

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: P241551

Luminaire Tested: **FVS8M-2-LD4-40-3LO-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241551
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-LD4-40-3LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (126) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

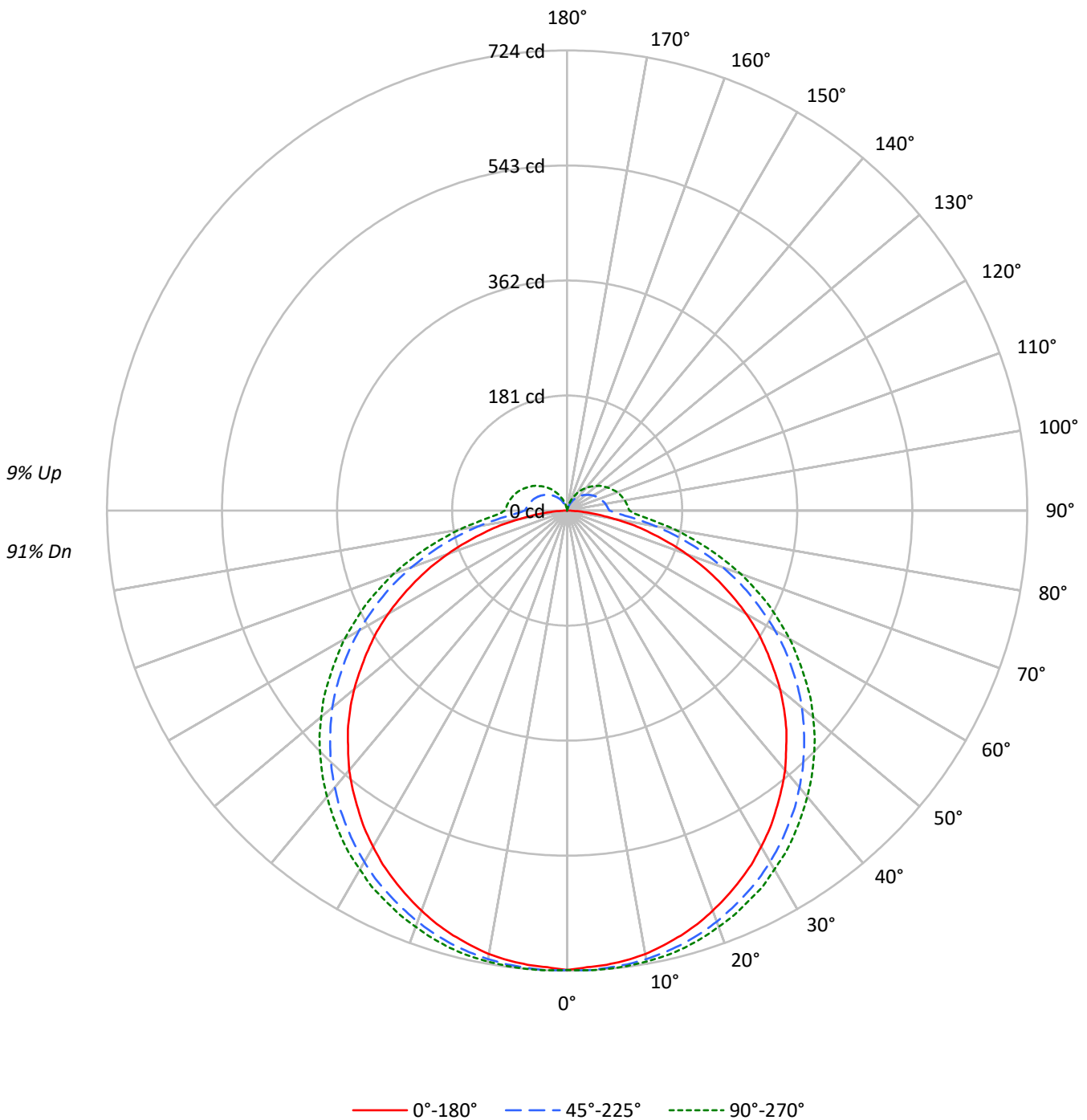
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2589.0 lumens
Efficiency: N/A
Efficacy: 71.9 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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CATALOG NUMBER: FVS8M-2-LD4-40-3LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241551

CATALOG NUMBER: FVS8M-2-LD4-40-3LO-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°	6497	6497	6497
5°	6428	6396	6406
10°	6379	6302	6323
15°	6307	6207	6250
20°	6229	6106	6160
25°	6148	5998	6077
30°	6062	5893	5986
35°	5966	5775	5902
40°	5873	5651	5798
45°	5749	5516	5692
50°	5591	5367	5566
55°	5388	5174	5401
60°	5152	4951	5229
65°	4792	4658	5003
70°	4331	4299	4712
75°	3643	3836	4312
80°	2717	3277	3906
85°	1439	2721	3517



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.7	2.7
10°-20°	198.7	7.7
20°-30°	305.8	11.8
30°-40°	377.1	14.6
40°-50°	403.7	15.6
50°-60°	381.3	14.7
60°-70°	310.9	12.0
70°-80°	203.7	7.9
80°-90°	96.7	3.7
90°-100°	62.1	2.4
100°-110°	55.1	2.1
110°-120°	45.6	1.8
120°-130°	34.7	1.3
130°-140°	23.7	0.9
140°-150°	13.7	0.5
150°-160°	6.0	0.2
160°-170°	1.3	0.1
170°-180°	0.0	0.0
0°-30°	573.2	22.1
0°-40°	950.3	36.7
0°-60°	1735.3	67.0
0°-90°	2346.7	90.6
90°-120°	162.8	6.3
90°-150°	235.0	9.1
90°-180°	242.0	9.3
0°-180°	2589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	717	719	722	724	724	68
15°	692	697	706	710	712	195
25°	643	652	666	675	677	296
35°	574	588	606	619	623	359
45°	488	504	527	543	549	376
55°	382	405	432	450	456	342
65°	263	288	320	341	349	260
75°	136	165	199	222	229	145
85°	26	56	91	115	122	32
90°	0	32	67	91	98	1
95°	0	29	64	87	95	0
105°	0	25	58	81	88	0
115°	0	22	51	72	78	0
125°	0	17	43	61	67	0
135°	1	13	34	49	54	0
145°	1	8	24	35	40	0
155°	1	3	14	22	23	0
165°	1	1	4	8	9	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°	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8
2.5°	719.1	719.1	719.7	720.3	720.3	721.0	721.0	721.6	722.8	723.4	724.0
5°	717.3	717.3	717.9	718.5	719.1	719.1	719.7	720.3	721.0	721.6	722.2
7.5°	713.6	713.6	714.2	714.8	715.4	716.0	716.0	716.6	717.9	719.1	720.3
10°	708.6	708.0	708.6	709.2	709.9	710.5	711.7	712.9	714.2	716.0	716.6
12.5°	700.6	701.2	701.2	702.5	703.7	704.9	704.9	706.8	708.6	710.5	711.7
15°	692.0	692.0	692.6	694.4	695.7	696.9	697.5	700.0	701.8	703.7	705.5
17.5°	682.1	682.1	683.3	684.6	686.4	687.7	688.9	690.7	693.2	695.7	697.5
20°	669.8	670.4	671.6	673.5	675.9	677.2	677.8	680.9	684.0	685.8	688.3
22.5°	656.8	656.8	658.7	661.1	663.6	664.8	666.1	669.2	672.2	674.7	677.2
25°	642.6	643.3	645.1	647.6	650.0	651.9	653.1	657.4	659.9	662.4	665.5
27.5°	627.8	627.8	630.3	632.8	635.8	637.1	639.6	642.6	646.3	649.4	653.1
30°	610.6	611.2	614.3	617.3	619.8	622.9	624.1	627.8	631.5	634.6	638.3
32.5°	593.3	593.3	595.8	600.1	602.5	605.0	606.9	611.2	615.5	619.2	622.9
35°	573.6	575.4	577.9	581.6	585.3	587.7	589.6	593.9	598.8	601.9	605.6
37.5°	553.8	555.1	558.1	561.8	565.5	568.0	570.5	575.4	579.7	584.0	588.4
40°	533.5	533.5	536.6	541.5	545.8	547.7	550.1	555.1	559.4	564.3	568.6
42.5°	510.0	511.3	515.0	519.3	524.2	526.7	529.2	534.1	539.0	544.0	548.9
45°	487.8	488.5	492.2	496.5	501.4	504.5	507.6	511.9	518.1	522.4	527.3
47.5°	463.2	464.4	468.1	473.0	478.0	481.7	483.5	489.1	494.6	500.2	505.1
50°	437.3	438.5	442.8	449.0	453.9	455.8	459.5	466.2	471.2	477.3	482.3
52.5°	409.5	412.6	418.1	422.5	428.0	431.1	434.2	439.7	447.1	452.1	457.6
55°	382.4	384.2	389.2	394.7	401.5	404.6	407.7	413.8	421.2	426.8	431.7
57.5°	355.2	357.1	362.0	367.0	374.4	377.4	381.1	387.9	394.1	399.0	405.8
60°	325.6	326.9	332.4	339.2	345.4	349.7	352.2	359.6	365.7	371.9	378.1
62.5°	294.2	297.9	302.2	309.6	315.8	321.3	323.8	330.0	337.4	343.5	348.5
65°	263.3	266.4	271.4	279.4	285.5	288.0	292.9	299.7	307.1	314.5	320.1
67.5°	231.9	236.2	239.3	247.9	256.6	259.0	264.0	269.5	278.1	284.9	291.1
70°	200.4	202.9	208.5	216.5	223.3	227.6	231.3	239.3	246.7	254.7	260.3
72.5°	167.8	171.5	177.6	184.4	193.7	196.7	201.1	207.8	217.1	223.9	229.4
75°	135.7	138.8	144.3	153.6	161.6	165.3	169.6	177.6	185.6	193.0	199.2
77.5°	107.3	108.5	114.7	122.7	130.7	135.1	139.4	147.4	155.4	164.1	169.6
80°	75.9	79.6	85.1	93.1	101.8	106.1	110.4	117.8	125.8	133.2	140.6
82.5°	48.1	51.8	58.0	66.0	75.2	78.3	83.3	92.5	99.3	106.1	114.1
85°	26.5	29.0	34.5	43.2	51.8	56.1	60.4	69.1	76.5	83.9	91.3
87.5°	9.3	12.3	18.5	26.5	35.2	39.5	43.8	52.4	59.8	67.8	75.2
90°	0.0	4.3	10.5	18.5	27.1	31.5	35.8	43.8	52.4	59.8	66.6
92.5°	0.0	3.1	9.3	16.7	25.3	29.6	33.9	42.6	50.6	58.0	64.8
95°	0.0	2.5	8.6	16.0	24.7	29.0	33.3	41.3	49.3	56.7	63.5
97.5°	0.0	2.5	8.0	15.4	24.1	27.8	32.1	40.7	48.1	55.5	62.3
100°	0.0	2.5	8.0	14.8	23.4	27.1	31.5	39.5	46.9	54.3	61.1
102.5°	0.0	2.5	7.4	14.8	22.2	26.5	30.2	38.2	45.6	53.0	59.8
105°	0.0	1.9	6.8	14.2	21.6	25.3	29.6	37.0	44.4	51.8	58.0
107.5°	0.0	1.9	6.8	13.6	21.0	24.7	28.4	35.8	43.2	50.0	56.7
110°	0.0	1.9	6.2	13.0	19.7	23.4	27.8	35.2	41.9	48.7	54.9



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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	6.2	12.3	19.1	22.8	26.5	33.3	40.7	46.9	53.0
115°	0.0	1.2	5.6	11.7	17.9	21.6	25.3	32.1	38.9	45.0	51.2
117.5°	0.0	1.2	4.9	11.1	17.3	20.4	24.1	30.8	37.6	43.8	49.3
120°	0.0	1.2	4.9	10.5	16.7	19.7	22.8	29.6	35.8	41.9	47.5
122.5°	0.0	0.6	4.3	9.9	15.4	18.5	21.6	27.8	33.9	40.1	45.0
125°	0.0	0.6	4.3	8.6	14.8	17.3	20.4	26.5	32.1	37.6	43.2
127.5°	0.0	0.6	3.7	8.0	13.6	16.7	19.1	25.3	30.8	35.8	40.7
130°	0.0	0.6	3.1	7.4	12.3	15.4	17.9	23.4	29.0	33.9	38.2
132.5°	0.0	0.6	3.1	6.8	11.7	14.2	16.7	21.6	27.1	31.5	36.4
135°	0.6	0.6	2.5	6.2	10.5	13.0	15.4	20.4	25.3	29.6	33.9
137.5°	0.0	0.6	1.9	5.6	9.9	11.7	14.2	18.5	23.4	27.1	31.5
140°	0.0	0.6	1.9	4.9	8.6	10.5	13.0	17.3	21.0	25.3	29.0
142.5°	0.6	0.6	1.2	4.3	7.4	9.3	11.1	15.4	19.1	22.8	26.5
145°	0.6	0.6	0.6	3.1	6.2	8.0	9.9	13.6	17.3	21.0	24.1
147.5°	0.6	0.6	0.6	2.5	5.6	6.8	8.6	11.7	15.4	18.5	21.6
150°	0.6	0.6	0.6	1.9	4.3	5.6	6.8	9.9	13.0	16.0	19.1
152.5°	0.6	0.6	0.6	1.2	3.1	4.3	5.6	8.0	11.1	13.6	16.0
155°	0.6	0.6	0.6	1.2	2.5	3.1	4.3	6.8	8.6	11.1	13.6
157.5°	0.6	0.6	0.6	0.6	1.9	2.5	3.1	4.9	6.8	8.6	10.5
160°	0.6	0.6	0.6	0.6	1.2	1.9	1.9	3.7	4.9	6.8	8.0
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.2	2.5	3.1	4.3	5.6
165°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.9	3.1	3.7
167.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.2	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°	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8	722.8
2.5°	724.0	724.7	724.7	724.7	724.7	724.7	724.7	724.7	724.7	724.0
5°	722.8	723.4	723.4	724.0	724.0	724.0	724.0	724.0	724.0	724.0
7.5°	721.0	721.6	722.2	722.8	722.8	722.8	722.8	722.8	722.8	722.8
10°	717.9	718.5	719.7	719.7	720.3	720.3	720.3	720.3	721.0	720.3
12.5°	712.9	714.2	715.4	716.0	716.0	716.6	716.6	716.6	717.3	717.3
15°	706.8	708.0	709.2	709.9	710.5	711.1	711.1	711.7	711.7	712.3
17.5°	699.4	701.2	702.5	703.1	703.7	704.3	704.3	704.9	705.5	705.5
20°	690.7	692.0	693.8	694.4	695.1	695.7	696.9	696.9	697.5	696.9
22.5°	679.6	682.1	684.0	685.2	685.8	685.8	687.0	688.3	688.3	688.3
25°	667.9	670.4	672.9	674.1	674.7	674.7	676.6	676.6	677.2	677.2
27.5°	655.0	658.1	659.9	661.8	662.4	663.0	663.6	664.8	665.5	666.7
30°	640.8	643.3	645.7	648.2	648.8	649.4	650.7	651.3	652.5	651.9
32.5°	626.0	628.4	631.5	634.0	634.6	634.6	636.5	636.5	637.7	638.9
35°	609.3	612.4	614.9	617.3	618.6	618.6	621.0	621.7	622.9	622.9
37.5°	591.4	595.8	597.6	600.7	601.9	602.5	604.4	604.4	605.6	605.6
40°	572.9	576.0	579.7	581.6	582.8	584.7	585.3	587.7	587.7	587.7
42.5°	553.2	555.7	560.6	562.5	564.3	564.3	566.2	567.4	568.6	569.2
45°	532.2	535.3	539.0	542.1	543.3	544.6	545.8	547.0	548.9	548.9
47.5°	509.4	514.4	516.8	520.5	521.8	523.0	524.8	526.1	527.3	528.5
50°	486.0	490.9	495.2	497.7	498.3	500.2	502.0	503.3	504.5	505.1
52.5°	461.9	466.2	469.9	473.6	474.9	478.0	478.0	479.8	481.1	482.3
55°	437.3	441.0	445.9	448.4	450.2	450.8	454.5	455.8	455.8	455.8
57.5°	410.1	415.7	418.8	423.7	424.3	425.5	427.4	429.9	429.9	429.9
60°	383.0	387.9	392.2	395.3	397.8	397.8	400.9	403.3	404.0	404.6
62.5°	355.2	359.6	364.5	367.6	370.0	371.3	373.1	375.6	376.8	375.6
65°	325.6	330.6	335.5	339.2	341.1	342.3	344.8	346.6	348.5	349.1
67.5°	296.6	301.0	306.5	310.8	312.1	314.5	316.4	317.6	318.9	318.9
70°	266.4	272.0	276.9	280.6	281.2	283.7	286.8	288.6	288.0	290.5
72.5°	236.2	241.8	246.1	251.0	251.6	253.5	255.9	257.8	258.4	259.0
75°	205.4	212.2	215.9	220.2	222.0	223.3	226.3	228.8	228.8	228.8
77.5°	175.8	181.3	185.6	189.3	191.8	193.7	196.7	198.6	198.6	199.2
80°	145.5	152.9	156.6	161.0	164.1	165.3	167.8	170.2	170.8	172.1
82.5°	119.6	126.4	130.7	135.1	137.5	140.0	141.2	143.7	144.3	144.3
85°	97.4	103.0	107.9	112.2	114.7	116.6	119.0	120.3	122.1	122.1
87.5°	81.4	86.3	91.9	96.2	98.1	99.9	102.4	104.2	106.1	105.5
90°	73.4	78.9	83.9	88.2	90.7	92.5	94.4	96.8	98.1	98.1
92.5°	70.9	76.5	82.0	86.3	88.2	89.4	92.5	94.4	95.6	96.2
95°	69.7	75.9	80.8	85.1	87.0	88.8	91.3	93.1	94.4	95.0
97.5°	69.1	74.6	79.6	83.9	85.7	87.6	90.0	91.9	93.1	93.7
100°	67.2	72.8	78.3	82.6	83.9	85.7	88.8	90.7	91.9	91.9
102.5°	66.0	71.5	76.5	80.8	82.6	83.9	87.0	88.8	90.0	90.0
105°	64.1	69.7	74.6	78.9	80.8	82.0	85.1	87.0	87.6	88.2
107.5°	62.3	67.8	72.8	76.5	78.3	80.2	82.6	84.5	85.7	86.3
110°	60.4	66.0	70.3	74.6	76.5	77.7	80.8	82.0	83.3	83.9



TEST NUMBER: P241551

CATALOG NUMBER: FVS8M-2-LD4-40-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	58.6	63.5	68.5	72.2	74.0	75.2	77.7	80.2	80.8	81.4
115°	56.7	61.7	66.0	69.7	71.5	72.8	75.2	77.1	78.3	78.3
117.5°	54.3	59.2	63.5	67.2	69.1	70.3	72.8	74.6	75.2	75.9
120°	52.4	57.4	61.1	64.8	66.6	67.8	69.7	71.5	72.8	72.8
122.5°	50.0	54.9	58.6	62.3	63.5	64.8	67.2	69.1	69.7	69.7
125°	47.5	52.4	56.1	59.2	61.1	62.3	64.1	66.0	66.6	67.2
127.5°	45.6	49.3	53.7	56.7	58.0	59.2	61.1	62.9	63.5	64.1
130°	43.2	46.9	50.6	53.7	54.9	56.1	58.0	59.2	60.4	60.4
132.5°	40.1	44.4	47.5	50.6	51.8	52.4	54.9	56.1	56.7	56.7
135°	37.6	41.3	44.4	47.5	48.7	49.3	51.2	52.4	53.7	53.7
137.5°	35.2	38.2	41.3	44.4	45.0	46.3	48.1	49.3	50.0	50.0
140°	32.7	35.8	38.2	40.7	41.9	42.6	44.4	45.6	46.3	46.3
142.5°	29.6	32.7	35.2	37.6	38.9	39.5	40.7	41.9	42.6	43.2
145°	27.1	29.6	32.1	34.5	35.2	35.8	37.6	38.2	38.9	39.5
147.5°	24.1	26.5	29.0	30.8	31.5	32.7	33.9	34.5	35.2	35.2
150°	21.6	23.4	25.9	27.8	28.4	29.0	30.2	30.8	31.5	31.5
152.5°	18.5	21.0	22.8	24.1	24.7	25.3	26.5	27.1	27.8	27.8
155°	16.0	17.9	19.1	21.0	21.6	22.2	22.8	23.4	23.4	23.4
157.5°	13.0	14.8	16.0	17.3	17.9	18.5	19.1	19.7	19.7	20.4
160°	9.9	11.7	13.0	14.2	14.2	14.8	15.4	16.0	16.0	16.0
162.5°	7.4	8.6	9.9	10.5	11.1	11.1	12.3	12.3	12.3	12.3
165°	4.3	5.6	6.2	7.4	8.0	8.0	8.6	8.6	8.6	9.3
167.5°	2.5	3.1	3.7	4.3	4.9	4.9	5.6	5.6	5.6	5.6
170°	0.6	1.2	1.2	1.9	1.9	1.9	2.5	2.5	2.5	2.5
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)