

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: P241335

Luminaire Tested: **FVS8M-2-LD4-40-3LO-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241335
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-LD4-40-3LO-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH P125 LENS
Light Source: (126) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

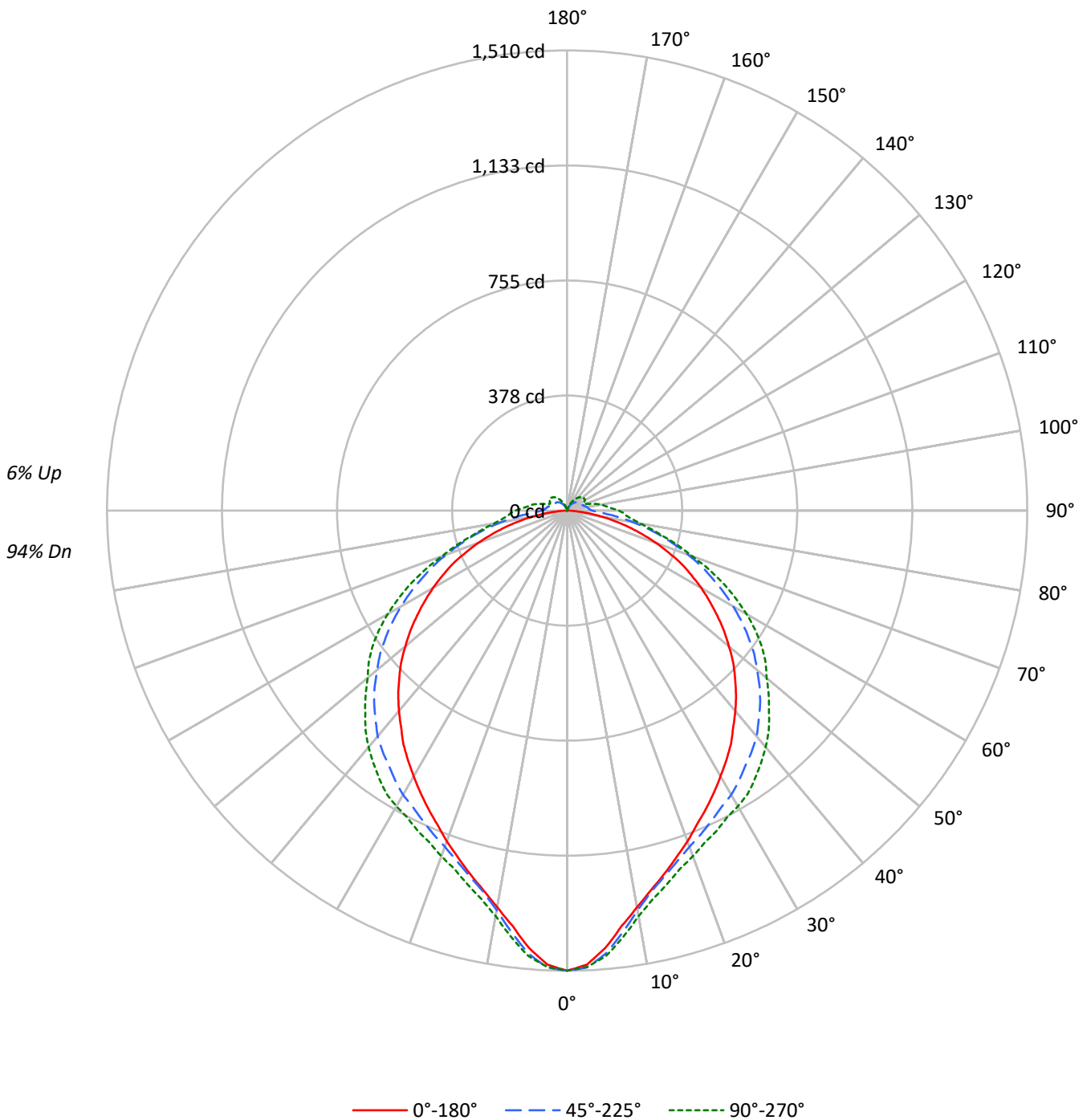
Lumens per Lamp: N/A
Luminaire Lumens: 4163.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.11 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

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°	13573	13573	13573
5°	12907	12925	12979
10°	11895	11705	11858
15°	11244	10913	11128
20°	10738	10412	10670
25°	10321	10113	10405
30°	9995	9943	10286
35°	9739	9728	10181
40°	9451	9613	9998
45°	9182	9368	9717
50°	8864	9048	9413
55°	8473	8709	9254
60°	8042	8239	8793
65°	7544	7647	8096
70°	6719	6967	7063
75°	5614	6118	6172
80°	4152	5118	5516
85°	2009	3934	5631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.0	3.2
10°-20°	351.7	8.4
20°-30°	518.1	12.4
30°-40°	636.1	15.3
40°-50°	676.6	16.3
50°-60°	633.1	15.2
60°-70°	502.1	12.1
70°-80°	313.4	7.5
80°-90°	140.7	3.4
90°-100°	75.5	1.8
100°-110°	55.0	1.3
110°-120°	40.2	1.0
120°-130°	35.5	0.9
130°-140°	26.7	0.6
140°-150°	15.7	0.4
150°-160°	6.3	0.2
160°-170°	1.2	0.0
170°-180°	0.0	0.0
0°-30°	1004.8	24.1
0°-40°	1640.9	39.4
0°-60°	2950.6	70.9
0°-90°	3906.8	93.8
90°-120°	170.7	4.1
90°-150°	248.7	6.0
90°-180°	256.0	6.1
0°-180°	4163.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1440	1448	1459	1462	1467	133
15°	1234	1235	1240	1253	1268	348
25°	1079	1092	1122	1152	1160	498
35°	936	969	1020	1072	1074	585
45°	779	827	896	928	937	601
55°	601	655	727	763	781	538
65°	414	458	526	557	565	407
75°	209	253	318	341	328	222
85°	37	77	132	165	196	48
90°	1	36	82	121	170	2
95°	0	32	72	104	135	0
105°	0	26	59	79	85	0
115°	0	22	48	57	62	0
125°	0	19	45	62	68	0
135°	1	15	38	54	62	0
145°	1	9	28	40	46	0
155°	1	3	14	23	25	0
165°	1	1	3	7	8	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°	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0
2.5°	1490.9	1492.7	1493.4	1494.0	1494.0	1495.8	1495.8	1497.1	1498.9	1500.1	1500.8
5°	1440.3	1444.0	1440.9	1444.0	1446.5	1447.7	1449.6	1450.8	1454.5	1458.2	1459.4
7.5°	1374.3	1375.5	1377.4	1379.2	1381.7	1381.1	1382.3	1386.6	1391.0	1396.5	1395.9
10°	1321.3	1321.3	1321.3	1321.3	1321.3	1323.1	1323.7	1325.6	1328.7	1334.2	1331.1
12.5°	1274.4	1275.6	1277.5	1276.8	1275.6	1275.0	1273.1	1275.6	1276.2	1279.9	1278.7
15°	1233.7	1231.8	1233.7	1234.9	1233.7	1234.9	1234.3	1236.1	1235.5	1236.7	1240.4
17.5°	1192.3	1196.7	1197.9	1194.8	1196.0	1197.3	1197.9	1197.3	1197.3	1202.2	1204.7
20°	1154.7	1156.6	1156.6	1155.9	1158.4	1159.0	1162.1	1162.1	1165.2	1171.4	1173.8
22.5°	1114.0	1117.7	1120.2	1119.6	1126.3	1126.3	1127.0	1129.4	1138.1	1140.5	1148.5
25°	1078.8	1082.5	1083.8	1086.2	1091.2	1092.4	1092.4	1102.9	1106.0	1113.4	1122.0
27.5°	1043.1	1045.5	1046.8	1051.1	1059.1	1059.1	1062.2	1072.7	1079.5	1088.1	1096.7
30°	1006.7	1012.2	1012.2	1019.0	1025.8	1027.6	1035.0	1044.3	1055.4	1062.8	1077.0
32.5°	971.5	974.0	976.4	986.9	994.3	999.9	1005.4	1017.2	1026.4	1039.4	1049.8
35°	936.4	939.4	941.9	953.0	959.8	969.0	975.8	990.6	999.9	1012.2	1020.2
37.5°	895.0	900.0	905.5	914.1	927.7	935.1	941.3	959.2	969.7	980.8	995.6
40°	858.6	863.6	869.7	879.0	893.8	899.3	907.4	922.2	939.4	952.4	967.2
42.5°	820.4	825.9	832.1	843.2	854.9	862.3	871.6	887.0	904.3	920.3	930.2
45°	779.1	784.0	792.0	802.5	817.3	826.6	834.0	852.5	866.0	882.7	895.6
47.5°	739.6	742.0	750.7	764.9	777.8	788.9	796.3	812.4	830.3	842.6	856.8
50°	693.3	696.4	705.7	719.8	737.1	747.6	751.9	771.7	786.5	802.5	813.0
52.5°	648.3	653.2	664.3	677.3	693.3	702.6	710.6	724.8	743.9	758.1	774.1
55°	601.4	607.6	617.4	631.6	645.8	655.1	664.3	680.4	697.6	714.3	726.6
57.5°	554.5	560.7	570.6	584.8	598.9	606.3	615.6	632.3	652.0	668.0	679.7
60°	508.3	512.6	523.1	535.4	549.6	558.9	565.6	582.9	601.4	615.6	629.2
62.5°	460.2	464.5	473.1	484.8	500.9	508.9	515.1	532.9	550.2	563.8	578.6
65°	414.5	414.5	425.0	434.9	448.4	457.7	466.9	482.4	497.2	512.0	525.5
67.5°	359.6	365.2	372.6	383.7	399.1	407.1	416.4	431.2	444.7	462.6	475.6
70°	310.9	313.4	322.0	334.3	346.7	354.7	363.9	377.5	392.9	409.0	421.9
72.5°	258.5	263.4	270.8	285.0	294.8	302.9	311.5	325.7	340.5	356.5	369.5
75°	209.1	213.4	220.8	231.9	244.9	252.9	259.7	274.5	288.7	306.6	317.7
77.5°	162.2	164.1	172.1	182.6	198.6	202.9	211.0	224.5	240.6	254.8	268.3
80°	116.0	119.7	125.8	135.7	149.9	156.7	163.5	178.3	191.8	207.3	219.6
82.5°	72.8	78.3	83.3	96.2	107.3	112.9	120.9	133.9	149.3	162.2	173.3
85°	37.0	41.3	48.7	58.0	70.3	77.1	82.7	96.8	109.8	122.1	132.0
87.5°	14.2	17.3	23.4	33.3	44.4	50.0	56.7	68.5	80.8	90.7	100.5
90°	0.6	4.3	11.1	20.4	30.8	36.4	41.9	53.7	64.2	73.4	82.0
92.5°	0.0	3.1	9.3	18.5	28.4	33.3	38.9	48.7	57.4	66.0	74.6
95°	0.0	2.5	8.6	17.3	26.5	32.1	37.0	46.3	54.9	62.9	71.6
97.5°	0.0	2.5	8.0	16.7	25.9	30.8	35.2	43.8	51.8	60.4	68.5
100°	0.0	2.5	8.0	16.0	24.7	29.0	33.3	41.3	50.0	58.0	65.4
102.5°	0.0	1.9	7.4	14.8	23.4	27.8	31.5	39.5	47.5	54.9	62.3
105°	0.0	1.9	6.8	14.2	22.2	25.9	30.2	38.2	45.6	52.4	58.6
107.5°	0.0	1.9	6.8	13.6	21.0	25.3	29.0	36.4	43.8	50.0	55.5
110°	0.0	1.2	6.2	13.0	20.4	24.1	27.8	35.2	41.9	47.5	53.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.2	5.6	12.3	19.1	22.8	26.5	33.9	40.1	45.6	50.0
115°	0.0	1.2	5.6	11.7	18.5	22.2	25.9	32.7	38.9	43.8	48.1
117.5°	0.0	1.2	4.9	11.1	17.9	21.6	24.7	31.5	37.6	42.6	46.9
120°	0.0	1.2	4.9	10.5	17.3	21.0	24.1	30.8	36.4	41.9	46.3
122.5°	0.0	0.6	4.3	9.9	16.7	19.7	23.4	29.6	35.8	41.3	45.6
125°	0.0	0.6	4.3	9.3	16.0	19.1	22.8	29.0	35.2	40.7	45.0
127.5°	0.0	0.6	3.7	8.6	14.8	17.9	21.6	27.8	33.9	39.5	43.8
130°	0.0	0.6	3.1	8.0	14.2	17.3	20.4	26.5	32.1	37.6	41.9
132.5°	0.6	0.6	3.1	7.4	13.0	16.0	19.1	24.7	30.2	35.8	40.1
135°	0.6	0.6	2.5	6.8	11.7	14.8	17.3	23.4	28.4	33.9	38.2
137.5°	0.6	0.6	2.5	6.2	11.1	13.6	16.0	21.6	26.5	31.5	35.8
140°	0.6	0.6	1.9	5.6	9.9	12.3	14.8	19.7	24.7	29.0	33.3
142.5°	0.6	0.6	1.2	4.3	8.6	10.5	13.0	17.9	22.2	26.5	30.2
145°	0.6	0.6	1.2	3.7	7.4	9.3	11.1	15.4	19.7	23.4	27.8
147.5°	0.6	0.6	0.6	3.1	5.6	7.4	9.3	13.6	17.3	21.0	24.7
150°	0.6	0.6	0.6	1.9	4.3	6.2	7.4	11.1	14.2	17.9	21.0
152.5°	0.6	0.6	0.6	1.2	3.7	4.3	6.2	8.6	11.7	14.8	17.9
155°	0.6	0.6	0.6	1.2	2.5	3.1	4.3	6.8	9.3	11.7	14.2
157.5°	0.6	0.6	0.6	0.6	1.9	2.5	3.1	4.9	6.8	8.6	11.1
160°	0.6	0.6	0.6	0.6	1.2	1.2	1.9	3.1	4.9	6.2	8.0
162.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.9	3.1	4.3	5.6
165°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.9	2.5	3.1
167.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	1.2	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°	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0	1510.0
2.5°	1501.4	1500.8	1501.4	1500.8	1500.8	1500.1	1500.8	1500.1	1498.9	1498.9
5°	1459.4	1463.7	1464.4	1465.6	1462.5	1464.4	1464.4	1464.4	1464.4	1466.8
7.5°	1399.6	1405.8	1405.8	1405.8	1408.8	1409.5	1411.3	1411.3	1410.7	1410.7
10°	1336.1	1341.0	1342.8	1343.5	1347.2	1347.2	1350.2	1349.0	1350.9	1350.9
12.5°	1279.3	1281.8	1288.6	1294.7	1294.1	1297.2	1300.3	1302.7	1300.9	1304.6
15°	1241.7	1246.0	1249.1	1250.9	1253.4	1257.1	1260.2	1263.9	1265.1	1268.2
17.5°	1204.7	1210.8	1216.4	1222.6	1225.6	1226.9	1228.7	1230.6	1232.4	1232.4
20°	1180.0	1184.9	1189.3	1191.7	1194.8	1197.9	1198.5	1202.2	1203.4	1207.1
22.5°	1154.7	1158.4	1164.0	1170.1	1172.0	1174.4	1175.7	1177.5	1180.6	1179.4
25°	1130.0	1136.8	1144.2	1147.3	1151.6	1155.3	1157.8	1161.5	1162.7	1159.6
27.5°	1107.8	1112.1	1126.3	1133.1	1136.2	1136.2	1136.2	1139.9	1139.3	1135.6
30°	1083.2	1095.5	1105.4	1108.4	1110.9	1114.0	1117.7	1119.6	1118.3	1120.2
32.5°	1060.3	1069.0	1081.9	1090.6	1093.0	1096.1	1098.0	1101.0	1102.3	1102.9
35°	1034.4	1047.4	1063.4	1067.7	1072.1	1076.4	1077.6	1075.8	1078.2	1074.5
37.5°	1007.9	1025.8	1029.5	1040.6	1042.4	1042.4	1043.1	1044.3	1045.5	1044.3
40°	979.5	985.7	999.3	1003.0	1004.2	1006.1	1009.8	1010.4	1011.0	1013.5
42.5°	943.1	953.6	959.8	972.1	972.7	972.7	972.7	974.6	977.7	979.5
45°	902.4	914.1	922.8	928.9	928.3	931.4	934.5	934.5	936.4	937.0
47.5°	866.6	872.2	877.1	883.3	888.2	888.2	890.1	892.6	895.0	897.5
50°	822.2	832.1	837.7	843.8	842.6	845.1	851.2	854.3	853.1	854.3
52.5°	781.5	788.9	798.2	801.9	806.2	809.3	809.9	814.8	818.5	821.0
55°	738.3	743.9	753.2	763.0	763.0	764.3	771.7	776.0	780.9	780.9
57.5°	690.9	700.1	710.6	713.7	718.6	724.2	729.7	731.6	733.4	732.8
60°	638.4	651.4	661.2	668.0	670.5	673.0	673.0	679.7	680.4	680.4
62.5°	590.3	601.4	608.8	611.3	611.9	615.6	616.8	619.3	618.1	623.0
65°	537.9	547.7	552.7	555.1	557.0	556.4	558.2	560.7	565.6	565.0
67.5°	488.5	492.2	497.2	500.9	500.9	504.0	505.8	508.9	503.3	502.7
70°	434.2	442.3	444.7	451.5	449.1	449.1	444.1	439.8	434.2	435.5
72.5°	381.2	388.0	395.4	392.9	392.9	391.1	387.4	383.7	380.0	382.4
75°	328.2	337.4	341.7	341.1	341.1	339.9	335.6	333.1	330.6	327.5
77.5°	280.0	285.0	290.5	293.0	293.6	293.0	288.7	284.4	283.7	282.5
80°	228.2	234.4	239.9	244.3	244.9	244.9	243.6	243.6	241.8	243.0
82.5°	180.7	187.5	195.5	200.5	201.7	204.8	206.0	207.9	211.6	214.7
85°	138.8	148.7	156.1	162.2	164.7	166.5	173.3	181.3	190.0	195.5
87.5°	109.8	118.4	127.1	133.9	137.6	142.5	150.5	162.2	175.8	185.0
90°	91.3	99.9	109.2	117.2	120.9	125.2	135.1	146.8	162.8	170.2
92.5°	82.7	91.9	99.3	106.1	109.8	113.5	122.7	132.6	144.3	149.3
95°	79.6	86.4	92.5	99.9	103.6	107.9	115.3	123.4	130.8	135.1
97.5°	75.3	82.0	88.8	95.0	98.7	101.8	107.3	114.7	120.9	123.4
100°	72.2	78.3	83.9	89.4	92.5	95.0	101.8	108.6	112.3	114.1
102.5°	68.5	74.0	79.0	83.9	86.4	88.8	94.4	98.1	99.3	99.3
105°	64.2	69.7	74.0	78.3	79.0	80.8	83.9	85.1	85.1	85.1
107.5°	60.4	64.8	68.5	70.9	71.6	72.2	72.8	72.8	71.6	71.6
110°	57.4	60.4	62.9	64.2	63.5	64.2	64.2	63.5	63.5	63.5



TEST NUMBER: P241335

CATALOG NUMBER: FVS8M-2-LD4-40-3LO-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	54.3	56.7	58.0	59.2	59.2	59.2	59.2	60.4	60.4	60.4
115°	51.8	54.3	56.1	57.4	57.4	58.0	59.2	61.1	61.7	61.7
117.5°	50.6	53.7	55.5	57.4	58.6	59.2	61.7	62.9	64.2	64.2
120°	50.0	53.7	56.7	59.2	60.4	61.7	63.5	65.4	66.6	66.6
122.5°	50.0	53.7	57.4	59.8	61.7	62.3	64.8	66.6	67.9	67.9
125°	49.3	53.7	57.4	60.4	61.7	62.9	64.8	66.6	67.9	68.5
127.5°	48.1	52.4	56.1	59.2	60.4	62.3	64.2	66.0	67.2	67.9
130°	46.3	50.6	54.3	57.4	59.2	60.4	62.9	64.8	66.0	66.0
132.5°	44.4	48.7	51.8	55.5	57.4	58.6	61.1	62.9	64.2	64.2
135°	42.6	46.3	49.3	53.0	54.3	56.1	58.6	60.4	61.7	62.3
137.5°	40.1	43.8	46.9	50.0	51.8	53.0	55.5	57.4	58.6	59.2
140°	37.0	40.7	43.8	46.9	48.7	50.0	51.8	53.7	54.9	54.9
142.5°	33.9	37.6	40.7	43.2	44.4	45.6	47.5	49.3	50.0	50.6
145°	30.8	33.9	37.0	39.5	40.1	41.3	43.2	44.4	45.6	45.6
147.5°	27.1	30.2	32.7	34.5	35.8	36.4	38.2	39.5	40.1	40.7
150°	23.4	26.5	28.4	30.2	31.5	32.1	33.3	34.5	35.2	35.8
152.5°	20.4	22.2	24.7	25.9	27.1	27.8	29.0	29.6	30.2	30.2
155°	16.7	18.5	20.4	21.6	22.8	22.8	24.1	24.7	25.3	25.3
157.5°	13.0	14.8	16.7	17.9	18.5	19.1	19.7	20.4	20.4	21.0
160°	9.3	11.1	13.0	13.6	14.2	14.8	15.4	15.4	16.0	16.0
162.5°	6.8	8.0	9.3	9.9	10.5	10.5	11.1	11.7	11.7	11.7
165°	4.3	4.9	6.2	6.8	6.8	7.4	7.4	8.0	8.0	8.0
167.5°	1.9	2.5	3.1	3.7	3.7	4.3	4.3	4.3	4.9	4.3
170°	0.6	0.6	1.2	1.2	1.2	1.2	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)