

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: P241555

Luminaire Tested: **FVS8M-2-LD4-40-3STD-O-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P241555  
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-LD4-40-3STD-O-UNV-EDC1  
Description: FAILSAFE FVS8M LED FIXTURE  
2FT LENGTH, 3-MODULE LED WITH OPAL LENS  
Light Source: (126) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

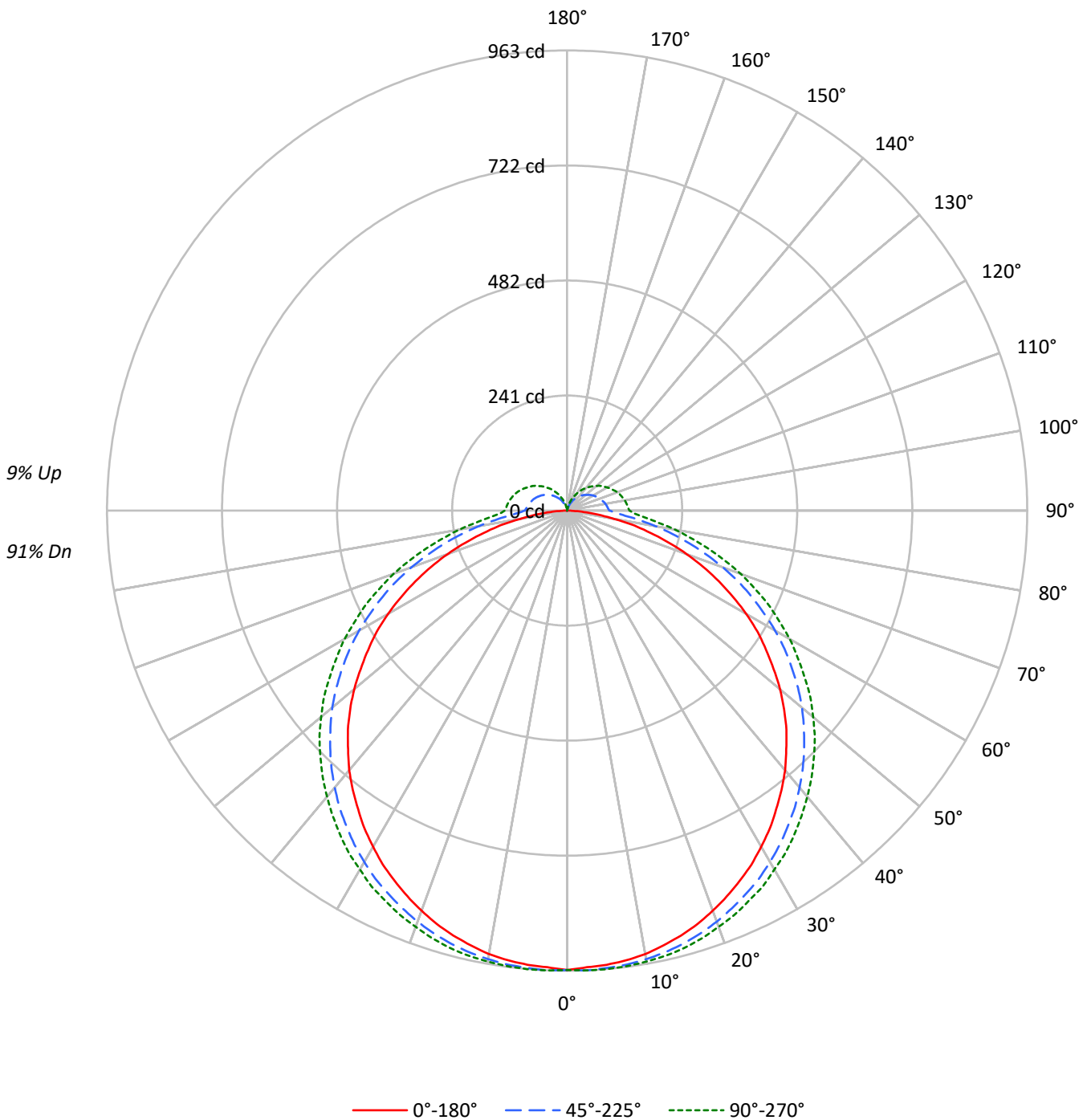
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3444.0 lumens  
Efficiency: N/A  
Efficacy: 68.1 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): 50.6  
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

TEST NUMBER: P241555

CATALOG NUMBER: FVS8M-2-LD4-40-3STD-O-UNV-EDC1

### 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	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°	8643	8643	8643
5°	8550	8508	8523
10°	8486	8383	8411
15°	8389	8257	8315
20°	8286	8122	8195
25°	8179	7978	8083
30°	8064	7839	7963
35°	7936	7682	7851
40°	7811	7518	7712
45°	7647	7337	7572
50°	7437	7140	7404
55°	7166	6884	7185
60°	6854	6585	6955
65°	6375	6196	6653
70°	5762	5717	6267
75°	4846	5103	5737
80°	3612	4361	5195
85°	1917	3618	4677



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	2.7
10°-20°	264.4	7.7
20°-30°	406.8	11.8
30°-40°	501.6	14.6
40°-50°	537.0	15.6
50°-60°	507.2	14.7
60°-70°	413.6	12.0
70°-80°	271.0	7.9
80°-90°	128.7	3.7
90°-100°	82.6	2.4
100°-110°	73.3	2.1
110°-120°	60.7	1.8
120°-130°	46.2	1.3
130°-140°	31.5	0.9
140°-150°	18.2	0.5
150°-160°	7.9	0.2
160°-170°	1.8	0.1
170°-180°	0.0	0.0
0°-30°	762.5	22.1
0°-40°	1264.2	36.7
0°-60°	2308.4	67.0
0°-90°	3121.7	90.6
90°-120°	216.6	6.3
90°-150°	312.5	9.1
90°-180°	322.0	9.3
0°-180°	3444.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	962	962	962	962	962	
5°	954	957	961	963	963	91
15°	920	927	938	945	948	260
25°	855	867	885	898	901	394
35°	763	782	806	823	829	478
45°	649	671	701	723	730	500
55°	509	538	574	599	606	455
65°	350	383	426	454	464	346
75°	180	220	265	295	304	192
85°	35	75	121	153	162	42
90°	0	42	89	121	130	2
95°	0	39	84	116	126	0
105°	0	34	77	108	117	0
115°	0	29	68	95	104	0
125°	0	23	57	81	89	0
135°	1	17	45	65	71	0
145°	1	11	32	47	52	0
155°	1	4	18	29	31	0
165°	1	1	5	11	12	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241555

CATALOG NUMBER: FVS8M-2-LD4-40-3STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5
2.5°	956.6	956.6	957.4	958.2	958.2	959.1	959.1	959.9	961.5	962.3	963.2
5°	954.1	954.1	954.9	955.8	956.6	956.6	957.4	958.2	959.1	959.9	960.7
7.5°	949.2	949.2	950.0	950.8	951.7	952.5	952.5	953.3	954.9	956.6	958.2
10°	942.6	941.8	942.6	943.5	944.3	945.1	946.7	948.4	950.0	952.5	953.3
12.5°	932.0	932.8	932.8	934.4	936.1	937.7	937.7	940.2	942.6	945.1	946.7
15°	920.5	920.5	921.3	923.8	925.4	927.1	927.9	931.2	933.6	936.1	938.5
17.5°	907.4	907.4	909.0	910.6	913.1	914.7	916.4	918.9	922.1	925.4	927.9
20°	891.0	891.8	893.4	895.9	899.2	900.8	901.6	905.7	909.8	912.3	915.6
22.5°	873.7	873.7	876.2	879.5	882.8	884.4	886.0	890.1	894.2	897.5	900.8
25°	854.9	855.7	858.1	861.4	864.7	867.2	868.8	874.5	877.8	881.1	885.2
27.5°	835.2	835.2	838.5	841.7	845.8	847.5	850.8	854.9	859.8	863.9	868.8
30°	812.2	813.0	817.1	821.2	824.5	828.6	830.2	835.2	840.1	844.2	849.1
32.5°	789.2	789.2	792.5	798.3	801.5	804.8	807.3	813.0	818.8	823.7	828.6
35°	763.0	765.4	768.7	773.6	778.6	781.8	784.3	790.0	796.6	800.7	805.6
37.5°	736.7	738.4	742.5	747.4	752.3	755.6	758.9	765.4	771.2	776.9	782.7
40°	709.6	709.6	713.8	720.3	726.1	728.5	731.8	738.4	744.1	750.7	756.4
42.5°	678.5	680.1	685.0	690.8	697.3	700.6	703.9	710.5	717.0	723.6	730.2
45°	648.9	649.8	654.7	660.4	667.0	671.1	675.2	680.9	689.1	694.9	701.4
47.5°	616.1	617.8	622.7	629.2	635.8	640.7	643.2	650.6	658.0	665.3	671.9
50°	581.7	583.3	589.0	597.3	603.8	606.3	611.2	620.2	626.8	635.0	641.6
52.5°	544.7	548.8	556.2	562.0	569.4	573.5	577.6	584.9	594.8	601.4	608.7
55°	508.6	511.1	517.7	525.1	534.1	538.2	542.3	550.5	560.3	567.7	574.3
57.5°	472.6	475.0	481.6	488.1	498.0	502.1	507.0	516.0	524.2	530.8	539.8
60°	433.2	434.8	442.2	451.2	459.4	465.2	468.4	478.3	486.5	494.7	502.9
62.5°	391.3	396.3	402.0	411.8	420.0	427.4	430.7	438.9	448.8	457.0	463.5
65°	350.3	354.4	361.0	371.6	379.8	383.1	389.7	398.7	408.6	418.4	425.8
67.5°	308.5	314.2	318.3	329.8	341.3	344.6	351.1	358.5	370.0	379.0	387.2
70°	266.6	269.9	277.3	288.0	297.0	302.7	307.7	318.3	328.2	338.8	346.2
72.5°	223.1	228.1	236.3	245.3	257.6	261.7	267.5	276.5	288.8	297.8	305.2
75°	180.5	184.6	192.0	204.3	214.9	219.9	225.6	236.3	246.9	256.8	265.0
77.5°	142.8	144.4	152.6	163.3	173.9	179.7	185.4	196.1	206.7	218.2	225.6
80°	100.9	105.8	113.2	123.9	135.4	141.1	146.9	156.7	167.4	177.2	187.1
82.5°	64.0	68.9	77.1	87.8	100.1	104.2	110.8	123.1	132.1	141.1	151.8
85°	35.3	38.6	45.9	57.4	68.9	74.7	80.4	91.9	101.7	111.6	121.4
87.5°	12.3	16.4	24.6	35.3	46.8	52.5	58.2	69.7	79.6	90.2	100.1
90°	0.0	5.7	13.9	24.6	36.1	41.8	47.6	58.2	69.7	79.6	88.6
92.5°	0.0	4.1	12.3	22.2	33.6	39.4	45.1	56.6	67.3	77.1	86.1
95°	0.0	3.3	11.5	21.3	32.8	38.6	44.3	55.0	65.6	75.5	84.5
97.5°	0.0	3.3	10.7	20.5	32.0	36.9	42.7	54.1	64.0	73.8	82.9
100°	0.0	3.3	10.7	19.7	31.2	36.1	41.8	52.5	62.4	72.2	81.2
102.5°	0.0	3.3	9.8	19.7	29.5	35.3	40.2	50.9	60.7	70.6	79.6
105°	0.0	2.5	9.0	18.9	28.7	33.6	39.4	49.2	59.1	68.9	77.1
107.5°	0.0	2.5	9.0	18.0	27.9	32.8	37.7	47.6	57.4	66.5	75.5
110°	0.0	2.5	8.2	17.2	26.3	31.2	36.9	46.8	55.8	64.8	73.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.5	8.2	16.4	25.4	30.4	35.3	44.3	54.1	62.4	70.6
115°	0.0	1.6	7.4	15.6	23.8	28.7	33.6	42.7	51.7	59.9	68.1
117.5°	0.0	1.6	6.6	14.8	23.0	27.1	32.0	41.0	50.0	58.2	65.6
120°	0.0	1.6	6.6	13.9	22.2	26.3	30.4	39.4	47.6	55.8	63.2
122.5°	0.0	0.8	5.7	13.1	20.5	24.6	28.7	36.9	45.1	53.3	59.9
125°	0.0	0.8	5.7	11.5	19.7	23.0	27.1	35.3	42.7	50.0	57.4
127.5°	0.0	0.8	4.9	10.7	18.0	22.2	25.4	33.6	41.0	47.6	54.1
130°	0.0	0.8	4.1	9.8	16.4	20.5	23.8	31.2	38.6	45.1	50.9
132.5°	0.0	0.8	4.1	9.0	15.6	18.9	22.2	28.7	36.1	41.8	48.4
135°	0.8	0.8	3.3	8.2	13.9	17.2	20.5	27.1	33.6	39.4	45.1
137.5°	0.0	0.8	2.5	7.4	13.1	15.6	18.9	24.6	31.2	36.1	41.8
140°	0.0	0.8	2.5	6.6	11.5	13.9	17.2	23.0	27.9	33.6	38.6
142.5°	0.8	0.8	1.6	5.7	9.8	12.3	14.8	20.5	25.4	30.4	35.3
145°	0.8	0.8	0.8	4.1	8.2	10.7	13.1	18.0	23.0	27.9	32.0
147.5°	0.8	0.8	0.8	3.3	7.4	9.0	11.5	15.6	20.5	24.6	28.7
150°	0.8	0.8	0.8	2.5	5.7	7.4	9.0	13.1	17.2	21.3	25.4
152.5°	0.8	0.8	0.8	1.6	4.1	5.7	7.4	10.7	14.8	18.0	21.3
155°	0.8	0.8	0.8	1.6	3.3	4.1	5.7	9.0	11.5	14.8	18.0
157.5°	0.8	0.8	0.8	0.8	2.5	3.3	4.1	6.6	9.0	11.5	13.9
160°	0.8	0.8	0.8	0.8	1.6	2.5	2.5	4.9	6.6	9.0	10.7
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.6	3.3	4.1	5.7	7.4
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.5	4.1	4.9
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.5
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.8	0.8
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°	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5	961.5
2.5°	963.2	964.0	964.0	964.0	964.0	964.0	964.0	964.0	964.0	963.2
5°	961.5	962.3	962.3	963.2	963.2	963.2	963.2	963.2	963.2	963.2
7.5°	959.1	959.9	960.7	961.5	961.5	961.5	961.5	961.5	961.5	961.5
10°	954.9	955.8	957.4	957.4	958.2	958.2	958.2	958.2	959.1	958.2
12.5°	948.4	950.0	951.7	952.5	952.5	953.3	953.3	953.3	954.1	954.1
15°	940.2	941.8	943.5	944.3	945.1	945.9	945.9	946.7	946.7	947.6
17.5°	930.3	932.8	934.4	935.3	936.1	936.9	936.9	937.7	938.5	938.5
20°	918.9	920.5	923.0	923.8	924.6	925.4	927.1	927.1	927.9	927.1
22.5°	904.1	907.4	909.8	911.5	912.3	912.3	913.9	915.6	915.6	915.6
25°	888.5	891.8	895.1	896.7	897.5	897.5	900.0	900.0	900.8	900.8
27.5°	871.3	875.4	877.8	880.3	881.1	881.9	882.8	884.4	885.2	886.9
30°	852.4	855.7	859.0	862.2	863.1	863.9	865.5	866.3	868.0	867.2
32.5°	832.7	836.0	840.1	843.4	844.2	844.2	846.7	846.7	848.3	849.9
35°	810.6	814.7	817.9	821.2	822.9	822.9	826.1	827.0	828.6	828.6
37.5°	786.8	792.5	795.0	799.1	800.7	801.5	804.0	804.0	805.6	805.6
40°	762.2	766.3	771.2	773.6	775.3	777.7	778.6	781.8	781.8	781.8
42.5°	735.9	739.2	745.7	748.2	750.7	750.7	753.1	754.8	756.4	757.2
45°	708.0	712.1	717.0	721.1	722.8	724.4	726.1	727.7	730.2	730.2
47.5°	677.7	684.2	687.5	692.4	694.1	695.7	698.2	699.8	701.4	703.1
50°	646.5	653.0	658.8	662.1	662.9	665.3	667.8	669.4	671.1	671.9
52.5°	614.5	620.2	625.1	630.1	631.7	635.8	635.8	638.3	639.9	641.6
55°	581.7	586.6	593.2	596.4	598.9	599.7	604.6	606.3	606.3	606.3
57.5°	545.6	553.0	557.1	563.6	564.4	566.1	568.5	571.8	571.8	571.8
60°	509.5	516.0	521.8	525.9	529.2	529.2	533.3	536.5	537.4	538.2
62.5°	472.6	478.3	484.9	489.0	492.2	493.9	496.3	499.6	501.3	499.6
65°	433.2	439.7	446.3	451.2	453.7	455.3	458.6	461.1	463.5	464.3
67.5°	394.6	400.4	407.7	413.5	415.1	418.4	420.9	422.5	424.1	424.1
70°	354.4	361.8	368.4	373.3	374.1	377.4	381.5	383.9	383.1	386.4
72.5°	314.2	321.6	327.3	333.9	334.7	337.2	340.5	342.9	343.7	344.6
75°	273.2	282.2	287.1	292.9	295.3	297.0	301.1	304.4	304.4	304.4
77.5°	233.8	241.2	246.9	251.9	255.1	257.6	261.7	264.2	264.2	265.0
80°	193.6	203.5	208.4	214.1	218.2	219.9	223.1	226.4	227.3	228.9
82.5°	159.2	168.2	173.9	179.7	182.9	186.2	187.9	191.2	192.0	192.0
85°	129.6	137.0	143.6	149.3	152.6	155.1	158.3	160.0	162.4	162.4
87.5°	108.3	114.9	122.2	128.0	130.4	132.9	136.2	138.6	141.1	140.3
90°	97.6	105.0	111.6	117.3	120.6	123.1	125.5	128.8	130.4	130.4
92.5°	94.3	101.7	109.1	114.9	117.3	119.0	123.1	125.5	127.2	128.0
95°	92.7	100.9	107.5	113.2	115.7	118.1	121.4	123.9	125.5	126.3
97.5°	91.9	99.3	105.8	111.6	114.0	116.5	119.8	122.2	123.9	124.7
100°	89.4	96.8	104.2	109.9	111.6	114.0	118.1	120.6	122.2	122.2
102.5°	87.8	95.2	101.7	107.5	109.9	111.6	115.7	118.1	119.8	119.8
105°	85.3	92.7	99.3	105.0	107.5	109.1	113.2	115.7	116.5	117.3
107.5°	82.9	90.2	96.8	101.7	104.2	106.7	109.9	112.4	114.0	114.9
110°	80.4	87.8	93.5	99.3	101.7	103.4	107.5	109.1	110.8	111.6





TEST NUMBER: P241555

CATALOG NUMBER: FVS8M-2-LD4-40-3STD-O-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	77.9	84.5	91.1	96.0	98.4	100.1	103.4	106.7	107.5	108.3
115°	75.5	82.0	87.8	92.7	95.2	96.8	100.1	102.6	104.2	104.2
117.5°	72.2	78.8	84.5	89.4	91.9	93.5	96.8	99.3	100.1	100.9
120°	69.7	76.3	81.2	86.1	88.6	90.2	92.7	95.2	96.8	96.8
122.5°	66.5	73.0	77.9	82.9	84.5	86.1	89.4	91.9	92.7	92.7
125°	63.2	69.7	74.7	78.8	81.2	82.9	85.3	87.8	88.6	89.4
127.5°	60.7	65.6	71.4	75.5	77.1	78.8	81.2	83.7	84.5	85.3
130°	57.4	62.4	67.3	71.4	73.0	74.7	77.1	78.8	80.4	80.4
132.5°	53.3	59.1	63.2	67.3	68.9	69.7	73.0	74.7	75.5	75.5
135°	50.0	55.0	59.1	63.2	64.8	65.6	68.1	69.7	71.4	71.4
137.5°	46.8	50.9	55.0	59.1	59.9	61.5	64.0	65.6	66.5	66.5
140°	43.5	47.6	50.9	54.1	55.8	56.6	59.1	60.7	61.5	61.5
142.5°	39.4	43.5	46.8	50.0	51.7	52.5	54.1	55.8	56.6	57.4
145°	36.1	39.4	42.7	45.9	46.8	47.6	50.0	50.9	51.7	52.5
147.5°	32.0	35.3	38.6	41.0	41.8	43.5	45.1	45.9	46.8	46.8
150°	28.7	31.2	34.5	36.9	37.7	38.6	40.2	41.0	41.8	41.8
152.5°	24.6	27.9	30.4	32.0	32.8	33.6	35.3	36.1	36.9	36.9
155°	21.3	23.8	25.4	27.9	28.7	29.5	30.4	31.2	31.2	31.2
157.5°	17.2	19.7	21.3	23.0	23.8	24.6	25.4	26.3	26.3	27.1
160°	13.1	15.6	17.2	18.9	18.9	19.7	20.5	21.3	21.3	21.3
162.5°	9.8	11.5	13.1	13.9	14.8	14.8	16.4	16.4	16.4	16.4
165°	5.7	7.4	8.2	9.8	10.7	10.7	11.5	11.5	11.5	12.3
167.5°	3.3	4.1	4.9	5.7	6.6	6.6	7.4	7.4	7.4	7.4
170°	0.8	1.6	1.6	2.5	2.5	2.5	3.3	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)