

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: P241387

Luminaire Tested: **FVS8M-4-LD4-40-1STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241387
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-40-1STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

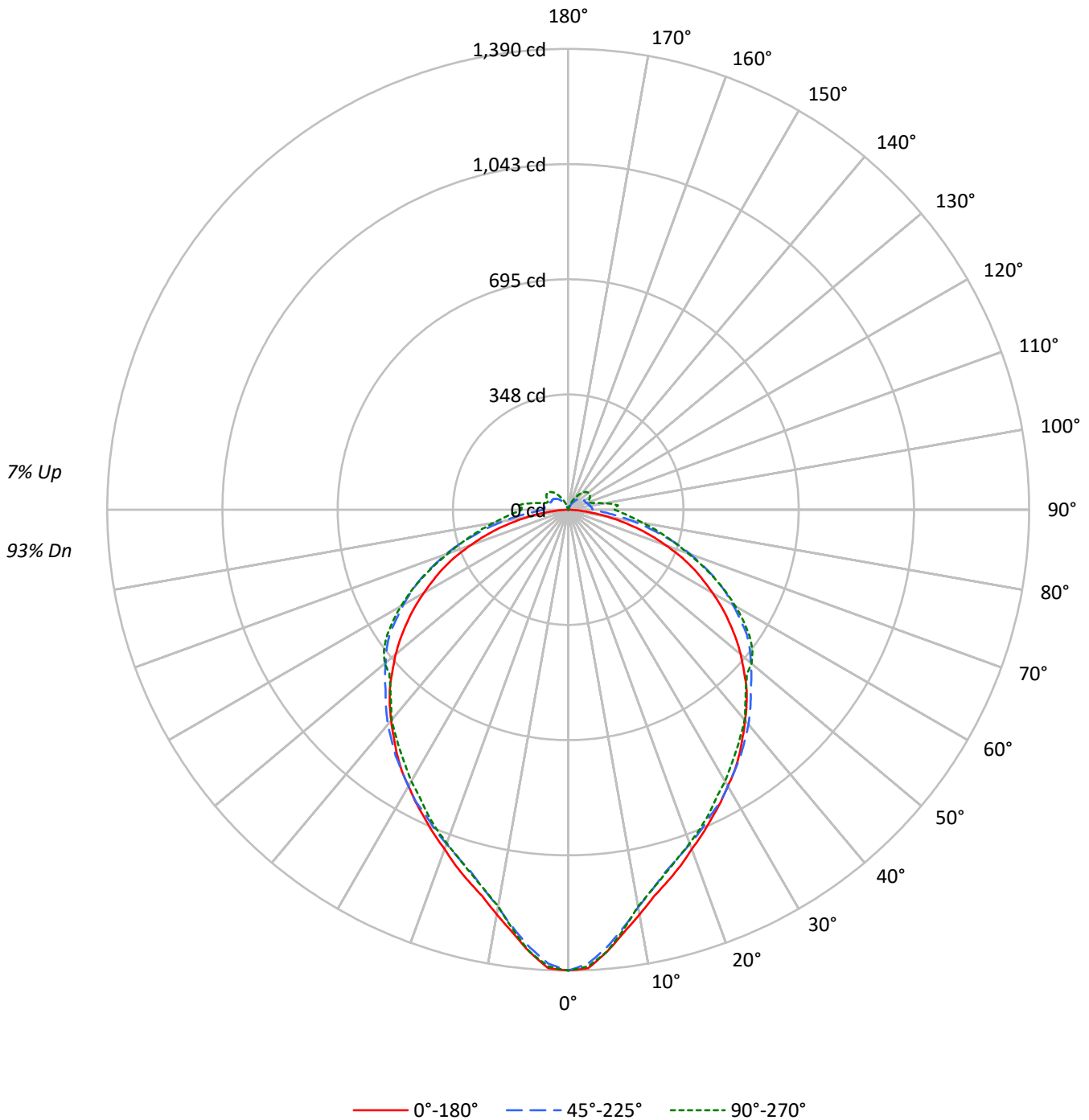
Lumens per Lamp: N/A
Luminaire Lumens: 3808.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 33.5
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	93
1	106	101	96	92	103	98	94	90	92	89	86	87	85	82	83	80	78	76
2	96	88	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	56	63	59	55	52
4	80	68	59	52	77	66	57	51	62	55	49	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	43	53	47	42	50	45	40	38
6	68	54	45	39	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	38	31	26	37	31	26	35	30	25	24
10	51	38	30	25	49	37	30	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6212	6212	6212
5°	5986	5852	5886
10°	5588	5346	5301
15°	5312	4986	4952
20°	5109	4778	4706
25°	4965	4609	4498
30°	4858	4487	4317
35°	4780	4373	4168
40°	4690	4264	4060
45°	4625	4143	3908
50°	4512	4086	3957
55°	4376	4045	3939
60°	4209	3870	3743
65°	4035	3683	3456
70°	3680	3378	3098
75°	3232	2947	2809
80°	2498	2473	2576
85°	1354	1936	2525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	3.3
10°-20°	322.7	8.5
20°-30°	470.4	12.4
30°-40°	563.7	14.8
40°-50°	596.3	15.7
50°-60°	573.3	15.1
60°-70°	460.9	12.1
70°-80°	292.2	7.7
80°-90°	129.0	3.4
90°-100°	74.5	2.0
100°-110°	56.8	1.5
110°-120°	46.0	1.2
120°-130°	41.9	1.1
130°-140°	31.6	0.8
140°-150°	17.9	0.5
150°-160°	6.1	0.2
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	916.9	24.1
0°-40°	1480.6	38.9
0°-60°	2650.3	69.6
0°-90°	3532.3	92.8
90°-120°	177.2	4.7
90°-150°	268.6	7.1
90°-180°	276.0	7.2
0°-180°	3808.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1390	1390	1390	1390	1390	
5°	1339	1334	1326	1340	1338	125
15°	1160	1149	1132	1133	1135	327
25°	1025	1027	1016	1016	1008	473
35°	900	907	907	898	885	563
45°	760	775	778	773	758	585
55°	593	618	658	667	669	530
65°	414	441	488	486	485	407
75°	214	246	290	305	300	226
85°	38	72	119	151	176	49
90°	1	33	75	108	140	2
95°	0	32	72	102	151	0
105°	0	28	63	80	78	0
115°	1	26	56	67	69	0
125°	1	22	55	72	80	1
135°	1	15	46	65	76	1
145°	1	6	30	49	55	1
155°	1	2	11	24	27	0
165°	2	1	2	4	6	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°	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9
2.5°	1384.3	1381.0	1376.1	1378.6	1378.6	1379.4	1380.2	1380.2	1378.6	1376.1	1370.4
5°	1338.8	1335.5	1329.8	1330.6	1331.5	1333.9	1334.7	1334.7	1331.5	1329.8	1325.8
7.5°	1286.0	1282.7	1280.3	1280.3	1281.1	1281.9	1284.3	1280.3	1277.8	1276.2	1272.1
10°	1239.7	1238.0	1230.7	1231.5	1229.9	1229.9	1231.5	1230.7	1225.8	1221.8	1216.9
12.5°	1194.2	1191.7	1190.9	1189.3	1186.9	1186.0	1186.9	1186.0	1182.0	1177.9	1173.0
15°	1160.0	1154.4	1151.9	1152.7	1148.7	1148.7	1147.9	1150.3	1144.6	1138.1	1131.6
17.5°	1125.9	1122.7	1115.4	1117.0	1116.2	1117.8	1118.6	1117.8	1112.1	1105.6	1100.7
20°	1089.4	1086.9	1087.7	1087.7	1084.5	1085.3	1086.1	1084.5	1079.6	1073.1	1073.1
22.5°	1058.5	1054.4	1053.6	1051.2	1054.4	1055.2	1055.2	1056.1	1052.8	1047.9	1046.3
25°	1025.2	1023.6	1021.9	1024.4	1026.0	1026.8	1026.8	1025.2	1022.8	1018.7	1016.3
27.5°	995.1	990.3	991.9	994.3	996.8	1000.0	1000.0	995.9	995.1	990.3	993.5
30°	962.6	958.6	959.4	961.8	965.9	969.1	969.1	971.6	967.5	965.1	963.5
32.5°	934.2	926.1	926.9	932.6	939.1	939.9	940.7	942.3	938.3	936.6	933.4
35°	900.1	896.0	893.6	902.5	905.8	906.6	909.8	912.3	909.0	907.4	906.6
37.5°	864.3	861.1	861.1	867.6	874.1	877.3	878.2	879.0	879.8	875.7	874.9
40°	830.2	827.0	827.8	832.7	839.2	841.6	845.7	848.9	845.7	844.0	845.7
42.5°	796.1	790.4	795.3	800.2	806.7	808.3	813.2	818.9	814.8	811.5	813.2
45°	760.4	754.7	759.6	766.1	770.1	775.0	775.8	779.0	779.0	779.0	778.2
47.5°	718.1	717.3	719.7	727.1	733.6	736.0	739.2	742.5	747.4	751.4	749.0
50°	679.1	675.9	682.4	688.1	695.4	700.3	705.1	712.4	713.2	714.1	718.9
52.5°	636.9	636.1	641.8	648.3	655.6	662.9	666.9	671.8	675.9	683.2	689.7
55°	593.0	593.8	598.7	607.6	616.6	618.2	623.9	636.1	644.2	650.7	658.0
57.5°	550.0	549.2	557.3	564.6	571.9	580.8	585.7	596.3	602.0	610.1	614.1
60°	502.8	504.5	512.6	514.2	529.7	540.2	541.8	548.3	556.5	564.6	573.5
62.5°	457.4	459.0	466.3	474.4	484.2	489.0	492.3	505.3	513.4	526.4	532.9
65°	413.5	414.3	419.2	428.1	437.0	441.1	449.2	463.9	470.4	479.3	488.2
67.5°	364.7	366.4	372.9	377.7	389.9	397.2	404.6	414.3	419.2	431.4	437.9
70°	311.9	314.4	323.3	329.0	343.6	349.3	355.0	361.5	372.9	384.2	391.6
72.5°	264.8	264.8	273.0	280.3	295.7	297.3	302.2	314.4	327.4	335.5	343.6
75°	214.5	216.9	221.8	231.5	243.7	246.1	254.3	267.3	276.2	285.1	290.0
77.5°	164.1	167.3	174.7	184.4	192.5	200.7	206.3	216.9	225.8	233.1	242.1
80°	118.6	121.0	128.4	134.9	147.8	153.5	158.4	169.0	177.9	187.7	198.2
82.5°	76.4	77.2	85.3	93.4	103.2	109.7	114.5	124.3	137.3	147.0	156.8
85°	38.2	40.6	48.7	56.1	68.2	72.3	77.2	88.5	99.1	111.3	118.6
87.5°	11.4	15.4	22.7	30.9	40.6	45.5	50.4	60.9	71.5	81.2	90.2
90°	0.8	3.2	9.7	18.7	28.4	33.3	38.2	48.7	58.5	66.6	74.7
92.5°	0.0	2.4	8.9	17.9	27.6	32.5	37.4	47.1	56.1	64.2	72.3
95°	0.0	2.4	8.9	17.1	26.8	31.7	36.6	45.5	54.4	63.4	71.5
97.5°	0.0	2.4	8.1	17.1	26.0	30.9	35.7	44.7	53.6	61.7	69.1
100°	0.0	2.4	8.1	16.2	25.2	30.1	34.1	43.1	52.0	60.1	67.4
102.5°	0.0	1.6	7.3	15.4	24.4	29.2	33.3	42.2	51.2	58.5	65.0
105°	0.0	1.6	7.3	14.6	23.6	28.4	32.5	41.4	49.6	56.9	63.4
107.5°	0.0	1.6	6.5	14.6	23.6	27.6	32.5	40.6	48.7	55.2	61.7
110°	0.0	0.8	6.5	13.8	22.7	27.6	31.7	39.8	47.9	54.4	59.3



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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	5.7	13.0	21.9	26.8	30.9	39.0	46.3	52.8	57.7
115°	0.8	0.8	5.7	13.0	21.1	26.0	30.1	38.2	45.5	52.0	56.1
117.5°	0.0	0.8	4.9	12.2	20.3	25.2	29.2	37.4	44.7	51.2	56.1
120°	0.8	0.8	4.1	11.4	19.5	24.4	28.4	36.6	43.9	50.4	56.1
122.5°	0.8	0.8	4.1	10.6	18.7	22.7	27.6	35.7	43.1	50.4	56.1
125°	0.8	0.8	3.2	9.7	17.9	21.9	26.0	34.9	42.2	48.7	55.2
127.5°	0.8	0.8	2.4	8.9	16.2	21.1	25.2	33.3	40.6	47.1	53.6
130°	0.8	0.8	1.6	7.3	15.4	18.7	23.6	31.7	39.0	45.5	51.2
132.5°	0.8	0.8	1.6	6.5	13.8	17.1	21.1	29.2	36.6	43.1	48.7
135°	0.8	0.8	0.8	4.9	11.4	15.4	18.7	26.0	33.3	40.6	46.3
137.5°	0.8	0.8	0.8	4.1	9.7	13.0	16.2	22.7	30.1	36.6	43.1
140°	0.8	0.8	0.8	3.2	8.1	10.6	13.8	20.3	26.8	33.3	39.0
142.5°	0.8	0.8	0.8	2.4	6.5	8.9	11.4	17.1	22.7	29.2	34.9
145°	0.8	0.8	0.8	1.6	4.9	6.5	8.9	13.8	19.5	25.2	30.1
147.5°	0.8	0.8	0.8	0.8	3.2	4.9	6.5	11.4	15.4	20.3	25.2
150°	0.8	0.8	0.8	0.8	2.4	3.2	4.9	8.1	12.2	16.2	20.3
152.5°	0.8	0.8	0.8	0.8	1.6	2.4	3.2	5.7	8.9	12.2	15.4
155°	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.1	6.5	8.9	11.4
157.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.1	5.7	8.1
160°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.1	4.9
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4
165°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6
167.5°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170°	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0
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°	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9	1389.9
2.5°	1372.1	1376.1	1379.4	1379.4	1379.4	1381.0	1381.0	1380.2	1381.0	1378.6
5°	1329.0	1335.5	1337.9	1341.2	1340.4	1339.6	1337.9	1341.2	1339.6	1337.9
7.5°	1274.6	1281.1	1277.8	1279.5	1281.1	1279.5	1280.3	1281.1	1277.8	1277.8
10°	1216.9	1219.3	1216.9	1218.5	1218.5	1215.3	1216.9	1216.9	1215.3	1214.5
12.5°	1170.6	1169.8	1169.0	1169.8	1170.6	1173.9	1172.2	1175.5	1174.7	1172.2
15°	1129.2	1132.4	1134.0	1136.5	1133.2	1135.7	1138.9	1137.3	1137.3	1134.9
17.5°	1104.0	1107.2	1104.0	1108.1	1109.7	1108.9	1108.1	1103.2	1106.4	1100.7
20°	1069.9	1075.6	1079.6	1073.9	1073.9	1074.7	1073.9	1072.3	1073.9	1070.7
22.5°	1048.8	1047.9	1047.1	1051.2	1052.0	1051.2	1046.3	1044.7	1039.8	1040.6
25°	1018.7	1016.3	1025.2	1020.3	1016.3	1016.3	1013.8	1010.6	1008.1	1008.1
27.5°	990.3	994.3	990.3	991.1	990.3	991.1	980.5	976.5	976.5	973.2
30°	966.7	963.5	964.3	958.6	955.3	954.5	952.1	948.8	946.4	945.6
32.5°	932.6	934.2	931.8	929.3	928.5	926.1	924.5	920.4	917.1	913.9
35°	905.0	902.5	901.7	903.3	897.7	893.6	892.0	889.5	887.9	884.7
37.5°	874.9	871.7	872.5	866.8	867.6	866.8	861.9	857.8	857.0	855.4
40°	840.8	842.4	839.2	839.2	831.9	831.0	830.2	830.2	827.8	827.8
42.5°	810.7	810.7	809.1	806.7	804.2	802.6	797.7	796.9	793.7	790.4
45°	779.9	778.2	775.8	774.2	772.6	770.1	763.6	761.2	759.6	757.9
47.5°	752.2	749.0	749.0	744.1	738.4	738.4	736.8	732.7	731.1	731.1
50°	722.2	727.1	729.5	725.4	723.8	722.2	720.6	721.4	719.7	722.2
52.5°	696.2	700.3	699.4	701.1	702.7	705.1	701.9	704.3	702.7	700.3
55°	662.9	666.1	664.5	662.9	666.9	666.9	671.0	669.4	668.6	668.6
57.5°	621.5	625.5	625.5	627.1	628.0	625.5	631.2	628.8	629.6	627.1
60°	578.4	577.6	580.0	584.9	585.7	582.5	581.6	584.9	582.5	582.5
62.5°	536.2	537.8	538.6	536.2	534.5	536.2	532.9	536.2	536.2	535.3
65°	490.7	492.3	493.1	489.9	485.8	486.6	483.4	485.0	485.8	485.0
67.5°	441.1	445.2	443.5	442.7	440.3	435.4	434.6	433.0	434.6	434.6
70°	394.0	398.1	394.0	394.8	394.8	390.7	388.3	385.1	385.1	384.2
72.5°	347.7	350.1	349.3	349.3	350.1	347.7	343.6	342.0	340.4	340.4
75°	298.9	303.8	303.8	304.6	305.4	303.8	303.8	301.4	298.9	299.8
77.5°	251.8	256.7	260.8	263.2	263.2	264.0	265.6	264.8	263.2	263.2
80°	208.0	215.3	219.3	224.2	225.0	225.0	228.3	229.1	229.1	228.3
82.5°	166.5	173.8	178.7	183.6	184.4	186.0	191.7	194.2	199.0	199.0
85°	126.7	134.9	140.5	147.0	151.1	153.5	158.4	164.9	171.4	176.3
87.5°	97.5	105.6	113.7	120.2	123.5	125.9	132.4	140.5	148.7	155.2
90°	83.7	91.0	98.3	104.0	108.0	110.5	117.0	124.3	134.0	140.5
92.5°	80.4	87.7	93.4	99.9	103.2	105.6	113.7	123.5	134.9	140.5
95°	78.0	84.5	91.0	98.3	101.5	105.6	116.2	130.0	145.4	151.1
97.5°	76.4	82.9	89.4	96.7	100.7	104.8	117.0	127.5	134.0	134.0
100°	73.9	80.4	86.9	93.4	96.7	100.7	108.0	111.3	111.3	111.3
102.5°	71.5	77.2	82.9	86.9	89.4	91.0	94.2	95.0	93.4	91.8
105°	69.1	73.1	76.4	78.8	79.6	80.4	81.2	81.2	79.6	78.0
107.5°	66.6	69.1	71.5	71.5	72.3	72.3	73.1	72.3	70.7	69.1
110°	63.4	65.8	66.6	67.4	67.4	67.4	68.2	68.2	66.6	65.8



TEST NUMBER: P241387

CATALOG NUMBER: FVS8M-4-LD4-40-1STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	60.9	63.4	64.2	65.0	65.8	65.8	67.4	67.4	66.6	66.6
115°	60.1	62.6	64.2	65.8	66.6	67.4	69.1	70.7	69.9	69.1
117.5°	60.1	63.4	65.8	67.4	68.2	69.9	72.3	73.1	73.1	73.1
120°	60.1	64.2	67.4	69.9	70.7	72.3	73.9	75.5	76.4	75.5
122.5°	60.1	64.2	68.2	70.7	71.5	73.1	75.5	77.2	78.0	78.0
125°	60.1	64.2	68.2	70.7	72.3	73.1	75.5	78.0	78.8	79.6
127.5°	58.5	63.4	66.6	69.9	71.5	73.1	75.5	78.0	79.6	80.4
130°	56.9	60.9	65.0	68.2	69.9	71.5	74.7	77.2	78.8	79.6
132.5°	54.4	58.5	62.6	65.8	67.4	69.1	72.3	75.5	77.2	78.0
135°	51.2	56.1	60.1	63.4	65.0	66.6	69.9	73.1	74.7	75.5
137.5°	47.9	52.8	56.9	60.1	61.7	63.4	66.6	69.1	71.5	71.5
140°	44.7	49.6	53.6	56.9	58.5	60.1	62.6	65.0	66.6	67.4
142.5°	40.6	45.5	48.7	52.8	54.4	55.2	57.7	60.1	61.7	61.7
145°	35.7	40.6	44.7	47.1	48.7	50.4	52.0	53.6	55.2	55.2
147.5°	30.1	34.9	39.0	41.4	43.1	43.9	45.5	47.1	47.9	47.9
150°	24.4	28.4	32.5	34.9	36.6	37.4	39.0	39.8	40.6	40.6
152.5°	18.7	22.7	26.0	28.4	30.1	30.9	32.5	32.5	33.3	34.1
155°	13.8	17.1	19.5	22.7	23.6	24.4	25.2	26.8	26.8	26.8
157.5°	9.7	12.2	13.8	16.2	17.1	18.7	19.5	20.3	20.3	20.3
160°	6.5	8.1	9.7	11.4	12.2	13.0	13.8	14.6	14.6	15.4
162.5°	4.1	4.9	5.7	6.5	7.3	8.1	8.9	9.7	9.7	9.7
165°	1.6	2.4	3.2	3.2	4.1	4.1	4.9	5.7	5.7	5.7
167.5°	0.8	0.8	0.8	1.6	1.6	1.6	1.6	2.4	2.4	2.4
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)