

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: P241350

Luminaire Tested: **FVS8M-3-LD4-35-1STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241350
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-35-1STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

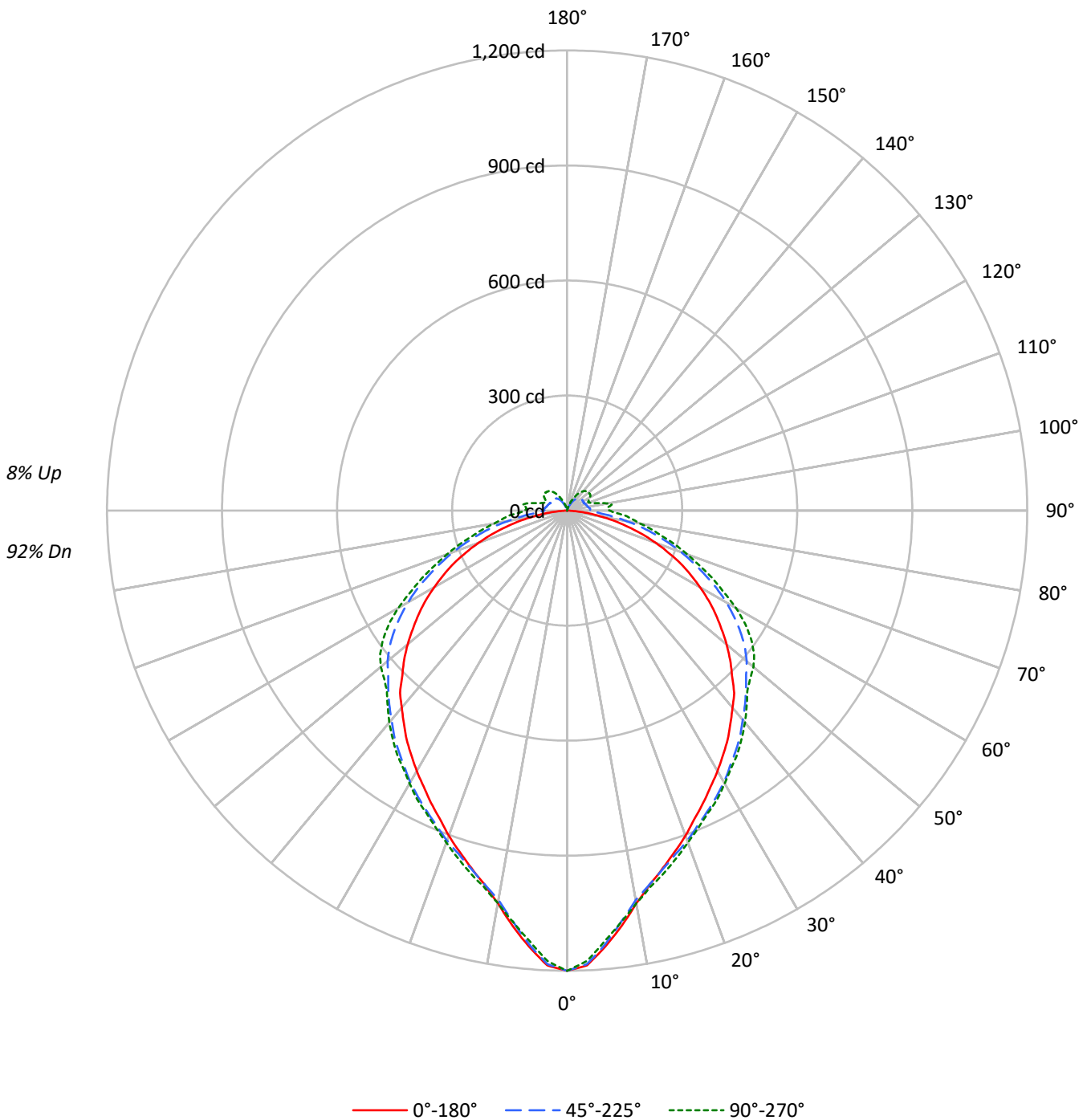
Lumens per Lamp: N/A
Luminaire Lumens: 3205.0 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 28.5
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	106	101	97	92	103	98	94	90	92	89	86	87	84	82	82	80	78	76
2	96	88	81	75	93	85	79	73	80	75	70	76	71	68	72	68	65	62
3	88	77	68	62	84	75	67	61	70	64	59	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	62	55	50	59	53	48	56	51	47	44
5	74	60	51	45	71	59	50	44	56	49	43	53	47	42	50	45	41	38
6	68	54	45	39	65	53	45	38	50	43	37	48	41	37	46	40	36	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	29
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	38	33	28	26
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	35	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7008	7008	7008
5°	6662	6546	6478
10°	6110	5908	5929
15°	5754	5556	5575
20°	5504	5314	5288
25°	5288	5110	5069
30°	5136	4957	4901
35°	5021	4803	4766
40°	4904	4665	4623
45°	4778	4555	4476
50°	4651	4504	4540
55°	4489	4392	4513
60°	4298	4183	4272
65°	4066	3858	3896
70°	3682	3516	3509
75°	3132	3067	3131
80°	2378	2503	2834
85°	1239	1854	2864



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.2	3.3
10°-20°	273.4	8.5
20°-30°	397.9	12.4
30°-40°	476.2	14.9
40°-50°	503.1	15.7
50°-60°	481.8	15.0
60°-70°	380.0	11.9
70°-80°	237.5	7.4
80°-90°	103.6	3.2
90°-100°	59.1	1.8
100°-110°	49.8	1.6
110°-120°	40.2	1.3
120°-130°	37.9	1.2
130°-140°	30.5	1.0
140°-150°	19.5	0.6
150°-160°	7.7	0.2
160°-170°	1.5	0.0
170°-180°	0.0	0.0
0°-30°	776.5	24.2
0°-40°	1252.7	39.1
0°-60°	2237.6	69.8
0°-90°	2958.7	92.3
90°-120°	149.1	4.7
90°-150°	237.1	7.4
90°-180°	246.0	7.7
0°-180°	3205.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1200	1200	1200	1200	1200	
5°	1142	1138	1136	1130	1127	106
15°	965	959	967	977	978	272
25°	840	852	866	874	870	388
35°	730	748	766	780	774	456
45°	608	631	660	668	664	470
55°	473	504	552	579	586	423
65°	326	355	396	410	418	321
75°	165	195	235	252	256	176
85°	29	55	90	128	153	37
90°	0	24	59	86	111	1
95°	0	24	60	78	108	0
105°	0	24	53	73	75	0
115°	0	23	48	57	62	0
125°	0	21	48	64	73	0
135°	1	18	44	61	71	1
145°	1	11	35	50	56	1
155°	1	5	17	28	30	0
165°	1	2	4	8	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°	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2
2.5°	1187.1	1183.9	1181.5	1183.9	1182.3	1183.1	1183.9	1185.5	1185.5	1187.1	1183.9
5°	1141.6	1141.6	1138.3	1140.7	1139.9	1138.3	1139.1	1139.9	1140.7	1139.1	1135.9
7.5°	1091.9	1087.8	1086.2	1083.7	1082.1	1083.7	1082.9	1083.7	1084.6	1084.6	1081.3
10°	1039.8	1038.1	1033.3	1034.1	1033.3	1034.1	1036.5	1037.3	1034.9	1032.4	1030.8
12.5°	998.2	993.4	993.4	995.0	994.2	995.0	992.5	990.1	994.2	997.4	997.4
15°	964.9	960.8	958.4	961.6	960.8	959.2	960.0	960.8	963.2	965.7	967.3
17.5°	933.1	929.9	928.2	931.5	930.7	930.7	931.5	934.7	939.6	939.6	939.6
20°	902.2	898.1	898.9	903.8	903.8	905.4	906.2	908.7	911.9	915.2	916.0
22.5°	868.8	868.0	869.6	874.5	875.3	876.9	880.2	885.1	886.7	888.3	889.1
25°	840.3	838.7	843.5	846.0	850.1	852.5	854.9	857.4	863.1	865.5	865.5
27.5°	811.0	811.0	814.2	819.1	823.2	828.1	830.5	833.0	837.0	840.3	841.9
30°	784.1	781.7	785.7	792.2	798.8	802.0	803.6	807.7	811.8	815.9	818.3
32.5°	756.4	754.8	759.7	763.7	771.1	772.7	775.1	782.5	785.7	788.2	790.6
35°	729.6	727.9	731.2	737.7	745.0	748.3	749.1	757.2	761.3	763.7	766.2
37.5°	699.4	701.9	703.5	710.0	714.9	718.2	722.2	728.7	734.4	736.9	741.0
40°	670.9	672.6	674.2	679.9	687.2	690.5	692.9	701.9	707.6	710.8	712.5
42.5°	644.9	641.6	644.9	652.2	657.1	661.2	664.4	671.7	678.3	685.6	686.4
45°	608.2	610.7	616.4	622.9	629.4	631.0	634.3	642.4	648.1	655.5	659.5
47.5°	576.5	579.7	582.2	589.5	597.6	600.1	604.2	612.3	622.1	629.4	632.7
50°	543.1	547.2	550.4	556.9	565.1	569.1	574.8	584.6	593.6	603.3	611.5
52.5°	507.3	512.2	517.9	521.9	532.5	536.6	541.5	553.7	565.9	575.7	583.8
55°	473.1	477.1	483.7	489.4	499.9	504.0	508.9	521.9	535.0	543.9	552.0
57.5°	438.1	439.7	445.4	452.7	463.3	470.6	474.7	486.9	498.3	508.1	517.0
60°	400.6	403.9	408.7	416.9	429.1	432.4	437.2	451.1	462.5	472.3	479.6
62.5°	363.1	366.4	371.3	381.1	387.6	393.3	400.6	412.8	421.8	429.9	439.7
65°	326.5	328.1	333.0	342.0	350.9	355.0	359.9	371.3	380.2	390.0	396.5
67.5°	285.0	289.1	294.8	301.3	310.2	315.9	320.0	328.9	340.3	351.7	355.8
70°	245.9	249.2	254.0	260.6	270.3	274.4	280.1	289.9	299.6	310.2	316.7
72.5°	206.8	209.3	212.5	220.7	229.6	234.5	239.4	249.2	261.4	268.7	275.2
75°	165.3	169.4	174.2	181.6	189.7	195.4	199.5	209.3	218.2	226.4	235.3
77.5°	127.8	131.1	136.0	141.7	152.3	158.0	161.2	170.2	179.9	185.6	196.2
80°	91.2	93.6	99.3	105.9	114.0	118.1	122.9	131.1	139.2	147.4	157.1
82.5°	57.8	59.4	65.1	71.7	79.8	83.9	87.9	96.1	103.4	113.2	121.3
85°	29.3	30.9	36.6	42.3	51.3	54.6	57.0	66.0	74.9	82.2	89.6
87.5°	9.0	11.4	16.3	22.8	30.1	33.4	36.6	44.8	52.1	60.3	69.2
90°	0.0	2.4	7.3	13.0	20.4	24.4	27.7	35.8	44.0	52.1	59.4
92.5°	0.0	2.4	6.5	13.0	20.4	24.4	27.7	35.8	44.0	51.3	60.3
95°	0.0	2.4	6.5	13.0	20.4	24.4	28.5	35.8	44.0	52.9	60.3
97.5°	0.0	1.6	6.5	13.0	20.4	24.4	28.5	35.8	44.8	52.1	57.0
100°	0.0	1.6	6.5	13.0	20.4	24.4	27.7	36.6	44.0	49.7	55.4
102.5°	0.0	1.6	6.5	13.0	20.4	24.4	28.5	35.8	41.5	48.0	53.7
105°	0.0	1.6	6.5	13.0	20.4	24.4	27.7	34.2	40.7	47.2	52.9
107.5°	0.0	1.6	6.5	13.0	19.5	23.6	26.9	33.4	39.9	46.4	51.3
110°	0.0	1.6	5.7	12.2	19.5	22.8	26.9	33.4	39.9	45.6	50.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.6	5.7	12.2	19.5	22.8	26.1	33.4	39.1	44.8	48.9
115°	0.0	1.6	5.7	12.2	18.7	22.8	26.1	33.4	39.1	44.8	48.0
117.5°	0.0	1.6	5.7	12.2	18.7	22.8	26.1	32.6	39.1	44.0	48.0
120°	0.0	0.8	5.7	11.4	18.7	22.0	26.1	32.6	39.1	44.0	48.0
122.5°	0.0	0.8	4.9	11.4	17.9	22.0	25.2	32.6	38.3	44.0	48.0
125°	0.0	0.8	4.9	11.4	17.9	21.2	24.4	31.8	38.3	44.0	48.0
127.5°	0.8	0.8	4.9	10.6	17.1	20.4	23.6	30.9	37.5	43.2	48.0
130°	0.0	0.8	4.1	9.8	16.3	19.5	22.8	30.1	36.6	41.5	46.4
132.5°	0.8	0.8	4.1	9.0	15.5	18.7	22.0	28.5	35.8	40.7	45.6
135°	0.8	0.8	3.3	8.1	14.7	17.9	21.2	26.9	34.2	39.1	44.0
137.5°	0.8	0.8	3.3	7.3	13.0	16.3	19.5	26.1	31.8	37.5	42.3
140°	0.8	0.8	2.4	6.5	12.2	14.7	17.9	24.4	30.1	35.8	40.7
142.5°	0.8	0.8	2.4	5.7	10.6	13.0	16.3	22.0	27.7	33.4	38.3
145°	0.8	0.8	1.6	4.9	9.0	11.4	13.8	19.5	25.2	30.1	35.0
147.5°	0.8	0.8	1.6	4.1	7.3	9.8	12.2	17.1	22.0	26.9	30.9
150°	0.8	0.8	0.8	3.3	5.7	7.3	9.8	13.8	17.9	22.0	26.1
152.5°	0.8	0.8	0.8	2.4	4.9	5.7	7.3	11.4	14.7	17.9	21.2
155°	0.8	0.8	0.8	1.6	3.3	4.9	5.7	8.1	11.4	13.8	17.1
157.5°	0.8	0.8	0.8	1.6	2.4	3.3	4.1	6.5	8.1	10.6	13.0
160°	0.8	0.8	0.8	0.8	1.6	2.4	3.3	4.1	5.7	7.3	9.0
162.5°	0.8	0.8	0.8	0.8	1.6	1.6	2.4	3.3	4.1	4.9	6.5
165°	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4	3.3	3.3	4.1
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4	2.4
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6
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°	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2	1200.2
2.5°	1182.3	1180.6	1181.5	1181.5	1178.2	1180.6	1179.8	1178.2	1175.8	1175.8
5°	1133.4	1130.2	1130.2	1131.8	1130.2	1130.2	1131.0	1130.2	1131.0	1126.9
7.5°	1080.5	1078.0	1079.7	1080.5	1082.9	1082.1	1082.9	1082.1	1082.1	1082.1
10°	1031.6	1035.7	1034.9	1036.5	1039.0	1038.1	1039.8	1042.2	1041.4	1039.8
12.5°	997.4	1001.5	1001.5	1005.6	1005.6	1006.4	1008.8	1008.8	1004.8	1004.8
15°	969.7	970.6	971.4	977.9	977.1	978.7	980.3	978.7	977.9	977.9
17.5°	941.3	942.1	945.3	945.3	947.0	947.8	951.0	950.2	949.4	949.4
20°	916.8	918.5	922.5	925.0	925.8	923.3	925.8	924.2	924.2	920.9
22.5°	893.2	898.1	896.5	898.1	899.7	901.4	901.4	899.7	898.1	894.8
25°	868.8	870.4	872.9	874.5	874.5	873.7	873.7	872.9	871.2	869.6
27.5°	845.2	847.6	846.8	851.7	853.3	854.1	853.3	850.1	846.8	848.4
30°	819.9	822.4	825.6	828.9	829.7	824.8	824.0	824.8	821.6	821.6
32.5°	793.9	797.1	802.8	802.0	802.0	804.5	804.5	802.0	797.9	796.3
35°	768.6	775.1	776.8	781.7	780.0	777.6	775.1	775.1	772.7	774.3
37.5°	743.4	747.5	752.3	751.5	751.5	752.3	752.3	749.1	749.9	748.3
40°	717.3	720.6	723.9	723.9	725.5	725.5	723.0	720.6	720.6	721.4
42.5°	688.0	692.9	697.0	697.0	697.8	697.0	697.8	696.2	692.9	692.9
45°	663.6	665.2	668.5	669.3	668.5	668.5	666.0	666.0	665.2	664.4
47.5°	638.4	644.1	644.9	646.5	644.9	644.9	646.5	647.3	648.9	647.3
50°	615.6	622.9	627.8	630.2	630.2	631.8	632.7	632.7	635.1	634.3
52.5°	592.8	597.6	602.5	609.0	610.7	610.7	613.9	613.1	614.7	614.7
55°	560.2	566.7	572.4	577.3	578.9	582.2	581.4	583.8	583.8	586.2
57.5°	525.2	528.4	536.6	539.8	539.0	541.5	542.3	546.3	551.2	551.2
60°	487.7	490.2	494.2	494.2	495.9	496.7	501.6	504.0	505.6	508.9
62.5°	442.1	447.8	451.1	451.9	453.5	457.6	457.6	457.6	459.2	460.0
65°	403.0	406.3	409.6	412.8	410.4	411.2	412.0	412.8	415.3	418.5
67.5°	363.1	366.4	369.7	371.3	368.0	368.8	367.2	369.7	372.1	372.1
70°	321.6	325.7	330.6	329.8	326.5	328.1	327.3	330.6	332.2	333.0
72.5°	281.7	287.4	290.7	290.7	290.7	290.7	291.5	293.1	293.9	294.8
75°	241.0	246.7	250.8	254.0	252.4	254.9	256.5	257.3	256.5	255.7
77.5°	203.6	209.3	212.5	217.4	219.0	220.7	222.3	222.3	223.9	223.9
80°	162.8	170.2	175.9	182.4	184.8	188.1	188.9	191.3	191.3	192.2
82.5°	128.6	136.8	143.3	149.8	153.1	154.7	159.6	163.7	167.7	170.2
85°	98.5	107.5	114.0	122.1	127.8	134.3	143.3	148.2	149.0	153.1
87.5°	77.4	86.3	97.7	106.7	106.7	107.5	109.9	114.0	119.7	123.8
90°	68.4	79.8	83.1	84.7	86.3	87.9	91.2	96.9	105.0	110.7
92.5°	69.2	72.5	75.7	78.2	79.8	82.2	86.3	92.0	100.2	105.9
95°	65.1	69.2	73.3	76.5	78.2	80.6	85.5	92.8	102.6	108.3
97.5°	62.7	67.6	70.8	75.7	78.2	81.4	89.6	100.2	112.4	117.2
100°	61.1	66.0	70.0	75.7	79.8	83.1	92.8	101.8	106.7	107.5
102.5°	59.4	64.3	69.2	74.9	78.2	81.4	86.3	89.6	88.8	88.8
105°	57.8	62.7	66.8	70.8	73.3	74.1	76.5	75.7	75.7	74.9
107.5°	56.2	60.3	63.5	65.1	66.0	66.8	66.8	66.8	66.0	66.0
110°	54.6	57.8	59.4	60.3	60.3	60.3	61.1	61.1	61.1	61.1



TEST NUMBER: P241350

CATALOG NUMBER: FVS8M-3-LD4-35-1STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	52.9	55.4	56.2	57.0	57.0	57.0	58.6	59.4	59.4	59.4
115°	51.3	53.7	55.4	56.2	57.0	57.8	59.4	61.1	61.9	61.9
117.5°	51.3	54.6	56.2	58.6	59.4	60.3	61.9	64.3	65.1	65.1
120°	52.1	55.4	58.6	61.1	61.9	62.7	65.1	67.6	68.4	69.2
122.5°	52.9	56.2	59.4	62.7	63.5	64.3	66.8	69.2	70.8	71.7
125°	52.9	57.0	60.3	63.5	64.3	66.0	67.6	70.0	71.7	73.3
127.5°	52.1	56.2	60.3	63.5	65.1	66.0	68.4	70.0	72.5	73.3
130°	51.3	55.4	58.6	61.9	63.5	65.1	68.4	70.8	72.5	73.3
132.5°	49.7	53.7	57.8	61.1	62.7	64.3	67.6	70.0	71.7	72.5
135°	48.0	52.9	56.2	59.4	61.1	62.7	66.0	68.4	70.0	70.8
137.5°	47.2	51.3	54.6	57.8	59.4	61.1	64.3	66.0	68.4	69.2
140°	44.8	48.9	52.1	55.4	57.0	58.6	61.1	63.5	65.1	66.0
142.5°	43.2	46.4	49.7	52.1	53.7	55.4	57.8	59.4	61.1	61.9
145°	39.9	43.2	46.4	48.9	49.7	51.3	52.9	54.6	56.2	56.2
147.5°	35.0	39.1	41.5	44.0	44.8	46.4	48.0	48.9	49.7	50.5
150°	30.1	33.4	36.6	38.3	39.1	39.9	41.5	42.3	43.2	43.2
152.5°	24.4	27.7	30.1	32.6	33.4	34.2	35.0	35.8	36.6	36.6
155°	19.5	22.0	25.2	26.1	27.7	27.7	29.3	30.1	30.1	30.1
157.5°	14.7	17.1	18.7	21.2	22.0	22.0	23.6	23.6	24.4	24.4
160°	10.6	12.2	13.8	16.3	17.1	17.1	17.9	18.7	18.7	18.7
162.5°	7.3	9.0	9.8	11.4	12.2	13.0	13.0	13.8	13.8	13.8
165°	4.9	5.7	6.5	7.3	8.1	8.1	9.0	9.8	9.8	9.8
167.5°	3.3	3.3	4.1	4.1	4.9	4.9	5.7	5.7	5.7	6.5
170°	1.6	1.6	1.6	2.4	2.4	2.4	2.4	3.3	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)