

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: P241336

Luminaire Tested: **FVS8M-2-LD4-50-3LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-13)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-50-3LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH P125 LENS
Light Source: (126) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

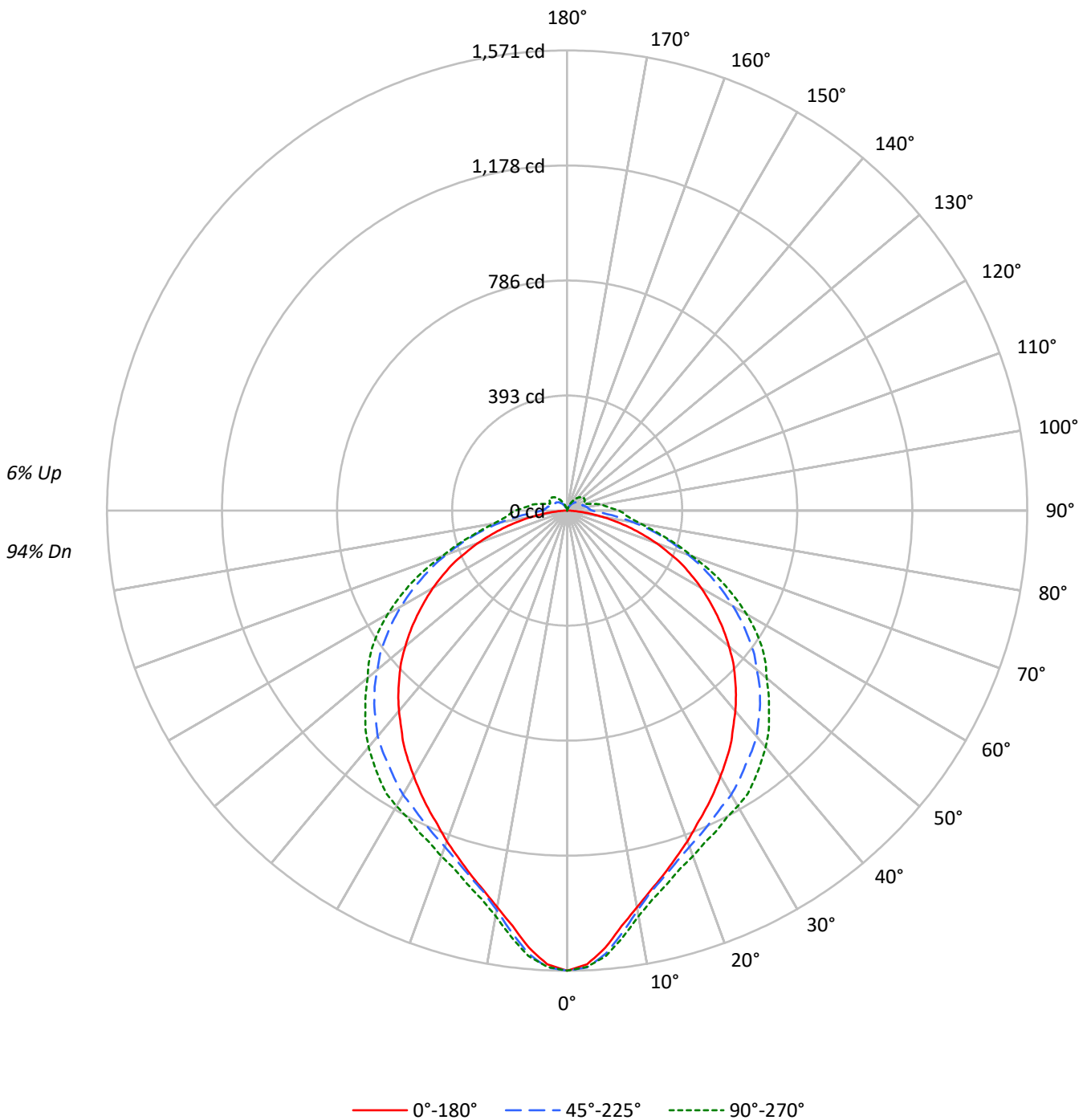
Lumens per Lamp: N/A
Luminaire Lumens: 4330.0 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.11 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

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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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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	97	93	103	98	94	91	93	90	87	88	85	83	84	81	79	77
2	96	88	81	75	93	85	79	73	81	75	71	77	72	68	73	69	66	63
3	88	77	68	62	85	75	67	61	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	56	50	60	54	49	57	52	47	45
5	74	61	51	45	71	59	50	44	56	49	43	54	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	32	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14118	14118	14118
5°	13425	13444	13500
10°	12372	12175	12334
15°	11695	11352	11575
20°	11169	10830	11099
25°	10735	10518	10823
30°	10396	10342	10698
35°	10129	10119	10589
40°	9831	9998	10399
45°	9550	9745	10107
50°	9220	9411	9791
55°	8813	9059	9625
60°	8365	8569	9146
65°	7846	7954	8422
70°	6989	7246	7347
75°	5840	6363	6421
80°	4317	5323	5738
85°	2091	4092	5858



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.4	3.2
10°-20°	365.8	8.4
20°-30°	538.9	12.4
30°-40°	661.6	15.3
40°-50°	703.8	16.3
50°-60°	658.5	15.2
60°-70°	522.2	12.1
70°-80°	326.0	7.5
80°-90°	146.3	3.4
90°-100°	78.5	1.8
100°-110°	57.2	1.3
110°-120°	41.8	1.0
120°-130°	36.9	0.9
130°-140°	27.8	0.6
140°-150°	16.4	0.4
150°-160°	6.6	0.2
160°-170°	1.3	0.0
170°-180°	0.0	0.0
0°-30°	1045.1	24.1
0°-40°	1706.7	39.4
0°-60°	3069.0	70.9
0°-90°	4063.5	93.8
90°-120°	177.5	4.1
90°-150°	258.6	6.0
90°-180°	267.0	6.2
0°-180°	4330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1571	1571	1571	1571	1571	
5°	1498	1506	1518	1521	1526	139
15°	1283	1284	1290	1304	1319	362
25°	1122	1136	1167	1198	1206	517
35°	974	1008	1061	1115	1118	608
45°	810	860	932	966	975	626
55°	626	681	756	794	812	559
65°	431	476	547	579	588	423
75°	218	263	330	355	341	231
85°	38	80	137	171	203	49
90°	1	38	85	126	177	2
95°	0	33	74	108	140	0
105°	0	27	61	82	88	0
115°	0	23	50	60	64	0
125°	0	20	47	64	71	0
135°	1	15	40	56	65	0
145°	1	10	29	42	48	0
155°	1	3	15	24	26	0
165°	1	1	3	7	8	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241336

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6
2.5°	1550.7	1552.6	1553.3	1553.9	1553.9	1555.8	1555.8	1557.1	1559.0	1560.3	1561.0
5°	1498.1	1501.9	1498.7	1501.9	1504.5	1505.8	1507.7	1509.0	1512.8	1516.7	1518.0
7.5°	1429.4	1430.7	1432.6	1434.6	1437.1	1436.5	1437.8	1442.3	1446.8	1452.5	1451.9
10°	1374.3	1374.3	1374.3	1374.3	1374.3	1376.2	1376.8	1378.7	1382.0	1387.7	1384.5
12.5°	1325.5	1326.8	1328.7	1328.1	1326.8	1326.1	1324.2	1326.8	1327.4	1331.3	1330.0
15°	1283.2	1281.2	1283.2	1284.4	1283.2	1284.4	1283.8	1285.7	1285.1	1286.4	1290.2
17.5°	1240.2	1244.7	1245.9	1242.7	1244.0	1245.3	1245.9	1245.3	1245.3	1250.4	1253.0
20°	1201.0	1203.0	1203.0	1202.3	1204.9	1205.5	1208.7	1208.7	1211.9	1218.4	1220.9
22.5°	1158.7	1162.5	1165.1	1164.5	1171.5	1171.5	1172.2	1174.7	1183.7	1186.3	1194.6
25°	1122.1	1126.0	1127.3	1129.8	1134.9	1136.2	1136.2	1147.1	1150.3	1158.0	1167.0
27.5°	1084.9	1087.5	1088.8	1093.2	1101.6	1101.6	1104.8	1115.7	1122.8	1131.7	1140.7
30°	1047.1	1052.8	1052.8	1059.9	1066.9	1068.9	1076.6	1086.2	1097.7	1105.4	1120.2
32.5°	1010.5	1013.0	1015.6	1026.5	1034.2	1040.0	1045.8	1058.0	1067.6	1081.1	1092.0
35°	973.9	977.1	979.7	991.2	998.3	1007.9	1015.0	1030.4	1040.0	1052.8	1061.2
37.5°	930.9	936.1	941.8	950.8	964.9	972.6	979.0	997.7	1008.6	1020.1	1035.5
40°	893.1	898.2	904.6	914.2	929.6	935.4	943.8	959.2	977.1	990.6	1006.0
42.5°	853.3	859.1	865.5	877.0	889.2	896.9	906.5	922.6	940.6	957.2	967.5
45°	810.3	815.4	823.8	834.7	850.1	859.7	867.4	886.7	900.8	918.1	931.6
47.5°	769.3	771.8	780.8	795.6	809.0	820.6	828.3	845.0	863.6	876.4	891.2
50°	721.1	724.3	734.0	748.7	766.7	777.6	782.1	802.6	818.0	834.7	845.6
52.5°	674.3	679.4	691.0	704.5	721.1	730.8	739.1	753.9	773.7	788.5	805.2
55°	625.5	632.0	642.2	657.0	671.7	681.4	691.0	707.7	725.6	742.9	755.8
57.5°	576.8	583.2	593.5	608.2	623.0	630.7	640.3	657.6	678.1	694.8	707.0
60°	528.7	533.2	544.1	556.9	571.6	581.3	588.3	606.3	625.5	640.3	654.4
62.5°	478.6	483.1	492.1	504.3	521.0	529.3	535.7	554.3	572.3	586.4	601.8
65°	431.1	431.1	442.0	452.3	466.4	476.0	485.7	501.7	517.1	532.5	546.6
67.5°	374.0	379.8	387.5	399.1	415.1	423.4	433.1	448.5	462.6	481.2	494.7
70°	323.4	325.9	334.9	347.7	360.6	368.9	378.5	392.6	408.7	425.4	438.8
72.5°	268.8	274.0	281.7	296.4	306.7	315.0	324.0	338.8	354.2	370.8	384.3
75°	217.5	222.0	229.7	241.2	254.7	263.0	270.1	285.5	300.3	318.9	330.4
77.5°	168.7	170.7	179.0	189.9	206.6	211.1	219.4	233.5	250.2	265.0	279.1
80°	120.6	124.5	130.9	141.1	155.9	163.0	170.0	185.4	199.5	215.6	228.4
82.5°	75.7	81.5	86.6	100.1	111.6	117.4	125.7	139.2	155.3	168.7	180.3
85°	38.5	43.0	50.7	60.3	73.1	80.2	86.0	100.7	114.2	127.0	137.3
87.5°	14.8	18.0	24.4	34.6	46.2	52.0	59.0	71.2	84.0	94.3	104.6
90°	0.6	4.5	11.5	21.2	32.1	37.9	43.6	55.8	66.7	76.3	85.3
92.5°	0.0	3.2	9.6	19.2	29.5	34.6	40.4	50.7	59.7	68.6	77.6
95°	0.0	2.6	9.0	18.0	27.6	33.4	38.5	48.1	57.1	65.4	74.4
97.5°	0.0	2.6	8.3	17.3	26.9	32.1	36.6	45.6	53.9	62.9	71.2
100°	0.0	2.6	8.3	16.7	25.7	30.2	34.6	43.0	52.0	60.3	68.0
102.5°	0.0	1.9	7.7	15.4	24.4	28.9	32.7	41.1	49.4	57.1	64.8
105°	0.0	1.9	7.1	14.8	23.1	26.9	31.4	39.8	47.5	54.5	60.9
107.5°	0.0	1.9	7.1	14.1	21.8	26.3	30.2	37.9	45.6	52.0	57.7
110°	0.0	1.3	6.4	13.5	21.2	25.0	28.9	36.6	43.6	49.4	55.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.3	5.8	12.8	19.9	23.7	27.6	35.3	41.7	47.5	52.0
115°	0.0	1.3	5.8	12.2	19.2	23.1	26.9	34.0	40.4	45.6	50.0
117.5°	0.0	1.3	5.1	11.5	18.6	22.5	25.7	32.7	39.1	44.3	48.8
120°	0.0	1.3	5.1	10.9	18.0	21.8	25.0	32.1	37.9	43.6	48.1
122.5°	0.0	0.6	4.5	10.3	17.3	20.5	24.4	30.8	37.2	43.0	47.5
125°	0.0	0.6	4.5	9.6	16.7	19.9	23.7	30.2	36.6	42.3	46.8
127.5°	0.0	0.6	3.8	9.0	15.4	18.6	22.5	28.9	35.3	41.1	45.6
130°	0.0	0.6	3.2	8.3	14.8	18.0	21.2	27.6	33.4	39.1	43.6
132.5°	0.6	0.6	3.2	7.7	13.5	16.7	19.9	25.7	31.4	37.2	41.7
135°	0.6	0.6	2.6	7.1	12.2	15.4	18.0	24.4	29.5	35.3	39.8
137.5°	0.6	0.6	2.6	6.4	11.5	14.1	16.7	22.5	27.6	32.7	37.2
140°	0.6	0.6	1.9	5.8	10.3	12.8	15.4	20.5	25.7	30.2	34.6
142.5°	0.6	0.6	1.3	4.5	9.0	10.9	13.5	18.6	23.1	27.6	31.4
145°	0.6	0.6	1.3	3.8	7.7	9.6	11.5	16.0	20.5	24.4	28.9
147.5°	0.6	0.6	0.6	3.2	5.8	7.7	9.6	14.1	18.0	21.8	25.7
150°	0.6	0.6	0.6	1.9	4.5	6.4	7.7	11.5	14.8	18.6	21.8
152.5°	0.6	0.6	0.6	1.3	3.8	4.5	6.4	9.0	12.2	15.4	18.6
155°	0.6	0.6	0.6	1.3	2.6	3.2	4.5	7.1	9.6	12.2	14.8
157.5°	0.6	0.6	0.6	0.6	1.9	2.6	3.2	5.1	7.1	9.0	11.5
160°	0.6	0.6	0.6	0.6	1.3	1.3	1.9	3.2	5.1	6.4	8.3
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9	3.2	4.5	5.8
165°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.9	2.6	3.2
167.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	1.3	1.9
170°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6
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°	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6	1570.6
2.5°	1561.6	1561.0	1561.6	1561.0	1561.0	1560.3	1561.0	1560.3	1559.0	1559.0
5°	1518.0	1522.5	1523.1	1524.4	1521.2	1523.1	1523.1	1523.1	1523.1	1525.7
7.5°	1455.7	1462.2	1462.2	1462.2	1465.4	1466.0	1467.9	1467.9	1467.3	1467.3
10°	1389.7	1394.8	1396.7	1397.4	1401.2	1401.2	1404.4	1403.1	1405.1	1405.1
12.5°	1330.6	1333.2	1340.3	1346.7	1346.0	1349.2	1352.4	1355.0	1353.1	1356.9
15°	1291.5	1296.0	1299.2	1301.1	1303.7	1307.5	1310.7	1314.6	1315.9	1319.1
17.5°	1253.0	1259.4	1265.2	1271.6	1274.8	1276.1	1278.0	1279.9	1281.9	1281.9
20°	1227.3	1232.5	1237.0	1239.5	1242.7	1245.9	1246.6	1250.4	1251.7	1255.6
22.5°	1201.0	1204.9	1210.7	1217.1	1219.0	1221.6	1222.8	1224.8	1228.0	1226.7
25°	1175.4	1182.4	1190.1	1193.3	1197.8	1201.7	1204.2	1208.1	1209.4	1206.2
27.5°	1152.3	1156.8	1171.5	1178.6	1181.8	1181.8	1181.8	1185.6	1185.0	1181.1
30°	1126.6	1139.4	1149.7	1152.9	1155.5	1158.7	1162.5	1164.5	1163.2	1165.1
32.5°	1102.9	1111.9	1125.3	1134.3	1136.9	1140.1	1142.0	1145.2	1146.5	1147.1
35°	1075.9	1089.4	1106.1	1110.6	1115.1	1119.6	1120.8	1118.9	1121.5	1117.6
37.5°	1048.3	1066.9	1070.8	1082.3	1084.3	1084.3	1084.9	1086.2	1087.5	1086.2
40°	1018.8	1025.2	1039.4	1043.2	1044.5	1046.4	1050.3	1050.9	1051.5	1054.1
42.5°	981.0	991.9	998.3	1011.1	1011.8	1011.8	1011.8	1013.7	1016.9	1018.8
45°	938.6	950.8	959.8	966.2	965.6	968.8	972.0	972.0	973.9	974.6
47.5°	901.4	907.2	912.3	918.7	923.9	923.9	925.8	928.4	930.9	933.5
50°	855.2	865.5	871.3	877.7	876.4	879.0	885.4	888.6	887.3	888.6
52.5°	812.9	820.6	830.2	834.0	838.5	841.7	842.4	847.5	851.4	853.9
55°	768.0	773.7	783.4	793.6	793.6	794.9	802.6	807.1	812.2	812.2
57.5°	718.6	728.2	739.1	742.3	747.4	753.2	759.0	760.9	762.8	762.2
60°	664.0	677.5	687.8	694.8	697.4	700.0	700.0	707.0	707.7	707.7
62.5°	614.0	625.5	633.2	635.8	636.4	640.3	641.6	644.1	642.9	648.0
65°	559.5	569.7	574.9	577.4	579.3	578.7	580.6	583.2	588.3	587.7
67.5°	508.1	512.0	517.1	521.0	521.0	524.2	526.1	529.3	523.5	522.9
70°	451.7	460.0	462.6	469.6	467.1	467.1	461.9	457.4	451.7	453.0
72.5°	396.5	403.6	411.3	408.7	408.7	406.8	402.9	399.1	395.2	397.8
75°	341.3	350.9	355.4	354.8	354.8	353.5	349.0	346.5	343.9	340.7
77.5°	291.3	296.4	302.2	304.7	305.4	304.7	300.3	295.8	295.1	293.8
80°	237.4	243.8	249.6	254.1	254.7	254.7	253.4	253.4	251.5	252.8
82.5°	188.0	195.0	203.4	208.5	209.8	213.0	214.3	216.2	220.1	223.3
85°	144.4	154.6	162.3	168.7	171.3	173.2	180.3	188.6	197.6	203.4
87.5°	114.2	123.2	132.2	139.2	143.1	148.2	156.5	168.7	182.8	192.5
90°	95.0	103.9	113.6	121.9	125.7	130.2	140.5	152.7	169.4	177.1
92.5°	86.0	95.6	103.3	110.4	114.2	118.1	127.7	137.9	150.1	155.3
95°	82.8	89.8	96.2	103.9	107.8	112.3	120.0	128.3	136.0	140.5
97.5°	78.3	85.3	92.4	98.8	102.7	105.9	111.6	119.3	125.7	128.3
100°	75.1	81.5	87.3	93.0	96.2	98.8	105.9	112.9	116.8	118.7
102.5°	71.2	77.0	82.1	87.3	89.8	92.4	98.2	102.0	103.3	103.3
105°	66.7	72.5	77.0	81.5	82.1	84.0	87.3	88.5	88.5	88.5
107.5°	62.9	67.4	71.2	73.8	74.4	75.1	75.7	75.7	74.4	74.4
110°	59.7	62.9	65.4	66.7	66.1	66.7	66.7	66.1	66.1	66.1



TEST NUMBER: P241336

CATALOG NUMBER: FVS8M-2-LD4-50-3LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	56.5	59.0	60.3	61.6	61.6	61.6	61.6	62.9	62.9	62.9
115°	53.9	56.5	58.4	59.7	59.7	60.3	61.6	63.5	64.2	64.2
117.5°	52.6	55.8	57.7	59.7	60.9	61.6	64.2	65.4	66.7	66.7
120°	52.0	55.8	59.0	61.6	62.9	64.2	66.1	68.0	69.3	69.3
122.5°	52.0	55.8	59.7	62.2	64.2	64.8	67.4	69.3	70.6	70.6
125°	51.3	55.8	59.7	62.9	64.2	65.4	67.4	69.3	70.6	71.2
127.5°	50.0	54.5	58.4	61.6	62.9	64.8	66.7	68.6	69.9	70.6
130°	48.1	52.6	56.5	59.7	61.6	62.9	65.4	67.4	68.6	68.6
132.5°	46.2	50.7	53.9	57.7	59.7	60.9	63.5	65.4	66.7	66.7
135°	44.3	48.1	51.3	55.2	56.5	58.4	60.9	62.9	64.2	64.8
137.5°	41.7	45.6	48.8	52.0	53.9	55.2	57.7	59.7	60.9	61.6
140°	38.5	42.3	45.6	48.8	50.7	52.0	53.9	55.8	57.1	57.1
142.5°	35.3	39.1	42.3	44.9	46.2	47.5	49.4	51.3	52.0	52.6
145°	32.1	35.3	38.5	41.1	41.7	43.0	44.9	46.2	47.5	47.5
147.5°	28.2	31.4	34.0	35.9	37.2	37.9	39.8	41.1	41.7	42.3
150°	24.4	27.6	29.5	31.4	32.7	33.4	34.6	35.9	36.6	37.2
152.5°	21.2	23.1	25.7	26.9	28.2	28.9	30.2	30.8	31.4	31.4
155°	17.3	19.2	21.2	22.5	23.7	23.7	25.0	25.7	26.3	26.3
157.5°	13.5	15.4	17.3	18.6	19.2	19.9	20.5	21.2	21.2	21.8
160°	9.6	11.5	13.5	14.1	14.8	15.4	16.0	16.0	16.7	16.7
162.5°	7.1	8.3	9.6	10.3	10.9	10.9	11.5	12.2	12.2	12.2
165°	4.5	5.1	6.4	7.1	7.1	7.7	7.7	8.3	8.3	8.3
167.5°	1.9	2.6	3.2	3.8	3.8	4.5	4.5	4.5	5.1	4.5
170°	0.6	0.6	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.9
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)