

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: P241588

Luminaire Tested: **FVS8M-3-LD4-50-3LO-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241588  
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-LD4-50-3LO-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
3FT LENGTH, 3-MODULE LED WITH OPAL LENS  
Light Source: (252) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

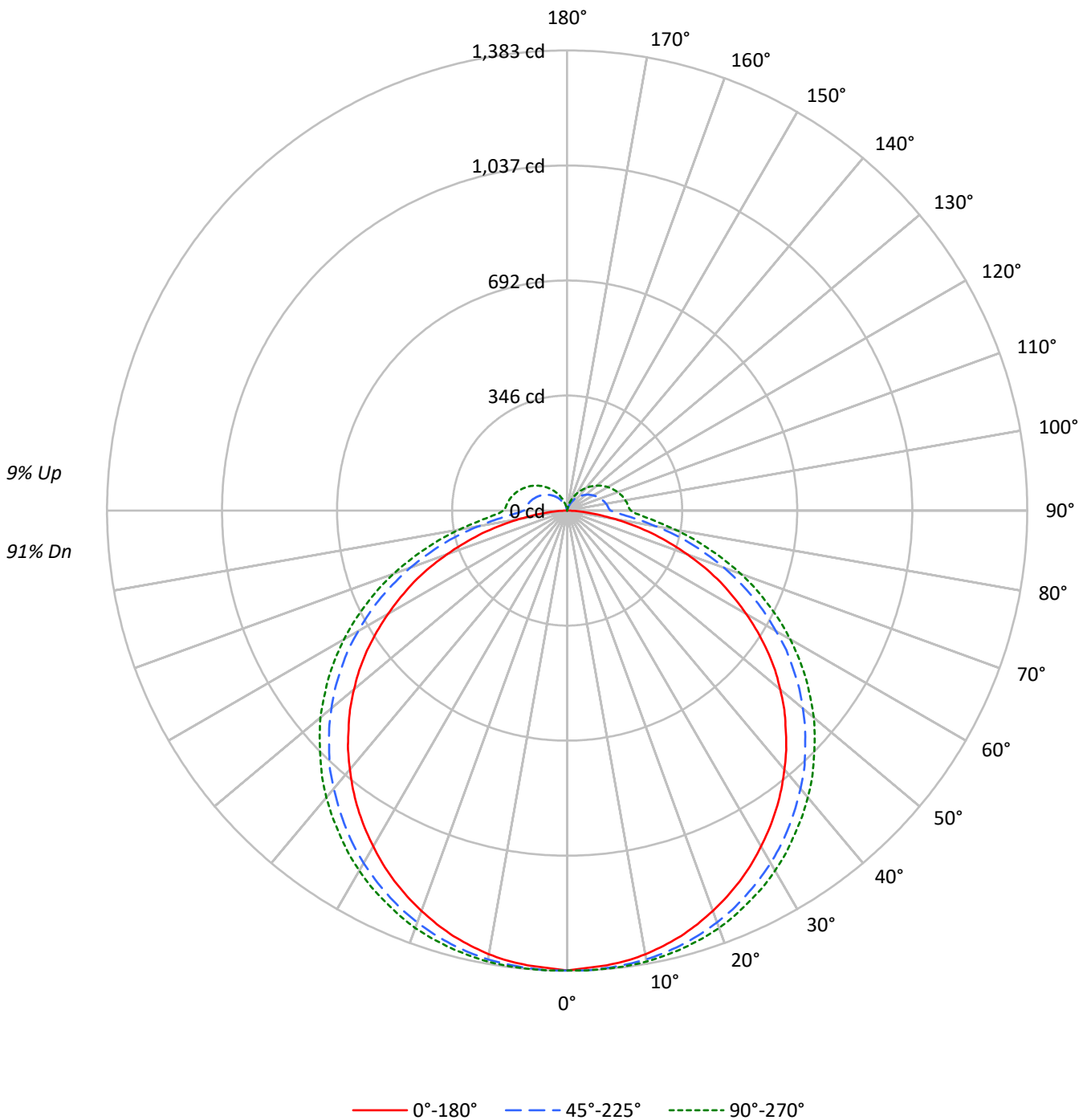
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4967.0 lumens  
Efficiency: N/A  
Efficacy: 80.6 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

TEST NUMBER: P241588  
CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

### Luminous Intensity Polar Plot





TEST NUMBER: P241588

CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

**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°	8070	8070	8070
5°	8005	7952	7943
10°	7957	7851	7849
15°	7893	7746	7754
20°	7810	7642	7666
25°	7732	7526	7553
30°	7634	7410	7454
35°	7541	7282	7329
40°	7424	7143	7213
45°	7298	6986	7066
50°	7159	6813	6931
55°	6967	6598	6739
60°	6671	6321	6501
65°	6325	5997	6198
70°	5746	5571	5851
75°	4999	5020	5371
80°	3765	4301	4850
85°	2035	3662	4453



TEST NUMBER: P241588

CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.2	2.6
10°-20°	380.0	7.6
20°-30°	585.3	11.8
30°-40°	722.2	14.5
40°-50°	774.1	15.6
50°-60°	732.0	14.7
60°-70°	597.2	12.0
70°-80°	391.7	7.9
80°-90°	186.9	3.8
90°-100°	120.4	2.4
100°-110°	106.7	2.1
110°-120°	88.0	1.8
120°-130°	66.7	1.3
130°-140°	45.2	0.9
140°-150°	25.9	0.5
150°-160°	11.0	0.2
160°-170°	2.5	0.0
170°-180°	0.0	0.0
0°-30°	1096.5	22.1
0°-40°	1818.7	36.6
0°-60°	3324.7	66.9
0°-90°	4500.6	90.6
90°-120°	315.1	6.3
90°-150°	452.9	9.1
90°-180°	466.0	9.4
0°-180°	4967.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1382	1382	1382	1382	1382	
5°	1372	1375	1380	1382	1382	130
15°	1324	1333	1349	1358	1360	373
25°	1229	1248	1275	1291	1296	566
35°	1096	1124	1162	1184	1191	685
45°	929	968	1012	1042	1049	717
55°	734	777	829	864	875	655
65°	508	557	616	656	666	500
75°	264	319	385	425	439	277
85°	48	109	177	221	238	60
90°	2	61	130	176	191	3
95°	1	56	123	168	183	1
105°	1	50	113	156	171	1
115°	1	42	99	138	152	1
125°	1	33	83	117	130	1
135°	1	24	64	93	103	1
145°	1	14	45	67	75	1
155°	1	6	24	41	45	1
165°	1	1	7	14	17	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241588

CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9
2.5°	1375.8	1377.1	1377.8	1377.1	1377.8	1379.1	1379.8	1381.2	1381.9	1382.5	1383.2
5°	1371.7	1372.4	1373.7	1373.7	1374.4	1375.1	1376.4	1377.1	1378.5	1379.1	1379.8
7.5°	1364.9	1365.6	1366.3	1366.9	1367.6	1368.3	1369.0	1371.0	1373.0	1374.4	1375.8
10°	1354.1	1354.7	1356.1	1356.1	1357.4	1358.8	1360.8	1363.6	1366.3	1368.3	1369.7
12.5°	1339.8	1341.2	1341.9	1343.2	1345.2	1346.6	1348.6	1352.0	1356.1	1358.1	1360.8
15°	1323.5	1324.9	1324.9	1326.9	1330.3	1333.0	1335.1	1338.5	1343.2	1345.9	1348.6
17.5°	1303.2	1305.9	1305.9	1308.6	1312.7	1315.4	1317.4	1322.2	1327.6	1330.3	1334.4
20°	1280.2	1282.2	1283.5	1286.9	1292.4	1295.7	1297.8	1302.5	1309.3	1313.4	1317.4
22.5°	1255.7	1256.4	1260.5	1263.9	1270.0	1272.7	1276.8	1282.9	1286.9	1293.0	1297.8
25°	1228.6	1229.3	1232.7	1237.4	1243.5	1248.3	1251.0	1257.8	1264.6	1270.7	1274.7
27.5°	1198.8	1198.8	1202.9	1209.6	1216.4	1219.8	1225.2	1232.7	1238.8	1244.2	1250.3
30°	1165.6	1166.9	1171.0	1179.1	1185.9	1190.0	1195.4	1202.9	1211.0	1217.1	1223.2
32.5°	1131.7	1133.0	1139.1	1145.9	1154.7	1158.1	1163.5	1173.0	1180.5	1188.6	1194.0
35°	1095.7	1095.0	1103.9	1110.6	1119.5	1124.2	1130.3	1139.1	1147.3	1156.1	1161.5
37.5°	1057.1	1058.4	1065.2	1073.3	1082.8	1088.9	1095.0	1103.2	1111.3	1121.5	1126.9
40°	1015.7	1017.1	1025.9	1034.7	1045.5	1051.0	1055.7	1065.2	1075.4	1084.2	1091.0
42.5°	975.0	976.4	983.2	993.3	1004.2	1008.3	1015.7	1025.9	1036.7	1046.2	1055.0
45°	928.9	931.0	939.8	950.6	961.5	968.2	972.3	983.8	994.0	1004.9	1011.6
47.5°	885.5	886.2	895.7	905.9	917.4	925.5	930.3	943.8	952.0	962.1	970.3
50°	836.0	838.1	846.9	857.7	871.3	876.7	882.1	895.0	906.5	915.4	924.9
52.5°	787.9	788.6	797.4	810.3	822.5	827.9	833.3	846.9	859.8	870.6	879.4
55°	734.3	739.1	747.2	757.4	770.9	777.0	783.1	797.4	808.9	820.4	829.3
57.5°	678.7	683.5	693.0	704.5	718.1	724.8	731.6	744.5	758.1	768.9	781.1
60°	621.8	627.9	638.0	649.6	664.5	669.2	676.7	688.9	703.1	716.0	724.8
62.5°	564.1	570.2	581.1	591.9	607.5	615.7	621.8	636.0	649.6	661.1	671.9
65°	507.9	511.9	520.7	536.3	549.9	557.4	564.1	580.4	590.6	606.9	616.3
67.5°	446.8	450.2	461.7	477.3	491.6	497.7	506.5	522.1	533.6	548.5	558.0
70°	383.8	390.6	400.7	415.6	431.9	438.0	446.2	461.1	477.3	488.9	501.8
72.5°	322.7	328.9	341.7	354.6	370.2	379.0	385.8	402.1	416.3	432.6	441.4
75°	263.8	267.2	280.0	294.9	309.9	319.4	324.8	341.7	356.0	371.6	385.1
77.5°	200.7	208.2	221.0	236.0	254.3	263.1	268.5	286.1	300.4	315.3	328.2
80°	144.4	148.5	162.1	178.3	193.9	203.4	210.9	227.8	241.4	260.4	269.9
82.5°	91.5	99.7	109.8	126.8	144.4	153.2	163.4	177.6	191.9	205.4	219.7
85°	48.1	54.2	65.8	82.7	99.7	109.2	116.6	134.3	149.2	162.1	177.0
87.5°	16.3	21.7	34.6	49.5	67.8	76.6	84.8	101.0	117.3	130.9	145.1
90°	2.0	7.5	19.7	35.3	52.2	61.0	69.2	85.4	101.7	115.9	130.2
92.5°	0.7	5.4	17.6	33.2	49.5	57.6	66.4	82.7	97.6	111.9	125.4
95°	0.7	5.4	16.3	31.9	48.1	56.3	64.4	80.7	95.6	109.8	123.4
97.5°	0.7	4.7	15.6	30.5	46.1	54.9	63.1	78.7	94.2	108.5	121.4
100°	0.7	4.7	14.9	29.2	44.8	52.9	61.0	76.6	91.5	105.8	118.7
102.5°	0.7	4.1	14.2	27.8	43.4	50.9	59.0	73.9	88.8	103.1	115.9
105°	0.7	4.1	13.6	27.1	42.0	49.5	57.0	71.9	86.1	100.4	112.6
107.5°	0.7	3.4	12.9	25.8	40.0	47.5	54.9	69.8	83.4	97.0	109.8
110°	0.7	3.4	12.2	24.4	38.6	45.4	52.9	67.1	80.7	94.2	105.8



TEST NUMBER: P241588

CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.7	2.7	11.5	23.1	36.6	44.1	50.9	65.1	78.0	90.9	102.4
115°	0.7	2.7	10.2	21.7	35.3	42.0	48.8	61.7	75.3	87.5	99.0
117.5°	0.7	2.0	9.5	20.3	33.2	40.0	46.1	59.0	71.9	84.1	94.9
120°	0.7	2.0	8.8	19.7	31.2	37.3	44.1	56.3	68.5	80.0	90.9
122.5°	0.7	1.4	8.1	18.3	29.8	35.3	41.4	53.6	65.1	76.6	86.8
125°	0.7	1.4	7.5	17.0	27.8	33.2	39.3	50.9	61.7	72.6	82.7
127.5°	0.7	1.4	6.8	15.6	25.8	31.2	36.6	47.5	58.3	68.5	78.7
130°	0.7	1.4	5.4	14.2	23.7	29.2	33.9	44.8	54.9	64.4	73.9
132.5°	0.7	1.4	4.7	12.9	21.7	26.4	31.9	41.4	51.5	60.3	69.2
135°	0.7	0.7	4.1	10.8	19.7	24.4	29.2	38.6	47.5	56.3	64.4
137.5°	0.7	0.7	3.4	9.5	17.6	21.7	26.4	35.3	44.1	52.2	59.7
140°	0.7	0.7	2.7	8.1	14.9	19.0	23.1	31.9	40.0	47.5	54.9
142.5°	1.4	1.4	2.0	6.8	12.9	16.3	20.3	27.8	35.9	43.4	50.2
145°	1.4	1.4	1.4	5.4	10.8	14.2	17.6	24.4	31.2	38.6	45.4
147.5°	1.4	1.4	1.4	4.7	8.8	11.5	14.9	21.0	27.1	33.9	40.0
150°	1.4	1.4	1.4	3.4	7.5	9.5	12.2	17.0	23.1	28.5	33.9
152.5°	1.4	1.4	1.4	2.7	5.4	7.5	9.5	14.2	19.0	23.7	28.5
155°	1.4	1.4	1.4	2.0	4.1	6.1	7.5	11.5	14.9	19.7	23.7
157.5°	1.4	1.4	1.4	1.4	2.7	4.1	5.4	8.8	11.5	14.9	18.3
160°	1.4	1.4	1.4	1.4	2.0	3.4	4.1	6.1	8.8	11.5	14.2
162.5°	1.4	1.4	1.4	1.4	1.4	2.0	2.7	4.1	6.1	8.1	10.2
165°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.7	4.1	4.7	6.8
167.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.0	2.7	3.4
170°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	1.4	1.4
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



TEST NUMBER: P241588

CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9	1381.9
2.5°	1383.2	1383.2	1383.9	1383.9	1383.9	1383.2	1383.9	1383.2	1383.2	1383.2
5°	1379.8	1380.5	1381.2	1381.9	1381.9	1381.9	1381.9	1381.2	1381.9	1381.9
7.5°	1377.1	1377.1	1378.5	1379.1	1379.8	1379.8	1379.8	1379.8	1380.5	1380.5
10°	1371.0	1372.4	1373.7	1375.1	1375.1	1375.8	1376.4	1375.8	1376.4	1376.4
12.5°	1362.2	1363.6	1365.6	1366.9	1368.3	1367.6	1369.0	1369.0	1369.0	1369.0
15°	1350.7	1353.4	1354.7	1356.8	1358.1	1358.8	1358.8	1360.2	1360.2	1360.2
17.5°	1336.4	1339.8	1341.9	1344.6	1345.2	1346.6	1347.3	1347.3	1348.6	1348.6
20°	1320.8	1323.5	1326.3	1329.0	1330.3	1331.7	1333.0	1333.0	1333.7	1335.1
22.5°	1300.5	1305.2	1308.0	1311.3	1313.4	1313.4	1314.7	1316.8	1316.8	1317.4
25°	1278.8	1282.9	1286.9	1290.3	1291.0	1292.4	1294.4	1295.7	1297.8	1295.7
27.5°	1255.1	1259.8	1264.6	1267.3	1267.9	1269.3	1272.0	1273.4	1274.0	1275.4
30°	1227.3	1233.4	1238.1	1240.8	1242.2	1244.2	1246.2	1247.6	1249.6	1249.6
32.5°	1198.8	1203.5	1210.3	1213.7	1215.7	1217.8	1219.1	1221.2	1222.5	1222.5
35°	1167.6	1174.4	1177.1	1183.2	1184.5	1185.9	1189.3	1191.3	1191.3	1190.6
37.5°	1136.4	1141.8	1145.2	1150.6	1153.4	1154.0	1156.7	1158.1	1160.1	1159.5
40°	1097.8	1106.6	1112.0	1114.7	1117.4	1120.8	1122.2	1124.2	1126.2	1125.6
42.5°	1061.8	1065.9	1074.0	1079.4	1080.8	1082.8	1086.2	1087.6	1090.3	1089.6
45°	1020.5	1028.6	1034.0	1038.8	1041.5	1044.2	1046.2	1048.3	1051.6	1048.9
47.5°	979.1	985.9	993.3	999.4	1000.8	1003.5	1006.2	1008.9	1010.3	1008.9
50°	935.0	941.8	949.3	954.0	956.7	958.8	963.5	966.2	966.9	968.2
52.5°	888.9	898.4	903.8	909.9	912.6	916.7	918.8	922.8	921.5	920.8
55°	840.1	846.2	855.7	861.8	864.5	865.9	869.3	872.6	872.6	875.4
57.5°	787.9	798.1	805.5	812.3	813.7	817.7	821.1	823.1	824.5	825.2
60°	735.7	745.9	753.3	761.4	763.5	766.2	768.2	771.6	774.3	774.3
62.5°	682.1	690.3	699.7	706.5	709.2	711.9	716.7	719.4	720.8	722.1
65°	627.9	638.0	644.1	653.0	655.7	657.7	659.1	666.5	665.8	665.8
67.5°	570.9	578.4	587.9	596.7	598.7	601.4	605.5	610.2	609.6	612.3
70°	513.3	521.4	532.3	538.4	543.1	546.5	547.2	551.3	554.6	555.3
72.5°	452.9	464.5	474.0	480.7	483.4	488.2	492.3	496.3	497.0	497.0
75°	395.3	404.8	415.6	421.7	425.1	428.5	432.6	438.0	438.0	438.7
77.5°	339.0	350.5	358.0	364.8	368.9	370.9	377.7	379.0	381.1	385.1
80°	282.1	292.2	302.4	309.9	313.3	316.6	322.1	325.5	327.5	328.9
82.5°	232.6	242.7	252.9	260.4	263.8	267.8	270.5	277.3	278.7	278.7
85°	187.8	199.3	210.2	217.0	221.0	225.1	229.9	234.6	236.0	238.0
87.5°	158.7	170.2	179.7	188.5	191.9	194.6	200.0	204.8	206.1	206.8
90°	142.4	153.2	164.1	172.2	176.3	179.0	185.1	188.5	190.5	191.2
92.5°	137.6	148.5	158.7	166.8	170.9	173.6	179.0	183.1	185.1	185.8
95°	135.6	146.5	156.0	164.8	168.2	171.5	177.0	180.4	182.4	183.1
97.5°	133.6	144.4	153.9	162.1	166.1	169.5	174.3	178.3	180.4	181.0
100°	130.9	141.7	151.2	159.3	162.7	166.1	171.5	174.9	177.0	177.6
102.5°	128.2	138.3	147.8	156.0	159.3	162.7	167.5	171.5	173.6	174.3
105°	124.8	134.9	144.4	151.9	156.0	158.7	164.1	167.5	170.2	170.9
107.5°	121.4	131.5	140.4	148.5	151.9	154.6	160.0	164.1	166.1	166.1
110°	117.3	127.5	136.3	144.4	147.8	150.5	155.3	159.3	161.4	162.1





TEST NUMBER: P241588

CATALOG NUMBER: FVS8M-3-LD4-50-3LO-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	113.9	123.4	132.2	139.7	143.1	145.8	150.5	154.6	156.0	156.6
115°	109.2	119.3	127.5	134.9	138.3	141.0	145.8	149.2	151.2	151.9
117.5°	105.1	114.6	122.7	130.2	132.9	135.6	140.4	143.7	145.8	146.5
120°	101.0	109.8	118.0	124.8	128.2	130.9	134.9	138.3	140.4	141.0
122.5°	96.3	105.1	113.2	119.3	122.7	124.8	129.5	132.9	134.9	135.6
125°	92.2	100.4	107.8	113.9	117.3	119.3	123.4	126.8	128.8	129.5
127.5°	87.5	95.6	102.4	108.5	111.2	113.9	117.3	120.7	122.0	122.7
130°	82.7	90.2	97.0	102.4	105.1	107.1	111.2	113.9	115.9	116.6
132.5°	77.3	84.8	90.9	96.3	99.0	101.0	105.1	107.8	109.2	109.8
135°	72.6	79.3	85.4	90.2	92.9	94.9	98.3	101.0	102.4	103.1
137.5°	67.1	73.9	79.3	84.1	86.8	88.1	91.5	94.2	95.6	96.3
140°	61.7	67.8	73.2	78.0	80.0	82.0	84.8	86.8	88.1	88.8
142.5°	57.0	62.4	67.1	71.2	73.2	75.3	78.0	80.0	81.4	82.0
145°	51.5	56.3	61.0	65.1	67.1	68.5	71.2	73.2	73.9	74.6
147.5°	46.1	50.9	54.9	59.0	60.3	61.7	64.4	65.8	67.1	67.1
150°	40.0	44.8	48.8	52.2	53.6	54.9	57.0	58.3	59.7	60.3
152.5°	33.9	38.6	42.7	45.4	46.8	48.1	50.2	51.5	52.2	52.9
155°	27.8	31.9	36.6	39.3	40.7	41.4	42.7	44.1	44.8	44.8
157.5°	21.7	25.8	29.2	32.5	33.2	34.6	35.9	37.3	37.3	38.0
160°	17.0	19.7	22.4	25.8	26.4	27.8	29.2	29.8	30.5	30.5
162.5°	12.2	14.2	16.3	19.0	19.7	21.0	22.4	23.1	23.1	23.7
165°	8.1	9.5	10.8	12.9	13.6	14.2	15.6	16.3	16.3	17.0
167.5°	4.7	5.4	6.8	7.5	8.1	8.1	9.5	10.2	10.2	10.2
170°	2.0	2.0	2.7	3.4	3.4	3.4	4.1	4.7	4.7	4.7
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)