

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: P241576

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-50-2LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH OPAL LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

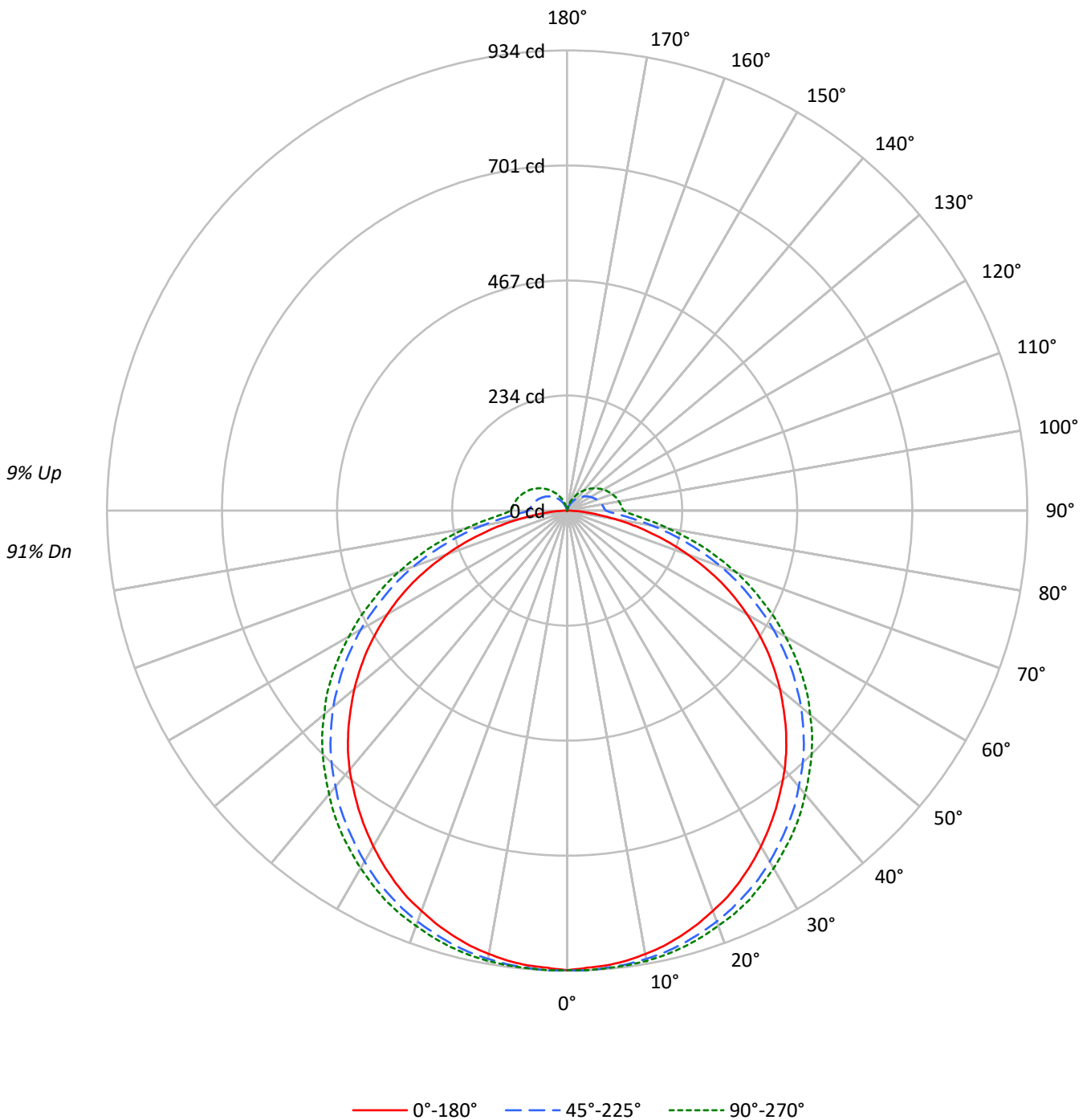
Lumens per Lamp: N/A
Luminaire Lumens: 3284.0 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 40.7
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: P241576

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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	113	113	113	113	106	106	106	100	100	100	94	94	94	91
1	106	101	96	92	102	97	93	89	92	88	85	86	83	81	81	79	77	74
2	96	87	80	74	92	84	78	72	79	74	69	75	70	66	70	67	64	61
3	87	76	67	61	84	74	66	59	69	63	57	65	60	55	62	57	53	51
4	79	67	58	51	76	65	57	50	61	54	48	58	52	47	55	50	45	43
5	73	60	50	43	70	58	49	43	55	47	42	52	45	40	49	44	39	37
6	67	53	44	38	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	40	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5448	5448	5448
5°	5408	5368	5358
10°	5371	5297	5293
15°	5330	5227	5226
20°	5275	5149	5151
25°	5224	5069	5087
30°	5154	4984	5001
35°	5085	4891	4918
40°	5020	4789	4817
45°	4934	4692	4727
50°	4828	4566	4607
55°	4701	4410	4480
60°	4526	4221	4296
65°	4294	3966	4078
70°	3897	3685	3832
75°	3343	3269	3502
80°	2537	2779	3080
85°	1400	2280	2732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.6	2.7
10°-20°	256.2	7.8
20°-30°	394.2	12.0
30°-40°	485.4	14.8
40°-50°	518.9	15.8
50°-60°	489.0	14.9
60°-70°	396.7	12.1
70°-80°	256.8	7.8
80°-90°	117.3	3.6
90°-100°	72.5	2.2
100°-110°	64.3	2.0
110°-120°	53.1	1.6
120°-130°	40.2	1.2
130°-140°	27.2	0.8
140°-150°	15.5	0.5
150°-160°	6.6	0.2
160°-170°	1.5	0.0
170°-180°	0.0	0.0
0°-30°	739.0	22.5
0°-40°	1224.4	37.3
0°-60°	2232.3	68.0
0°-90°	3003.1	91.4
90°-120°	189.8	5.8
90°-150°	272.8	8.3
90°-180°	281.0	8.6
0°-180°	3284.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	927	928	932	933	932	88
15°	894	899	910	915	917	252
25°	830	841	858	868	873	382
35°	739	758	780	795	799	462
45°	628	652	679	695	702	484
55°	496	522	554	574	582	442
65°	345	373	408	432	438	340
75°	176	211	251	274	286	187
85°	33	69	110	137	146	41
90°	1	36	78	106	115	2
95°	1	34	74	101	110	0
105°	1	30	68	94	103	0
115°	1	25	60	83	91	1
125°	1	20	50	70	78	1
135°	1	15	39	56	62	1
145°	1	8	27	41	45	0
155°	1	3	14	24	27	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°	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9
2.5°	928.8	929.5	929.5	929.5	930.2	930.9	931.5	932.9	933.6	934.2	934.2
5°	926.8	926.8	926.8	926.8	927.5	928.2	929.5	930.2	930.9	931.5	931.5
7.5°	921.4	922.1	922.1	922.1	922.8	923.4	924.1	926.1	927.5	928.2	928.8
10°	914.0	915.3	915.3	915.3	916.0	917.3	918.0	920.0	922.1	923.4	924.1
12.5°	905.2	905.2	905.9	905.9	907.9	908.6	910.6	913.3	914.6	916.7	918.0
15°	893.7	894.4	894.4	895.0	897.7	899.1	900.4	903.1	906.5	907.9	909.9
17.5°	880.2	880.8	882.2	882.9	885.6	887.6	889.0	892.3	895.7	897.7	899.1
20°	864.6	866.0	866.6	868.7	872.1	874.1	875.4	879.5	882.9	884.9	887.6
22.5°	849.1	849.1	850.4	853.1	856.5	859.2	861.2	864.6	868.7	870.7	874.1
25°	830.1	830.1	832.2	835.5	838.9	841.0	843.0	847.7	852.4	855.8	858.5
27.5°	809.2	809.9	812.6	815.9	820.0	823.4	824.7	830.1	834.2	838.9	842.3
30°	786.9	788.9	791.6	795.0	800.4	803.1	805.8	810.5	815.3	820.0	822.7
32.5°	763.2	764.6	769.3	772.7	778.1	781.5	784.2	789.6	794.3	798.4	801.7
35°	738.9	740.2	744.3	749.0	755.1	757.8	759.8	766.6	772.7	776.7	780.1
37.5°	712.5	715.2	718.6	723.3	730.8	733.5	736.2	742.3	748.3	752.4	757.8
40°	686.8	687.5	691.6	698.3	704.4	706.4	710.5	717.9	722.7	728.1	731.4
42.5°	658.4	659.1	663.2	669.9	676.0	680.1	684.1	690.9	696.3	701.7	706.4
45°	628.0	630.0	634.1	640.9	646.9	651.7	655.1	662.5	668.6	673.3	679.4
47.5°	595.6	598.3	603.0	609.8	616.5	621.3	624.6	631.4	638.8	644.2	649.6
50°	563.8	567.2	571.2	578.7	585.4	590.2	592.9	600.3	607.1	613.8	619.9
52.5°	530.0	532.7	538.1	545.5	552.3	557.0	559.7	568.5	576.0	581.4	586.8
55°	495.5	498.2	503.6	510.4	518.5	521.9	525.9	534.7	541.5	548.2	554.3
57.5°	459.0	462.4	467.8	475.2	482.7	486.1	490.1	498.2	507.0	513.1	518.5
60°	421.8	423.9	429.3	438.1	444.8	448.9	453.6	461.0	469.8	476.6	484.0
62.5°	384.0	386.0	391.4	400.2	408.3	411.0	416.4	425.2	432.0	440.8	446.2
65°	344.8	347.5	352.9	359.0	369.1	373.2	377.2	386.0	393.4	400.9	407.6
67.5°	303.5	304.9	313.0	320.4	327.2	333.3	338.0	346.8	354.9	363.0	371.1
70°	260.3	263.6	270.4	279.2	287.3	292.7	296.1	306.2	315.0	325.2	331.9
72.5°	219.0	223.8	230.5	238.0	246.1	252.8	256.9	265.7	274.5	283.2	291.4
75°	176.4	181.8	189.3	197.4	206.2	210.9	217.7	226.5	235.3	243.4	250.8
77.5°	136.6	139.9	149.4	157.5	168.3	172.4	176.4	186.6	195.4	204.2	212.9
80°	97.3	101.4	109.5	119.0	129.1	133.2	138.6	148.0	157.5	166.3	174.4
82.5°	62.9	66.9	73.7	83.1	93.3	98.0	103.4	112.9	123.0	131.8	139.9
85°	33.1	36.5	43.9	53.4	63.5	69.0	73.0	83.8	91.9	102.8	110.2
87.5°	12.2	14.9	21.6	32.4	41.9	48.0	52.1	62.2	71.7	80.4	89.2
90°	0.7	4.7	12.2	21.6	31.8	36.5	41.9	52.1	61.5	70.3	78.4
92.5°	0.0	3.4	10.8	19.6	29.7	35.2	39.9	49.3	58.8	67.6	75.7
95°	0.7	3.4	10.1	18.9	29.1	33.8	39.2	48.7	57.5	66.2	74.4
97.5°	0.0	2.7	9.5	18.3	27.7	33.1	37.9	47.3	56.8	64.9	73.0
100°	0.7	2.7	8.8	17.6	27.0	31.8	36.5	46.0	55.4	63.5	71.7
102.5°	0.0	2.7	8.8	16.9	26.4	31.1	35.8	44.6	53.4	62.2	69.6
105°	0.7	2.0	8.1	16.2	25.0	29.7	34.5	43.3	52.1	60.2	68.3
107.5°	0.0	2.0	7.4	15.5	24.3	28.4	33.1	41.9	50.7	58.8	66.2
110°	0.7	2.0	7.4	14.9	23.0	27.7	31.8	40.6	48.7	56.8	64.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	1.4	6.8	14.2	22.3	26.4	30.4	39.2	47.3	54.8	62.2
115°	0.7	1.4	6.1	13.5	21.0	25.0	29.1	37.2	45.3	52.7	59.5
117.5°	0.7	1.4	6.1	12.2	20.3	23.7	27.7	35.8	43.3	50.7	57.5
120°	0.7	1.4	5.4	11.5	18.9	22.3	26.4	33.8	41.2	48.7	54.8
122.5°	0.7	0.7	4.7	10.8	17.6	21.6	25.0	32.4	39.2	46.0	52.7
125°	0.7	0.7	4.1	10.1	16.9	20.3	23.7	30.4	37.2	43.9	50.0
127.5°	0.7	0.7	4.1	9.5	15.5	18.9	22.3	28.4	35.2	41.2	47.3
130°	0.7	0.7	3.4	8.1	14.2	17.6	20.3	27.0	33.1	39.2	44.6
132.5°	0.7	0.7	2.7	7.4	12.8	16.2	18.9	25.0	31.1	36.5	41.9
135°	0.7	0.7	2.7	6.8	12.2	14.9	17.6	23.0	28.4	33.8	39.2
137.5°	0.7	0.7	2.0	5.4	10.1	12.8	15.5	21.0	26.4	31.1	35.8
140°	0.7	0.7	1.4	4.7	8.8	11.5	14.2	18.9	24.3	29.1	33.1
142.5°	0.7	0.7	1.4	4.1	8.1	10.1	12.2	16.9	21.6	26.4	30.4
145°	0.7	0.7	1.4	3.4	6.8	8.1	10.1	14.2	18.9	23.0	27.0
147.5°	0.7	0.7	0.7	2.7	5.4	6.8	8.8	12.2	16.2	20.3	23.7
150°	0.7	0.7	0.7	2.0	4.7	6.1	7.4	10.1	13.5	16.9	20.3
152.5°	0.7	0.7	0.7	1.4	3.4	4.7	6.1	8.8	11.5	14.2	16.9
155°	0.7	0.7	0.7	1.4	2.7	3.4	4.7	6.8	9.5	11.5	14.2
157.5°	0.7	0.7	0.7	1.4	2.0	2.7	3.4	5.4	6.8	8.8	11.5
160°	0.7	0.7	0.7	0.7	1.4	2.0	2.7	3.4	5.4	6.8	8.1
162.5°	1.4	1.4	0.7	0.7	1.4	1.4	2.0	2.7	3.4	4.7	6.1
165°	1.4	1.4	1.4	0.7	0.7	0.7	1.4	2.0	2.7	3.4	4.1
167.5°	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	1.4	2.0	2.0
170°	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	1.4
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°	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9	932.9
2.5°	934.2	934.2	934.2	934.2	934.2	934.2	934.2	934.2	933.6	933.6
5°	931.5	931.5	932.2	932.9	932.9	932.9	932.9	932.2	932.2	932.2
7.5°	928.8	930.2	930.9	930.9	930.9	930.9	931.5	931.5	930.9	930.9
10°	924.8	925.5	926.8	927.5	927.5	927.5	927.5	928.2	928.2	928.2
12.5°	919.4	920.0	920.7	922.1	922.1	922.8	923.4	922.8	924.1	923.4
15°	910.6	912.6	914.0	914.6	915.3	915.3	916.0	916.7	916.7	916.7
17.5°	901.1	902.5	904.5	905.9	905.9	907.2	906.5	907.9	908.6	907.9
20°	889.0	891.0	893.0	894.4	895.7	895.7	896.4	897.1	897.1	897.1
22.5°	876.1	878.1	880.2	882.2	882.9	883.5	884.9	885.6	885.6	886.2
25°	860.6	863.3	866.0	867.3	868.0	869.3	870.0	870.7	871.4	872.7
27.5°	844.3	847.0	849.7	851.8	851.8	853.8	855.2	855.8	855.8	855.8
30°	826.1	828.8	830.8	834.2	834.2	834.9	836.2	838.3	837.6	838.3
32.5°	805.8	809.2	811.9	813.2	815.3	816.6	816.6	818.6	820.0	818.6
35°	784.2	787.6	790.9	793.0	795.0	795.0	797.7	797.7	799.0	799.0
37.5°	761.9	764.6	767.9	770.0	772.0	774.0	775.4	775.4	776.1	776.7
40°	736.2	739.6	744.3	747.7	748.3	749.0	751.0	751.7	753.1	751.7
42.5°	710.5	714.5	718.6	722.0	722.0	724.0	725.4	726.7	727.4	726.7
45°	682.8	688.2	690.9	694.9	694.9	697.0	698.3	701.0	701.7	701.7
47.5°	653.7	658.4	663.2	667.2	667.2	669.2	669.9	672.0	672.6	674.7
50°	624.6	629.4	632.7	637.5	638.2	639.5	641.5	642.9	643.6	643.6
52.5°	593.5	597.6	601.6	605.0	607.7	607.7	611.1	611.8	612.5	615.2
55°	560.4	565.1	569.2	573.9	573.9	575.3	577.3	578.7	580.7	582.0
57.5°	525.3	530.0	536.1	538.1	540.8	542.2	544.9	545.5	546.2	547.6
60°	489.4	494.8	498.9	503.0	505.0	506.3	508.4	510.4	511.7	511.7
62.5°	453.6	457.0	463.1	467.8	469.2	471.9	473.2	474.6	475.9	476.6
65°	415.1	420.5	426.6	429.9	432.0	432.0	435.3	438.1	437.4	438.1
67.5°	376.5	382.6	386.7	391.4	393.4	395.5	398.8	399.5	401.5	402.2
70°	336.7	344.1	348.8	352.2	355.6	354.9	359.6	360.3	362.3	363.7
72.5°	298.1	303.5	310.3	313.7	315.7	317.0	319.8	321.8	321.8	323.1
75°	258.2	263.6	269.1	274.5	274.5	278.5	281.2	283.9	283.9	286.0
77.5°	218.4	226.5	231.9	235.3	238.0	240.0	242.0	245.4	244.7	245.4
80°	180.5	187.3	192.7	198.1	200.1	202.1	204.2	206.9	208.2	208.9
82.5°	146.0	152.8	158.9	163.6	165.6	168.3	171.7	173.7	174.4	176.4
85°	116.9	123.7	129.8	135.2	137.2	138.6	142.0	144.0	145.3	146.0
87.5°	96.7	103.4	109.5	114.2	116.3	118.3	121.7	123.7	125.7	125.7
90°	85.9	92.6	98.7	103.4	106.1	108.2	111.5	113.6	114.9	114.9
92.5°	83.1	89.2	95.3	100.0	102.8	104.8	107.5	109.5	111.5	111.5
95°	81.8	88.6	94.0	98.7	101.4	103.4	106.1	108.8	110.2	110.2
97.5°	80.4	87.2	92.6	97.3	100.0	102.1	104.8	106.8	108.2	108.8
100°	78.4	85.2	91.3	96.0	98.0	100.0	103.4	105.5	106.8	106.8
102.5°	77.1	83.1	89.2	94.0	96.0	98.0	100.7	103.4	104.1	104.8
105°	75.0	81.1	87.2	91.9	94.0	96.0	98.7	100.7	102.1	102.8
107.5°	73.0	79.1	84.5	89.2	91.3	93.3	96.7	98.7	100.0	100.0
110°	71.0	77.1	82.5	86.5	89.2	90.6	94.0	96.0	97.3	97.3



TEST NUMBER: P241576

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	68.3	74.4	79.8	83.8	85.9	87.9	90.6	92.6	94.0	94.6
115°	66.2	71.7	77.1	81.1	83.1	85.2	87.9	89.9	91.3	91.3
117.5°	63.5	69.0	73.7	78.4	80.4	81.8	84.5	86.5	87.9	88.6
120°	60.8	66.2	71.0	75.0	77.1	78.4	81.1	83.1	84.5	85.2
122.5°	58.1	63.5	68.3	72.3	73.7	75.0	77.7	79.8	81.1	81.8
125°	55.4	60.2	64.9	69.0	70.3	71.7	74.4	76.4	77.1	77.7
127.5°	52.7	57.5	61.5	65.6	66.9	68.3	71.0	72.3	73.7	74.4
130°	49.3	54.1	58.1	61.5	63.5	64.9	66.9	69.0	69.6	70.3
132.5°	46.6	50.7	54.8	58.1	59.5	60.8	63.5	64.9	66.2	66.2
135°	43.3	47.3	51.4	54.8	56.1	57.5	59.5	60.8	61.5	62.2
137.5°	40.6	44.6	48.0	50.7	52.1	53.4	55.4	56.8	57.5	58.1
140°	37.2	40.6	43.9	46.6	48.0	49.3	51.4	52.7	53.4	53.4
142.5°	33.8	37.2	40.6	43.3	44.6	45.3	47.3	48.0	48.7	49.3
145°	31.1	33.8	36.5	39.2	40.6	41.2	42.6	43.9	44.6	44.6
147.5°	27.7	30.4	33.1	35.2	36.5	37.2	38.5	39.9	40.6	40.6
150°	23.7	27.0	29.1	31.1	32.4	33.1	34.5	35.2	35.8	35.8
152.5°	20.3	23.0	25.7	27.7	28.4	29.1	30.4	31.1	31.8	31.8
155°	16.9	18.9	21.6	23.7	24.3	25.0	25.7	26.4	27.0	27.0
157.5°	13.5	15.5	17.6	19.6	20.3	21.0	21.6	22.3	22.3	23.0
160°	10.1	11.5	13.5	15.5	16.2	16.9	17.6	17.6	18.3	18.3
162.5°	7.4	8.8	10.1	11.5	11.5	12.8	13.5	14.2	14.2	14.2
165°	4.7	6.1	6.8	7.4	8.1	8.8	9.5	9.5	10.1	10.1
167.5°	2.7	3.4	4.1	4.7	4.7	5.4	5.4	6.1	6.1	6.1
170°	1.4	1.4	2.0	2.0	2.0	2.0	2.7	2.7	2.7	3.4
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)