

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: P241557

Luminaire Tested: **FVS8M-2-LD4-30-3HI-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241557
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-14)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-30-3HI-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (126) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

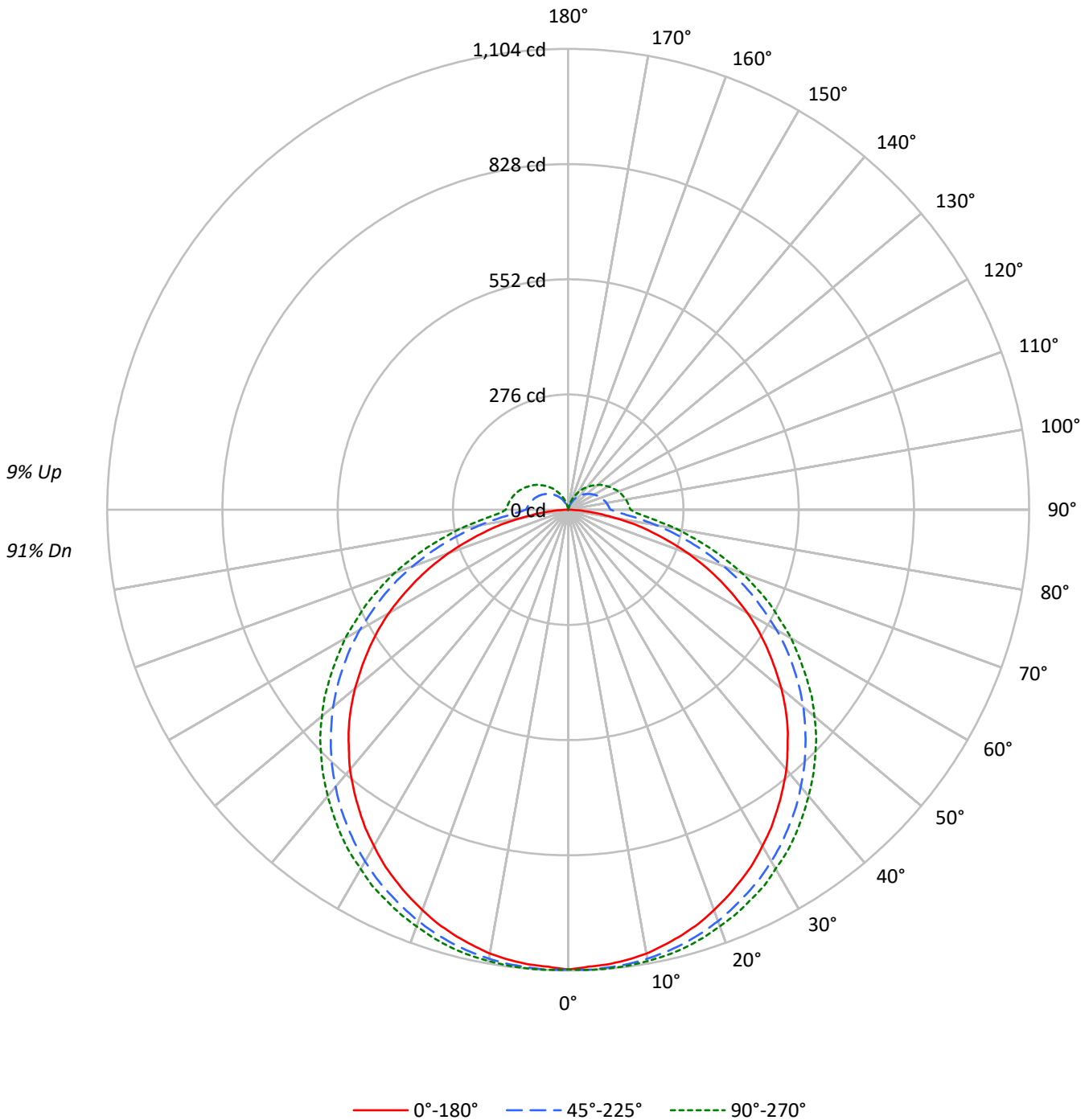
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3946.0 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 66.5
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





TEST NUMBER: P241557

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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	113	113	113	113	106	106	106	99	99	99	93	93	93	91
1	105	100	96	91	102	97	93	89	91	88	84	85	83	80	80	78	76	73
2	95	87	79	73	92	84	77	72	79	73	69	74	70	66	70	66	63	60
3	87	76	67	60	83	73	65	59	69	62	57	65	59	55	61	57	53	50
4	79	67	58	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	31
7	62	48	39	33	59	47	38	32	44	37	32	42	36	31	40	34	30	28
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	35	29	25	34	28	24	22
10	50	37	29	24	48	36	28	23	34	27	23	33	27	22	31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9903	9903	9903
5°	9797	9748	9764
10°	9723	9605	9637
15°	9612	9461	9527
20°	9493	9305	9389
25°	9371	9141	9261
30°	9239	8982	9124
35°	9092	8803	8996
40°	8950	8614	8837
45°	8762	8407	8676
50°	8520	8181	8482
55°	8211	7887	8231
60°	7853	7545	7968
65°	7305	7100	7624
70°	6602	6551	7180
75°	5552	5847	6572
80°	4138	4995	5954
85°	2194	4145	5360



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	2.7
10°-20°	302.9	7.7
20°-30°	466.1	11.8
30°-40°	574.7	14.6
40°-50°	615.3	15.6
50°-60°	581.2	14.7
60°-70°	473.9	12.0
70°-80°	310.5	7.9
80°-90°	147.5	3.7
90°-100°	94.6	2.4
100°-110°	84.0	2.1
110°-120°	69.5	1.8
120°-130°	52.9	1.3
130°-140°	36.1	0.9
140°-150°	20.9	0.5
150°-160°	9.1	0.2
160°-170°	2.0	0.1
170°-180°	0.0	0.0
0°-30°	873.7	22.1
0°-40°	1448.4	36.7
0°-60°	2644.9	67.0
0°-90°	3576.7	90.6
90°-120°	248.2	6.3
90°-150°	358.1	9.1
90°-180°	369.0	9.4
0°-180°	3946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1093	1096	1101	1104	1104	104
15°	1055	1062	1075	1083	1086	298
25°	980	994	1014	1028	1032	452
35°	874	896	923	943	949	547
45°	744	769	804	828	837	573
55°	583	617	658	686	695	521
65°	401	439	488	520	532	397
75°	207	252	304	338	349	221
85°	40	86	139	175	186	49
90°	0	48	102	138	150	2
95°	0	44	97	132	145	0
105°	0	38	88	123	134	0
115°	0	33	78	109	119	0
125°	0	26	66	93	102	0
135°	1	20	52	74	82	0
145°	1	12	37	54	60	0
155°	1	5	21	33	36	0
165°	1	1	6	12	14	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241557

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7
2.5°	1096.0	1096.0	1097.0	1097.9	1097.9	1098.8	1098.8	1099.8	1101.7	1102.6	1103.5
5°	1093.2	1093.2	1094.1	1095.1	1096.0	1096.0	1097.0	1097.9	1098.8	1099.8	1100.7
7.5°	1087.6	1087.6	1088.5	1089.4	1090.4	1091.3	1091.3	1092.3	1094.1	1096.0	1097.9
10°	1080.0	1079.1	1080.0	1081.0	1081.9	1082.9	1084.7	1086.6	1088.5	1091.3	1092.3
12.5°	1067.8	1068.8	1068.8	1070.6	1072.5	1074.4	1074.4	1077.2	1080.0	1082.9	1084.7
15°	1054.7	1054.7	1055.6	1058.4	1060.3	1062.2	1063.1	1066.9	1069.7	1072.5	1075.3
17.5°	1039.6	1039.6	1041.5	1043.4	1046.2	1048.1	1050.0	1052.8	1056.5	1060.3	1063.1
20°	1020.8	1021.8	1023.6	1026.5	1030.2	1032.1	1033.0	1037.7	1042.4	1045.3	1049.0
22.5°	1001.1	1001.1	1003.9	1007.7	1011.4	1013.3	1015.2	1019.9	1024.6	1028.3	1032.1
25°	979.5	980.4	983.2	987.0	990.7	993.6	995.4	1002.0	1005.8	1009.5	1014.2
27.5°	956.9	956.9	960.7	964.4	969.1	971.0	974.8	979.5	985.1	989.8	995.4
30°	930.6	931.5	936.2	940.9	944.7	949.4	951.3	956.9	962.5	967.2	972.9
32.5°	904.3	904.3	908.0	914.6	918.4	922.1	924.9	931.5	938.1	943.7	949.4
35°	874.2	877.0	880.8	886.4	892.0	895.8	898.6	905.2	912.7	917.4	923.1
37.5°	844.1	846.0	850.7	856.3	862.0	865.7	869.5	877.0	883.6	890.2	896.7
40°	813.1	813.1	817.8	825.3	831.9	834.7	838.5	846.0	852.6	860.1	866.7
42.5°	777.4	779.2	784.9	791.5	799.0	802.7	806.5	814.0	821.5	829.1	836.6
45°	743.5	744.5	750.1	756.7	764.2	768.9	773.6	780.2	789.6	796.2	803.7
47.5°	705.9	707.8	713.4	721.0	728.5	734.1	736.9	745.4	753.9	762.3	769.8
50°	666.4	668.3	674.9	684.3	691.8	694.6	700.3	710.6	718.1	727.5	735.1
52.5°	624.2	628.8	637.3	643.9	652.3	657.0	661.7	670.2	681.5	689.0	697.5
55°	582.8	585.6	593.1	601.6	611.9	616.6	621.3	630.7	642.0	650.5	658.0
57.5°	541.4	544.3	551.8	559.3	570.6	575.3	580.9	591.3	600.7	608.2	618.5
60°	496.3	498.2	506.7	517.0	526.4	533.0	536.7	548.0	557.4	566.8	576.2
62.5°	448.4	454.0	460.6	471.9	481.3	489.7	493.5	502.9	514.2	523.6	531.1
65°	401.4	406.1	413.6	425.8	435.2	439.0	446.5	456.8	468.1	479.4	487.9
67.5°	353.4	360.0	364.7	377.9	391.0	394.8	402.3	410.8	423.9	434.3	443.7
70°	305.5	309.3	317.7	329.9	340.3	346.9	352.5	364.7	376.0	388.2	396.7
72.5°	255.7	261.3	270.7	281.1	295.2	299.9	306.4	316.8	330.9	341.2	349.7
75°	206.8	211.5	220.0	234.1	246.3	251.9	258.5	270.7	282.9	294.2	303.6
77.5°	163.6	165.4	174.8	187.1	199.3	205.9	212.4	224.7	236.9	250.0	258.5
80°	115.6	121.3	129.7	141.9	155.1	161.7	168.3	179.5	191.8	203.0	214.3
82.5°	73.3	79.0	88.4	100.6	114.7	119.4	126.9	141.0	151.3	161.7	173.9
85°	40.4	44.2	52.6	65.8	79.0	85.5	92.1	105.3	116.6	127.8	139.1
87.5°	14.1	18.8	28.2	40.4	53.6	60.2	66.7	79.9	91.2	103.4	114.7
90°	0.0	6.6	16.0	28.2	41.4	47.9	54.5	66.7	79.9	91.2	101.5
92.5°	0.0	4.7	14.1	25.4	38.5	45.1	51.7	64.9	77.1	88.4	98.7
95°	0.0	3.8	13.2	24.4	37.6	44.2	50.8	63.0	75.2	86.5	96.8
97.5°	0.0	3.8	12.2	23.5	36.7	42.3	48.9	62.0	73.3	84.6	94.9
100°	0.0	3.8	12.2	22.6	35.7	41.4	47.9	60.2	71.4	82.7	93.1
102.5°	0.0	3.8	11.3	22.6	33.8	40.4	46.1	58.3	69.6	80.8	91.2
105°	0.0	2.8	10.3	21.6	32.9	38.5	45.1	56.4	67.7	79.0	88.4
107.5°	0.0	2.8	10.3	20.7	32.0	37.6	43.2	54.5	65.8	76.1	86.5
110°	0.0	2.8	9.4	19.7	30.1	35.7	42.3	53.6	63.9	74.3	83.7



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CATALOG NUMBER: FVS8M-2-LD4-30-3HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.8	9.4	18.8	29.1	34.8	40.4	50.8	62.0	71.4	80.8
115°	0.0	1.9	8.5	17.9	27.3	32.9	38.5	48.9	59.2	68.6	78.0
117.5°	0.0	1.9	7.5	16.9	26.3	31.0	36.7	47.0	57.3	66.7	75.2
120°	0.0	1.9	7.5	16.0	25.4	30.1	34.8	45.1	54.5	63.9	72.4
122.5°	0.0	0.9	6.6	15.0	23.5	28.2	32.9	42.3	51.7	61.1	68.6
125°	0.0	0.9	6.6	13.2	22.6	26.3	31.0	40.4	48.9	57.3	65.8
127.5°	0.0	0.9	5.6	12.2	20.7	25.4	29.1	38.5	47.0	54.5	62.0
130°	0.0	0.9	4.7	11.3	18.8	23.5	27.3	35.7	44.2	51.7	58.3
132.5°	0.0	0.9	4.7	10.3	17.9	21.6	25.4	32.9	41.4	47.9	55.5
135°	0.9	0.9	3.8	9.4	16.0	19.7	23.5	31.0	38.5	45.1	51.7
137.5°	0.0	0.9	2.8	8.5	15.0	17.9	21.6	28.2	35.7	41.4	47.9
140°	0.0	0.9	2.8	7.5	13.2	16.0	19.7	26.3	32.0	38.5	44.2
142.5°	0.9	0.9	1.9	6.6	11.3	14.1	16.9	23.5	29.1	34.8	40.4
145°	0.9	0.9	0.9	4.7	9.4	12.2	15.0	20.7	26.3	32.0	36.7
147.5°	0.9	0.9	0.9	3.8	8.5	10.3	13.2	17.9	23.5	28.2	32.9
150°	0.9	0.9	0.9	2.8	6.6	8.5	10.3	15.0	19.7	24.4	29.1
152.5°	0.9	0.9	0.9	1.9	4.7	6.6	8.5	12.2	16.9	20.7	24.4
155°	0.9	0.9	0.9	1.9	3.8	4.7	6.6	10.3	13.2	16.9	20.7
157.5°	0.9	0.9	0.9	0.9	2.8	3.8	4.7	7.5	10.3	13.2	16.0
160°	0.9	0.9	0.9	0.9	1.9	2.8	2.8	5.6	7.5	10.3	12.2
162.5°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	3.8	4.7	6.6	8.5
165°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7	5.6
167.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9	2.8
170°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.9	0.9
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°	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7
2.5°	1103.5	1104.5	1104.5	1104.5	1104.5	1104.5	1104.5	1104.5	1104.5	1103.5
5°	1101.7	1102.6	1102.6	1103.5	1103.5	1103.5	1103.5	1103.5	1103.5	1103.5
7.5°	1098.8	1099.8	1100.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7	1101.7
10°	1094.1	1095.1	1097.0	1097.0	1097.9	1097.9	1097.9	1097.9	1098.8	1097.9
12.5°	1086.6	1088.5	1090.4	1091.3	1091.3	1092.3	1092.3	1092.3	1093.2	1093.2
15°	1077.2	1079.1	1081.0	1081.9	1082.9	1083.8	1083.8	1084.7	1084.7	1085.7
17.5°	1065.9	1068.8	1070.6	1071.6	1072.5	1073.5	1073.5	1074.4	1075.3	1075.3
20°	1052.8	1054.7	1057.5	1058.4	1059.4	1060.3	1062.2	1062.2	1063.1	1062.2
22.5°	1035.9	1039.6	1042.4	1044.3	1045.3	1045.3	1047.1	1049.0	1049.0	1049.0
25°	1018.0	1021.8	1025.5	1027.4	1028.3	1028.3	1031.2	1031.2	1032.1	1032.1
27.5°	998.3	1003.0	1005.8	1008.6	1009.5	1010.5	1011.4	1013.3	1014.2	1016.1
30°	976.6	980.4	984.2	987.9	988.9	989.8	991.7	992.6	994.5	993.6
32.5°	954.1	957.8	962.5	966.3	967.2	967.2	970.1	970.1	971.9	973.8
35°	928.7	933.4	937.2	940.9	942.8	942.8	946.6	947.5	949.4	949.4
37.5°	901.4	908.0	910.8	915.5	917.4	918.4	921.2	921.2	923.1	923.1
40°	873.2	877.9	883.6	886.4	888.3	891.1	892.0	895.8	895.8	895.8
42.5°	843.2	846.9	854.4	857.3	860.1	860.1	862.9	864.8	866.7	867.6
45°	811.2	815.9	821.5	826.2	828.1	830.0	831.9	833.8	836.6	836.6
47.5°	776.4	783.9	787.7	793.3	795.2	797.1	799.9	801.8	803.7	805.6
50°	740.7	748.2	754.8	758.6	759.5	762.3	765.1	767.0	768.9	769.8
52.5°	704.0	710.6	716.3	721.9	723.8	728.5	728.5	731.3	733.2	735.1
55°	666.4	672.1	679.6	683.4	686.2	687.1	692.8	694.6	694.6	694.6
57.5°	625.1	633.5	638.2	645.8	646.7	648.6	651.4	655.2	655.2	655.2
60°	583.7	591.3	597.8	602.5	606.3	606.3	611.0	614.8	615.7	616.6
62.5°	541.4	548.0	555.5	560.2	564.0	565.9	568.7	572.5	574.3	572.5
65°	496.3	503.8	511.4	517.0	519.8	521.7	525.5	528.3	531.1	532.0
67.5°	452.1	458.7	467.2	473.8	475.6	479.4	482.2	484.1	486.0	486.0
70°	406.1	414.5	422.1	427.7	428.6	432.4	437.1	439.9	439.0	442.7
72.5°	360.0	368.5	375.1	382.6	383.5	386.3	390.1	392.9	393.9	394.8
75°	313.0	323.4	329.0	335.6	338.4	340.3	345.0	348.7	348.7	348.7
77.5°	267.9	276.4	282.9	288.6	292.3	295.2	299.9	302.7	302.7	303.6
80°	221.8	233.1	238.8	245.3	250.0	251.9	255.7	259.4	260.4	262.3
82.5°	182.4	192.7	199.3	205.9	209.6	213.4	215.3	219.0	220.0	220.0
85°	148.5	157.0	164.5	171.1	174.8	177.7	181.4	183.3	186.1	186.1
87.5°	124.1	131.6	140.1	146.6	149.5	152.3	156.0	158.9	161.7	160.7
90°	111.9	120.3	127.8	134.4	138.2	141.0	143.8	147.6	149.5	149.5
92.5°	108.1	116.6	125.0	131.6	134.4	136.3	141.0	143.8	145.7	146.6
95°	106.2	115.6	123.1	129.7	132.5	135.4	139.1	141.9	143.8	144.8
97.5°	105.3	113.7	121.3	127.8	130.7	133.5	137.2	140.1	141.9	142.9
100°	102.5	110.9	119.4	126.0	127.8	130.7	135.4	138.2	140.1	140.1
102.5°	100.6	109.0	116.6	123.1	126.0	127.8	132.5	135.4	137.2	137.2
105°	97.8	106.2	113.7	120.3	123.1	125.0	129.7	132.5	133.5	134.4
107.5°	94.9	103.4	110.9	116.6	119.4	122.2	126.0	128.8	130.7	131.6
110°	92.1	100.6	107.2	113.7	116.6	118.4	123.1	125.0	126.9	127.8



TEST NUMBER: P241557

CATALOG NUMBER: FVS8M-2-LD4-30-3HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	89.3	96.8	104.3	110.0	112.8	114.7	118.4	122.2	123.1	124.1
115°	86.5	94.0	100.6	106.2	109.0	110.9	114.7	117.5	119.4	119.4
117.5°	82.7	90.2	96.8	102.5	105.3	107.2	110.9	113.7	114.7	115.6
120°	79.9	87.4	93.1	98.7	101.5	103.4	106.2	109.0	110.9	110.9
122.5°	76.1	83.7	89.3	94.9	96.8	98.7	102.5	105.3	106.2	106.2
125°	72.4	79.9	85.5	90.2	93.1	94.9	97.8	100.6	101.5	102.5
127.5°	69.6	75.2	81.8	86.5	88.4	90.2	93.1	95.9	96.8	97.8
130°	65.8	71.4	77.1	81.8	83.7	85.5	88.4	90.2	92.1	92.1
132.5°	61.1	67.7	72.4	77.1	79.0	79.9	83.7	85.5	86.5	86.5
135°	57.3	63.0	67.7	72.4	74.3	75.2	78.0	79.9	81.8	81.8
137.5°	53.6	58.3	63.0	67.7	68.6	70.5	73.3	75.2	76.1	76.1
140°	49.8	54.5	58.3	62.0	63.9	64.9	67.7	69.6	70.5	70.5
142.5°	45.1	49.8	53.6	57.3	59.2	60.2	62.0	63.9	64.9	65.8
145°	41.4	45.1	48.9	52.6	53.6	54.5	57.3	58.3	59.2	60.2
147.5°	36.7	40.4	44.2	47.0	47.9	49.8	51.7	52.6	53.6	53.6
150°	32.9	35.7	39.5	42.3	43.2	44.2	46.1	47.0	47.9	47.9
152.5°	28.2	32.0	34.8	36.7	37.6	38.5	40.4	41.4	42.3	42.3
155°	24.4	27.3	29.1	32.0	32.9	33.8	34.8	35.7	35.7	35.7
157.5°	19.7	22.6	24.4	26.3	27.3	28.2	29.1	30.1	30.1	31.0
160°	15.0	17.9	19.7	21.6	21.6	22.6	23.5	24.4	24.4	24.4
162.5°	11.3	13.2	15.0	16.0	16.9	16.9	18.8	18.8	18.8	18.8
165°	6.6	8.5	9.4	11.3	12.2	12.2	13.2	13.2	13.2	14.1
167.5°	3.8	4.7	5.6	6.6	7.5	7.5	8.5	8.5	8.5	8.5
170°	0.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8
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)