

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: P241356

Luminaire Tested: **FVS8M-3-LD4-50-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241356  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-50-1HI-P125-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 1-MODULE LED WITH P125 LENS  
Light Source: (84) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

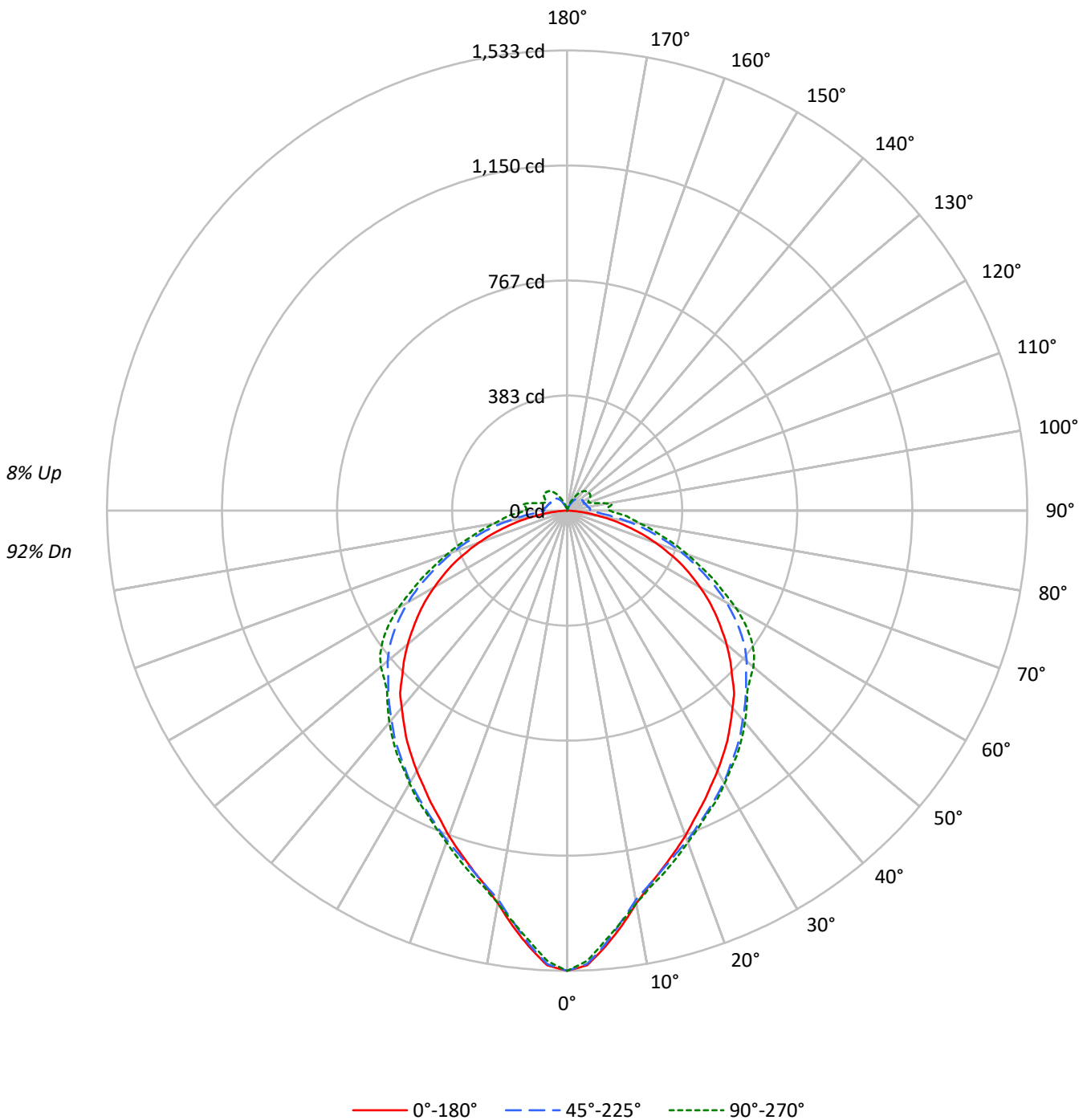
Lumens per Lamp: N/A  
Luminaire Lumens: 4094.0 lumens  
Efficiency: N/A  
Efficacy: 113.7 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 36  
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-3-LD4-50-1HI-P125-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	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	106	101	97	92	103	98	94	90	92	89	86	87	84	82	82	80	78	76
2	96	88	81	75	93	85	79	73	80	75	70	76	71	68	72	68	65	62
3	88	77	68	62	84	75	67	61	70	64	59	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	62	55	50	59	53	48	56	51	47	44
5	74	60	51	45	71	59	50	44	56	49	43	53	47	42	50	45	41	38
6	68	54	45	39	65	53	45	38	50	43	37	48	41	37	46	40	36	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	29
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	38	33	28	26
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	35	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	21

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8952	8952	8952
5°	8510	8362	8275
10°	7805	7547	7574
15°	7350	7097	7121
20°	7030	6788	6755
25°	6755	6528	6475
30°	6560	6332	6260
35°	6414	6136	6088
40°	6264	5959	5906
45°	6104	5818	5718
50°	5940	5753	5800
55°	5734	5611	5765
60°	5490	5343	5458
65°	5194	4929	4977
70°	4703	4492	4482
75°	4000	3919	3999
80°	3037	3198	3620
85°	1582	2367	3658



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.4	3.3
10°-20°	349.3	8.5
20°-30°	508.3	12.4
30°-40°	608.3	14.9
40°-50°	642.6	15.7
50°-60°	615.4	15.0
60°-70°	485.4	11.9
70°-80°	303.4	7.4
80°-90°	132.3	3.2
90°-100°	75.5	1.8
100°-110°	63.6	1.6
110°-120°	51.3	1.3
120°-130°	48.4	1.2
130°-140°	39.0	1.0
140°-150°	24.9	0.6
150°-160°	9.9	0.2
160°-170°	2.0	0.0
170°-180°	0.0	0.0
0°-30°	991.9	24.2
0°-40°	1600.2	39.1
0°-60°	2858.3	69.8
0°-90°	3779.3	92.3
90°-120°	190.5	4.7
90°-150°	302.8	7.4
90°-180°	315.0	7.7
0°-180°	4094.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1533	1533	1533	1533	1533	
5°	1458	1454	1451	1444	1440	135
15°	1232	1225	1236	1248	1249	348
25°	1073	1089	1106	1117	1111	495
35°	932	956	979	996	989	583
45°	777	806	842	854	849	601
55°	604	644	705	740	749	540
65°	417	454	506	524	535	410
75°	211	250	301	322	327	225
85°	37	70	114	163	196	48
90°	0	31	76	110	142	2
95°	0	31	77	100	138	0
105°	0	31	68	94	96	0
115°	0	29	61	73	79	0
125°	0	27	61	82	94	0
135°	1	23	56	78	90	1
145°	1	15	45	63	72	1
155°	1	6	22	35	38	0
165°	1	2	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°	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1
2.5°	1516.4	1512.3	1509.2	1512.3	1510.2	1511.2	1512.3	1514.4	1514.4	1516.4	1512.3
5°	1458.2	1458.2	1454.0	1457.2	1456.1	1454.0	1455.1	1456.1	1457.2	1455.1	1450.9
7.5°	1394.8	1389.6	1387.5	1384.3	1382.3	1384.3	1383.3	1384.3	1385.4	1385.4	1381.2
10°	1328.2	1326.1	1319.9	1320.9	1319.9	1320.9	1324.0	1325.1	1321.9	1318.8	1316.7
12.5°	1275.1	1268.9	1268.9	1271.0	1269.9	1271.0	1267.9	1264.7	1269.9	1274.1	1274.1
15°	1232.5	1227.3	1224.2	1228.3	1227.3	1225.2	1226.3	1227.3	1230.4	1233.5	1235.6
17.5°	1191.9	1187.8	1185.7	1189.9	1188.8	1188.8	1189.9	1194.0	1200.3	1200.3	1200.3
20°	1152.4	1147.2	1148.3	1154.5	1154.5	1156.6	1157.6	1160.7	1164.9	1169.1	1170.1
22.5°	1109.8	1108.7	1110.8	1117.0	1118.1	1120.2	1124.3	1130.6	1132.6	1134.7	1135.8
25°	1073.4	1071.3	1077.5	1080.6	1085.8	1089.0	1092.1	1095.2	1102.5	1105.6	1105.6
27.5°	1035.9	1035.9	1040.1	1046.3	1051.5	1057.8	1060.9	1064.0	1069.2	1073.4	1075.4
30°	1001.6	998.5	1003.7	1012.0	1020.3	1024.5	1026.6	1031.8	1037.0	1042.2	1045.3
32.5°	966.2	964.2	970.4	975.6	985.0	987.0	990.2	999.5	1003.7	1006.8	1009.9
35°	931.9	929.8	934.0	942.3	951.7	955.8	956.9	967.3	972.5	975.6	978.7
37.5°	893.4	896.6	898.6	907.0	913.2	917.4	922.6	930.9	938.2	941.3	946.5
40°	857.0	859.1	861.2	868.5	877.8	882.0	885.1	896.6	903.8	908.0	910.1
42.5°	823.7	819.6	823.7	833.1	839.3	844.5	848.7	858.1	866.4	875.7	876.8
45°	776.9	780.1	787.3	795.7	804.0	806.1	810.2	820.6	827.9	837.3	842.5
47.5°	736.4	740.5	743.7	753.0	763.4	766.5	771.7	782.1	794.6	804.0	808.1
50°	693.7	698.9	703.1	711.4	721.8	727.0	734.3	746.8	758.2	770.7	781.1
52.5°	648.0	654.2	661.5	666.7	680.2	685.4	691.7	707.3	722.9	735.3	745.7
55°	604.3	609.5	617.8	625.1	638.6	643.8	650.1	666.7	683.3	694.8	705.2
57.5°	559.6	561.6	568.9	578.3	591.8	601.2	606.4	622.0	636.5	649.0	660.5
60°	511.7	515.9	522.1	532.5	548.1	552.3	558.5	576.2	590.8	603.2	612.6
62.5°	463.9	468.0	474.3	486.8	495.1	502.4	511.7	527.3	538.8	549.2	561.6
65°	417.1	419.2	425.4	436.8	448.3	453.5	459.7	474.3	485.7	498.2	506.5
67.5°	364.0	369.2	376.5	384.8	396.3	403.6	408.8	420.2	434.8	449.3	454.5
70°	314.1	318.3	324.5	332.8	345.3	350.5	357.8	370.3	382.8	396.3	404.6
72.5°	264.2	267.3	271.5	281.9	293.3	299.5	305.8	318.3	333.9	343.2	351.5
75°	211.1	216.3	222.6	231.9	242.3	249.6	254.8	267.3	278.7	289.1	300.6
77.5°	163.3	167.5	173.7	181.0	194.5	201.8	205.9	217.4	229.9	237.1	250.7
80°	116.5	119.6	126.9	135.2	145.6	150.8	157.1	167.5	177.9	188.3	200.7
82.5°	73.8	75.9	83.2	91.5	101.9	107.1	112.3	122.7	132.1	144.6	155.0
85°	37.4	39.5	46.8	54.1	65.5	69.7	72.8	84.2	95.7	105.0	114.4
87.5°	11.4	14.6	20.8	29.1	38.5	42.6	46.8	57.2	66.6	77.0	88.4
90°	0.0	3.1	9.4	16.6	26.0	31.2	35.4	45.8	56.2	66.6	75.9
92.5°	0.0	3.1	8.3	16.6	26.0	31.2	35.4	45.8	56.2	65.5	77.0
95°	0.0	3.1	8.3	16.6	26.0	31.2	36.4	45.8	56.2	67.6	77.0
97.5°	0.0	2.1	8.3	16.6	26.0	31.2	36.4	45.8	57.2	66.6	72.8
100°	0.0	2.1	8.3	16.6	26.0	31.2	35.4	46.8	56.2	63.4	70.7
102.5°	0.0	2.1	8.3	16.6	26.0	31.2	36.4	45.8	53.0	61.4	68.6
105°	0.0	2.1	8.3	16.6	26.0	31.2	35.4	43.7	52.0	60.3	67.6
107.5°	0.0	2.1	8.3	16.6	25.0	30.2	34.3	42.6	51.0	59.3	65.5
110°	0.0	2.1	7.3	15.6	25.0	29.1	34.3	42.6	51.0	58.2	64.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.1	7.3	15.6	25.0	29.1	33.3	42.6	49.9	57.2	62.4
115°	0.0	2.1	7.3	15.6	23.9	29.1	33.3	42.6	49.9	57.2	61.4
117.5°	0.0	2.1	7.3	15.6	23.9	29.1	33.3	41.6	49.9	56.2	61.4
120°	0.0	1.0	7.3	14.6	23.9	28.1	33.3	41.6	49.9	56.2	61.4
122.5°	0.0	1.0	6.2	14.6	22.9	28.1	32.2	41.6	48.9	56.2	61.4
125°	0.0	1.0	6.2	14.6	22.9	27.0	31.2	40.6	48.9	56.2	61.4
127.5°	1.0	1.0	6.2	13.5	21.8	26.0	30.2	39.5	47.8	55.1	61.4
130°	0.0	1.0	5.2	12.5	20.8	25.0	29.1	38.5	46.8	53.0	59.3
132.5°	1.0	1.0	5.2	11.4	19.8	23.9	28.1	36.4	45.8	52.0	58.2
135°	1.0	1.0	4.2	10.4	18.7	22.9	27.0	34.3	43.7	49.9	56.2
137.5°	1.0	1.0	4.2	9.4	16.6	20.8	25.0	33.3	40.6	47.8	54.1
140°	1.0	1.0	3.1	8.3	15.6	18.7	22.9	31.2	38.5	45.8	52.0
142.5°	1.0	1.0	3.1	7.3	13.5	16.6	20.8	28.1	35.4	42.6	48.9
145°	1.0	1.0	2.1	6.2	11.4	14.6	17.7	25.0	32.2	38.5	44.7
147.5°	1.0	1.0	2.1	5.2	9.4	12.5	15.6	21.8	28.1	34.3	39.5
150°	1.0	1.0	1.0	4.2	7.3	9.4	12.5	17.7	22.9	28.1	33.3
152.5°	1.0	1.0	1.0	3.1	6.2	7.3	9.4	14.6	18.7	22.9	27.0
155°	1.0	1.0	1.0	2.1	4.2	6.2	7.3	10.4	14.6	17.7	21.8
157.5°	1.0	1.0	1.0	2.1	3.1	4.2	5.2	8.3	10.4	13.5	16.6
160°	1.0	1.0	1.0	1.0	2.1	3.1	4.2	5.2	7.3	9.4	11.4
162.5°	1.0	1.0	1.0	1.0	2.1	2.1	3.1	4.2	5.2	6.2	8.3
165°	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1	4.2	4.2	5.2
167.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	3.1	3.1
170°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1
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°	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1	1533.1
2.5°	1510.2	1508.1	1509.2	1509.2	1505.0	1508.1	1507.1	1505.0	1501.9	1501.9
5°	1447.8	1443.6	1443.6	1445.7	1443.6	1443.6	1444.7	1443.6	1444.7	1439.5
7.5°	1380.2	1377.1	1379.1	1380.2	1383.3	1382.3	1383.3	1382.3	1382.3	1382.3
10°	1317.8	1323.0	1321.9	1324.0	1327.1	1326.1	1328.2	1331.3	1330.3	1328.2
12.5°	1274.1	1279.3	1279.3	1284.5	1284.5	1285.5	1288.7	1288.7	1283.5	1283.5
15°	1238.7	1239.8	1240.8	1249.1	1248.1	1250.2	1252.3	1250.2	1249.1	1249.1
17.5°	1202.3	1203.4	1207.5	1207.5	1209.6	1210.7	1214.8	1213.8	1212.7	1212.7
20°	1171.1	1173.2	1178.4	1181.5	1182.6	1179.5	1182.6	1180.5	1180.5	1176.3
22.5°	1141.0	1147.2	1145.1	1147.2	1149.3	1151.4	1151.4	1149.3	1147.2	1143.1
25°	1109.8	1111.8	1115.0	1117.0	1117.0	1116.0	1116.0	1115.0	1112.9	1110.8
27.5°	1079.6	1082.7	1081.7	1087.9	1090.0	1091.0	1090.0	1085.8	1081.7	1083.8
30°	1047.4	1050.5	1054.6	1058.8	1059.8	1053.6	1052.6	1053.6	1049.4	1049.4
32.5°	1014.1	1018.2	1025.5	1024.5	1024.5	1027.6	1027.6	1024.5	1019.3	1017.2
35°	981.8	990.2	992.2	998.5	996.4	993.3	990.2	990.2	987.0	989.1
37.5°	949.6	954.8	961.0	960.0	960.0	961.0	961.0	956.9	957.9	955.8
40°	916.3	920.5	924.6	924.6	926.7	926.7	923.6	920.5	920.5	921.5
42.5°	878.9	885.1	890.3	890.3	891.4	890.3	891.4	889.3	885.1	885.1
45°	847.7	849.7	853.9	854.9	853.9	853.9	850.8	850.8	849.7	848.7
47.5°	815.4	822.7	823.7	825.8	823.7	823.7	825.8	826.9	828.9	826.9
50°	786.3	795.7	801.9	805.0	805.0	807.1	808.1	808.1	811.3	810.2
52.5°	757.2	763.4	769.7	778.0	780.1	780.1	784.2	783.2	785.3	785.3
55°	715.6	723.9	731.2	737.4	739.5	743.7	742.6	745.7	745.7	748.9
57.5°	670.9	675.0	685.4	689.6	688.5	691.7	692.7	697.9	704.1	704.1
60°	623.0	626.1	631.3	631.3	633.4	634.5	640.7	643.8	645.9	650.1
62.5°	564.8	572.0	576.2	577.2	579.3	584.5	584.5	584.5	586.6	587.6
65°	514.8	519.0	523.2	527.3	524.2	525.2	526.3	527.3	530.4	534.6
67.5°	463.9	468.0	472.2	474.3	470.1	471.2	469.1	472.2	475.3	475.3
70°	410.8	416.0	422.3	421.2	417.1	419.2	418.1	422.3	424.4	425.4
72.5°	359.9	367.1	371.3	371.3	371.3	371.3	372.3	374.4	375.5	376.5
75°	307.9	315.1	320.3	324.5	322.4	325.5	327.6	328.7	327.6	326.6
77.5°	260.0	267.3	271.5	277.7	279.8	281.9	283.9	283.9	286.0	286.0
80°	208.0	217.4	224.7	233.0	236.1	240.3	241.3	244.4	244.4	245.5
82.5°	164.3	174.7	183.1	191.4	195.5	197.6	203.9	209.1	214.3	217.4
85°	125.8	137.3	145.6	156.0	163.3	171.6	183.1	189.3	190.3	195.5
87.5°	98.8	110.2	124.8	136.3	136.3	137.3	140.4	145.6	152.9	158.1
90°	87.4	101.9	106.1	108.2	110.2	112.3	116.5	123.8	134.2	141.5
92.5°	88.4	92.6	96.7	99.8	101.9	105.0	110.2	117.5	127.9	135.2
95°	83.2	88.4	93.6	97.8	99.8	103.0	109.2	118.6	131.1	138.3
97.5°	80.1	86.3	90.5	96.7	99.8	104.0	114.4	127.9	143.5	149.8
100°	78.0	84.2	89.4	96.7	101.9	106.1	118.6	130.0	136.3	137.3
102.5°	75.9	82.2	88.4	95.7	99.8	104.0	110.2	114.4	113.4	113.4
105°	73.8	80.1	85.3	90.5	93.6	94.6	97.8	96.7	96.7	95.7
107.5°	71.8	77.0	81.1	83.2	84.2	85.3	85.3	85.3	84.2	84.2
110°	69.7	73.8	75.9	77.0	77.0	77.0	78.0	78.0	78.0	78.0





TEST NUMBER: P241356

CATALOG NUMBER: FVS8M-3-LD4-50-1HI-P125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	67.6	70.7	71.8	72.8	72.8	72.8	74.9	75.9	75.9	75.9
115°	65.5	68.6	70.7	71.8	72.8	73.8	75.9	78.0	79.0	79.0
117.5°	65.5	69.7	71.8	74.9	75.9	77.0	79.0	82.2	83.2	83.2
120°	66.6	70.7	74.9	78.0	79.0	80.1	83.2	86.3	87.4	88.4
122.5°	67.6	71.8	75.9	80.1	81.1	82.2	85.3	88.4	90.5	91.5
125°	67.6	72.8	77.0	81.1	82.2	84.2	86.3	89.4	91.5	93.6
127.5°	66.6	71.8	77.0	81.1	83.2	84.2	87.4	89.4	92.6	93.6
130°	65.5	70.7	74.9	79.0	81.1	83.2	87.4	90.5	92.6	93.6
132.5°	63.4	68.6	73.8	78.0	80.1	82.2	86.3	89.4	91.5	92.6
135°	61.4	67.6	71.8	75.9	78.0	80.1	84.2	87.4	89.4	90.5
137.5°	60.3	65.5	69.7	73.8	75.9	78.0	82.2	84.2	87.4	88.4
140°	57.2	62.4	66.6	70.7	72.8	74.9	78.0	81.1	83.2	84.2
142.5°	55.1	59.3	63.4	66.6	68.6	70.7	73.8	75.9	78.0	79.0
145°	51.0	55.1	59.3	62.4	63.4	65.5	67.6	69.7	71.8	71.8
147.5°	44.7	49.9	53.0	56.2	57.2	59.3	61.4	62.4	63.4	64.5
150°	38.5	42.6	46.8	48.9	49.9	51.0	53.0	54.1	55.1	55.1
152.5°	31.2	35.4	38.5	41.6	42.6	43.7	44.7	45.8	46.8	46.8
155°	25.0	28.1	32.2	33.3	35.4	35.4	37.4	38.5	38.5	38.5
157.5°	18.7	21.8	23.9	27.0	28.1	28.1	30.2	30.2	31.2	31.2
160°	13.5	15.6	17.7	20.8	21.8	21.8	22.9	23.9	23.9	23.9
162.5°	9.4	11.4	12.5	14.6	15.6	16.6	16.6	17.7	17.7	17.7
165°	6.2	7.3	8.3	9.4	10.4	10.4	11.4	12.5	12.5	12.5
167.5°	4.2	4.2	5.2	5.2	6.2	6.2	7.3	7.3	7.3	8.3
170°	2.1	2.1	2.1	3.1	3.1	3.1	3.1	4.2	4.2	4.2
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)