

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: P241312

Luminaire Tested: **FVS8M-2-LD4-50-1LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241312
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-3)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-50-1LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (42) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

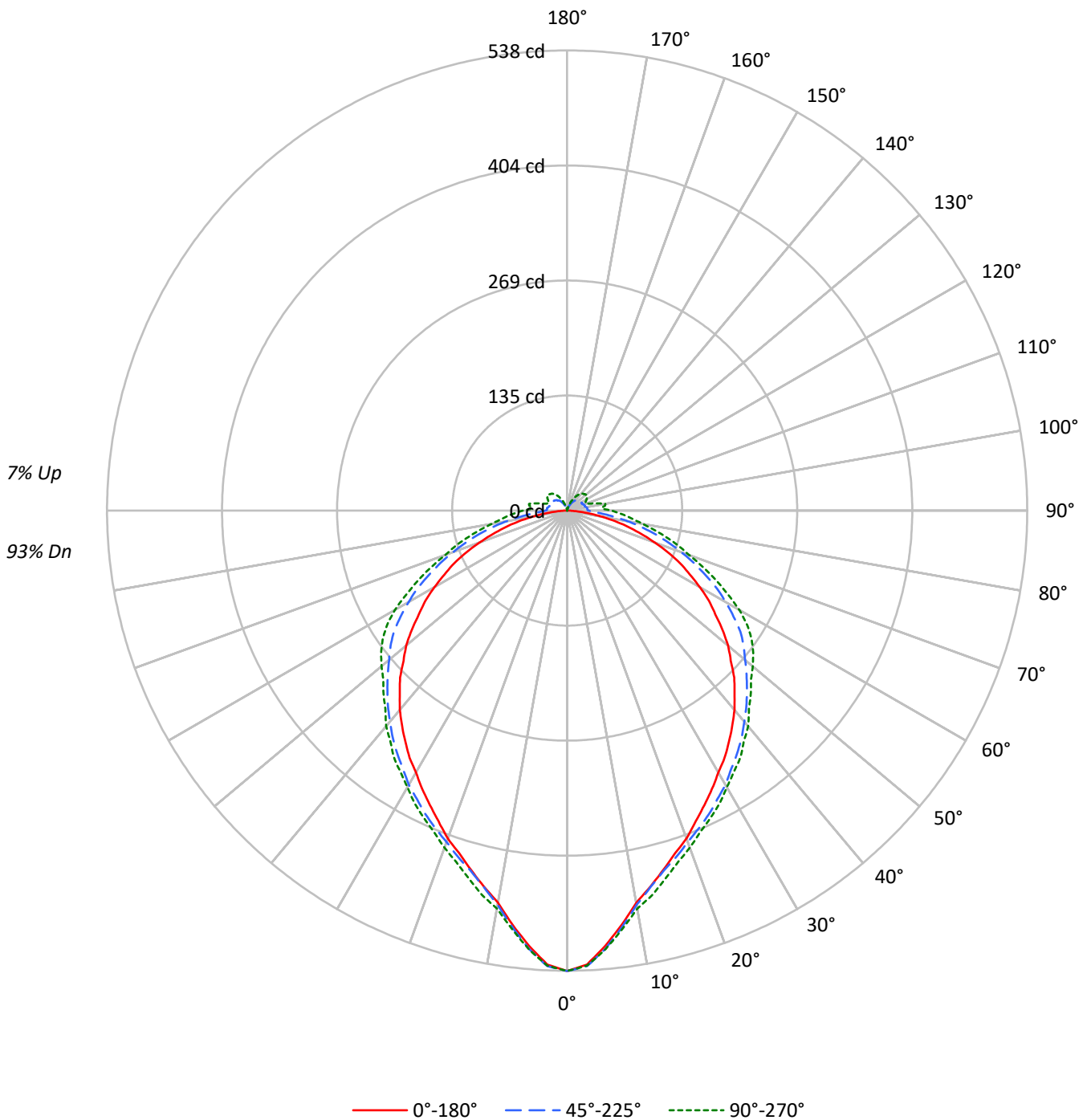
Lumens per Lamp: N/A
Luminaire Lumens: 1434.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.04 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 12.4
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





TEST NUMBER: P241312

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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	93	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	81	75	93	85	79	73	81	75	71	76	72	68	72	69	65	63
3	88	77	68	62	85	75	67	61	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	56	50	60	53	49	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	45	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4839	4839	4839
5°	4578	4552	4553
10°	4190	4115	4147
15°	3962	3836	3904
20°	3793	3657	3707
25°	3633	3532	3557
30°	3510	3417	3428
35°	3431	3304	3344
40°	3350	3202	3248
45°	3255	3110	3149
50°	3139	3024	3121
55°	2981	2965	3121
60°	2832	2805	3007
65°	2653	2596	2749
70°	2349	2343	2457
75°	1992	2057	2252
80°	1443	1669	2031
85°	728	1219	1970



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.6	3.3
10°-20°	123.7	8.6
20°-30°	180.1	12.6
30°-40°	215.6	15.0
40°-50°	226.8	15.8
50°-60°	215.8	15.0
60°-70°	171.4	12.0
70°-80°	107.9	7.5
80°-90°	46.9	3.3
90°-100°	24.0	1.7
100°-110°	20.4	1.4
110°-120°	15.8	1.1
120°-130°	14.9	1.0
130°-140°	11.9	0.8
140°-150°	7.6	0.5
150°-160°	3.2	0.2
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	351.3	24.5
0°-40°	567.0	39.5
0°-60°	1009.6	70.4
0°-90°	1335.7	93.1
90°-120°	60.2	4.2
90°-150°	94.5	6.6
90°-180°	98.0	6.8
0°-180°	1434.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	538	538	538	538	538	
5°	511	514	514	515	515	47
15°	435	435	436	440	445	123
25°	380	385	392	397	396	175
35°	330	339	346	352	353	206
45°	276	282	297	302	304	212
55°	212	224	247	262	263	190
65°	146	158	178	188	192	143
75°	74	87	107	118	120	78
85°	13	24	41	57	68	17
90°	0	10	25	40	51	1
95°	0	10	24	31	41	0
105°	0	10	21	30	32	0
115°	0	9	19	22	24	0
125°	0	8	19	26	28	0
135°	0	6	17	24	28	0
145°	0	4	13	20	22	0
155°	0	2	7	12	13	0
165°	0	0	1	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241312

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3
2.5°	531.2	531.9	531.2	531.9	532.5	533.2	532.5	533.2	533.2	533.8	533.2
5°	510.8	511.4	512.1	513.3	514.0	514.0	513.3	514.0	514.0	513.3	514.0
7.5°	488.4	487.8	488.4	489.0	489.0	489.7	489.7	488.4	489.0	489.0	491.0
10°	465.4	466.0	465.4	466.0	465.4	465.4	465.4	466.0	466.0	466.7	468.0
12.5°	450.1	450.1	448.8	448.8	449.4	449.4	449.4	449.4	448.8	450.1	450.7
15°	434.7	436.6	435.3	436.0	434.7	434.7	434.1	434.1	434.7	433.4	436.0
17.5°	420.0	421.9	421.3	421.9	421.9	420.6	420.6	421.3	421.9	421.9	424.5
20°	407.9	407.9	407.9	409.1	409.8	410.4	409.8	409.8	411.1	411.7	412.3
22.5°	393.2	393.8	396.4	396.4	395.7	397.0	396.4	398.3	399.6	400.2	402.1
25°	379.7	382.3	382.9	382.3	384.2	384.8	385.5	388.7	388.0	389.3	391.9
27.5°	366.9	368.2	370.1	371.4	373.3	372.1	373.3	375.3	374.6	379.7	380.4
30°	353.5	356.7	357.4	359.3	359.3	359.3	362.5	363.1	366.3	367.6	370.1
32.5°	342.7	343.3	345.2	347.1	347.8	349.7	351.0	352.2	354.2	355.4	357.4
35°	329.9	332.4	331.8	333.7	335.6	338.8	338.8	340.1	341.4	345.2	346.5
37.5°	317.1	319.0	319.0	322.2	323.5	325.4	323.5	329.2	331.1	333.1	335.0
40°	304.3	305.6	306.9	308.1	309.4	310.7	312.6	315.8	318.4	320.3	322.2
42.5°	289.6	291.5	292.8	294.1	296.6	297.9	299.8	301.7	305.6	307.5	310.1
45°	276.2	277.4	278.7	280.0	282.6	281.9	285.1	289.0	292.8	294.7	297.3
47.5°	259.5	262.1	264.7	265.3	267.2	269.8	271.1	275.5	279.4	280.6	284.5
50°	245.5	245.5	248.7	250.6	252.5	255.7	257.0	260.8	265.3	269.1	271.7
52.5°	228.9	230.8	232.7	235.3	238.5	240.4	242.3	246.8	252.5	257.6	260.2
55°	211.6	213.5	216.7	219.3	222.5	224.4	227.6	232.7	237.8	242.3	247.4
57.5°	196.9	196.9	198.8	202.0	205.8	208.4	211.0	216.7	223.1	225.0	230.8
60°	179.0	180.9	182.8	186.0	189.9	192.4	194.3	200.1	205.2	210.3	214.2
62.5°	161.7	163.7	165.6	168.8	173.2	175.8	177.7	182.8	188.6	192.4	197.5
65°	145.8	145.1	147.7	151.5	156.0	157.9	159.8	165.6	170.0	173.9	178.4
67.5°	127.2	129.1	131.1	134.2	138.1	140.6	142.6	147.7	151.5	156.0	160.5
70°	108.7	110.6	112.5	117.0	120.8	122.1	124.0	129.1	132.3	138.7	141.9
72.5°	90.8	92.7	95.3	98.4	102.9	104.2	106.8	110.6	115.7	120.2	124.0
75°	74.2	76.1	77.4	80.5	84.4	86.9	88.9	93.3	97.8	102.3	106.8
77.5°	57.5	58.8	60.7	63.9	67.1	69.7	71.0	75.4	79.9	84.4	88.9
80°	40.3	42.2	44.1	47.3	50.5	53.1	55.0	59.5	63.3	67.8	71.6
82.5°	25.6	26.8	29.4	32.6	35.8	37.1	39.6	42.8	47.3	51.1	55.0
85°	13.4	14.7	16.6	19.2	23.0	24.3	26.2	29.4	33.2	37.1	40.9
87.5°	5.1	5.8	7.7	10.2	12.8	14.7	16.6	19.8	23.0	26.8	30.7
90°	0.0	1.3	3.2	5.8	8.3	10.2	11.5	14.7	17.9	21.1	24.9
92.5°	0.0	0.6	2.6	5.1	8.3	9.6	10.9	14.1	17.3	20.5	23.7
95°	0.0	0.6	2.6	5.1	8.3	9.6	10.9	14.1	17.3	20.5	23.7
97.5°	0.0	0.6	2.6	5.1	8.3	9.6	10.9	14.1	17.3	20.5	23.7
100°	0.0	0.6	2.6	5.1	8.3	9.6	10.9	14.1	17.3	20.5	22.4
102.5°	0.0	0.6	2.6	5.1	7.7	9.6	10.9	14.1	17.3	19.8	21.7
105°	0.0	0.6	2.6	5.1	7.7	9.6	10.9	14.1	16.6	19.2	21.1
107.5°	0.0	0.6	2.6	5.1	7.7	8.9	10.9	13.4	16.0	18.5	21.1
110°	0.0	0.6	1.9	4.5	7.7	8.9	10.2	13.4	16.0	18.5	20.5



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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	1.9	4.5	7.7	8.9	10.2	13.4	15.3	17.9	19.8
115°	0.0	0.6	1.9	4.5	7.0	8.9	10.2	12.8	15.3	17.3	19.2
117.5°	0.0	0.6	1.9	4.5	7.0	8.9	10.2	12.8	15.3	17.3	19.2
120°	0.0	0.0	1.9	4.5	7.0	8.3	10.2	12.8	15.3	17.3	19.2
122.5°	0.0	0.0	1.9	4.5	7.0	8.3	10.2	12.8	15.3	17.3	19.2
125°	0.0	0.0	1.9	3.8	7.0	8.3	9.6	12.8	14.7	17.3	19.2
127.5°	0.0	0.0	1.3	3.8	6.4	7.7	9.6	12.1	14.7	17.3	19.2
130°	0.0	0.0	1.3	3.8	5.8	7.7	8.9	12.1	14.1	16.6	18.5
132.5°	0.0	0.0	1.3	3.2	5.8	7.0	8.3	11.5	14.1	16.0	17.9
135°	0.0	0.0	1.3	3.2	5.1	6.4	7.7	10.2	12.8	15.3	17.3
137.5°	0.0	0.0	0.6	2.6	5.1	5.8	7.0	9.6	12.1	14.1	16.0
140°	0.0	0.0	0.6	2.6	4.5	5.8	7.0	8.9	11.5	13.4	15.3
142.5°	0.0	0.0	0.6	1.9	3.8	5.1	6.4	8.3	10.2	12.8	14.7
145°	0.0	0.0	0.6	1.9	3.2	4.5	5.8	7.7	9.6	11.5	13.4
147.5°	0.0	0.0	0.6	1.3	2.6	3.8	4.5	7.0	8.3	10.2	12.1
150°	0.0	0.0	0.0	1.3	2.6	3.2	3.8	5.8	7.7	8.9	10.9
152.5°	0.0	0.0	0.0	0.6	1.9	2.6	3.2	4.5	5.8	7.7	8.9
155°	0.0	0.0	0.0	0.6	1.3	1.9	2.6	3.2	4.5	5.8	7.0
157.5°	0.0	0.0	0.0	0.0	0.6	1.3	1.3	2.6	3.2	4.5	5.8
160°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.3	2.6	3.2	3.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.3	1.3	1.9	2.6
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
170°	0.0	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	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°	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3	538.3
2.5°	533.2	533.2	533.2	532.5	532.5	532.5	532.5	532.5	533.2	532.5
5°	514.6	514.6	514.0	514.6	515.3	514.6	515.3	514.6	514.6	514.6
7.5°	491.6	491.6	491.6	491.6	492.2	492.2	492.2	492.9	493.5	493.5
10°	468.6	469.2	469.2	469.2	469.2	470.5	471.1	471.1	471.8	472.4
12.5°	451.3	451.3	453.2	455.8	456.4	457.7	459.0	458.4	458.4	460.3
15°	437.3	439.2	439.8	439.8	440.5	441.1	443.0	443.7	443.0	444.9
17.5°	425.1	425.1	428.3	429.0	429.0	429.6	429.6	430.2	430.2	430.9
20°	414.3	414.9	416.2	416.8	418.1	418.7	420.0	419.4	420.6	419.4
22.5°	402.7	403.4	407.2	407.9	407.9	407.2	405.9	407.2	407.2	406.6
25°	392.5	394.4	395.7	397.6	397.0	397.6	398.3	397.0	396.4	396.4
27.5°	381.7	382.9	385.5	386.1	386.1	384.8	384.8	384.8	384.2	386.1
30°	372.1	374.6	375.3	373.3	374.0	375.9	376.5	375.9	374.6	373.3
32.5°	359.3	360.6	362.5	366.9	366.3	365.7	362.5	361.8	361.8	362.5
35°	347.8	350.3	353.5	351.6	352.2	352.2	353.5	352.9	350.3	352.9
37.5°	336.3	340.1	340.1	343.3	342.0	340.7	338.8	340.1	339.5	339.5
40°	324.1	326.0	329.2	328.6	328.0	329.2	329.2	329.2	329.2	329.2
42.5°	312.0	314.5	314.5	315.2	317.7	318.4	317.7	313.2	315.2	314.5
45°	298.5	301.1	302.4	303.7	302.4	301.7	303.0	303.7	302.4	303.7
47.5°	287.0	287.0	290.9	290.2	290.2	291.5	290.2	290.2	289.6	291.5
50°	274.3	278.1	278.7	280.6	280.6	280.0	280.0	280.6	283.2	283.2
52.5°	264.0	267.9	270.4	271.1	271.1	273.0	274.9	274.3	275.5	274.3
55°	251.2	253.8	257.0	258.9	261.5	261.5	261.5	262.7	262.7	263.4
57.5°	235.3	237.8	239.7	244.2	245.5	244.8	245.5	248.0	247.4	250.0
60°	218.0	221.2	223.7	224.4	225.7	226.9	227.6	228.9	230.1	232.7
62.5°	200.1	202.7	205.8	205.2	206.5	207.8	209.0	209.7	212.2	211.6
65°	182.2	184.1	186.0	186.7	187.9	186.7	189.2	190.5	190.5	191.8
67.5°	164.3	165.6	168.1	168.8	169.4	169.4	168.8	170.7	171.3	171.3
70°	145.1	148.3	150.2	151.5	150.9	151.5	150.9	150.9	152.1	151.5
72.5°	127.9	130.4	132.3	134.2	134.2	134.2	134.2	134.9	135.5	136.2
75°	110.0	113.2	116.3	117.0	117.6	117.6	118.9	119.5	119.5	119.5
77.5°	92.1	95.9	98.4	100.4	101.0	102.3	102.9	104.2	104.2	104.2
80°	74.8	78.6	81.2	84.4	85.7	86.3	87.6	89.5	89.5	89.5
82.5°	58.8	62.6	66.5	68.4	70.3	72.2	74.2	75.4	76.7	78.0
85°	44.1	48.6	52.4	55.6	56.9	58.2	60.7	63.9	67.1	68.4
87.5°	34.5	37.7	41.6	44.7	46.7	48.6	51.8	54.3	58.2	60.1
90°	28.1	31.3	35.2	39.0	39.6	40.9	42.8	46.0	48.6	51.1
92.5°	26.8	30.0	32.6	33.2	33.9	34.5	35.8	37.7	40.3	42.8
95°	27.5	28.8	29.4	30.7	31.3	32.6	33.9	36.4	39.6	40.9
97.5°	25.6	26.8	28.8	30.7	31.3	32.6	35.2	39.0	42.8	44.7
100°	24.3	26.8	28.8	30.7	32.0	33.2	37.1	41.6	44.7	45.4
102.5°	24.3	26.2	28.1	30.7	32.0	33.2	36.4	38.4	38.4	38.4
105°	23.7	25.6	27.5	29.4	30.0	30.7	32.0	32.0	32.0	32.0
107.5°	23.0	24.3	26.2	26.8	26.8	27.5	27.5	27.5	27.5	26.8
110°	21.7	23.0	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3



TEST NUMBER: P241312

CATALOG NUMBER: FVS8M-2-LD4-50-1LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	21.1	22.4	22.4	23.0	23.0	23.0	23.0	23.7	23.0	23.0
115°	20.5	21.7	21.7	22.4	22.4	22.4	23.0	23.7	23.7	23.7
117.5°	20.5	21.7	22.4	23.0	23.0	23.7	24.3	24.9	24.9	24.9
120°	20.5	21.7	23.0	23.7	24.3	24.3	25.6	26.2	26.2	26.2
122.5°	21.1	22.4	23.7	24.3	24.9	25.6	26.2	26.8	27.5	27.5
125°	21.1	22.4	24.3	24.9	25.6	25.6	26.2	27.5	27.5	28.1
127.5°	20.5	22.4	24.3	24.9	25.6	26.2	26.8	27.5	28.1	28.1
130°	20.5	22.4	23.7	24.9	25.6	26.2	26.8	27.5	28.1	28.8
132.5°	19.8	21.1	23.0	24.3	24.9	25.6	26.2	27.5	28.1	28.1
135°	19.2	20.5	22.4	23.7	24.3	24.9	26.2	26.8	27.5	27.5
137.5°	17.9	19.8	21.1	22.4	23.0	23.7	24.9	26.2	26.2	26.8
140°	17.3	18.5	20.5	21.7	22.4	23.0	23.7	24.9	25.6	25.6
142.5°	16.0	17.9	19.2	20.5	21.1	21.7	22.4	23.7	24.3	24.3
145°	14.7	16.6	17.9	19.2	19.8	20.5	21.1	21.7	22.4	22.4
147.5°	13.4	15.3	16.6	17.3	17.9	18.5	19.2	19.8	20.5	20.5
150°	12.1	13.4	14.7	15.3	16.0	16.6	17.3	17.3	17.9	17.9
152.5°	10.2	11.5	12.8	13.4	14.1	14.1	14.7	15.3	15.3	15.3
155°	8.3	9.6	10.2	10.9	11.5	12.1	12.1	12.8	12.8	12.8
157.5°	6.4	7.7	8.3	8.9	9.6	9.6	10.2	10.2	10.2	10.2
160°	4.5	5.8	6.4	7.0	7.0	7.0	7.7	7.7	7.7	7.7
162.5°	3.2	3.8	4.5	5.1	5.1	5.1	5.1	5.8	5.8	5.8
165°	1.9	2.6	2.6	3.2	3.2	3.2	3.8	3.8	3.8	3.8
167.5°	0.6	1.3	1.3	1.9	1.9	1.9	1.9	1.9	2.6	2.6
170°	0.0	0.6	0.6	0.6	0.6	0.6	0.6	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
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)