

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: P241552

Luminaire Tested: **FVS8M-2-LD4-50-3LO-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-14)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-50-3LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (126) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

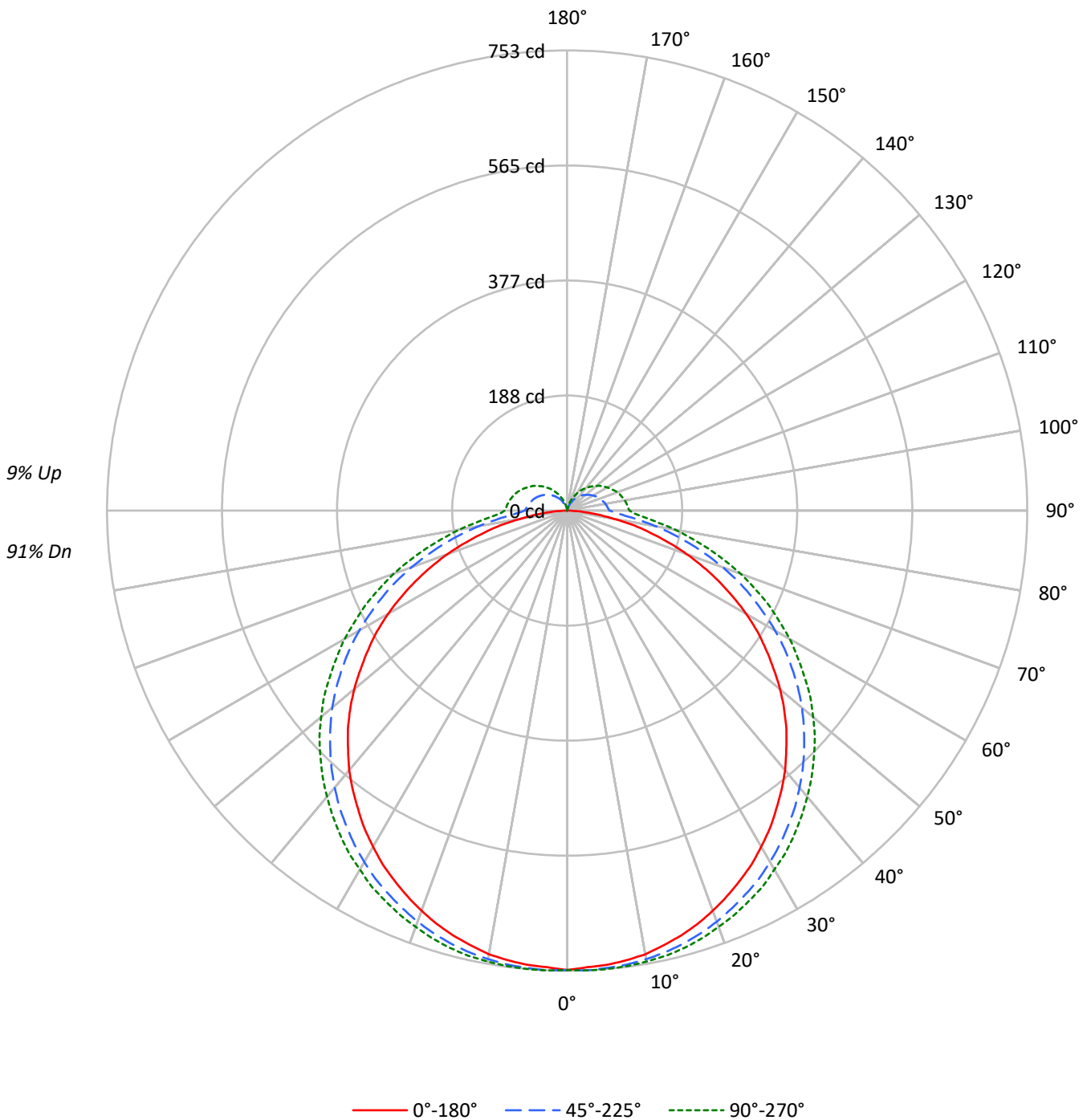
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2693.0 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' 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





TEST NUMBER: P241552

CATALOG NUMBER: FVS8M-2-LD4-50-3LO-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	113	113	113	113	106	106	106	99	99	99	93	93	93	91
1	105	100	96	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	95	87	79	73	92	84	77	72	79	73	69	74	70	66	70	66	63	60
3	87	76	67	60	83	73	65	59	69	62	57	65	59	55	61	57	53	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	31
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30	28
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	35	29	25	34	28	24	22
10	50	37	29	24	48	36	28	23	34	27	23	33	27	22	31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6758	6758	6758
5°	6686	6653	6664
10°	6636	6555	6577
15°	6560	6457	6501
20°	6479	6350	6408
25°	6395	6239	6321
30°	6306	6130	6226
35°	6205	6008	6139
40°	6108	5879	6031
45°	5980	5737	5920
50°	5815	5583	5789
55°	5603	5383	5618
60°	5359	5149	5438
65°	4985	4844	5203
70°	4506	4470	4900
75°	3788	3990	4486
80°	2824	3410	4063
85°	1499	2828	3658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	2.7
10°-20°	206.7	7.7
20°-30°	318.1	11.8
30°-40°	392.2	14.6
40°-50°	419.9	15.6
50°-60°	396.6	14.7
60°-70°	323.4	12.0
70°-80°	211.9	7.9
80°-90°	100.6	3.7
90°-100°	64.6	2.4
100°-110°	57.3	2.1
110°-120°	47.4	1.8
120°-130°	36.1	1.3
130°-140°	24.6	0.9
140°-150°	14.3	0.5
150°-160°	6.2	0.2
160°-170°	1.4	0.1
170°-180°	0.0	0.0
0°-30°	596.2	22.1
0°-40°	988.5	36.7
0°-60°	1805.0	67.0
0°-90°	2441.0	90.6
90°-120°	169.4	6.3
90°-150°	244.4	9.1
90°-180°	252.0	9.4
0°-180°	2693.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	746	748	751	753	753	71
15°	720	725	734	739	741	203
25°	668	678	692	702	704	308
35°	597	611	630	643	648	374
45°	507	525	548	565	571	391
55°	398	421	449	468	474	356
65°	274	300	333	355	363	271
75°	141	172	207	231	238	150
85°	28	58	95	119	127	33
90°	0	33	69	94	102	1
95°	0	30	66	90	99	0
105°	0	26	60	84	92	0
115°	0	22	53	74	82	0
125°	0	18	45	64	70	0
135°	1	14	35	51	56	0
145°	1	8	25	37	41	0
155°	1	3	14	22	24	0
165°	1	1	4	8	10	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°	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8
2.5°	748.0	748.0	748.6	749.3	749.3	749.9	749.9	750.6	751.8	752.5	753.1
5°	746.1	746.1	746.7	747.4	748.0	748.0	748.6	749.3	749.9	750.6	751.2
7.5°	742.2	742.2	742.9	743.5	744.1	744.8	744.8	745.4	746.7	748.0	749.3
10°	737.1	736.4	737.1	737.7	738.4	739.0	740.3	741.6	742.9	744.8	745.4
12.5°	728.7	729.4	729.4	730.7	732.0	733.2	733.2	735.2	737.1	739.0	740.3
15°	719.8	719.8	720.4	722.3	723.6	724.9	725.5	728.1	730.0	732.0	733.9
17.5°	709.5	709.5	710.8	712.1	714.0	715.3	716.6	718.5	721.1	723.6	725.5
20°	696.7	697.3	698.6	700.5	703.1	704.4	705.0	708.2	711.4	713.4	715.9
22.5°	683.2	683.2	685.1	687.7	690.3	691.5	692.8	696.0	699.2	701.8	704.4
25°	668.4	669.1	671.0	673.6	676.1	678.1	679.4	683.8	686.4	689.0	692.2
27.5°	653.1	653.1	655.6	658.2	661.4	662.7	665.2	668.4	672.3	675.5	679.4
30°	635.1	635.7	638.9	642.1	644.7	647.9	649.2	653.1	656.9	660.1	664.0
32.5°	617.1	617.1	619.7	624.2	626.8	629.3	631.2	635.7	640.2	644.1	647.9
35°	596.6	598.5	601.1	604.9	608.8	611.4	613.3	617.8	622.9	626.1	630.0
37.5°	576.1	577.4	580.6	584.4	588.3	590.8	593.4	598.5	603.0	607.5	612.0
40°	554.9	554.9	558.1	563.2	567.7	569.7	572.2	577.4	581.8	587.0	591.5
42.5°	530.5	531.8	535.7	540.1	545.3	547.8	550.4	555.5	560.7	565.8	570.9
45°	507.4	508.1	511.9	516.4	521.5	524.8	528.0	532.4	538.9	543.4	548.5
47.5°	481.8	483.1	486.9	492.0	497.2	501.0	502.9	508.7	514.5	520.3	525.4
50°	454.8	456.1	460.6	467.0	472.1	474.1	477.9	485.0	490.1	496.5	501.7
52.5°	426.0	429.2	434.9	439.4	445.2	448.4	451.6	457.4	465.1	470.2	476.0
55°	397.7	399.7	404.8	410.6	417.6	420.8	424.0	430.5	438.1	443.9	449.1
57.5°	369.5	371.4	376.6	381.7	389.4	392.6	396.5	403.5	409.9	415.1	422.1
60°	338.7	340.0	345.8	352.8	359.2	363.7	366.3	374.0	380.4	386.8	393.2
62.5°	306.0	309.8	314.3	322.0	328.5	334.2	336.8	343.2	350.9	357.3	362.5
65°	273.9	277.1	282.3	290.6	297.0	299.6	304.7	311.8	319.5	327.2	332.9
67.5°	241.2	245.7	248.9	257.9	266.9	269.4	274.6	280.3	289.3	296.4	302.8
70°	208.5	211.1	216.8	225.2	232.2	236.7	240.6	248.9	256.6	264.9	270.7
72.5°	174.5	178.3	184.8	191.8	201.4	204.6	209.1	216.2	225.8	232.9	238.6
75°	141.1	144.3	150.1	159.7	168.1	171.9	176.4	184.8	193.1	200.8	207.2
77.5°	111.6	112.9	119.3	127.7	136.0	140.5	145.0	153.3	161.7	170.6	176.4
80°	78.9	82.8	88.5	96.9	105.8	110.3	114.8	122.5	130.9	138.6	146.3
82.5°	50.0	53.9	60.3	68.6	78.3	81.5	86.6	96.2	103.3	110.3	118.7
85°	27.6	30.2	35.9	44.9	53.9	58.4	62.9	71.8	79.5	87.2	94.9
87.5°	9.6	12.8	19.2	27.6	36.6	41.1	45.5	54.5	62.2	70.6	78.3
90°	0.0	4.5	10.9	19.2	28.2	32.7	37.2	45.5	54.5	62.2	69.3
92.5°	0.0	3.2	9.6	17.3	26.3	30.8	35.3	44.3	52.6	60.3	67.4
95°	0.0	2.6	9.0	16.7	25.7	30.2	34.6	43.0	51.3	59.0	66.1
97.5°	0.0	2.6	8.3	16.0	25.0	28.9	33.4	42.3	50.0	57.7	64.8
100°	0.0	2.6	8.3	15.4	24.4	28.2	32.7	41.1	48.8	56.5	63.5
102.5°	0.0	2.6	7.7	15.4	23.1	27.6	31.4	39.8	47.5	55.2	62.2
105°	0.0	1.9	7.1	14.8	22.5	26.3	30.8	38.5	46.2	53.9	60.3
107.5°	0.0	1.9	7.1	14.1	21.8	25.7	29.5	37.2	44.9	52.0	59.0
110°	0.0	1.9	6.4	13.5	20.5	24.4	28.9	36.6	43.6	50.7	57.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.9	6.4	12.8	19.9	23.7	27.6	34.6	42.3	48.8	55.2
115°	0.0	1.3	5.8	12.2	18.6	22.5	26.3	33.4	40.4	46.8	53.2
117.5°	0.0	1.3	5.1	11.5	18.0	21.2	25.0	32.1	39.1	45.5	51.3
120°	0.0	1.3	5.1	10.9	17.3	20.5	23.7	30.8	37.2	43.6	49.4
122.5°	0.0	0.6	4.5	10.3	16.0	19.2	22.5	28.9	35.3	41.7	46.8
125°	0.0	0.6	4.5	9.0	15.4	18.0	21.2	27.6	33.4	39.1	44.9
127.5°	0.0	0.6	3.8	8.3	14.1	17.3	19.9	26.3	32.1	37.2	42.3
130°	0.0	0.6	3.2	7.7	12.8	16.0	18.6	24.4	30.2	35.3	39.8
132.5°	0.0	0.6	3.2	7.1	12.2	14.8	17.3	22.5	28.2	32.7	37.8
135°	0.6	0.6	2.6	6.4	10.9	13.5	16.0	21.2	26.3	30.8	35.3
137.5°	0.0	0.6	1.9	5.8	10.3	12.2	14.8	19.2	24.4	28.2	32.7
140°	0.0	0.6	1.9	5.1	9.0	10.9	13.5	18.0	21.8	26.3	30.2
142.5°	0.6	0.6	1.3	4.5	7.7	9.6	11.5	16.0	19.9	23.7	27.6
145°	0.6	0.6	0.6	3.2	6.4	8.3	10.3	14.1	18.0	21.8	25.0
147.5°	0.6	0.6	0.6	2.6	5.8	7.1	9.0	12.2	16.0	19.2	22.5
150°	0.6	0.6	0.6	1.9	4.5	5.8	7.1	10.3	13.5	16.7	19.9
152.5°	0.6	0.6	0.6	1.3	3.2	4.5	5.8	8.3	11.5	14.1	16.7
155°	0.6	0.6	0.6	1.3	2.6	3.2	4.5	7.1	9.0	11.5	14.1
157.5°	0.6	0.6	0.6	0.6	1.9	2.6	3.2	5.1	7.1	9.0	10.9
160°	0.6	0.6	0.6	0.6	1.3	1.9	1.9	3.8	5.1	7.1	8.3
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.3	2.6	3.2	4.5	5.8
165°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9	3.2	3.8
167.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.3	1.9
170°	0.6	0.6	0.6	0.6	0.6	0.6	0.0	0.0	0.0	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	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°	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8	751.8
2.5°	753.1	753.8	753.8	753.8	753.8	753.8	753.8	753.8	753.8	753.1
5°	751.8	752.5	752.5	753.1	753.1	753.1	753.1	753.1	753.1	753.1
7.5°	749.9	750.6	751.2	751.8	751.8	751.8	751.8	751.8	751.8	751.8
10°	746.7	747.4	748.6	748.6	749.3	749.3	749.3	749.3	749.9	749.3
12.5°	741.6	742.9	744.1	744.8	744.8	745.4	745.4	745.4	746.1	746.1
15°	735.2	736.4	737.7	738.4	739.0	739.7	739.7	740.3	740.3	740.9
17.5°	727.5	729.4	730.7	731.3	732.0	732.6	732.6	733.2	733.9	733.9
20°	718.5	719.8	721.7	722.3	723.0	723.6	724.9	724.9	725.5	724.9
22.5°	706.9	709.5	711.4	712.7	713.4	713.4	714.6	715.9	715.9	715.9
25°	694.8	697.3	699.9	701.2	701.8	701.8	703.7	703.7	704.4	704.4
27.5°	681.3	684.5	686.4	688.3	689.0	689.6	690.3	691.5	692.2	693.5
30°	666.5	669.1	671.7	674.2	674.9	675.5	676.8	677.4	678.7	678.1
32.5°	651.1	653.7	656.9	659.5	660.1	660.1	662.0	662.0	663.3	664.6
35°	633.8	637.0	639.6	642.1	643.4	643.4	646.0	646.6	647.9	647.9
37.5°	615.2	619.7	621.6	624.8	626.1	626.8	628.7	628.7	630.0	630.0
40°	596.0	599.2	603.0	604.9	606.2	608.1	608.8	611.4	611.4	611.4
42.5°	575.4	578.0	583.1	585.1	587.0	587.0	588.9	590.2	591.5	592.1
45°	553.6	556.8	560.7	563.9	565.2	566.4	567.7	569.0	570.9	570.9
47.5°	529.9	535.0	537.6	541.4	542.7	544.0	545.9	547.2	548.5	549.8
50°	505.5	510.6	515.1	517.7	518.3	520.3	522.2	523.5	524.8	525.4
52.5°	480.5	485.0	488.8	492.7	494.0	497.2	497.2	499.1	500.4	501.7
55°	454.8	458.7	463.8	466.4	468.3	468.9	472.8	474.1	474.1	474.1
57.5°	426.6	432.4	435.6	440.7	441.4	442.6	444.6	447.1	447.1	447.1
60°	398.4	403.5	408.0	411.2	413.8	413.8	417.0	419.5	420.2	420.8
62.5°	369.5	374.0	379.1	382.3	384.9	386.2	388.1	390.7	392.0	390.7
65°	338.7	343.8	349.0	352.8	354.8	356.0	358.6	360.5	362.5	363.1
67.5°	308.6	313.1	318.8	323.3	324.6	327.2	329.1	330.4	331.7	331.7
70°	277.1	282.9	288.0	291.9	292.5	295.1	298.3	300.2	299.6	302.1
72.5°	245.7	251.5	256.0	261.1	261.7	263.7	266.2	268.1	268.8	269.4
75°	213.6	220.7	224.5	229.0	230.9	232.2	235.4	238.0	238.0	238.0
77.5°	182.8	188.6	193.1	196.9	199.5	201.4	204.6	206.6	206.6	207.2
80°	151.4	159.1	162.9	167.4	170.6	171.9	174.5	177.1	177.7	179.0
82.5°	124.5	131.5	136.0	140.5	143.1	145.6	146.9	149.5	150.1	150.1
85°	101.4	107.1	112.3	116.8	119.3	121.2	123.8	125.1	127.0	127.0
87.5°	84.7	89.8	95.6	100.1	102.0	103.9	106.5	108.4	110.3	109.7
90°	76.3	82.1	87.2	91.7	94.3	96.2	98.2	100.7	102.0	102.0
92.5°	73.8	79.5	85.3	89.8	91.7	93.0	96.2	98.2	99.4	100.1
95°	72.5	78.9	84.0	88.5	90.5	92.4	94.9	96.9	98.2	98.8
97.5°	71.8	77.6	82.8	87.2	89.2	91.1	93.7	95.6	96.9	97.5
100°	69.9	75.7	81.5	86.0	87.2	89.2	92.4	94.3	95.6	95.6
102.5°	68.6	74.4	79.5	84.0	86.0	87.2	90.5	92.4	93.7	93.7
105°	66.7	72.5	77.6	82.1	84.0	85.3	88.5	90.5	91.1	91.7
107.5°	64.8	70.6	75.7	79.5	81.5	83.4	86.0	87.9	89.2	89.8
110°	62.9	68.6	73.1	77.6	79.5	80.8	84.0	85.3	86.6	87.2



TEST NUMBER: P241552

CATALOG NUMBER: FVS8M-2-LD4-50-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	60.9	66.1	71.2	75.1	77.0	78.3	80.8	83.4	84.0	84.7
115°	59.0	64.2	68.6	72.5	74.4	75.7	78.3	80.2	81.5	81.5
117.5°	56.5	61.6	66.1	69.9	71.8	73.1	75.7	77.6	78.3	78.9
120°	54.5	59.7	63.5	67.4	69.3	70.6	72.5	74.4	75.7	75.7
122.5°	52.0	57.1	60.9	64.8	66.1	67.4	69.9	71.8	72.5	72.5
125°	49.4	54.5	58.4	61.6	63.5	64.8	66.7	68.6	69.3	69.9
127.5°	47.5	51.3	55.8	59.0	60.3	61.6	63.5	65.4	66.1	66.7
130°	44.9	48.8	52.6	55.8	57.1	58.4	60.3	61.6	62.9	62.9
132.5°	41.7	46.2	49.4	52.6	53.9	54.5	57.1	58.4	59.0	59.0
135°	39.1	43.0	46.2	49.4	50.7	51.3	53.2	54.5	55.8	55.8
137.5°	36.6	39.8	43.0	46.2	46.8	48.1	50.0	51.3	52.0	52.0
140°	34.0	37.2	39.8	42.3	43.6	44.3	46.2	47.5	48.1	48.1
142.5°	30.8	34.0	36.6	39.1	40.4	41.1	42.3	43.6	44.3	44.9
145°	28.2	30.8	33.4	35.9	36.6	37.2	39.1	39.8	40.4	41.1
147.5°	25.0	27.6	30.2	32.1	32.7	34.0	35.3	35.9	36.6	36.6
150°	22.5	24.4	26.9	28.9	29.5	30.2	31.4	32.1	32.7	32.7
152.5°	19.2	21.8	23.7	25.0	25.7	26.3	27.6	28.2	28.9	28.9
155°	16.7	18.6	19.9	21.8	22.5	23.1	23.7	24.4	24.4	24.4
157.5°	13.5	15.4	16.7	18.0	18.6	19.2	19.9	20.5	20.5	21.2
160°	10.3	12.2	13.5	14.8	14.8	15.4	16.0	16.7	16.7	16.7
162.5°	7.7	9.0	10.3	10.9	11.5	11.5	12.8	12.8	12.8	12.8
165°	4.5	5.8	6.4	7.7	8.3	8.3	9.0	9.0	9.0	9.6
167.5°	2.6	3.2	3.8	4.5	5.1	5.1	5.8	5.8	5.8	5.8
170°	0.6	1.3	1.3	1.9	1.9	1.9	2.6	2.6	2.6	2.6
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)