

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: P241530

Luminaire Tested: **FVS8M-2-LD4-35-1STD-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-4)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-35-1STD-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (42) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

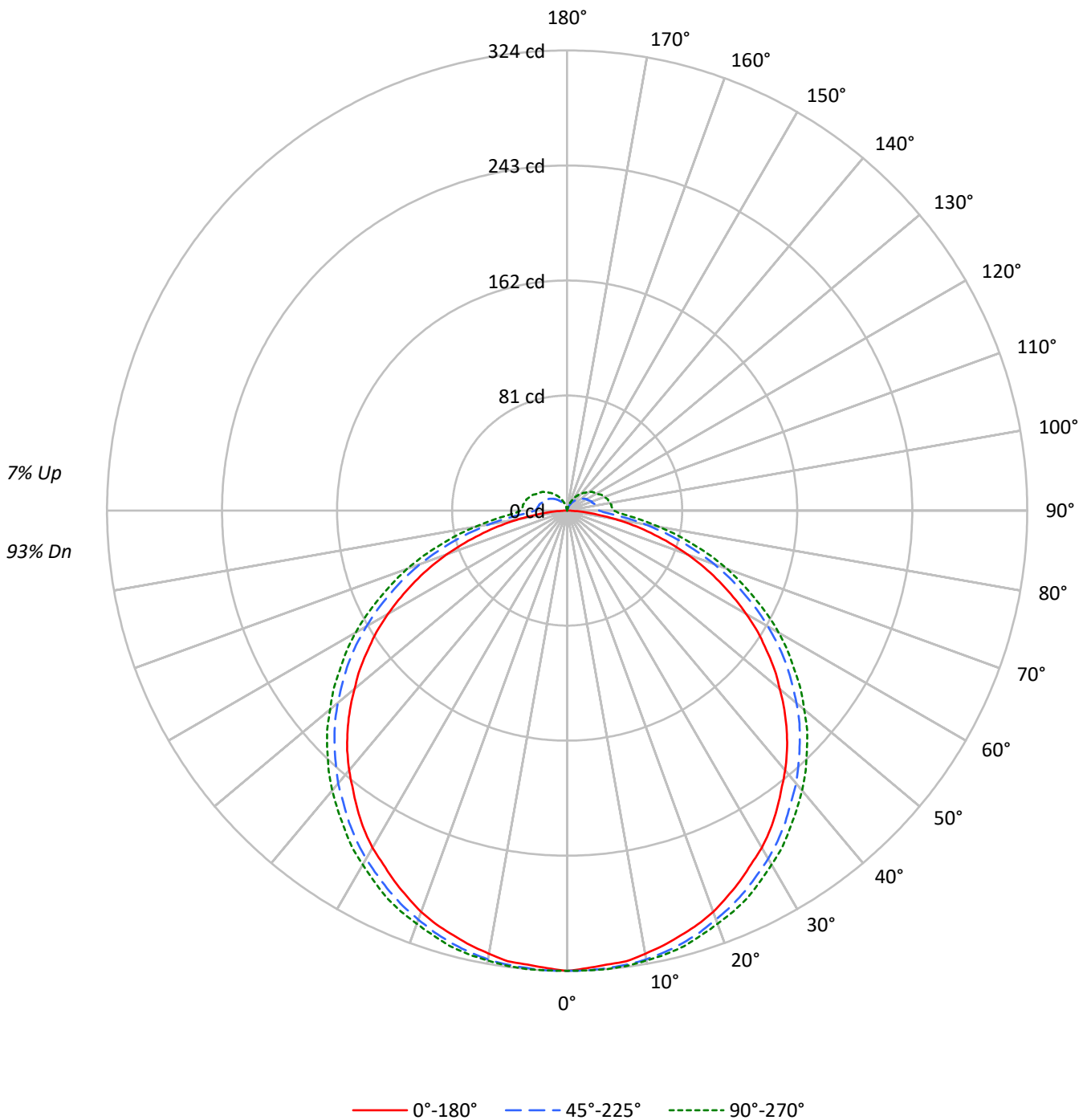
Lumens per Lamp: N/A
Luminaire Lumens: 1101.0 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 17.2
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





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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	82	80	78	76
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	76	68	61	84	74	66	60	70	64	58	66	61	56	63	58	54	52
4	80	67	58	51	77	66	57	51	62	55	49	59	53	48	56	51	46	44
5	73	60	51	44	70	58	50	43	55	48	42	53	46	41	50	45	40	38
6	67	54	45	38	65	53	44	38	50	42	37	48	41	36	45	40	35	33
7	62	49	40	34	60	48	39	33	45	38	32	43	37	32	41	35	31	29
8	58	44	36	30	56	43	35	29	41	34	29	40	33	28	38	32	28	26
9	54	41	32	27	52	40	32	26	38	31	26	36	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2913	2913	2913
5°	2876	2863	2868
10°	2852	2822	2824
15°	2822	2773	2787
20°	2797	2718	2737
25°	2754	2667	2699
30°	2722	2614	2644
35°	2676	2554	2591
40°	2629	2494	2538
45°	2577	2423	2476
50°	2498	2345	2401
55°	2413	2256	2315
60°	2304	2137	2224
65°	2151	1989	2086
70°	1947	1820	1943
75°	1640	1579	1728
80°	1210	1294	1478
85°	614	983	1250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	2.8
10°-20°	88.7	8.1
20°-30°	136.1	12.4
30°-40°	166.9	15.2
40°-50°	177.7	16.1
50°-60°	166.3	15.1
60°-70°	133.4	12.1
70°-80°	84.4	7.7
80°-90°	35.9	3.3
90°-100°	20.7	1.9
100°-110°	18.4	1.7
110°-120°	15.2	1.4
120°-130°	11.6	1.1
130°-140°	7.9	0.7
140°-150°	4.6	0.4
150°-160°	1.9	0.2
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-30°	255.6	23.2
0°-40°	422.5	38.4
0°-60°	766.5	69.6
0°-90°	1020.3	92.7
90°-120°	54.3	4.9
90°-150°	78.3	7.1
90°-180°	81.0	7.4
0°-180°	1101.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	324	324	324	324	324	
5°	321	322	323	324	324	31
15°	310	312	315	317	318	87
25°	288	291	296	299	301	133
35°	257	261	268	273	273	161
45°	219	224	232	237	239	168
55°	171	179	188	194	195	153
65°	118	126	137	144	146	117
75°	61	71	82	89	92	65
85°	11	22	33	41	43	14
90°	0	10	22	30	33	1
95°	0	10	21	29	31	0
105°	0	9	19	26	30	0
115°	0	7	17	24	26	0
125°	0	6	14	20	22	0
135°	0	4	11	16	18	0
145°	0	2	8	12	13	0
155°	0	1	5	7	8	0
165°	0	0	2	2	3	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°	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1
2.5°	322.5	322.5	322.5	322.5	322.5	323.3	323.3	323.3	323.3	324.1	324.1
5°	320.9	320.9	320.9	321.7	321.7	321.7	322.5	322.5	322.5	323.3	323.3
7.5°	320.1	319.2	320.1	320.1	320.1	320.9	320.9	320.9	321.7	321.7	322.5
10°	316.8	316.8	317.6	317.6	317.6	318.4	318.4	319.2	319.2	320.1	320.9
12.5°	313.6	313.6	314.4	314.4	315.2	315.2	316.0	316.0	316.8	317.6	318.4
15°	309.6	309.6	310.4	311.2	311.2	312.0	312.0	312.8	313.6	314.4	315.2
17.5°	305.6	305.6	305.6	306.4	307.2	307.2	308.0	308.8	309.6	310.4	311.2
20°	300.8	300.8	300.8	301.6	302.4	302.4	303.2	304.0	304.8	305.6	306.4
22.5°	294.3	295.1	295.1	295.9	296.7	296.7	297.5	299.1	299.9	300.8	301.6
25°	287.9	288.7	288.7	289.5	291.1	291.1	291.9	292.7	294.3	295.1	295.9
27.5°	280.6	281.5	282.3	283.1	283.9	284.7	285.5	286.3	287.1	288.7	289.5
30°	274.2	274.2	275.0	275.8	276.6	278.2	278.2	279.8	280.6	282.3	283.1
32.5°	266.2	266.2	267.0	267.8	268.6	270.2	270.2	271.8	273.4	274.2	275.8
35°	257.3	257.3	258.1	259.7	260.5	261.4	262.2	263.8	265.4	267.0	267.8
37.5°	247.7	248.5	249.3	250.1	252.5	252.5	253.3	254.9	256.5	257.3	258.9
40°	238.8	238.8	240.4	241.2	242.9	243.7	244.5	246.1	247.7	248.5	250.9
42.5°	229.2	229.2	230.8	231.6	233.2	234.0	234.8	236.4	238.0	240.4	241.2
45°	218.7	218.7	220.3	221.9	223.6	223.6	225.2	226.8	229.2	230.0	231.6
47.5°	207.5	207.5	209.9	210.7	212.3	213.9	214.7	216.3	217.9	219.5	221.9
50°	195.4	196.2	197.8	199.4	201.8	202.6	203.5	205.1	207.5	209.1	210.7
52.5°	184.2	185.0	185.8	188.2	189.8	191.4	191.4	193.8	195.4	197.8	199.4
55°	171.3	172.9	174.5	176.1	177.7	179.3	180.1	181.7	184.2	185.8	188.2
57.5°	159.2	160.0	161.6	163.2	164.9	166.5	167.3	169.7	171.3	172.9	176.1
60°	145.6	146.4	148.0	150.4	152.0	153.6	155.2	156.8	159.2	160.8	163.2
62.5°	131.9	132.7	134.3	136.7	139.1	139.9	140.7	143.1	145.6	148.8	150.4
65°	118.2	119.0	120.6	123.0	125.4	126.3	127.9	130.3	132.7	134.3	136.7
67.5°	104.5	105.3	107.0	109.4	111.8	113.4	114.2	116.6	119.0	121.4	123.8
70°	90.1	91.7	93.3	94.9	97.3	98.9	100.5	102.9	105.3	107.0	110.2
72.5°	75.6	76.4	78.0	81.2	83.6	84.4	86.0	88.5	91.7	93.3	95.7
75°	61.1	61.9	64.3	66.7	70.0	70.8	72.4	74.8	77.2	79.6	82.0
77.5°	47.4	48.2	51.5	53.1	55.5	57.1	57.9	61.1	64.3	66.7	68.4
80°	33.8	34.6	37.0	39.4	42.6	43.4	45.0	48.2	50.7	53.1	55.5
82.5°	21.7	23.3	24.9	27.3	30.6	32.2	33.8	36.2	38.6	41.0	43.4
85°	11.3	12.1	15.3	16.9	20.1	21.7	23.3	25.7	28.1	31.4	33.0
87.5°	4.0	4.8	7.2	9.6	12.9	14.5	15.3	18.5	20.9	23.3	25.7
90°	0.0	1.6	3.2	6.4	8.8	10.5	12.1	15.3	17.7	20.1	22.5
92.5°	0.0	0.8	3.2	5.6	8.8	9.6	11.3	14.5	16.9	19.3	21.7
95°	0.0	0.8	3.2	5.6	8.0	9.6	11.3	13.7	16.1	19.3	20.9
97.5°	0.0	0.8	2.4	4.8	8.0	9.6	10.5	13.7	16.1	18.5	20.9
100°	0.0	0.8	2.4	4.8	8.0	8.8	10.5	12.9	16.1	18.5	20.1
102.5°	0.0	0.8	2.4	4.8	7.2	8.8	10.5	12.9	15.3	17.7	20.1
105°	0.0	0.8	2.4	4.8	7.2	8.8	9.6	12.1	15.3	16.9	19.3
107.5°	0.0	0.8	2.4	4.8	7.2	8.0	9.6	12.1	14.5	16.9	18.5
110°	0.0	0.8	2.4	4.0	6.4	8.0	8.8	12.1	13.7	16.1	18.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.8	1.6	4.0	6.4	7.2	8.8	11.3	13.7	16.1	17.7
115°	0.0	0.8	1.6	4.0	6.4	7.2	8.0	10.5	12.9	15.3	16.9
117.5°	0.0	0.0	1.6	3.2	5.6	7.2	8.0	10.5	12.9	14.5	16.1
120°	0.0	0.0	1.6	3.2	5.6	6.4	7.2	9.6	12.1	13.7	16.1
122.5°	0.0	0.0	1.6	3.2	4.8	6.4	7.2	9.6	11.3	13.7	15.3
125°	0.0	0.0	1.6	3.2	4.8	5.6	7.2	8.8	10.5	12.9	14.5
127.5°	0.0	0.0	1.6	2.4	4.8	5.6	6.4	8.0	10.5	12.1	13.7
130°	0.0	0.0	0.8	2.4	4.0	4.8	5.6	8.0	9.6	11.3	12.9
132.5°	0.0	0.0	0.8	2.4	4.0	4.8	5.6	7.2	8.8	10.5	12.1
135°	0.0	0.0	0.8	2.4	3.2	4.0	4.8	6.4	8.0	9.6	11.3
137.5°	0.0	0.0	0.8	1.6	3.2	4.0	4.8	6.4	8.0	8.8	10.5
140°	0.0	0.0	0.8	1.6	3.2	3.2	4.0	5.6	7.2	8.0	9.6
142.5°	0.0	0.0	0.8	1.6	2.4	3.2	4.0	4.8	6.4	8.0	8.8
145°	0.0	0.0	0.0	0.8	2.4	2.4	3.2	4.8	5.6	7.2	8.0
147.5°	0.0	0.0	0.0	0.8	1.6	2.4	2.4	4.0	4.8	6.4	7.2
150°	0.0	0.0	0.0	0.8	1.6	1.6	2.4	3.2	4.0	5.6	6.4
152.5°	0.0	0.0	0.0	0.8	0.8	1.6	1.6	2.4	3.2	4.8	5.6
155°	0.0	0.0	0.0	0.0	0.8	0.8	1.6	2.4	3.2	4.0	4.8
157.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	1.6	2.4	3.2	3.2
160°	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	1.6	2.4	2.4
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	1.6	1.6
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	1.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8
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°	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1
2.5°	324.1	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.1
5°	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1	324.1
7.5°	322.5	322.5	323.3	323.3	323.3	323.3	323.3	323.3	323.3	323.3
10°	320.9	320.9	321.7	321.7	321.7	321.7	321.7	321.7	321.7	321.7
12.5°	318.4	319.2	319.2	319.2	319.2	319.2	320.1	320.1	320.1	320.1
15°	315.2	316.0	316.0	316.8	316.8	316.8	316.8	316.8	316.8	317.6
17.5°	312.0	312.8	312.8	312.8	313.6	313.6	313.6	313.6	313.6	313.6
20°	307.2	308.0	308.8	308.8	309.6	309.6	309.6	309.6	309.6	309.6
22.5°	302.4	303.2	304.0	304.0	304.8	304.8	304.8	305.6	305.6	305.6
25°	296.7	297.5	298.3	299.1	299.1	299.9	299.9	299.9	299.9	300.8
27.5°	291.1	291.1	291.9	292.7	293.5	293.5	293.5	293.5	294.3	294.3
30°	283.9	285.5	286.3	286.3	287.1	287.1	287.1	287.9	287.9	287.9
32.5°	276.6	278.2	279.0	279.0	279.8	280.6	280.6	280.6	280.6	281.5
35°	268.6	270.2	271.0	271.8	272.6	272.6	272.6	273.4	273.4	273.4
37.5°	260.5	261.4	263.0	263.0	263.8	263.8	264.6	265.4	265.4	265.4
40°	251.7	253.3	254.1	254.9	255.7	255.7	256.5	256.5	256.5	257.3
42.5°	242.9	243.7	245.3	246.1	246.9	246.9	247.7	248.5	248.5	248.5
45°	233.2	234.0	235.6	237.2	237.2	237.2	238.8	238.8	238.8	238.8
47.5°	222.8	224.4	226.0	226.8	226.8	227.6	227.6	228.4	229.2	229.2
50°	212.3	213.9	214.7	216.3	216.3	217.1	217.9	218.7	218.7	217.9
52.5°	201.0	202.6	204.3	205.1	205.9	205.9	206.7	206.7	207.5	207.5
55°	189.0	190.6	192.2	193.8	193.8	193.8	195.4	196.2	195.4	195.4
57.5°	176.9	178.5	180.1	180.9	181.7	182.5	182.5	184.2	184.2	184.2
60°	164.9	166.5	168.1	169.7	169.7	170.5	170.5	171.3	172.1	172.1
62.5°	152.8	153.6	155.2	156.8	156.8	156.8	158.4	158.4	159.2	159.2
65°	138.3	140.7	142.3	143.1	143.9	144.7	144.7	145.6	146.4	145.6
67.5°	124.6	127.1	127.9	129.5	130.3	131.1	131.9	132.7	132.7	132.7
70°	111.8	113.4	115.0	116.6	116.6	117.4	118.2	119.0	119.0	119.8
72.5°	98.1	99.7	101.3	102.1	102.9	103.7	104.5	105.3	106.1	106.1
75°	84.4	86.0	87.7	89.3	89.3	89.3	90.9	91.7	91.7	91.7
77.5°	70.8	72.4	74.0	75.6	75.6	76.4	77.2	78.0	78.8	78.8
80°	57.9	59.5	61.1	62.7	62.7	63.5	64.3	65.1	65.9	65.1
82.5°	45.8	47.4	49.1	49.9	50.7	52.3	53.1	53.1	53.9	53.9
85°	35.4	37.0	38.6	40.2	41.0	41.8	41.8	42.6	43.4	43.4
87.5°	28.1	29.8	31.4	33.0	33.0	33.8	34.6	35.4	36.2	36.2
90°	24.1	26.5	28.1	29.8	29.8	30.6	31.4	32.2	33.0	33.0
92.5°	24.1	25.7	27.3	28.9	28.9	29.8	30.6	31.4	32.2	32.2
95°	23.3	24.9	26.5	28.1	28.9	29.8	30.6	31.4	31.4	31.4
97.5°	23.3	24.9	26.5	28.1	28.1	28.9	29.8	30.6	31.4	31.4
100°	22.5	24.1	25.7	27.3	28.1	28.9	29.8	30.6	30.6	30.6
102.5°	21.7	24.1	25.7	26.5	27.3	28.1	28.9	29.8	29.8	29.8
105°	21.7	23.3	24.9	26.5	26.5	27.3	28.1	28.9	28.9	29.8
107.5°	20.9	22.5	24.1	25.7	26.5	26.5	27.3	28.1	28.9	28.9
110°	20.1	21.7	23.3	24.9	25.7	25.7	26.5	27.3	28.1	28.1



TEST NUMBER: P241530

CATALOG NUMBER: FVS8M-2-LD4-35-1STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	19.3	20.9	22.5	24.1	24.9	24.9	25.7	26.5	27.3	27.3
115°	19.3	20.9	21.7	23.3	24.1	24.1	24.9	25.7	25.7	26.5
117.5°	18.5	20.1	20.9	22.5	23.3	23.3	24.1	24.9	24.9	24.9
120°	17.7	19.3	20.1	21.7	21.7	22.5	23.3	24.1	24.1	24.1
122.5°	16.9	18.5	19.3	20.9	20.9	21.7	22.5	23.3	23.3	23.3
125°	16.1	17.7	18.5	20.1	20.1	20.9	21.7	21.7	22.5	22.5
127.5°	15.3	16.9	17.7	18.5	19.3	20.1	20.1	20.9	20.9	21.7
130°	14.5	16.1	16.9	17.7	18.5	18.5	19.3	20.1	20.1	20.1
132.5°	13.7	14.5	16.1	16.9	16.9	17.7	18.5	18.5	19.3	19.3
135°	12.9	13.7	15.3	16.1	16.1	16.9	16.9	17.7	17.7	17.7
137.5°	12.1	12.9	13.7	14.5	15.3	15.3	16.1	16.1	16.9	16.9
140°	10.5	12.1	12.9	13.7	13.7	14.5	14.5	15.3	15.3	15.3
142.5°	9.6	11.3	12.1	12.9	12.9	12.9	13.7	13.7	14.5	14.5
145°	8.8	9.6	10.5	11.3	12.1	12.1	12.1	12.9	12.9	12.9
147.5°	8.0	8.8	9.6	10.5	10.5	10.5	11.3	11.3	11.3	12.1
150°	7.2	8.0	8.8	8.8	9.6	9.6	9.6	10.5	10.5	10.5
152.5°	6.4	6.4	7.2	8.0	8.0	8.0	8.8	8.8	8.8	8.8
155°	4.8	5.6	6.4	6.4	7.2	7.2	7.2	8.0	8.0	8.0
157.5°	4.0	4.8	5.6	5.6	5.6	6.4	6.4	6.4	6.4	6.4
160°	3.2	4.0	4.0	4.8	4.8	4.8	4.8	4.8	5.6	5.6
162.5°	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0	4.0	4.0
165°	1.6	1.6	2.4	2.4	2.4	2.4	2.4	3.2	3.2	3.2
167.5°	0.8	0.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
170°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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)