

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: P241533

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241533  
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-LD4-30-1HI-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

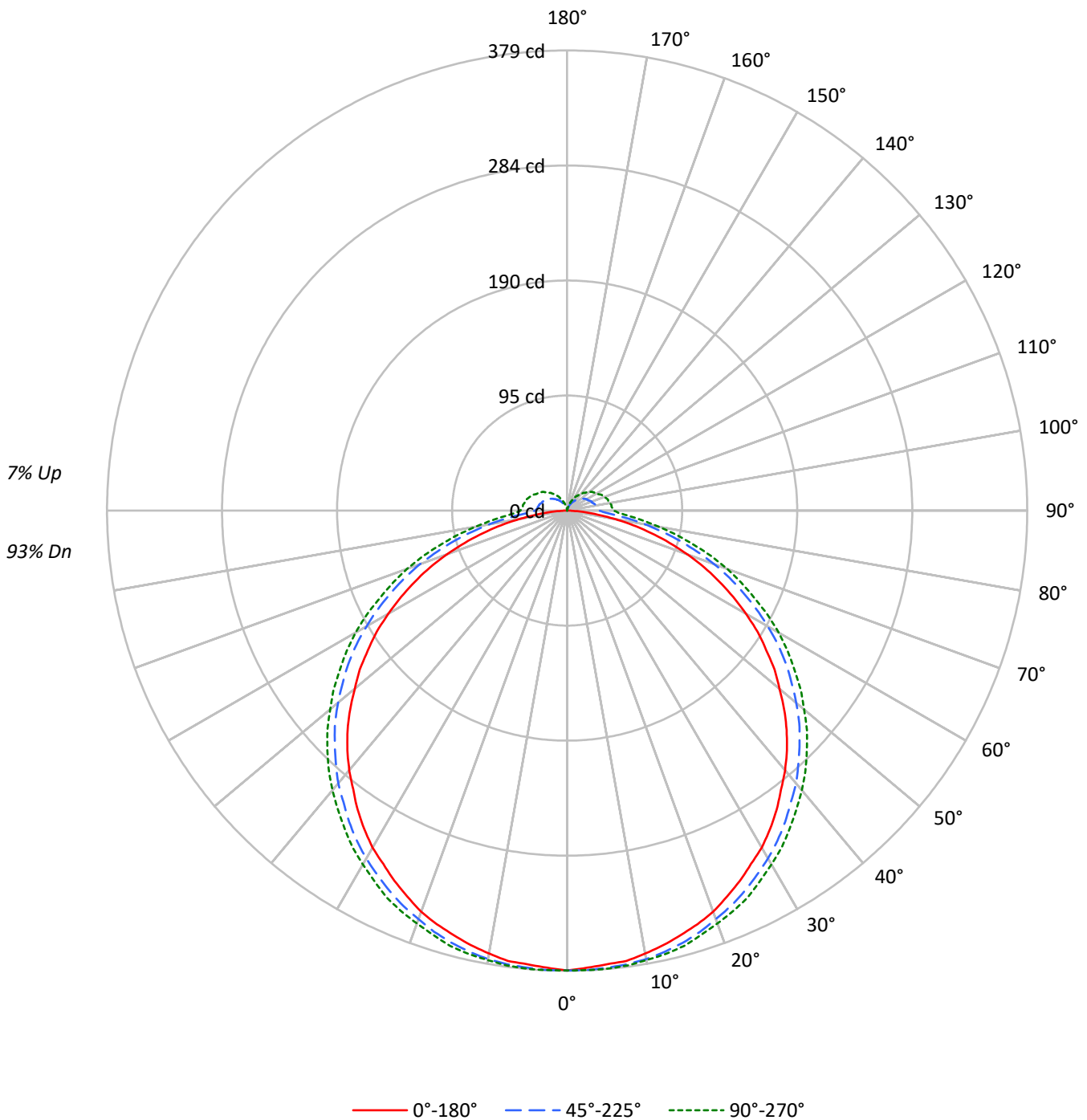
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1287.0 lumens  
Efficiency: N/A  
Efficacy: 57.7 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): 22.3  
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: P241533

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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°	3405	3405	3405
5°	3361	3347	3352
10°	3335	3298	3301
15°	3298	3242	3258
20°	3270	3177	3199
25°	3219	3118	3155
30°	3182	3055	3090
35°	3128	2985	3028
40°	3073	2915	2967
45°	3013	2832	2895
50°	2920	2741	2806
55°	2821	2637	2707
60°	2691	2498	2600
65°	2515	2325	2438
70°	2276	2127	2272
75°	1917	1847	2020
80°	1414	1513	1727
85°	717	1147	1463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.9	2.8
10°-20°	103.7	8.1
20°-30°	159.1	12.4
30°-40°	195.1	15.2
40°-50°	207.8	16.1
50°-60°	194.4	15.1
60°-70°	155.9	12.1
70°-80°	98.7	7.7
80°-90°	42.0	3.3
90°-100°	24.2	1.9
100°-110°	21.5	1.7
110°-120°	17.7	1.4
120°-130°	13.6	1.1
130°-140°	9.2	0.7
140°-150°	5.3	0.4
150°-160°	2.3	0.2
160°-170°	0.5	0.0
170°-180°	0.0	0.0
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0°-30°	298.7	23.2
0°-40°	493.8	38.4
0°-60°	896.0	69.6
0°-90°	1192.6	92.7
90°-120°	63.5	4.9
90°-150°	91.6	7.1
90°-180°	94.0	7.3
0°-180°	1287.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	375	376	378	379	379	36
15°	362	365	368	370	371	102
25°	336	340	346	350	352	155
35°	301	306	313	319	320	188
45°	256	261	271	277	279	197
55°	200	210	220	226	228	179
65°	138	148	160	168	170	137
75°	71	83	96	104	107	76
85°	13	25	38	48	51	16
90°	0	12	26	35	38	1
95°	0	11	24	34	37	0
105°	0	10	23	31	35	0
115°	0	8	20	28	31	0
125°	0	7	17	24	26	0
135°	0	5	13	19	21	0
145°	0	3	9	14	15	0
155°	0	1	6	8	9	0
165°	0	0	2	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241533

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

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8
2.5°	376.9	376.9	376.9	376.9	376.9	377.9	377.9	377.9	377.9	378.8	378.8
5°	375.1	375.1	375.1	376.0	376.0	376.0	376.9	376.9	376.9	377.9	377.9
7.5°	374.1	373.2	374.1	374.1	374.1	375.1	375.1	375.1	376.0	376.0	376.9
10°	370.4	370.4	371.3	371.3	371.3	372.2	372.2	373.2	373.2	374.1	375.1
12.5°	366.6	366.6	367.5	367.5	368.5	368.5	369.4	369.4	370.4	371.3	372.2
15°	361.9	361.9	362.8	363.8	363.8	364.7	364.7	365.7	366.6	367.5	368.5
17.5°	357.2	357.2	357.2	358.1	359.1	359.1	360.0	361.0	361.9	362.8	363.8
20°	351.6	351.6	351.6	352.5	353.4	353.4	354.4	355.3	356.3	357.2	358.1
22.5°	344.0	345.0	345.0	345.9	346.9	346.9	347.8	349.7	350.6	351.6	352.5
25°	336.5	337.5	337.5	338.4	340.3	340.3	341.2	342.2	344.0	345.0	345.9
27.5°	328.1	329.0	329.9	330.9	331.8	332.8	333.7	334.6	335.6	337.5	338.4
30°	320.5	320.5	321.5	322.4	323.4	325.2	325.2	327.1	328.1	329.9	330.9
32.5°	311.1	311.1	312.1	313.0	314.0	315.8	315.8	317.7	319.6	320.5	322.4
35°	300.8	300.8	301.7	303.6	304.6	305.5	306.4	308.3	310.2	312.1	313.0
37.5°	289.5	290.5	291.4	292.3	295.2	295.2	296.1	298.0	299.9	300.8	302.7
40°	279.2	279.2	281.1	282.0	283.9	284.8	285.8	287.6	289.5	290.5	293.3
42.5°	267.9	267.9	269.8	270.7	272.6	273.5	274.5	276.4	278.2	281.1	282.0
45°	255.7	255.7	257.6	259.4	261.3	261.3	263.2	265.1	267.9	268.8	270.7
47.5°	242.5	242.5	245.3	246.3	248.2	250.0	251.0	252.9	254.7	256.6	259.4
50°	228.4	229.4	231.2	233.1	235.9	236.9	237.8	239.7	242.5	244.4	246.3
52.5°	215.3	216.2	217.1	220.0	221.8	223.7	223.7	226.5	228.4	231.2	233.1
55°	200.2	202.1	204.0	205.9	207.7	209.6	210.6	212.4	215.3	217.1	220.0
57.5°	186.1	187.1	188.9	190.8	192.7	194.6	195.5	198.3	200.2	202.1	205.9
60°	170.1	171.1	173.0	175.8	177.7	179.5	181.4	183.3	186.1	188.0	190.8
62.5°	154.2	155.1	157.0	159.8	162.6	163.6	164.5	167.3	170.1	173.9	175.8
65°	138.2	139.1	141.0	143.8	146.6	147.6	149.5	152.3	155.1	157.0	159.8
67.5°	122.2	123.1	125.0	127.8	130.7	132.5	133.5	136.3	139.1	141.9	144.8
70°	105.3	107.2	109.0	110.9	113.7	115.6	117.5	120.3	123.1	125.0	128.8
72.5°	88.4	89.3	91.2	94.9	97.8	98.7	100.6	103.4	107.2	109.0	111.9
75°	71.4	72.4	75.2	78.0	81.8	82.7	84.6	87.4	90.2	93.1	95.9
77.5°	55.5	56.4	60.2	62.0	64.9	66.7	67.7	71.4	75.2	78.0	79.9
80°	39.5	40.4	43.2	46.1	49.8	50.8	52.6	56.4	59.2	62.0	64.9
82.5°	25.4	27.3	29.1	32.0	35.7	37.6	39.5	42.3	45.1	47.9	50.8
85°	13.2	14.1	17.9	19.7	23.5	25.4	27.3	30.1	32.9	36.7	38.5
87.5°	4.7	5.6	8.5	11.3	15.0	16.9	17.9	21.6	24.4	27.3	30.1
90°	0.0	1.9	3.8	7.5	10.3	12.2	14.1	17.9	20.7	23.5	26.3
92.5°	0.0	0.9	3.8	6.6	10.3	11.3	13.2	16.9	19.7	22.6	25.4
95°	0.0	0.9	3.8	6.6	9.4	11.3	13.2	16.0	18.8	22.6	24.4
97.5°	0.0	0.9	2.8	5.6	9.4	11.3	12.2	16.0	18.8	21.6	24.4
100°	0.0	0.9	2.8	5.6	9.4	10.3	12.2	15.0	18.8	21.6	23.5
102.5°	0.0	0.9	2.8	5.6	8.5	10.3	12.2	15.0	17.9	20.7	23.5
105°	0.0	0.9	2.8	5.6	8.5	10.3	11.3	14.1	17.9	19.7	22.6
107.5°	0.0	0.9	2.8	5.6	8.5	9.4	11.3	14.1	16.9	19.7	21.6
110°	0.0	0.9	2.8	4.7	7.5	9.4	10.3	14.1	16.0	18.8	21.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.9	1.9	4.7	7.5	8.5	10.3	13.2	16.0	18.8	20.7
115°	0.0	0.9	1.9	4.7	7.5	8.5	9.4	12.2	15.0	17.9	19.7
117.5°	0.0	0.0	1.9	3.8	6.6	8.5	9.4	12.2	15.0	16.9	18.8
120°	0.0	0.0	1.9	3.8	6.6	7.5	8.5	11.3	14.1	16.0	18.8
122.5°	0.0	0.0	1.9	3.8	5.6	7.5	8.5	11.3	13.2	16.0	17.9
125°	0.0	0.0	1.9	3.8	5.6	6.6	8.5	10.3	12.2	15.0	16.9
127.5°	0.0	0.0	1.9	2.8	5.6	6.6	7.5	9.4	12.2	14.1	16.0
130°	0.0	0.0	0.9	2.8	4.7	5.6	6.6	9.4	11.3	13.2	15.0
132.5°	0.0	0.0	0.9	2.8	4.7	5.6	6.6	8.5	10.3	12.2	14.1
135°	0.0	0.0	0.9	2.8	3.8	4.7	5.6	7.5	9.4	11.3	13.2
137.5°	0.0	0.0	0.9	1.9	3.8	4.7	5.6	7.5	9.4	10.3	12.2
140°	0.0	0.0	0.9	1.9	3.8	3.8	4.7	6.6	8.5	9.4	11.3
142.5°	0.0	0.0	0.9	1.9	2.8	3.8	4.7	5.6	7.5	9.4	10.3
145°	0.0	0.0	0.0	0.9	2.8	2.8	3.8	5.6	6.6	8.5	9.4
147.5°	0.0	0.0	0.0	0.9	1.9	2.8	2.8	4.7	5.6	7.5	8.5
150°	0.0	0.0	0.0	0.9	1.9	1.9	2.8	3.8	4.7	6.6	7.5
152.5°	0.0	0.0	0.0	0.9	0.9	1.9	1.9	2.8	3.8	5.6	6.6
155°	0.0	0.0	0.0	0.0	0.9	0.9	1.9	2.8	3.8	4.7	5.6
157.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	1.9	2.8	3.8	3.8
160°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	1.9	2.8	2.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	1.9	1.9
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	1.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9
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°	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8
2.5°	378.8	379.8	379.8	379.8	379.8	379.8	379.8	379.8	379.8	378.8
5°	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8	378.8
7.5°	376.9	376.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9	377.9
10°	375.1	375.1	376.0	376.0	376.0	376.0	376.0	376.0	376.0	376.0
12.5°	372.2	373.2	373.2	373.2	373.2	373.2	374.1	374.1	374.1	374.1
15°	368.5	369.4	369.4	370.4	370.4	370.4	370.4	370.4	370.4	371.3
17.5°	364.7	365.7	365.7	365.7	366.6	366.6	366.6	366.6	366.6	366.6
20°	359.1	360.0	361.0	361.0	361.9	361.9	361.9	361.9	361.9	361.9
22.5°	353.4	354.4	355.3	355.3	356.3	356.3	356.3	357.2	357.2	357.2
25°	346.9	347.8	348.7	349.7	349.7	350.6	350.6	350.6	350.6	351.6
27.5°	340.3	340.3	341.2	342.2	343.1	343.1	343.1	343.1	344.0	344.0
30°	331.8	333.7	334.6	334.6	335.6	335.6	335.6	336.5	336.5	336.5
32.5°	323.4	325.2	326.2	326.2	327.1	328.1	328.1	328.1	328.1	329.0
35°	314.0	315.8	316.8	317.7	318.7	318.7	318.7	319.6	319.6	319.6
37.5°	304.6	305.5	307.4	307.4	308.3	308.3	309.3	310.2	310.2	310.2
40°	294.2	296.1	297.0	298.0	298.9	298.9	299.9	299.9	299.9	300.8
42.5°	283.9	284.8	286.7	287.6	288.6	288.6	289.5	290.5	290.5	290.5
45°	272.6	273.5	275.4	277.3	277.3	277.3	279.2	279.2	279.2	279.2
47.5°	260.4	262.3	264.1	265.1	265.1	266.0	266.0	267.0	267.9	267.9
50°	248.2	250.0	251.0	252.9	252.9	253.8	254.7	255.7	255.7	254.7
52.5°	235.0	236.9	238.8	239.7	240.6	240.6	241.6	241.6	242.5	242.5
55°	220.9	222.8	224.7	226.5	226.5	226.5	228.4	229.4	228.4	228.4
57.5°	206.8	208.7	210.6	211.5	212.4	213.4	213.4	215.3	215.3	215.3
60°	192.7	194.6	196.5	198.3	198.3	199.3	199.3	200.2	201.2	201.2
62.5°	178.6	179.5	181.4	183.3	183.3	183.3	185.2	185.2	186.1	186.1
65°	161.7	164.5	166.4	167.3	168.3	169.2	169.2	170.1	171.1	170.1
67.5°	145.7	148.5	149.5	151.3	152.3	153.2	154.2	155.1	155.1	155.1
70°	130.7	132.5	134.4	136.3	136.3	137.2	138.2	139.1	139.1	140.1
72.5°	114.7	116.6	118.4	119.4	120.3	121.3	122.2	123.1	124.1	124.1
75°	98.7	100.6	102.5	104.3	104.3	104.3	106.2	107.2	107.2	107.2
77.5°	82.7	84.6	86.5	88.4	88.4	89.3	90.2	91.2	92.1	92.1
80°	67.7	69.6	71.4	73.3	73.3	74.3	75.2	76.1	77.1	76.1
82.5°	53.6	55.5	57.3	58.3	59.2	61.1	62.0	62.0	63.0	63.0
85°	41.4	43.2	45.1	47.0	47.9	48.9	48.9	49.8	50.8	50.8
87.5°	32.9	34.8	36.7	38.5	38.5	39.5	40.4	41.4	42.3	42.3
90°	28.2	31.0	32.9	34.8	34.8	35.7	36.7	37.6	38.5	38.5
92.5°	28.2	30.1	32.0	33.8	33.8	34.8	35.7	36.7	37.6	37.6
95°	27.3	29.1	31.0	32.9	33.8	34.8	35.7	36.7	36.7	36.7
97.5°	27.3	29.1	31.0	32.9	32.9	33.8	34.8	35.7	36.7	36.7
100°	26.3	28.2	30.1	32.0	32.9	33.8	34.8	35.7	35.7	35.7
102.5°	25.4	28.2	30.1	31.0	32.0	32.9	33.8	34.8	34.8	34.8
105°	25.4	27.3	29.1	31.0	31.0	32.0	32.9	33.8	33.8	34.8
107.5°	24.4	26.3	28.2	30.1	31.0	31.0	32.0	32.9	33.8	33.8
110°	23.5	25.4	27.3	29.1	30.1	30.1	31.0	32.0	32.9	32.9





TEST NUMBER: P241533

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	22.6	24.4	26.3	28.2	29.1	29.1	30.1	31.0	32.0	32.0
115°	22.6	24.4	25.4	27.3	28.2	28.2	29.1	30.1	30.1	31.0
117.5°	21.6	23.5	24.4	26.3	27.3	27.3	28.2	29.1	29.1	29.1
120°	20.7	22.6	23.5	25.4	25.4	26.3	27.3	28.2	28.2	28.2
122.5°	19.7	21.6	22.6	24.4	24.4	25.4	26.3	27.3	27.3	27.3
125°	18.8	20.7	21.6	23.5	23.5	24.4	25.4	25.4	26.3	26.3
127.5°	17.9	19.7	20.7	21.6	22.6	23.5	23.5	24.4	24.4	25.4
130°	16.9	18.8	19.7	20.7	21.6	21.6	22.6	23.5	23.5	23.5
132.5°	16.0	16.9	18.8	19.7	19.7	20.7	21.6	21.6	22.6	22.6
135°	15.0	16.0	17.9	18.8	18.8	19.7	19.7	20.7	20.7	20.7
137.5°	14.1	15.0	16.0	16.9	17.9	17.9	18.8	18.8	19.7	19.7
140°	12.2	14.1	15.0	16.0	16.0	16.9	16.9	17.9	17.9	17.9
142.5°	11.3	13.2	14.1	15.0	15.0	15.0	16.0	16.0	16.9	16.9
145°	10.3	11.3	12.2	13.2	14.1	14.1	14.1	15.0	15.0	15.0
147.5°	9.4	10.3	11.3	12.2	12.2	12.2	13.2	13.2	13.2	14.1
150°	8.5	9.4	10.3	10.3	11.3	11.3	11.3	12.2	12.2	12.2
152.5°	7.5	7.5	8.5	9.4	9.4	9.4	10.3	10.3	10.3	10.3
155°	5.6	6.6	7.5	7.5	8.5	8.5	8.5	9.4	9.4	9.4
157.5°	4.7	5.6	6.6	6.6	6.6	7.5	7.5	7.5	7.5	7.5
160°	3.8	4.7	4.7	5.6	5.6	5.6	5.6	5.6	6.6	6.6
162.5°	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7	4.7	4.7
165°	1.9	1.9	2.8	2.8	2.8	2.8	2.8	3.8	3.8	3.8
167.5°	0.9	0.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
170°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)