

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: P241569

Luminaire Tested: **FVS8M-3-LD4-30-1HI-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241569
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-LD4-30-1HI-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

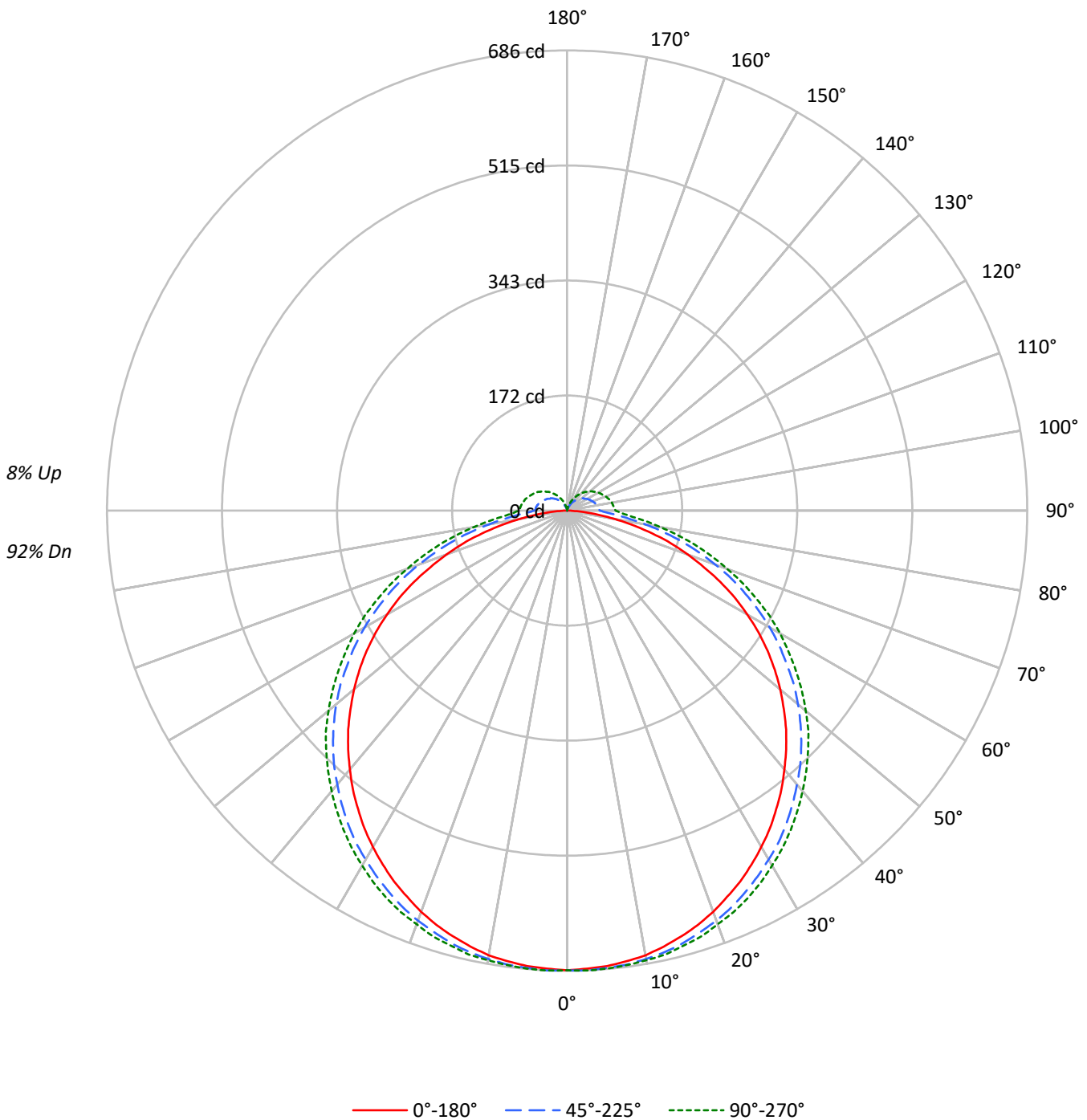
Lumens per Lamp: N/A
Luminaire Lumens: 2348.0 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.43
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 36
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°	4002	4002	4002
5°	3978	3944	3940
10°	3956	3891	3882
15°	3919	3834	3827
20°	3883	3774	3768
25°	3840	3708	3716
30°	3793	3639	3645
35°	3740	3572	3576
40°	3683	3490	3500
45°	3627	3409	3420
50°	3550	3310	3324
55°	3461	3179	3206
60°	3328	3042	3079
65°	3138	2854	2897
70°	2857	2609	2674
75°	2477	2292	2417
80°	1864	1888	2079
85°	994	1498	1759



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	2.8
10°-20°	188.0	8.0
20°-30°	288.6	12.3
30°-40°	354.4	15.1
40°-50°	377.7	16.1
50°-60°	354.1	15.1
60°-70°	284.7	12.1
70°-80°	180.7	7.7
80°-90°	77.8	3.3
90°-100°	45.6	1.9
100°-110°	40.5	1.7
110°-120°	33.4	1.4
120°-130°	25.3	1.1
130°-140°	17.1	0.7
140°-150°	9.8	0.4
150°-160°	4.2	0.2
160°-170°	1.0	0.0
170°-180°	0.0	0.0
0°-30°	541.7	23.1
0°-40°	896.1	38.2
0°-60°	1627.9	69.3
0°-90°	2171.1	92.5
90°-120°	119.4	5.1
90°-150°	171.7	7.3
90°-180°	177.0	7.5
0°-180°	2348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	682	682	684	685	685	65
15°	657	660	668	670	671	186
25°	610	617	628	636	637	281
35°	543	556	570	579	581	340
45°	462	477	494	504	508	356
55°	365	381	400	414	416	326
65°	252	270	293	307	311	249
75°	131	152	176	191	197	138
85°	24	46	72	89	94	30
90°	1	24	49	67	72	1
95°	0	22	47	64	70	0
105°	0	19	43	59	65	0
115°	0	16	38	53	57	0
125°	0	12	31	44	49	0
135°	0	9	24	35	40	0
145°	1	6	17	25	28	1
155°	1	2	8	15	17	0
165°	1	1	3	5	7	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°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	683.5	683.5	682.5	683.5	683.5	684.4	684.4	685.4	686.3	687.2	686.3
5°	681.6	680.7	680.7	681.6	681.6	681.6	682.5	683.5	684.4	684.4	684.4
7.5°	677.8	676.9	676.9	677.8	677.8	678.8	678.8	680.7	681.6	681.6	682.5
10°	673.1	672.2	672.2	672.2	673.1	674.1	674.1	676.0	677.8	678.8	678.8
12.5°	665.6	665.6	664.7	666.6	666.6	667.5	669.4	671.3	672.2	673.1	674.1
15°	657.2	657.2	657.2	658.1	659.0	660.0	661.9	663.7	665.6	666.6	667.5
17.5°	647.8	647.8	647.8	648.7	650.6	651.5	653.4	655.3	657.2	658.1	659.0
20°	636.5	635.5	636.5	638.4	640.2	641.2	642.1	645.9	647.8	649.6	650.6
22.5°	623.3	623.3	624.3	626.1	629.0	629.9	630.8	633.7	636.5	638.4	640.2
25°	610.2	610.2	611.1	613.0	615.8	616.7	618.6	622.4	624.3	626.1	628.0
27.5°	595.1	595.1	596.0	598.9	602.6	603.6	604.5	608.3	611.1	613.0	614.9
30°	579.1	579.1	581.0	583.8	586.6	588.5	590.4	594.2	597.0	598.9	600.7
32.5°	562.2	562.2	564.1	566.9	570.7	572.5	574.4	578.2	581.0	583.8	586.6
35°	543.4	544.3	547.2	549.0	552.8	555.6	557.5	561.3	564.1	566.9	569.7
37.5°	524.6	524.6	526.5	530.2	534.9	535.9	539.6	543.4	546.2	550.0	551.9
40°	503.9	504.9	506.7	511.4	516.1	517.1	519.9	524.6	527.4	531.2	533.1
42.5°	483.2	484.2	487.0	491.7	494.5	497.3	500.2	503.9	506.7	511.4	514.3
45°	461.6	460.7	465.4	470.1	472.9	476.7	478.5	483.2	487.9	490.8	493.6
47.5°	438.1	440.0	443.7	446.6	451.3	454.1	456.0	460.7	464.4	468.2	471.9
50°	414.6	415.5	420.2	424.0	427.8	429.6	433.4	438.1	441.9	444.7	449.4
52.5°	390.2	392.0	394.9	397.7	403.3	406.1	409.0	412.7	418.4	422.1	425.9
55°	364.8	365.7	368.5	373.2	378.9	380.8	382.6	388.3	393.0	395.8	399.6
57.5°	338.5	339.4	343.2	346.9	350.7	355.4	357.3	361.0	366.7	371.4	375.1
60°	310.2	311.2	314.9	318.7	323.4	327.2	330.0	335.6	339.4	344.1	348.8
62.5°	282.0	282.0	286.7	289.6	296.1	299.9	300.8	306.5	312.1	315.9	321.5
65°	252.0	253.8	256.7	262.3	267.9	269.8	272.6	278.3	283.0	288.6	293.3
67.5°	220.9	222.8	227.5	231.3	237.9	241.6	243.5	248.2	255.7	260.4	265.1
70°	190.8	195.5	197.4	202.1	207.8	211.5	214.4	220.0	224.7	230.3	235.0
72.5°	162.6	163.6	166.4	173.0	178.6	181.4	185.2	189.0	195.5	201.2	205.0
75°	130.7	132.6	136.3	142.9	148.5	152.3	154.2	160.8	165.5	170.2	175.8
77.5°	99.7	102.5	108.1	112.8	119.4	122.2	126.0	131.6	137.3	142.0	146.7
80°	71.5	74.3	79.0	84.6	91.2	94.0	97.8	104.4	109.1	114.7	118.5
82.5°	46.1	47.9	53.6	59.2	64.9	68.6	71.5	78.0	83.7	88.4	93.1
85°	23.5	26.3	31.0	36.7	42.3	46.1	48.9	55.5	62.0	67.7	72.4
87.5°	8.5	10.3	15.0	21.6	27.3	30.1	33.8	39.5	46.1	51.7	56.4
90°	0.9	2.8	7.5	13.2	19.7	23.5	26.3	32.9	38.5	44.2	48.9
92.5°	0.0	1.9	6.6	12.2	18.8	21.6	25.4	31.0	36.7	42.3	47.0
95°	0.0	1.9	6.6	12.2	17.9	21.6	24.4	30.1	36.7	41.4	47.0
97.5°	0.0	1.9	5.6	11.3	17.9	20.7	23.5	30.1	35.7	41.4	46.1
100°	0.0	1.9	5.6	11.3	16.9	19.7	23.5	29.1	34.8	40.4	45.1
102.5°	0.0	1.9	5.6	10.3	16.9	19.7	22.6	28.2	33.8	39.5	44.2
105°	0.0	1.9	5.6	10.3	16.0	18.8	21.6	27.3	32.9	37.6	43.2
107.5°	0.0	0.9	4.7	9.4	15.0	17.9	20.7	26.3	32.0	36.7	41.4
110°	0.0	0.9	4.7	9.4	15.0	17.9	19.7	25.4	31.0	35.7	40.4



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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	4.7	8.5	14.1	16.9	19.7	24.4	30.1	34.8	38.5
115°	0.0	0.9	3.8	8.5	13.2	16.0	18.8	23.5	28.2	32.9	37.6
117.5°	0.0	0.9	3.8	7.5	12.2	15.0	17.9	22.6	27.3	32.0	35.7
120°	0.0	0.9	3.8	7.5	12.2	14.1	16.9	21.6	26.3	30.1	34.8
122.5°	0.0	0.9	2.8	6.6	11.3	13.2	16.0	20.7	24.4	29.1	32.9
125°	0.0	0.9	2.8	6.6	10.3	12.2	15.0	18.8	23.5	27.3	31.0
127.5°	0.0	0.9	2.8	5.6	9.4	12.2	14.1	17.9	22.6	26.3	30.1
130°	0.0	0.0	1.9	5.6	9.4	11.3	13.2	16.9	20.7	24.4	28.2
132.5°	0.0	0.0	1.9	4.7	8.5	10.3	12.2	16.0	19.7	22.6	26.3
135°	0.0	0.9	1.9	3.8	7.5	9.4	11.3	14.1	17.9	21.6	24.4
137.5°	0.0	0.9	0.9	3.8	6.6	8.5	10.3	13.2	16.9	19.7	22.6
140°	0.9	0.9	0.9	2.8	5.6	7.5	8.5	12.2	15.0	17.9	20.7
142.5°	0.9	0.9	0.9	2.8	4.7	6.6	7.5	10.3	13.2	16.0	18.8
145°	0.9	0.9	0.9	1.9	3.8	5.6	6.6	9.4	12.2	14.1	16.9
147.5°	0.9	0.9	0.9	1.9	3.8	4.7	5.6	7.5	10.3	12.2	15.0
150°	0.9	0.9	0.9	0.9	2.8	3.8	4.7	6.6	8.5	10.3	13.2
152.5°	0.9	0.9	0.9	0.9	1.9	2.8	3.8	5.6	7.5	9.4	10.3
155°	0.9	0.9	0.9	0.9	1.9	1.9	2.8	4.7	5.6	7.5	8.5
157.5°	0.9	0.9	0.9	0.9	0.9	1.9	1.9	3.8	4.7	5.6	6.6
160°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	3.8	4.7	5.6
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8	3.8
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8
167.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9
170°	0.9	0.9	0.9	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	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°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	686.3	686.3	687.2	687.2	686.3	687.2	687.2	686.3	686.3	686.3
5°	684.4	684.4	685.4	685.4	685.4	685.4	685.4	685.4	684.4	685.4
7.5°	682.5	682.5	682.5	683.5	683.5	683.5	683.5	683.5	683.5	683.5
10°	678.8	679.7	679.7	680.7	680.7	680.7	681.6	680.7	680.7	680.7
12.5°	674.1	675.0	676.0	676.9	676.0	676.9	676.9	676.9	676.9	677.8
15°	668.4	669.4	669.4	670.3	670.3	671.3	671.3	671.3	671.3	671.3
17.5°	660.9	661.9	662.8	663.7	664.7	663.7	664.7	664.7	665.6	665.6
20°	651.5	653.4	654.3	655.3	656.2	655.3	656.2	656.2	657.2	656.2
22.5°	641.2	643.1	644.0	645.9	645.9	646.8	646.8	647.8	646.8	647.8
25°	629.9	631.8	632.7	634.6	635.5	635.5	636.5	636.5	636.5	637.4
27.5°	616.7	618.6	619.6	621.4	621.4	622.4	623.3	623.3	624.3	625.2
30°	603.6	604.5	607.3	608.3	609.2	609.2	610.2	611.1	611.1	611.1
32.5°	588.5	589.5	592.3	593.2	594.2	595.1	596.0	596.0	596.0	597.0
35°	571.6	574.4	575.4	578.2	579.1	580.1	580.1	581.0	580.1	581.0
37.5°	554.7	557.5	558.4	560.3	561.3	562.2	563.1	563.1	564.1	564.1
40°	535.9	538.7	540.6	542.5	543.4	544.3	544.3	545.3	547.2	546.2
42.5°	517.1	518.0	521.8	523.7	523.7	525.5	526.5	526.5	527.4	527.4
45°	496.4	499.2	501.1	503.0	503.9	504.9	505.8	506.7	506.7	507.7
47.5°	474.8	478.5	480.4	483.2	483.2	484.2	486.1	486.1	486.1	487.9
50°	452.2	455.0	458.8	459.7	460.7	461.6	462.5	463.5	464.4	464.4
52.5°	428.7	432.5	434.3	437.2	438.1	438.1	440.0	440.9	440.9	440.9
55°	404.3	408.0	409.9	411.8	413.7	414.6	414.6	416.5	417.4	416.5
57.5°	377.9	380.8	383.6	387.3	388.3	389.2	389.2	390.2	393.0	391.1
60°	350.7	354.4	357.3	361.0	362.0	362.0	362.9	364.8	365.7	366.7
62.5°	324.3	329.0	330.9	333.7	333.7	336.6	337.5	338.5	339.4	340.3
65°	296.1	299.9	302.7	305.5	307.4	307.4	310.2	312.1	312.1	311.2
67.5°	267.9	271.7	275.5	277.3	279.2	279.2	281.1	283.0	283.0	283.9
70°	239.7	242.6	246.3	249.1	251.0	251.0	252.9	254.8	254.8	253.8
72.5°	209.7	212.5	217.2	219.1	220.9	221.9	223.8	224.7	225.6	225.6
75°	180.5	184.3	187.1	189.9	190.8	192.7	194.6	195.5	196.5	197.4
77.5°	150.4	156.1	158.9	162.6	162.6	164.5	168.3	167.3	168.3	168.3
80°	123.2	127.9	130.7	134.4	135.4	136.3	138.2	140.1	141.0	141.0
82.5°	98.7	102.5	106.2	108.1	110.9	110.9	112.8	114.7	115.6	116.6
85°	77.1	80.9	84.6	88.4	89.3	90.3	93.1	94.0	94.0	94.0
87.5°	62.0	65.8	69.6	72.4	74.3	75.2	77.1	78.0	79.9	79.9
90°	53.6	58.3	62.0	64.9	66.7	67.7	69.6	71.5	71.5	72.4
92.5°	52.6	56.4	60.2	63.0	63.9	65.8	67.7	68.6	69.6	70.5
95°	51.7	55.5	59.2	62.0	63.9	64.9	66.7	68.6	68.6	69.6
97.5°	50.8	54.5	58.3	61.1	63.0	63.9	65.8	67.7	68.6	68.6
100°	49.8	53.6	57.3	60.2	62.0	63.0	64.9	65.8	66.7	67.7
102.5°	48.9	52.6	56.4	59.2	60.2	61.1	63.9	64.9	65.8	65.8
105°	47.0	50.8	54.5	57.3	59.2	60.2	62.0	63.9	63.9	64.9
107.5°	46.1	49.8	53.6	56.4	57.3	58.3	60.2	62.0	63.0	63.0
110°	44.2	47.9	51.7	54.5	56.4	57.3	59.2	60.2	61.1	61.1



TEST NUMBER: P241569

CATALOG NUMBER: FVS8M-3-LD4-30-1HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	43.2	47.0	49.8	52.6	54.5	55.5	57.3	58.3	59.2	59.2
115°	41.4	45.1	47.9	50.8	52.6	53.6	55.5	56.4	57.3	57.3
117.5°	39.5	43.2	47.0	48.9	50.8	51.7	53.6	54.5	55.5	55.5
120°	38.5	41.4	45.1	47.0	48.9	49.8	50.8	52.6	53.6	53.6
122.5°	36.7	40.4	43.2	45.1	46.1	47.0	48.9	49.8	50.8	51.7
125°	34.8	38.5	40.4	43.2	44.2	45.1	47.0	47.9	48.9	48.9
127.5°	32.9	35.7	38.5	41.4	42.3	43.2	45.1	46.1	46.1	47.0
130°	31.0	33.8	36.7	38.5	39.5	40.4	42.3	43.2	44.2	44.2
132.5°	29.1	32.0	34.8	36.7	37.6	38.5	39.5	40.4	41.4	41.4
135°	27.3	30.1	32.0	33.8	34.8	35.7	37.6	38.5	38.5	39.5
137.5°	25.4	28.2	30.1	32.0	32.9	33.8	34.8	35.7	36.7	36.7
140°	23.5	25.4	28.2	29.1	30.1	31.0	32.0	32.9	33.8	33.8
142.5°	21.6	23.5	25.4	27.3	28.2	28.2	29.1	30.1	31.0	31.0
145°	19.7	21.6	23.5	24.4	25.4	26.3	27.3	28.2	28.2	28.2
147.5°	16.9	18.8	20.7	22.6	22.6	23.5	24.4	25.4	25.4	25.4
150°	15.0	16.9	18.8	19.7	20.7	20.7	21.6	22.6	22.6	22.6
152.5°	12.2	14.1	16.0	16.9	17.9	17.9	18.8	19.7	19.7	19.7
155°	10.3	12.2	13.2	15.0	15.0	16.0	16.0	16.9	16.9	16.9
157.5°	8.5	9.4	11.3	12.2	13.2	13.2	13.2	14.1	14.1	14.1
160°	6.6	7.5	8.5	9.4	10.3	10.3	11.3	11.3	11.3	11.3
162.5°	4.7	5.6	6.6	6.6	7.5	7.5	8.5	8.5	8.5	8.5
165°	2.8	3.8	3.8	4.7	4.7	5.6	5.6	5.6	6.6	6.6
167.5°	1.9	1.9	2.8	2.8	2.8	2.8	3.8	3.8	3.8	3.8
170°	0.9	0.9	0.9	0.9	0.9	1.9	1.9	1.9	1.9	1.9
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)