

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: P241384

Luminaire Tested: **FVS8M-4-LD4-50-1LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241384
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-50-1LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

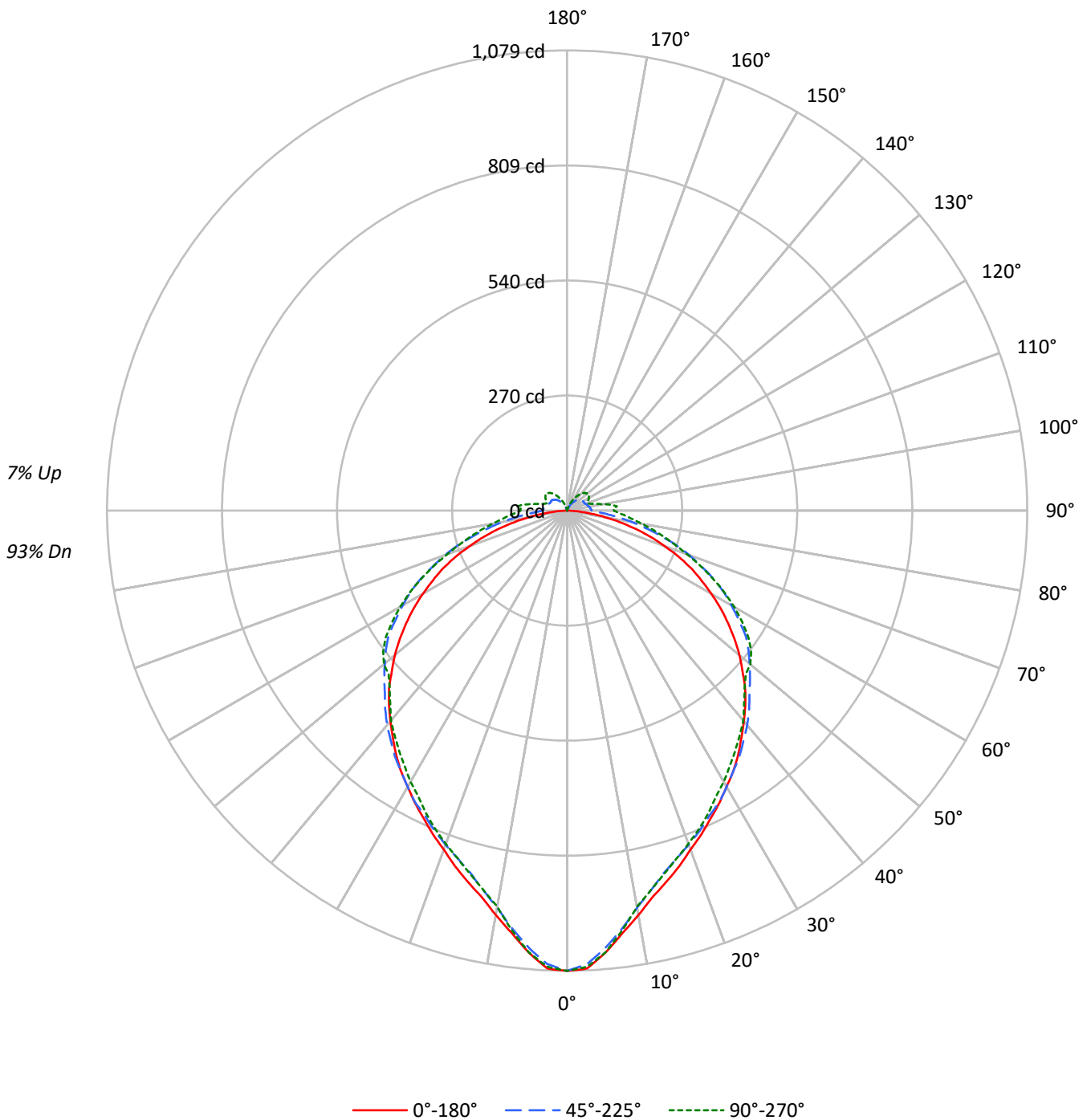
Lumens per Lamp: N/A
Luminaire Lumens: 2957.0 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): 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	93
1	106	101	96	92	103	98	94	90	92	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	56	63	59	55	52
4	80	68	59	52	77	66	57	51	62	55	49	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	38	31	26	37	31	26	35	30	25	24
10	51	38	30	25	49	37	30	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4824	4824	4824
5°	4648	4544	4571
10°	4339	4152	4116
15°	4125	3871	3845
20°	3967	3710	3654
25°	3856	3579	3492
30°	3772	3484	3352
35°	3712	3396	3237
40°	3642	3311	3153
45°	3591	3217	3034
50°	3504	3173	3072
55°	3398	3141	3059
60°	3269	3006	2906
65°	3133	2860	2683
70°	2858	2624	2406
75°	2509	2289	2182
80°	1940	1921	2001
85°	1049	1504	1960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.1	3.3
10°-20°	250.6	8.5
20°-30°	365.3	12.4
30°-40°	437.8	14.8
40°-50°	463.0	15.7
50°-60°	445.2	15.1
60°-70°	357.9	12.1
70°-80°	226.9	7.7
80°-90°	100.2	3.4
90°-100°	57.8	2.0
100°-110°	44.1	1.5
110°-120°	35.7	1.2
120°-130°	32.6	1.1
130°-140°	24.5	0.8
140°-150°	13.9	0.5
150°-160°	4.8	0.2
160°-170°	0.7	0.0
170°-180°	0.0	0.0
0°-30°	712.0	24.1
0°-40°	1149.8	38.9
0°-60°	2058.0	69.6
0°-90°	2742.9	92.8
90°-120°	137.6	4.7
90°-150°	208.6	7.1
90°-180°	214.0	7.2
0°-180°	2957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1040	1036	1030	1041	1039	97
15°	901	892	879	880	881	254
25°	796	797	789	789	783	368
35°	699	704	704	697	687	437
45°	590	602	604	600	588	454
55°	460	480	511	518	519	412
65°	321	342	379	377	377	316
75°	166	191	225	237	233	176
85°	30	56	92	117	137	38
90°	1	26	58	84	109	1
95°	0	25	56	79	117	0
105°	0	22	49	62	61	0
115°	1	20	44	52	54	0
125°	1	17	43	56	62	1
135°	1	12	36	50	59	0
145°	1	5	23	38	43	0
155°	1	1	9	18	21	0
165°	1	1	1	3	4	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°	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3
2.5°	1074.9	1072.4	1068.6	1070.5	1070.5	1071.1	1071.8	1071.8	1070.5	1068.6	1064.2
5°	1039.6	1037.1	1032.6	1033.3	1033.9	1035.8	1036.4	1036.4	1033.9	1032.6	1029.5
7.5°	998.6	996.1	994.2	994.2	994.8	995.4	997.3	994.2	992.3	991.0	987.9
10°	962.6	961.4	955.7	956.3	955.1	955.1	956.3	955.7	951.9	948.7	945.0
12.5°	927.3	925.4	924.8	923.5	921.6	921.0	921.6	921.0	917.8	914.7	910.9
15°	900.8	896.4	894.5	895.1	892.0	892.0	891.3	893.2	888.8	883.8	878.7
17.5°	874.3	871.8	866.1	867.4	866.7	868.0	868.6	868.0	863.6	858.5	854.8
20°	845.9	844.0	844.7	844.7	842.1	842.8	843.4	842.1	838.4	833.3	833.3
22.5°	821.9	818.8	818.2	816.3	818.8	819.4	819.4	820.1	817.5	813.7	812.5
25°	796.1	794.8	793.6	795.5	796.7	797.3	797.3	796.1	794.2	791.0	789.1
27.5°	772.7	769.0	770.2	772.1	774.0	776.5	776.5	773.4	772.7	769.0	771.5
30°	747.5	744.4	745.0	746.9	750.0	752.6	752.6	754.5	751.3	749.4	748.1
32.5°	725.4	719.1	719.8	724.2	729.2	729.9	730.5	731.7	728.6	727.3	724.8
35°	698.9	695.8	693.9	700.8	703.4	704.0	706.5	708.4	705.9	704.6	704.0
37.5°	671.2	668.7	668.7	673.7	678.8	681.3	681.9	682.5	683.2	680.0	679.4
40°	644.7	642.2	642.8	646.6	651.6	653.5	656.7	659.2	656.7	655.4	656.7
42.5°	618.2	613.8	617.6	621.4	626.4	627.7	631.4	635.9	632.7	630.2	631.4
45°	590.4	586.0	589.8	594.9	598.0	601.8	602.4	604.9	604.9	604.9	604.3
47.5°	557.6	557.0	558.9	564.6	569.6	571.5	574.0	576.6	580.3	583.5	581.6
50°	527.4	524.8	529.9	534.3	540.0	543.8	547.5	553.2	553.9	554.5	558.3
52.5°	494.6	493.9	498.3	503.4	509.1	514.7	517.9	521.7	524.8	530.5	535.6
55°	460.5	461.1	464.9	471.8	478.8	480.0	484.5	493.9	500.2	505.3	511.0
57.5°	427.1	426.4	432.7	438.4	444.1	451.0	454.8	463.0	467.4	473.7	476.9
60°	390.5	391.7	398.0	399.3	411.3	419.5	420.8	425.8	432.1	438.4	445.4
62.5°	355.1	356.4	362.1	368.4	376.0	379.7	382.3	392.4	398.7	408.8	413.8
65°	321.1	321.7	325.5	332.4	339.4	342.5	348.8	360.2	365.2	372.2	379.1
67.5°	283.2	284.5	289.5	293.3	302.8	308.5	314.1	321.7	325.5	335.0	340.0
70°	242.2	244.1	251.1	255.5	266.8	271.2	275.7	280.7	289.5	298.4	304.1
72.5°	205.6	205.6	212.0	217.6	229.6	230.9	234.7	244.1	254.2	260.5	266.8
75°	166.5	168.4	172.2	179.8	189.2	191.1	197.4	207.5	214.5	221.4	225.2
77.5°	127.4	129.9	135.6	143.2	149.5	155.8	160.2	168.4	175.4	181.0	188.0
80°	92.1	94.0	99.7	104.7	114.8	119.2	123.0	131.2	138.1	145.7	153.9
82.5°	59.3	59.9	66.2	72.5	80.1	85.2	88.9	96.5	106.6	114.2	121.7
85°	29.6	31.5	37.8	43.5	53.0	56.1	59.9	68.8	77.0	86.4	92.1
87.5°	8.8	12.0	17.7	24.0	31.5	35.3	39.1	47.3	55.5	63.1	70.0
90°	0.6	2.5	7.6	14.5	22.1	25.9	29.6	37.8	45.4	51.7	58.0
92.5°	0.0	1.9	6.9	13.9	21.4	25.2	29.0	36.6	43.5	49.8	56.1
95°	0.0	1.9	6.9	13.2	20.8	24.6	28.4	35.3	42.3	49.2	55.5
97.5°	0.0	1.9	6.3	13.2	20.2	24.0	27.8	34.7	41.6	47.9	53.6
100°	0.0	1.9	6.3	12.6	19.6	23.3	26.5	33.4	40.4	46.7	52.4
102.5°	0.0	1.3	5.7	12.0	18.9	22.7	25.9	32.8	39.7	45.4	50.5
105°	0.0	1.3	5.7	11.4	18.3	22.1	25.2	32.2	38.5	44.2	49.2
107.5°	0.0	1.3	5.0	11.4	18.3	21.4	25.2	31.5	37.8	42.9	47.9
110°	0.0	0.6	5.0	10.7	17.7	21.4	24.6	30.9	37.2	42.3	46.0



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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	4.4	10.1	17.0	20.8	24.0	30.3	36.0	41.0	44.8
115°	0.6	0.6	4.4	10.1	16.4	20.2	23.3	29.6	35.3	40.4	43.5
117.5°	0.0	0.6	3.8	9.5	15.8	19.6	22.7	29.0	34.7	39.7	43.5
120°	0.6	0.6	3.2	8.8	15.1	18.9	22.1	28.4	34.1	39.1	43.5
122.5°	0.6	0.6	3.2	8.2	14.5	17.7	21.4	27.8	33.4	39.1	43.5
125°	0.6	0.6	2.5	7.6	13.9	17.0	20.2	27.1	32.8	37.8	42.9
127.5°	0.6	0.6	1.9	6.9	12.6	16.4	19.6	25.9	31.5	36.6	41.6
130°	0.6	0.6	1.3	5.7	12.0	14.5	18.3	24.6	30.3	35.3	39.7
132.5°	0.6	0.6	1.3	5.0	10.7	13.2	16.4	22.7	28.4	33.4	37.8
135°	0.6	0.6	0.6	3.8	8.8	12.0	14.5	20.2	25.9	31.5	36.0
137.5°	0.6	0.6	0.6	3.2	7.6	10.1	12.6	17.7	23.3	28.4	33.4
140°	0.6	0.6	0.6	2.5	6.3	8.2	10.7	15.8	20.8	25.9	30.3
142.5°	0.6	0.6	0.6	1.9	5.0	6.9	8.8	13.2	17.7	22.7	27.1
145°	0.6	0.6	0.6	1.3	3.8	5.0	6.9	10.7	15.1	19.6	23.3
147.5°	0.6	0.6	0.6	0.6	2.5	3.8	5.0	8.8	12.0	15.8	19.6
150°	0.6	0.6	0.6	0.6	1.9	2.5	3.8	6.3	9.5	12.6	15.8
152.5°	0.6	0.6	0.6	0.6	1.3	1.9	2.5	4.4	6.9	9.5	12.0
155°	0.6	0.6	0.6	0.6	0.6	1.3	1.9	3.2	5.0	6.9	8.8
157.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9	3.2	4.4	6.3
160°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9	3.2	3.8
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.3	1.9
165°	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3
167.5°	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
170°	1.3	1.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0
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°	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3	1079.3
2.5°	1065.4	1068.6	1071.1	1071.1	1071.1	1072.4	1072.4	1071.8	1072.4	1070.5
5°	1032.0	1037.1	1038.9	1041.5	1040.8	1040.2	1038.9	1041.5	1040.2	1038.9
7.5°	989.7	994.8	992.3	993.5	994.8	993.5	994.2	994.8	992.3	992.3
10°	945.0	946.8	945.0	946.2	946.2	943.7	945.0	945.0	943.7	943.1
12.5°	909.0	908.4	907.7	908.4	909.0	911.5	910.3	912.8	912.2	910.3
15°	876.8	879.4	880.6	882.5	880.0	881.9	884.4	883.1	883.1	881.2
17.5°	857.3	859.8	857.3	860.4	861.7	861.1	860.4	856.6	859.2	854.8
20°	830.8	835.2	838.4	833.9	833.9	834.6	833.9	832.7	833.9	831.4
22.5°	814.4	813.7	813.1	816.3	816.9	816.3	812.5	811.2	807.4	808.1
25°	791.0	789.1	796.1	792.3	789.1	789.1	787.3	784.7	782.8	782.8
27.5°	769.0	772.1	769.0	769.6	769.0	769.6	761.4	758.2	758.2	755.7
30°	750.7	748.1	748.8	744.4	741.8	741.2	739.3	736.8	734.9	734.3
32.5°	724.2	725.4	723.5	721.6	721.0	719.1	717.9	714.7	712.2	709.7
35°	702.7	700.8	700.2	701.5	697.0	693.9	692.6	690.7	689.5	687.0
37.5°	679.4	676.9	677.5	673.1	673.7	673.1	669.3	666.1	665.5	664.2
40°	652.9	654.2	651.6	651.6	646.0	645.3	644.7	644.7	642.8	642.8
42.5°	629.6	629.6	628.3	626.4	624.5	623.2	619.5	618.8	616.3	613.8
45°	605.6	604.3	602.4	601.2	599.9	598.0	593.0	591.1	589.8	588.5
47.5°	584.1	581.6	581.6	577.8	573.4	573.4	572.1	569.0	567.7	567.7
50°	560.8	564.6	566.5	563.3	562.1	560.8	559.5	560.2	558.9	560.8
52.5°	540.6	543.8	543.1	544.4	545.7	547.5	545.0	546.9	545.7	543.8
55°	514.7	517.3	516.0	514.7	517.9	517.9	521.1	519.8	519.2	519.2
57.5°	482.6	485.7	485.7	487.0	487.6	485.7	490.1	488.2	488.9	487.0
60°	449.1	448.5	450.4	454.2	454.8	452.3	451.7	454.2	452.3	452.3
62.5°	416.3	417.6	418.2	416.3	415.1	416.3	413.8	416.3	416.3	415.7
65°	381.0	382.3	382.9	380.4	377.2	377.9	375.3	376.6	377.2	376.6
67.5°	342.5	345.7	344.4	343.8	341.9	338.1	337.5	336.2	337.5	337.5
70°	305.9	309.1	305.9	306.6	306.6	303.4	301.5	299.0	299.0	298.4
72.5°	270.0	271.9	271.2	271.2	271.9	270.0	266.8	265.6	264.3	264.3
75°	232.1	235.9	235.9	236.6	237.2	235.9	235.9	234.0	232.1	232.8
77.5°	195.6	199.3	202.5	204.4	204.4	205.0	206.3	205.6	204.4	204.4
80°	161.5	167.2	170.3	174.1	174.7	174.7	177.3	177.9	177.9	177.3
82.5°	129.3	135.0	138.8	142.6	143.2	144.5	148.9	150.8	154.5	154.5
85°	98.4	104.7	109.1	114.2	117.3	119.2	123.0	128.1	133.1	136.9
87.5°	75.7	82.0	88.3	93.4	95.9	97.8	102.8	109.1	115.4	120.5
90°	65.0	70.7	76.3	80.7	83.9	85.8	90.8	96.5	104.1	109.1
92.5°	62.5	68.1	72.5	77.6	80.1	82.0	88.3	95.9	104.7	109.1
95°	60.6	65.6	70.7	76.3	78.9	82.0	90.2	100.9	112.9	117.3
97.5°	59.3	64.3	69.4	75.1	78.2	81.4	90.8	99.0	104.1	104.1
100°	57.4	62.5	67.5	72.5	75.1	78.2	83.9	86.4	86.4	86.4
102.5°	55.5	59.9	64.3	67.5	69.4	70.7	73.2	73.8	72.5	71.3
105°	53.6	56.8	59.3	61.2	61.8	62.5	63.1	63.1	61.8	60.6
107.5°	51.7	53.6	55.5	55.5	56.1	56.1	56.8	56.1	54.9	53.6
110°	49.2	51.1	51.7	52.4	52.4	52.4	53.0	53.0	51.7	51.1



TEST NUMBER: P241384

CATALOG NUMBER: FVS8M-4-LD4-50-1LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	47.3	49.2	49.8	50.5	51.1	51.1	52.4	52.4	51.7	51.7
115°	46.7	48.6	49.8	51.1	51.7	52.4	53.6	54.9	54.2	53.6
117.5°	46.7	49.2	51.1	52.4	53.0	54.2	56.1	56.8	56.8	56.8
120°	46.7	49.8	52.4	54.2	54.9	56.1	57.4	58.7	59.3	58.7
122.5°	46.7	49.8	53.0	54.9	55.5	56.8	58.7	59.9	60.6	60.6
125°	46.7	49.8	53.0	54.9	56.1	56.8	58.7	60.6	61.2	61.8
127.5°	45.4	49.2	51.7	54.2	55.5	56.8	58.7	60.6	61.8	62.5
130°	44.2	47.3	50.5	53.0	54.2	55.5	58.0	59.9	61.2	61.8
132.5°	42.3	45.4	48.6	51.1	52.4	53.6	56.1	58.7	59.9	60.6
135°	39.7	43.5	46.7	49.2	50.5	51.7	54.2	56.8	58.0	58.7
137.5°	37.2	41.0	44.2	46.7	47.9	49.2	51.7	53.6	55.5	55.5
140°	34.7	38.5	41.6	44.2	45.4	46.7	48.6	50.5	51.7	52.4
142.5°	31.5	35.3	37.8	41.0	42.3	42.9	44.8	46.7	47.9	47.9
145°	27.8	31.5	34.7	36.6	37.8	39.1	40.4	41.6	42.9	42.9
147.5°	23.3	27.1	30.3	32.2	33.4	34.1	35.3	36.6	37.2	37.2
150°	18.9	22.1	25.2	27.1	28.4	29.0	30.3	30.9	31.5	31.5
152.5°	14.5	17.7	20.2	22.1	23.3	24.0	25.2	25.2	25.9	26.5
155°	10.7	13.2	15.1	17.7	18.3	18.9	19.6	20.8	20.8	20.8
157.5°	7.6	9.5	10.7	12.6	13.2	14.5	15.1	15.8	15.8	15.8
160°	5.0	6.3	7.6	8.8	9.5	10.1	10.7	11.4	11.4	12.0
162.5°	3.2	3.8	4.4	5.0	5.7	6.3	6.9	7.6	7.6	7.6
165°	1.3	1.9	2.5	2.5	3.2	3.2	3.8	4.4	4.4	4.4
167.5°	0.6	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)