

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: P241553

Luminaire Tested: **FVS8M-2-LD4-30-3STD-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241553
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-LD4-30-3STD-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (126) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

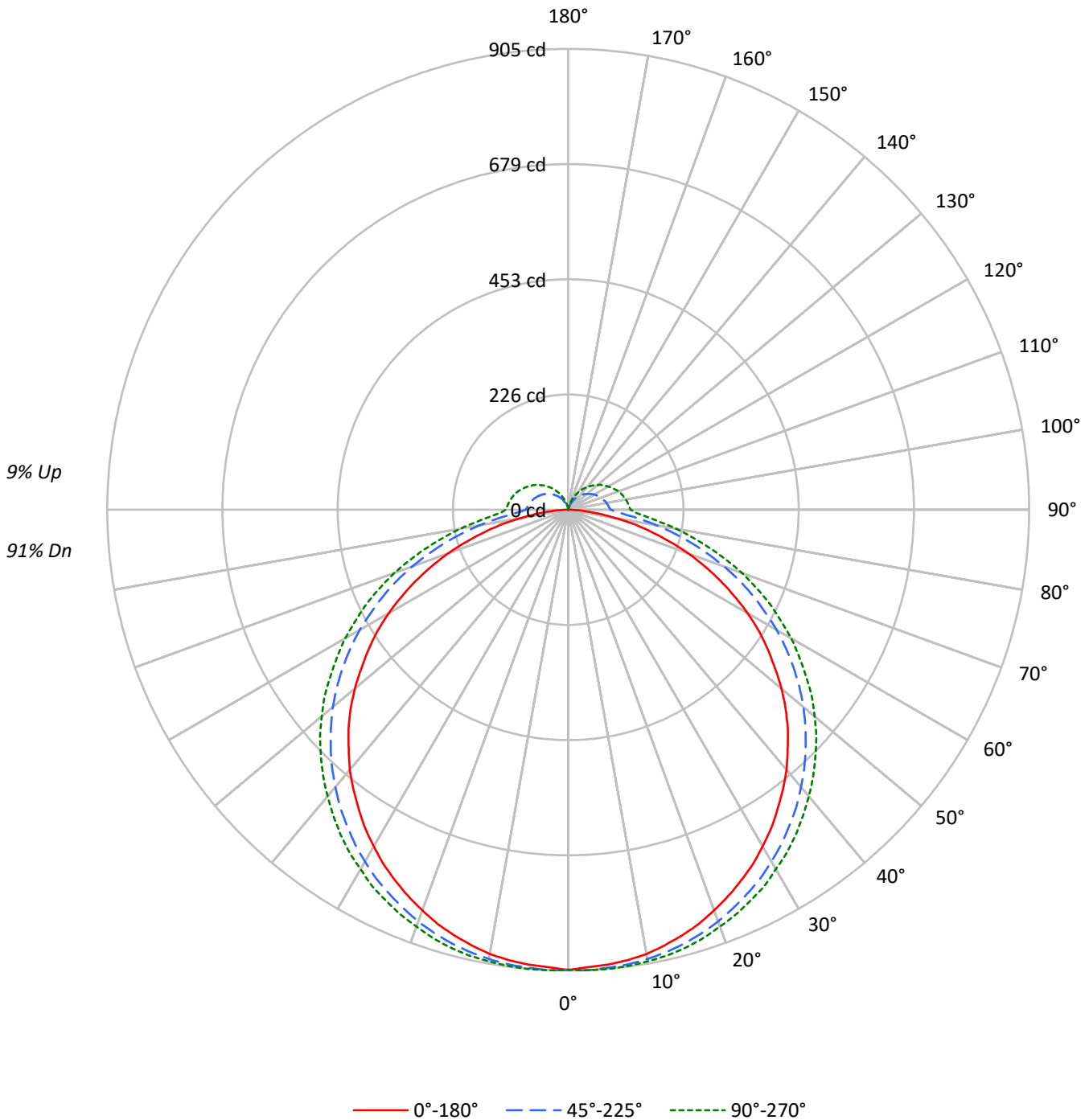
Lumens per Lamp: N/A
Luminaire Lumens: 3237.0 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 50.6
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	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°	8123	8123	8123
5°	8037	7996	8010
10°	7976	7879	7905
15°	7885	7761	7815
20°	7787	7633	7702
25°	7687	7499	7598
30°	7579	7368	7484
35°	7458	7221	7379
40°	7342	7065	7250
45°	7188	6896	7117
50°	6990	6711	6958
55°	6736	6470	6752
60°	6441	6190	6537
65°	5993	5823	6254
70°	5416	5374	5891
75°	4554	4797	5392
80°	3394	4097	4882
85°	1803	3400	4398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.9	2.7
10°-20°	248.5	7.7
20°-30°	382.3	11.8
30°-40°	471.5	14.6
40°-50°	504.7	15.6
50°-60°	476.7	14.7
60°-70°	388.7	12.0
70°-80°	254.7	7.9
80°-90°	121.0	3.7
90°-100°	77.6	2.4
100°-110°	68.9	2.1
110°-120°	57.0	1.8
120°-130°	43.4	1.3
130°-140°	29.6	0.9
140°-150°	17.2	0.5
150°-160°	7.5	0.2
160°-170°	1.7	0.1
170°-180°	0.0	0.0
0°-30°	716.7	22.1
0°-40°	1188.2	36.7
0°-60°	2169.7	67.0
0°-90°	2934.1	90.6
90°-120°	203.6	6.3
90°-150°	293.8	9.1
90°-180°	303.0	9.4
0°-180°	3237.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	897	899	903	905	905	85
15°	865	871	882	888	891	244
25°	804	815	832	844	847	370
35°	717	735	757	773	779	449
45°	610	631	659	679	686	470
55°	478	506	540	563	570	427
65°	329	360	400	426	436	326
75°	170	207	249	278	286	181
85°	33	70	114	143	153	40
90°	0	39	83	113	123	2
95°	0	36	79	109	119	0
105°	0	32	72	101	110	0
115°	0	27	64	89	98	0
125°	0	22	54	76	84	0
135°	1	16	42	61	67	0
145°	1	10	30	44	49	0
155°	1	4	17	27	29	0
165°	1	1	5	10	12	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°	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7
2.5°	899.1	899.1	899.9	900.6	900.6	901.4	901.4	902.2	903.7	904.5	905.3
5°	896.8	896.8	897.6	898.3	899.1	899.1	899.9	900.6	901.4	902.2	902.9
7.5°	892.2	892.2	892.9	893.7	894.5	895.2	895.2	896.0	897.6	899.1	900.6
10°	886.0	885.2	886.0	886.8	887.5	888.3	889.8	891.4	892.9	895.2	896.0
12.5°	876.0	876.7	876.7	878.3	879.8	881.4	881.4	883.7	886.0	888.3	889.8
15°	865.2	865.2	865.9	868.3	869.8	871.3	872.1	875.2	877.5	879.8	882.1
17.5°	852.8	852.8	854.4	855.9	858.2	859.8	861.3	863.6	866.7	869.8	872.1
20°	837.4	838.2	839.7	842.0	845.1	846.7	847.4	851.3	855.1	857.5	860.5
22.5°	821.2	821.2	823.5	826.6	829.7	831.2	832.8	836.6	840.5	843.6	846.7
25°	803.5	804.2	806.6	809.6	812.7	815.0	816.6	822.0	825.1	828.2	832.0
27.5°	785.0	785.0	788.1	791.1	795.0	796.5	799.6	803.5	808.1	812.0	816.6
30°	763.4	764.2	768.0	771.9	774.9	778.8	780.3	785.0	789.6	793.5	798.1
32.5°	741.8	741.8	744.9	750.3	753.4	756.4	758.8	764.2	769.6	774.2	778.8
35°	717.1	719.4	722.5	727.1	731.8	734.9	737.2	742.6	748.7	752.6	757.2
37.5°	692.4	694.0	697.8	702.5	707.1	710.2	713.3	719.4	724.8	730.2	735.6
40°	667.0	667.0	670.9	677.0	682.4	684.7	687.8	694.0	699.4	705.5	710.9
42.5°	637.7	639.2	643.9	649.3	655.4	658.5	661.6	667.8	673.9	680.1	686.3
45°	609.9	610.7	615.3	620.7	626.9	630.8	634.6	640.0	647.7	653.1	659.3
47.5°	579.1	580.6	585.3	591.4	597.6	602.2	604.5	611.5	618.4	625.4	631.5
50°	546.7	548.2	553.6	561.4	567.5	569.8	574.5	582.9	589.1	596.8	603.0
52.5°	512.0	515.9	522.8	528.2	535.1	539.0	542.8	549.8	559.0	565.2	572.2
55°	478.1	480.4	486.6	493.5	502.0	505.8	509.7	517.4	526.7	533.6	539.8
57.5°	444.1	446.5	452.6	458.8	468.1	471.9	476.5	485.0	492.7	498.9	507.4
60°	407.1	408.7	415.6	424.1	431.8	437.2	440.3	449.5	457.3	465.0	472.7
62.5°	367.8	372.4	377.8	387.1	394.8	401.7	404.8	412.5	421.8	429.5	435.7
65°	329.3	333.1	339.3	349.3	357.0	360.1	366.3	374.8	384.0	393.3	400.2
67.5°	289.9	295.3	299.2	310.0	320.8	323.9	330.0	337.0	347.8	356.2	364.0
70°	250.6	253.7	260.6	270.7	279.1	284.5	289.2	299.2	308.4	318.5	325.4
72.5°	209.7	214.4	222.1	230.6	242.1	246.0	251.4	259.9	271.4	279.9	286.8
75°	169.6	173.5	180.4	192.0	202.0	206.7	212.1	222.1	232.1	241.4	249.1
77.5°	134.2	135.7	143.4	153.4	163.5	168.9	174.3	184.3	194.3	205.1	212.1
80°	94.8	99.5	106.4	116.4	127.2	132.6	138.0	147.3	157.3	166.6	175.8
82.5°	60.1	64.8	72.5	82.5	94.1	97.9	104.1	115.7	124.1	132.6	142.7
85°	33.2	36.2	43.2	54.0	64.8	70.2	75.6	86.4	95.6	104.9	114.1
87.5°	11.6	15.4	23.1	33.2	44.0	49.3	54.7	65.5	74.8	84.8	94.1
90°	0.0	5.4	13.1	23.1	33.9	39.3	44.7	54.7	65.5	74.8	83.3
92.5°	0.0	3.9	11.6	20.8	31.6	37.0	42.4	53.2	63.2	72.5	81.0
95°	0.0	3.1	10.8	20.0	30.8	36.2	41.6	51.7	61.7	70.9	79.4
97.5°	0.0	3.1	10.0	19.3	30.1	34.7	40.1	50.9	60.1	69.4	77.9
100°	0.0	3.1	10.0	18.5	29.3	33.9	39.3	49.3	58.6	67.9	76.3
102.5°	0.0	3.1	9.3	18.5	27.8	33.2	37.8	47.8	57.1	66.3	74.8
105°	0.0	2.3	8.5	17.7	27.0	31.6	37.0	46.3	55.5	64.8	72.5
107.5°	0.0	2.3	8.5	17.0	26.2	30.8	35.5	44.7	54.0	62.5	70.9
110°	0.0	2.3	7.7	16.2	24.7	29.3	34.7	44.0	52.4	60.9	68.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.3	7.7	15.4	23.9	28.5	33.2	41.6	50.9	58.6	66.3
115°	0.0	1.5	6.9	14.7	22.4	27.0	31.6	40.1	48.6	56.3	64.0
117.5°	0.0	1.5	6.2	13.9	21.6	25.4	30.1	38.6	47.0	54.7	61.7
120°	0.0	1.5	6.2	13.1	20.8	24.7	28.5	37.0	44.7	52.4	59.4
122.5°	0.0	0.8	5.4	12.3	19.3	23.1	27.0	34.7	42.4	50.1	56.3
125°	0.0	0.8	5.4	10.8	18.5	21.6	25.4	33.2	40.1	47.0	54.0
127.5°	0.0	0.8	4.6	10.0	17.0	20.8	23.9	31.6	38.6	44.7	50.9
130°	0.0	0.8	3.9	9.3	15.4	19.3	22.4	29.3	36.2	42.4	47.8
132.5°	0.0	0.8	3.9	8.5	14.7	17.7	20.8	27.0	33.9	39.3	45.5
135°	0.8	0.8	3.1	7.7	13.1	16.2	19.3	25.4	31.6	37.0	42.4
137.5°	0.0	0.8	2.3	6.9	12.3	14.7	17.7	23.1	29.3	33.9	39.3
140°	0.0	0.8	2.3	6.2	10.8	13.1	16.2	21.6	26.2	31.6	36.2
142.5°	0.8	0.8	1.5	5.4	9.3	11.6	13.9	19.3	23.9	28.5	33.2
145°	0.8	0.8	0.8	3.9	7.7	10.0	12.3	17.0	21.6	26.2	30.1
147.5°	0.8	0.8	0.8	3.1	6.9	8.5	10.8	14.7	19.3	23.1	27.0
150°	0.8	0.8	0.8	2.3	5.4	6.9	8.5	12.3	16.2	20.0	23.9
152.5°	0.8	0.8	0.8	1.5	3.9	5.4	6.9	10.0	13.9	17.0	20.0
155°	0.8	0.8	0.8	1.5	3.1	3.9	5.4	8.5	10.8	13.9	17.0
157.5°	0.8	0.8	0.8	0.8	2.3	3.1	3.9	6.2	8.5	10.8	13.1
160°	0.8	0.8	0.8	0.8	1.5	2.3	2.3	4.6	6.2	8.5	10.0
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.5	3.1	3.9	5.4	6.9
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	2.3	3.9	4.6
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	1.5	2.3
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	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°	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7	903.7
2.5°	905.3	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	905.3
5°	903.7	904.5	904.5	905.3	905.3	905.3	905.3	905.3	905.3	905.3
7.5°	901.4	902.2	902.9	903.7	903.7	903.7	903.7	903.7	903.7	903.7
10°	897.6	898.3	899.9	899.9	900.6	900.6	900.6	900.6	901.4	900.6
12.5°	891.4	892.9	894.5	895.2	895.2	896.0	896.0	896.0	896.8	896.8
15°	883.7	885.2	886.8	887.5	888.3	889.1	889.1	889.8	889.8	890.6
17.5°	874.4	876.7	878.3	879.0	879.8	880.6	880.6	881.4	882.1	882.1
20°	863.6	865.2	867.5	868.3	869.0	869.8	871.3	871.3	872.1	871.3
22.5°	849.7	852.8	855.1	856.7	857.5	857.5	859.0	860.5	860.5	860.5
25°	835.1	838.2	841.3	842.8	843.6	843.6	845.9	845.9	846.7	846.7
27.5°	818.9	822.8	825.1	827.4	828.2	828.9	829.7	831.2	832.0	833.6
30°	801.2	804.2	807.3	810.4	811.2	812.0	813.5	814.3	815.8	815.0
32.5°	782.7	785.7	789.6	792.7	793.5	793.5	795.8	795.8	797.3	798.9
35°	761.8	765.7	768.8	771.9	773.4	773.4	776.5	777.3	778.8	778.8
37.5°	739.5	744.9	747.2	751.0	752.6	753.4	755.7	755.7	757.2	757.2
40°	716.3	720.2	724.8	727.1	728.7	731.0	731.8	734.9	734.9	734.9
42.5°	691.7	694.8	700.9	703.2	705.5	705.5	707.9	709.4	710.9	711.7
45°	665.5	669.3	673.9	677.8	679.3	680.9	682.4	684.0	686.3	686.3
47.5°	636.9	643.1	646.2	650.8	652.3	653.9	656.2	657.7	659.3	660.8
50°	607.6	613.8	619.2	622.3	623.0	625.4	627.7	629.2	630.8	631.5
52.5°	577.5	582.9	587.6	592.2	593.7	597.6	597.6	599.9	601.5	603.0
55°	546.7	551.3	557.5	560.6	562.9	563.7	568.3	569.8	569.8	569.8
57.5°	512.8	519.7	523.6	529.7	530.5	532.1	534.4	537.5	537.5	537.5
60°	478.8	485.0	490.4	494.3	497.4	497.4	501.2	504.3	505.1	505.8
62.5°	444.1	449.5	455.7	459.6	462.7	464.2	466.5	469.6	471.1	469.6
65°	407.1	413.3	419.5	424.1	426.4	428.0	431.0	433.4	435.7	436.4
67.5°	370.9	376.3	383.2	388.6	390.2	393.3	395.6	397.1	398.7	398.7
70°	333.1	340.1	346.2	350.8	351.6	354.7	358.6	360.9	360.1	363.2
72.5°	295.3	302.3	307.7	313.8	314.6	316.9	320.0	322.3	323.1	323.9
75°	256.8	265.3	269.9	275.3	277.6	279.1	283.0	286.1	286.1	286.1
77.5°	219.8	226.7	232.1	236.7	239.8	242.1	246.0	248.3	248.3	249.1
80°	182.0	191.2	195.9	201.3	205.1	206.7	209.7	212.8	213.6	215.1
82.5°	149.6	158.1	163.5	168.9	172.0	175.0	176.6	179.7	180.4	180.4
85°	121.8	128.8	134.9	140.3	143.4	145.7	148.8	150.4	152.7	152.7
87.5°	101.8	108.0	114.9	120.3	122.6	124.9	128.0	130.3	132.6	131.9
90°	91.8	98.7	104.9	110.3	113.4	115.7	118.0	121.1	122.6	122.6
92.5°	88.7	95.6	102.6	108.0	110.3	111.8	115.7	118.0	119.5	120.3
95°	87.1	94.8	101.0	106.4	108.7	111.0	114.1	116.4	118.0	118.7
97.5°	86.4	93.3	99.5	104.9	107.2	109.5	112.6	114.9	116.4	117.2
100°	84.0	91.0	97.9	103.3	104.9	107.2	111.0	113.4	114.9	114.9
102.5°	82.5	89.4	95.6	101.0	103.3	104.9	108.7	111.0	112.6	112.6
105°	80.2	87.1	93.3	98.7	101.0	102.6	106.4	108.7	109.5	110.3
107.5°	77.9	84.8	91.0	95.6	97.9	100.2	103.3	105.6	107.2	108.0
110°	75.6	82.5	87.9	93.3	95.6	97.2	101.0	102.6	104.1	104.9



TEST NUMBER: P241553

CATALOG NUMBER: FVS8M-2-LD4-30-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	73.3	79.4	85.6	90.2	92.5	94.1	97.2	100.2	101.0	101.8
115°	70.9	77.1	82.5	87.1	89.4	91.0	94.1	96.4	97.9	97.9
117.5°	67.9	74.0	79.4	84.0	86.4	87.9	91.0	93.3	94.1	94.8
120°	65.5	71.7	76.3	81.0	83.3	84.8	87.1	89.4	91.0	91.0
122.5°	62.5	68.6	73.3	77.9	79.4	81.0	84.0	86.4	87.1	87.1
125°	59.4	65.5	70.2	74.0	76.3	77.9	80.2	82.5	83.3	84.0
127.5°	57.1	61.7	67.1	70.9	72.5	74.0	76.3	78.7	79.4	80.2
130°	54.0	58.6	63.2	67.1	68.6	70.2	72.5	74.0	75.6	75.6
132.5°	50.1	55.5	59.4	63.2	64.8	65.5	68.6	70.2	70.9	70.9
135°	47.0	51.7	55.5	59.4	60.9	61.7	64.0	65.5	67.1	67.1
137.5°	44.0	47.8	51.7	55.5	56.3	57.8	60.1	61.7	62.5	62.5
140°	40.9	44.7	47.8	50.9	52.4	53.2	55.5	57.1	57.8	57.8
142.5°	37.0	40.9	44.0	47.0	48.6	49.3	50.9	52.4	53.2	54.0
145°	33.9	37.0	40.1	43.2	44.0	44.7	47.0	47.8	48.6	49.3
147.5°	30.1	33.2	36.2	38.6	39.3	40.9	42.4	43.2	44.0	44.0
150°	27.0	29.3	32.4	34.7	35.5	36.2	37.8	38.6	39.3	39.3
152.5°	23.1	26.2	28.5	30.1	30.8	31.6	33.2	33.9	34.7	34.7
155°	20.0	22.4	23.9	26.2	27.0	27.8	28.5	29.3	29.3	29.3
157.5°	16.2	18.5	20.0	21.6	22.4	23.1	23.9	24.7	24.7	25.4
160°	12.3	14.7	16.2	17.7	17.7	18.5	19.3	20.0	20.0	20.0
162.5°	9.3	10.8	12.3	13.1	13.9	13.9	15.4	15.4	15.4	15.4
165°	5.4	6.9	7.7	9.3	10.0	10.0	10.8	10.8	10.8	11.6
167.5°	3.1	3.9	4.6	5.4	6.2	6.2	6.9	6.9	6.9	6.9
170°	0.8	1.5	1.5	2.3	2.3	2.3	3.1	3.1	3.1	3.1
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)