

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: P241540

Luminaire Tested: **FVS8M-2-LD4-50-2LO-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241540
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-LD4-50-2LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH OPAL LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

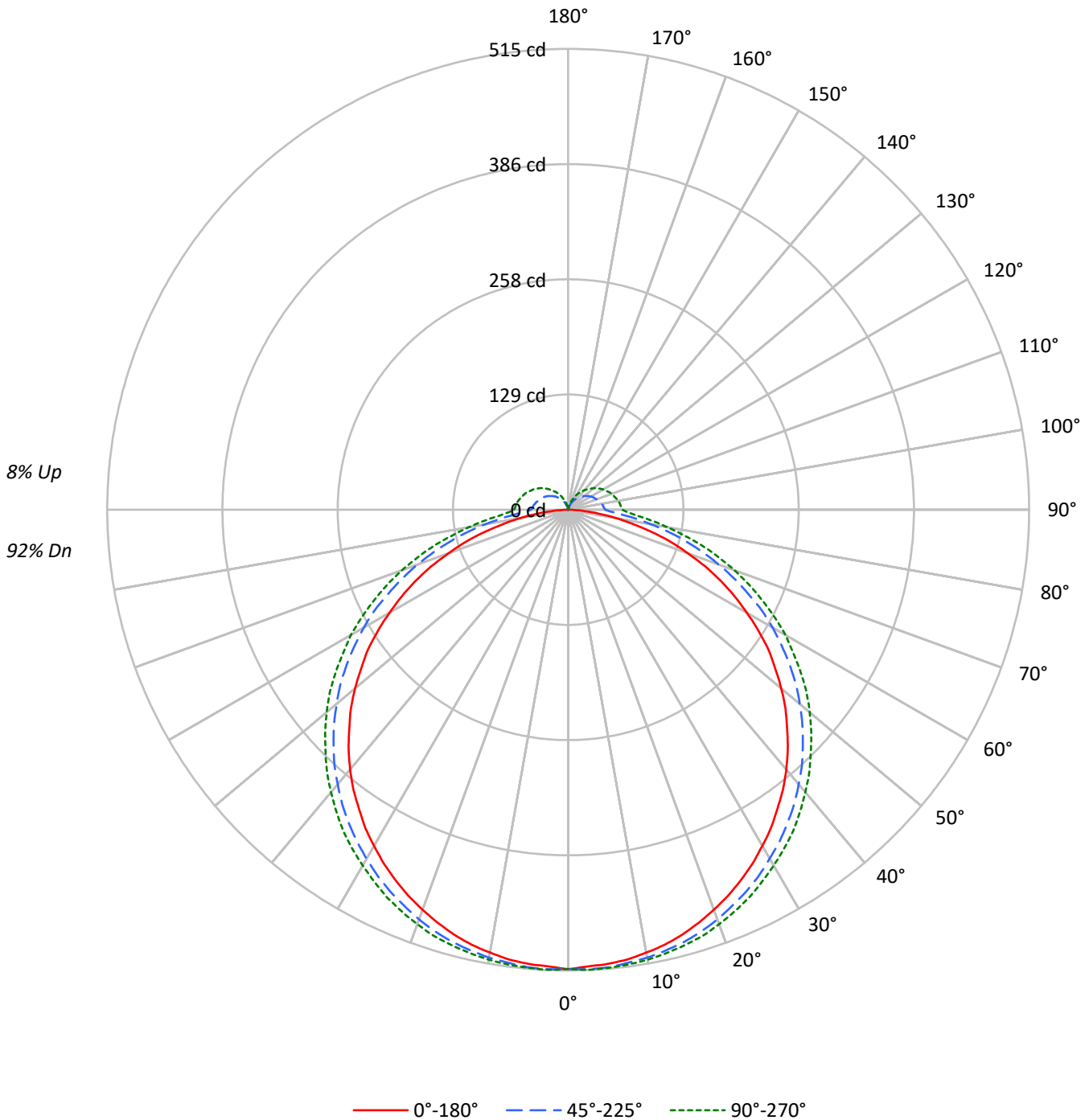
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1791.0 lumens
Efficiency: N/A
Efficacy: 75.6 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): 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-LD4-50-2LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241540

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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°	4615	4615	4615
5°	4567	4547	4548
10°	4525	4470	4484
15°	4481	4399	4421
20°	4425	4323	4358
25°	4369	4243	4292
30°	4307	4157	4217
35°	4239	4076	4152
40°	4172	3981	4065
45°	4076	3878	3976
50°	3974	3757	3881
55°	3851	3619	3759
60°	3649	3453	3622
65°	3420	3226	3423
70°	3069	2956	3203
75°	2599	2625	2918
80°	1962	2198	2558
85°	1005	1764	2238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.7	2.7
10°-20°	140.8	7.9
20°-30°	216.3	12.1
30°-40°	266.1	14.9
40°-50°	284.1	15.9
50°-60°	267.1	14.9
60°-70°	216.0	12.1
70°-80°	139.3	7.8
80°-90°	62.9	3.5
90°-100°	38.3	2.1
100°-110°	34.0	1.9
110°-120°	28.2	1.6
120°-130°	21.4	1.2
130°-140°	14.6	0.8
140°-150°	8.4	0.5
150°-160°	3.7	0.2
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	405.9	22.7
0°-40°	672.1	37.5
0°-60°	1223.3	68.3
0°-90°	1641.5	91.7
90°-120°	100.5	5.6
90°-150°	144.9	8.1
90°-180°	149.0	8.3
0°-180°	1791.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	510	510	513	514	514	48
15°	492	494	500	503	504	139
25°	457	462	471	476	478	211
35°	408	416	427	435	438	255
45°	346	356	371	380	383	267
55°	273	285	302	313	317	243
65°	188	203	222	236	239	185
75°	97	115	136	150	155	103
85°	18	38	59	73	78	23
90°	0	20	41	55	60	1
95°	0	18	40	54	59	0
105°	0	16	36	50	54	0
115°	0	13	32	44	48	0
125°	0	11	27	38	41	0
135°	0	8	21	30	33	0
145°	0	5	15	22	24	0
155°	1	2	8	13	15	0
165°	1	1	2	5	6	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°	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4
2.5°	510.8	510.8	510.8	510.8	511.5	511.5	512.1	512.7	512.7	513.4	514.0
5°	509.6	508.9	509.6	509.6	510.2	510.2	510.8	511.5	512.1	512.7	513.4
7.5°	507.0	506.4	507.0	507.6	507.6	508.3	508.3	508.9	509.6	510.2	510.8
10°	502.6	502.6	503.2	503.8	504.5	504.5	505.1	505.7	506.4	507.6	508.3
12.5°	498.1	497.5	498.1	498.7	499.4	500.0	500.0	501.3	502.6	503.2	504.5
15°	491.7	491.7	492.4	493.0	493.6	494.3	494.9	496.8	497.5	498.7	500.0
17.5°	484.1	484.7	484.7	486.0	487.3	487.9	488.5	489.8	491.7	492.4	494.3
20°	475.8	476.4	476.4	477.7	479.0	480.3	480.9	482.8	484.7	486.0	487.3
22.5°	466.9	466.9	467.5	469.4	470.7	471.3	472.6	474.5	475.8	477.7	479.0
25°	456.7	456.7	458.0	459.2	461.2	461.8	463.1	465.0	466.9	468.8	470.7
27.5°	445.9	445.9	447.1	449.0	451.0	451.6	452.9	455.4	457.3	459.2	461.2
30°	433.8	434.4	435.7	437.6	439.5	440.8	442.0	444.0	445.9	448.4	450.3
32.5°	421.7	421.7	422.9	424.8	427.4	428.7	430.6	432.5	435.0	437.6	439.5
35°	407.6	408.3	409.6	412.7	414.0	415.9	417.2	419.7	422.9	424.8	427.4
37.5°	394.3	394.9	395.5	398.1	400.6	402.6	403.8	406.4	408.9	411.5	414.7
40°	379.0	379.0	380.9	384.1	386.0	387.9	389.2	392.4	394.9	398.1	400.6
42.5°	363.1	363.1	365.6	367.5	370.7	372.6	373.9	377.1	380.3	383.4	386.6
45°	345.9	347.1	349.0	351.6	355.4	356.1	358.0	361.1	365.0	368.2	370.7
47.5°	329.3	329.9	331.8	335.0	338.2	340.8	342.0	344.6	348.4	352.2	354.8
50°	310.8	312.1	314.0	317.2	320.4	322.9	324.8	328.0	331.8	335.0	337.6
52.5°	291.7	293.0	295.5	299.4	303.2	304.5	306.4	310.2	314.7	317.2	321.0
55°	273.3	273.9	276.4	279.6	284.1	285.4	287.3	291.1	294.9	298.7	301.9
57.5°	252.2	252.9	256.1	259.9	263.1	265.6	267.5	272.0	275.8	279.6	282.8
60°	230.6	232.5	235.7	240.1	243.3	245.9	247.8	251.6	255.4	259.2	263.7
62.5°	209.6	210.8	214.7	217.8	222.3	224.2	226.8	231.2	235.0	238.9	244.0
65°	187.9	189.2	191.7	196.2	201.3	203.2	205.7	209.6	214.0	218.5	221.7
67.5°	165.6	167.5	170.7	173.9	178.3	180.9	182.8	188.5	192.4	196.8	200.6
70°	142.0	144.0	147.8	152.2	156.7	159.9	161.8	166.2	171.3	175.2	179.0
72.5°	121.0	121.0	124.8	129.9	135.0	137.6	140.1	145.2	149.0	152.2	157.3
75°	96.8	98.7	103.2	107.6	113.4	115.3	117.8	122.3	128.0	131.8	136.3
77.5°	74.5	78.3	80.9	85.4	91.1	93.6	96.2	100.6	106.4	110.8	114.7
80°	54.8	56.7	59.9	64.3	70.7	72.0	75.2	80.3	84.7	89.2	94.3
82.5°	35.0	36.9	40.8	45.2	51.0	53.5	56.1	61.1	65.6	70.7	75.2
85°	18.5	20.4	24.2	29.3	35.0	37.6	40.1	44.6	49.7	54.8	59.2
87.5°	7.0	8.9	12.7	17.8	22.9	25.5	28.0	33.1	38.2	42.7	47.1
90°	0.0	2.5	7.0	11.5	17.2	19.7	22.3	27.4	32.5	36.9	41.4
92.5°	0.0	1.9	5.7	10.2	15.9	18.5	21.0	26.1	31.2	35.7	40.1
95°	0.0	1.9	5.1	10.2	15.3	17.8	20.4	25.5	30.6	35.0	39.5
97.5°	0.0	1.9	5.1	9.6	14.6	17.2	19.7	24.8	29.9	34.4	38.9
100°	0.0	1.3	5.1	9.6	14.0	16.6	19.1	24.2	29.3	33.8	37.6
102.5°	0.0	1.3	4.5	8.9	14.0	16.6	18.5	23.6	28.0	32.5	36.9
105°	0.0	1.3	4.5	8.9	13.4	15.9	18.5	22.9	27.4	31.8	35.7
107.5°	0.0	1.3	4.5	8.3	12.7	15.3	17.8	22.3	26.8	31.2	35.0
110°	0.0	1.3	3.8	7.6	12.1	14.6	17.2	21.7	26.1	29.9	33.8



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CATALOG NUMBER: FVS8M-2-LD4-50-2LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.3	3.8	7.6	12.1	14.0	16.6	21.0	24.8	29.3	32.5
115°	0.0	0.6	3.2	7.0	11.5	13.4	15.3	19.7	24.2	28.0	31.8
117.5°	0.0	0.6	3.2	7.0	10.8	12.7	14.6	19.1	22.9	26.8	30.6
120°	0.0	0.6	3.2	6.4	10.2	12.1	14.0	18.5	22.3	25.5	29.3
122.5°	0.0	0.6	2.5	5.7	9.6	11.5	13.4	17.2	21.0	24.8	28.0
125°	0.0	0.6	2.5	5.7	8.9	10.8	12.7	16.6	19.7	23.6	26.8
127.5°	0.0	0.6	2.5	5.1	8.3	10.2	12.1	15.3	19.1	22.3	24.8
130°	0.0	0.6	1.9	4.5	7.6	9.6	10.8	14.6	17.8	21.0	23.6
132.5°	0.0	0.6	1.9	4.5	7.0	8.9	10.2	13.4	16.6	19.7	22.3
135°	0.0	0.6	1.3	3.8	6.4	8.3	9.6	12.7	15.3	18.5	21.0
137.5°	0.0	0.0	1.3	3.2	5.7	7.0	8.9	11.5	14.0	17.2	19.1
140°	0.0	0.0	1.3	3.2	5.1	6.4	7.6	10.2	12.7	15.3	17.8
142.5°	0.0	0.0	0.6	2.5	4.5	5.7	7.0	9.6	12.1	14.0	16.6
145°	0.0	0.0	0.6	1.9	3.8	5.1	6.4	8.3	10.8	12.7	14.6
147.5°	0.0	0.0	0.6	1.9	3.2	4.5	5.1	7.6	9.6	11.5	13.4
150°	0.0	0.0	0.6	1.3	2.5	3.2	4.5	6.4	8.3	10.2	11.5
152.5°	0.6	0.0	0.6	0.6	1.9	2.5	3.2	5.1	7.0	8.3	10.2
155°	0.6	0.0	0.6	0.6	1.3	1.9	2.5	3.8	5.1	7.0	8.3
157.5°	0.6	0.6	0.0	0.6	1.3	1.3	1.9	3.2	4.5	5.1	6.4
160°	0.6	0.6	0.6	0.6	0.6	1.3	1.3	1.9	3.2	3.8	5.1
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9	2.5	3.8
165°	0.6	0.6	0.6	0.0	0.6	0.6	0.6	0.6	1.3	1.9	2.5
167.5°	0.6	0.6	0.6	0.6	0.0	0.6	0.6	0.6	0.6	1.3	1.3
170°	0.6	0.6	0.6	0.6	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°	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4	513.4
2.5°	514.0	514.0	514.0	514.7	514.7	514.7	514.7	514.0	514.0	514.7
5°	513.4	513.4	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0
7.5°	511.5	512.1	512.1	512.7	512.7	512.7	512.7	512.7	512.7	512.7
10°	508.9	509.6	510.2	510.2	510.2	510.8	510.8	510.8	510.8	510.8
12.5°	505.1	506.4	507.0	507.0	507.6	507.0	507.6	507.6	507.6	507.6
15°	500.6	501.9	502.6	502.6	503.2	503.2	503.2	503.8	503.8	503.8
17.5°	494.9	496.2	496.8	497.5	498.1	498.1	498.7	498.7	498.7	499.4
20°	488.5	489.8	490.4	491.7	491.7	491.7	492.4	492.4	493.0	493.0
22.5°	480.9	482.2	483.4	484.7	484.7	484.7	485.4	486.0	486.0	486.0
25°	472.6	473.3	474.5	475.8	475.8	476.4	477.7	477.7	477.7	478.3
27.5°	463.1	464.3	466.2	466.2	467.5	467.5	468.2	468.8	468.8	468.8
30°	452.9	454.1	456.1	456.7	458.0	458.0	458.6	459.2	459.2	459.2
32.5°	441.4	443.3	444.6	446.5	446.5	447.1	448.4	448.4	449.0	449.0
35°	429.9	431.9	433.1	434.4	435.0	435.7	436.3	436.9	437.6	438.2
37.5°	415.9	418.5	420.4	422.3	422.9	422.9	424.2	424.8	425.5	425.5
40°	402.6	405.1	406.4	408.3	409.6	409.6	410.8	411.5	412.1	412.1
42.5°	388.5	391.1	393.6	394.9	395.5	395.5	396.8	398.1	398.1	398.7
45°	373.3	376.4	379.0	380.3	380.3	380.9	382.2	383.4	383.4	383.4
47.5°	358.0	359.9	361.8	364.3	365.0	366.2	366.9	366.9	367.5	368.2
50°	341.4	343.3	345.9	347.8	349.0	349.7	351.0	351.0	352.2	352.2
52.5°	322.9	326.1	328.7	330.6	331.2	332.5	333.1	334.4	335.0	335.7
55°	305.1	307.6	310.2	312.1	313.4	314.0	315.9	316.6	317.2	317.2
57.5°	286.0	289.2	291.7	293.6	294.3	295.5	296.8	298.1	298.7	298.1
60°	266.9	270.1	272.0	273.9	275.8	276.4	277.1	279.0	279.6	280.3
62.5°	246.5	249.0	251.6	254.1	254.8	256.7	258.0	258.6	258.6	259.9
65°	225.5	228.7	231.8	233.8	235.7	236.3	237.6	238.2	239.5	238.9
67.5°	204.5	207.6	210.8	212.7	214.0	215.3	216.6	217.8	218.5	218.5
70°	182.8	186.6	188.5	191.7	193.0	193.6	194.9	196.2	196.2	197.5
72.5°	161.1	164.3	167.5	170.7	170.7	173.2	173.9	175.8	175.2	175.8
75°	140.1	142.7	145.9	147.8	149.7	150.3	152.9	153.5	153.5	154.8
77.5°	117.8	122.3	124.2	127.4	129.9	129.3	131.2	132.5	133.8	132.5
80°	96.8	101.3	104.5	106.4	107.6	108.9	110.8	110.8	112.7	112.7
82.5°	79.0	82.8	85.4	87.9	89.2	90.4	91.7	93.0	93.6	94.3
85°	63.1	65.6	68.8	72.0	72.6	73.9	75.8	76.4	77.7	77.7
87.5°	51.0	54.1	57.3	59.9	61.8	62.4	64.3	65.0	65.6	66.2
90°	45.2	48.4	51.6	54.8	55.4	56.7	58.6	59.2	60.5	60.5
92.5°	43.9	47.1	50.3	52.9	54.1	55.4	56.7	58.0	58.6	59.2
95°	43.3	46.5	49.7	52.2	53.5	54.8	56.1	57.3	58.0	58.6
97.5°	42.7	45.9	49.0	51.6	52.9	54.1	55.4	56.7	57.3	58.0
100°	41.4	45.2	47.8	51.0	51.6	52.9	54.8	56.1	56.7	56.7
102.5°	40.8	43.9	47.1	49.7	51.0	51.6	53.5	54.8	55.4	55.4
105°	39.5	42.7	45.9	48.4	49.7	51.0	52.2	53.5	54.1	54.1
107.5°	38.9	42.0	44.6	47.1	48.4	49.7	51.0	52.2	52.9	52.9
110°	37.6	40.8	43.3	45.9	47.1	47.8	49.7	51.0	51.6	51.6



TEST NUMBER: P241540

CATALOG NUMBER: FVS8M-2-LD4-50-2LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	36.3	39.5	42.0	44.6	45.9	46.5	48.4	49.0	49.7	50.3
115°	35.0	38.2	40.8	43.3	43.9	45.2	46.5	47.8	48.4	48.4
117.5°	33.8	36.3	39.5	41.4	42.7	43.3	44.6	45.9	46.5	46.5
120°	32.5	35.0	37.6	40.1	40.8	42.0	43.3	43.9	44.6	45.2
122.5°	31.2	33.8	36.3	38.2	39.5	40.1	41.4	42.7	43.3	43.3
125°	29.3	31.8	34.4	36.3	37.6	38.2	39.5	40.8	40.8	41.4
127.5°	28.0	30.6	33.1	35.0	35.7	36.3	37.6	38.9	39.5	39.5
130°	26.8	28.7	31.2	33.1	33.8	34.4	35.7	36.3	36.9	37.6
132.5°	24.8	27.4	29.3	31.2	31.8	32.5	33.8	34.4	35.0	35.0
135°	23.6	25.5	27.4	29.3	29.9	30.6	31.8	32.5	33.1	33.1
137.5°	21.7	23.6	25.5	27.4	28.0	28.7	29.3	30.6	30.6	30.6
140°	19.7	21.7	23.6	24.8	26.1	26.1	27.4	28.0	28.7	28.7
142.5°	18.5	19.7	21.7	22.9	23.6	24.2	24.8	26.1	26.1	26.1
145°	16.6	18.5	19.7	21.0	21.7	22.3	22.9	23.6	24.2	24.2
147.5°	14.6	16.6	17.8	19.1	19.7	19.7	21.0	21.0	21.7	21.7
150°	13.4	14.6	15.9	17.2	17.2	17.8	18.5	19.1	19.1	19.1
152.5°	11.5	12.7	14.0	14.6	15.3	15.3	16.6	16.6	17.2	17.2
155°	9.6	10.8	12.1	12.7	13.4	13.4	14.0	14.0	14.6	14.6
157.5°	7.6	8.9	10.2	10.8	10.8	11.5	11.5	12.1	12.1	12.1
160°	5.7	7.0	7.6	8.3	8.9	8.9	9.6	9.6	10.2	10.2
162.5°	4.5	5.1	5.7	6.4	7.0	7.0	7.6	7.6	7.6	7.6
165°	3.2	3.2	3.8	4.5	5.1	5.1	5.1	5.1	5.7	5.7
167.5°	1.9	1.9	2.5	2.5	3.2	3.2	3.2	3.2	3.2	3.2
170°	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
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)