

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: P241585

Luminaire Tested: **FVS8M-3-LD4-30-3LO-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241585
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-LD4-30-3LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (252) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

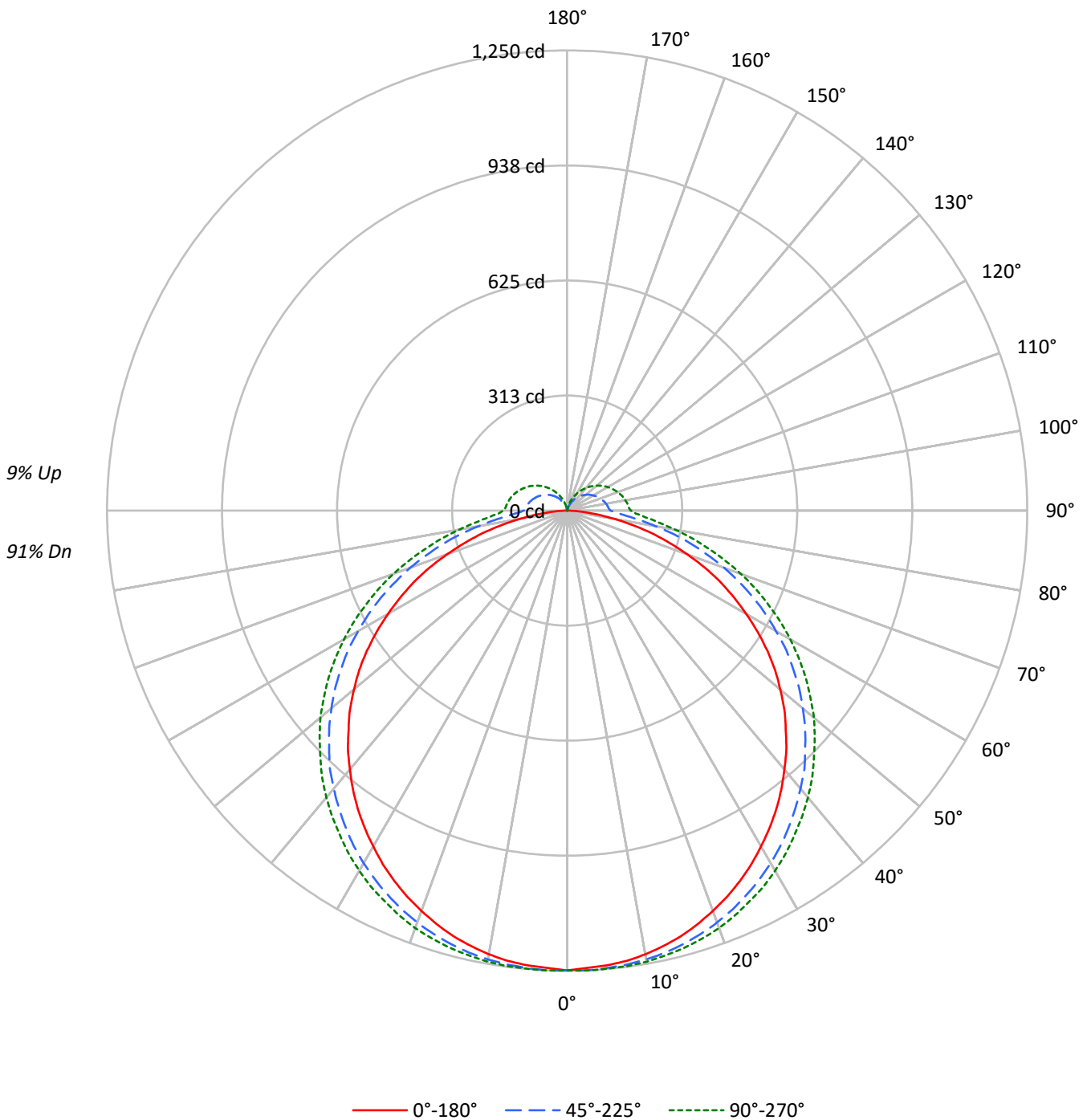
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4490.0 lumens
Efficiency: N/A
Efficacy: 72.9 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-LD4-30-3LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241585

CATALOG NUMBER: FVS8M-3-LD4-30-3LO-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°	7295	7295	7295
5°	7236	7188	7181
10°	7193	7096	7095
15°	7135	7003	7009
20°	7060	6908	6930
25°	6989	6803	6828
30°	6901	6698	6738
35°	6817	6583	6625
40°	6712	6457	6521
45°	6597	6316	6388
50°	6471	6158	6266
55°	6298	5964	6092
60°	6031	5714	5877
65°	5717	5422	5603
70°	5194	5036	5289
75°	4517	4538	4856
80°	3405	3886	4384
85°	1840	3311	4025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.6	2.6
10°-20°	343.5	7.6
20°-30°	529.1	11.8
30°-40°	652.8	14.5
40°-50°	699.7	15.6
50°-60°	661.7	14.7
60°-70°	539.9	12.0
70°-80°	354.1	7.9
80°-90°	169.0	3.8
90°-100°	108.9	2.4
100°-110°	96.4	2.1
110°-120°	79.6	1.8
120°-130°	60.3	1.3
130°-140°	40.9	0.9
140°-150°	23.4	0.5
150°-160°	9.9	0.2
160°-170°	2.2	0.0
170°-180°	0.0	0.0
0°-30°	991.2	22.1
0°-40°	1644.1	36.6
0°-60°	3005.5	66.9
0°-90°	4068.4	90.6
90°-120°	284.9	6.3
90°-150°	409.4	9.1
90°-180°	422.0	9.4
0°-180°	4490.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1249	1249	1249	1249	1249	
5°	1240	1243	1247	1249	1249	118
15°	1196	1205	1219	1228	1230	338
25°	1111	1128	1152	1167	1171	512
35°	990	1016	1050	1071	1076	619
45°	840	875	914	942	948	649
55°	664	702	750	782	791	592
65°	459	504	557	593	602	452
75°	238	289	348	384	397	251
85°	44	99	160	200	215	54
90°	2	55	118	159	173	3
95°	1	51	112	152	166	0
105°	1	45	102	141	154	1
115°	1	38	90	125	137	1
125°	1	30	75	106	117	1
135°	1	22	58	84	93	0
145°	1	13	41	61	67	1
155°	1	6	22	37	40	1
165°	1	1	6	12	15	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°	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2
2.5°	1243.6	1244.9	1245.5	1244.9	1245.5	1246.7	1247.3	1248.5	1249.2	1249.8	1250.4
5°	1240.0	1240.6	1241.8	1241.8	1242.4	1243.0	1244.2	1244.9	1246.1	1246.7	1247.3
7.5°	1233.8	1234.4	1235.1	1235.7	1236.3	1236.9	1237.5	1239.3	1241.2	1242.4	1243.6
10°	1224.0	1224.6	1225.9	1225.9	1227.1	1228.3	1230.2	1232.6	1235.1	1236.9	1238.1
12.5°	1211.2	1212.4	1213.0	1214.2	1216.1	1217.3	1219.1	1222.2	1225.9	1227.7	1230.2
15°	1196.4	1197.7	1197.7	1199.5	1202.6	1205.0	1206.9	1209.9	1214.2	1216.7	1219.1
17.5°	1178.1	1180.5	1180.5	1183.0	1186.6	1189.1	1190.9	1195.2	1200.1	1202.6	1206.2
20°	1157.2	1159.1	1160.3	1163.3	1168.2	1171.3	1173.1	1177.4	1183.6	1187.2	1190.9
22.5°	1135.1	1135.8	1139.4	1142.5	1148.0	1150.5	1154.1	1159.7	1163.3	1168.9	1173.1
25°	1110.6	1111.2	1114.3	1118.6	1124.1	1128.4	1130.9	1137.0	1143.1	1148.6	1152.3
27.5°	1083.7	1083.7	1087.3	1093.5	1099.6	1102.7	1107.6	1114.3	1119.8	1124.7	1130.2
30°	1053.6	1054.9	1058.5	1065.9	1072.0	1075.7	1080.6	1087.3	1094.7	1100.2	1105.7
32.5°	1023.0	1024.2	1029.7	1035.9	1043.8	1046.9	1051.8	1060.4	1067.1	1074.5	1079.4
35°	990.5	989.9	997.9	1004.0	1011.9	1016.2	1021.8	1029.7	1037.1	1045.0	1050.0
37.5°	955.6	956.8	962.9	970.3	978.9	984.4	989.9	997.2	1004.6	1013.8	1018.7
40°	918.2	919.4	927.4	935.3	945.1	950.0	954.3	962.9	972.1	980.1	986.2
42.5°	881.4	882.6	888.7	897.9	907.8	911.4	918.2	927.4	937.2	945.8	953.7
45°	839.7	841.6	849.5	859.3	869.1	875.3	878.9	889.4	898.6	908.4	914.5
47.5°	800.5	801.1	809.7	818.9	829.3	836.7	840.9	853.2	860.6	869.7	877.1
50°	755.7	757.6	765.6	775.4	787.6	792.5	797.4	809.1	819.5	827.5	836.0
52.5°	712.2	712.8	720.8	732.5	743.5	748.4	753.3	765.6	777.2	787.0	795.0
55°	663.8	668.1	675.4	684.6	696.9	702.4	707.9	720.8	731.2	741.6	749.6
57.5°	613.5	617.8	626.4	636.8	649.1	655.2	661.4	673.0	685.3	695.1	706.1
60°	562.1	567.6	576.8	587.2	600.7	605.0	611.7	622.7	635.6	647.3	655.2
62.5°	510.0	515.5	525.3	535.1	549.2	556.5	562.1	574.9	587.2	597.6	607.4
65°	459.1	462.8	470.7	484.8	497.1	503.8	510.0	524.7	533.9	548.6	557.2
67.5°	403.9	407.0	417.4	431.5	444.4	449.9	457.9	472.0	482.4	495.9	504.4
70°	346.9	353.0	362.2	375.7	390.4	396.0	403.3	416.8	431.5	441.9	453.6
72.5°	291.8	297.3	308.9	320.6	334.7	342.6	348.8	363.5	376.3	391.0	399.0
75°	238.4	241.5	253.1	266.6	280.1	288.7	293.6	308.9	321.8	335.9	348.1
77.5°	181.4	188.2	199.8	213.3	229.8	237.8	242.7	258.7	271.5	285.0	296.7
80°	130.6	134.2	146.5	161.2	175.3	183.9	190.6	205.9	218.2	235.4	243.9
82.5°	82.7	90.1	99.3	114.6	130.6	138.5	147.7	160.6	173.5	185.7	198.6
85°	43.5	49.0	59.5	74.8	90.1	98.7	105.4	121.4	134.8	146.5	160.0
87.5°	14.7	19.6	31.3	44.7	61.3	69.3	76.6	91.3	106.0	118.3	131.2
90°	1.8	6.7	17.8	31.9	47.2	55.2	62.5	77.2	91.9	104.8	117.7
92.5°	0.6	4.9	15.9	30.0	44.7	52.1	60.1	74.8	88.3	101.1	113.4
95°	0.6	4.9	14.7	28.8	43.5	50.9	58.2	72.9	86.4	99.3	111.6
97.5°	0.6	4.3	14.1	27.6	41.7	49.6	57.0	71.1	85.2	98.1	109.7
100°	0.6	4.3	13.5	26.4	40.5	47.8	55.2	69.3	82.7	95.6	107.3
102.5°	0.6	3.7	12.9	25.1	39.2	46.0	53.3	66.8	80.3	93.2	104.8
105°	0.6	3.7	12.3	24.5	38.0	44.7	51.5	65.0	77.8	90.7	101.7
107.5°	0.6	3.1	11.6	23.3	36.2	42.9	49.6	63.1	75.4	87.6	99.3
110°	0.6	3.1	11.0	22.1	34.9	41.1	47.8	60.7	72.9	85.2	95.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	2.5	10.4	20.8	33.1	39.8	46.0	58.8	70.5	82.1	92.6
115°	0.6	2.5	9.2	19.6	31.9	38.0	44.1	55.8	68.0	79.1	89.5
117.5°	0.6	1.8	8.6	18.4	30.0	36.2	41.7	53.3	65.0	76.0	85.8
120°	0.6	1.8	8.0	17.8	28.2	33.7	39.8	50.9	61.9	72.3	82.1
122.5°	0.6	1.2	7.4	16.5	27.0	31.9	37.4	48.4	58.8	69.3	78.5
125°	0.6	1.2	6.7	15.3	25.1	30.0	35.5	46.0	55.8	65.6	74.8
127.5°	0.6	1.2	6.1	14.1	23.3	28.2	33.1	42.9	52.7	61.9	71.1
130°	0.6	1.2	4.9	12.9	21.5	26.4	30.6	40.5	49.6	58.2	66.8
132.5°	0.6	1.2	4.3	11.6	19.6	23.9	28.8	37.4	46.6	54.6	62.5
135°	0.6	0.6	3.7	9.8	17.8	22.1	26.4	34.9	42.9	50.9	58.2
137.5°	0.6	0.6	3.1	8.6	15.9	19.6	23.9	31.9	39.8	47.2	53.9
140°	0.6	0.6	2.5	7.4	13.5	17.2	20.8	28.8	36.2	42.9	49.6
142.5°	1.2	1.2	1.8	6.1	11.6	14.7	18.4	25.1	32.5	39.2	45.4
145°	1.2	1.2	1.2	4.9	9.8	12.9	15.9	22.1	28.2	34.9	41.1
147.5°	1.2	1.2	1.2	4.3	8.0	10.4	13.5	19.0	24.5	30.6	36.2
150°	1.2	1.2	1.2	3.1	6.7	8.6	11.0	15.3	20.8	25.7	30.6
152.5°	1.2	1.2	1.2	2.5	4.9	6.7	8.6	12.9	17.2	21.5	25.7
155°	1.2	1.2	1.2	1.8	3.7	5.5	6.7	10.4	13.5	17.8	21.5
157.5°	1.2	1.2	1.2	1.2	2.5	3.7	4.9	8.0	10.4	13.5	16.5
160°	1.2	1.2	1.2	1.2	1.8	3.1	3.7	5.5	8.0	10.4	12.9
162.5°	1.2	1.2	1.2	1.2	1.2	1.8	2.5	3.7	5.5	7.4	9.2
165°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.5	3.7	4.3	6.1
167.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	2.5	3.1
170°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	1.2	1.2
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°	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2	1249.2
2.5°	1250.4	1250.4	1251.0	1251.0	1251.0	1250.4	1251.0	1250.4	1250.4	1250.4
5°	1247.3	1247.9	1248.5	1249.2	1249.2	1249.2	1249.2	1248.5	1249.2	1249.2
7.5°	1244.9	1244.9	1246.1	1246.7	1247.3	1247.3	1247.3	1247.3	1247.9	1247.9
10°	1239.3	1240.6	1241.8	1243.0	1243.0	1243.6	1244.2	1243.6	1244.2	1244.2
12.5°	1231.4	1232.6	1234.4	1235.7	1236.9	1236.3	1237.5	1237.5	1237.5	1237.5
15°	1221.0	1223.4	1224.6	1226.5	1227.7	1228.3	1228.3	1229.5	1229.5	1229.5
17.5°	1208.1	1211.2	1213.0	1215.4	1216.1	1217.3	1217.9	1217.9	1219.1	1219.1
20°	1194.0	1196.4	1198.9	1201.3	1202.6	1203.8	1205.0	1205.0	1205.6	1206.9
22.5°	1175.6	1179.9	1182.3	1185.4	1187.2	1187.2	1188.5	1190.3	1190.3	1190.9
25°	1156.0	1159.7	1163.3	1166.4	1167.0	1168.2	1170.1	1171.3	1173.1	1171.3
27.5°	1134.5	1138.8	1143.1	1145.6	1146.2	1147.4	1149.9	1151.1	1151.7	1152.9
30°	1109.4	1114.9	1119.2	1121.7	1122.9	1124.7	1126.6	1127.8	1129.6	1129.6
32.5°	1083.7	1088.0	1094.1	1097.1	1099.0	1100.8	1102.0	1103.9	1105.1	1105.1
35°	1055.5	1061.6	1064.0	1069.6	1070.8	1072.0	1075.1	1076.9	1076.9	1076.3
37.5°	1027.3	1032.2	1035.2	1040.1	1042.6	1043.2	1045.7	1046.9	1048.7	1048.1
40°	992.3	1000.3	1005.2	1007.7	1010.1	1013.2	1014.4	1016.2	1018.1	1017.5
42.5°	959.8	963.5	970.9	975.8	977.0	978.9	981.9	983.1	985.6	985.0
45°	922.5	929.8	934.7	939.0	941.5	943.9	945.8	947.6	950.7	948.2
47.5°	885.1	891.2	897.9	903.5	904.7	907.1	909.6	912.0	913.3	912.0
50°	845.2	851.4	858.1	862.4	864.8	866.7	871.0	873.4	874.0	875.3
52.5°	803.6	812.1	817.0	822.6	825.0	828.7	830.5	834.2	833.0	832.4
55°	759.4	764.9	773.5	779.0	781.5	782.7	785.8	788.8	788.8	791.3
57.5°	712.2	721.4	728.2	734.3	735.5	739.2	742.3	744.1	745.3	745.9
60°	665.0	674.2	681.0	688.3	690.2	692.6	694.5	697.5	700.0	700.0
62.5°	616.6	624.0	632.5	638.7	641.1	643.6	647.9	650.3	651.5	652.8
65°	567.6	576.8	582.3	590.3	592.7	594.5	595.8	602.5	601.9	601.9
67.5°	516.1	522.8	531.4	539.4	541.2	543.7	547.3	551.6	551.0	553.5
70°	464.0	471.3	481.2	486.7	491.0	494.0	494.6	498.3	501.4	502.0
72.5°	409.4	419.9	428.4	434.6	437.0	441.3	445.0	448.7	449.3	449.3
75°	357.3	365.9	375.7	381.2	384.3	387.4	391.0	396.0	396.0	396.6
77.5°	306.5	316.9	323.6	329.8	333.4	335.3	341.4	342.6	344.5	348.1
80°	255.0	264.2	273.4	280.1	283.2	286.2	291.1	294.2	296.0	297.3
82.5°	210.2	219.4	228.6	235.4	238.4	242.1	244.6	250.7	251.9	251.9
85°	169.8	180.2	190.0	196.1	199.8	203.5	207.8	212.1	213.3	215.1
87.5°	143.4	153.8	162.4	170.4	173.5	175.9	180.8	185.1	186.3	186.9
90°	128.7	138.5	148.3	155.7	159.4	161.8	167.3	170.4	172.2	172.8
92.5°	124.4	134.2	143.4	150.8	154.5	156.9	161.8	165.5	167.3	167.9
95°	122.6	132.4	141.0	148.9	152.0	155.1	160.0	163.0	164.9	165.5
97.5°	120.7	130.6	139.1	146.5	150.2	153.2	157.5	161.2	163.0	163.7
100°	118.3	128.1	136.7	144.0	147.1	150.2	155.1	158.1	160.0	160.6
102.5°	115.8	125.0	133.6	141.0	144.0	147.1	151.4	155.1	156.9	157.5
105°	112.8	122.0	130.6	137.3	141.0	143.4	148.3	151.4	153.8	154.5
107.5°	109.7	118.9	126.9	134.2	137.3	139.7	144.7	148.3	150.2	150.2
110°	106.0	115.2	123.2	130.6	133.6	136.1	140.4	144.0	145.9	146.5



TEST NUMBER: P241585

CATALOG NUMBER: FVS8M-3-LD4-30-3LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	103.0	111.6	119.5	126.3	129.3	131.8	136.1	139.7	141.0	141.6
115°	98.7	107.9	115.2	122.0	125.0	127.5	131.8	134.8	136.7	137.3
117.5°	95.0	103.6	110.9	117.7	120.1	122.6	126.9	129.9	131.8	132.4
120°	91.3	99.3	106.6	112.8	115.8	118.3	122.0	125.0	126.9	127.5
122.5°	87.0	95.0	102.4	107.9	110.9	112.8	117.1	120.1	122.0	122.6
125°	83.4	90.7	97.5	103.0	106.0	107.9	111.6	114.6	116.5	117.1
127.5°	79.1	86.4	92.6	98.1	100.5	103.0	106.0	109.1	110.3	110.9
130°	74.8	81.5	87.6	92.6	95.0	96.8	100.5	103.0	104.8	105.4
132.5°	69.9	76.6	82.1	87.0	89.5	91.3	95.0	97.5	98.7	99.3
135°	65.6	71.7	77.2	81.5	84.0	85.8	88.9	91.3	92.6	93.2
137.5°	60.7	66.8	71.7	76.0	78.5	79.7	82.7	85.2	86.4	87.0
140°	55.8	61.3	66.2	70.5	72.3	74.2	76.6	78.5	79.7	80.3
142.5°	51.5	56.4	60.7	64.4	66.2	68.0	70.5	72.3	73.6	74.2
145°	46.6	50.9	55.2	58.8	60.7	61.9	64.4	66.2	66.8	67.4
147.5°	41.7	46.0	49.6	53.3	54.6	55.8	58.2	59.5	60.7	60.7
150°	36.2	40.5	44.1	47.2	48.4	49.6	51.5	52.7	53.9	54.6
152.5°	30.6	34.9	38.6	41.1	42.3	43.5	45.4	46.6	47.2	47.8
155°	25.1	28.8	33.1	35.5	36.8	37.4	38.6	39.8	40.5	40.5
157.5°	19.6	23.3	26.4	29.4	30.0	31.3	32.5	33.7	33.7	34.3
160°	15.3	17.8	20.2	23.3	23.9	25.1	26.4	27.0	27.6	27.6
162.5°	11.0	12.9	14.7	17.2	17.8	19.0	20.2	20.8	20.8	21.5
165°	7.4	8.6	9.8	11.6	12.3	12.9	14.1	14.7	14.7	15.3
167.5°	4.3	4.9	6.1	6.7	7.4	7.4	8.6	9.2	9.2	9.2
170°	1.8	1.8	2.5	3.1	3.1	3.1	3.7	4.3	4.3	4.3
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)