

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: P241558

Luminaire Tested: **FVS8M-2-LD4-35-3HI-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241558  
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-LD4-35-3HI-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 3-MODULE LED WITH OPAL LENS  
Light Source: (126) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

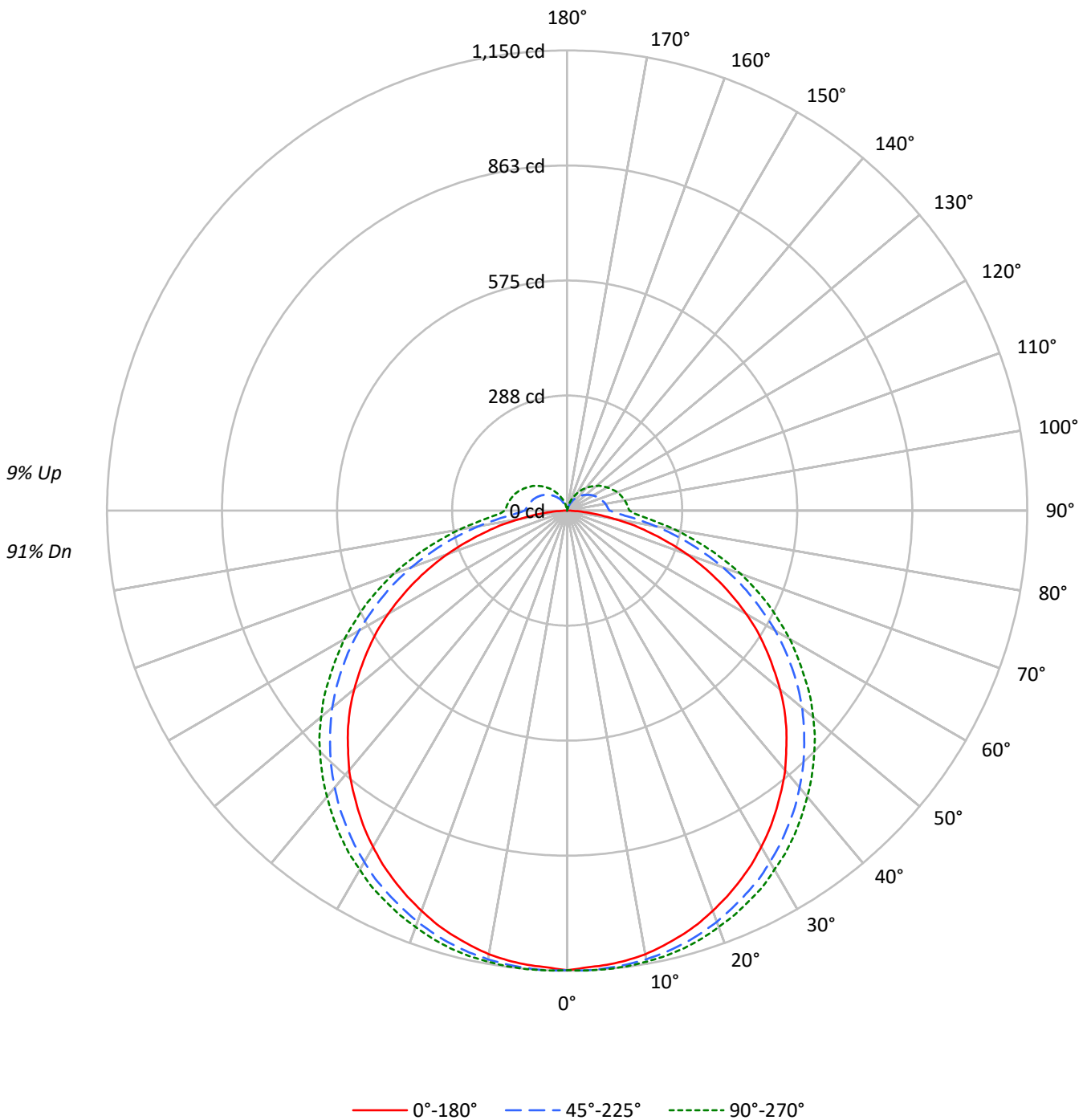
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4114.0 lumens  
Efficiency: N/A  
Efficacy: 61.9 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): 66.5  
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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CATALOG NUMBER: FVS8M-2-LD4-35-3HI-O-UNV-EDC1

### 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°	10325	10325	10325
5°	10213	10164	10180
10°	10137	10014	10047
15°	10022	9864	9932
20°	9897	9702	9789
25°	9770	9531	9655
30°	9633	9364	9512
35°	9479	9177	9379
40°	9331	8981	9213
45°	9136	8765	9045
50°	8883	8529	8844
55°	8560	8223	8582
60°	8186	7866	8308
65°	7617	7401	7949
70°	6883	6830	7487
75°	5789	6095	6853
80°	4314	5207	6206
85°	2286	4321	5587



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.1	2.7
10°-20°	315.8	7.7
20°-30°	485.9	11.8
30°-40°	599.2	14.6
40°-50°	641.5	15.6
50°-60°	605.9	14.7
60°-70°	494.0	12.0
70°-80°	323.8	7.9
80°-90°	153.7	3.7
90°-100°	98.7	2.4
100°-110°	87.6	2.1
110°-120°	72.4	1.8
120°-130°	55.2	1.3
130°-140°	37.6	0.9
140°-150°	21.8	0.5
150°-160°	9.5	0.2
160°-170°	2.1	0.1
170°-180°	0.0	0.0
0°-30°	910.9	22.1
0°-40°	1510.1	36.7
0°-60°	2757.5	67.0
0°-90°	3729.0	90.6
90°-120°	258.7	6.3
90°-150°	373.3	9.1
90°-180°	385.0	9.4
0°-180°	4114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1149	1149	1149	1149	1149	
5°	1140	1143	1148	1150	1150	108
15°	1100	1107	1121	1129	1132	310
25°	1021	1036	1057	1072	1076	471
35°	911	934	962	983	990	571
45°	775	802	838	863	872	597
55°	608	643	686	715	724	543
65°	418	458	509	542	555	414
75°	216	263	316	353	364	230
85°	42	89	145	182	194	51
90°	0	50	106	144	156	2
95°	0	46	101	138	151	0
105°	0	40	92	128	140	0
115°	0	34	81	114	124	0
125°	0	27	69	97	107	0
135°	1	21	54	77	85	0
145°	1	13	38	56	63	1
155°	1	5	22	34	37	0
165°	1	1	6	13	15	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°	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6
2.5°	1142.7	1142.7	1143.7	1144.6	1144.6	1145.6	1145.6	1146.6	1148.6	1149.5	1150.5
5°	1139.7	1139.7	1140.7	1141.7	1142.7	1142.7	1143.7	1144.6	1145.6	1146.6	1147.6
7.5°	1133.9	1133.9	1134.8	1135.8	1136.8	1137.8	1137.8	1138.8	1140.7	1142.7	1144.6
10°	1126.0	1125.0	1126.0	1127.0	1128.0	1129.0	1130.9	1132.9	1134.8	1137.8	1138.8
12.5°	1113.3	1114.3	1114.3	1116.2	1118.2	1120.1	1120.1	1123.1	1126.0	1129.0	1130.9
15°	1099.6	1099.6	1100.5	1103.5	1105.4	1107.4	1108.4	1112.3	1115.2	1118.2	1121.1
17.5°	1083.9	1083.9	1085.8	1087.8	1090.7	1092.7	1094.7	1097.6	1101.5	1105.4	1108.4
20°	1064.3	1065.3	1067.2	1070.2	1074.1	1076.0	1077.0	1081.9	1086.8	1089.8	1093.7
22.5°	1043.7	1043.7	1046.6	1050.6	1054.5	1056.4	1058.4	1063.3	1068.2	1072.1	1076.0
25°	1021.2	1022.1	1025.1	1029.0	1032.9	1035.9	1037.8	1044.7	1048.6	1052.5	1057.4
27.5°	997.6	997.6	1001.6	1005.5	1010.4	1012.3	1016.3	1021.2	1027.0	1031.9	1037.8
30°	970.2	971.2	976.1	981.0	984.9	989.8	991.8	997.6	1003.5	1008.4	1014.3
32.5°	942.8	942.8	946.7	953.5	957.5	961.4	964.3	971.2	978.0	983.9	989.8
35°	911.4	914.3	918.3	924.1	930.0	933.9	936.9	943.7	951.6	956.5	962.4
37.5°	880.0	882.0	886.9	892.8	898.7	902.6	906.5	914.3	921.2	928.1	934.9
40°	847.7	847.7	852.6	860.4	867.3	870.2	874.2	882.0	888.9	896.7	903.6
42.5°	810.5	812.4	818.3	825.2	833.0	836.9	840.8	848.7	856.5	864.4	872.2
45°	775.2	776.2	782.0	788.9	796.7	801.6	806.5	813.4	823.2	830.1	837.9
47.5°	736.0	737.9	743.8	751.7	759.5	765.4	768.3	777.1	786.0	794.8	802.6
50°	694.8	696.8	703.6	713.4	721.3	724.2	730.1	740.9	748.7	758.5	766.4
52.5°	650.7	655.6	664.4	671.3	680.1	685.0	689.9	698.7	710.5	718.3	727.2
55°	607.6	610.5	618.4	627.2	638.0	642.9	647.8	657.6	669.3	678.2	686.0
57.5°	564.5	567.4	575.3	583.1	594.9	599.8	605.6	616.4	626.2	634.1	644.8
60°	517.4	519.4	528.2	539.0	548.8	555.7	559.6	571.3	581.1	590.9	600.7
62.5°	467.5	473.3	480.2	492.0	501.8	510.6	514.5	524.3	536.1	545.9	553.7
65°	418.5	423.4	431.2	443.9	453.7	457.7	465.5	476.3	488.0	499.8	508.6
67.5°	368.5	375.3	380.2	394.0	407.7	411.6	419.4	428.3	442.0	452.8	462.6
70°	318.5	322.4	331.2	344.0	354.8	361.6	367.5	380.2	392.0	404.7	413.6
72.5°	266.6	272.4	282.2	293.0	307.7	312.6	319.5	330.3	345.0	355.7	364.6
75°	215.6	220.5	229.3	244.0	256.8	262.6	269.5	282.2	295.0	306.7	316.5
77.5°	170.5	172.5	182.3	195.0	207.8	214.6	221.5	234.2	247.0	260.7	269.5
80°	120.5	126.4	135.2	148.0	161.7	168.6	175.4	187.2	199.9	211.7	223.4
82.5°	76.4	82.3	92.1	104.9	119.6	124.5	132.3	147.0	157.8	168.6	181.3
85°	42.1	46.1	54.9	68.6	82.3	89.2	96.0	109.8	121.5	133.3	145.0
87.5°	14.7	19.6	29.4	42.1	55.9	62.7	69.6	83.3	95.1	107.8	119.6
90°	0.0	6.9	16.7	29.4	43.1	50.0	56.8	69.6	83.3	95.1	105.8
92.5°	0.0	4.9	14.7	26.5	40.2	47.0	53.9	67.6	80.4	92.1	102.9
95°	0.0	3.9	13.7	25.5	39.2	46.1	52.9	65.7	78.4	90.2	100.9
97.5°	0.0	3.9	12.7	24.5	38.2	44.1	51.0	64.7	76.4	88.2	99.0
100°	0.0	3.9	12.7	23.5	37.2	43.1	50.0	62.7	74.5	86.2	97.0
102.5°	0.0	3.9	11.8	23.5	35.3	42.1	48.0	60.8	72.5	84.3	95.1
105°	0.0	2.9	10.8	22.5	34.3	40.2	47.0	58.8	70.6	82.3	92.1
107.5°	0.0	2.9	10.8	21.6	33.3	39.2	45.1	56.8	68.6	79.4	90.2
110°	0.0	2.9	9.8	20.6	31.4	37.2	44.1	55.9	66.6	77.4	87.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.9	9.8	19.6	30.4	36.3	42.1	52.9	64.7	74.5	84.3
115°	0.0	2.0	8.8	18.6	28.4	34.3	40.2	51.0	61.7	71.5	81.3
117.5°	0.0	2.0	7.8	17.6	27.4	32.3	38.2	49.0	59.8	69.6	78.4
120°	0.0	2.0	7.8	16.7	26.5	31.4	36.3	47.0	56.8	66.6	75.5
122.5°	0.0	1.0	6.9	15.7	24.5	29.4	34.3	44.1	53.9	63.7	71.5
125°	0.0	1.0	6.9	13.7	23.5	27.4	32.3	42.1	51.0	59.8	68.6
127.5°	0.0	1.0	5.9	12.7	21.6	26.5	30.4	40.2	49.0	56.8	64.7
130°	0.0	1.0	4.9	11.8	19.6	24.5	28.4	37.2	46.1	53.9	60.8
132.5°	0.0	1.0	4.9	10.8	18.6	22.5	26.5	34.3	43.1	50.0	57.8
135°	1.0	1.0	3.9	9.8	16.7	20.6	24.5	32.3	40.2	47.0	53.9
137.5°	0.0	1.0	2.9	8.8	15.7	18.6	22.5	29.4	37.2	43.1	50.0
140°	0.0	1.0	2.9	7.8	13.7	16.7	20.6	27.4	33.3	40.2	46.1
142.5°	1.0	1.0	2.0	6.9	11.8	14.7	17.6	24.5	30.4	36.3	42.1
145°	1.0	1.0	1.0	4.9	9.8	12.7	15.7	21.6	27.4	33.3	38.2
147.5°	1.0	1.0	1.0	3.9	8.8	10.8	13.7	18.6	24.5	29.4	34.3
150°	1.0	1.0	1.0	2.9	6.9	8.8	10.8	15.7	20.6	25.5	30.4
152.5°	1.0	1.0	1.0	2.0	4.9	6.9	8.8	12.7	17.6	21.6	25.5
155°	1.0	1.0	1.0	2.0	3.9	4.9	6.9	10.8	13.7	17.6	21.6
157.5°	1.0	1.0	1.0	1.0	2.9	3.9	4.9	7.8	10.8	13.7	16.7
160°	1.0	1.0	1.0	1.0	2.0	2.9	2.9	5.9	7.8	10.8	12.7
162.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	3.9	4.9	6.9	8.8
165°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.9	4.9	5.9
167.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.9
170°	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0
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°	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6
2.5°	1150.5	1151.5	1151.5	1151.5	1151.5	1151.5	1151.5	1151.5	1151.5	1150.5
5°	1148.6	1149.5	1149.5	1150.5	1150.5	1150.5	1150.5	1150.5	1150.5	1150.5
7.5°	1145.6	1146.6	1147.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6	1148.6
10°	1140.7	1141.7	1143.7	1143.7	1144.6	1144.6	1144.6	1144.6	1145.6	1144.6
12.5°	1132.9	1134.8	1136.8	1137.8	1137.8	1138.8	1138.8	1138.8	1139.7	1139.7
15°	1123.1	1125.0	1127.0	1128.0	1129.0	1129.9	1129.9	1130.9	1130.9	1131.9
17.5°	1111.3	1114.3	1116.2	1117.2	1118.2	1119.2	1119.2	1120.1	1121.1	1121.1
20°	1097.6	1099.6	1102.5	1103.5	1104.5	1105.4	1107.4	1107.4	1108.4	1107.4
22.5°	1080.0	1083.9	1086.8	1088.8	1089.8	1089.8	1091.7	1093.7	1093.7	1093.7
25°	1061.3	1065.3	1069.2	1071.1	1072.1	1072.1	1075.1	1075.1	1076.0	1076.0
27.5°	1040.8	1045.7	1048.6	1051.5	1052.5	1053.5	1054.5	1056.4	1057.4	1059.4
30°	1018.2	1022.1	1026.1	1030.0	1031.0	1031.9	1033.9	1034.9	1036.8	1035.9
32.5°	994.7	998.6	1003.5	1007.4	1008.4	1008.4	1011.4	1011.4	1013.3	1015.3
35°	968.2	973.1	977.1	981.0	982.9	982.9	986.9	987.8	989.8	989.8
37.5°	939.8	946.7	949.6	954.5	956.5	957.5	960.4	960.4	962.4	962.4
40°	910.4	915.3	921.2	924.1	926.1	929.0	930.0	933.9	933.9	933.9
42.5°	879.1	883.0	890.8	893.8	896.7	896.7	899.6	901.6	903.6	904.5
45°	845.7	850.6	856.5	861.4	863.4	865.3	867.3	869.3	872.2	872.2
47.5°	809.5	817.3	821.2	827.1	829.1	831.0	834.0	835.9	837.9	839.9
50°	772.2	780.1	786.9	790.9	791.8	794.8	797.7	799.7	801.6	802.6
52.5°	734.0	740.9	746.8	752.6	754.6	759.5	759.5	762.4	764.4	766.4
55°	694.8	700.7	708.5	712.5	715.4	716.4	722.3	724.2	724.2	724.2
57.5°	651.7	660.5	665.4	673.3	674.2	676.2	679.1	683.1	683.1	683.1
60°	608.6	616.4	623.3	628.2	632.1	632.1	637.0	640.9	641.9	642.9
62.5°	564.5	571.3	579.2	584.1	588.0	590.0	592.9	596.8	598.8	596.8
65°	517.4	525.3	533.1	539.0	541.9	543.9	547.8	550.8	553.7	554.7
67.5°	471.4	478.2	487.1	493.9	495.9	499.8	502.7	504.7	506.7	506.7
70°	423.4	432.2	440.0	445.9	446.9	450.8	455.7	458.6	457.7	461.6
72.5°	375.3	384.2	391.0	398.9	399.8	402.8	406.7	409.6	410.6	411.6
75°	326.3	337.1	343.0	349.9	352.8	354.8	359.7	363.6	363.6	363.6
77.5°	279.3	288.1	295.0	300.9	304.8	307.7	312.6	315.6	315.6	316.5
80°	231.3	243.0	248.9	255.8	260.7	262.6	266.6	270.5	271.5	273.4
82.5°	190.1	200.9	207.8	214.6	218.5	222.5	224.4	228.3	229.3	229.3
85°	154.8	163.7	171.5	178.4	182.3	185.2	189.1	191.1	194.0	194.0
87.5°	129.4	137.2	146.0	152.9	155.8	158.8	162.7	165.6	168.6	167.6
90°	116.6	125.4	133.3	140.1	144.1	147.0	149.9	153.9	155.8	155.8
92.5°	112.7	121.5	130.3	137.2	140.1	142.1	147.0	149.9	151.9	152.9
95°	110.7	120.5	128.4	135.2	138.2	141.1	145.0	148.0	149.9	150.9
97.5°	109.8	118.6	126.4	133.3	136.2	139.2	143.1	146.0	148.0	149.0
100°	106.8	115.6	124.5	131.3	133.3	136.2	141.1	144.1	146.0	146.0
102.5°	104.9	113.7	121.5	128.4	131.3	133.3	138.2	141.1	143.1	143.1
105°	101.9	110.7	118.6	125.4	128.4	130.3	135.2	138.2	139.2	140.1
107.5°	99.0	107.8	115.6	121.5	124.5	127.4	131.3	134.3	136.2	137.2
110°	96.0	104.9	111.7	118.6	121.5	123.5	128.4	130.3	132.3	133.3





TEST NUMBER: P241558

CATALOG NUMBER: FVS8M-2-LD4-35-3HI-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	93.1	100.9	108.8	114.7	117.6	119.6	123.5	127.4	128.4	129.4
115°	90.2	98.0	104.9	110.7	113.7	115.6	119.6	122.5	124.5	124.5
117.5°	86.2	94.1	100.9	106.8	109.8	111.7	115.6	118.6	119.6	120.5
120°	83.3	91.1	97.0	102.9	105.8	107.8	110.7	113.7	115.6	115.6
122.5°	79.4	87.2	93.1	99.0	100.9	102.9	106.8	109.8	110.7	110.7
125°	75.5	83.3	89.2	94.1	97.0	99.0	101.9	104.9	105.8	106.8
127.5°	72.5	78.4	85.3	90.2	92.1	94.1	97.0	100.0	100.9	101.9
130°	68.6	74.5	80.4	85.3	87.2	89.2	92.1	94.1	96.0	96.0
132.5°	63.7	70.6	75.5	80.4	82.3	83.3	87.2	89.2	90.2	90.2
135°	59.8	65.7	70.6	75.5	77.4	78.4	81.3	83.3	85.3	85.3
137.5°	55.9	60.8	65.7	70.6	71.5	73.5	76.4	78.4	79.4	79.4
140°	51.9	56.8	60.8	64.7	66.6	67.6	70.6	72.5	73.5	73.5
142.5°	47.0	51.9	55.9	59.8	61.7	62.7	64.7	66.6	67.6	68.6
145°	43.1	47.0	51.0	54.9	55.9	56.8	59.8	60.8	61.7	62.7
147.5°	38.2	42.1	46.1	49.0	50.0	51.9	53.9	54.9	55.9	55.9
150°	34.3	37.2	41.2	44.1	45.1	46.1	48.0	49.0	50.0	50.0
152.5°	29.4	33.3	36.3	38.2	39.2	40.2	42.1	43.1	44.1	44.1
155°	25.5	28.4	30.4	33.3	34.3	35.3	36.3	37.2	37.2	37.2
157.5°	20.6	23.5	25.5	27.4	28.4	29.4	30.4	31.4	31.4	32.3
160°	15.7	18.6	20.6	22.5	22.5	23.5	24.5	25.5	25.5	25.5
162.5°	11.8	13.7	15.7	16.7	17.6	17.6	19.6	19.6	19.6	19.6
165°	6.9	8.8	9.8	11.8	12.7	12.7	13.7	13.7	13.7	14.7
167.5°	3.9	4.9	5.9	6.9	7.8	7.8	8.8	8.8	8.8	8.8
170°	1.0	2.0	2.0	2.9	2.9	2.9	3.9	3.9	3.9	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)