

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: P241352

Luminaire Tested: **FVS8M-3-LD4-50-1STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241352
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-LD4-50-1STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

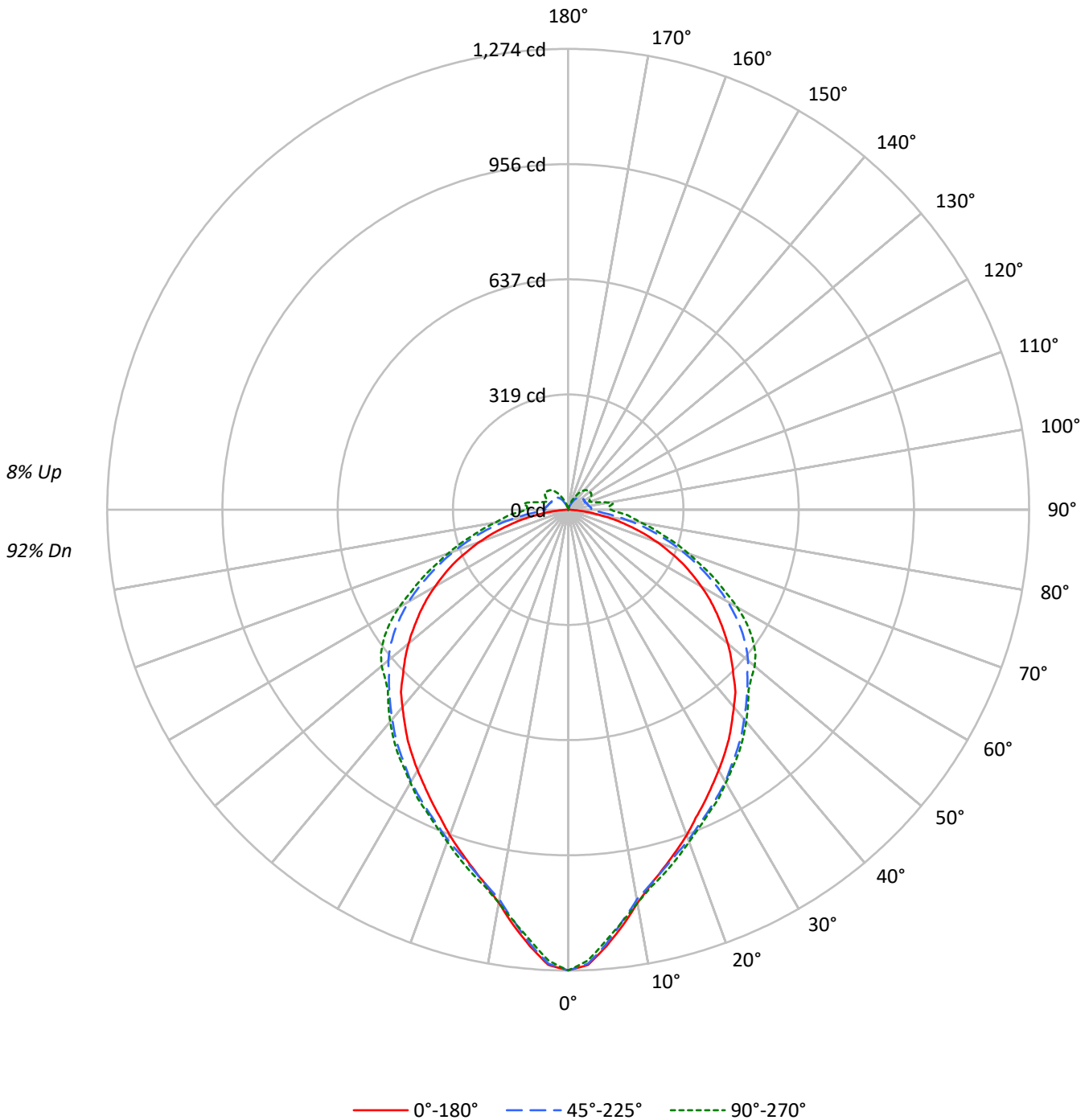
Lumens per Lamp: N/A
Luminaire Lumens: 3401.0 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 1.03 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

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°	7437	7437	7437
5°	7069	6946	6874
10°	6484	6270	6292
15°	6106	5896	5915
20°	5840	5638	5611
25°	5612	5423	5379
30°	5450	5260	5200
35°	5328	5097	5058
40°	5204	4950	4906
45°	5071	4834	4750
50°	4935	4780	4818
55°	4763	4661	4789
60°	4561	4438	4534
65°	4315	4095	4134
70°	3906	3731	3724
75°	3324	3255	3322
80°	2524	2658	3007
85°	1315	1966	3039



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	3.3
10°-20°	290.1	8.5
20°-30°	422.3	12.4
30°-40°	505.3	14.9
40°-50°	533.9	15.7
50°-60°	511.3	15.0
60°-70°	403.3	11.9
70°-80°	252.0	7.4
80°-90°	109.9	3.2
90°-100°	62.8	1.8
100°-110°	52.9	1.6
110°-120°	42.6	1.3
120°-130°	40.2	1.2
130°-140°	32.4	1.0
140°-150°	20.7	0.6
150°-160°	8.2	0.2
160°-170°	1.6	0.0
170°-180°	0.0	0.0
0°-30°	824.0	24.2
0°-40°	1329.3	39.1
0°-60°	2374.4	69.8
0°-90°	3139.6	92.3
90°-120°	158.2	4.7
90°-150°	251.6	7.4
90°-180°	261.0	7.7
0°-180°	3401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1211	1208	1205	1199	1196	112
15°	1024	1018	1026	1037	1038	289
25°	892	905	918	928	923	411
35°	774	794	813	828	822	484
45°	645	670	700	709	705	499
55°	502	535	586	614	622	449
65°	346	377	421	436	444	341
75°	175	207	250	268	271	187
85°	31	58	95	136	162	40
90°	0	26	63	92	118	1
95°	0	26	64	83	115	0
105°	0	26	56	78	80	0
115°	0	24	51	60	66	0
125°	0	22	51	68	78	0
135°	1	19	47	65	75	1
145°	1	12	37	53	60	1
155°	1	5	18	29	32	0
165°	1	2	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°	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6
2.5°	1259.7	1256.3	1253.7	1256.3	1254.6	1255.4	1256.3	1258.0	1258.0	1259.7	1256.3
5°	1211.4	1211.4	1207.9	1210.5	1209.6	1207.9	1208.8	1209.6	1210.5	1208.8	1205.3
7.5°	1158.7	1154.3	1152.6	1150.0	1148.3	1150.0	1149.2	1150.0	1150.9	1150.9	1147.4
10°	1103.4	1101.6	1096.4	1097.3	1096.4	1097.3	1099.9	1100.8	1098.2	1095.6	1093.9
12.5°	1059.3	1054.1	1054.1	1055.8	1055.0	1055.8	1053.2	1050.7	1055.0	1058.4	1058.4
15°	1023.9	1019.6	1017.0	1020.4	1019.6	1017.8	1018.7	1019.6	1022.1	1024.7	1026.5
17.5°	990.2	986.7	985.0	988.4	987.6	987.6	988.4	991.9	997.1	997.1	997.1
20°	957.3	953.0	953.9	959.1	959.1	960.8	961.7	964.3	967.7	971.2	972.0
22.5°	921.9	921.1	922.8	928.0	928.8	930.6	934.0	939.2	940.9	942.7	943.5
25°	891.7	889.9	895.1	897.7	902.0	904.6	907.2	909.8	915.9	918.5	918.5
27.5°	860.6	860.6	864.0	869.2	873.5	878.7	881.3	883.9	888.2	891.7	893.4
30°	832.1	829.5	833.8	840.7	847.6	851.1	852.8	857.1	861.4	865.8	868.3
32.5°	802.7	801.0	806.1	810.5	818.2	820.0	822.6	830.3	833.8	836.4	839.0
35°	774.2	772.4	775.9	782.8	790.6	794.0	794.9	803.5	807.9	810.5	813.0
37.5°	742.2	744.8	746.5	753.4	758.6	762.1	766.4	773.3	779.4	781.9	786.3
40°	712.0	713.7	715.4	721.5	729.2	732.7	735.3	744.8	750.8	754.3	756.0
42.5°	684.3	680.9	684.3	692.1	697.3	701.6	705.0	712.8	719.7	727.5	728.4
45°	645.4	648.0	654.1	661.0	667.9	669.6	673.1	681.7	687.8	695.5	699.9
47.5°	611.7	615.2	617.8	625.6	634.2	636.8	641.1	649.7	660.1	667.9	671.3
50°	576.3	580.6	584.1	591.0	599.6	604.0	610.0	620.4	629.9	640.2	648.9
52.5°	538.3	543.5	549.5	553.8	565.1	569.4	574.6	587.5	600.5	610.9	619.5
55°	502.0	506.3	513.2	519.3	530.5	534.8	540.0	553.8	567.7	577.2	585.8
57.5°	464.8	466.6	472.6	480.4	491.6	499.4	503.7	516.7	528.8	539.2	548.7
60°	425.1	428.6	433.7	442.4	455.3	458.8	464.0	478.7	490.8	501.1	508.9
62.5°	385.4	388.8	394.0	404.4	411.3	417.3	425.1	438.1	447.6	456.2	466.6
65°	346.5	348.2	353.4	362.9	372.4	376.7	381.9	394.0	403.5	413.9	420.8
67.5°	302.4	306.7	312.8	319.7	329.2	335.2	339.6	349.1	361.2	373.3	377.6
70°	260.9	264.4	269.6	276.5	286.9	291.2	297.2	307.6	318.0	329.2	336.1
72.5°	219.5	222.1	225.5	234.2	243.7	248.8	254.0	264.4	277.4	285.1	292.0
75°	175.4	179.7	184.9	192.7	201.3	207.4	211.7	222.1	231.6	240.2	249.7
77.5°	135.7	139.1	144.3	150.3	161.6	167.6	171.1	180.6	190.9	197.0	208.2
80°	96.8	99.4	105.4	112.3	121.0	125.3	130.5	139.1	147.7	156.4	166.8
82.5°	61.3	63.1	69.1	76.0	84.7	89.0	93.3	102.0	109.7	120.1	128.7
85°	31.1	32.8	38.9	44.9	54.4	57.9	60.5	70.0	79.5	87.3	95.0
87.5°	9.5	12.1	17.3	24.2	32.0	35.4	38.9	47.5	55.3	63.9	73.4
90°	0.0	2.6	7.8	13.8	21.6	25.9	29.4	38.0	46.7	55.3	63.1
92.5°	0.0	2.6	6.9	13.8	21.6	25.9	29.4	38.0	46.7	54.4	63.9
95°	0.0	2.6	6.9	13.8	21.6	25.9	30.2	38.0	46.7	56.2	63.9
97.5°	0.0	1.7	6.9	13.8	21.6	25.9	30.2	38.0	47.5	55.3	60.5
100°	0.0	1.7	6.9	13.8	21.6	25.9	29.4	38.9	46.7	52.7	58.8
102.5°	0.0	1.7	6.9	13.8	21.6	25.9	30.2	38.0	44.1	51.0	57.0
105°	0.0	1.7	6.9	13.8	21.6	25.9	29.4	36.3	43.2	50.1	56.2
107.5°	0.0	1.7	6.9	13.8	20.7	25.1	28.5	35.4	42.3	49.2	54.4
110°	0.0	1.7	6.0	13.0	20.7	24.2	28.5	35.4	42.3	48.4	53.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.7	6.0	13.0	20.7	24.2	27.6	35.4	41.5	47.5	51.8
115°	0.0	1.7	6.0	13.0	19.9	24.2	27.6	35.4	41.5	47.5	51.0
117.5°	0.0	1.7	6.0	13.0	19.9	24.2	27.6	34.6	41.5	46.7	51.0
120°	0.0	0.9	6.0	12.1	19.9	23.3	27.6	34.6	41.5	46.7	51.0
122.5°	0.0	0.9	5.2	12.1	19.0	23.3	26.8	34.6	40.6	46.7	51.0
125°	0.0	0.9	5.2	12.1	19.0	22.5	25.9	33.7	40.6	46.7	51.0
127.5°	0.9	0.9	5.2	11.2	18.1	21.6	25.1	32.8	39.7	45.8	51.0
130°	0.0	0.9	4.3	10.4	17.3	20.7	24.2	32.0	38.9	44.1	49.2
132.5°	0.9	0.9	4.3	9.5	16.4	19.9	23.3	30.2	38.0	43.2	48.4
135°	0.9	0.9	3.5	8.6	15.6	19.0	22.5	28.5	36.3	41.5	46.7
137.5°	0.9	0.9	3.5	7.8	13.8	17.3	20.7	27.6	33.7	39.7	44.9
140°	0.9	0.9	2.6	6.9	13.0	15.6	19.0	25.9	32.0	38.0	43.2
142.5°	0.9	0.9	2.6	6.0	11.2	13.8	17.3	23.3	29.4	35.4	40.6
145°	0.9	0.9	1.7	5.2	9.5	12.1	14.7	20.7	26.8	32.0	37.2
147.5°	0.9	0.9	1.7	4.3	7.8	10.4	13.0	18.1	23.3	28.5	32.8
150°	0.9	0.9	0.9	3.5	6.0	7.8	10.4	14.7	19.0	23.3	27.6
152.5°	0.9	0.9	0.9	2.6	5.2	6.0	7.8	12.1	15.6	19.0	22.5
155°	0.9	0.9	0.9	1.7	3.5	5.2	6.0	8.6	12.1	14.7	18.1
157.5°	0.9	0.9	0.9	1.7	2.6	3.5	4.3	6.9	8.6	11.2	13.8
160°	0.9	0.9	0.9	0.9	1.7	2.6	3.5	4.3	6.0	7.8	9.5
162.5°	0.9	0.9	0.9	0.9	1.7	1.7	2.6	3.5	4.3	5.2	6.9
165°	0.9	0.9	0.9	0.9	0.9	1.7	1.7	2.6	3.5	3.5	4.3
167.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7	1.7	2.6	2.6
170°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7
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°	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6	1273.6
2.5°	1254.6	1252.8	1253.7	1253.7	1250.2	1252.8	1252.0	1250.2	1247.7	1247.7
5°	1202.7	1199.3	1199.3	1201.0	1199.3	1199.3	1200.1	1199.3	1200.1	1195.8
7.5°	1146.6	1144.0	1145.7	1146.6	1149.2	1148.3	1149.2	1148.3	1148.3	1148.3
10°	1094.7	1099.0	1098.2	1099.9	1102.5	1101.6	1103.4	1106.0	1105.1	1103.4
12.5°	1058.4	1062.8	1062.8	1067.1	1067.1	1067.9	1070.5	1070.5	1066.2	1066.2
15°	1029.1	1029.9	1030.8	1037.7	1036.8	1038.6	1040.3	1038.6	1037.7	1037.7
17.5°	998.8	999.7	1003.1	1003.1	1004.9	1005.7	1009.2	1008.3	1007.5	1007.5
20°	972.9	974.6	978.9	981.5	982.4	979.8	982.4	980.7	980.7	977.2
22.5°	947.8	953.0	951.3	953.0	954.7	956.5	956.5	954.7	953.0	949.6
25°	921.9	923.6	926.2	928.0	928.0	927.1	927.1	926.2	924.5	922.8
27.5°	896.9	899.5	898.6	903.8	905.5	906.4	905.5	902.0	898.6	900.3
30°	870.1	872.7	876.1	879.6	880.4	875.3	874.4	875.3	871.8	871.8
32.5°	842.4	845.9	851.9	851.1	851.1	853.7	853.7	851.1	846.7	845.0
35°	815.6	822.6	824.3	829.5	827.7	825.1	822.6	822.6	820.0	821.7
37.5°	788.9	793.2	798.4	797.5	797.5	798.4	798.4	794.9	795.8	794.0
40°	761.2	764.7	768.1	768.1	769.8	769.8	767.3	764.7	764.7	765.5
42.5°	730.1	735.3	739.6	739.6	740.5	739.6	740.5	738.7	735.3	735.3
45°	704.2	705.9	709.4	710.2	709.4	709.4	706.8	706.8	705.9	705.0
47.5°	677.4	683.4	684.3	686.0	684.3	684.3	686.0	686.9	688.6	686.9
50°	653.2	661.0	666.2	668.8	668.8	670.5	671.3	671.3	673.9	673.1
52.5°	629.0	634.2	639.4	646.3	648.0	648.0	651.5	650.6	652.3	652.3
55°	594.4	601.4	607.4	612.6	614.3	617.8	616.9	619.5	619.5	622.1
57.5°	557.3	560.8	569.4	572.8	572.0	574.6	575.4	579.8	584.9	584.9
60°	517.6	520.1	524.5	524.5	526.2	527.1	532.2	534.8	536.6	540.0
62.5°	469.2	475.2	478.7	479.5	481.3	485.6	485.6	485.6	487.3	488.2
65°	427.7	431.1	434.6	438.1	435.5	436.3	437.2	438.1	440.7	444.1
67.5°	385.4	388.8	392.3	394.0	390.5	391.4	389.7	392.3	394.9	394.9
70°	341.3	345.6	350.8	349.9	346.5	348.2	347.3	350.8	352.5	353.4
72.5°	299.0	305.0	308.5	308.5	308.5	308.5	309.3	311.0	311.9	312.8
75°	255.8	261.8	266.1	269.6	267.8	270.4	272.2	273.0	272.2	271.3
77.5°	216.0	222.1	225.5	230.7	232.4	234.2	235.9	235.9	237.6	237.6
80°	172.8	180.6	186.6	193.5	196.1	199.6	200.5	203.0	203.0	203.9
82.5°	136.5	145.2	152.1	159.0	162.4	164.2	169.3	173.7	178.0	180.6
85°	104.5	114.1	121.0	129.6	135.7	142.6	152.1	157.3	158.1	162.4
87.5°	82.1	91.6	103.7	113.2	113.2	114.1	116.6	121.0	127.0	131.3
90°	72.6	84.7	88.1	89.9	91.6	93.3	96.8	102.8	111.5	117.5
92.5°	73.4	76.9	80.4	82.9	84.7	87.3	91.6	97.6	106.3	112.3
95°	69.1	73.4	77.8	81.2	82.9	85.5	90.7	98.5	108.9	114.9
97.5°	66.5	71.7	75.2	80.4	82.9	86.4	95.0	106.3	119.2	124.4
100°	64.8	70.0	74.3	80.4	84.7	88.1	98.5	108.0	113.2	114.1
102.5°	63.1	68.3	73.4	79.5	82.9	86.4	91.6	95.0	94.2	94.2
105°	61.3	66.5	70.9	75.2	77.8	78.6	81.2	80.4	80.4	79.5
107.5°	59.6	63.9	67.4	69.1	70.0	70.9	70.9	70.9	70.0	70.0
110°	57.9	61.3	63.1	63.9	63.9	63.9	64.8	64.8	64.8	64.8



TEST NUMBER: P241352

CATALOG NUMBER: FVS8M-3-LD4-50-1STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	56.2	58.8	59.6	60.5	60.5	60.5	62.2	63.1	63.1	63.1
115°	54.4	57.0	58.8	59.6	60.5	61.3	63.1	64.8	65.7	65.7
117.5°	54.4	57.9	59.6	62.2	63.1	63.9	65.7	68.3	69.1	69.1
120°	55.3	58.8	62.2	64.8	65.7	66.5	69.1	71.7	72.6	73.4
122.5°	56.2	59.6	63.1	66.5	67.4	68.3	70.9	73.4	75.2	76.0
125°	56.2	60.5	63.9	67.4	68.3	70.0	71.7	74.3	76.0	77.8
127.5°	55.3	59.6	63.9	67.4	69.1	70.0	72.6	74.3	76.9	77.8
130°	54.4	58.8	62.2	65.7	67.4	69.1	72.6	75.2	76.9	77.8
132.5°	52.7	57.0	61.3	64.8	66.5	68.3	71.7	74.3	76.0	76.9
135°	51.0	56.2	59.6	63.1	64.8	66.5	70.0	72.6	74.3	75.2
137.5°	50.1	54.4	57.9	61.3	63.1	64.8	68.3	70.0	72.6	73.4
140°	47.5	51.8	55.3	58.8	60.5	62.2	64.8	67.4	69.1	70.0
142.5°	45.8	49.2	52.7	55.3	57.0	58.8	61.3	63.1	64.8	65.7
145°	42.3	45.8	49.2	51.8	52.7	54.4	56.2	57.9	59.6	59.6
147.5°	37.2	41.5	44.1	46.7	47.5	49.2	51.0	51.8	52.7	53.6
150°	32.0	35.4	38.9	40.6	41.5	42.3	44.1	44.9	45.8	45.8
152.5°	25.9	29.4	32.0	34.6	35.4	36.3	37.2	38.0	38.9	38.9
155°	20.7	23.3	26.8	27.6	29.4	29.4	31.1	32.0	32.0	32.0
157.5°	15.6	18.1	19.9	22.5	23.3	23.3	25.1	25.1	25.9	25.9
160°	11.2	13.0	14.7	17.3	18.1	18.1	19.0	19.9	19.9	19.9
162.5°	7.8	9.5	10.4	12.1	13.0	13.8	13.8	14.7	14.7	14.7
165°	5.2	6.0	6.9	7.8	8.6	8.6	9.5	10.4	10.4	10.4
167.5°	3.5	3.5	4.3	4.3	5.2	5.2	6.0	6.0	6.0	6.9
170°	1.7	1.7	1.7	2.6	2.6	2.6	2.6	3.5	3.5	3.5
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)