

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: P241327

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241327
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-8)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-40-2STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH P125 LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

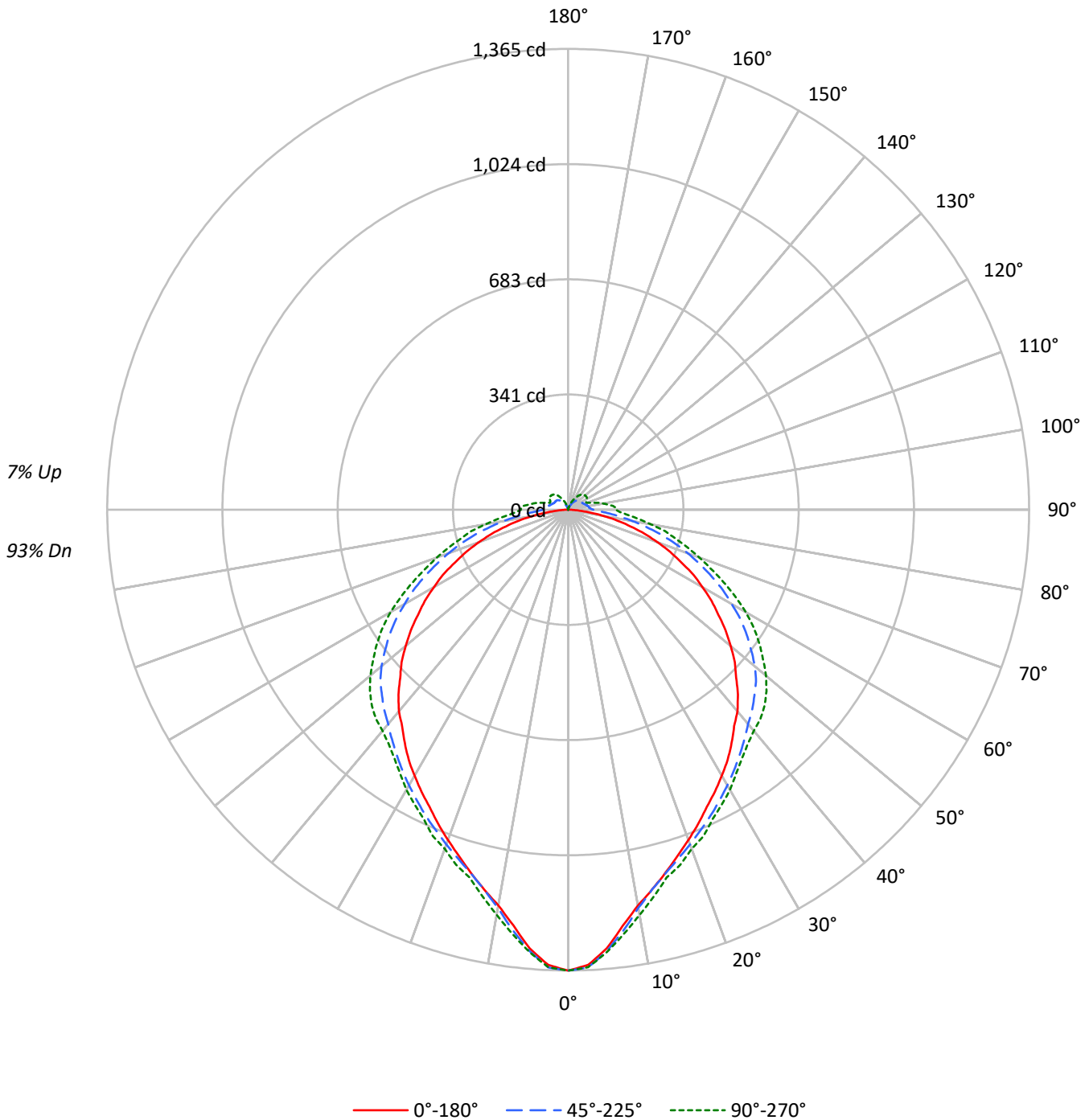
Lumens per Lamp: N/A
Luminaire Lumens: 3718.0 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.05 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 33.6
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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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	50	30	10	50	30	10	0		
RCR																										
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93					93			
1	106	101	97	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76					76			
2	96	88	80	74	93	85	79	73	81	75	70	76	72	68	72	69	65	63					63			
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	52					52			
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	56	51	47	44					44			
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	51	45	41	38					38			
6	68	54	45	39	65	53	44	38	50	43	37	48	42	36	46	40	36	33					33			
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30					30			
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	39	33	28	26					26			
9	55	41	33	27	53	40	32	27	39	31	27	37	31	26	36	30	26	24					24			
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21					21			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12271	12271	12271
5°	11691	11619	11637
10°	10712	10529	10697
15°	10144	9807	9896
20°	9680	9357	9446
25°	9293	9005	9075
30°	9034	8702	8798
35°	8773	8442	8505
40°	8582	8237	8434
45°	8291	8155	8527
50°	8031	8029	8428
55°	7650	7735	8191
60°	7256	7324	7853
65°	6721	6841	7277
70°	6071	6221	6708
75°	5123	5473	6174
80°	3752	4505	5613
85°	1868	3466	5072



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.5	3.3
10°-20°	316.0	8.5
20°-30°	459.9	12.4
30°-40°	551.8	14.8
40°-50°	595.1	16.0
50°-60°	563.7	15.2
60°-70°	449.3	12.1
70°-80°	288.1	7.7
80°-90°	128.0	3.4
90°-100°	67.5	1.8
100°-110°	51.4	1.4
110°-120°	38.4	1.0
120°-130°	34.8	0.9
130°-140°	27.3	0.7
140°-150°	16.7	0.4
150°-160°	6.9	0.2
160°-170°	1.5	0.0
170°-180°	0.0	0.0
0°-30°	897.4	24.1
0°-40°	1449.2	39.0
0°-60°	2608.1	70.1
0°-90°	3473.4	93.4
90°-120°	157.3	4.2
90°-150°	236.1	6.4
90°-180°	245.0	6.6
0°-180°	3718.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1365	1365	1365	1365	1365	
5°	1305	1307	1312	1317	1315	121
15°	1113	1110	1115	1128	1128	314
25°	971	982	999	1013	1011	449
35°	844	862	885	902	898	528
45°	704	731	780	818	822	544
55°	543	583	645	680	691	487
65°	369	411	470	493	508	367
75°	191	227	284	319	328	203
85°	34	66	116	156	176	44
90°	0	30	74	102	140	2
95°	0	27	63	92	133	0
105°	0	25	55	75	80	0
115°	0	21	47	55	58	0
125°	0	18	45	60	66	0
135°	0	15	39	56	63	0
145°	1	10	29	43	49	0
155°	1	4	16	25	28	0
165°	1	1	4	9	10	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°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2
2.5°	1349.6	1349.6	1349.6	1349.6	1351.3	1350.5	1352.1	1352.9	1354.5	1355.4	1357.0
5°	1304.6	1304.6	1303.0	1303.8	1304.6	1307.0	1306.2	1309.5	1311.1	1313.6	1312.0
7.5°	1242.4	1245.6	1244.0	1244.8	1244.0	1245.6	1248.9	1249.7	1253.8	1256.3	1256.3
10°	1189.9	1189.9	1186.7	1187.5	1187.5	1189.1	1189.1	1191.6	1194.0	1198.1	1197.3
12.5°	1151.4	1151.4	1147.4	1148.2	1145.7	1146.5	1146.5	1147.4	1149.0	1151.4	1151.4
15°	1113.0	1109.7	1109.7	1111.3	1111.3	1110.5	1111.3	1111.3	1111.3	1113.0	1114.6
17.5°	1075.3	1075.3	1076.1	1075.3	1076.9	1076.1	1076.1	1078.6	1080.2	1080.2	1083.5
20°	1040.9	1041.7	1040.9	1043.3	1045.8	1045.8	1045.8	1048.3	1048.3	1051.5	1054.8
22.5°	1006.5	1007.3	1009.8	1008.9	1012.2	1012.2	1011.4	1016.3	1018.8	1022.1	1026.1
25°	971.3	972.1	973.7	977.0	978.6	981.9	983.6	986.0	992.6	994.2	999.1
27.5°	941.0	940.2	941.8	948.3	948.3	950.8	954.1	959.8	960.6	968.0	970.5
30°	909.9	909.9	909.9	917.2	918.9	922.1	925.4	930.3	934.4	938.5	942.6
32.5°	878.7	875.5	877.9	883.6	891.8	891.8	893.5	901.7	904.9	909.9	914.8
35°	843.5	844.3	847.6	850.9	858.3	862.4	865.6	870.5	874.6	878.7	885.3
37.5°	807.5	810.8	814.0	818.1	823.0	828.0	831.2	837.8	846.8	850.9	857.4
40°	779.6	778.0	780.5	783.7	789.5	794.4	800.1	807.5	815.7	822.2	828.8
42.5°	743.6	742.0	748.5	751.0	760.0	761.6	768.2	777.2	787.8	796.8	805.8
45°	703.5	706.8	710.9	718.2	724.0	731.3	737.1	746.1	760.0	771.5	779.6
47.5°	669.1	668.3	673.2	681.4	690.4	696.1	701.8	714.9	729.7	742.0	754.3
50°	628.1	630.6	635.5	644.5	656.0	659.3	664.2	680.5	694.5	710.0	721.5
52.5°	587.2	588.0	595.4	604.4	616.7	622.4	629.8	643.7	657.6	671.5	683.0
55°	543.0	545.4	555.2	563.4	576.5	583.1	591.3	605.2	619.9	633.9	645.3
57.5°	503.7	505.3	511.8	522.5	536.4	541.3	550.3	565.9	579.0	593.7	605.2
60°	458.6	461.9	468.4	481.5	492.2	497.1	506.9	521.7	534.8	548.7	559.3
62.5°	418.5	418.5	424.2	437.3	448.0	454.5	462.7	475.0	490.6	502.8	516.8
65°	369.3	374.3	382.5	391.5	403.7	411.1	416.8	429.9	443.1	457.0	470.1
67.5°	326.8	330.0	335.8	346.4	360.3	363.6	372.6	385.7	397.2	409.5	421.8
70°	280.9	283.4	290.7	301.4	312.8	316.9	325.1	337.4	349.7	363.6	376.7
72.5°	237.5	239.1	247.3	255.5	267.0	274.3	279.3	289.9	303.8	318.6	330.9
75°	190.8	194.1	200.6	209.7	221.1	226.8	233.4	244.9	258.0	271.1	284.2
77.5°	149.9	149.9	156.4	166.2	176.1	182.6	188.4	200.6	213.7	225.2	236.7
80°	104.8	108.9	113.8	122.8	133.5	140.9	144.1	155.6	168.7	180.2	193.3
82.5°	68.0	70.4	76.2	85.2	95.0	99.1	104.8	116.3	128.6	141.7	152.3
85°	34.4	37.7	43.4	51.6	61.4	66.3	71.2	83.5	93.4	104.8	116.3
87.5°	13.1	14.7	20.5	28.7	37.7	42.6	46.7	57.3	67.2	78.6	90.1
90°	0.0	3.3	9.0	16.4	25.4	29.5	34.4	44.2	53.2	63.9	74.5
92.5°	0.0	2.5	7.4	14.7	22.9	27.8	31.9	40.9	50.0	59.8	67.2
95°	0.0	2.5	7.4	14.7	22.9	27.0	31.1	40.1	49.1	57.3	63.1
97.5°	0.0	1.6	7.4	14.7	22.1	26.2	30.3	39.3	47.5	54.9	61.4
100°	0.0	1.6	6.6	13.9	21.3	25.4	30.3	38.5	45.0	52.4	59.8
102.5°	0.0	1.6	6.6	13.1	21.3	25.4	29.5	36.9	43.4	50.8	57.3
105°	0.0	1.6	5.7	13.1	20.5	24.6	27.8	35.2	42.6	49.1	54.9
107.5°	0.0	1.6	5.7	12.3	19.7	22.9	27.0	34.4	40.9	46.7	52.4
110°	0.0	1.6	5.7	11.5	18.8	22.9	26.2	33.6	39.3	45.0	50.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.8	4.9	10.6	18.8	22.1	25.4	31.9	38.5	43.4	48.3
115°	0.0	0.8	4.9	10.6	18.0	21.3	24.6	31.1	36.9	42.6	46.7
117.5°	0.0	0.8	4.9	10.6	17.2	20.5	24.6	30.3	36.0	41.8	45.9
120°	0.0	0.8	4.1	9.8	16.4	19.7	23.7	30.3	36.0	40.9	45.0
122.5°	0.0	0.8	4.1	9.8	15.6	18.8	22.9	29.5	35.2	40.9	45.0
125°	0.0	0.8	4.1	9.0	15.6	18.0	22.1	28.7	35.2	40.1	45.0
127.5°	0.0	0.8	3.3	9.0	14.7	18.0	21.3	27.8	33.6	39.3	44.2
130°	0.0	0.8	3.3	8.2	13.9	17.2	20.5	26.2	32.8	38.5	43.4
132.5°	0.0	0.8	3.3	7.4	13.1	16.4	18.8	24.6	30.3	36.9	41.8
135°	0.0	0.8	2.5	6.6	12.3	14.7	18.0	23.7	28.7	34.4	39.3
137.5°	0.0	0.8	2.5	6.6	11.5	13.9	17.2	22.1	27.0	31.9	36.9
140°	0.0	0.0	1.6	5.7	9.8	12.3	15.6	20.5	25.4	30.3	34.4
142.5°	0.8	0.0	1.6	4.9	9.0	11.5	13.9	18.8	23.7	27.8	31.9
145°	0.8	0.0	0.8	4.1	7.4	9.8	11.5	16.4	21.3	25.4	28.7
147.5°	0.8	0.0	0.8	3.3	6.6	8.2	9.8	13.9	18.0	22.1	26.2
150°	0.8	0.0	0.8	2.5	4.9	6.6	8.2	11.5	15.6	19.7	22.9
152.5°	0.8	0.8	0.8	1.6	4.1	4.9	6.6	9.8	13.1	16.4	18.8
155°	0.8	0.8	0.8	0.8	2.5	4.1	4.9	7.4	10.6	13.1	15.6
157.5°	0.8	0.8	0.0	0.8	1.6	2.5	3.3	5.7	8.2	9.8	12.3
160°	0.8	0.8	0.0	0.8	1.6	1.6	2.5	4.1	5.7	7.4	9.0
162.5°	0.8	0.8	0.0	0.8	0.8	0.8	1.6	2.5	4.1	4.9	6.6
165°	0.8	0.8	0.8	0.0	0.8	0.8	0.8	1.6	2.5	3.3	4.1
167.5°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.8	0.8	1.6	2.5
170°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8
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°	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2	1365.2
2.5°	1358.6	1357.8	1357.8	1357.0	1357.8	1357.0	1357.0	1357.8	1357.0	1356.2
5°	1316.1	1316.9	1317.7	1316.1	1316.9	1316.1	1316.1	1315.2	1316.1	1315.2
7.5°	1257.9	1260.4	1262.0	1261.2	1263.6	1262.8	1264.5	1266.1	1266.9	1266.9
10°	1200.6	1202.2	1204.7	1208.0	1209.6	1211.2	1213.7	1217.0	1217.8	1218.6
12.5°	1154.7	1158.0	1158.8	1160.5	1162.1	1161.3	1167.0	1169.5	1173.6	1172.7
15°	1116.2	1121.1	1122.8	1127.7	1128.5	1130.2	1135.1	1131.0	1130.2	1127.7
17.5°	1085.9	1090.8	1091.7	1091.7	1092.5	1094.9	1099.9	1100.7	1102.3	1103.1
20°	1056.4	1059.7	1063.0	1065.5	1067.1	1067.9	1070.4	1067.1	1067.9	1068.7
22.5°	1027.8	1031.1	1036.0	1038.4	1041.7	1044.2	1044.2	1043.3	1041.7	1046.6
25°	1004.0	1006.5	1011.4	1011.4	1013.0	1015.5	1012.2	1014.7	1013.0	1011.4
27.5°	975.4	981.9	983.6	985.2	986.8	986.0	986.0	985.2	985.2	984.4
30°	949.2	951.6	956.5	957.4	959.0	960.6	960.6	962.3	957.4	958.2
32.5°	922.1	925.4	931.1	932.8	933.6	933.6	931.1	926.2	927.1	926.2
35°	890.2	897.6	903.3	903.3	902.5	903.3	901.7	900.8	898.4	897.6
37.5°	860.7	867.3	873.8	876.3	875.5	877.1	874.6	873.0	873.0	873.8
40°	836.1	841.1	847.6	852.5	852.5	854.2	854.2	854.2	855.8	855.0
42.5°	811.6	820.6	828.8	837.0	839.4	839.4	838.6	839.4	841.1	841.9
45°	791.1	800.9	809.1	815.7	818.1	818.1	819.8	822.2	821.4	822.2
47.5°	765.7	771.5	780.5	785.4	787.0	789.5	791.9	791.9	793.6	796.0
50°	730.5	737.9	745.2	753.4	755.9	755.9	760.0	762.4	763.3	764.9
52.5°	692.8	703.5	710.0	716.6	718.2	719.9	722.3	724.0	724.8	727.2
55°	653.5	665.0	669.9	677.3	680.5	684.6	682.2	688.7	689.6	691.2
57.5°	615.9	624.0	633.0	637.1	637.1	640.4	646.2	647.8	651.1	651.9
60°	569.2	579.0	587.2	588.8	592.1	592.9	597.0	601.1	605.2	607.7
62.5°	523.3	532.3	539.7	542.1	543.8	545.4	550.3	554.4	558.5	557.7
65°	477.4	486.5	492.2	493.0	493.0	497.9	501.2	502.0	507.8	507.8
67.5°	432.4	441.4	444.7	449.6	450.4	449.6	452.1	456.2	460.3	457.0
70°	386.5	393.9	399.6	406.2	404.6	404.6	406.2	409.5	411.1	413.6
72.5°	339.9	348.1	354.6	359.5	361.2	363.6	364.4	366.1	366.9	368.5
75°	294.8	302.2	311.2	317.8	318.6	321.0	323.5	325.1	325.1	327.6
77.5°	249.0	260.4	267.0	275.2	275.2	278.4	285.8	287.5	292.4	294.0
80°	204.7	214.6	226.0	233.4	237.5	241.6	242.4	242.4	244.9	247.3
82.5°	164.6	174.4	187.5	193.3	195.7	196.5	203.1	205.6	208.8	210.5
85°	129.4	142.5	148.2	154.0	156.4	158.1	163.8	167.9	173.6	176.1
87.5°	103.2	108.9	114.7	120.4	122.8	125.3	132.7	138.4	148.2	153.1
90°	81.9	86.8	92.5	99.9	102.4	106.5	113.8	122.0	133.5	140.0
92.5°	72.9	78.6	84.4	91.7	95.8	99.1	107.3	117.9	132.7	140.0
95°	69.6	76.2	82.7	88.4	91.7	95.8	104.8	117.1	128.6	132.7
97.5°	68.8	74.5	79.4	86.0	89.3	93.4	102.4	109.7	114.7	117.1
100°	65.5	71.2	77.0	82.7	86.8	89.3	95.0	100.7	104.0	105.6
102.5°	63.1	68.0	73.7	78.6	81.1	83.5	88.4	92.5	94.2	94.2
105°	60.6	64.7	69.6	72.9	75.3	77.0	79.4	80.3	80.3	80.3
107.5°	57.3	61.4	64.7	67.2	68.0	68.8	68.8	68.8	68.0	67.2
110°	54.1	58.1	59.8	60.6	60.6	60.6	60.6	60.6	60.6	59.8



TEST NUMBER: P241327

CATALOG NUMBER: FVS8M-2-LD4-40-2STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	51.6	54.1	55.7	56.5	55.7	56.5	56.5	57.3	57.3	57.3
115°	50.0	52.4	53.2	54.1	54.9	54.9	56.5	57.3	58.1	58.1
117.5°	49.1	51.6	53.2	55.7	55.7	56.5	58.1	59.8	60.6	60.6
120°	49.1	51.6	54.9	57.3	58.1	59.0	60.6	62.2	63.1	63.1
122.5°	49.1	52.4	55.7	58.1	59.8	60.6	62.2	63.9	64.7	65.5
125°	49.1	52.4	56.5	59.0	59.8	61.4	63.1	64.7	65.5	66.3
127.5°	48.3	52.4	55.7	59.0	59.8	60.6	63.1	64.7	65.5	66.3
130°	47.5	51.6	54.9	57.3	59.0	59.8	62.2	63.9	64.7	65.5
132.5°	45.9	50.0	53.2	56.5	57.3	59.0	61.4	63.1	63.9	64.7
135°	44.2	48.3	51.6	54.9	55.7	57.3	59.8	61.4	63.1	63.1
137.5°	41.8	45.9	49.1	52.4	54.1	54.9	57.3	59.8	60.6	61.4
140°	39.3	42.6	46.7	49.1	50.8	52.4	54.1	56.5	57.3	58.1
142.5°	36.0	39.3	42.6	45.9	47.5	48.3	50.8	52.4	54.1	54.1
145°	32.8	35.2	38.5	41.8	42.6	43.4	45.9	47.5	48.3	49.1
147.5°	29.5	31.9	35.2	36.9	37.7	39.3	40.9	42.6	42.6	43.4
150°	25.4	27.8	30.3	31.9	33.6	34.4	36.0	36.9	37.7	37.7
152.5°	22.1	23.7	26.2	27.8	28.7	29.5	30.3	31.9	31.9	32.8
155°	18.0	20.5	22.1	23.7	24.6	25.4	26.2	27.0	27.0	27.8
157.5°	14.7	16.4	18.0	19.7	20.5	20.5	22.1	22.1	22.9	22.1
160°	11.5	13.1	14.7	15.6	16.4	16.4	17.2	18.0	18.0	18.0
162.5°	8.2	9.8	10.6	12.3	12.3	12.3	13.1	13.9	13.9	13.9
165°	5.7	6.6	7.4	8.2	9.0	9.0	9.0	9.8	9.8	9.8
167.5°	3.3	3.3	4.1	4.9	4.9	5.7	5.7	5.7	6.6	6.6
170°	0.8	1.6	1.6	2.5	2.5	2.5	2.5	2.5	3.3	3.3
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)