

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: P232073

Luminaire Tested: **FVS4M-3-LD4-35-2HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232073
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-29)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-3-LD4-35-2HI-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

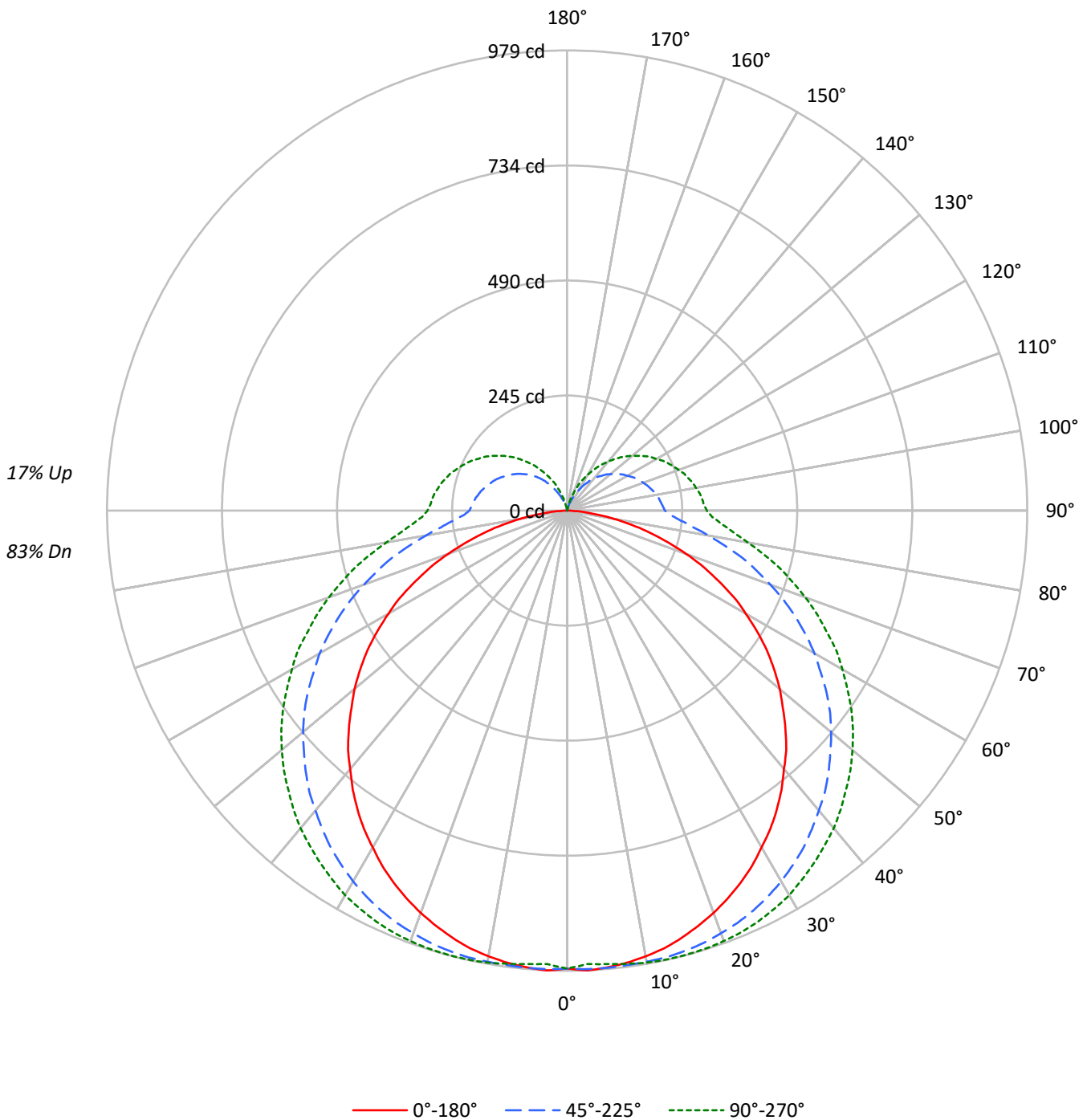
Lumens per Lamp: N/A
Luminaire Lumens: 4390.0 lumens
Efficiency: N/A
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 71.7
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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CATALOG NUMBER: FVS4M-3-LD4-35-2HI-PFS125-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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	103	97	92	88	98	93	89	84	86	82	79	79	76	73	73	70	68	65
2	92	83	76	69	88	80	73	67	74	68	63	68	63	59	62	59	55	52
3	84	72	64	57	80	69	61	55	64	57	52	59	53	49	54	50	46	43
4	76	64	54	47	73	61	53	46	56	49	43	52	46	41	48	43	39	36
5	70	56	47	40	66	54	46	39	50	43	37	46	40	35	43	38	33	31
6	64	50	41	35	61	49	40	34	45	38	32	42	35	31	39	33	29	26
7	59	46	37	30	57	44	35	30	41	33	28	38	32	27	35	30	25	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	20
9	51	38	29	24	49	37	29	23	34	27	22	32	26	21	30	24	20	18
10	48	35	27	21	46	34	26	21	31	25	20	29	23	19	27	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11508	11508	11508
5°	11500	11119	10910
10°	11416	10792	10590
15°	11312	10529	10305
20°	11185	10270	10052
25°	11051	10029	9812
30°	10880	9770	9572
35°	10726	9509	9296
40°	10498	9215	9048
45°	10308	8935	8760
50°	10072	8637	8486
55°	9780	8299	8185
60°	9334	7916	7835
65°	8740	7466	7440
70°	7912	6931	7030
75°	6745	6369	6574
80°	5034	5659	6027
85°	2679	5153	5697



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.9	2.1
10°-20°	272.8	6.2
20°-30°	428.8	9.8
30°-40°	540.5	12.3
40°-50°	594.8	13.5
50°-60°	584.9	13.3
60°-70°	508.9	11.6
70°-80°	378.8	8.6
80°-90°	242.9	5.5
90°-100°	192.9	4.4
100°-110°	171.4	3.9
110°-120°	141.7	3.2
120°-130°	107.4	2.4
130°-140°	72.4	1.6
140°-150°	40.4	0.9
150°-160°	16.1	0.4
160°-170°	2.5	0.1
170°-180°	0.0	0.0
0°-30°	794.5	18.1
0°-40°	1335.0	30.4
0°-60°	2514.6	57.3
0°-90°	3645.2	83.0
90°-120°	506.0	11.5
90°-150°	726.1	16.5
90°-180°	745.0	17.0
0°-180°	4390.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	976	974	976	974	969	93
15°	941	950	970	980	978	266
25°	874	900	938	961	964	402
35°	778	821	876	910	916	486
45°	657	717	786	830	839	507
55°	519	591	674	724	738	462
65°	356	440	536	594	609	353
75°	183	278	384	446	467	194
85°	34	132	242	309	330	42
90°	1	99	208	276	297	2
95°	1	94	200	268	288	1
105°	1	83	183	248	267	1
115°	1	71	162	220	237	1
125°	1	56	135	186	202	1
135°	1	41	105	147	160	1
145°	1	24	71	104	114	1
155°	1	9	34	59	66	0
165°	1	2	8	13	17	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°	25°	30°	35°	40°	45°	50°
0°	974.5	974.5	974.5	974.5	974.5	974.5	974.5	974.5	974.5	974.5	974.5
2.5°	979.4	977.5	974.5	974.5	976.5	977.5	979.4	979.4	978.4	976.5	975.5
5°	975.5	974.5	971.6	971.6	973.5	975.5	977.5	977.5	977.5	976.5	975.5
7.5°	970.6	968.6	966.7	966.7	969.6	971.6	974.5	975.5	976.5	975.5	976.5
10°	962.8	961.8	959.8	960.8	963.7	966.7	969.6	972.6	974.5	974.5	976.5
12.5°	953.9	952.0	950.0	952.0	955.9	959.8	965.7	968.6	971.6	973.5	974.5
15°	941.2	940.2	939.2	942.2	947.1	952.9	958.8	963.7	966.7	969.6	972.6
17.5°	926.5	926.5	926.5	930.4	936.3	944.1	950.0	955.9	960.8	964.7	968.6
20°	910.8	909.8	910.8	916.7	925.5	932.4	940.2	947.1	952.9	956.9	961.8
22.5°	893.1	893.1	895.1	901.0	910.8	920.6	928.4	936.3	943.1	949.0	953.9
25°	873.5	874.5	877.5	884.3	895.1	904.9	914.7	923.5	932.4	938.2	945.1
27.5°	852.0	852.0	856.9	865.7	877.5	888.2	899.0	908.8	918.6	925.5	932.4
30°	827.5	829.4	834.3	846.1	857.8	870.6	881.4	893.1	902.0	910.8	918.6
32.5°	803.9	804.9	810.8	822.6	837.3	850.0	861.8	875.5	884.3	894.1	902.9
35°	777.5	779.4	786.3	799.0	813.7	828.4	842.2	854.9	865.7	876.5	885.3
37.5°	749.0	752.0	760.8	773.5	789.2	803.9	818.6	832.4	845.1	854.9	866.7
40°	717.7	722.6	731.4	748.0	763.7	778.4	794.1	807.8	821.6	833.3	845.1
42.5°	690.2	692.2	702.9	719.6	737.3	754.9	770.6	785.3	799.0	811.8	821.6
45°	656.9	661.8	672.6	688.2	706.9	726.5	746.1	756.9	772.6	786.3	798.0
47.5°	622.6	628.4	642.2	659.8	678.4	696.1	712.7	731.4	746.1	759.8	773.5
50°	590.2	596.1	608.8	628.4	646.1	665.7	685.3	702.0	717.7	733.3	746.1
52.5°	554.9	559.8	575.5	594.1	614.7	634.3	652.9	672.6	688.2	704.9	717.7
55°	518.6	523.5	539.2	558.8	580.4	602.0	620.6	641.2	655.9	673.5	688.2
57.5°	479.4	488.2	501.0	521.6	543.1	564.7	586.3	605.9	623.5	639.2	655.9
60°	439.2	448.0	464.7	485.3	505.9	529.4	551.0	570.6	589.2	607.8	621.6
62.5°	401.0	407.8	424.5	446.1	468.6	491.2	515.7	534.3	555.9	572.6	589.2
65°	355.9	365.7	384.3	405.9	428.4	452.0	474.5	497.1	517.7	536.3	552.9
67.5°	314.7	322.6	344.1	363.7	388.2	411.8	439.2	459.8	480.4	499.0	514.7
70°	269.6	282.4	297.1	324.5	348.0	374.5	397.1	420.6	441.2	459.8	477.5
72.5°	224.5	237.3	257.8	280.4	305.9	333.3	356.9	379.4	401.0	421.6	438.2
75°	183.3	193.1	214.7	239.2	266.7	290.2	314.7	340.2	362.7	384.3	400.0
77.5°	141.2	152.9	171.6	196.1	223.5	252.9	277.5	300.0	323.5	342.2	362.7
80°	101.0	110.8	132.4	155.9	184.3	211.8	238.2	262.7	284.3	304.9	323.5
82.5°	62.7	74.5	95.1	123.5	150.0	178.4	202.9	227.5	251.0	270.6	289.2
85°	34.3	43.1	65.7	90.2	118.6	145.1	173.5	197.1	221.6	242.2	262.7
87.5°	11.8	21.6	42.2	68.6	97.1	122.5	151.0	175.5	198.0	219.6	239.2
90°	1.0	10.8	32.4	57.8	85.3	112.7	139.2	163.7	187.3	207.8	227.5
92.5°	1.0	9.8	29.4	54.9	82.4	108.8	135.3	159.8	182.4	203.9	222.6
95°	1.0	8.8	28.4	52.9	80.4	106.9	132.4	156.9	179.4	200.0	218.6
97.5°	1.0	8.8	27.5	52.0	77.5	103.9	129.4	153.9	176.5	197.1	215.7
100°	1.0	7.8	25.5	49.0	75.5	101.0	126.5	150.0	172.6	192.2	211.8
102.5°	1.0	6.9	24.5	48.0	72.5	98.0	122.5	146.1	167.6	188.2	206.9
105°	1.0	6.9	23.5	46.1	70.6	95.1	118.6	142.2	163.7	183.3	201.0
107.5°	1.0	5.9	22.5	44.1	67.6	92.2	115.7	138.2	158.8	178.4	196.1
110°	1.0	5.9	21.6	42.2	64.7	88.2	111.8	133.3	153.9	172.6	190.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	4.9	19.6	40.2	61.8	85.3	106.9	129.4	149.0	167.6	184.3
115°	1.0	4.9	18.6	38.2	59.8	81.4	102.9	123.5	143.1	161.8	177.5
117.5°	1.0	3.9	17.6	36.3	56.9	77.5	99.0	118.6	138.2	154.9	170.6
120°	1.0	3.9	15.7	33.3	52.9	73.5	94.1	113.7	131.4	148.0	163.7
122.5°	1.0	2.9	14.7	31.4	51.0	69.6	89.2	107.8	126.5	142.2	156.9
125°	1.0	2.9	13.7	29.4	47.1	65.7	84.3	102.9	119.6	135.3	149.0
127.5°	1.0	2.0	11.8	26.5	44.1	61.8	79.4	97.1	112.7	128.4	142.2
130°	1.0	2.0	10.8	24.5	41.2	57.8	74.5	91.2	106.9	120.6	133.3
132.5°	1.0	2.0	8.8	21.6	37.3	53.9	69.6	85.3	100.0	113.7	125.5
135°	1.0	2.0	7.8	19.6	33.3	49.0	63.7	78.4	93.1	104.9	116.7
137.5°	1.0	1.0	6.9	16.7	29.4	44.1	57.8	72.5	85.3	98.0	108.8
140°	1.0	1.0	4.9	13.7	25.5	38.2	51.0	64.7	77.5	89.2	100.0
142.5°	1.0	1.0	3.9	11.8	21.6	33.3	45.1	57.8	68.6	80.4	91.2
145°	1.0	1.0	2.9	9.8	18.6	28.4	38.2	50.0	59.8	70.6	80.4
147.5°	1.0	1.0	2.9	7.8	15.7	23.5	33.3	42.2	52.0	61.8	69.6
150°	1.0	1.0	2.0	5.9	11.8	19.6	27.5	35.3	44.1	51.0	60.8
152.5°	1.0	1.0	2.0	3.9	8.8	15.7	22.5	29.4	36.3	43.1	50.0
155°	1.0	1.0	1.0	2.9	6.9	11.8	17.6	23.5	28.4	34.3	40.2
157.5°	1.0	1.0	1.0	2.0	4.9	7.8	12.7	17.6	22.5	26.5	31.4
160°	1.0	1.0	1.0	2.0	2.9	5.9	8.8	12.7	16.7	19.6	22.5
162.5°	1.0	1.0	1.0	1.0	2.0	2.9	5.9	8.8	10.8	12.7	15.7
165°	1.0	1.0	1.0	1.0	1.0	2.0	2.9	3.9	5.9	7.8	8.8
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	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	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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	974.5	974.5	974.5	974.5	974.5	974.5	974.5	974.5
2.5°	974.5	973.5	972.6	971.6	970.6	968.6	966.7	965.7
5°	975.5	975.5	974.5	973.5	972.6	970.6	968.6	968.6
7.5°	976.5	977.5	977.5	977.5	976.5	975.5	973.5	972.6
10°	978.4	978.4	979.4	979.4	979.4	978.4	977.5	976.5
12.5°	977.5	978.4	980.4	981.4	981.4	980.4	978.4	978.4
15°	975.5	977.5	979.4	980.4	981.4	980.4	978.4	978.4
17.5°	971.6	974.5	977.5	979.4	979.4	979.4	978.4	977.5
20°	966.7	969.6	972.6	975.5	976.5	976.5	975.5	974.5
22.5°	958.8	963.7	967.7	970.6	971.6	971.6	970.6	970.6
25°	950.0	954.9	959.8	962.8	964.7	965.7	964.7	963.7
27.5°	939.2	944.1	949.0	952.9	954.9	955.9	955.9	954.9
30°	927.5	932.4	937.3	942.2	944.1	945.1	945.1	945.1
32.5°	910.8	917.7	923.5	927.5	931.4	931.4	931.4	930.4
35°	893.1	901.0	906.9	912.8	914.7	916.7	916.7	915.7
37.5°	873.5	883.3	889.2	894.1	898.0	899.0	898.0	899.0
40°	853.9	861.8	871.6	874.5	878.4	881.4	880.4	882.4
42.5°	832.4	841.2	849.0	855.9	858.8	859.8	860.8	861.8
45°	809.8	817.7	827.5	832.4	836.3	839.2	839.2	839.2
47.5°	784.3	795.1	803.9	809.8	813.7	816.7	815.7	817.7
50°	757.8	768.6	778.4	783.3	789.2	790.2	791.2	792.2
52.5°	730.4	741.2	751.0	757.8	760.8	763.7	765.7	766.7
55°	701.0	711.8	720.6	728.4	733.3	736.3	736.3	738.2
57.5°	669.6	681.4	692.2	697.1	702.0	705.9	707.8	706.9
60°	638.2	649.0	656.9	666.7	672.6	675.5	676.5	676.5
62.5°	600.0	614.7	623.5	635.3	638.2	642.2	643.1	646.1
65°	568.6	579.4	591.2	597.1	604.9	606.9	609.8	608.8
67.5°	530.4	545.1	553.9	562.7	570.6	573.5	573.5	575.5
70°	491.2	506.9	515.7	526.5	531.4	537.3	540.2	539.2
72.5°	454.9	467.7	479.4	488.2	495.1	499.0	500.0	502.0
75°	417.6	430.4	441.2	450.0	458.8	461.8	464.7	466.7
77.5°	377.5	389.2	403.9	413.7	419.6	425.5	427.5	427.5
80°	340.2	353.9	365.7	376.5	382.4	388.2	392.2	390.2
82.5°	304.9	319.6	334.3	343.1	350.0	355.9	357.8	356.9
85°	277.5	292.2	303.9	313.7	321.6	327.5	329.4	330.4
87.5°	255.9	270.6	283.3	293.1	300.0	304.9	306.9	308.8
90°	244.1	258.8	271.6	281.4	288.2	293.1	296.1	297.1
92.5°	239.2	253.9	265.7	275.5	283.3	288.2	290.2	291.2
95°	236.3	250.0	262.7	272.6	279.4	284.3	287.3	288.2
97.5°	232.4	247.1	258.8	268.6	275.5	281.4	283.3	284.3
100°	227.5	242.2	253.9	263.7	270.6	275.5	278.4	278.4
102.5°	222.6	237.3	249.0	258.8	265.7	270.6	272.6	273.5
105°	217.6	231.4	243.1	252.0	258.8	263.7	266.7	266.7
107.5°	211.8	225.5	236.3	246.1	252.9	256.9	259.8	260.8
110°	205.9	218.6	230.4	239.2	246.1	250.0	252.9	252.9



TEST NUMBER: P232073

CATALOG NUMBER: FVS4M-3-LD4-35-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	199.0	211.8	223.5	231.4	238.2	243.1	245.1	245.1
115°	192.2	204.9	215.7	223.5	230.4	234.3	237.3	237.3
117.5°	185.3	198.0	207.8	215.7	221.6	226.5	228.4	229.4
120°	177.5	189.2	200.0	207.8	213.7	217.6	219.6	219.6
122.5°	169.6	181.4	192.2	199.0	204.9	207.8	210.8	211.8
125°	161.8	173.5	183.3	189.2	195.1	199.0	201.0	202.0
127.5°	153.9	163.7	173.5	180.4	185.3	189.2	191.2	191.2
130°	145.1	154.9	163.7	170.6	175.5	178.4	180.4	181.4
132.5°	136.3	146.1	153.9	160.8	165.7	168.6	169.6	170.6
135°	127.5	136.3	143.1	150.0	154.9	156.9	158.8	159.8
137.5°	117.6	126.5	134.3	140.2	143.1	146.1	147.1	148.0
140°	108.8	116.7	123.5	128.4	132.4	134.3	136.3	136.3
142.5°	99.0	106.9	112.7	117.6	120.6	123.5	125.5	124.5
145°	89.2	97.1	102.0	106.9	109.8	111.8	112.7	113.7
147.5°	79.4	86.3	91.2	96.1	98.0	100.0	101.0	100.0
150°	66.7	74.5	80.4	84.3	86.3	88.2	89.2	88.2
152.5°	55.9	63.7	69.6	72.5	74.5	75.5	76.5	76.5
155°	45.1	51.0	56.9	60.8	62.7	63.7	64.7	65.7
157.5°	35.3	40.2	43.1	49.0	52.0	52.0	52.0	52.0
160°	26.5	29.4	32.4	36.3	39.2	40.2	40.2	40.2
162.5°	17.6	19.6	21.6	24.5	26.5	28.4	28.4	28.4
165°	9.8	10.8	12.7	13.7	13.7	16.7	17.6	16.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	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
175°	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
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)