

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: P241587

Luminaire Tested: **FVS8M-3-LD4-40-3LO-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241587  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-29)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS8M-3-LD4-40-3LO-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 3-MODULE LED WITH OPAL LENS  
Light Source: (252) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

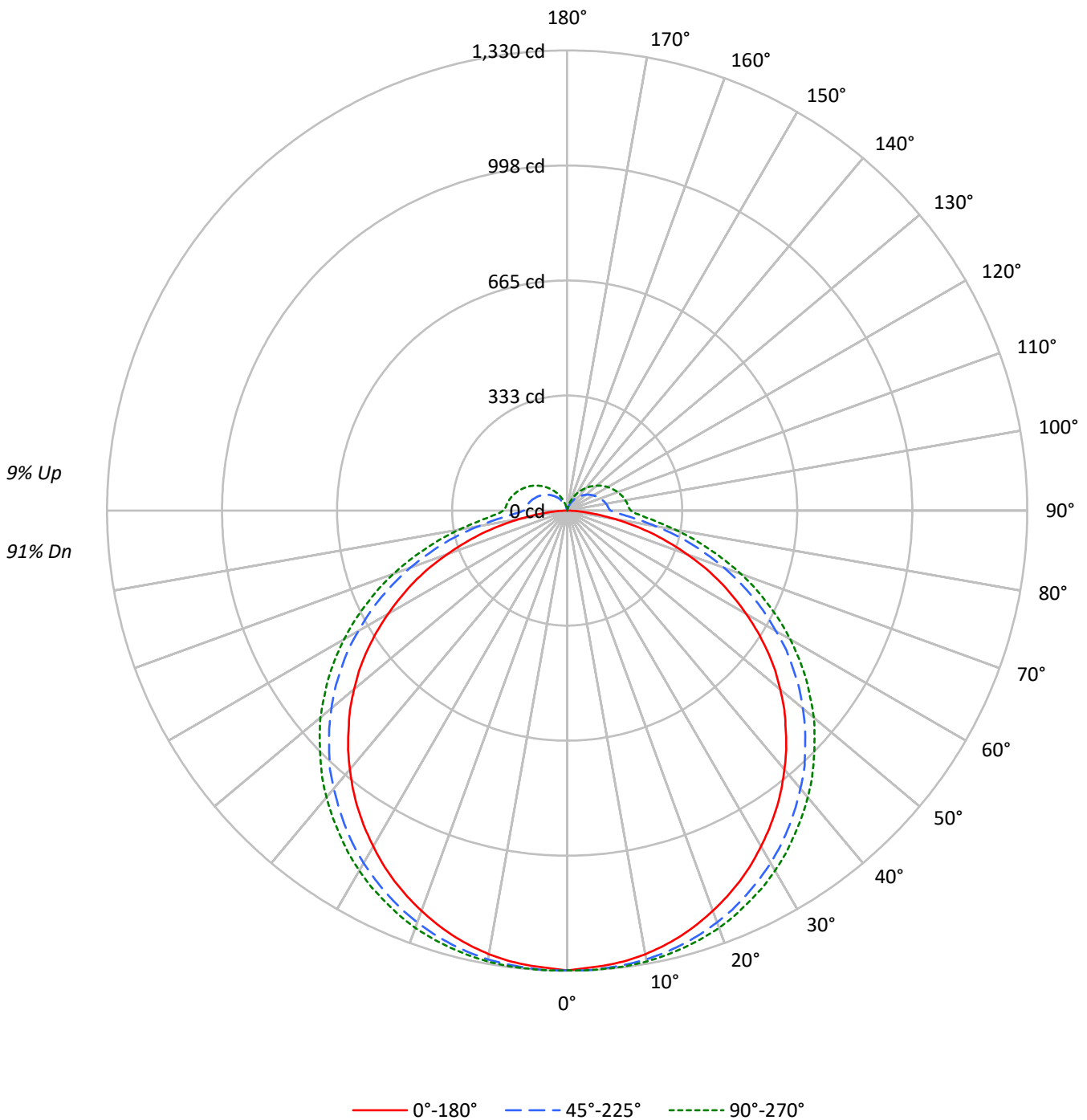
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4776.0 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44  
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 61.6  
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-LD4-40-3LO-O-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241587

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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	95	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	68		74	69	66		70	66	63	60
3	87	76	67	60	83	73	65	59	69	62	57		65	59	55		61	56	53	50
4	79	67	57	51	76	65	56	50	61	54	48		57	51	46		54	49	45	42
5	72	59	50	43	70	58	49	42	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	31		42	36	31		40	34	30	28
8	57	44	35	29	55	43	34	29	40	33	28		38	32	27		37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25		35	29	24		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°	7759	7759	7759
5°	7697	7646	7638
10°	7651	7549	7547
15°	7590	7449	7456
20°	7509	7348	7371
25°	7435	7237	7263
30°	7340	7125	7168
35°	7251	7001	7047
40°	7139	6868	6936
45°	7018	6717	6795
50°	6884	6550	6664
55°	6700	6344	6480
60°	6415	6079	6251
65°	6081	5767	5960
70°	5525	5356	5627
75°	4805	4827	5164
80°	3622	4135	4662
85°	1958	3522	4281



TEST NUMBER: P241587

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	2.6
10°-20°	365.4	7.6
20°-30°	562.8	11.8
30°-40°	694.4	14.5
40°-50°	744.3	15.6
50°-60°	703.8	14.7
60°-70°	574.3	12.0
70°-80°	376.6	7.9
80°-90°	179.7	3.8
90°-100°	115.8	2.4
100°-110°	102.6	2.1
110°-120°	84.6	1.8
120°-130°	64.2	1.3
130°-140°	43.5	0.9
140°-150°	24.9	0.5
150°-160°	10.6	0.2
160°-170°	2.4	0.0
170°-180°	0.0	0.0
0°-30°	1054.4	22.1
0°-40°	1748.8	36.6
0°-60°	3196.9	66.9
0°-90°	4327.5	90.6
90°-120°	303.0	6.3
90°-150°	435.5	9.1
90°-180°	448.0	9.4
0°-180°	4776.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1319	1322	1327	1329	1329	125
15°	1273	1282	1297	1306	1308	359
25°	1181	1200	1226	1241	1246	544
35°	1054	1081	1117	1139	1145	659
45°	893	931	973	1001	1009	690
55°	706	747	797	831	842	630
65°	488	536	593	630	640	481
75°	254	307	370	409	422	266
85°	46	105	170	212	229	58
90°	2	59	125	170	184	3
95°	1	54	119	162	176	1
105°	1	48	108	150	164	1
115°	1	40	95	133	146	1
125°	1	32	80	113	124	1
135°	1	24	62	89	99	1
145°	1	14	44	64	72	1
155°	1	6	23	39	43	1
165°	1	1	6	13	16	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241587

CATALOG NUMBER: FVS8M-3-LD4-40-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7
2.5°	1322.9	1324.2	1324.8	1324.2	1324.8	1326.1	1326.8	1328.1	1328.7	1329.4	1330.0
5°	1318.9	1319.6	1320.9	1320.9	1321.5	1322.2	1323.5	1324.2	1325.5	1326.1	1326.8
7.5°	1312.4	1313.1	1313.7	1314.4	1315.0	1315.7	1316.3	1318.3	1320.2	1321.5	1322.9
10°	1302.0	1302.6	1303.9	1303.9	1305.2	1306.6	1308.5	1311.1	1313.7	1315.7	1317.0
12.5°	1288.3	1289.6	1290.3	1291.6	1293.5	1294.8	1296.8	1300.0	1303.9	1305.9	1308.5
15°	1272.7	1274.0	1274.0	1275.9	1279.2	1281.8	1283.7	1287.0	1291.6	1294.2	1296.8
17.5°	1253.1	1255.7	1255.7	1258.3	1262.2	1264.8	1266.8	1271.3	1276.6	1279.2	1283.1
20°	1230.9	1232.9	1234.2	1237.4	1242.7	1245.9	1247.9	1252.4	1259.0	1262.9	1266.8
22.5°	1207.5	1208.1	1212.0	1215.3	1221.1	1223.8	1227.7	1233.5	1237.4	1243.3	1247.9
25°	1181.4	1182.0	1185.3	1189.8	1195.7	1200.3	1202.9	1209.4	1215.9	1221.8	1225.7
27.5°	1152.7	1152.7	1156.6	1163.1	1169.6	1172.9	1178.1	1185.3	1191.2	1196.4	1202.2
30°	1120.7	1122.0	1126.0	1133.8	1140.3	1144.2	1149.4	1156.6	1164.4	1170.3	1176.2
32.5°	1088.1	1089.4	1095.3	1101.8	1110.3	1113.6	1118.8	1127.9	1135.1	1142.9	1148.1
35°	1053.6	1052.9	1061.4	1067.9	1076.4	1081.0	1086.8	1095.3	1103.1	1111.6	1116.8
37.5°	1016.4	1017.7	1024.2	1032.1	1041.2	1047.1	1052.9	1060.8	1068.6	1078.4	1083.6
40°	976.7	978.0	986.4	994.9	1005.3	1010.6	1015.1	1024.2	1034.0	1042.5	1049.0
42.5°	937.5	938.8	945.4	955.1	965.6	969.5	976.7	986.4	996.9	1006.0	1014.5
45°	893.2	895.2	903.6	914.1	924.5	931.0	934.9	946.0	955.8	966.2	972.7
47.5°	851.5	852.1	861.3	871.0	882.1	889.9	894.5	907.5	915.4	925.1	933.0
50°	803.9	805.8	814.3	824.7	837.8	843.0	848.2	860.6	871.7	880.2	889.3
52.5°	757.6	758.2	766.7	779.1	790.8	796.1	801.3	814.3	826.7	837.1	845.6
55°	706.1	710.6	718.5	728.3	741.3	747.2	753.0	766.7	777.8	788.9	797.4
57.5°	652.6	657.2	666.3	677.4	690.4	697.0	703.5	715.9	728.9	739.3	751.1
60°	597.9	603.7	613.5	624.6	638.9	643.5	650.7	662.4	676.1	688.5	697.0
62.5°	542.4	548.3	558.7	569.2	584.2	592.0	597.9	611.6	624.6	635.7	646.1
65°	488.3	492.2	500.7	515.7	528.7	535.9	542.4	558.1	567.9	583.5	592.6
67.5°	429.6	432.9	444.0	459.0	472.7	478.5	487.0	502.0	513.1	527.4	536.6
70°	369.0	375.5	385.3	399.7	415.3	421.2	429.0	443.3	459.0	470.1	482.5
72.5°	310.3	316.2	328.6	341.0	356.0	364.5	371.0	386.6	400.3	416.0	424.4
75°	253.6	256.9	269.3	283.6	298.0	307.1	312.3	328.6	342.3	357.3	370.3
77.5°	193.0	200.2	212.5	226.9	244.5	253.0	258.2	275.1	288.8	303.2	315.6
80°	138.9	142.8	155.8	171.5	186.5	195.6	202.8	219.1	232.1	250.4	259.5
82.5°	88.0	95.8	105.6	121.9	138.9	147.3	157.1	170.8	184.5	197.5	211.2
85°	46.3	52.2	63.2	79.5	95.8	105.0	112.1	129.1	143.4	155.8	170.2
87.5°	15.6	20.9	33.3	47.6	65.2	73.7	81.5	97.1	112.8	125.8	139.5
90°	2.0	7.2	18.9	33.9	50.2	58.7	66.5	82.1	97.8	111.5	125.2
92.5°	0.7	5.2	17.0	31.9	47.6	55.4	63.9	79.5	93.9	107.6	120.6
95°	0.7	5.2	15.6	30.6	46.3	54.1	61.9	77.6	91.9	105.6	118.7
97.5°	0.7	4.6	15.0	29.3	44.3	52.8	60.6	75.6	90.6	104.3	116.7
100°	0.7	4.6	14.3	28.0	43.0	50.9	58.7	73.7	88.0	101.7	114.1
102.5°	0.7	3.9	13.7	26.7	41.7	48.9	56.7	71.1	85.4	99.1	111.5
105°	0.7	3.9	13.0	26.1	40.4	47.6	54.8	69.1	82.8	96.5	108.2
107.5°	0.7	3.3	12.4	24.8	38.5	45.6	52.8	67.2	80.2	93.2	105.6
110°	0.7	3.3	11.7	23.5	37.2	43.7	50.9	64.5	77.6	90.6	101.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	2.6	11.1	22.2	35.2	42.4	48.9	62.6	75.0	87.4	98.4
115°	0.7	2.6	9.8	20.9	33.9	40.4	46.9	59.3	72.4	84.1	95.2
117.5°	0.7	2.0	9.1	19.6	31.9	38.5	44.3	56.7	69.1	80.8	91.3
120°	0.7	2.0	8.5	18.9	30.0	35.9	42.4	54.1	65.8	76.9	87.4
122.5°	0.7	1.3	7.8	17.6	28.7	33.9	39.8	51.5	62.6	73.7	83.5
125°	0.7	1.3	7.2	16.3	26.7	31.9	37.8	48.9	59.3	69.8	79.5
127.5°	0.7	1.3	6.5	15.0	24.8	30.0	35.2	45.6	56.1	65.8	75.6
130°	0.7	1.3	5.2	13.7	22.8	28.0	32.6	43.0	52.8	61.9	71.1
132.5°	0.7	1.3	4.6	12.4	20.9	25.4	30.6	39.8	49.5	58.0	66.5
135°	0.7	0.7	3.9	10.4	18.9	23.5	28.0	37.2	45.6	54.1	61.9
137.5°	0.7	0.7	3.3	9.1	17.0	20.9	25.4	33.9	42.4	50.2	57.4
140°	0.7	0.7	2.6	7.8	14.3	18.3	22.2	30.6	38.5	45.6	52.8
142.5°	1.3	1.3	2.0	6.5	12.4	15.6	19.6	26.7	34.6	41.7	48.2
145°	1.3	1.3	1.3	5.2	10.4	13.7	17.0	23.5	30.0	37.2	43.7
147.5°	1.3	1.3	1.3	4.6	8.5	11.1	14.3	20.2	26.1	32.6	38.5
150°	1.3	1.3	1.3	3.3	7.2	9.1	11.7	16.3	22.2	27.4	32.6
152.5°	1.3	1.3	1.3	2.6	5.2	7.2	9.1	13.7	18.3	22.8	27.4
155°	1.3	1.3	1.3	2.0	3.9	5.9	7.2	11.1	14.3	18.9	22.8
157.5°	1.3	1.3	1.3	1.3	2.6	3.9	5.2	8.5	11.1	14.3	17.6
160°	1.3	1.3	1.3	1.3	2.0	3.3	3.9	5.9	8.5	11.1	13.7
162.5°	1.3	1.3	1.3	1.3	1.3	2.0	2.6	3.9	5.9	7.8	9.8
165°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	3.9	4.6	6.5
167.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.0	2.6	3.3
170°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.7	1.3	1.3
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°	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7	1328.7
2.5°	1330.0	1330.0	1330.7	1330.7	1330.7	1330.0	1330.7	1330.0	1330.0	1330.0
5°	1326.8	1327.4	1328.1	1328.7	1328.7	1328.7	1328.7	1328.1	1328.7	1328.7
7.5°	1324.2	1324.2	1325.5	1326.1	1326.8	1326.8	1326.8	1326.8	1327.4	1327.4
10°	1318.3	1319.6	1320.9	1322.2	1322.2	1322.9	1323.5	1322.9	1323.5	1323.5
12.5°	1309.8	1311.1	1313.1	1314.4	1315.7	1315.0	1316.3	1316.3	1316.3	1316.3
15°	1298.7	1301.3	1302.6	1304.6	1305.9	1306.6	1306.6	1307.9	1307.9	1307.9
17.5°	1285.0	1288.3	1290.3	1292.9	1293.5	1294.8	1295.5	1295.5	1296.8	1296.8
20°	1270.0	1272.7	1275.3	1277.9	1279.2	1280.5	1281.8	1281.8	1282.4	1283.7
22.5°	1250.5	1255.0	1257.7	1260.9	1262.9	1262.9	1264.2	1266.1	1266.1	1266.8
25°	1229.6	1233.5	1237.4	1240.7	1241.4	1242.7	1244.6	1245.9	1247.9	1245.9
27.5°	1206.8	1211.4	1215.9	1218.5	1219.2	1220.5	1223.1	1224.4	1225.1	1226.4
30°	1180.1	1185.9	1190.5	1193.1	1194.4	1196.4	1198.3	1199.6	1201.6	1201.6
32.5°	1152.7	1157.3	1163.8	1167.0	1169.0	1170.9	1172.2	1174.2	1175.5	1175.5
35°	1122.7	1129.2	1131.8	1137.7	1139.0	1140.3	1143.6	1145.5	1145.5	1144.9
37.5°	1092.7	1097.9	1101.2	1106.4	1109.0	1109.7	1112.3	1113.6	1115.5	1114.9
40°	1055.5	1064.0	1069.2	1071.8	1074.5	1077.7	1079.0	1081.0	1082.9	1082.3
42.5°	1021.0	1024.9	1032.7	1037.9	1039.2	1041.2	1044.5	1045.8	1048.4	1047.7
45°	981.2	989.0	994.3	998.8	1001.4	1004.0	1006.0	1007.9	1011.2	1008.6
47.5°	941.4	948.0	955.1	961.0	962.3	964.9	967.5	970.1	971.4	970.1
50°	899.1	905.6	912.8	917.3	919.9	921.9	926.5	929.1	929.7	931.0
52.5°	854.7	863.9	869.1	874.9	877.6	881.5	883.4	887.3	886.0	885.4
55°	807.8	813.7	822.8	828.7	831.3	832.6	835.8	839.1	839.1	841.7
57.5°	757.6	767.4	774.5	781.1	782.4	786.3	789.5	791.5	792.8	793.5
60°	707.4	717.2	724.3	732.2	734.1	736.7	738.7	741.9	744.6	744.6
62.5°	655.9	663.7	672.8	679.4	682.0	684.6	689.1	691.7	693.0	694.4
65°	603.7	613.5	619.4	627.8	630.5	632.4	633.7	640.9	640.2	640.2
67.5°	549.0	556.1	565.3	573.7	575.7	578.3	582.2	586.8	586.1	588.7
70°	493.5	501.4	511.8	517.7	522.2	525.5	526.1	530.1	533.3	534.0
72.5°	435.5	446.6	455.7	462.2	464.9	469.4	473.3	477.2	477.9	477.9
75°	380.1	389.2	399.7	405.5	408.8	412.0	416.0	421.2	421.2	421.8
77.5°	326.0	337.1	344.2	350.8	354.7	356.6	363.1	364.5	366.4	370.3
80°	271.2	281.0	290.8	298.0	301.2	304.5	309.7	312.9	314.9	316.2
82.5°	223.6	233.4	243.2	250.4	253.6	257.5	260.1	266.7	268.0	268.0
85°	180.6	191.7	202.1	208.6	212.5	216.5	221.0	225.6	226.9	228.8
87.5°	152.6	163.6	172.8	181.2	184.5	187.1	192.3	196.9	198.2	198.9
90°	136.9	147.3	157.8	165.6	169.5	172.1	178.0	181.2	183.2	183.9
92.5°	132.4	142.8	152.6	160.4	164.3	166.9	172.1	176.0	178.0	178.6
95°	130.4	140.8	150.0	158.4	161.7	164.9	170.2	173.4	175.4	176.0
97.5°	128.4	138.9	148.0	155.8	159.7	163.0	167.6	171.5	173.4	174.1
100°	125.8	136.3	145.4	153.2	156.5	159.7	164.9	168.2	170.2	170.8
102.5°	123.2	133.0	142.1	150.0	153.2	156.5	161.0	164.9	166.9	167.6
105°	120.0	129.7	138.9	146.0	150.0	152.6	157.8	161.0	163.6	164.3
107.5°	116.7	126.5	135.0	142.8	146.0	148.6	153.9	157.8	159.7	159.7
110°	112.8	122.6	131.0	138.9	142.1	144.7	149.3	153.2	155.2	155.8





TEST NUMBER: P241587

CATALOG NUMBER: FVS8M-3-LD4-40-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	109.5	118.7	127.1	134.3	137.6	140.2	144.7	148.6	150.0	150.6
115°	105.0	114.7	122.6	129.7	133.0	135.6	140.2	143.4	145.4	146.0
117.5°	101.1	110.2	118.0	125.2	127.8	130.4	135.0	138.2	140.2	140.8
120°	97.1	105.6	113.4	120.0	123.2	125.8	129.7	133.0	135.0	135.6
122.5°	92.6	101.1	108.9	114.7	118.0	120.0	124.5	127.8	129.7	130.4
125°	88.7	96.5	103.7	109.5	112.8	114.7	118.7	121.9	123.9	124.5
127.5°	84.1	91.9	98.4	104.3	106.9	109.5	112.8	116.1	117.4	118.0
130°	79.5	86.7	93.2	98.4	101.1	103.0	106.9	109.5	111.5	112.1
132.5°	74.3	81.5	87.4	92.6	95.2	97.1	101.1	103.7	105.0	105.6
135°	69.8	76.3	82.1	86.7	89.3	91.3	94.5	97.1	98.4	99.1
137.5°	64.5	71.1	76.3	80.8	83.5	84.8	88.0	90.6	91.9	92.6
140°	59.3	65.2	70.4	75.0	76.9	78.9	81.5	83.5	84.8	85.4
142.5°	54.8	60.0	64.5	68.5	70.4	72.4	75.0	76.9	78.2	78.9
145°	49.5	54.1	58.7	62.6	64.5	65.8	68.5	70.4	71.1	71.7
147.5°	44.3	48.9	52.8	56.7	58.0	59.3	61.9	63.2	64.5	64.5
150°	38.5	43.0	46.9	50.2	51.5	52.8	54.8	56.1	57.4	58.0
152.5°	32.6	37.2	41.1	43.7	45.0	46.3	48.2	49.5	50.2	50.9
155°	26.7	30.6	35.2	37.8	39.1	39.8	41.1	42.4	43.0	43.0
157.5°	20.9	24.8	28.0	31.3	31.9	33.3	34.6	35.9	35.9	36.5
160°	16.3	18.9	21.5	24.8	25.4	26.7	28.0	28.7	29.3	29.3
162.5°	11.7	13.7	15.6	18.3	18.9	20.2	21.5	22.2	22.2	22.8
165°	7.8	9.1	10.4	12.4	13.0	13.7	15.0	15.6	15.6	16.3
167.5°	4.6	5.2	6.5	7.2	7.8	7.8	9.1	9.8	9.8	9.8
170°	2.0	2.0	2.6	3.3	3.3	3.3	3.9	4.6	4.6	4.6
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)