

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: P241566

Luminaire Tested: **FVS8M-3-LD4-35-1STD-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241566  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-35-1STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 1-MODULE LED WITH OPAL LENS  
Light Source: (84) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

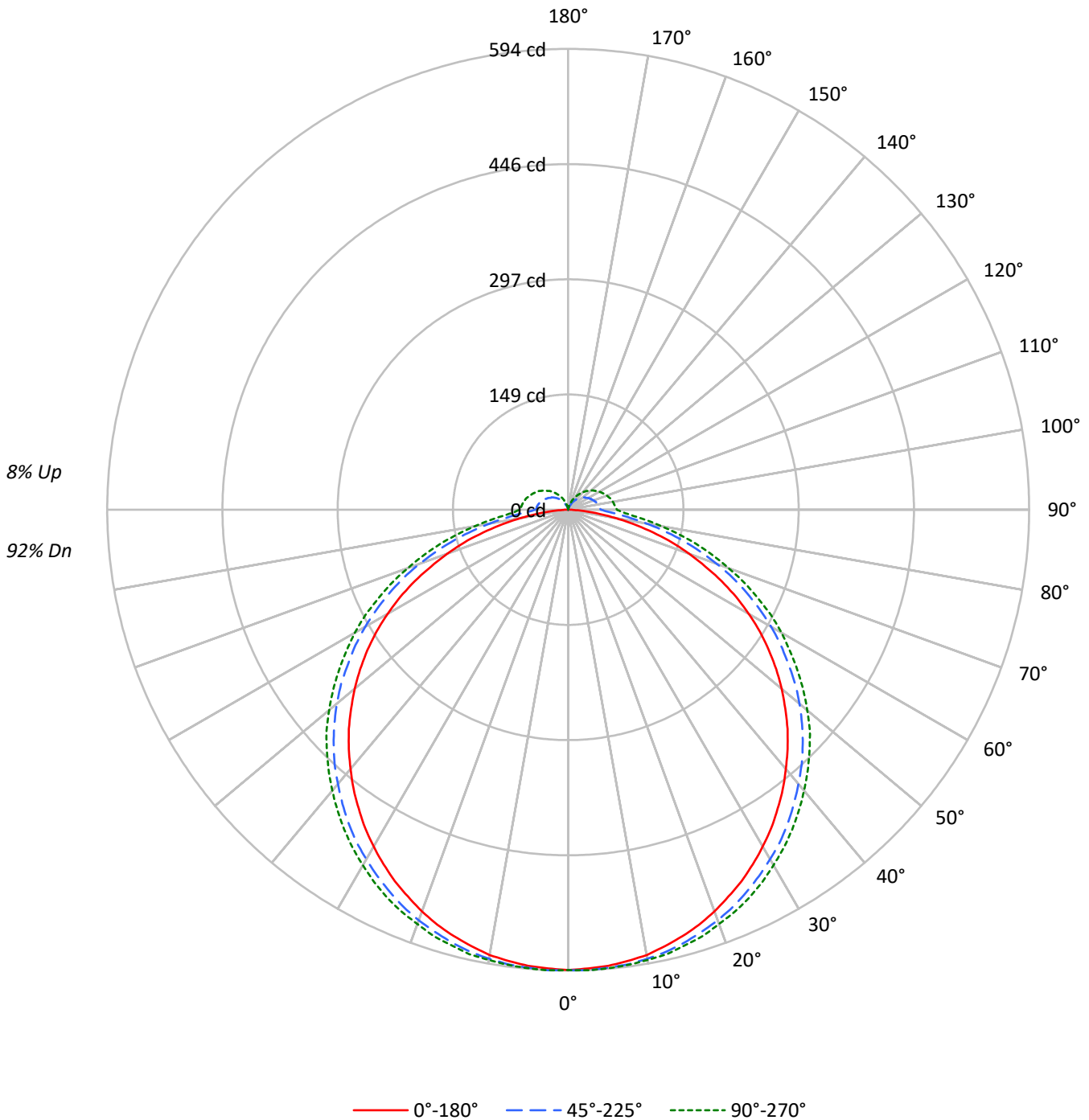
Lumens per Lamp: N/A  
Luminaire Lumens: 2033.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 28.5  
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	92
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	71	68	65	62
3	87	76	68	61	84	74	66	60	70	63	58	66	61	56	63	58	54	52
4	80	67	58	51	77	65	57	51	62	55	49	59	53	48	56	50	46	44
5	73	60	51	44	70	58	50	43	55	48	42	53	46	41	50	44	40	38
6	67	54	45	38	65	52	44	38	50	42	37	47	41	36	45	39	35	33
7	62	49	40	33	60	47	39	33	45	38	32	43	37	32	41	35	31	29
8	58	44	36	30	56	43	35	29	41	34	29	39	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	22	21

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3465	3465	3465
5°	3444	3415	3411
10°	3425	3368	3360
15°	3393	3319	3313
20°	3362	3268	3263
25°	3325	3211	3217
30°	3284	3151	3156
35°	3238	3093	3097
40°	3189	3022	3031
45°	3140	2952	2962
50°	3074	2866	2878
55°	2996	2753	2776
60°	2882	2634	2666
65°	2717	2472	2508
70°	2473	2259	2316
75°	2143	1984	2092
80°	1614	1635	1800
85°	863	1297	1523



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.3	2.8
10°-20°	162.8	8.0
20°-30°	249.9	12.3
30°-40°	306.9	15.1
40°-50°	327.0	16.1
50°-60°	306.6	15.1
60°-70°	246.5	12.1
70°-80°	156.5	7.7
80°-90°	67.4	3.3
90°-100°	39.5	1.9
100°-110°	35.0	1.7
110°-120°	28.9	1.4
120°-130°	21.9	1.1
130°-140°	14.8	0.7
140°-150°	8.5	0.4
150°-160°	3.6	0.2
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	469.0	23.1
0°-40°	775.9	38.2
0°-60°	1409.5	69.3
0°-90°	1879.9	92.5
90°-120°	103.4	5.1
90°-150°	148.7	7.3
90°-180°	153.0	7.5
0°-180°	2033.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	593	593	593	593	593	
5°	590	590	593	593	593	56
15°	569	571	578	580	581	161
25°	528	534	544	550	552	243
35°	470	481	493	501	503	295
45°	400	413	427	436	440	308
55°	316	330	346	358	361	282
65°	218	234	254	266	269	215
75°	113	132	152	165	171	120
85°	20	40	63	77	81	26
90°	1	20	42	58	63	1
95°	0	19	41	55	60	0
105°	0	16	37	51	56	0
115°	0	14	33	46	50	0
125°	0	11	27	38	42	0
135°	0	8	21	30	34	0
145°	1	5	15	22	24	1
155°	1	2	7	13	15	0
165°	1	1	2	4	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241566

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4
2.5°	591.8	591.8	591.0	591.8	591.8	592.6	592.6	593.4	594.2	595.0	594.2
5°	590.2	589.3	589.3	590.2	590.2	590.2	591.0	591.8	592.6	592.6	592.6
7.5°	586.9	586.1	586.1	586.9	586.9	587.7	587.7	589.3	590.2	590.2	591.0
10°	582.8	582.0	582.0	582.0	582.8	583.6	583.6	585.3	586.9	587.7	587.7
12.5°	576.3	576.3	575.5	577.1	577.1	577.9	579.6	581.2	582.0	582.8	583.6
15°	569.0	569.0	569.0	569.8	570.6	571.4	573.1	574.7	576.3	577.1	577.9
17.5°	560.9	560.9	560.9	561.7	563.3	564.1	565.7	567.4	569.0	569.8	570.6
20°	551.1	550.3	551.1	552.7	554.3	555.2	556.0	559.2	560.9	562.5	563.3
22.5°	539.7	539.7	540.5	542.1	544.6	545.4	546.2	548.6	551.1	552.7	554.3
25°	528.3	528.3	529.1	530.7	533.2	534.0	535.6	538.9	540.5	542.1	543.8
27.5°	515.3	515.3	516.1	518.5	521.8	522.6	523.4	526.7	529.1	530.7	532.4
30°	501.4	501.4	503.1	505.5	507.9	509.6	511.2	514.5	516.9	518.5	520.2
32.5°	486.8	486.8	488.4	490.9	494.1	495.7	497.4	500.6	503.1	505.5	507.9
35°	470.5	471.3	473.8	475.4	478.6	481.1	482.7	486.0	488.4	490.9	493.3
37.5°	454.2	454.2	455.8	459.1	463.2	464.0	467.2	470.5	472.9	476.2	477.8
40°	436.3	437.1	438.8	442.8	446.9	447.7	450.1	454.2	456.7	459.9	461.5
42.5°	418.4	419.2	421.7	425.7	428.2	430.6	433.1	436.3	438.8	442.8	445.3
45°	399.7	398.9	402.9	407.0	409.4	412.7	414.3	418.4	422.5	424.9	427.4
47.5°	379.3	381.0	384.2	386.7	390.7	393.2	394.8	398.9	402.1	405.4	408.6
50°	359.0	359.8	363.9	367.1	370.4	372.0	375.3	379.3	382.6	385.0	389.1
52.5°	337.8	339.4	341.9	344.3	349.2	351.7	354.1	357.4	362.2	365.5	368.7
55°	315.8	316.7	319.1	323.2	328.0	329.7	331.3	336.2	340.3	342.7	346.0
57.5°	293.0	293.9	297.1	300.4	303.6	307.7	309.3	312.6	317.5	321.5	324.8
60°	268.6	269.4	272.7	276.0	280.0	283.3	285.7	290.6	293.9	297.9	302.0
62.5°	244.2	244.2	248.3	250.7	256.4	259.7	260.5	265.4	270.3	273.5	278.4
65°	218.2	219.8	222.2	227.1	232.0	233.6	236.1	240.9	245.0	249.9	254.0
67.5°	191.3	192.9	197.0	200.2	205.9	209.2	210.8	214.9	221.4	225.5	229.6
70°	165.2	169.3	170.9	175.0	179.9	183.2	185.6	190.5	194.5	199.4	203.5
72.5°	140.8	141.6	144.1	149.8	154.7	157.1	160.4	163.6	169.3	174.2	177.5
75°	113.1	114.8	118.0	123.7	128.6	131.9	133.5	139.2	143.3	147.3	152.2
77.5°	86.3	88.7	93.6	97.7	103.4	105.8	109.1	114.0	118.8	122.9	127.0
80°	61.9	64.3	68.4	73.3	79.0	81.4	84.7	90.4	94.4	99.3	102.6
82.5°	39.9	41.5	46.4	51.3	56.2	59.4	61.9	67.6	72.4	76.5	80.6
85°	20.4	22.8	26.9	31.7	36.6	39.9	42.3	48.0	53.7	58.6	62.7
87.5°	7.3	9.0	13.0	18.7	23.6	26.0	29.3	34.2	39.9	44.8	48.8
90°	0.8	2.4	6.5	11.4	17.1	20.4	22.8	28.5	33.4	38.3	42.3
92.5°	0.0	1.6	5.7	10.6	16.3	18.7	22.0	26.9	31.7	36.6	40.7
95°	0.0	1.6	5.7	10.6	15.5	18.7	21.2	26.0	31.7	35.8	40.7
97.5°	0.0	1.6	4.9	9.8	15.5	17.9	20.4	26.0	30.9	35.8	39.9
100°	0.0	1.6	4.9	9.8	14.7	17.1	20.4	25.2	30.1	35.0	39.1
102.5°	0.0	1.6	4.9	9.0	14.7	17.1	19.5	24.4	29.3	34.2	38.3
105°	0.0	1.6	4.9	9.0	13.8	16.3	18.7	23.6	28.5	32.6	37.4
107.5°	0.0	0.8	4.1	8.1	13.0	15.5	17.9	22.8	27.7	31.7	35.8
110°	0.0	0.8	4.1	8.1	13.0	15.5	17.1	22.0	26.9	30.9	35.0



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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	4.1	7.3	12.2	14.7	17.1	21.2	26.0	30.1	33.4
115°	0.0	0.8	3.3	7.3	11.4	13.8	16.3	20.4	24.4	28.5	32.6
117.5°	0.0	0.8	3.3	6.5	10.6	13.0	15.5	19.5	23.6	27.7	30.9
120°	0.0	0.8	3.3	6.5	10.6	12.2	14.7	18.7	22.8	26.0	30.1
122.5°	0.0	0.8	2.4	5.7	9.8	11.4	13.8	17.9	21.2	25.2	28.5
125°	0.0	0.8	2.4	5.7	9.0	10.6	13.0	16.3	20.4	23.6	26.9
127.5°	0.0	0.8	2.4	4.9	8.1	10.6	12.2	15.5	19.5	22.8	26.0
130°	0.0	0.0	1.6	4.9	8.1	9.8	11.4	14.7	17.9	21.2	24.4
132.5°	0.0	0.0	1.6	4.1	7.3	9.0	10.6	13.8	17.1	19.5	22.8
135°	0.0	0.8	1.6	3.3	6.5	8.1	9.8	12.2	15.5	18.7	21.2
137.5°	0.0	0.8	0.8	3.3	5.7	7.3	9.0	11.4	14.7	17.1	19.5
140°	0.8	0.8	0.8	2.4	4.9	6.5	7.3	10.6	13.0	15.5	17.9
142.5°	0.8	0.8	0.8	2.4	4.1	5.7	6.5	9.0	11.4	13.8	16.3
145°	0.8	0.8	0.8	1.6	3.3	4.9	5.7	8.1	10.6	12.2	14.7
147.5°	0.8	0.8	0.8	1.6	3.3	4.1	4.9	6.5	9.0	10.6	13.0
150°	0.8	0.8	0.8	0.8	2.4	3.3	4.1	5.7	7.3	9.0	11.4
152.5°	0.8	0.8	0.8	0.8	1.6	2.4	3.3	4.9	6.5	8.1	9.0
155°	0.8	0.8	0.8	0.8	1.6	1.6	2.4	4.1	4.9	6.5	7.3
157.5°	0.8	0.8	0.8	0.8	0.8	1.6	1.6	3.3	4.1	4.9	5.7
160°	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	3.3	4.1	4.9
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4	3.3
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6
170°	0.8	0.8	0.8	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	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°	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4
2.5°	594.2	594.2	595.0	595.0	594.2	595.0	595.0	594.2	594.2	594.2
5°	592.6	592.6	593.4	593.4	593.4	593.4	593.4	593.4	592.6	593.4
7.5°	591.0	591.0	591.0	591.8	591.8	591.8	591.8	591.8	591.8	591.8
10°	587.7	588.5	588.5	589.3	589.3	589.3	590.2	589.3	589.3	589.3
12.5°	583.6	584.5	585.3	586.1	585.3	586.1	586.1	586.1	586.1	586.9
15°	578.8	579.6	579.6	580.4	580.4	581.2	581.2	581.2	581.2	581.2
17.5°	572.3	573.1	573.9	574.7	575.5	574.7	575.5	575.5	576.3	576.3
20°	564.1	565.7	566.6	567.4	568.2	567.4	568.2	568.2	569.0	568.2
22.5°	555.2	556.8	557.6	559.2	559.2	560.0	560.0	560.9	560.0	560.9
25°	545.4	547.0	547.8	549.5	550.3	550.3	551.1	551.1	551.1	551.9
27.5°	534.0	535.6	536.4	538.1	538.1	538.9	539.7	539.7	540.5	541.3
30°	522.6	523.4	525.9	526.7	527.5	527.5	528.3	529.1	529.1	529.1
32.5°	509.6	510.4	512.8	513.6	514.5	515.3	516.1	516.1	516.1	516.9
35°	494.9	497.4	498.2	500.6	501.4	502.2	502.2	503.1	502.2	503.1
37.5°	480.3	482.7	483.5	485.2	486.0	486.8	487.6	487.6	488.4	488.4
40°	464.0	466.4	468.1	469.7	470.5	471.3	471.3	472.1	473.8	472.9
42.5°	447.7	448.5	451.8	453.4	453.4	455.0	455.8	455.8	456.7	456.7
45°	429.8	432.2	433.9	435.5	436.3	437.1	437.9	438.8	438.8	439.6
47.5°	411.1	414.3	416.0	418.4	418.4	419.2	420.8	420.8	420.8	422.5
50°	391.5	394.0	397.2	398.1	398.9	399.7	400.5	401.3	402.1	402.1
52.5°	371.2	374.4	376.1	378.5	379.3	379.3	381.0	381.8	381.8	381.8
55°	350.0	353.3	354.9	356.5	358.2	359.0	359.0	360.6	361.4	360.6
57.5°	327.2	329.7	332.1	335.4	336.2	337.0	337.0	337.8	340.3	338.6
60°	303.6	306.9	309.3	312.6	313.4	313.4	314.2	315.8	316.7	317.5
62.5°	280.8	284.9	286.5	289.0	289.0	291.4	292.2	293.0	293.9	294.7
65°	256.4	259.7	262.1	264.6	266.2	266.2	268.6	270.3	270.3	269.4
67.5°	232.0	235.2	238.5	240.1	241.8	241.8	243.4	245.0	245.0	245.8
70°	207.6	210.0	213.3	215.7	217.3	217.3	219.0	220.6	220.6	219.8
72.5°	181.5	184.0	188.0	189.7	191.3	192.1	193.7	194.5	195.4	195.4
75°	156.3	159.5	162.0	164.4	165.2	166.9	168.5	169.3	170.1	170.9
77.5°	130.2	135.1	137.6	140.8	140.8	142.5	145.7	144.9	145.7	145.7
80°	106.6	110.7	113.1	116.4	117.2	118.0	119.7	121.3	122.1	122.1
82.5°	85.5	88.7	92.0	93.6	96.1	96.1	97.7	99.3	100.1	100.9
85°	66.7	70.0	73.3	76.5	77.3	78.1	80.6	81.4	81.4	81.4
87.5°	53.7	57.0	60.2	62.7	64.3	65.1	66.7	67.6	69.2	69.2
90°	46.4	50.5	53.7	56.2	57.8	58.6	60.2	61.9	61.9	62.7
92.5°	45.6	48.8	52.1	54.5	55.4	57.0	58.6	59.4	60.2	61.1
95°	44.8	48.0	51.3	53.7	55.4	56.2	57.8	59.4	59.4	60.2
97.5°	44.0	47.2	50.5	52.9	54.5	55.4	57.0	58.6	59.4	59.4
100°	43.1	46.4	49.7	52.1	53.7	54.5	56.2	57.0	57.8	58.6
102.5°	42.3	45.6	48.8	51.3	52.1	52.9	55.4	56.2	57.0	57.0
105°	40.7	44.0	47.2	49.7	51.3	52.1	53.7	55.4	55.4	56.2
107.5°	39.9	43.1	46.4	48.8	49.7	50.5	52.1	53.7	54.5	54.5
110°	38.3	41.5	44.8	47.2	48.8	49.7	51.3	52.1	52.9	52.9





TEST NUMBER: P241566

CATALOG NUMBER: FVS8M-3-LD4-35-1STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	37.4	40.7	43.1	45.6	47.2	48.0	49.7	50.5	51.3	51.3
115°	35.8	39.1	41.5	44.0	45.6	46.4	48.0	48.8	49.7	49.7
117.5°	34.2	37.4	40.7	42.3	44.0	44.8	46.4	47.2	48.0	48.0
120°	33.4	35.8	39.1	40.7	42.3	43.1	44.0	45.6	46.4	46.4
122.5°	31.7	35.0	37.4	39.1	39.9	40.7	42.3	43.1	44.0	44.8
125°	30.1	33.4	35.0	37.4	38.3	39.1	40.7	41.5	42.3	42.3
127.5°	28.5	30.9	33.4	35.8	36.6	37.4	39.1	39.9	39.9	40.7
130°	26.9	29.3	31.7	33.4	34.2	35.0	36.6	37.4	38.3	38.3
132.5°	25.2	27.7	30.1	31.7	32.6	33.4	34.2	35.0	35.8	35.8
135°	23.6	26.0	27.7	29.3	30.1	30.9	32.6	33.4	33.4	34.2
137.5°	22.0	24.4	26.0	27.7	28.5	29.3	30.1	30.9	31.7	31.7
140°	20.4	22.0	24.4	25.2	26.0	26.9	27.7	28.5	29.3	29.3
142.5°	18.7	20.4	22.0	23.6	24.4	24.4	25.2	26.0	26.9	26.9
145°	17.1	18.7	20.4	21.2	22.0	22.8	23.6	24.4	24.4	24.4
147.5°	14.7	16.3	17.9	19.5	19.5	20.4	21.2	22.0	22.0	22.0
150°	13.0	14.7	16.3	17.1	17.9	17.9	18.7	19.5	19.5	19.5
152.5°	10.6	12.2	13.8	14.7	15.5	15.5	16.3	17.1	17.1	17.1
155°	9.0	10.6	11.4	13.0	13.0	13.8	13.8	14.7	14.7	14.7
157.5°	7.3	8.1	9.8	10.6	11.4	11.4	11.4	12.2	12.2	12.2
160°	5.7	6.5	7.3	8.1	9.0	9.0	9.8	9.8	9.8	9.8
162.5°	4.1	4.9	5.7	5.7	6.5	6.5	7.3	7.3	7.3	7.3
165°	2.4	3.3	3.3	4.1	4.1	4.9	4.9	4.9	5.7	5.7
167.5°	1.6	1.6	2.4	2.4	2.4	2.4	3.3	3.3	3.3	3.3
170°	0.8	0.8	0.8	0.8	0.8	1.6	1.6	1.6	1.6	1.6
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)