

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: P241586

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241586
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-LD4-35-3LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (252) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

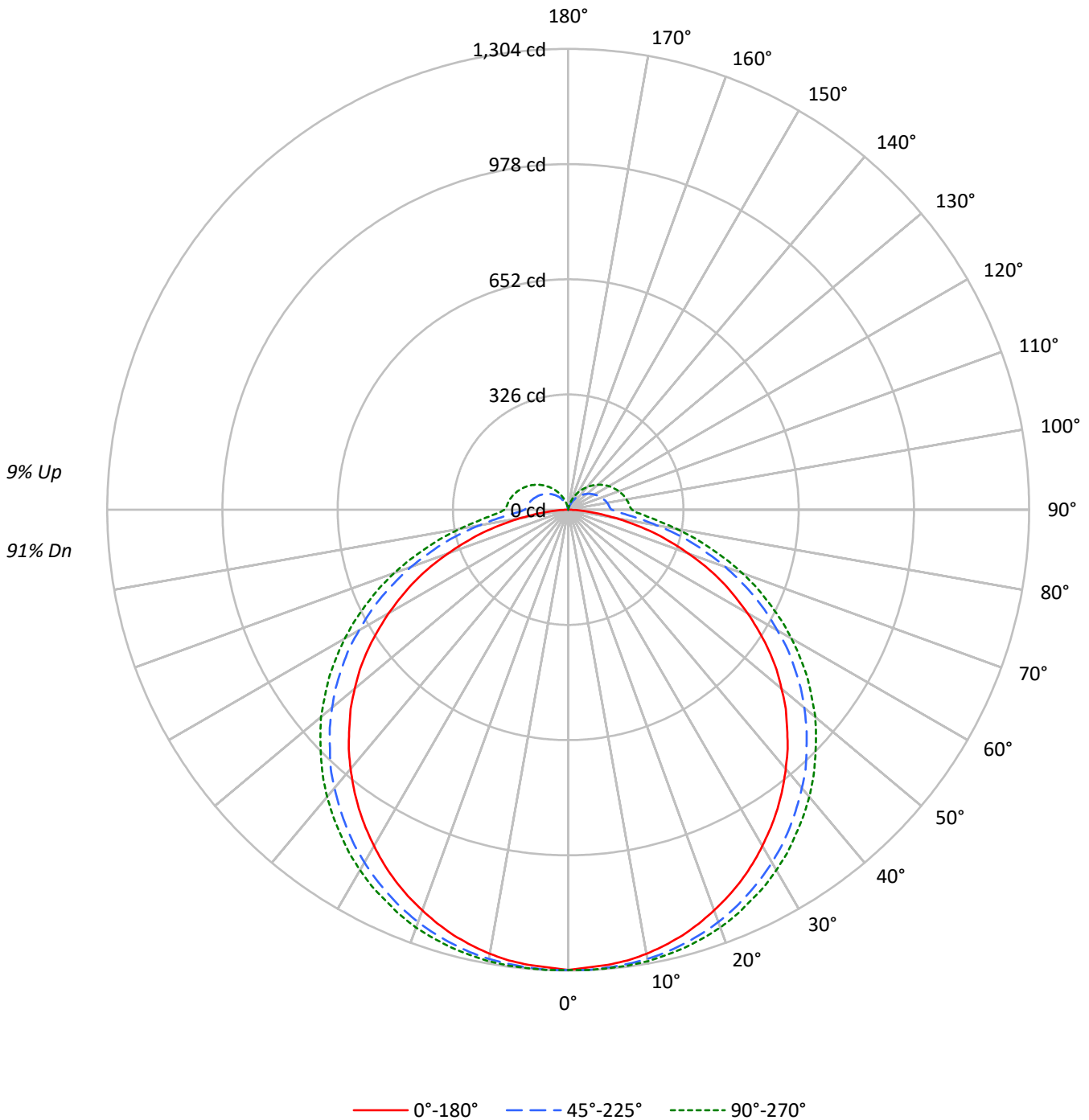
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4681.0 lumens
Efficiency: N/A
Efficacy: 76.0 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: P241586
CATALOG NUMBER: FVS8M-3-LD4-35-3LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241586

CATALOG NUMBER: FVS8M-3-LD4-35-3LO-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°	7605	7605	7605
5°	7544	7494	7486
10°	7499	7398	7397
15°	7439	7301	7307
20°	7360	7202	7225
25°	7287	7093	7118
30°	7194	6984	7025
35°	7107	6862	6907
40°	6997	6732	6798
45°	6878	6584	6659
50°	6747	6420	6532
55°	6566	6218	6351
60°	6287	5957	6126
65°	5960	5653	5842
70°	5415	5250	5514
75°	4711	4732	5062
80°	3549	4052	4570
85°	1920	3451	4197



TEST NUMBER: P241586

CATALOG NUMBER: FVS8M-3-LD4-35-3LO-O-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	2.6
10°-20°	358.1	7.6
20°-30°	551.6	11.8
30°-40°	680.6	14.5
40°-50°	729.5	15.6
50°-60°	689.8	14.7
60°-70°	562.8	12.0
70°-80°	369.1	7.9
80°-90°	176.1	3.8
90°-100°	113.5	2.4
100°-110°	100.5	2.1
110°-120°	82.9	1.8
120°-130°	62.9	1.3
130°-140°	42.6	0.9
140°-150°	24.4	0.5
150°-160°	10.4	0.2
160°-170°	2.3	0.0
170°-180°	0.0	0.0
0°-30°	1033.4	22.1
0°-40°	1714.0	36.6
0°-60°	3133.3	66.9
0°-90°	4241.4	90.6
90°-120°	297.0	6.3
90°-150°	426.8	9.1
90°-180°	440.0	9.4
0°-180°	4681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1293	1296	1300	1302	1302	123
15°	1247	1256	1271	1280	1282	352
25°	1158	1176	1201	1217	1221	534
35°	1033	1060	1095	1116	1122	646
45°	875	912	953	982	988	676
55°	692	732	782	815	825	618
65°	479	525	581	618	628	471
75°	249	301	363	401	413	261
85°	45	103	167	208	224	56
90°	2	58	123	166	180	3
95°	1	53	116	158	172	0
105°	1	47	106	147	161	1
115°	1	40	93	130	143	1
125°	1	31	78	110	122	1
135°	1	23	61	88	97	0
145°	1	13	43	63	70	1
155°	1	6	22	38	42	1
165°	1	1	6	13	16	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241586

CATALOG NUMBER: FVS8M-3-LD4-35-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3
2.5°	1296.5	1297.8	1298.5	1297.8	1298.5	1299.7	1300.4	1301.7	1302.3	1302.9	1303.6
5°	1292.7	1293.3	1294.6	1294.6	1295.3	1295.9	1297.2	1297.8	1299.1	1299.7	1300.4
7.5°	1286.3	1287.0	1287.6	1288.2	1288.9	1289.5	1290.1	1292.1	1294.0	1295.3	1296.5
10°	1276.1	1276.7	1278.0	1278.0	1279.3	1280.6	1282.5	1285.0	1287.6	1289.5	1290.8
12.5°	1262.7	1263.9	1264.6	1265.9	1267.8	1269.1	1271.0	1274.2	1278.0	1279.9	1282.5
15°	1247.3	1248.6	1248.6	1250.5	1253.7	1256.3	1258.2	1261.4	1265.9	1268.4	1271.0
17.5°	1228.2	1230.7	1230.7	1233.3	1237.1	1239.7	1241.6	1246.1	1251.2	1253.7	1257.6
20°	1206.4	1208.4	1209.6	1212.8	1217.9	1221.1	1223.1	1227.5	1233.9	1237.8	1241.6
22.5°	1183.4	1184.1	1187.9	1191.1	1196.9	1199.4	1203.2	1209.0	1212.8	1218.6	1223.1
25°	1157.9	1158.5	1161.7	1166.2	1171.9	1176.4	1179.0	1185.4	1191.7	1197.5	1201.3
27.5°	1129.8	1129.8	1133.6	1140.0	1146.4	1149.6	1154.7	1161.7	1167.5	1172.6	1178.3
30°	1098.4	1099.7	1103.6	1111.2	1117.6	1121.5	1126.6	1133.6	1141.3	1147.0	1152.8
32.5°	1066.5	1067.8	1073.5	1079.9	1088.2	1091.4	1096.5	1105.5	1112.5	1120.2	1125.3
35°	1032.6	1032.0	1040.3	1046.7	1055.0	1059.5	1065.2	1073.5	1081.2	1089.5	1094.6
37.5°	996.2	997.5	1003.9	1011.5	1020.5	1026.2	1032.0	1039.7	1047.3	1056.9	1062.0
40°	957.2	958.5	966.8	975.1	985.3	990.5	994.9	1003.9	1013.5	1021.8	1028.2
42.5°	918.9	920.2	926.6	936.1	946.4	950.2	957.2	966.8	977.0	986.0	994.3
45°	875.4	877.4	885.7	895.9	906.1	912.5	916.3	927.2	936.8	947.0	953.4
47.5°	834.5	835.2	844.1	853.7	864.6	872.2	876.7	889.5	897.2	906.7	914.4
50°	787.9	789.8	798.1	808.3	821.1	826.2	831.3	843.5	854.3	862.7	871.6
52.5°	742.5	743.2	751.5	763.6	775.1	780.2	785.3	798.1	810.3	820.5	828.8
55°	692.0	696.5	704.2	713.8	726.5	732.3	738.0	751.5	762.3	773.2	781.5
57.5°	639.6	644.1	653.1	663.9	676.7	683.1	689.5	701.6	714.4	724.6	736.1
60°	586.0	591.7	601.3	612.2	626.2	630.7	637.7	649.2	662.6	674.8	683.1
62.5°	531.7	537.4	547.6	557.9	572.5	580.2	586.0	599.4	612.2	623.0	633.3
65°	478.6	482.4	490.8	505.5	518.2	525.3	531.7	547.0	556.6	571.9	580.9
67.5°	421.1	424.3	435.2	449.9	463.3	469.0	477.3	492.0	502.9	517.0	525.9
70°	361.7	368.1	377.7	391.7	407.0	412.8	420.5	434.5	449.9	460.7	472.9
72.5°	304.2	309.9	322.1	334.2	348.9	357.2	363.6	378.9	392.3	407.7	416.0
75°	248.6	251.8	263.9	278.0	292.0	301.0	306.1	322.1	335.5	350.2	363.0
77.5°	189.1	196.2	208.3	222.4	239.6	247.9	253.0	269.7	283.1	297.1	309.3
80°	136.1	139.9	152.7	168.1	182.8	191.7	198.7	214.7	227.5	245.4	254.3
82.5°	86.3	93.9	103.5	119.5	136.1	144.4	154.0	167.4	180.8	193.6	207.0
85°	45.4	51.1	62.0	78.0	93.9	102.9	109.9	126.5	140.6	152.7	166.8
87.5°	15.3	20.4	32.6	46.6	63.9	72.2	79.9	95.2	110.5	123.3	136.7
90°	1.9	7.0	18.5	33.2	49.2	57.5	65.2	80.5	95.9	109.3	122.7
92.5°	0.6	5.1	16.6	31.3	46.6	54.3	62.6	78.0	92.0	105.4	118.2
95°	0.6	5.1	15.3	30.0	45.4	53.0	60.7	76.0	90.1	103.5	116.3
97.5°	0.6	4.5	14.7	28.8	43.5	51.8	59.4	74.1	88.8	102.2	114.4
100°	0.6	4.5	14.1	27.5	42.2	49.8	57.5	72.2	86.3	99.7	111.8
102.5°	0.6	3.8	13.4	26.2	40.9	47.9	55.6	69.7	83.7	97.1	109.3
105°	0.6	3.8	12.8	25.6	39.6	46.6	53.7	67.7	81.2	94.6	106.1
107.5°	0.6	3.2	12.1	24.3	37.7	44.7	51.8	65.8	78.6	91.4	103.5
110°	0.6	3.2	11.5	23.0	36.4	42.8	49.8	63.3	76.0	88.8	99.7



TEST NUMBER: P241586

CATALOG NUMBER: FVS8M-3-LD4-35-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	2.6	10.9	21.7	34.5	41.5	47.9	61.3	73.5	85.6	96.5
115°	0.6	2.6	9.6	20.4	33.2	39.6	46.0	58.1	70.9	82.4	93.3
117.5°	0.6	1.9	8.9	19.2	31.3	37.7	43.5	55.6	67.7	79.2	89.5
120°	0.6	1.9	8.3	18.5	29.4	35.1	41.5	53.0	64.5	75.4	85.6
122.5°	0.6	1.3	7.7	17.3	28.1	33.2	39.0	50.5	61.3	72.2	81.8
125°	0.6	1.3	7.0	16.0	26.2	31.3	37.1	47.9	58.1	68.4	78.0
127.5°	0.6	1.3	6.4	14.7	24.3	29.4	34.5	44.7	55.0	64.5	74.1
130°	0.6	1.3	5.1	13.4	22.4	27.5	32.0	42.2	51.8	60.7	69.7
132.5°	0.6	1.3	4.5	12.1	20.4	24.9	30.0	39.0	48.6	56.9	65.2
135°	0.6	0.6	3.8	10.2	18.5	23.0	27.5	36.4	44.7	53.0	60.7
137.5°	0.6	0.6	3.2	8.9	16.6	20.4	24.9	33.2	41.5	49.2	56.2
140°	0.6	0.6	2.6	7.7	14.1	17.9	21.7	30.0	37.7	44.7	51.8
142.5°	1.3	1.3	1.9	6.4	12.1	15.3	19.2	26.2	33.9	40.9	47.3
145°	1.3	1.3	1.3	5.1	10.2	13.4	16.6	23.0	29.4	36.4	42.8
147.5°	1.3	1.3	1.3	4.5	8.3	10.9	14.1	19.8	25.6	32.0	37.7
150°	1.3	1.3	1.3	3.2	7.0	8.9	11.5	16.0	21.7	26.8	32.0
152.5°	1.3	1.3	1.3	2.6	5.1	7.0	8.9	13.4	17.9	22.4	26.8
155°	1.3	1.3	1.3	1.9	3.8	5.8	7.0	10.9	14.1	18.5	22.4
157.5°	1.3	1.3	1.3	1.3	2.6	3.8	5.1	8.3	10.9	14.1	17.3
160°	1.3	1.3	1.3	1.3	1.9	3.2	3.8	5.8	8.3	10.9	13.4
162.5°	1.3	1.3	1.3	1.3	1.3	1.9	2.6	3.8	5.8	7.7	9.6
165°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6	3.8	4.5	6.4
167.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	2.6	3.2
170°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.6	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



TEST NUMBER: P241586

CATALOG NUMBER: FVS8M-3-LD4-35-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3	1302.3
2.5°	1303.6	1303.6	1304.2	1304.2	1304.2	1303.6	1304.2	1303.6	1303.6	1303.6
5°	1300.4	1301.0	1301.7	1302.3	1302.3	1302.3	1302.3	1301.7	1302.3	1302.3
7.5°	1297.8	1297.8	1299.1	1299.7	1300.4	1300.4	1300.4	1300.4	1301.0	1301.0
10°	1292.1	1293.3	1294.6	1295.9	1295.9	1296.5	1297.2	1296.5	1297.2	1297.2
12.5°	1283.8	1285.0	1287.0	1288.2	1289.5	1288.9	1290.1	1290.1	1290.1	1290.1
15°	1272.9	1275.5	1276.7	1278.6	1279.9	1280.6	1280.6	1281.8	1281.8	1281.8
17.5°	1259.5	1262.7	1264.6	1267.1	1267.8	1269.1	1269.7	1269.7	1271.0	1271.0
20°	1244.8	1247.3	1249.9	1252.4	1253.7	1255.0	1256.3	1256.3	1256.9	1258.2
22.5°	1225.6	1230.1	1232.6	1235.8	1237.8	1237.8	1239.0	1240.9	1240.9	1241.6
25°	1205.2	1209.0	1212.8	1216.0	1216.7	1217.9	1219.9	1221.1	1223.1	1221.1
27.5°	1182.8	1187.3	1191.7	1194.3	1194.9	1196.2	1198.8	1200.0	1200.7	1202.0
30°	1156.6	1162.3	1166.8	1169.4	1170.7	1172.6	1174.5	1175.8	1177.7	1177.7
32.5°	1129.8	1134.2	1140.6	1143.8	1145.7	1147.7	1148.9	1150.8	1152.1	1152.1
35°	1100.4	1106.8	1109.3	1115.1	1116.3	1117.6	1120.8	1122.7	1122.7	1122.1
37.5°	1071.0	1076.1	1079.3	1084.4	1086.9	1087.6	1090.1	1091.4	1093.3	1092.7
40°	1034.5	1042.9	1048.0	1050.5	1053.1	1056.3	1057.6	1059.5	1061.4	1060.7
42.5°	1000.7	1004.5	1012.2	1017.3	1018.6	1020.5	1023.7	1025.0	1027.5	1026.9
45°	961.7	969.4	974.5	979.0	981.5	984.1	986.0	987.9	991.1	988.5
47.5°	922.7	929.1	936.1	941.9	943.2	945.7	948.3	950.8	952.1	950.8
50°	881.2	887.6	894.6	899.1	901.6	903.6	908.0	910.6	911.2	912.5
52.5°	837.7	846.7	851.8	857.5	860.1	863.9	865.9	869.7	868.4	867.8
55°	791.7	797.5	806.4	812.2	814.7	816.0	819.2	822.4	822.4	825.0
57.5°	742.5	752.1	759.1	765.5	766.8	770.6	773.8	775.8	777.0	777.7
60°	693.3	702.9	709.9	717.6	719.5	722.1	724.0	727.2	729.7	729.7
62.5°	642.8	650.5	659.5	665.8	668.4	671.0	675.4	678.0	679.3	680.5
65°	591.7	601.3	607.1	615.4	617.9	619.8	621.1	628.1	627.5	627.5
67.5°	538.0	545.1	554.0	562.3	564.2	566.8	570.6	575.1	574.5	577.0
70°	483.7	491.4	501.6	507.4	511.8	515.0	515.7	519.5	522.7	523.3
72.5°	426.9	437.7	446.7	453.1	455.6	460.1	463.9	467.8	468.4	468.4
75°	372.5	381.5	391.7	397.5	400.7	403.9	407.7	412.8	412.8	413.4
77.5°	319.5	330.4	337.4	343.8	347.6	349.5	355.9	357.2	359.1	363.0
80°	265.8	275.4	285.0	292.0	295.2	298.4	303.5	306.7	308.6	309.9
82.5°	219.2	228.8	238.3	245.4	248.6	252.4	255.0	261.4	262.6	262.6
85°	177.0	187.9	198.1	204.5	208.3	212.1	216.6	221.1	222.4	224.3
87.5°	149.5	160.4	169.3	177.6	180.8	183.4	188.5	193.0	194.3	194.9
90°	134.2	144.4	154.6	162.3	166.1	168.7	174.4	177.6	179.6	180.2
92.5°	129.7	139.9	149.5	157.2	161.0	163.6	168.7	172.5	174.4	175.1
95°	127.8	138.0	147.0	155.3	158.5	161.7	166.8	170.0	171.9	172.5
97.5°	125.9	136.1	145.1	152.7	156.6	159.8	164.2	168.1	170.0	170.6
100°	123.3	133.6	142.5	150.2	153.4	156.6	161.7	164.9	166.8	167.4
102.5°	120.8	130.4	139.3	147.0	150.2	153.4	157.8	161.7	163.6	164.2
105°	117.6	127.2	136.1	143.1	147.0	149.5	154.6	157.8	160.4	161.0
107.5°	114.4	124.0	132.3	139.9	143.1	145.7	150.8	154.6	156.6	156.6
110°	110.5	120.1	128.4	136.1	139.3	141.9	146.3	150.2	152.1	152.7



TEST NUMBER: P241586

CATALOG NUMBER: FVS8M-3-LD4-35-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	107.4	116.3	124.6	131.6	134.8	137.4	141.9	145.7	147.0	147.6
115°	102.9	112.5	120.1	127.2	130.4	132.9	137.4	140.6	142.5	143.1
117.5°	99.0	108.0	115.7	122.7	125.2	127.8	132.3	135.5	137.4	138.0
120°	95.2	103.5	111.2	117.6	120.8	123.3	127.2	130.4	132.3	132.9
122.5°	90.7	99.0	106.7	112.5	115.7	117.6	122.0	125.2	127.2	127.8
125°	86.9	94.6	101.6	107.4	110.5	112.5	116.3	119.5	121.4	122.0
127.5°	82.4	90.1	96.5	102.2	104.8	107.4	110.5	113.7	115.0	115.7
130°	78.0	85.0	91.4	96.5	99.0	101.0	104.8	107.4	109.3	109.9
132.5°	72.8	79.9	85.6	90.7	93.3	95.2	99.0	101.6	102.9	103.5
135°	68.4	74.8	80.5	85.0	87.5	89.5	92.7	95.2	96.5	97.1
137.5°	63.3	69.7	74.8	79.2	81.8	83.1	86.3	88.8	90.1	90.7
140°	58.1	63.9	69.0	73.5	75.4	77.3	79.9	81.8	83.1	83.7
142.5°	53.7	58.8	63.3	67.1	69.0	70.9	73.5	75.4	76.7	77.3
145°	48.6	53.0	57.5	61.3	63.3	64.5	67.1	69.0	69.7	70.3
147.5°	43.5	47.9	51.8	55.6	56.9	58.1	60.7	62.0	63.3	63.3
150°	37.7	42.2	46.0	49.2	50.5	51.8	53.7	55.0	56.2	56.9
152.5°	32.0	36.4	40.3	42.8	44.1	45.4	47.3	48.6	49.2	49.8
155°	26.2	30.0	34.5	37.1	38.3	39.0	40.3	41.5	42.2	42.2
157.5°	20.4	24.3	27.5	30.7	31.3	32.6	33.9	35.1	35.1	35.8
160°	16.0	18.5	21.1	24.3	24.9	26.2	27.5	28.1	28.8	28.8
162.5°	11.5	13.4	15.3	17.9	18.5	19.8	21.1	21.7	21.7	22.4
165°	7.7	8.9	10.2	12.1	12.8	13.4	14.7	15.3	15.3	16.0
167.5°	4.5	5.1	6.4	7.0	7.7	7.7	8.9	9.6	9.6	9.6
170°	1.9	1.9	2.6	3.2	3.2	3.2	3.8	4.5	4.5	4.5
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)