

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: P241385

Luminaire Tested: **FVS8M-4-LD4-30-1STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241385
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-30-1STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

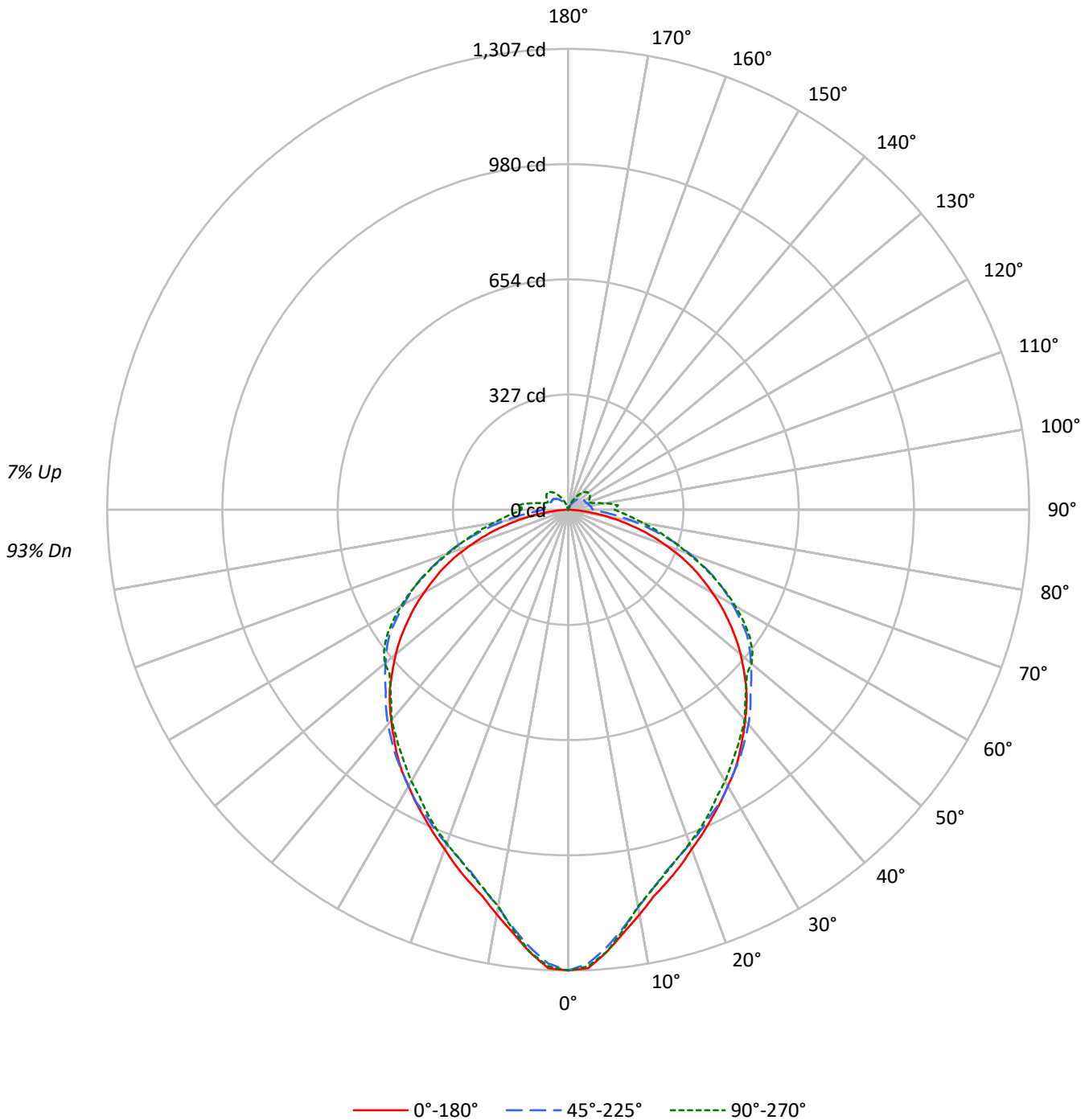
Lumens per Lamp: N/A
Luminaire Lumens: 3580.0 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 33.5
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	93
1	106	101	96	92	103	98	94	90	92	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	56	63	59	55	52
4	80	68	59	52	77	66	57	51	62	55	49	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	38	31	26	37	31	26	35	30	25	24
10	51	38	30	25	49	37	30	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5840	5840	5840
5°	5627	5502	5534
10°	5253	5026	4983
15°	4994	4687	4655
20°	4802	4492	4424
25°	4668	4333	4229
30°	4567	4218	4059
35°	4494	4111	3918
40°	4409	4008	3817
45°	4348	3895	3674
50°	4242	3842	3719
55°	4114	3803	3703
60°	3957	3639	3519
65°	3793	3463	3248
70°	3461	3176	2913
75°	3038	2770	2641
80°	2349	2325	2422
85°	1272	1820	2373



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.4	3.3
10°-20°	303.4	8.5
20°-30°	442.3	12.4
30°-40°	530.0	14.8
40°-50°	560.6	15.7
50°-60°	539.0	15.1
60°-70°	433.3	12.1
70°-80°	274.7	7.7
80°-90°	121.3	3.4
90°-100°	70.0	2.0
100°-110°	53.4	1.5
110°-120°	43.2	1.2
120°-130°	39.4	1.1
130°-140°	29.7	0.8
140°-150°	16.9	0.5
150°-160°	5.8	0.2
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	862.0	24.1
0°-40°	1392.0	38.9
0°-60°	2491.6	69.6
0°-90°	3320.8	92.8
90°-120°	166.6	4.7
90°-150°	252.6	7.1
90°-180°	259.0	7.2
0°-180°	3580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1307	1307	1307	1307	1307	
5°	1259	1254	1246	1260	1258	117
15°	1091	1080	1064	1065	1067	307
25°	964	965	955	955	948	445
35°	846	852	852	844	832	529
45°	715	729	732	726	712	550
55°	558	581	619	627	628	499
65°	389	415	459	457	456	382
75°	202	231	273	287	282	213
85°	36	68	112	142	166	46
90°	1	31	70	102	132	2
95°	0	30	67	96	142	0
105°	0	27	60	75	73	0
115°	1	24	53	63	65	0
125°	1	21	52	68	75	1
135°	1	14	44	61	71	1
145°	1	6	28	46	52	1
155°	1	2	11	22	25	0
165°	2	1	2	4	5	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°	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7
2.5°	1301.4	1298.3	1293.7	1296.0	1296.0	1296.8	1297.6	1297.6	1296.0	1293.7	1288.4
5°	1258.6	1255.5	1250.2	1251.0	1251.7	1254.0	1254.8	1254.8	1251.7	1250.2	1246.4
7.5°	1209.0	1205.9	1203.6	1203.6	1204.4	1205.1	1207.4	1203.6	1201.3	1199.8	1196.0
10°	1165.4	1163.9	1157.0	1157.8	1156.3	1156.3	1157.8	1157.0	1152.4	1148.6	1144.0
12.5°	1122.7	1120.4	1119.6	1118.1	1115.8	1115.0	1115.8	1115.0	1111.2	1107.4	1102.8
15°	1090.6	1085.2	1082.9	1083.7	1079.9	1079.9	1079.1	1081.4	1076.1	1070.0	1063.9
17.5°	1058.5	1055.5	1048.6	1050.1	1049.3	1050.9	1051.6	1050.9	1045.5	1039.4	1034.8
20°	1024.1	1021.9	1022.6	1022.6	1019.6	1020.3	1021.1	1019.6	1015.0	1008.9	1008.9
22.5°	995.1	991.3	990.5	988.2	991.3	992.1	992.1	992.8	989.8	985.2	983.7
25°	963.8	962.3	960.8	963.0	964.6	965.3	965.3	963.8	961.5	957.7	955.4
27.5°	935.6	931.0	932.5	934.8	937.1	940.1	940.1	936.3	935.6	931.0	934.0
30°	905.0	901.2	901.9	904.2	908.1	911.1	911.1	913.4	909.6	907.3	905.8
32.5°	878.3	870.6	871.4	876.7	882.9	883.6	884.4	885.9	882.1	880.6	877.5
35°	846.2	842.4	840.1	848.5	851.5	852.3	855.4	857.7	854.6	853.1	852.3
37.5°	812.6	809.5	809.5	815.6	821.8	824.8	825.6	826.3	827.1	823.3	822.5
40°	780.5	777.5	778.2	782.8	788.9	791.2	795.0	798.1	795.0	793.5	795.0
42.5°	748.4	743.1	747.7	752.3	758.4	759.9	764.5	769.8	766.0	763.0	764.5
45°	714.8	709.5	714.1	720.2	724.0	728.6	729.3	732.4	732.4	732.4	731.6
47.5°	675.1	674.4	676.7	683.5	689.6	691.9	695.0	698.0	702.6	706.4	704.1
50°	638.5	635.4	641.5	646.9	653.7	658.3	662.9	669.8	670.5	671.3	675.9
52.5°	598.8	598.0	603.3	609.4	616.3	623.2	627.0	631.6	635.4	642.3	648.4
55°	557.5	558.3	562.9	571.3	579.7	581.2	586.5	598.0	605.6	611.7	618.6
57.5°	517.0	516.3	523.9	530.8	537.7	546.1	550.6	560.6	565.9	573.6	577.4
60°	472.7	474.3	481.9	483.4	497.9	507.9	509.4	515.5	523.1	530.8	539.2
62.5°	430.0	431.5	438.4	446.0	455.2	459.8	462.8	475.0	482.7	494.9	501.0
65°	388.7	389.5	394.1	402.5	410.9	414.7	422.3	436.1	442.2	450.6	459.0
67.5°	342.9	344.4	350.5	355.1	366.6	373.5	380.3	389.5	394.1	405.5	411.6
70°	293.3	295.6	304.0	309.3	323.1	328.4	333.7	339.9	350.5	361.2	368.1
72.5°	249.0	249.0	256.6	263.5	278.0	279.5	284.1	295.6	307.8	315.4	323.1
75°	201.6	203.9	208.5	217.7	229.1	231.4	239.0	251.3	259.7	268.1	272.6
77.5°	154.3	157.3	164.2	173.4	181.0	188.6	194.0	203.9	212.3	219.2	227.6
80°	111.5	113.8	120.7	126.8	139.0	144.3	148.9	158.9	167.3	176.4	186.3
82.5°	71.8	72.6	80.2	87.8	97.0	103.1	107.7	116.8	129.1	138.2	147.4
85°	35.9	38.2	45.8	52.7	64.2	68.0	72.6	83.2	93.2	104.6	111.5
87.5°	10.7	14.5	21.4	29.0	38.2	42.8	47.4	57.3	67.2	76.4	84.8
90°	0.8	3.1	9.2	17.6	26.7	31.3	35.9	45.8	55.0	62.6	70.3
92.5°	0.0	2.3	8.4	16.8	26.0	30.5	35.1	44.3	52.7	60.3	68.0
95°	0.0	2.3	8.4	16.0	25.2	29.8	34.4	42.8	51.2	59.6	67.2
97.5°	0.0	2.3	7.6	16.0	24.4	29.0	33.6	42.0	50.4	58.0	64.9
100°	0.0	2.3	7.6	15.3	23.7	28.3	32.1	40.5	48.9	56.5	63.4
102.5°	0.0	1.5	6.9	14.5	22.9	27.5	31.3	39.7	48.1	55.0	61.1
105°	0.0	1.5	6.9	13.7	22.1	26.7	30.5	38.9	46.6	53.5	59.6
107.5°	0.0	1.5	6.1	13.7	22.1	26.0	30.5	38.2	45.8	51.9	58.0
110°	0.0	0.8	6.1	13.0	21.4	26.0	29.8	37.4	45.1	51.2	55.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.8	5.3	12.2	20.6	25.2	29.0	36.7	43.5	49.6	54.2
115°	0.8	0.8	5.3	12.2	19.9	24.4	28.3	35.9	42.8	48.9	52.7
117.5°	0.0	0.8	4.6	11.5	19.1	23.7	27.5	35.1	42.0	48.1	52.7
120°	0.8	0.8	3.8	10.7	18.3	22.9	26.7	34.4	41.2	47.4	52.7
122.5°	0.8	0.8	3.8	9.9	17.6	21.4	26.0	33.6	40.5	47.4	52.7
125°	0.8	0.8	3.1	9.2	16.8	20.6	24.4	32.8	39.7	45.8	51.9
127.5°	0.8	0.8	2.3	8.4	15.3	19.9	23.7	31.3	38.2	44.3	50.4
130°	0.8	0.8	1.5	6.9	14.5	17.6	22.1	29.8	36.7	42.8	48.1
132.5°	0.8	0.8	1.5	6.1	13.0	16.0	19.9	27.5	34.4	40.5	45.8
135°	0.8	0.8	0.8	4.6	10.7	14.5	17.6	24.4	31.3	38.2	43.5
137.5°	0.8	0.8	0.8	3.8	9.2	12.2	15.3	21.4	28.3	34.4	40.5
140°	0.8	0.8	0.8	3.1	7.6	9.9	13.0	19.1	25.2	31.3	36.7
142.5°	0.8	0.8	0.8	2.3	6.1	8.4	10.7	16.0	21.4	27.5	32.8
145°	0.8	0.8	0.8	1.5	4.6	6.1	8.4	13.0	18.3	23.7	28.3
147.5°	0.8	0.8	0.8	0.8	3.1	4.6	6.1	10.7	14.5	19.1	23.7
150°	0.8	0.8	0.8	0.8	2.3	3.1	4.6	7.6	11.5	15.3	19.1
152.5°	0.8	0.8	0.8	0.8	1.5	2.3	3.1	5.3	8.4	11.5	14.5
155°	0.8	0.8	0.8	0.8	0.8	1.5	2.3	3.8	6.1	8.4	10.7
157.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.5	2.3	3.8	5.3	7.6
160°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	2.3	3.8	4.6
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	1.5	2.3
165°	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5
167.5°	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170°	1.5	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0
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°	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7	1306.7
2.5°	1289.9	1293.7	1296.8	1296.8	1296.8	1298.3	1298.3	1297.6	1298.3	1296.0
5°	1249.4	1255.5	1257.8	1260.9	1260.1	1259.4	1257.8	1260.9	1259.4	1257.8
7.5°	1198.3	1204.4	1201.3	1202.9	1204.4	1202.9	1203.6	1204.4	1201.3	1201.3
10°	1144.0	1146.3	1144.0	1145.6	1145.6	1142.5	1144.0	1144.0	1142.5	1141.8
12.5°	1100.5	1099.8	1099.0	1099.8	1100.5	1103.6	1102.0	1105.1	1104.3	1102.0
15°	1061.6	1064.6	1066.1	1068.4	1065.4	1067.7	1070.7	1069.2	1069.2	1066.9
17.5°	1037.9	1040.9	1037.9	1041.7	1043.2	1042.5	1041.7	1037.1	1040.2	1034.8
20°	1005.8	1011.2	1015.0	1009.6	1009.6	1010.4	1009.6	1008.1	1009.6	1006.6
22.5°	986.0	985.2	984.4	988.2	989.0	988.2	983.7	982.1	977.6	978.3
25°	957.7	955.4	963.8	959.2	955.4	955.4	953.1	950.1	947.8	947.8
27.5°	931.0	934.8	931.0	931.7	931.0	931.7	921.8	918.0	918.0	914.9
30°	908.8	905.8	906.5	901.2	898.1	897.4	895.1	892.0	889.7	889.0
32.5°	876.7	878.3	876.0	873.7	872.9	870.6	869.1	865.3	862.2	859.2
35°	850.8	848.5	847.7	849.3	843.9	840.1	838.6	836.3	834.7	831.7
37.5°	822.5	819.5	820.2	814.9	815.6	814.9	810.3	806.5	805.7	804.2
40°	790.4	792.0	788.9	788.9	782.0	781.3	780.5	780.5	778.2	778.2
42.5°	762.2	762.2	760.7	758.4	756.1	754.6	750.0	749.2	746.2	743.1
45°	733.2	731.6	729.3	727.8	726.3	724.0	717.9	715.6	714.1	712.5
47.5°	707.2	704.1	704.1	699.6	694.2	694.2	692.7	688.9	687.3	687.3
50°	678.9	683.5	685.8	682.0	680.5	678.9	677.4	678.2	676.7	678.9
52.5°	654.5	658.3	657.6	659.1	660.6	662.9	659.9	662.1	660.6	658.3
55°	623.2	626.2	624.7	623.2	627.0	627.0	630.8	629.3	628.5	628.5
57.5°	584.2	588.1	588.1	589.6	590.4	588.1	593.4	591.1	591.9	589.6
60°	543.8	543.0	545.3	549.9	550.6	547.6	546.8	549.9	547.6	547.6
62.5°	504.1	505.6	506.3	504.1	502.5	504.1	501.0	504.1	504.1	503.3
65°	461.3	462.8	463.6	460.5	456.7	457.5	454.4	455.9	456.7	455.9
67.5°	414.7	418.5	417.0	416.2	413.9	409.4	408.6	407.1	408.6	408.6
70°	370.4	374.2	370.4	371.2	371.2	367.3	365.1	362.0	362.0	361.2
72.5°	326.9	329.2	328.4	328.4	329.2	326.9	323.1	321.5	320.0	320.0
75°	281.0	285.6	285.6	286.4	287.2	285.6	285.6	283.3	281.0	281.8
77.5°	236.8	241.3	245.2	247.4	247.4	248.2	249.7	249.0	247.4	247.4
80°	195.5	202.4	206.2	210.8	211.5	211.5	214.6	215.4	215.4	214.6
82.5°	156.6	163.4	168.0	172.6	173.4	174.9	180.2	182.5	187.1	187.1
85°	119.1	126.8	132.1	138.2	142.1	144.3	148.9	155.0	161.1	165.7
87.5°	91.6	99.3	106.9	113.0	116.1	118.4	124.5	132.1	139.8	145.9
90°	78.7	85.5	92.4	97.8	101.6	103.9	110.0	116.8	126.0	132.1
92.5°	75.6	82.5	87.8	93.9	97.0	99.3	106.9	116.1	126.8	132.1
95°	73.3	79.4	85.5	92.4	95.5	99.3	109.2	122.2	136.7	142.1
97.5°	71.8	77.9	84.0	90.9	94.7	98.5	110.0	119.9	126.0	126.0
100°	69.5	75.6	81.7	87.8	90.9	94.7	101.6	104.6	104.6	104.6
102.5°	67.2	72.6	77.9	81.7	84.0	85.5	88.6	89.4	87.8	86.3
105°	64.9	68.7	71.8	74.1	74.8	75.6	76.4	76.4	74.8	73.3
107.5°	62.6	64.9	67.2	67.2	68.0	68.0	68.7	68.0	66.4	64.9
110°	59.6	61.9	62.6	63.4	63.4	63.4	64.2	64.2	62.6	61.9



TEST NUMBER: P241385

CATALOG NUMBER: FVS8M-4-LD4-30-1STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	57.3	59.6	60.3	61.1	61.9	61.9	63.4	63.4	62.6	62.6
115°	56.5	58.8	60.3	61.9	62.6	63.4	64.9	66.4	65.7	64.9
117.5°	56.5	59.6	61.9	63.4	64.2	65.7	68.0	68.7	68.7	68.7
120°	56.5	60.3	63.4	65.7	66.4	68.0	69.5	71.0	71.8	71.0
122.5°	56.5	60.3	64.2	66.4	67.2	68.7	71.0	72.6	73.3	73.3
125°	56.5	60.3	64.2	66.4	68.0	68.7	71.0	73.3	74.1	74.8
127.5°	55.0	59.6	62.6	65.7	67.2	68.7	71.0	73.3	74.8	75.6
130°	53.5	57.3	61.1	64.2	65.7	67.2	70.3	72.6	74.1	74.8
132.5°	51.2	55.0	58.8	61.9	63.4	64.9	68.0	71.0	72.6	73.3
135°	48.1	52.7	56.5	59.6	61.1	62.6	65.7	68.7	70.3	71.0
137.5°	45.1	49.6	53.5	56.5	58.0	59.6	62.6	64.9	67.2	67.2
140°	42.0	46.6	50.4	53.5	55.0	56.5	58.8	61.1	62.6	63.4
142.5°	38.2	42.8	45.8	49.6	51.2	51.9	54.2	56.5	58.0	58.0
145°	33.6	38.2	42.0	44.3	45.8	47.4	48.9	50.4	51.9	51.9
147.5°	28.3	32.8	36.7	38.9	40.5	41.2	42.8	44.3	45.1	45.1
150°	22.9	26.7	30.5	32.8	34.4	35.1	36.7	37.4	38.2	38.2
152.5°	17.6	21.4	24.4	26.7	28.3	29.0	30.5	30.5	31.3	32.1
155°	13.0	16.0	18.3	21.4	22.1	22.9	23.7	25.2	25.2	25.2
157.5°	9.2	11.5	13.0	15.3	16.0	17.6	18.3	19.1	19.1	19.1
160°	6.1	7.6	9.2	10.7	11.5	12.2	13.0	13.7	13.7	14.5
162.5°	3.8	4.6	5.3	6.1	6.9	7.6	8.4	9.2	9.2	9.2
165°	1.5	2.3	3.1	3.1	3.8	3.8	4.6	5.3	5.3	5.3
167.5°	0.8	0.8	0.8	1.5	1.5	1.5	1.5	2.3	2.3	2.3
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)