

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: P241311

Luminaire Tested: **FVS8M-2-LD4-40-1LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241311
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-LD4-40-1LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (42) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

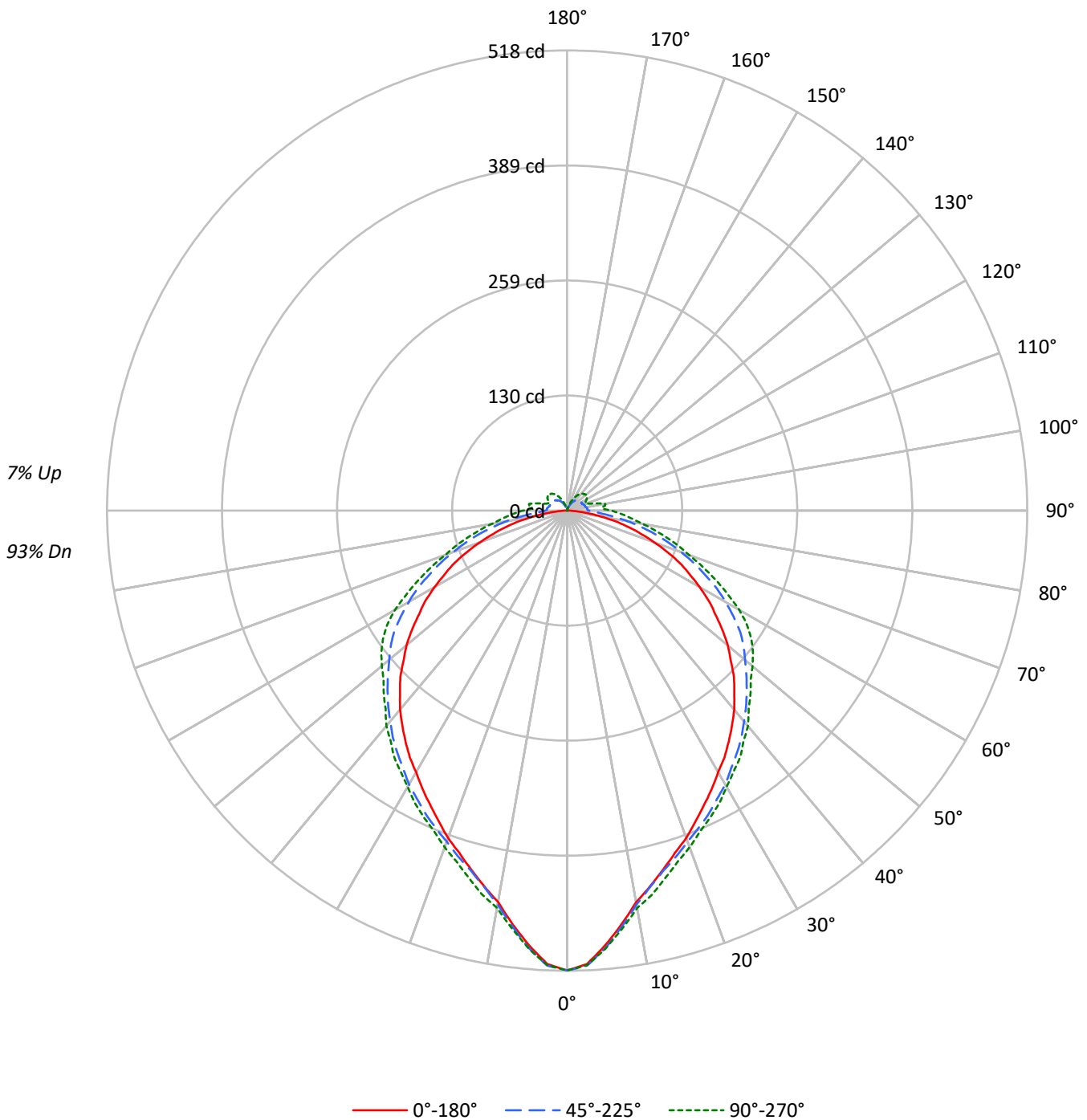
Lumens per Lamp: N/A
Luminaire Lumens: 1379.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.04 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

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: P241311

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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°	4653	4653	4653
5°	4402	4378	4379
10°	4029	3957	3988
15°	3810	3689	3755
20°	3647	3517	3565
25°	3494	3396	3421
30°	3376	3286	3296
35°	3299	3177	3215
40°	3221	3079	3123
45°	3130	2991	3028
50°	3019	2908	3000
55°	2867	2852	3002
60°	2723	2696	2892
65°	2552	2496	2642
70°	2258	2254	2363
75°	1914	1978	2167
80°	1385	1606	1954
85°	701	1171	1895



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	3.3
10°-20°	118.9	8.6
20°-30°	173.2	12.6
30°-40°	207.4	15.0
40°-50°	218.1	15.8
50°-60°	207.5	15.0
60°-70°	164.8	12.0
70°-80°	103.7	7.5
80°-90°	45.1	3.3
90°-100°	23.1	1.7
100°-110°	19.6	1.4
110°-120°	15.2	1.1
120°-130°	14.3	1.0
130°-140°	11.4	0.8
140°-150°	7.3	0.5
150°-160°	3.1	0.2
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	337.9	24.5
0°-40°	545.2	39.5
0°-60°	970.9	70.4
0°-90°	1284.5	93.1
90°-120°	57.8	4.2
90°-150°	90.9	6.6
90°-180°	94.0	6.8
0°-180°	1379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	491	494	494	496	495	46
15°	418	418	419	424	428	118
25°	365	370	377	382	381	169
35°	317	326	333	339	339	199
45°	266	271	286	291	292	204
55°	204	216	238	251	253	183
65°	140	152	172	181	184	138
75°	71	84	103	113	115	75
85°	13	23	39	55	66	16
90°	0	10	24	38	49	1
95°	0	9	23	30	39	0
105°	0	9	20	29	31	0
115°	0	9	18	22	23	0
125°	0	8	18	25	27	0
135°	0	6	17	23	26	0
145°	0	4	13	19	22	0
155°	0	2	7	11	12	0
165°	0	0	1	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241311

CATALOG NUMBER: FVS8M-2-LD4-40-1LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6
2.5°	510.9	511.5	510.9	511.5	512.1	512.7	512.1	512.7	512.7	513.3	512.7
5°	491.2	491.8	492.4	493.7	494.3	494.3	493.7	494.3	494.3	493.7	494.3
7.5°	469.7	469.1	469.7	470.3	470.3	470.9	470.9	469.7	470.3	470.3	472.1
10°	447.5	448.2	447.5	448.2	447.5	447.5	447.5	448.2	448.2	448.8	450.0
12.5°	432.8	432.8	431.6	431.6	432.2	432.2	432.2	432.2	431.6	432.8	433.4
15°	418.0	419.9	418.7	419.3	418.0	418.0	417.4	417.4	418.0	416.8	419.3
17.5°	403.9	405.7	405.1	405.7	405.7	404.5	404.5	405.1	405.7	405.7	408.2
20°	392.2	392.2	392.2	393.4	394.1	394.7	394.1	394.1	395.3	395.9	396.5
22.5°	378.1	378.7	381.2	381.2	380.5	381.8	381.2	383.0	384.2	384.8	386.7
25°	365.2	367.6	368.2	367.6	369.5	370.1	370.7	373.8	373.2	374.4	376.8
27.5°	352.9	354.1	355.9	357.2	359.0	357.8	359.0	360.9	360.3	365.2	365.8
30°	340.0	343.0	343.7	345.5	345.5	345.5	348.6	349.2	352.3	353.5	355.9
32.5°	329.5	330.1	332.0	333.8	334.4	336.3	337.5	338.7	340.6	341.8	343.7
35°	317.2	319.7	319.1	320.9	322.7	325.8	325.8	327.1	328.3	332.0	333.2
37.5°	304.9	306.8	306.8	309.8	311.1	312.9	311.1	316.6	318.4	320.3	322.1
40°	292.6	293.9	295.1	296.3	297.5	298.8	300.6	303.7	306.2	308.0	309.8
42.5°	278.5	280.3	281.6	282.8	285.2	286.5	288.3	290.2	293.9	295.7	298.2
45°	265.6	266.8	268.0	269.3	271.7	271.1	274.2	277.9	281.6	283.4	285.9
47.5°	249.6	252.1	254.5	255.1	257.0	259.4	260.7	265.0	268.7	269.9	273.6
50°	236.1	236.1	239.1	241.0	242.8	245.9	247.1	250.8	255.1	258.8	261.3
52.5°	220.1	221.9	223.8	226.2	229.3	231.2	233.0	237.3	242.8	247.7	250.2
55°	203.5	205.3	208.4	210.9	213.9	215.8	218.9	223.8	228.7	233.0	237.9
57.5°	189.3	189.3	191.2	194.3	198.0	200.4	202.9	208.4	214.6	216.4	221.9
60°	172.1	174.0	175.8	178.9	182.6	185.0	186.9	192.4	197.3	202.3	205.9
62.5°	155.5	157.4	159.2	162.3	166.6	169.1	170.9	175.8	181.4	185.0	190.0
65°	140.2	139.6	142.0	145.7	150.0	151.8	153.7	159.2	163.5	167.2	171.5
67.5°	122.3	124.2	126.0	129.1	132.8	135.2	137.1	142.0	145.7	150.0	154.3
70°	104.5	106.4	108.2	112.5	116.2	117.4	119.3	124.2	127.3	133.4	136.5
72.5°	87.3	89.1	91.6	94.7	99.0	100.2	102.7	106.4	111.3	115.6	119.3
75°	71.3	73.2	74.4	77.5	81.1	83.6	85.5	89.8	94.1	98.4	102.7
77.5°	55.3	56.6	58.4	61.5	64.5	67.0	68.2	72.5	76.8	81.1	85.5
80°	38.7	40.6	42.4	45.5	48.6	51.0	52.9	57.2	60.9	65.2	68.9
82.5°	24.6	25.8	28.3	31.4	34.4	35.7	38.1	41.2	45.5	49.2	52.9
85°	12.9	14.1	16.0	18.4	22.1	23.4	25.2	28.3	32.0	35.7	39.3
87.5°	4.9	5.5	7.4	9.8	12.3	14.1	16.0	19.1	22.1	25.8	29.5
90°	0.0	1.2	3.1	5.5	8.0	9.8	11.1	14.1	17.2	20.3	24.0
92.5°	0.0	0.6	2.5	4.9	8.0	9.2	10.5	13.5	16.6	19.7	22.7
95°	0.0	0.6	2.5	4.9	8.0	9.2	10.5	13.5	16.6	19.7	22.7
97.5°	0.0	0.6	2.5	4.9	8.0	9.2	10.5	13.5	16.6	19.7	22.7
100°	0.0	0.6	2.5	4.9	8.0	9.2	10.5	13.5	16.6	19.7	21.5
102.5°	0.0	0.6	2.5	4.9	7.4	9.2	10.5	13.5	16.6	19.1	20.9
105°	0.0	0.6	2.5	4.9	7.4	9.2	10.5	13.5	16.0	18.4	20.3
107.5°	0.0	0.6	2.5	4.9	7.4	8.6	10.5	12.9	15.4	17.8	20.3
110°	0.0	0.6	1.8	4.3	7.4	8.6	9.8	12.9	15.4	17.8	19.7



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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	1.8	4.3	7.4	8.6	9.8	12.9	14.8	17.2	19.1
115°	0.0	0.6	1.8	4.3	6.8	8.6	9.8	12.3	14.8	16.6	18.4
117.5°	0.0	0.6	1.8	4.3	6.8	8.6	9.8	12.3	14.8	16.6	18.4
120°	0.0	0.0	1.8	4.3	6.8	8.0	9.8	12.3	14.8	16.6	18.4
122.5°	0.0	0.0	1.8	4.3	6.8	8.0	9.8	12.3	14.8	16.6	18.4
125°	0.0	0.0	1.8	3.7	6.8	8.0	9.2	12.3	14.1	16.6	18.4
127.5°	0.0	0.0	1.2	3.7	6.1	7.4	9.2	11.7	14.1	16.6	18.4
130°	0.0	0.0	1.2	3.7	5.5	7.4	8.6	11.7	13.5	16.0	17.8
132.5°	0.0	0.0	1.2	3.1	5.5	6.8	8.0	11.1	13.5	15.4	17.2
135°	0.0	0.0	1.2	3.1	4.9	6.1	7.4	9.8	12.3	14.8	16.6
137.5°	0.0	0.0	0.6	2.5	4.9	5.5	6.8	9.2	11.7	13.5	15.4
140°	0.0	0.0	0.6	2.5	4.3	5.5	6.8	8.6	11.1	12.9	14.8
142.5°	0.0	0.0	0.6	1.8	3.7	4.9	6.1	8.0	9.8	12.3	14.1
145°	0.0	0.0	0.6	1.8	3.1	4.3	5.5	7.4	9.2	11.1	12.9
147.5°	0.0	0.0	0.6	1.2	2.5	3.7	4.3	6.8	8.0	9.8	11.7
150°	0.0	0.0	0.0	1.2	2.5	3.1	3.7	5.5	7.4	8.6	10.5
152.5°	0.0	0.0	0.0	0.6	1.8	2.5	3.1	4.3	5.5	7.4	8.6
155°	0.0	0.0	0.0	0.6	1.2	1.8	2.5	3.1	4.3	5.5	6.8
157.5°	0.0	0.0	0.0	0.0	0.6	1.2	1.2	2.5	3.1	4.3	5.5
160°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	2.5	3.1	3.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.2	1.8	2.5
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.2
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°	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6
2.5°	512.7	512.7	512.7	512.1	512.1	512.1	512.1	512.1	512.7	512.1
5°	494.9	494.9	494.3	494.9	495.5	494.9	495.5	494.9	494.9	494.9
7.5°	472.8	472.8	472.8	472.8	473.4	473.4	473.4	474.0	474.6	474.6
10°	450.6	451.2	451.2	451.2	451.2	452.5	453.1	453.1	453.7	454.3
12.5°	434.0	434.0	435.9	438.3	438.9	440.2	441.4	440.8	440.8	442.6
15°	420.5	422.3	423.0	423.0	423.6	424.2	426.0	426.6	426.0	427.9
17.5°	408.8	408.8	411.9	412.5	412.5	413.1	413.1	413.7	413.7	414.3
20°	398.4	399.0	400.2	400.8	402.1	402.7	403.9	403.3	404.5	403.3
22.5°	387.3	387.9	391.6	392.2	392.2	391.6	390.4	391.6	391.6	391.0
25°	377.5	379.3	380.5	382.4	381.8	382.4	383.0	381.8	381.2	381.2
27.5°	367.0	368.2	370.7	371.3	371.3	370.1	370.1	370.1	369.5	371.3
30°	357.8	360.3	360.9	359.0	359.6	361.5	362.1	361.5	360.3	359.0
32.5°	345.5	346.7	348.6	352.9	352.3	351.6	348.6	348.0	348.0	348.6
35°	334.4	336.9	340.0	338.1	338.7	338.7	340.0	339.3	336.9	339.3
37.5°	323.4	327.1	327.1	330.1	328.9	327.7	325.8	327.1	326.4	326.4
40°	311.7	313.5	316.6	316.0	315.4	316.6	316.6	316.6	316.6	316.6
42.5°	300.0	302.5	302.5	303.1	305.5	306.2	305.5	301.2	303.1	302.5
45°	287.1	289.6	290.8	292.0	290.8	290.2	291.4	292.0	290.8	292.0
47.5°	276.0	276.0	279.7	279.1	279.1	280.3	279.1	279.1	278.5	280.3
50°	263.7	267.4	268.0	269.9	269.9	269.3	269.3	269.9	272.3	272.3
52.5°	253.9	257.6	260.0	260.7	260.7	262.5	264.3	263.7	265.0	263.7
55°	241.6	244.1	247.1	249.0	251.4	251.4	251.4	252.7	252.7	253.3
57.5°	226.2	228.7	230.5	234.8	236.1	235.5	236.1	238.5	237.9	240.4
60°	209.6	212.7	215.2	215.8	217.0	218.2	218.9	220.1	221.3	223.8
62.5°	192.4	194.9	198.0	197.3	198.6	199.8	201.0	201.6	204.1	203.5
65°	175.2	177.1	178.9	179.5	180.7	179.5	182.0	183.2	183.2	184.4
67.5°	158.0	159.2	161.7	162.3	162.9	162.9	162.3	164.1	164.8	164.8
70°	139.6	142.6	144.5	145.7	145.1	145.7	145.1	145.1	146.3	145.7
72.5°	123.0	125.4	127.3	129.1	129.1	129.1	129.1	129.7	130.3	130.9
75°	105.7	108.8	111.9	112.5	113.1	113.1	114.3	115.0	115.0	115.0
77.5°	88.5	92.2	94.7	96.5	97.1	98.4	99.0	100.2	100.2	100.2
80°	71.9	75.6	78.1	81.1	82.4	83.0	84.2	86.1	86.1	86.1
82.5°	56.6	60.2	63.9	65.8	67.6	69.5	71.3	72.5	73.8	75.0
85°	42.4	46.7	50.4	53.5	54.7	55.9	58.4	61.5	64.5	65.8
87.5°	33.2	36.3	40.0	43.0	44.9	46.7	49.8	52.3	55.9	57.8
90°	27.0	30.1	33.8	37.5	38.1	39.3	41.2	44.3	46.7	49.2
92.5°	25.8	28.9	31.4	32.0	32.6	33.2	34.4	36.3	38.7	41.2
95°	26.4	27.7	28.3	29.5	30.1	31.4	32.6	35.0	38.1	39.3
97.5°	24.6	25.8	27.7	29.5	30.1	31.4	33.8	37.5	41.2	43.0
100°	23.4	25.8	27.7	29.5	30.7	32.0	35.7	40.0	43.0	43.6
102.5°	23.4	25.2	27.0	29.5	30.7	32.0	35.0	36.9	36.9	36.9
105°	22.7	24.6	26.4	28.3	28.9	29.5	30.7	30.7	30.7	30.7
107.5°	22.1	23.4	25.2	25.8	25.8	26.4	26.4	26.4	26.4	25.8
110°	20.9	22.1	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4



TEST NUMBER: P241311

CATALOG NUMBER: FVS8M-2-LD4-40-1LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	20.3	21.5	21.5	22.1	22.1	22.1	22.1	22.7	22.1	22.1
115°	19.7	20.9	20.9	21.5	21.5	21.5	22.1	22.7	22.7	22.7
117.5°	19.7	20.9	21.5	22.1	22.1	22.7	23.4	24.0	24.0	24.0
120°	19.7	20.9	22.1	22.7	23.4	23.4	24.6	25.2	25.2	25.2
122.5°	20.3	21.5	22.7	23.4	24.0	24.6	25.2	25.8	26.4	26.4
125°	20.3	21.5	23.4	24.0	24.6	24.6	25.2	26.4	26.4	27.0
127.5°	19.7	21.5	23.4	24.0	24.6	25.2	25.8	26.4	27.0	27.0
130°	19.7	21.5	22.7	24.0	24.6	25.2	25.8	26.4	27.0	27.7
132.5°	19.1	20.3	22.1	23.4	24.0	24.6	25.2	26.4	27.0	27.0
135°	18.4	19.7	21.5	22.7	23.4	24.0	25.2	25.8	26.4	26.4
137.5°	17.2	19.1	20.3	21.5	22.1	22.7	24.0	25.2	25.2	25.8
140°	16.6	17.8	19.7	20.9	21.5	22.1	22.7	24.0	24.6	24.6
142.5°	15.4	17.2	18.4	19.7	20.3	20.9	21.5	22.7	23.4	23.4
145°	14.1	16.0	17.2	18.4	19.1	19.7	20.3	20.9	21.5	21.5
147.5°	12.9	14.8	16.0	16.6	17.2	17.8	18.4	19.1	19.7	19.7
150°	11.7	12.9	14.1	14.8	15.4	16.0	16.6	16.6	17.2	17.2
152.5°	9.8	11.1	12.3	12.9	13.5	13.5	14.1	14.8	14.8	14.8
155°	8.0	9.2	9.8	10.5	11.1	11.7	11.7	12.3	12.3	12.3
157.5°	6.1	7.4	8.0	8.6	9.2	9.2	9.8	9.8	9.8	9.8
160°	4.3	5.5	6.1	6.8	6.8	6.8	7.4	7.4	7.4	7.4
162.5°	3.1	3.7	4.3	4.9	4.9	4.9	4.9	5.5	5.5	5.5
165°	1.8	2.5	2.5	3.1	3.1	3.1	3.7	3.7	3.7	3.7
167.5°	0.6	1.2	1.2	1.8	1.8	1.8	1.8	1.8	2.5	2.5
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)