

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: P241528

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241528
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-LD4-50-1LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (42) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

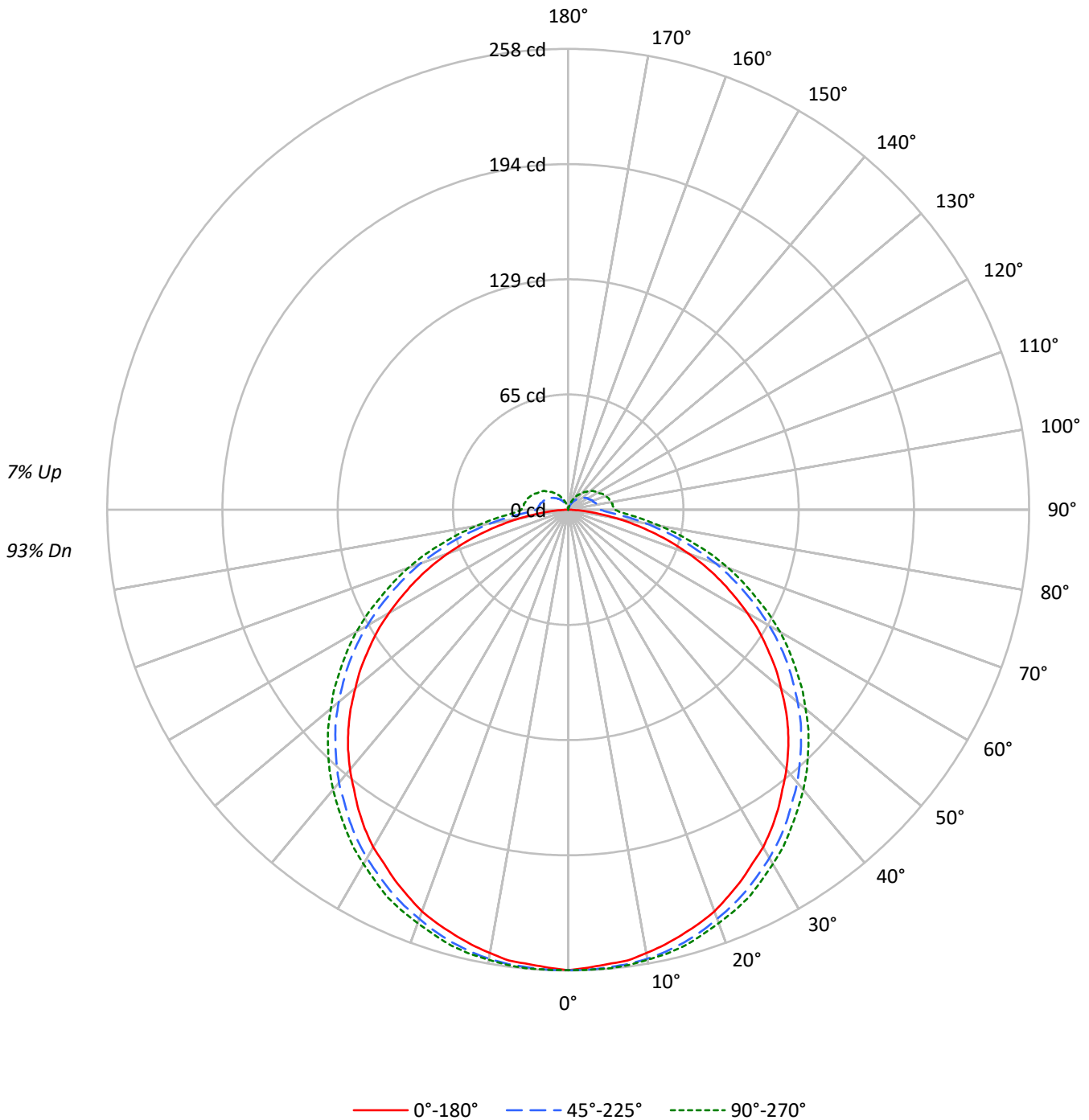
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 876.0 lumens
Efficiency: N/A
Efficacy: 70.6 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): 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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CATALOG NUMBER: FVS8M-2-LD4-50-1LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241528

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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°	2317	2317	2317
5°	2288	2278	2281
10°	2270	2245	2246
15°	2245	2207	2217
20°	2225	2163	2177
25°	2192	2123	2147
30°	2166	2079	2104
35°	2129	2032	2061
40°	2091	1984	2019
45°	2051	1928	1970
50°	1988	1865	1911
55°	1920	1794	1843
60°	1832	1701	1769
65°	1713	1583	1659
70°	1550	1448	1546
75°	1305	1258	1374
80°	963	1028	1176
85°	489	781	997



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.5	2.8
10°-20°	70.6	8.1
20°-30°	108.3	12.4
30°-40°	132.8	15.2
40°-50°	141.4	16.1
50°-60°	132.3	15.1
60°-70°	106.1	12.1
70°-80°	67.2	7.7
80°-90°	28.6	3.3
90°-100°	16.5	1.9
100°-110°	14.6	1.7
110°-120°	12.1	1.4
120°-130°	9.2	1.1
130°-140°	6.3	0.7
140°-150°	3.6	0.4
150°-160°	1.6	0.2
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	203.3	23.2
0°-40°	336.1	38.4
0°-60°	609.8	69.6
0°-90°	811.8	92.7
90°-120°	43.2	4.9
90°-150°	62.4	7.1
90°-180°	64.0	7.3
0°-180°	876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	258	258	258	258	258	
5°	255	256	257	258	258	24
15°	246	248	251	252	253	70
25°	229	232	236	238	239	106
35°	205	208	213	217	218	128
45°	174	178	184	189	190	134
55°	136	143	150	154	156	122
65°	94	100	109	114	116	93
75°	49	56	65	71	73	52
85°	9	17	26	33	35	11
90°	0	8	18	24	26	0
95°	0	8	17	23	25	0
105°	0	7	15	21	24	0
115°	0	6	13	19	21	0
125°	0	4	12	16	18	0
135°	0	3	9	13	14	0
145°	0	2	6	10	10	0
155°	0	1	4	6	6	0
165°	0	0	1	2	3	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241528

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8
2.5°	256.6	256.6	256.6	256.6	256.6	257.2	257.2	257.2	257.2	257.8	257.8
5°	255.3	255.3	255.3	255.9	255.9	255.9	256.6	256.6	256.6	257.2	257.2
7.5°	254.6	254.0	254.6	254.6	254.6	255.3	255.3	255.3	255.9	255.9	256.6
10°	252.1	252.1	252.7	252.7	252.7	253.4	253.4	254.0	254.0	254.6	255.3
12.5°	249.5	249.5	250.2	250.2	250.8	250.8	251.4	251.4	252.1	252.7	253.4
15°	246.3	246.3	247.0	247.6	247.6	248.2	248.2	248.9	249.5	250.2	250.8
17.5°	243.1	243.1	243.1	243.8	244.4	244.4	245.1	245.7	246.3	247.0	247.6
20°	239.3	239.3	239.3	239.9	240.6	240.6	241.2	241.9	242.5	243.1	243.8
22.5°	234.2	234.8	234.8	235.5	236.1	236.1	236.7	238.0	238.7	239.3	239.9
25°	229.1	229.7	229.7	230.3	231.6	231.6	232.3	232.9	234.2	234.8	235.5
27.5°	223.3	223.9	224.6	225.2	225.9	226.5	227.1	227.8	228.4	229.7	230.3
30°	218.2	218.2	218.8	219.5	220.1	221.4	221.4	222.7	223.3	224.6	225.2
32.5°	211.8	211.8	212.4	213.1	213.7	215.0	215.0	216.3	217.5	218.2	219.5
35°	204.7	204.7	205.4	206.7	207.3	207.9	208.6	209.9	211.1	212.4	213.1
37.5°	197.1	197.7	198.3	199.0	200.9	200.9	201.5	202.8	204.1	204.7	206.0
40°	190.0	190.0	191.3	191.9	193.2	193.9	194.5	195.8	197.1	197.7	199.6
42.5°	182.3	182.3	183.6	184.3	185.5	186.2	186.8	188.1	189.4	191.3	191.9
45°	174.0	174.0	175.3	176.6	177.9	177.9	179.1	180.4	182.3	183.0	184.3
47.5°	165.1	165.1	167.0	167.6	168.9	170.2	170.8	172.1	173.4	174.7	176.6
50°	155.5	156.1	157.4	158.7	160.6	161.2	161.9	163.2	165.1	166.4	167.6
52.5°	146.5	147.2	147.8	149.7	151.0	152.3	152.3	154.2	155.5	157.4	158.7
55°	136.3	137.6	138.8	140.1	141.4	142.7	143.3	144.6	146.5	147.8	149.7
57.5°	126.7	127.3	128.6	129.9	131.2	132.4	133.1	135.0	136.3	137.6	140.1
60°	115.8	116.4	117.7	119.6	120.9	122.2	123.5	124.8	126.7	128.0	129.9
62.5°	104.9	105.6	106.8	108.8	110.7	111.3	112.0	113.9	115.8	118.4	119.6
65°	94.1	94.7	96.0	97.9	99.8	100.5	101.7	103.7	105.6	106.8	108.8
67.5°	83.2	83.8	85.1	87.0	88.9	90.2	90.9	92.8	94.7	96.6	98.5
70°	71.7	72.9	74.2	75.5	77.4	78.7	80.0	81.9	83.8	85.1	87.7
72.5°	60.1	60.8	62.1	64.6	66.5	67.2	68.5	70.4	72.9	74.2	76.1
75°	48.6	49.3	51.2	53.1	55.7	56.3	57.6	59.5	61.4	63.3	65.3
77.5°	37.7	38.4	40.9	42.2	44.1	45.4	46.1	48.6	51.2	53.1	54.4
80°	26.9	27.5	29.4	31.4	33.9	34.6	35.8	38.4	40.3	42.2	44.1
82.5°	17.3	18.6	19.8	21.8	24.3	25.6	26.9	28.8	30.7	32.6	34.6
85°	9.0	9.6	12.2	13.4	16.0	17.3	18.6	20.5	22.4	25.0	26.2
87.5°	3.2	3.8	5.8	7.7	10.2	11.5	12.2	14.7	16.6	18.6	20.5
90°	0.0	1.3	2.6	5.1	7.0	8.3	9.6	12.2	14.1	16.0	17.9
92.5°	0.0	0.6	2.6	4.5	7.0	7.7	9.0	11.5	13.4	15.4	17.3
95°	0.0	0.6	2.6	4.5	6.4	7.7	9.0	10.9	12.8	15.4	16.6
97.5°	0.0	0.6	1.9	3.8	6.4	7.7	8.3	10.9	12.8	14.7	16.6
100°	0.0	0.6	1.9	3.8	6.4	7.0	8.3	10.2	12.8	14.7	16.0
102.5°	0.0	0.6	1.9	3.8	5.8	7.0	8.3	10.2	12.2	14.1	16.0
105°	0.0	0.6	1.9	3.8	5.8	7.0	7.7	9.6	12.2	13.4	15.4
107.5°	0.0	0.6	1.9	3.8	5.8	6.4	7.7	9.6	11.5	13.4	14.7
110°	0.0	0.6	1.9	3.2	5.1	6.4	7.0	9.6	10.9	12.8	14.7



TEST NUMBER: P241528

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.6	1.3	3.2	5.1	5.8	7.0	9.0	10.9	12.8	14.1
115°	0.0	0.6	1.3	3.2	5.1	5.8	6.4	8.3	10.2	12.2	13.4
117.5°	0.0	0.0	1.3	2.6	4.5	5.8	6.4	8.3	10.2	11.5	12.8
120°	0.0	0.0	1.3	2.6	4.5	5.1	5.8	7.7	9.6	10.9	12.8
122.5°	0.0	0.0	1.3	2.6	3.8	5.1	5.8	7.7	9.0	10.9	12.2
125°	0.0	0.0	1.3	2.6	3.8	4.5	5.8	7.0	8.3	10.2	11.5
127.5°	0.0	0.0	1.3	1.9	3.8	4.5	5.1	6.4	8.3	9.6	10.9
130°	0.0	0.0	0.6	1.9	3.2	3.8	4.5	6.4	7.7	9.0	10.2
132.5°	0.0	0.0	0.6	1.9	3.2	3.8	4.5	5.8	7.0	8.3	9.6
135°	0.0	0.0	0.6	1.9	2.6	3.2	3.8	5.1	6.4	7.7	9.0
137.5°	0.0	0.0	0.6	1.3	2.6	3.2	3.8	5.1	6.4	7.0	8.3
140°	0.0	0.0	0.6	1.3	2.6	2.6	3.2	4.5	5.8	6.4	7.7
142.5°	0.0	0.0	0.6	1.3	1.9	2.6	3.2	3.8	5.1	6.4	7.0
145°	0.0	0.0	0.0	0.6	1.9	1.9	2.6	3.8	4.5	5.8	6.4
147.5°	0.0	0.0	0.0	0.6	1.3	1.9	1.9	3.2	3.8	5.1	5.8
150°	0.0	0.0	0.0	0.6	1.3	1.3	1.9	2.6	3.2	4.5	5.1
152.5°	0.0	0.0	0.0	0.6	0.6	1.3	1.3	1.9	2.6	3.8	4.5
155°	0.0	0.0	0.0	0.0	0.6	0.6	1.3	1.9	2.6	3.2	3.8
157.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.3	1.9	2.6	2.6
160°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.3	1.9	1.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.3	1.3
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



TEST NUMBER: P241528

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8
2.5°	257.8	258.5	258.5	258.5	258.5	258.5	258.5	258.5	258.5	257.8
5°	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8	257.8
7.5°	256.6	256.6	257.2	257.2	257.2	257.2	257.2	257.2	257.2	257.2
10°	255.3	255.3	255.9	255.9	255.9	255.9	255.9	255.9	255.9	255.9
12.5°	253.4	254.0	254.0	254.0	254.0	254.0	254.6	254.6	254.6	254.6
15°	250.8	251.4	251.4	252.1	252.1	252.1	252.1	252.1	252.1	252.7
17.5°	248.2	248.9	248.9	248.9	249.5	249.5	249.5	249.5	249.5	249.5
20°	244.4	245.1	245.7	245.7	246.3	246.3	246.3	246.3	246.3	246.3
22.5°	240.6	241.2	241.9	241.9	242.5	242.5	242.5	243.1	243.1	243.1
25°	236.1	236.7	237.4	238.0	238.0	238.7	238.7	238.7	238.7	239.3
27.5°	231.6	231.6	232.3	232.9	233.5	233.5	233.5	233.5	234.2	234.2
30°	225.9	227.1	227.8	227.8	228.4	228.4	228.4	229.1	229.1	229.1
32.5°	220.1	221.4	222.0	222.0	222.7	223.3	223.3	223.3	223.3	223.9
35°	213.7	215.0	215.6	216.3	216.9	216.9	216.9	217.5	217.5	217.5
37.5°	207.3	207.9	209.2	209.2	209.9	209.9	210.5	211.1	211.1	211.1
40°	200.3	201.5	202.2	202.8	203.5	203.5	204.1	204.1	204.1	204.7
42.5°	193.2	193.9	195.1	195.8	196.4	196.4	197.1	197.7	197.7	197.7
45°	185.5	186.2	187.5	188.7	188.7	188.7	190.0	190.0	190.0	190.0
47.5°	177.2	178.5	179.8	180.4	180.4	181.1	181.1	181.7	182.3	182.3
50°	168.9	170.2	170.8	172.1	172.1	172.8	173.4	174.0	174.0	173.4
52.5°	160.0	161.2	162.5	163.2	163.8	163.8	164.4	164.4	165.1	165.1
55°	150.4	151.6	152.9	154.2	154.2	154.2	155.5	156.1	155.5	155.5
57.5°	140.8	142.0	143.3	144.0	144.6	145.2	145.2	146.5	146.5	146.5
60°	131.2	132.4	133.7	135.0	135.0	135.6	135.6	136.3	136.9	136.9
62.5°	121.6	122.2	123.5	124.8	124.8	124.8	126.0	126.0	126.7	126.7
65°	110.0	112.0	113.2	113.9	114.5	115.2	115.2	115.8	116.4	115.8
67.5°	99.2	101.1	101.7	103.0	103.7	104.3	104.9	105.6	105.6	105.6
70°	88.9	90.2	91.5	92.8	92.8	93.4	94.1	94.7	94.7	95.3
72.5°	78.1	79.3	80.6	81.3	81.9	82.5	83.2	83.8	84.5	84.5
75°	67.2	68.5	69.7	71.0	71.0	71.0	72.3	72.9	72.9	72.9
77.5°	56.3	57.6	58.9	60.1	60.1	60.8	61.4	62.1	62.7	62.7
80°	46.1	47.3	48.6	49.9	49.9	50.5	51.2	51.8	52.5	51.8
82.5°	36.5	37.7	39.0	39.7	40.3	41.6	42.2	42.2	42.9	42.9
85°	28.2	29.4	30.7	32.0	32.6	33.3	33.3	33.9	34.6	34.6
87.5°	22.4	23.7	25.0	26.2	26.2	26.9	27.5	28.2	28.8	28.8
90°	19.2	21.1	22.4	23.7	23.7	24.3	25.0	25.6	26.2	26.2
92.5°	19.2	20.5	21.8	23.0	23.0	23.7	24.3	25.0	25.6	25.6
95°	18.6	19.8	21.1	22.4	23.0	23.7	24.3	25.0	25.0	25.0
97.5°	18.6	19.8	21.1	22.4	22.4	23.0	23.7	24.3	25.0	25.0
100°	17.9	19.2	20.5	21.8	22.4	23.0	23.7	24.3	24.3	24.3
102.5°	17.3	19.2	20.5	21.1	21.8	22.4	23.0	23.7	23.7	23.7
105°	17.3	18.6	19.8	21.1	21.1	21.8	22.4	23.0	23.0	23.7
107.5°	16.6	17.9	19.2	20.5	21.1	21.1	21.8	22.4	23.0	23.0
110°	16.0	17.3	18.6	19.8	20.5	20.5	21.1	21.8	22.4	22.4



TEST NUMBER: P241528

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	15.4	16.6	17.9	19.2	19.8	19.8	20.5	21.1	21.8	21.8
115°	15.4	16.6	17.3	18.6	19.2	19.2	19.8	20.5	20.5	21.1
117.5°	14.7	16.0	16.6	17.9	18.6	18.6	19.2	19.8	19.8	19.8
120°	14.1	15.4	16.0	17.3	17.3	17.9	18.6	19.2	19.2	19.2
122.5°	13.4	14.7	15.4	16.6	16.6	17.3	17.9	18.6	18.6	18.6
125°	12.8	14.1	14.7	16.0	16.0	16.6	17.3	17.3	17.9	17.9
127.5°	12.2	13.4	14.1	14.7	15.4	16.0	16.0	16.6	16.6	17.3
130°	11.5	12.8	13.4	14.1	14.7	14.7	15.4	16.0	16.0	16.0
132.5°	10.9	11.5	12.8	13.4	13.4	14.1	14.7	14.7	15.4	15.4
135°	10.2	10.9	12.2	12.8	12.8	13.4	13.4	14.1	14.1	14.1
137.5°	9.6	10.2	10.9	11.5	12.2	12.2	12.8	12.8	13.4	13.4
140°	8.3	9.6	10.2	10.9	10.9	11.5	11.5	12.2	12.2	12.2
142.5°	7.7	9.0	9.6	10.2	10.2	10.2	10.9	10.9	11.5	11.5
145°	7.0	7.7	8.3	9.0	9.6	9.6	9.6	10.2	10.2	10.2
147.5°	6.4	7.0	7.7	8.3	8.3	8.3	9.0	9.0	9.0	9.6
150°	5.8	6.4	7.0	7.0	7.7	7.7	7.7	8.3	8.3	8.3
152.5°	5.1	5.1	5.8	6.4	6.4	6.4	7.0	7.0	7.0	7.0
155°	3.8	4.5	5.1	5.1	5.8	5.8	5.8	6.4	6.4	6.4
157.5°	3.2	3.8	4.5	4.5	4.5	5.1	5.1	5.1	5.1	5.1
160°	2.6	3.2	3.2	3.8	3.8	3.8	3.8	3.8	4.5	4.5
162.5°	1.9	1.9	2.6	2.6	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.3	1.3	1.9	1.9	1.9	1.9	1.9	2.6	2.6	2.6
167.5°	0.6	0.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
170°	0.0	0.0	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)