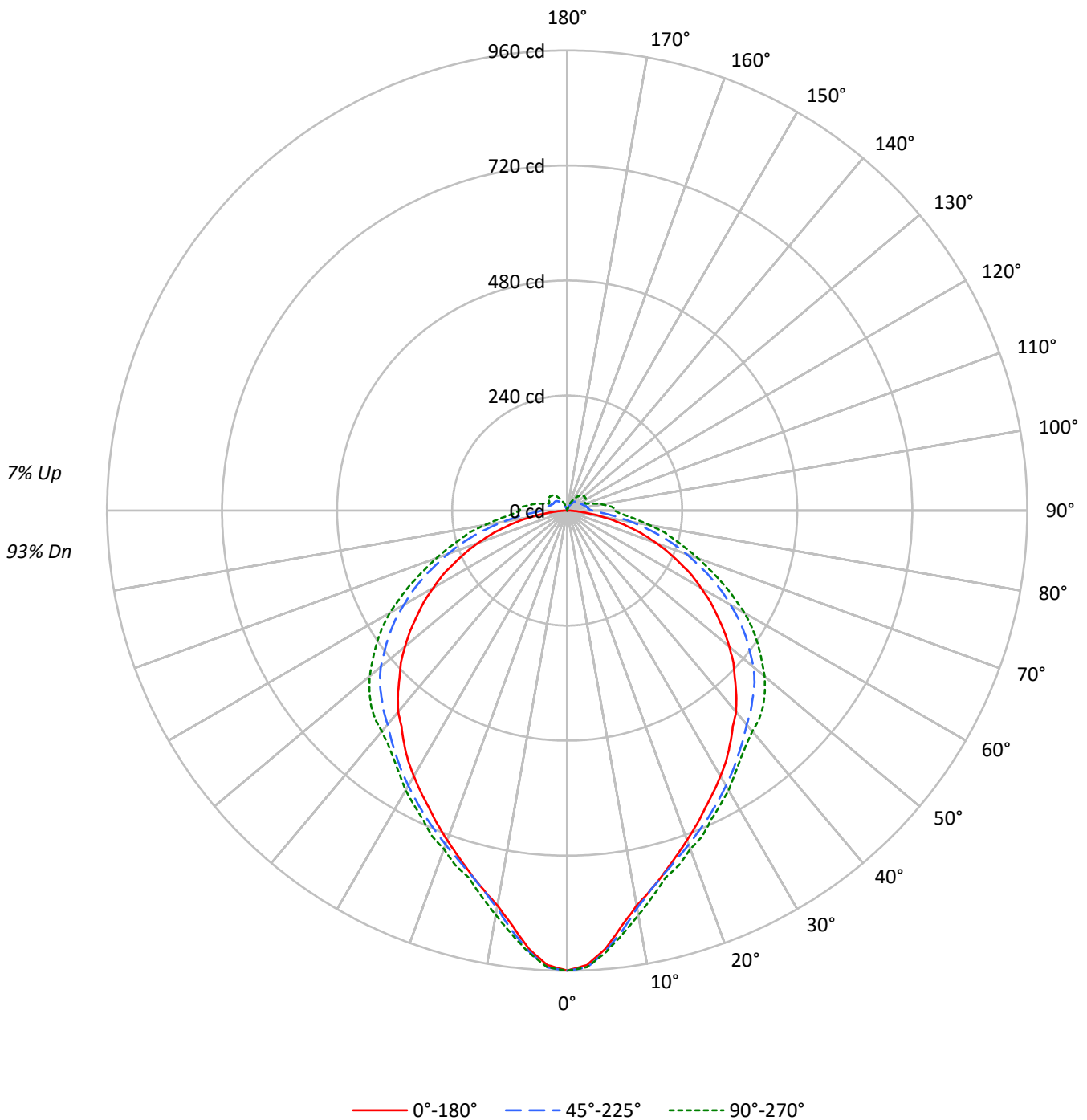
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2614.0 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.05 / 1.26  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')  
CIE Type: Direct  
  
Input Watts (W): 23.7  
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-2-LD4-30-2LO-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	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	79	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	51	45	41	38
6	68	54	45	39	65	53	44	38	50	43	37	48	42	36	46	40	36	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	31	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21

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

	0°	45°	90°
0°	8627	8627	8627
5°	8219	8169	8182
10°	7532	7402	7521
15°	7132	6894	6957
20°	6805	6578	6642
25°	6533	6331	6381
30°	6351	6118	6186
35°	6169	5935	5980
40°	6033	5791	5930
45°	5829	5733	5995
50°	5646	5646	5926
55°	5378	5438	5759
60°	5101	5150	5521
65°	4726	4809	5116
70°	4268	4374	4717
75°	3603	3848	4340
80°	2638	3167	3947
85°	1314	2438	3566



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.5	3.3
10°-20°	222.2	8.5
20°-30°	323.3	12.4
30°-40°	387.9	14.8
40°-50°	418.4	16.0
50°-60°	396.3	15.2
60°-70°	315.9	12.1
70°-80°	202.5	7.7
80°-90°	90.0	3.4
90°-100°	47.5	1.8
100°-110°	36.2	1.4
110°-120°	27.0	1.0
120°-130°	24.5	0.9
130°-140°	19.2	0.7
140°-150°	11.7	0.4
150°-160°	4.9	0.2
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	631.0	24.1
0°-40°	1018.9	39.0
0°-60°	1833.6	70.1
0°-90°	2442.0	93.4
90°-120°	110.6	4.2
90°-150°	166.0	6.4
90°-180°	172.0	6.6
0°-180°	2614.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	917	919	922	926	925	85
15°	782	781	784	793	793	220
25°	683	690	702	712	711	316
35°	593	606	622	634	631	371
45°	495	514	548	575	578	383
55°	382	410	454	478	486	342
65°	260	289	330	347	357	258
75°	134	160	200	224	230	143
85°	24	47	82	110	124	31
90°	0	21	52	72	98	1
95°	0	19	44	64	93	0
105°	0	17	39	53	56	0
115°	0	15	33	39	41	0
125°	0	13	32	42	47	0
135°	0	10	28	39	44	0
145°	1	7	20	30	34	0
155°	1	3	11	17	20	0
165°	1	1	3	6	7	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241321

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8
2.5°	948.9	948.9	948.9	948.9	950.0	949.5	950.6	951.2	952.3	952.9	954.1
5°	917.2	917.2	916.1	916.6	917.2	918.9	918.4	920.7	921.8	923.5	922.4
7.5°	873.5	875.8	874.6	875.2	874.6	875.8	878.1	878.6	881.5	883.2	883.2
10°	836.6	836.6	834.3	834.9	834.9	836.0	836.0	837.8	839.5	842.4	841.8
12.5°	809.5	809.5	806.7	807.2	805.5	806.1	806.1	806.7	807.8	809.5	809.5
15°	782.5	780.2	780.2	781.3	781.3	780.8	781.3	781.3	781.3	782.5	783.6
17.5°	756.0	756.0	756.6	756.0	757.1	756.6	756.6	758.3	759.5	759.5	761.8
20°	731.8	732.4	731.8	733.5	735.3	735.3	735.3	737.0	737.0	739.3	741.6
22.5°	707.6	708.2	709.9	709.4	711.7	711.7	711.1	714.5	716.3	718.6	721.4
25°	682.9	683.4	684.6	686.9	688.1	690.4	691.5	693.2	697.8	699.0	702.4
27.5°	661.6	661.0	662.1	666.8	666.8	668.5	670.8	674.8	675.4	680.6	682.3
30°	639.7	639.7	639.7	644.9	646.0	648.3	650.6	654.1	657.0	659.8	662.7
32.5°	617.8	615.5	617.2	621.3	627.0	627.0	628.2	633.9	636.2	639.7	643.1
35°	593.1	593.6	595.9	598.2	603.4	606.3	608.6	612.1	614.9	617.8	622.4
37.5°	567.7	570.0	572.3	575.2	578.7	582.1	584.4	589.0	595.4	598.2	602.8
40°	548.1	547.0	548.7	551.0	555.0	558.5	562.5	567.7	573.5	578.1	582.7
42.5°	522.8	521.7	526.3	528.0	534.3	535.5	540.1	546.4	553.9	560.2	566.6
45°	494.6	496.9	499.8	505.0	509.0	514.2	518.2	524.5	534.3	542.4	548.1
47.5°	470.4	469.8	473.3	479.0	485.4	489.4	493.4	502.7	513.0	521.7	530.3
50°	441.6	443.3	446.8	453.1	461.2	463.5	467.0	478.5	488.3	499.2	507.3
52.5°	412.8	413.4	418.6	424.9	433.6	437.6	442.8	452.6	462.3	472.1	480.2
55°	381.7	383.5	390.4	396.1	405.3	410.0	415.7	425.5	435.9	445.7	453.7
57.5°	354.1	355.3	359.9	367.3	377.1	380.6	386.9	397.9	407.1	417.4	425.5
60°	322.4	324.7	329.3	338.6	346.0	349.5	356.4	366.8	376.0	385.8	393.3
62.5°	294.2	294.2	298.3	307.5	315.0	319.6	325.3	334.0	344.9	353.5	363.3
65°	259.7	263.1	268.9	275.2	283.9	289.0	293.1	302.3	311.5	321.3	330.5
67.5°	229.7	232.0	236.1	243.6	253.3	255.6	262.0	271.2	279.3	287.9	296.5
70°	197.5	199.2	204.4	211.9	219.9	222.8	228.6	237.2	245.9	255.6	264.9
72.5°	167.0	168.1	173.9	179.6	187.7	192.9	196.3	203.8	213.6	224.0	232.6
75°	134.2	136.5	141.1	147.4	155.5	159.5	164.1	172.2	181.4	190.6	199.8
77.5°	105.4	105.4	110.0	116.9	123.8	128.4	132.4	141.1	150.3	158.3	166.4
80°	73.7	76.6	80.0	86.4	93.9	99.0	101.3	109.4	118.6	126.7	135.9
82.5°	47.8	49.5	53.5	59.9	66.8	69.7	73.7	81.8	90.4	99.6	107.1
85°	24.2	26.5	30.5	36.3	43.2	46.6	50.1	58.7	65.6	73.7	81.8
87.5°	9.2	10.4	14.4	20.2	26.5	29.9	32.8	40.3	47.2	55.3	63.3
90°	0.0	2.3	6.3	11.5	17.8	20.7	24.2	31.1	37.4	44.9	52.4
92.5°	0.0	1.7	5.2	10.4	16.1	19.6	22.5	28.8	35.1	42.0	47.2
95°	0.0	1.7	5.2	10.4	16.1	19.0	21.9	28.2	34.5	40.3	44.3
97.5°	0.0	1.2	5.2	10.4	15.5	18.4	21.3	27.6	33.4	38.6	43.2
100°	0.0	1.2	4.6	9.8	15.0	17.8	21.3	27.1	31.7	36.8	42.0
102.5°	0.0	1.2	4.6	9.2	15.0	17.8	20.7	25.9	30.5	35.7	40.3
105°	0.0	1.2	4.0	9.2	14.4	17.3	19.6	24.8	29.9	34.5	38.6
107.5°	0.0	1.2	4.0	8.6	13.8	16.1	19.0	24.2	28.8	32.8	36.8
110°	0.0	1.2	4.0	8.1	13.2	16.1	18.4	23.6	27.6	31.7	35.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.6	3.5	7.5	13.2	15.5	17.8	22.5	27.1	30.5	34.0
115°	0.0	0.6	3.5	7.5	12.7	15.0	17.3	21.9	25.9	29.9	32.8
117.5°	0.0	0.6	3.5	7.5	12.1	14.4	17.3	21.3	25.3	29.4	32.2
120°	0.0	0.6	2.9	6.9	11.5	13.8	16.7	21.3	25.3	28.8	31.7
122.5°	0.0	0.6	2.9	6.9	10.9	13.2	16.1	20.7	24.8	28.8	31.7
125°	0.0	0.6	2.9	6.3	10.9	12.7	15.5	20.2	24.8	28.2	31.7
127.5°	0.0	0.6	2.3	6.3	10.4	12.7	15.0	19.6	23.6	27.6	31.1
130°	0.0	0.6	2.3	5.8	9.8	12.1	14.4	18.4	23.0	27.1	30.5
132.5°	0.0	0.6	2.3	5.2	9.2	11.5	13.2	17.3	21.3	25.9	29.4
135°	0.0	0.6	1.7	4.6	8.6	10.4	12.7	16.7	20.2	24.2	27.6
137.5°	0.0	0.6	1.7	4.6	8.1	9.8	12.1	15.5	19.0	22.5	25.9
140°	0.0	0.0	1.2	4.0	6.9	8.6	10.9	14.4	17.8	21.3	24.2
142.5°	0.6	0.0	1.2	3.5	6.3	8.1	9.8	13.2	16.7	19.6	22.5
145°	0.6	0.0	0.6	2.9	5.2	6.9	8.1	11.5	15.0	17.8	20.2
147.5°	0.6	0.0	0.6	2.3	4.6	5.8	6.9	9.8	12.7	15.5	18.4
150°	0.6	0.0	0.6	1.7	3.5	4.6	5.8	8.1	10.9	13.8	16.1
152.5°	0.6	0.6	0.6	1.2	2.9	3.5	4.6	6.9	9.2	11.5	13.2
155°	0.6	0.6	0.6	0.6	1.7	2.9	3.5	5.2	7.5	9.2	10.9
157.5°	0.6	0.6	0.0	0.6	1.2	1.7	2.3	4.0	5.8	6.9	8.6
160°	0.6	0.6	0.0	0.6	1.2	1.2	1.7	2.9	4.0	5.2	6.3
162.5°	0.6	0.6	0.0	0.6	0.6	0.6	1.2	1.7	2.9	3.5	4.6
165°	0.6	0.6	0.6	0.0	0.6	0.6	0.6	1.2	1.7	2.3	2.9
167.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.7
170°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.6	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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8	959.8
2.5°	955.2	954.6	954.6	954.1	954.6	954.1	954.1	954.6	954.1	953.5
5°	925.3	925.9	926.4	925.3	925.9	925.3	925.3	924.7	925.3	924.7
7.5°	884.4	886.1	887.3	886.7	888.4	887.8	889.0	890.2	890.7	890.7
10°	844.1	845.2	847.0	849.3	850.4	851.6	853.3	855.6	856.2	856.8
12.5°	811.8	814.1	814.7	815.9	817.0	816.5	820.5	822.2	825.1	824.5
15°	784.8	788.2	789.4	792.8	793.4	794.6	798.0	795.1	794.6	792.8
17.5°	763.5	766.9	767.5	767.5	768.1	769.8	773.3	773.8	775.0	775.6
20°	742.8	745.1	747.4	749.1	750.2	750.8	752.5	750.2	750.8	751.4
22.5°	722.6	724.9	728.4	730.1	732.4	734.1	734.1	733.5	732.4	735.8
25°	705.9	707.6	711.1	711.1	712.2	714.0	711.7	713.4	712.2	711.1
27.5°	685.8	690.4	691.5	692.7	693.8	693.2	693.2	692.7	692.7	692.1
30°	667.3	669.1	672.5	673.1	674.2	675.4	675.4	676.5	673.1	673.7
32.5°	648.3	650.6	654.7	655.8	656.4	656.4	654.7	651.2	651.8	651.2
35°	625.9	631.1	635.1	635.1	634.5	635.1	633.9	633.4	631.6	631.1
37.5°	605.1	609.7	614.4	616.1	615.5	616.7	614.9	613.8	613.8	614.4
40°	587.9	591.3	595.9	599.4	599.4	600.5	600.5	600.5	601.7	601.1
42.5°	570.6	576.9	582.7	588.4	590.2	590.2	589.6	590.2	591.3	591.9
45°	556.2	563.1	568.9	573.5	575.2	575.2	576.4	578.1	577.5	578.1
47.5°	538.4	542.4	548.7	552.2	553.3	555.0	556.8	556.8	557.9	559.7
50°	513.6	518.8	524.0	529.7	531.4	531.4	534.3	536.0	536.6	537.8
52.5°	487.1	494.6	499.2	503.8	505.0	506.1	507.8	509.0	509.6	511.3
55°	459.5	467.5	471.0	476.2	478.5	481.3	479.6	484.2	484.8	486.0
57.5°	433.0	438.7	445.1	448.0	448.0	450.3	454.3	455.4	457.7	458.3
60°	400.2	407.1	412.8	414.0	416.3	416.9	419.7	422.6	425.5	427.2
62.5°	367.9	374.3	379.4	381.2	382.3	383.5	386.9	389.8	392.7	392.1
65°	335.7	342.0	346.0	346.6	346.6	350.1	352.4	353.0	357.0	357.0
67.5°	304.0	310.3	312.6	316.1	316.7	316.1	317.8	320.7	323.6	321.3
70°	271.8	276.9	281.0	285.6	284.4	284.4	285.6	287.9	289.0	290.8
72.5°	238.9	244.7	249.3	252.8	253.9	255.6	256.2	257.4	257.9	259.1
75°	207.3	212.5	218.8	223.4	224.0	225.7	227.4	228.6	228.6	230.3
77.5°	175.0	183.1	187.7	193.5	193.5	195.8	200.9	202.1	205.6	206.7
80°	143.9	150.9	158.9	164.1	167.0	169.9	170.4	170.4	172.2	173.9
82.5°	115.7	122.6	131.9	135.9	137.6	138.2	142.8	144.5	146.8	148.0
85°	91.0	100.2	104.2	108.2	110.0	111.1	115.2	118.0	122.1	123.8
87.5°	72.5	76.6	80.6	84.6	86.4	88.1	93.3	97.3	104.2	107.7
90°	57.6	61.0	65.1	70.2	72.0	74.9	80.0	85.8	93.9	98.5
92.5°	51.2	55.3	59.3	64.5	67.4	69.7	75.4	82.9	93.3	98.5
95°	48.9	53.5	58.2	62.2	64.5	67.4	73.7	82.3	90.4	93.3
97.5°	48.4	52.4	55.9	60.5	62.8	65.6	72.0	77.2	80.6	82.3
100°	46.1	50.1	54.1	58.2	61.0	62.8	66.8	70.8	73.1	74.3
102.5°	44.3	47.8	51.8	55.3	57.0	58.7	62.2	65.1	66.2	66.2
105°	42.6	45.5	48.9	51.2	53.0	54.1	55.9	56.4	56.4	56.4
107.5°	40.3	43.2	45.5	47.2	47.8	48.4	48.4	48.4	47.8	47.2
110°	38.0	40.9	42.0	42.6	42.6	42.6	42.6	42.6	42.6	42.0





TEST NUMBER: P241321

CATALOG NUMBER: FVS8M-2-LD4-30-2LO-P125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	36.3	38.0	39.2	39.7	39.2	39.7	39.7	40.3	40.3	40.3
115°	35.1	36.8	37.4	38.0	38.6	38.6	39.7	40.3	40.9	40.9
117.5°	34.5	36.3	37.4	39.2	39.2	39.7	40.9	42.0	42.6	42.6
120°	34.5	36.3	38.6	40.3	40.9	41.5	42.6	43.8	44.3	44.3
122.5°	34.5	36.8	39.2	40.9	42.0	42.6	43.8	44.9	45.5	46.1
125°	34.5	36.8	39.7	41.5	42.0	43.2	44.3	45.5	46.1	46.6
127.5°	34.0	36.8	39.2	41.5	42.0	42.6	44.3	45.5	46.1	46.6
130°	33.4	36.3	38.6	40.3	41.5	42.0	43.8	44.9	45.5	46.1
132.5°	32.2	35.1	37.4	39.7	40.3	41.5	43.2	44.3	44.9	45.5
135°	31.1	34.0	36.3	38.6	39.2	40.3	42.0	43.2	44.3	44.3
137.5°	29.4	32.2	34.5	36.8	38.0	38.6	40.3	42.0	42.6	43.2
140°	27.6	29.9	32.8	34.5	35.7	36.8	38.0	39.7	40.3	40.9
142.5°	25.3	27.6	29.9	32.2	33.4	34.0	35.7	36.8	38.0	38.0
145°	23.0	24.8	27.1	29.4	29.9	30.5	32.2	33.4	34.0	34.5
147.5°	20.7	22.5	24.8	25.9	26.5	27.6	28.8	29.9	29.9	30.5
150°	17.8	19.6	21.3	22.5	23.6	24.2	25.3	25.9	26.5	26.5
152.5°	15.5	16.7	18.4	19.6	20.2	20.7	21.3	22.5	22.5	23.0
155°	12.7	14.4	15.5	16.7	17.3	17.8	18.4	19.0	19.0	19.6
157.5°	10.4	11.5	12.7	13.8	14.4	14.4	15.5	15.5	16.1	15.5
160°	8.1	9.2	10.4	10.9	11.5	11.5	12.1	12.7	12.7	12.7
162.5°	5.8	6.9	7.5	8.6	8.6	8.6	9.2	9.8	9.8	9.8
165°	4.0	4.6	5.2	5.8	6.3	6.3	6.3	6.9	6.9	6.9
167.5°	2.3	2.3	2.9	3.5	3.5	4.0	4.0	4.0	4.6	4.6
170°	0.6	1.2	1.2	1.7	1.7	1.7	1.7	1.7	2.3	2.3
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)