

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: P241577

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241577  
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-LD4-30-2STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 2-MODULE LED WITH OPAL LENS  
Light Source: (168) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

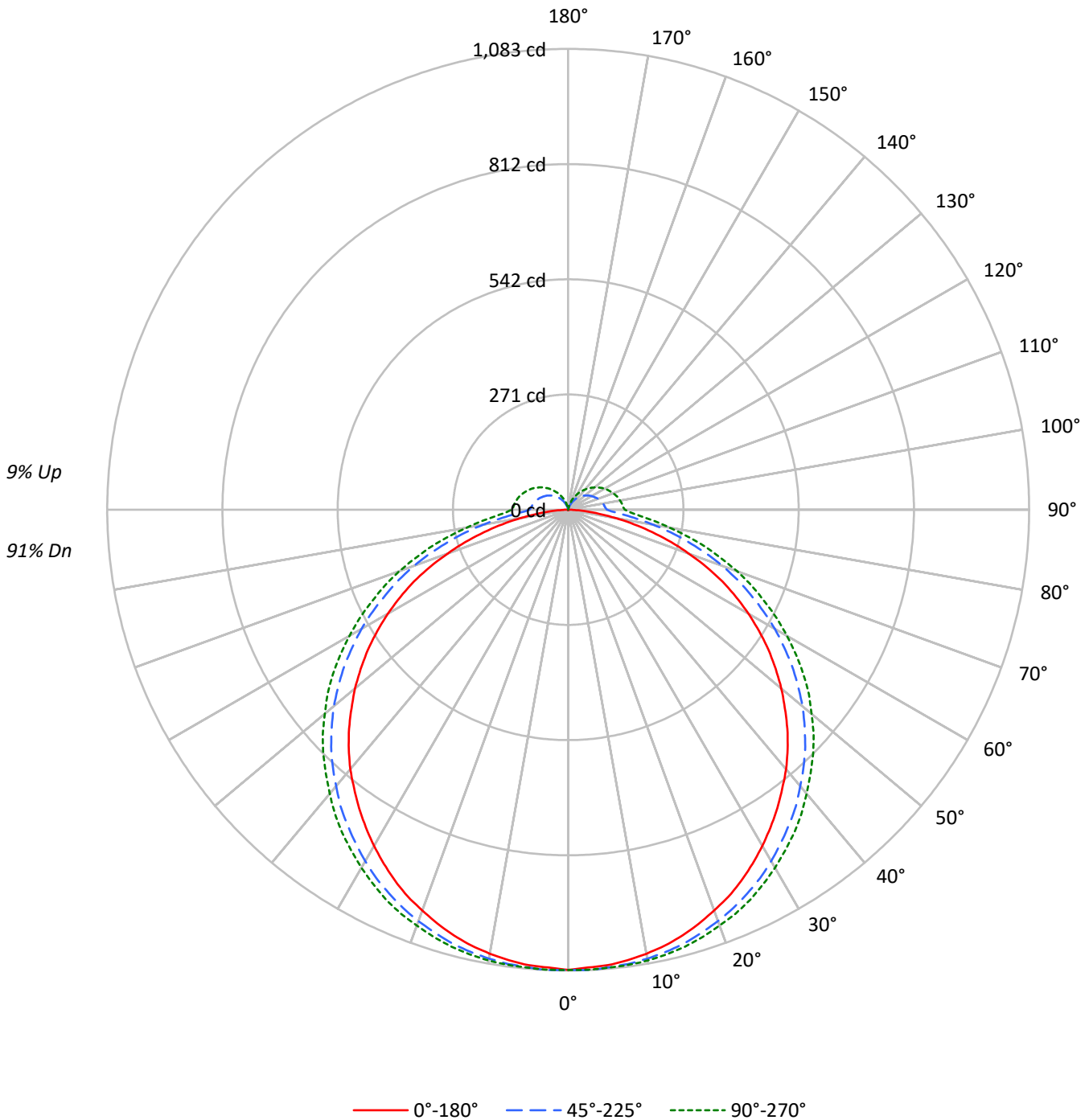
Lumens per Lamp: N/A  
Luminaire Lumens: 3807.0 lumens  
Efficiency: N/A  
Efficacy: 69.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 54.7  
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





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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°	6315	6315	6315
5°	6270	6223	6212
10°	6226	6140	6136
15°	6178	6059	6058
20°	6115	5969	5971
25°	6056	5876	5898
30°	5975	5777	5796
35°	5895	5670	5702
40°	5820	5551	5584
45°	5720	5439	5480
50°	5597	5293	5341
55°	5450	5113	5194
60°	5247	4893	4980
65°	4977	4599	4727
70°	4517	4272	4442
75°	3875	3790	4059
80°	2941	3222	3571
85°	1624	2642	3168



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.7	2.7
10°-20°	297.0	7.8
20°-30°	457.0	12.0
30°-40°	562.7	14.8
40°-50°	601.5	15.8
50°-60°	566.9	14.9
60°-70°	459.9	12.1
70°-80°	297.7	7.8
80°-90°	136.0	3.6
90°-100°	84.1	2.2
100°-110°	74.5	2.0
110°-120°	61.5	1.6
120°-130°	46.6	1.2
130°-140°	31.6	0.8
140°-150°	18.0	0.5
150°-160°	7.7	0.2
160°-170°	1.8	0.0
170°-180°	0.0	0.0
0°-30°	856.7	22.5
0°-40°	1419.3	37.3
0°-60°	2587.8	68.0
0°-90°	3481.3	91.4
90°-120°	220.1	5.8
90°-150°	316.2	8.3
90°-180°	326.0	8.6
0°-180°	3807.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1074	1076	1080	1082	1081	102
15°	1036	1042	1055	1061	1063	292
25°	962	975	995	1006	1012	443
35°	856	878	904	922	926	536
45°	728	756	788	806	813	561
55°	574	605	643	665	675	513
65°	400	433	473	501	508	394
75°	204	244	291	318	332	217
85°	38	80	128	159	169	48
90°	1	42	91	123	133	2
95°	1	39	86	118	128	0
105°	1	34	79	109	119	0
115°	1	29	69	96	106	1
125°	1	24	58	82	90	1
135°	1	17	46	65	72	1
145°	1	9	31	47	52	1
155°	1	4	16	28	31	0
165°	2	1	5	9	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°	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5
2.5°	1076.8	1077.5	1077.5	1077.5	1078.3	1079.1	1079.9	1081.5	1082.2	1083.0	1083.0
5°	1074.4	1074.4	1074.4	1074.4	1075.2	1076.0	1077.5	1078.3	1079.1	1079.9	1079.9
7.5°	1068.1	1068.9	1068.9	1068.9	1069.7	1070.5	1071.3	1073.6	1075.2	1076.0	1076.8
10°	1059.5	1061.1	1061.1	1061.1	1061.9	1063.4	1064.2	1066.6	1068.9	1070.5	1071.3
12.5°	1049.3	1049.3	1050.1	1050.1	1052.5	1053.2	1055.6	1058.7	1060.3	1062.7	1064.2
15°	1036.0	1036.8	1036.8	1037.6	1040.7	1042.3	1043.8	1047.0	1050.9	1052.5	1054.8
17.5°	1020.3	1021.1	1022.7	1023.5	1026.6	1029.0	1030.5	1034.4	1038.4	1040.7	1042.3
20°	1002.3	1003.9	1004.7	1007.0	1010.9	1013.3	1014.9	1019.6	1023.5	1025.8	1029.0
22.5°	984.3	984.3	985.9	989.0	992.9	996.0	998.4	1002.3	1007.0	1009.4	1013.3
25°	962.3	962.3	964.7	968.6	972.5	974.9	977.2	982.7	988.2	992.1	995.3
27.5°	938.1	938.8	942.0	945.9	950.6	954.5	956.1	962.3	967.0	972.5	976.5
30°	912.2	914.5	917.7	921.6	927.9	931.0	934.1	939.6	945.1	950.6	953.7
32.5°	884.8	886.3	891.8	895.7	902.0	905.9	909.1	915.3	920.8	925.5	929.4
35°	856.5	858.1	862.8	868.3	875.4	878.5	880.8	888.7	895.7	900.4	904.4
37.5°	826.0	829.1	833.0	838.5	847.1	850.3	853.4	860.5	867.5	872.2	878.5
40°	796.2	797.0	801.7	809.5	816.6	818.9	823.6	832.3	837.7	844.0	847.9
42.5°	763.3	764.1	768.8	776.6	783.7	788.4	793.1	800.9	807.2	813.4	818.9
45°	728.0	730.4	735.1	742.9	750.0	755.5	759.4	768.0	775.0	780.5	787.6
47.5°	690.4	693.5	699.0	706.9	714.7	720.2	724.1	731.9	740.6	746.8	753.1
50°	653.6	657.5	662.2	670.8	678.7	684.1	687.3	695.9	703.7	711.6	718.6
52.5°	614.4	617.5	623.8	632.4	640.3	645.7	648.9	659.1	667.7	674.0	680.2
55°	574.4	577.6	583.8	591.7	601.1	605.0	609.7	619.9	627.7	635.6	642.6
57.5°	532.1	536.0	542.3	550.9	559.5	563.5	568.2	577.6	587.8	594.8	601.1
60°	489.0	491.4	497.6	507.8	515.7	520.4	525.8	534.5	544.6	552.5	561.1
62.5°	445.1	447.5	453.7	463.9	473.3	476.5	482.7	492.9	500.8	511.0	517.2
65°	399.7	402.8	409.1	416.1	427.9	432.6	437.3	447.5	456.1	464.7	472.6
67.5°	351.9	353.4	362.8	371.5	379.3	386.3	391.8	402.0	411.4	420.8	430.2
70°	301.7	305.6	313.5	323.7	333.1	339.3	343.2	355.0	365.2	376.9	384.8
72.5°	253.9	259.4	267.2	275.9	285.3	293.1	297.8	308.0	318.2	328.4	337.8
75°	204.5	210.8	219.4	228.8	239.0	244.5	252.3	262.5	272.7	282.1	290.7
77.5°	158.3	162.2	173.2	182.6	195.1	199.8	204.5	216.3	226.5	236.7	246.9
80°	112.8	117.6	127.0	137.9	149.7	154.4	160.7	171.6	182.6	192.8	202.2
82.5°	72.9	77.6	85.4	96.4	108.1	113.6	119.9	130.9	142.6	152.8	162.2
85°	38.4	42.3	50.9	61.9	73.7	79.9	84.6	97.2	106.6	119.1	127.7
87.5°	14.1	17.2	25.1	37.6	48.6	55.6	60.3	72.1	83.1	93.3	103.4
90°	0.8	5.5	14.1	25.1	36.8	42.3	48.6	60.3	71.3	81.5	90.9
92.5°	0.0	3.9	12.5	22.7	34.5	40.8	46.2	57.2	68.2	78.4	87.8
95°	0.8	3.9	11.8	21.9	33.7	39.2	45.5	56.4	66.6	76.8	86.2
97.5°	0.0	3.1	11.0	21.2	32.1	38.4	43.9	54.9	65.8	75.2	84.6
100°	0.8	3.1	10.2	20.4	31.3	36.8	42.3	53.3	64.3	73.7	83.1
102.5°	0.0	3.1	10.2	19.6	30.6	36.0	41.5	51.7	61.9	72.1	80.7
105°	0.8	2.4	9.4	18.8	29.0	34.5	40.0	50.2	60.3	69.7	79.2
107.5°	0.0	2.4	8.6	18.0	28.2	32.9	38.4	48.6	58.8	68.2	76.8
110°	0.8	2.4	8.6	17.2	26.6	32.1	36.8	47.0	56.4	65.8	74.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.8	1.6	7.8	16.5	25.9	30.6	35.3	45.5	54.9	63.5	72.1
115°	0.8	1.6	7.1	15.7	24.3	29.0	33.7	43.1	52.5	61.1	69.0
117.5°	0.8	1.6	7.1	14.1	23.5	27.4	32.1	41.5	50.2	58.8	66.6
120°	0.8	1.6	6.3	13.3	21.9	25.9	30.6	39.2	47.8	56.4	63.5
122.5°	0.8	0.8	5.5	12.5	20.4	25.1	29.0	37.6	45.5	53.3	61.1
125°	0.8	0.8	4.7	11.8	19.6	23.5	27.4	35.3	43.1	50.9	58.0
127.5°	0.8	0.8	4.7	11.0	18.0	21.9	25.9	32.9	40.8	47.8	54.9
130°	0.8	0.8	3.9	9.4	16.5	20.4	23.5	31.3	38.4	45.5	51.7
132.5°	0.8	0.8	3.1	8.6	14.9	18.8	21.9	29.0	36.0	42.3	48.6
135°	0.8	0.8	3.1	7.8	14.1	17.2	20.4	26.6	32.9	39.2	45.5
137.5°	0.8	0.8	2.4	6.3	11.8	14.9	18.0	24.3	30.6	36.0	41.5
140°	0.8	0.8	1.6	5.5	10.2	13.3	16.5	21.9	28.2	33.7	38.4
142.5°	0.8	0.8	1.6	4.7	9.4	11.8	14.1	19.6	25.1	30.6	35.3
145°	0.8	0.8	1.6	3.9	7.8	9.4	11.8	16.5	21.9	26.6	31.3
147.5°	0.8	0.8	0.8	3.1	6.3	7.8	10.2	14.1	18.8	23.5	27.4
150°	0.8	0.8	0.8	2.4	5.5	7.1	8.6	11.8	15.7	19.6	23.5
152.5°	0.8	0.8	0.8	1.6	3.9	5.5	7.1	10.2	13.3	16.5	19.6
155°	0.8	0.8	0.8	1.6	3.1	3.9	5.5	7.8	11.0	13.3	16.5
157.5°	0.8	0.8	0.8	1.6	2.4	3.1	3.9	6.3	7.8	10.2	13.3
160°	0.8	0.8	0.8	0.8	1.6	2.4	3.1	3.9	6.3	7.8	9.4
162.5°	1.6	1.6	0.8	0.8	1.6	1.6	2.4	3.1	3.9	5.5	7.1
165°	1.6	1.6	1.6	0.8	0.8	0.8	1.6	2.4	3.1	3.9	4.7
167.5°	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	1.6	2.4	2.4
170°	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	1.6
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°	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5	1081.5
2.5°	1083.0	1083.0	1083.0	1083.0	1083.0	1083.0	1083.0	1083.0	1082.2	1082.2
5°	1079.9	1079.9	1080.7	1081.5	1081.5	1081.5	1081.5	1080.7	1080.7	1080.7
7.5°	1076.8	1078.3	1079.1	1079.1	1079.1	1079.1	1079.9	1079.9	1079.1	1079.1
10°	1072.1	1072.8	1074.4	1075.2	1075.2	1075.2	1075.2	1076.0	1076.0	1076.0
12.5°	1065.8	1066.6	1067.4	1068.9	1068.9	1069.7	1070.5	1069.7	1071.3	1070.5
15°	1055.6	1058.0	1059.5	1060.3	1061.1	1061.1	1061.9	1062.7	1062.7	1062.7
17.5°	1044.6	1046.2	1048.5	1050.1	1050.1	1051.7	1050.9	1052.5	1053.2	1052.5
20°	1030.5	1032.9	1035.2	1036.8	1038.4	1038.4	1039.1	1039.9	1039.9	1039.9
22.5°	1015.6	1018.0	1020.3	1022.7	1023.5	1024.3	1025.8	1026.6	1026.6	1027.4
25°	997.6	1000.7	1003.9	1005.4	1006.2	1007.8	1008.6	1009.4	1010.1	1011.7
27.5°	978.8	981.9	985.1	987.4	987.4	989.8	991.3	992.1	992.1	992.1
30°	957.6	960.8	963.1	967.0	967.0	967.8	969.4	971.7	971.0	971.7
32.5°	934.1	938.1	941.2	942.8	945.1	946.7	946.7	949.0	950.6	949.0
35°	909.1	913.0	916.9	919.2	921.6	921.6	924.7	924.7	926.3	926.3
37.5°	883.2	886.3	890.2	892.6	894.9	897.3	898.9	898.9	899.7	900.4
40°	853.4	857.3	862.8	866.7	867.5	868.3	870.7	871.4	873.0	871.4
42.5°	823.6	828.3	833.0	837.0	837.0	839.3	840.9	842.4	843.2	842.4
45°	791.5	797.8	800.9	805.6	805.6	808.0	809.5	812.7	813.4	813.4
47.5°	757.8	763.3	768.8	773.5	773.5	775.8	776.6	779.0	779.7	782.1
50°	724.1	729.6	733.5	739.0	739.8	741.4	743.7	745.3	746.1	746.1
52.5°	688.1	692.8	697.5	701.4	704.5	704.5	708.4	709.2	710.0	713.1
55°	649.7	655.1	659.8	665.3	665.3	666.9	669.3	670.8	673.2	674.7
57.5°	608.9	614.4	621.4	623.8	626.9	628.5	631.6	632.4	633.2	634.8
60°	567.4	573.6	578.3	583.0	585.4	587.0	589.3	591.7	593.2	593.2
62.5°	525.8	529.8	536.8	542.3	543.9	547.0	548.6	550.1	551.7	552.5
65°	481.2	487.4	494.5	498.4	500.8	500.8	504.7	507.8	507.0	507.8
67.5°	436.5	443.6	448.3	453.7	456.1	458.4	462.4	463.1	465.5	466.3
70°	390.3	398.9	404.4	408.3	412.2	411.4	416.9	417.7	420.0	421.6
72.5°	345.6	351.9	359.7	363.6	366.0	367.5	370.7	373.0	373.0	374.6
75°	299.4	305.6	311.9	318.2	318.2	322.9	326.0	329.1	329.1	331.5
77.5°	253.1	262.5	268.8	272.7	275.9	278.2	280.6	284.5	283.7	284.5
80°	209.2	217.1	223.3	229.6	232.0	234.3	236.7	239.8	241.4	242.2
82.5°	169.3	177.1	184.2	189.6	192.0	195.1	199.1	201.4	202.2	204.5
85°	135.6	143.4	150.5	156.7	159.1	160.7	164.6	166.9	168.5	169.3
87.5°	112.1	119.9	127.0	132.4	134.8	137.1	141.1	143.4	145.8	145.8
90°	99.5	107.4	114.4	119.9	123.0	125.4	129.3	131.7	133.2	133.2
92.5°	96.4	103.4	110.5	116.0	119.1	121.5	124.6	127.0	129.3	129.3
95°	94.8	102.7	108.9	114.4	117.6	119.9	123.0	126.2	127.7	127.7
97.5°	93.3	101.1	107.4	112.8	116.0	118.3	121.5	123.8	125.4	126.2
100°	90.9	98.7	105.8	111.3	113.6	116.0	119.9	122.3	123.8	123.8
102.5°	89.3	96.4	103.4	108.9	111.3	113.6	116.8	119.9	120.7	121.5
105°	87.0	94.0	101.1	106.6	108.9	111.3	114.4	116.8	118.3	119.1
107.5°	84.6	91.7	98.0	103.4	105.8	108.1	112.1	114.4	116.0	116.0
110°	82.3	89.3	95.6	100.3	103.4	105.0	108.9	111.3	112.8	112.8





TEST NUMBER: P241577

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	79.2	86.2	92.5	97.2	99.5	101.9	105.0	107.4	108.9	109.7
115°	76.8	83.1	89.3	94.0	96.4	98.7	101.9	104.2	105.8	105.8
117.5°	73.7	79.9	85.4	90.9	93.3	94.8	98.0	100.3	101.9	102.7
120°	70.5	76.8	82.3	87.0	89.3	90.9	94.0	96.4	98.0	98.7
122.5°	67.4	73.7	79.2	83.9	85.4	87.0	90.1	92.5	94.0	94.8
125°	64.3	69.7	75.2	79.9	81.5	83.1	86.2	88.6	89.3	90.1
127.5°	61.1	66.6	71.3	76.0	77.6	79.2	82.3	83.9	85.4	86.2
130°	57.2	62.7	67.4	71.3	73.7	75.2	77.6	79.9	80.7	81.5
132.5°	54.1	58.8	63.5	67.4	69.0	70.5	73.7	75.2	76.8	76.8
135°	50.2	54.9	59.6	63.5	65.0	66.6	69.0	70.5	71.3	72.1
137.5°	47.0	51.7	55.6	58.8	60.3	61.9	64.3	65.8	66.6	67.4
140°	43.1	47.0	50.9	54.1	55.6	57.2	59.6	61.1	61.9	61.9
142.5°	39.2	43.1	47.0	50.2	51.7	52.5	54.9	55.6	56.4	57.2
145°	36.0	39.2	42.3	45.5	47.0	47.8	49.4	50.9	51.7	51.7
147.5°	32.1	35.3	38.4	40.8	42.3	43.1	44.7	46.2	47.0	47.0
150°	27.4	31.3	33.7	36.0	37.6	38.4	40.0	40.8	41.5	41.5
152.5°	23.5	26.6	29.8	32.1	32.9	33.7	35.3	36.0	36.8	36.8
155°	19.6	21.9	25.1	27.4	28.2	29.0	29.8	30.6	31.3	31.3
157.5°	15.7	18.0	20.4	22.7	23.5	24.3	25.1	25.9	25.9	26.6
160°	11.8	13.3	15.7	18.0	18.8	19.6	20.4	20.4	21.2	21.2
162.5°	8.6	10.2	11.8	13.3	13.3	14.9	15.7	16.5	16.5	16.5
165°	5.5	7.1	7.8	8.6	9.4	10.2	11.0	11.0	11.8	11.8
167.5°	3.1	3.9	4.7	5.5	5.5	6.3	6.3	7.1	7.1	7.1
170°	1.6	1.6	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.9
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)