

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: P241386

Luminaire Tested: **FVS8M-4-LD4-35-1STD-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241386
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-LD4-35-1STD-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

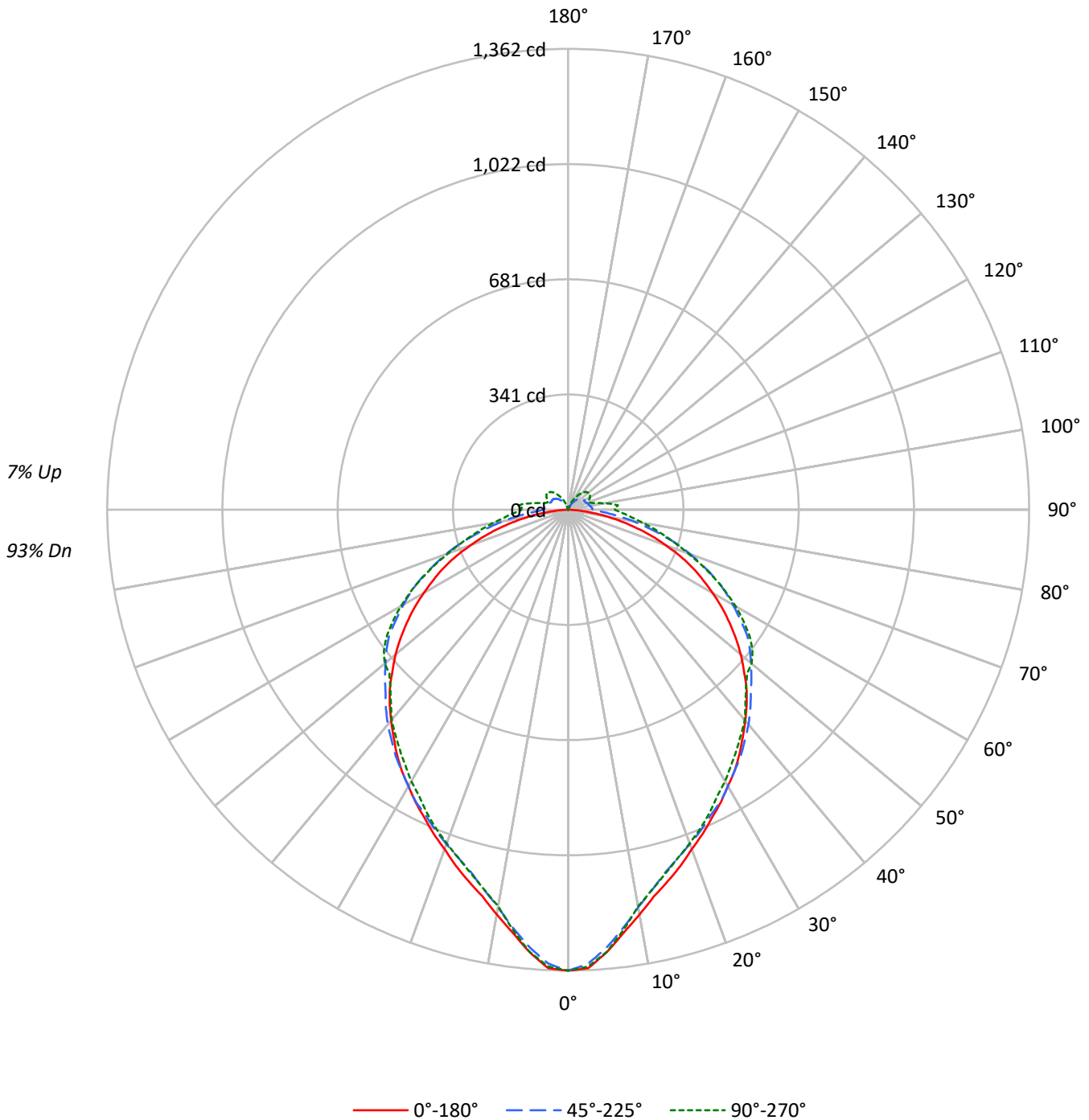
Lumens per Lamp: N/A
Luminaire Lumens: 3732.0 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.04 / 1.02 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

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	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°	6088	6088	6088
5°	5866	5735	5769
10°	5476	5239	5195
15°	5206	4886	4852
20°	5006	4683	4612
25°	4866	4517	4408
30°	4761	4397	4231
35°	4684	4286	4085
40°	4596	4179	3979
45°	4533	4060	3830
50°	4422	4005	3878
55°	4289	3964	3860
60°	4125	3794	3668
65°	3954	3610	3387
70°	3607	3310	3037
75°	3167	2888	2753
80°	2448	2425	2525
85°	1325	1897	2474



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	3.3
10°-20°	316.2	8.5
20°-30°	461.0	12.4
30°-40°	552.5	14.8
40°-50°	584.4	15.7
50°-60°	561.9	15.1
60°-70°	451.7	12.1
70°-80°	286.4	7.7
80°-90°	126.4	3.4
90°-100°	73.0	2.0
100°-110°	55.7	1.5
110°-120°	45.1	1.2
120°-130°	41.1	1.1
130°-140°	30.9	0.8
140°-150°	17.6	0.5
150°-160°	6.0	0.2
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	898.6	24.1
0°-40°	1451.1	38.9
0°-60°	2597.4	69.6
0°-90°	3461.8	92.8
90°-120°	173.7	4.7
90°-150°	263.3	7.1
90°-180°	270.0	7.2
0°-180°	3732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1362	1362	1362	1362	1362	
5°	1312	1307	1299	1314	1311	122
15°	1137	1126	1109	1111	1112	321
25°	1005	1006	996	996	988	464
35°	882	888	888	880	867	552
45°	745	760	763	757	743	573
55°	581	606	645	654	655	520
65°	405	432	478	476	475	398
75°	210	241	284	299	294	222
85°	37	71	116	148	173	48
90°	1	33	73	106	138	2
95°	0	31	70	100	148	0
105°	0	28	62	78	76	0
115°	1	26	55	65	68	0
125°	1	22	54	71	78	1
135°	1	15	45	64	74	1
145°	1	6	30	48	54	1
155°	1	2	11	23	26	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°	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2
2.5°	1356.6	1353.4	1348.7	1351.1	1351.1	1351.8	1352.6	1352.6	1351.1	1348.7	1343.1
5°	1312.0	1308.9	1303.3	1304.1	1304.9	1307.3	1308.1	1308.1	1304.9	1303.3	1299.3
7.5°	1260.3	1257.1	1254.7	1254.7	1255.5	1256.3	1258.7	1254.7	1252.3	1250.7	1246.8
10°	1214.9	1213.3	1206.2	1207.0	1205.4	1205.4	1207.0	1206.2	1201.4	1197.4	1192.6
12.5°	1170.3	1167.9	1167.1	1165.6	1163.2	1162.4	1163.2	1162.4	1158.4	1154.4	1149.6
15°	1136.9	1131.3	1128.9	1129.7	1125.7	1125.7	1124.9	1127.3	1121.8	1115.4	1109.0
17.5°	1103.5	1100.3	1093.1	1094.7	1093.9	1095.5	1096.3	1095.5	1089.9	1083.5	1078.8
20°	1067.6	1065.2	1066.0	1066.0	1062.9	1063.6	1064.4	1062.9	1058.1	1051.7	1051.7
22.5°	1037.4	1033.4	1032.6	1030.2	1033.4	1034.2	1034.2	1035.0	1031.8	1027.0	1025.4
25°	1004.7	1003.1	1001.5	1003.9	1005.5	1006.3	1006.3	1004.7	1002.3	998.4	996.0
27.5°	975.3	970.5	972.1	974.5	976.9	980.1	980.1	976.1	975.3	970.5	973.7
30°	943.4	939.4	940.2	942.6	946.6	949.8	949.8	952.2	948.2	945.8	944.2
32.5°	915.6	907.6	908.4	914.0	920.3	921.1	921.9	923.5	919.5	918.0	914.8
35°	882.1	878.1	875.8	884.5	887.7	888.5	891.7	894.1	890.9	889.3	888.5
37.5°	847.1	843.9	843.9	850.3	856.6	859.8	860.6	861.4	862.2	858.2	857.4
40°	813.7	810.5	811.3	816.0	822.4	824.8	828.8	832.0	828.8	827.2	828.8
42.5°	780.2	774.6	779.4	784.2	790.6	792.2	796.9	802.5	798.5	795.3	796.9
45°	745.2	739.6	744.4	750.8	754.7	759.5	760.3	763.5	763.5	763.5	762.7
47.5°	703.8	703.0	705.4	712.5	718.9	721.3	724.5	727.7	732.5	736.4	734.0
50°	665.6	662.4	668.8	674.3	681.5	686.3	691.1	698.2	699.0	699.8	704.6
52.5°	624.2	623.4	629.0	635.3	642.5	649.7	653.6	658.4	662.4	669.6	675.9
55°	581.2	582.0	586.8	595.5	604.3	605.9	611.4	623.4	631.3	637.7	644.9
57.5°	539.0	538.2	546.2	553.3	560.5	569.2	574.0	584.4	589.9	597.9	601.9
60°	492.8	494.4	502.4	504.0	519.1	529.4	531.0	537.4	545.4	553.3	562.1
62.5°	448.2	449.8	457.0	464.9	474.5	479.3	482.5	495.2	503.2	515.9	522.3
65°	405.2	406.0	410.8	419.6	428.3	432.3	440.3	454.6	461.0	469.7	478.5
67.5°	357.5	359.1	365.4	370.2	382.1	389.3	396.5	406.0	410.8	422.8	429.1
70°	305.7	308.1	316.9	322.4	336.8	342.3	347.9	354.3	365.4	376.6	383.7
72.5°	259.5	259.5	267.5	274.7	289.8	291.4	296.2	308.1	320.8	328.8	336.8
75°	210.2	212.6	217.3	226.9	238.8	241.2	249.2	261.9	270.7	279.4	284.2
77.5°	160.8	164.0	171.2	180.7	188.7	196.6	202.2	212.6	221.3	228.5	237.3
80°	116.2	118.6	125.8	132.2	144.9	150.5	155.2	165.6	174.4	183.9	194.3
82.5°	74.8	75.6	83.6	91.6	101.1	107.5	112.3	121.8	134.5	144.1	153.7
85°	37.4	39.8	47.8	54.9	66.9	70.9	75.6	86.8	97.1	109.1	116.2
87.5°	11.1	15.1	22.3	30.3	39.8	44.6	49.4	59.7	70.1	79.6	88.4
90°	0.8	3.2	9.6	18.3	27.9	32.6	37.4	47.8	57.3	65.3	73.2
92.5°	0.0	2.4	8.8	17.5	27.1	31.8	36.6	46.2	54.9	62.9	70.9
95°	0.0	2.4	8.8	16.7	26.3	31.0	35.8	44.6	53.3	62.1	70.1
97.5°	0.0	2.4	8.0	16.7	25.5	30.3	35.0	43.8	52.5	60.5	67.7
100°	0.0	2.4	8.0	15.9	24.7	29.5	33.4	42.2	51.0	58.9	66.1
102.5°	0.0	1.6	7.2	15.1	23.9	28.7	32.6	41.4	50.2	57.3	63.7
105°	0.0	1.6	7.2	14.3	23.1	27.9	31.8	40.6	48.6	55.7	62.1
107.5°	0.0	1.6	6.4	14.3	23.1	27.1	31.8	39.8	47.8	54.1	60.5
110°	0.0	0.8	6.4	13.5	22.3	27.1	31.0	39.0	47.0	53.3	58.1



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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	5.6	12.7	21.5	26.3	30.3	38.2	45.4	51.7	56.5
115°	0.8	0.8	5.6	12.7	20.7	25.5	29.5	37.4	44.6	51.0	54.9
117.5°	0.0	0.8	4.8	11.9	19.9	24.7	28.7	36.6	43.8	50.2	54.9
120°	0.8	0.8	4.0	11.1	19.1	23.9	27.9	35.8	43.0	49.4	54.9
122.5°	0.8	0.8	4.0	10.3	18.3	22.3	27.1	35.0	42.2	49.4	54.9
125°	0.8	0.8	3.2	9.6	17.5	21.5	25.5	34.2	41.4	47.8	54.1
127.5°	0.8	0.8	2.4	8.8	15.9	20.7	24.7	32.6	39.8	46.2	52.5
130°	0.8	0.8	1.6	7.2	15.1	18.3	23.1	31.0	38.2	44.6	50.2
132.5°	0.8	0.8	1.6	6.4	13.5	16.7	20.7	28.7	35.8	42.2	47.8
135°	0.8	0.8	0.8	4.8	11.1	15.1	18.3	25.5	32.6	39.8	45.4
137.5°	0.8	0.8	0.8	4.0	9.6	12.7	15.9	22.3	29.5	35.8	42.2
140°	0.8	0.8	0.8	3.2	8.0	10.3	13.5	19.9	26.3	32.6	38.2
142.5°	0.8	0.8	0.8	2.4	6.4	8.8	11.1	16.7	22.3	28.7	34.2
145°	0.8	0.8	0.8	1.6	4.8	6.4	8.8	13.5	19.1	24.7	29.5
147.5°	0.8	0.8	0.8	0.8	3.2	4.8	6.4	11.1	15.1	19.9	24.7
150°	0.8	0.8	0.8	0.8	2.4	3.2	4.8	8.0	11.9	15.9	19.9
152.5°	0.8	0.8	0.8	0.8	1.6	2.4	3.2	5.6	8.8	11.9	15.1
155°	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.0	6.4	8.8	11.1
157.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.0	5.6	8.0
160°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.0	4.8
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°	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2	1362.2
2.5°	1344.7	1348.7	1351.8	1351.8	1351.8	1353.4	1353.4	1352.6	1353.4	1351.1
5°	1302.5	1308.9	1311.2	1314.4	1313.6	1312.8	1311.2	1314.4	1312.8	1311.2
7.5°	1249.1	1255.5	1252.3	1253.9	1255.5	1253.9	1254.7	1255.5	1252.3	1252.3
10°	1192.6	1195.0	1192.6	1194.2	1194.2	1191.0	1192.6	1192.6	1191.0	1190.2
12.5°	1147.2	1146.4	1145.6	1146.4	1147.2	1150.4	1148.8	1152.0	1151.2	1148.8
15°	1106.6	1109.8	1111.4	1113.8	1110.6	1113.0	1116.2	1114.6	1114.6	1112.2
17.5°	1082.0	1085.1	1082.0	1085.9	1087.5	1086.7	1085.9	1081.2	1084.3	1078.8
20°	1048.5	1054.1	1058.1	1052.5	1052.5	1053.3	1052.5	1050.9	1052.5	1049.3
22.5°	1027.8	1027.0	1026.2	1030.2	1031.0	1030.2	1025.4	1023.8	1019.1	1019.9
25°	998.4	996.0	1004.7	1000.0	996.0	996.0	993.6	990.4	988.0	988.0
27.5°	970.5	974.5	970.5	971.3	970.5	971.3	960.9	957.0	957.0	953.8
30°	947.4	944.2	945.0	939.4	936.3	935.5	933.1	929.9	927.5	926.7
32.5°	914.0	915.6	913.2	910.8	910.0	907.6	906.0	902.0	898.8	895.7
35°	886.9	884.5	883.7	885.3	879.7	875.8	874.2	871.8	870.2	867.0
37.5°	857.4	854.3	855.1	849.5	850.3	849.5	844.7	840.7	839.9	838.3
40°	824.0	825.6	822.4	822.4	815.2	814.5	813.7	813.7	811.3	811.3
42.5°	794.6	794.6	793.0	790.6	788.2	786.6	781.8	781.0	777.8	774.6
45°	764.3	762.7	760.3	758.7	757.1	754.7	748.4	746.0	744.4	742.8
47.5°	737.2	734.0	734.0	729.3	723.7	723.7	722.1	718.1	716.5	716.5
50°	707.8	712.5	714.9	711.0	709.4	707.8	706.2	707.0	705.4	707.8
52.5°	682.3	686.3	685.5	687.1	688.7	691.1	687.9	690.3	688.7	686.3
55°	649.7	652.8	651.2	649.7	653.6	653.6	657.6	656.0	655.2	655.2
57.5°	609.0	613.0	613.0	614.6	615.4	613.0	618.6	616.2	617.0	614.6
60°	566.9	566.1	568.4	573.2	574.0	570.8	570.0	573.2	570.8	570.8
62.5°	525.5	527.0	527.8	525.5	523.9	525.5	522.3	525.5	525.5	524.7
65°	480.9	482.5	483.3	480.1	476.1	476.9	473.7	475.3	476.1	475.3
67.5°	432.3	436.3	434.7	433.9	431.5	426.7	425.9	424.3	425.9	425.9
70°	386.1	390.1	386.1	386.9	386.9	382.9	380.6	377.4	377.4	376.6
72.5°	340.7	343.1	342.3	342.3	343.1	340.7	336.8	335.2	333.6	333.6
75°	293.0	297.8	297.8	298.6	299.3	297.8	297.8	295.4	293.0	293.8
77.5°	246.8	251.6	255.6	258.0	258.0	258.7	260.3	259.5	258.0	258.0
80°	203.8	211.0	215.0	219.7	220.5	220.5	223.7	224.5	224.5	223.7
82.5°	163.2	170.4	175.2	179.9	180.7	182.3	187.9	190.3	195.1	195.1
85°	124.2	132.2	137.7	144.1	148.1	150.5	155.2	161.6	168.0	172.8
87.5°	95.5	103.5	111.5	117.8	121.0	123.4	129.8	137.7	145.7	152.1
90°	82.0	89.2	96.3	101.9	105.9	108.3	114.6	121.8	131.4	137.7
92.5°	78.8	86.0	91.6	97.9	101.1	103.5	111.5	121.0	132.2	137.7
95°	76.4	82.8	89.2	96.3	99.5	103.5	113.8	127.4	142.5	148.1
97.5°	74.8	81.2	87.6	94.7	98.7	102.7	114.6	125.0	131.4	131.4
100°	72.4	78.8	85.2	91.6	94.7	98.7	105.9	109.1	109.1	109.1
102.5°	70.1	75.6	81.2	85.2	87.6	89.2	92.4	93.1	91.6	90.0
105°	67.7	71.7	74.8	77.2	78.0	78.8	79.6	79.6	78.0	76.4
107.5°	65.3	67.7	70.1	70.1	70.9	70.9	71.7	70.9	69.3	67.7
110°	62.1	64.5	65.3	66.1	66.1	66.1	66.9	66.9	65.3	64.5



TEST NUMBER: P241386

CATALOG NUMBER: FVS8M-4-LD4-35-1STD-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	59.7	62.1	62.9	63.7	64.5	64.5	66.1	66.1	65.3	65.3
115°	58.9	61.3	62.9	64.5	65.3	66.1	67.7	69.3	68.5	67.7
117.5°	58.9	62.1	64.5	66.1	66.9	68.5	70.9	71.7	71.7	71.7
120°	58.9	62.9	66.1	68.5	69.3	70.9	72.4	74.0	74.8	74.0
122.5°	58.9	62.9	66.9	69.3	70.1	71.7	74.0	75.6	76.4	76.4
125°	58.9	62.9	66.9	69.3	70.9	71.7	74.0	76.4	77.2	78.0
127.5°	57.3	62.1	65.3	68.5	70.1	71.7	74.0	76.4	78.0	78.8
130°	55.7	59.7	63.7	66.9	68.5	70.1	73.2	75.6	77.2	78.0
132.5°	53.3	57.3	61.3	64.5	66.1	67.7	70.9	74.0	75.6	76.4
135°	50.2	54.9	58.9	62.1	63.7	65.3	68.5	71.7	73.2	74.0
137.5°	47.0	51.7	55.7	58.9	60.5	62.1	65.3	67.7	70.1	70.1
140°	43.8	48.6	52.5	55.7	57.3	58.9	61.3	63.7	65.3	66.1
142.5°	39.8	44.6	47.8	51.7	53.3	54.1	56.5	58.9	60.5	60.5
145°	35.0	39.8	43.8	46.2	47.8	49.4	51.0	52.5	54.1	54.1
147.5°	29.5	34.2	38.2	40.6	42.2	43.0	44.6	46.2	47.0	47.0
150°	23.9	27.9	31.8	34.2	35.8	36.6	38.2	39.0	39.8	39.8
152.5°	18.3	22.3	25.5	27.9	29.5	30.3	31.8	31.8	32.6	33.4
155°	13.5	16.7	19.1	22.3	23.1	23.9	24.7	26.3	26.3	26.3
157.5°	9.6	11.9	13.5	15.9	16.7	18.3	19.1	19.9	19.9	19.9
160°	6.4	8.0	9.6	11.1	11.9	12.7	13.5	14.3	14.3	15.1
162.5°	4.0	4.8	5.6	6.4	7.2	8.0	8.8	9.6	9.6	9.6
165°	1.6	2.4	3.2	3.2	4.0	4.0	4.8	5.6	5.6	5.6
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)