

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: P241578

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241578  
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-LD4-35-2STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 2-MODULE LED WITH OPAL LENS  
Light Source: (168) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

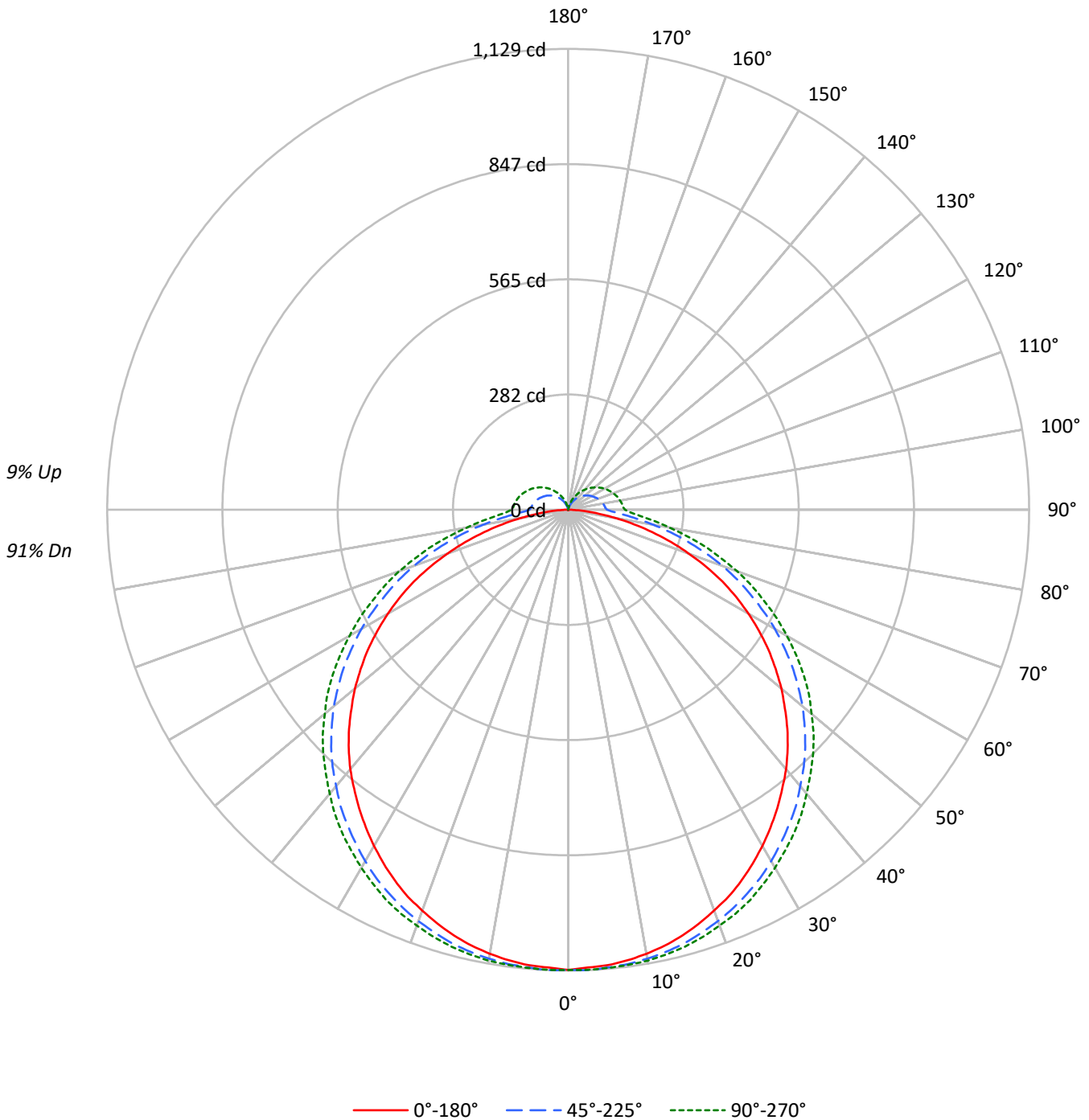
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3969.0 lumens  
Efficiency: N/A  
Efficacy: 72.6 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°	6584	6584	6584
5°	6537	6488	6476
10°	6491	6402	6397
15°	6441	6317	6316
20°	6375	6223	6226
25°	6314	6126	6149
30°	6229	6023	6043
35°	6146	5911	5944
40°	6068	5788	5822
45°	5963	5671	5714
50°	5835	5518	5568
55°	5683	5331	5416
60°	5470	5102	5193
65°	5189	4795	4928
70°	4710	4454	4632
75°	4040	3951	4231
80°	3069	3359	3723
85°	1692	2756	3302



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.1	2.7
10°-20°	309.7	7.8
20°-30°	476.4	12.0
30°-40°	586.6	14.8
40°-50°	627.1	15.8
50°-60°	591.0	14.9
60°-70°	479.5	12.1
70°-80°	310.3	7.8
80°-90°	141.8	3.6
90°-100°	87.6	2.2
100°-110°	77.7	2.0
110°-120°	64.1	1.6
120°-130°	48.6	1.2
130°-140°	32.9	0.8
140°-150°	18.8	0.5
150°-160°	8.0	0.2
160°-170°	1.8	0.0
170°-180°	0.0	0.0
0°-30°	893.1	22.5
0°-40°	1479.7	37.3
0°-60°	2697.9	68.0
0°-90°	3629.5	91.4
90°-120°	229.4	5.8
90°-150°	329.7	8.3
90°-180°	340.0	8.6
0°-180°	3969.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1128	1128	1128	1128	1128	
5°	1120	1122	1126	1128	1127	106
15°	1080	1087	1100	1106	1108	305
25°	1003	1016	1038	1049	1055	462
35°	893	916	943	961	966	559
45°	759	788	821	840	848	585
55°	599	631	670	694	704	535
65°	417	451	493	522	529	411
75°	213	255	303	332	346	226
85°	40	83	133	166	176	50
90°	1	44	95	128	139	2
95°	1	41	90	123	133	0
105°	1	36	82	114	124	0
115°	1	30	72	100	110	1
125°	1	24	60	85	94	1
135°	1	18	47	68	75	1
145°	1	10	33	49	54	1
155°	1	4	17	29	33	0
165°	2	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°	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5
2.5°	1122.6	1123.4	1123.4	1123.4	1124.2	1125.0	1125.8	1127.5	1128.3	1129.1	1129.1
5°	1120.1	1120.1	1120.1	1120.1	1120.9	1121.8	1123.4	1124.2	1125.0	1125.8	1125.8
7.5°	1113.6	1114.4	1114.4	1114.4	1115.2	1116.0	1116.9	1119.3	1120.9	1121.8	1122.6
10°	1104.6	1106.2	1106.2	1106.2	1107.1	1108.7	1109.5	1112.0	1114.4	1116.0	1116.9
12.5°	1094.0	1094.0	1094.8	1094.8	1097.3	1098.1	1100.5	1103.8	1105.4	1107.9	1109.5
15°	1080.1	1080.9	1080.9	1081.7	1085.0	1086.6	1088.3	1091.5	1095.6	1097.3	1099.7
17.5°	1063.8	1064.6	1066.2	1067.0	1070.3	1072.7	1074.4	1078.5	1082.5	1085.0	1086.6
20°	1045.0	1046.6	1047.4	1049.9	1054.0	1056.4	1058.0	1062.9	1067.0	1069.5	1072.7
22.5°	1026.2	1026.2	1027.8	1031.1	1035.2	1038.4	1040.9	1045.0	1049.9	1052.3	1056.4
25°	1003.3	1003.3	1005.7	1009.8	1013.9	1016.4	1018.8	1024.5	1030.3	1034.3	1037.6
27.5°	978.0	978.8	982.1	986.1	991.0	995.1	996.8	1003.3	1008.2	1013.9	1018.0
30°	951.0	953.5	956.7	960.8	967.3	970.6	973.9	979.6	985.3	991.0	994.3
32.5°	922.4	924.0	929.8	933.8	940.4	944.5	947.7	954.3	960.0	964.9	969.0
35°	893.0	894.6	899.5	905.3	912.6	915.9	918.3	926.5	933.8	938.8	942.8
37.5°	861.1	864.4	868.5	874.2	883.2	886.5	889.7	897.1	904.4	909.3	915.9
40°	830.1	830.9	835.8	844.0	851.3	853.8	858.7	867.7	873.4	879.9	884.0
42.5°	795.8	796.6	801.5	809.7	817.0	821.9	826.8	835.0	841.5	848.1	853.8
45°	759.0	761.5	766.4	774.5	781.9	787.6	791.7	800.7	808.0	813.7	821.1
47.5°	719.8	723.1	728.8	736.9	745.1	750.8	754.9	763.1	772.1	778.6	785.2
50°	681.4	685.5	690.4	699.4	707.5	713.3	716.5	725.5	733.7	741.9	749.2
52.5°	640.5	643.8	650.3	659.3	667.5	673.2	676.5	687.1	696.1	702.6	709.2
55°	598.9	602.1	608.7	616.8	626.7	630.7	635.6	646.3	654.4	662.6	670.0
57.5°	554.8	558.8	565.4	574.4	583.3	587.4	592.3	602.1	612.8	620.1	626.7
60°	509.8	512.3	518.8	529.4	537.6	542.5	548.2	557.2	567.8	576.0	585.0
62.5°	464.1	466.5	473.1	483.7	493.5	496.7	503.3	513.9	522.1	532.7	539.2
65°	416.7	419.9	426.5	433.8	446.1	451.0	455.9	466.5	475.5	484.5	492.7
67.5°	366.8	368.5	378.3	387.3	395.4	402.8	408.5	419.1	428.9	438.7	448.5
70°	314.6	318.6	326.8	337.4	347.2	353.8	357.9	370.1	380.7	393.0	401.2
72.5°	264.7	270.4	278.6	287.6	297.4	305.6	310.5	321.1	331.7	342.3	352.1
75°	213.2	219.8	228.8	238.6	249.2	254.9	263.1	273.7	284.3	294.1	303.1
77.5°	165.0	169.1	180.6	190.4	203.4	208.3	213.2	225.5	236.1	246.7	257.4
80°	117.7	122.6	132.4	143.8	156.1	161.0	167.5	178.9	190.4	201.0	210.8
82.5°	76.0	80.9	89.1	100.5	112.7	118.5	125.0	136.4	148.7	159.3	169.1
85°	40.0	44.1	53.1	64.5	76.8	83.3	88.2	101.3	111.1	124.2	133.2
87.5°	14.7	18.0	26.1	39.2	50.7	58.0	62.9	75.2	86.6	97.2	107.8
90°	0.8	5.7	14.7	26.1	38.4	44.1	50.7	62.9	74.3	85.0	94.8
92.5°	0.0	4.1	13.1	23.7	35.9	42.5	48.2	59.6	71.1	81.7	91.5
95°	0.8	4.1	12.3	22.9	35.1	40.9	47.4	58.8	69.4	80.1	89.9
97.5°	0.0	3.3	11.4	22.1	33.5	40.0	45.8	57.2	68.6	78.4	88.2
100°	0.8	3.3	10.6	21.2	32.7	38.4	44.1	55.6	67.0	76.8	86.6
102.5°	0.0	3.3	10.6	20.4	31.9	37.6	43.3	53.9	64.5	75.2	84.2
105°	0.8	2.5	9.8	19.6	30.2	35.9	41.7	52.3	62.9	72.7	82.5
107.5°	0.0	2.5	9.0	18.8	29.4	34.3	40.0	50.7	61.3	71.1	80.1
110°	0.8	2.5	9.0	18.0	27.8	33.5	38.4	49.0	58.8	68.6	77.6



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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	8.2	17.2	27.0	31.9	36.8	47.4	57.2	66.2	75.2
115°	0.8	1.6	7.4	16.3	25.3	30.2	35.1	44.9	54.7	63.7	71.9
117.5°	0.8	1.6	7.4	14.7	24.5	28.6	33.5	43.3	52.3	61.3	69.4
120°	0.8	1.6	6.5	13.9	22.9	27.0	31.9	40.9	49.8	58.8	66.2
122.5°	0.8	0.8	5.7	13.1	21.2	26.1	30.2	39.2	47.4	55.6	63.7
125°	0.8	0.8	4.9	12.3	20.4	24.5	28.6	36.8	44.9	53.1	60.5
127.5°	0.8	0.8	4.9	11.4	18.8	22.9	27.0	34.3	42.5	49.8	57.2
130°	0.8	0.8	4.1	9.8	17.2	21.2	24.5	32.7	40.0	47.4	53.9
132.5°	0.8	0.8	3.3	9.0	15.5	19.6	22.9	30.2	37.6	44.1	50.7
135°	0.8	0.8	3.3	8.2	14.7	18.0	21.2	27.8	34.3	40.9	47.4
137.5°	0.8	0.8	2.5	6.5	12.3	15.5	18.8	25.3	31.9	37.6	43.3
140°	0.8	0.8	1.6	5.7	10.6	13.9	17.2	22.9	29.4	35.1	40.0
142.5°	0.8	0.8	1.6	4.9	9.8	12.3	14.7	20.4	26.1	31.9	36.8
145°	0.8	0.8	1.6	4.1	8.2	9.8	12.3	17.2	22.9	27.8	32.7
147.5°	0.8	0.8	0.8	3.3	6.5	8.2	10.6	14.7	19.6	24.5	28.6
150°	0.8	0.8	0.8	2.5	5.7	7.4	9.0	12.3	16.3	20.4	24.5
152.5°	0.8	0.8	0.8	1.6	4.1	5.7	7.4	10.6	13.9	17.2	20.4
155°	0.8	0.8	0.8	1.6	3.3	4.1	5.7	8.2	11.4	13.9	17.2
157.5°	0.8	0.8	0.8	1.6	2.5	3.3	4.1	6.5	8.2	10.6	13.9
160°	0.8	0.8	0.8	0.8	1.6	2.5	3.3	4.1	6.5	8.2	9.8
162.5°	1.6	1.6	0.8	0.8	1.6	1.6	2.5	3.3	4.1	5.7	7.4
165°	1.6	1.6	1.6	0.8	0.8	0.8	1.6	2.5	3.3	4.1	4.9
167.5°	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	1.6	2.5	2.5
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°	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5	1127.5
2.5°	1129.1	1129.1	1129.1	1129.1	1129.1	1129.1	1129.1	1129.1	1128.3	1128.3
5°	1125.8	1125.8	1126.7	1127.5	1127.5	1127.5	1127.5	1126.7	1126.7	1126.7
7.5°	1122.6	1124.2	1125.0	1125.0	1125.0	1125.0	1125.8	1125.8	1125.0	1125.0
10°	1117.7	1118.5	1120.1	1120.9	1120.9	1120.9	1120.9	1121.8	1121.8	1121.8
12.5°	1111.1	1112.0	1112.8	1114.4	1114.4	1115.2	1116.0	1115.2	1116.9	1116.0
15°	1100.5	1103.0	1104.6	1105.4	1106.2	1106.2	1107.1	1107.9	1107.9	1107.9
17.5°	1089.1	1090.7	1093.2	1094.8	1094.8	1096.4	1095.6	1097.3	1098.1	1097.3
20°	1074.4	1076.8	1079.3	1080.9	1082.5	1082.5	1083.4	1084.2	1084.2	1084.2
22.5°	1058.9	1061.3	1063.8	1066.2	1067.0	1067.8	1069.5	1070.3	1070.3	1071.1
25°	1040.1	1043.3	1046.6	1048.2	1049.0	1050.7	1051.5	1052.3	1053.1	1054.8
27.5°	1020.5	1023.7	1027.0	1029.4	1029.4	1031.9	1033.5	1034.3	1034.3	1034.3
30°	998.4	1001.7	1004.1	1008.2	1008.2	1009.0	1010.6	1013.1	1012.3	1013.1
32.5°	973.9	978.0	981.2	982.9	985.3	987.0	987.0	989.4	991.0	989.4
35°	947.7	951.8	955.9	958.4	960.8	960.8	964.1	964.1	965.7	965.7
37.5°	920.8	924.0	928.1	930.6	933.0	935.5	937.1	937.1	937.9	938.8
40°	889.7	893.8	899.5	903.6	904.4	905.3	907.7	908.5	910.2	908.5
42.5°	858.7	863.6	868.5	872.6	872.6	875.0	876.7	878.3	879.1	878.3
45°	825.2	831.7	835.0	839.9	839.9	842.3	844.0	847.2	848.1	848.1
47.5°	790.1	795.8	801.5	806.4	806.4	808.8	809.7	812.1	812.9	815.4
50°	754.9	760.6	764.7	770.4	771.3	772.9	775.3	777.0	777.8	777.8
52.5°	717.3	722.2	727.1	731.2	734.5	734.5	738.6	739.4	740.2	743.5
55°	677.3	683.0	687.9	693.6	693.6	695.3	697.7	699.4	701.8	703.5
57.5°	634.8	640.5	647.9	650.3	653.6	655.2	658.5	659.3	660.1	661.8
60°	591.5	598.1	603.0	607.9	610.3	611.9	614.4	616.8	618.5	618.5
62.5°	548.2	552.3	559.7	565.4	567.0	570.3	571.9	573.5	575.2	576.0
65°	501.6	508.2	515.5	519.6	522.1	522.1	526.2	529.4	528.6	529.4
67.5°	455.1	462.4	467.3	473.1	475.5	478.0	482.0	482.9	485.3	486.1
70°	406.9	415.9	421.6	425.7	429.8	428.9	434.7	435.5	437.9	439.6
72.5°	360.3	366.8	375.0	379.1	381.5	383.2	386.4	388.9	388.9	390.5
75°	312.1	318.6	325.2	331.7	331.7	336.6	339.9	343.1	343.1	345.6
77.5°	263.9	273.7	280.2	284.3	287.6	290.0	292.5	296.6	295.8	296.6
80°	218.1	226.3	232.8	239.4	241.8	244.3	246.7	250.0	251.6	252.5
82.5°	176.5	184.6	192.0	197.7	200.2	203.4	207.5	210.0	210.8	213.2
85°	141.3	149.5	156.9	163.4	165.9	167.5	171.6	174.0	175.7	176.5
87.5°	116.8	125.0	132.4	138.1	140.5	143.0	147.1	149.5	152.0	152.0
90°	103.8	111.9	119.3	125.0	128.3	130.7	134.8	137.3	138.9	138.9
92.5°	100.5	107.8	115.2	120.9	124.2	126.6	129.9	132.4	134.8	134.8
95°	98.9	107.0	113.6	119.3	122.6	125.0	128.3	131.5	133.2	133.2
97.5°	97.2	105.4	111.9	117.7	120.9	123.4	126.6	129.1	130.7	131.5
100°	94.8	102.9	110.3	116.0	118.5	120.9	125.0	127.5	129.1	129.1
102.5°	93.1	100.5	107.8	113.6	116.0	118.5	121.7	125.0	125.8	126.6
105°	90.7	98.0	105.4	111.1	113.6	116.0	119.3	121.7	123.4	124.2
107.5°	88.2	95.6	102.1	107.8	110.3	112.7	116.8	119.3	120.9	120.9
110°	85.8	93.1	99.7	104.6	107.8	109.5	113.6	116.0	117.7	117.7





TEST NUMBER: P241578

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	82.5	89.9	96.4	101.3	103.8	106.2	109.5	111.9	113.6	114.4
115°	80.1	86.6	93.1	98.0	100.5	102.9	106.2	108.7	110.3	110.3
117.5°	76.8	83.3	89.1	94.8	97.2	98.9	102.1	104.6	106.2	107.0
120°	73.5	80.1	85.8	90.7	93.1	94.8	98.0	100.5	102.1	102.9
122.5°	70.3	76.8	82.5	87.4	89.1	90.7	94.0	96.4	98.0	98.9
125°	67.0	72.7	78.4	83.3	85.0	86.6	89.9	92.3	93.1	94.0
127.5°	63.7	69.4	74.3	79.3	80.9	82.5	85.8	87.4	89.1	89.9
130°	59.6	65.4	70.3	74.3	76.8	78.4	80.9	83.3	84.2	85.0
132.5°	56.4	61.3	66.2	70.3	71.9	73.5	76.8	78.4	80.1	80.1
135°	52.3	57.2	62.1	66.2	67.8	69.4	71.9	73.5	74.3	75.2
137.5°	49.0	53.9	58.0	61.3	62.9	64.5	67.0	68.6	69.4	70.3
140°	44.9	49.0	53.1	56.4	58.0	59.6	62.1	63.7	64.5	64.5
142.5°	40.9	44.9	49.0	52.3	53.9	54.7	57.2	58.0	58.8	59.6
145°	37.6	40.9	44.1	47.4	49.0	49.8	51.5	53.1	53.9	53.9
147.5°	33.5	36.8	40.0	42.5	44.1	44.9	46.6	48.2	49.0	49.0
150°	28.6	32.7	35.1	37.6	39.2	40.0	41.7	42.5	43.3	43.3
152.5°	24.5	27.8	31.0	33.5	34.3	35.1	36.8	37.6	38.4	38.4
155°	20.4	22.9	26.1	28.6	29.4	30.2	31.0	31.9	32.7	32.7
157.5°	16.3	18.8	21.2	23.7	24.5	25.3	26.1	27.0	27.0	27.8
160°	12.3	13.9	16.3	18.8	19.6	20.4	21.2	21.2	22.1	22.1
162.5°	9.0	10.6	12.3	13.9	13.9	15.5	16.3	17.2	17.2	17.2
165°	5.7	7.4	8.2	9.0	9.8	10.6	11.4	11.4	12.3	12.3
167.5°	3.3	4.1	4.9	5.7	5.7	6.5	6.5	7.4	7.4	7.4
170°	1.6	1.6	2.5	2.5	2.5	2.5	3.3	3.3	3.3	4.1
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)