

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: P241525

Luminaire Tested: **FVS8M-2-LD4-30-1LO-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241525  
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-LD4-30-1LO-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 1-MODULE LED WITH OPAL LENS  
Light Source: (42) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

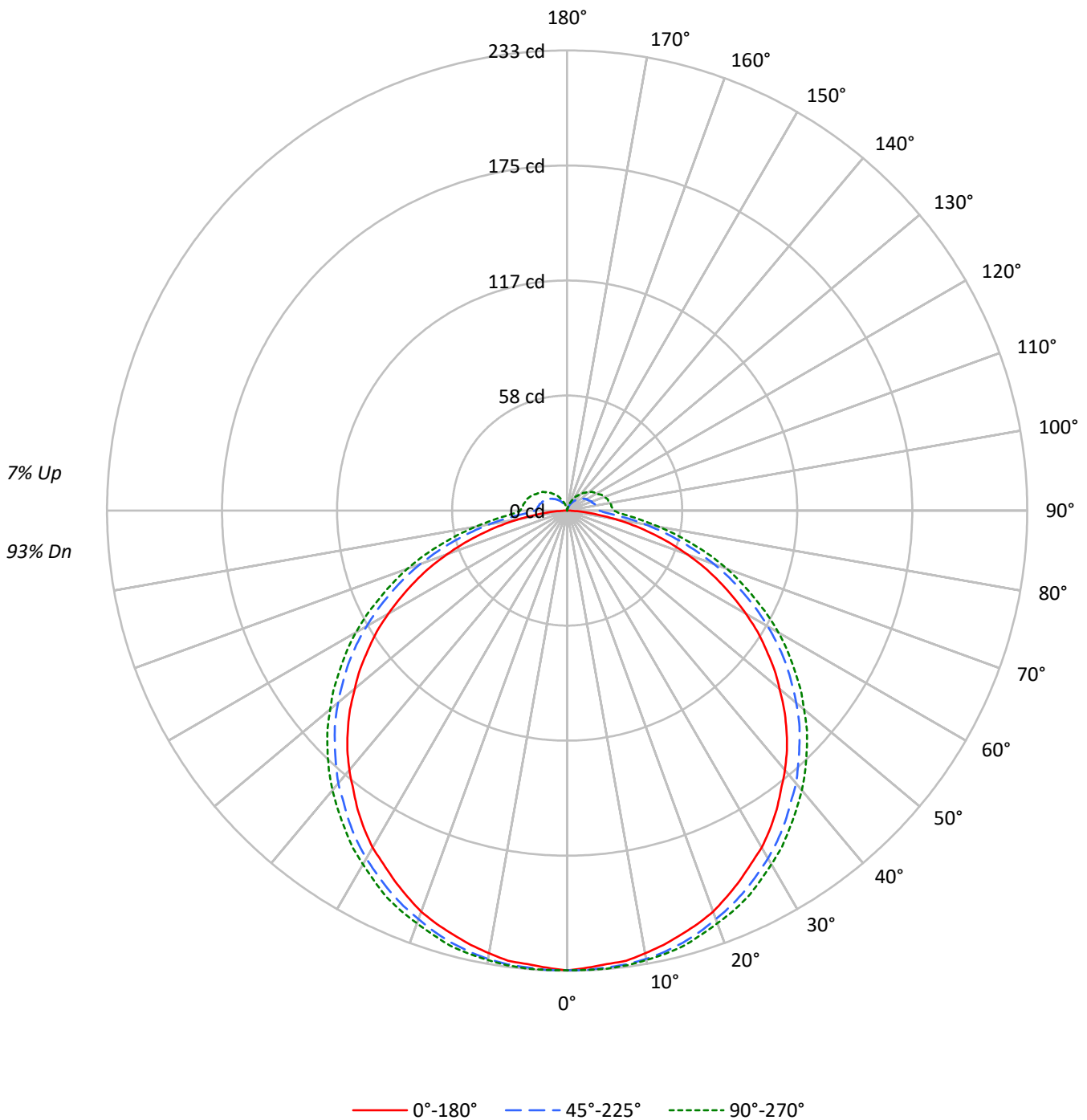
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 791.0 lumens  
Efficiency: N/A  
Efficacy: 63.8 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 (A<sub>in</sub>): 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

TEST NUMBER: P241525  
CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241525

CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

**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°	2093	2093	2093
5°	2066	2056	2060
10°	2049	2027	2029
15°	2027	1993	2002
20°	2010	1952	1966
25°	1978	1916	1939
30°	1956	1878	1899
35°	1923	1835	1861
40°	1889	1792	1824
45°	1851	1741	1780
50°	1795	1685	1726
55°	1734	1621	1664
60°	1655	1536	1597
65°	1545	1429	1499
70°	1398	1306	1396
75°	1179	1134	1242
80°	870	930	1062
85°	440	706	899



TEST NUMBER: P241525

CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	22.1	2.8
10°-20°	63.7	8.1
20°-30°	97.8	12.4
30°-40°	119.9	15.2
40°-50°	127.7	16.1
50°-60°	119.5	15.1
60°-70°	95.8	12.1
70°-80°	60.7	7.7
80°-90°	25.8	3.3
90°-100°	14.9	1.9
100°-110°	13.2	1.7
110°-120°	10.9	1.4
120°-130°	8.3	1.1
130°-140°	5.7	0.7
140°-150°	3.3	0.4
150°-160°	1.4	0.2
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	183.6	23.2
0°-40°	303.5	38.4
0°-60°	550.7	69.6
0°-90°	733.0	92.7
90°-120°	39.0	4.9
90°-150°	56.3	7.1
90°-180°	58.0	7.3
0°-180°	791.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	233	233	233	233	233	
5°	230	231	232	233	233	22
15°	222	224	226	228	228	63
25°	207	209	213	215	216	95
35°	185	188	192	196	196	116
45°	157	161	166	170	172	121
55°	123	129	135	139	140	110
65°	85	91	98	103	105	84
75°	44	51	59	64	66	47
85°	8	16	24	30	31	10
90°	0	8	16	21	24	0
95°	0	7	15	21	22	0
105°	0	6	14	19	21	0
115°	0	5	12	17	19	0
125°	0	4	10	14	16	0
135°	0	3	8	12	13	0
145°	0	2	6	9	9	0
155°	0	1	4	5	6	0
165°	0	0	1	2	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241525

CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8
2.5°	231.7	231.7	231.7	231.7	231.7	232.2	232.2	232.2	232.2	232.8	232.8
5°	230.5	230.5	230.5	231.1	231.1	231.1	231.7	231.7	231.7	232.2	232.2
7.5°	229.9	229.4	229.9	229.9	229.9	230.5	230.5	230.5	231.1	231.1	231.7
10°	227.6	227.6	228.2	228.2	228.2	228.8	228.8	229.4	229.4	229.9	230.5
12.5°	225.3	225.3	225.9	225.9	226.5	226.5	227.0	227.0	227.6	228.2	228.8
15°	222.4	222.4	223.0	223.6	223.6	224.2	224.2	224.7	225.3	225.9	226.5
17.5°	219.5	219.5	219.5	220.1	220.7	220.7	221.3	221.9	222.4	223.0	223.6
20°	216.1	216.1	216.1	216.7	217.2	217.2	217.8	218.4	219.0	219.5	220.1
22.5°	211.5	212.0	212.0	212.6	213.2	213.2	213.8	214.9	215.5	216.1	216.7
25°	206.8	207.4	207.4	208.0	209.1	209.1	209.7	210.3	211.5	212.0	212.6
27.5°	201.6	202.2	202.8	203.4	203.9	204.5	205.1	205.7	206.3	207.4	208.0
30°	197.0	197.0	197.6	198.2	198.7	199.9	199.9	201.1	201.6	202.8	203.4
32.5°	191.2	191.2	191.8	192.4	193.0	194.1	194.1	195.3	196.4	197.0	198.2
35°	184.9	184.9	185.5	186.6	187.2	187.8	188.3	189.5	190.7	191.8	192.4
37.5°	177.9	178.5	179.1	179.7	181.4	181.4	182.0	183.1	184.3	184.9	186.0
40°	171.6	171.6	172.7	173.3	174.5	175.1	175.6	176.8	177.9	178.5	180.3
42.5°	164.7	164.7	165.8	166.4	167.5	168.1	168.7	169.9	171.0	172.7	173.3
45°	157.1	157.1	158.3	159.5	160.6	160.6	161.8	162.9	164.7	165.2	166.4
47.5°	149.1	149.1	150.8	151.4	152.5	153.7	154.3	155.4	156.6	157.7	159.5
50°	140.4	141.0	142.1	143.3	145.0	145.6	146.2	147.3	149.1	150.2	151.4
52.5°	132.3	132.9	133.5	135.2	136.3	137.5	137.5	139.2	140.4	142.1	143.3
55°	123.1	124.2	125.4	126.5	127.7	128.8	129.4	130.6	132.3	133.5	135.2
57.5°	114.4	115.0	116.1	117.3	118.4	119.6	120.2	121.9	123.1	124.2	126.5
60°	104.6	105.1	106.3	108.0	109.2	110.3	111.5	112.7	114.4	115.5	117.3
62.5°	94.7	95.3	96.5	98.2	99.9	100.5	101.1	102.8	104.6	106.9	108.0
65°	84.9	85.5	86.7	88.4	90.1	90.7	91.9	93.6	95.3	96.5	98.2
67.5°	75.1	75.7	76.8	78.6	80.3	81.5	82.0	83.8	85.5	87.2	89.0
70°	64.7	65.9	67.0	68.2	69.9	71.1	72.2	74.0	75.7	76.8	79.1
72.5°	54.3	54.9	56.0	58.4	60.1	60.7	61.8	63.6	65.9	67.0	68.8
75°	43.9	44.5	46.2	48.0	50.3	50.8	52.0	53.7	55.5	57.2	58.9
77.5°	34.1	34.7	37.0	38.1	39.9	41.0	41.6	43.9	46.2	48.0	49.1
80°	24.3	24.8	26.6	28.3	30.6	31.2	32.4	34.7	36.4	38.1	39.9
82.5°	15.6	16.8	17.9	19.6	22.0	23.1	24.3	26.0	27.7	29.5	31.2
85°	8.1	8.7	11.0	12.1	14.4	15.6	16.8	18.5	20.2	22.5	23.7
87.5°	2.9	3.5	5.2	6.9	9.2	10.4	11.0	13.3	15.0	16.8	18.5
90°	0.0	1.2	2.3	4.6	6.4	7.5	8.7	11.0	12.7	14.4	16.2
92.5°	0.0	0.6	2.3	4.0	6.4	6.9	8.1	10.4	12.1	13.9	15.6
95°	0.0	0.6	2.3	4.0	5.8	6.9	8.1	9.8	11.6	13.9	15.0
97.5°	0.0	0.6	1.7	3.5	5.8	6.9	7.5	9.8	11.6	13.3	15.0
100°	0.0	0.6	1.7	3.5	5.8	6.4	7.5	9.2	11.6	13.3	14.4
102.5°	0.0	0.6	1.7	3.5	5.2	6.4	7.5	9.2	11.0	12.7	14.4
105°	0.0	0.6	1.7	3.5	5.2	6.4	6.9	8.7	11.0	12.1	13.9
107.5°	0.0	0.6	1.7	3.5	5.2	5.8	6.9	8.7	10.4	12.1	13.3
110°	0.0	0.6	1.7	2.9	4.6	5.8	6.4	8.7	9.8	11.6	13.3



TEST NUMBER: P241525

CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.6	1.2	2.9	4.6	5.2	6.4	8.1	9.8	11.6	12.7
115°	0.0	0.6	1.2	2.9	4.6	5.2	5.8	7.5	9.2	11.0	12.1
117.5°	0.0	0.0	1.2	2.3	4.0	5.2	5.8	7.5	9.2	10.4	11.6
120°	0.0	0.0	1.2	2.3	4.0	4.6	5.2	6.9	8.7	9.8	11.6
122.5°	0.0	0.0	1.2	2.3	3.5	4.6	5.2	6.9	8.1	9.8	11.0
125°	0.0	0.0	1.2	2.3	3.5	4.0	5.2	6.4	7.5	9.2	10.4
127.5°	0.0	0.0	1.2	1.7	3.5	4.0	4.6	5.8	7.5	8.7	9.8
130°	0.0	0.0	0.6	1.7	2.9	3.5	4.0	5.8	6.9	8.1	9.2
132.5°	0.0	0.0	0.6	1.7	2.9	3.5	4.0	5.2	6.4	7.5	8.7
135°	0.0	0.0	0.6	1.7	2.3	2.9	3.5	4.6	5.8	6.9	8.1
137.5°	0.0	0.0	0.6	1.2	2.3	2.9	3.5	4.6	5.8	6.4	7.5
140°	0.0	0.0	0.6	1.2	2.3	2.3	2.9	4.0	5.2	5.8	6.9
142.5°	0.0	0.0	0.6	1.2	1.7	2.3	2.9	3.5	4.6	5.8	6.4
145°	0.0	0.0	0.0	0.6	1.7	1.7	2.3	3.5	4.0	5.2	5.8
147.5°	0.0	0.0	0.0	0.6	1.2	1.7	1.7	2.9	3.5	4.6	5.2
150°	0.0	0.0	0.0	0.6	1.2	1.2	1.7	2.3	2.9	4.0	4.6
152.5°	0.0	0.0	0.0	0.6	0.6	1.2	1.2	1.7	2.3	3.5	4.0
155°	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.7	2.3	2.9	3.5
157.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.7	2.3	2.3
160°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.7	1.7
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.2
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2
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: P241525

CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8
2.5°	232.8	233.4	233.4	233.4	233.4	233.4	233.4	233.4	233.4	232.8
5°	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8	232.8
7.5°	231.7	231.7	232.2	232.2	232.2	232.2	232.2	232.2	232.2	232.2
10°	230.5	230.5	231.1	231.1	231.1	231.1	231.1	231.1	231.1	231.1
12.5°	228.8	229.4	229.4	229.4	229.4	229.4	229.9	229.9	229.9	229.9
15°	226.5	227.0	227.0	227.6	227.6	227.6	227.6	227.6	227.6	228.2
17.5°	224.2	224.7	224.7	224.7	225.3	225.3	225.3	225.3	225.3	225.3
20°	220.7	221.3	221.9	221.9	222.4	222.4	222.4	222.4	222.4	222.4
22.5°	217.2	217.8	218.4	218.4	219.0	219.0	219.0	219.5	219.5	219.5
25°	213.2	213.8	214.3	214.9	214.9	215.5	215.5	215.5	215.5	216.1
27.5°	209.1	209.1	209.7	210.3	210.9	210.9	210.9	210.9	211.5	211.5
30°	203.9	205.1	205.7	205.7	206.3	206.3	206.3	206.8	206.8	206.8
32.5°	198.7	199.9	200.5	200.5	201.1	201.6	201.6	201.6	201.6	202.2
35°	193.0	194.1	194.7	195.3	195.9	195.9	195.9	196.4	196.4	196.4
37.5°	187.2	187.8	188.9	188.9	189.5	189.5	190.1	190.7	190.7	190.7
40°	180.8	182.0	182.6	183.1	183.7	183.7	184.3	184.3	184.3	184.9
42.5°	174.5	175.1	176.2	176.8	177.4	177.4	177.9	178.5	178.5	178.5
45°	167.5	168.1	169.3	170.4	170.4	170.4	171.6	171.6	171.6	171.6
47.5°	160.0	161.2	162.3	162.9	162.9	163.5	163.5	164.1	164.7	164.7
50°	152.5	153.7	154.3	155.4	155.4	156.0	156.6	157.1	157.1	156.6
52.5°	144.4	145.6	146.7	147.3	147.9	147.9	148.5	148.5	149.1	149.1
55°	135.8	136.9	138.1	139.2	139.2	139.2	140.4	141.0	140.4	140.4
57.5°	127.1	128.3	129.4	130.0	130.6	131.1	131.1	132.3	132.3	132.3
60°	118.4	119.6	120.7	121.9	121.9	122.5	122.5	123.1	123.6	123.6
62.5°	109.8	110.3	111.5	112.7	112.7	112.7	113.8	113.8	114.4	114.4
65°	99.4	101.1	102.3	102.8	103.4	104.0	104.0	104.6	105.1	104.6
67.5°	89.5	91.3	91.9	93.0	93.6	94.2	94.7	95.3	95.3	95.3
70°	80.3	81.5	82.6	83.8	83.8	84.3	84.9	85.5	85.5	86.1
72.5°	70.5	71.6	72.8	73.4	74.0	74.5	75.1	75.7	76.3	76.3
75°	60.7	61.8	63.0	64.1	64.1	64.1	65.3	65.9	65.9	65.9
77.5°	50.8	52.0	53.2	54.3	54.3	54.9	55.5	56.0	56.6	56.6
80°	41.6	42.8	43.9	45.1	45.1	45.6	46.2	46.8	47.4	46.8
82.5°	32.9	34.1	35.2	35.8	36.4	37.6	38.1	38.1	38.7	38.7
85°	25.4	26.6	27.7	28.9	29.5	30.0	30.0	30.6	31.2	31.2
87.5°	20.2	21.4	22.5	23.7	23.7	24.3	24.8	25.4	26.0	26.0
90°	17.3	19.1	20.2	21.4	21.4	22.0	22.5	23.1	23.7	23.7
92.5°	17.3	18.5	19.6	20.8	20.8	21.4	22.0	22.5	23.1	23.1
95°	16.8	17.9	19.1	20.2	20.8	21.4	22.0	22.5	22.5	22.5
97.5°	16.8	17.9	19.1	20.2	20.2	20.8	21.4	22.0	22.5	22.5
100°	16.2	17.3	18.5	19.6	20.2	20.8	21.4	22.0	22.0	22.0
102.5°	15.6	17.3	18.5	19.1	19.6	20.2	20.8	21.4	21.4	21.4
105°	15.6	16.8	17.9	19.1	19.1	19.6	20.2	20.8	20.8	21.4
107.5°	15.0	16.2	17.3	18.5	19.1	19.1	19.6	20.2	20.8	20.8
110°	14.4	15.6	16.8	17.9	18.5	18.5	19.1	19.6	20.2	20.2





TEST NUMBER: P241525

CATALOG NUMBER: FVS8M-2-LD4-30-1LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	13.9	15.0	16.2	17.3	17.9	17.9	18.5	19.1	19.6	19.6
115°	13.9	15.0	15.6	16.8	17.3	17.3	17.9	18.5	18.5	19.1
117.5°	13.3	14.4	15.0	16.2	16.8	16.8	17.3	17.9	17.9	17.9
120°	12.7	13.9	14.4	15.6	15.6	16.2	16.8	17.3	17.3	17.3
122.5°	12.1	13.3	13.9	15.0	15.0	15.6	16.2	16.8	16.8	16.8
125°	11.6	12.7	13.3	14.4	14.4	15.0	15.6	15.6	16.2	16.2
127.5°	11.0	12.1	12.7	13.3	13.9	14.4	14.4	15.0	15.0	15.6
130°	10.4	11.6	12.1	12.7	13.3	13.3	13.9	14.4	14.4	14.4
132.5°	9.8	10.4	11.6	12.1	12.1	12.7	13.3	13.3	13.9	13.9
135°	9.2	9.8	11.0	11.6	11.6	12.1	12.1	12.7	12.7	12.7
137.5°	8.7	9.2	9.8	10.4	11.0	11.0	11.6	11.6	12.1	12.1
140°	7.5	8.7	9.2	9.8	9.8	10.4	10.4	11.0	11.0	11.0
142.5°	6.9	8.1	8.7	9.2	9.2	9.2	9.8	9.8	10.4	10.4
145°	6.4	6.9	7.5	8.1	8.7	8.7	8.7	9.2	9.2	9.2
147.5°	5.8	6.4	6.9	7.5	7.5	7.5	8.1	8.1	8.1	8.7
150°	5.2	5.8	6.4	6.4	6.9	6.9	6.9	7.5	7.5	7.5
152.5°	4.6	4.6	5.2	5.8	5.8	5.8	6.4	6.4	6.4	6.4
155°	3.5	4.0	4.6	4.6	5.2	5.2	5.2	5.8	5.8	5.8
157.5°	2.9	3.5	4.0	4.0	4.0	4.6	4.6	4.6	4.6	4.6
160°	2.3	2.9	2.9	3.5	3.5	3.5	3.5	3.5	4.0	4.0
162.5°	1.7	1.7	2.3	2.3	2.9	2.9	2.9	2.9	2.9	2.9
165°	1.2	1.2	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3
167.5°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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)