

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: P232039

Luminaire Tested: **FVS4M-3-LD4-50-1HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-3-LD4-50-1HI-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PFS125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

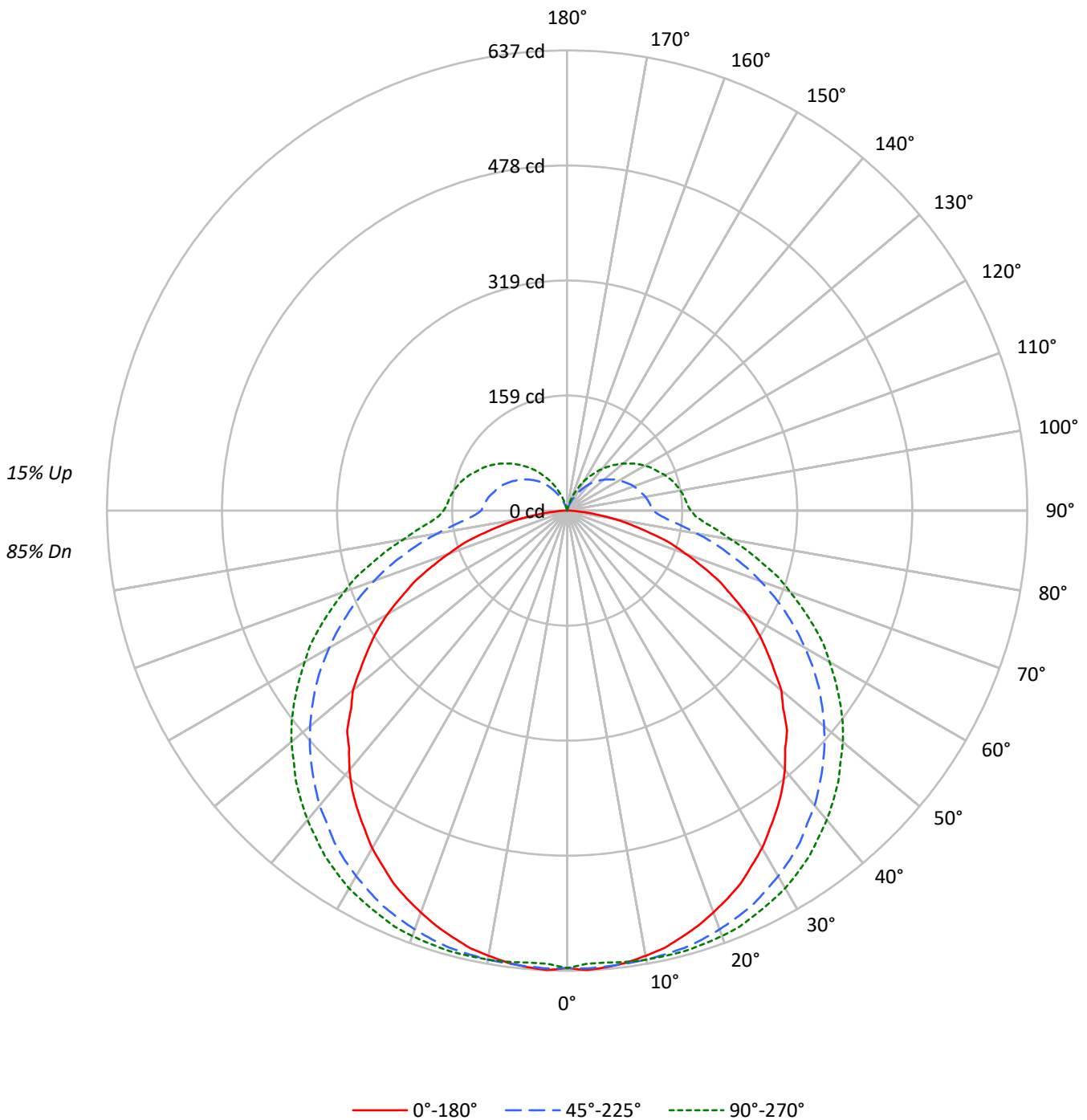
Lumens per Lamp: N/A
Luminaire Lumens: 2716.0 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 36.3
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: P232039

CATALOG NUMBER: FVS4M-3-LD4-50-1HI-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	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	103	98	93	88	99	94	89	85	87	83	80	80	77	75	74	72	70	67
2	93	84	76	70	89	81	74	68	75	69	64	69	64	60	64	60	57	54
3	84	73	64	57	80	70	62	56	65	58	53	60	55	50	56	51	47	44
4	77	64	55	48	73	62	53	47	57	50	44	53	47	42	49	44	40	37
5	70	57	48	41	67	55	46	40	51	44	38	47	41	36	44	39	34	32
6	65	51	42	35	62	49	41	34	46	38	33	43	36	31	40	34	30	27
7	60	46	37	31	57	44	36	30	41	34	29	39	32	28	36	31	26	24
8	56	42	33	27	53	40	32	27	38	31	26	35	29	24	33	28	23	21
9	52	38	30	24	50	37	29	24	35	28	23	33	26	22	30	25	21	19
10	48	35	27	22	46	34	26	21	32	25	21	30	24	20	28	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7479	7479	7479
5°	7479	7211	7072
10°	7419	6990	6845
15°	7350	6807	6648
20°	7269	6622	6465
25°	7199	6455	6282
30°	7095	6268	6116
35°	6978	6090	5932
40°	6856	5895	5734
45°	6757	5686	5542
50°	6604	5470	5337
55°	6351	5238	5113
60°	6117	4954	4861
65°	5729	4644	4596
70°	5118	4289	4278
75°	4331	3848	3931
80°	3259	3378	3553
85°	1531	2968	3290



TEST NUMBER: P232039

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	2.2
10°-20°	176.3	6.5
20°-30°	276.0	10.2
30°-40°	346.5	12.8
40°-50°	379.0	14.0
50°-60°	369.9	13.6
60°-70°	318.0	11.7
70°-80°	231.4	8.5
80°-90°	142.1	5.2
90°-100°	110.1	4.1
100°-110°	97.2	3.6
110°-120°	79.7	2.9
120°-130°	59.7	2.2
130°-140°	39.5	1.5
140°-150°	21.4	0.8
150°-160°	8.0	0.3
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	512.5	18.9
0°-40°	859.0	31.6
0°-60°	1607.8	59.2
0°-90°	2299.3	84.7
90°-120°	287.0	10.6
90°-150°	407.6	15.0
90°-180°	417.0	15.4
0°-180°	2716.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	634	633	633	632	628	60
15°	612	615	627	632	631	173
25°	569	581	604	616	617	262
35°	506	529	561	580	584	316
45°	431	460	500	525	531	330
55°	337	377	425	454	461	301
65°	233	278	334	368	376	229
75°	118	173	232	268	279	126
85°	20	77	140	179	191	26
90°	0	57	119	159	171	1
95°	0	53	114	153	165	0
105°	0	46	104	141	153	0
115°	0	39	90	124	134	0
125°	0	31	75	105	113	0
135°	0	21	58	81	88	0
145°	0	10	37	56	61	0
155°	0	3	17	30	33	0
165°	1	0	2	4	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232039

CATALOG NUMBER: FVS4M-3-LD4-50-1HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3
2.5°	636.6	634.4	633.3	633.3	634.4	634.4	635.5	636.6	635.5	634.4	633.3
5°	634.4	632.3	631.2	631.2	632.3	633.3	633.3	634.4	634.4	633.3	633.3
7.5°	631.2	629.0	627.9	627.9	629.0	630.1	632.3	633.3	633.3	632.3	633.3
10°	625.7	623.5	622.4	623.5	624.6	626.8	629.0	630.1	631.2	631.2	631.2
12.5°	620.3	618.1	617.0	618.1	620.3	622.4	624.6	626.8	627.9	629.0	630.1
15°	611.5	610.5	609.4	611.5	613.7	617.0	620.3	622.4	624.6	626.8	627.9
17.5°	602.8	601.7	601.7	602.8	606.1	609.4	613.7	618.1	620.3	622.4	623.5
20°	591.9	590.8	590.8	594.1	597.4	601.7	606.1	611.5	613.7	617.0	619.2
22.5°	581.0	579.9	581.0	584.3	588.7	594.1	599.6	603.9	607.2	610.5	613.7
25°	569.0	567.9	569.0	573.4	577.8	584.3	590.8	595.2	599.6	603.9	607.2
27.5°	553.8	553.8	554.9	559.2	565.8	573.4	578.8	585.4	589.7	594.1	598.5
30°	539.6	538.5	540.7	546.1	552.7	561.4	567.9	574.5	579.9	584.3	588.7
32.5°	522.2	522.2	526.5	532.0	539.6	547.2	554.9	562.5	567.9	573.4	578.8
35°	505.8	505.8	508.0	516.7	524.3	533.1	541.8	548.3	554.9	561.4	565.8
37.5°	488.4	488.4	492.7	499.3	508.0	517.8	525.4	534.1	539.6	546.1	552.7
40°	468.7	469.8	474.2	481.8	491.6	500.4	510.2	518.9	526.5	533.1	538.5
42.5°	446.9	448.0	454.6	463.3	473.1	482.9	491.6	501.4	509.1	516.7	522.2
45°	430.6	428.4	436.0	444.8	454.6	465.5	475.3	485.1	492.7	500.4	506.9
47.5°	405.5	407.7	415.3	424.0	434.9	444.8	456.7	466.6	475.3	482.9	490.5
50°	387.0	387.0	393.5	403.3	414.2	425.1	437.1	446.9	455.7	464.4	472.0
52.5°	360.8	363.0	371.7	382.6	392.4	403.3	415.3	427.3	436.0	444.8	452.4
55°	336.8	339.0	348.8	358.6	369.5	383.7	394.6	404.4	415.3	425.1	432.8
57.5°	312.9	315.0	323.8	335.7	346.7	359.7	372.8	383.7	393.5	403.3	412.1
60°	287.8	290.0	298.7	310.7	322.7	335.7	347.7	359.7	370.6	380.4	390.3
62.5°	258.4	263.8	272.5	283.4	298.7	311.8	324.8	335.7	348.8	357.6	368.5
65°	233.3	236.6	246.4	258.4	271.4	285.6	299.8	311.8	322.7	333.6	343.4
67.5°	202.8	208.2	219.1	232.2	246.4	259.4	274.7	287.8	298.7	309.6	318.3
70°	174.4	179.9	191.9	206.0	218.0	233.3	247.5	260.5	272.5	284.5	293.2
72.5°	149.3	151.5	163.5	177.7	191.9	207.1	220.2	235.5	246.4	259.4	268.2
75°	117.7	125.4	135.2	150.4	164.6	181.0	194.0	208.2	220.2	232.2	240.9
77.5°	90.5	97.0	110.1	123.2	139.5	153.7	170.1	183.1	195.1	208.2	218.0
80°	65.4	71.9	82.8	99.2	112.3	129.7	143.9	158.1	171.1	182.0	192.9
82.5°	40.3	46.9	60.0	74.1	90.5	106.8	119.9	134.1	148.3	159.2	170.1
85°	19.6	27.3	39.2	54.5	68.7	86.1	101.4	114.5	128.6	139.5	151.5
87.5°	6.5	12.0	25.1	39.2	55.6	71.9	87.2	100.3	114.5	126.5	137.4
90°	0.0	5.5	18.5	32.7	49.1	64.3	79.6	93.7	106.8	118.8	129.7
92.5°	0.0	5.5	16.4	31.6	46.9	62.1	77.4	91.6	104.6	116.6	127.5
95°	0.0	4.4	15.3	30.5	45.8	61.0	75.2	89.4	102.5	114.5	125.4
97.5°	0.0	4.4	15.3	29.4	43.6	58.9	74.1	87.2	100.3	112.3	123.2
100°	0.0	4.4	14.2	27.3	42.5	56.7	71.9	85.0	98.1	110.1	121.0
102.5°	0.0	3.3	13.1	26.2	40.3	55.6	69.8	82.8	95.9	106.8	117.7
105°	0.0	3.3	13.1	25.1	39.2	53.4	67.6	80.7	92.7	103.6	114.5
107.5°	0.0	2.2	12.0	24.0	37.1	51.2	65.4	77.4	90.5	101.4	111.2
110°	0.0	2.2	10.9	22.9	36.0	49.1	62.1	75.2	87.2	98.1	107.9



TEST NUMBER: P232039

CATALOG NUMBER: FVS4M-3-LD4-50-1HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	2.2	9.8	21.8	33.8	46.9	60.0	71.9	83.9	94.8	103.6
115°	0.0	2.2	9.8	20.7	32.7	44.7	57.8	69.8	80.7	90.5	100.3
117.5°	0.0	1.1	8.7	18.5	30.5	42.5	54.5	66.5	77.4	87.2	95.9
120°	0.0	1.1	7.6	17.4	28.3	40.3	52.3	63.2	74.1	82.8	91.6
122.5°	0.0	1.1	6.5	16.4	27.3	38.2	49.1	60.0	69.8	79.6	88.3
125°	0.0	1.1	6.5	15.3	25.1	36.0	45.8	56.7	66.5	75.2	82.8
127.5°	0.0	1.1	5.5	13.1	22.9	32.7	43.6	53.4	62.1	70.9	78.5
130°	0.0	1.1	4.4	12.0	20.7	30.5	40.3	49.1	57.8	66.5	74.1
132.5°	0.0	0.0	3.3	9.8	18.5	28.3	37.1	45.8	54.5	62.1	68.7
135°	0.0	0.0	3.3	8.7	16.4	25.1	33.8	42.5	50.1	57.8	64.3
137.5°	0.0	0.0	2.2	7.6	14.2	21.8	30.5	38.2	45.8	53.4	58.9
140°	0.0	0.0	2.2	6.5	12.0	18.5	26.2	33.8	41.4	48.0	54.5
142.5°	0.0	0.0	1.1	4.4	9.8	16.4	22.9	29.4	36.0	42.5	49.1
145°	0.0	0.0	1.1	3.3	7.6	13.1	19.6	25.1	31.6	37.1	43.6
147.5°	0.0	0.0	1.1	2.2	6.5	10.9	16.4	20.7	26.2	31.6	37.1
150°	0.0	0.0	0.0	2.2	4.4	8.7	13.1	17.4	21.8	26.2	30.5
152.5°	0.0	0.0	0.0	1.1	3.3	6.5	9.8	14.2	17.4	20.7	25.1
155°	0.0	0.0	0.0	1.1	2.2	4.4	7.6	10.9	13.1	17.4	19.6
157.5°	1.1	0.0	0.0	1.1	1.1	3.3	5.5	7.6	9.8	12.0	14.2
160°	1.1	0.0	0.0	0.0	1.1	2.2	3.3	4.4	6.5	8.7	10.9
162.5°	1.1	1.1	0.0	0.0	0.0	1.1	2.2	3.3	4.4	5.5	6.5
165°	1.1	1.1	0.0	0.0	0.0	0.0	1.1	1.1	2.2	2.2	3.3
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



TEST NUMBER: P232039

CATALOG NUMBER: FVS4M-3-LD4-50-1HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3
2.5°	633.3	632.3	632.3	631.2	631.2	630.1	629.0	627.9
5°	633.3	632.3	632.3	632.3	631.2	630.1	629.0	627.9
7.5°	633.3	633.3	633.3	632.3	632.3	631.2	630.1	630.1
10°	632.3	632.3	633.3	633.3	633.3	632.3	631.2	631.2
12.5°	631.2	632.3	633.3	633.3	633.3	633.3	632.3	631.2
15°	629.0	631.2	631.2	632.3	632.3	632.3	631.2	631.2
17.5°	625.7	627.9	629.0	630.1	631.2	630.1	629.0	629.0
20°	621.4	624.6	625.7	626.8	627.9	627.9	626.8	626.8
22.5°	617.0	619.2	621.4	622.4	624.6	624.6	623.5	623.5
25°	610.5	612.6	614.8	617.0	618.1	618.1	618.1	617.0
27.5°	601.7	605.0	608.3	610.5	611.5	611.5	611.5	610.5
30°	593.0	596.3	599.6	601.7	603.9	603.9	603.9	603.9
32.5°	582.1	586.5	589.7	591.9	594.1	595.2	594.1	594.1
35°	571.2	575.6	578.8	581.0	583.2	584.3	583.2	584.3
37.5°	558.1	562.5	565.8	570.1	571.2	571.2	571.2	571.2
40°	544.0	548.3	552.7	555.9	558.1	558.1	559.2	559.2
42.5°	528.7	533.1	538.5	542.9	542.9	544.0	545.0	545.0
45°	513.4	517.8	523.2	526.5	528.7	530.9	529.8	530.9
47.5°	497.1	502.5	506.9	511.3	512.3	514.5	514.5	513.4
50°	479.6	485.1	489.5	493.8	497.1	497.1	498.2	498.2
52.5°	460.0	466.6	472.0	477.5	477.5	480.7	481.8	480.7
55°	440.4	445.8	451.3	456.7	458.9	460.0	461.1	461.1
57.5°	419.7	426.2	430.6	436.0	439.3	439.3	441.5	440.4
60°	397.9	404.4	409.9	414.2	418.6	419.7	421.9	419.7
62.5°	376.1	383.7	388.1	392.4	395.7	397.9	400.1	400.1
65°	353.2	359.7	365.2	370.6	372.8	373.9	377.2	376.1
67.5°	328.1	334.7	340.1	346.7	351.0	352.1	354.3	352.1
70°	303.0	310.7	317.2	321.6	323.8	328.1	327.0	328.1
72.5°	276.9	284.5	291.1	296.5	300.9	304.1	305.2	306.3
75°	250.7	260.5	266.0	270.3	275.8	276.9	280.2	279.1
77.5°	227.8	235.5	242.0	246.4	251.8	254.0	255.1	255.1
80°	201.7	210.4	216.9	223.5	225.6	228.9	232.2	230.0
82.5°	179.9	188.6	196.2	201.7	206.0	208.2	209.3	210.4
85°	160.2	169.0	176.6	182.0	186.4	189.7	191.9	190.8
87.5°	147.2	155.9	162.4	169.0	174.4	175.5	177.7	177.7
90°	139.5	148.3	155.9	161.3	165.7	169.0	170.1	171.1
92.5°	136.3	145.0	152.6	158.1	162.4	164.6	166.8	166.8
95°	134.1	142.8	149.3	155.9	160.2	162.4	164.6	164.6
97.5°	133.0	140.6	148.3	152.6	157.0	160.2	161.3	162.4
100°	129.7	138.4	145.0	150.4	154.8	157.0	159.2	159.2
102.5°	126.5	135.2	141.7	147.2	151.5	153.7	154.8	155.9
105°	123.2	131.9	138.4	143.9	147.2	150.4	151.5	152.6
107.5°	119.9	127.5	134.1	139.5	143.9	146.1	147.2	148.3
110°	116.6	124.3	130.8	136.3	139.5	141.7	143.9	143.9



TEST NUMBER: P232039

CATALOG NUMBER: FVS4M-3-LD4-50-1HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	112.3	119.9	126.5	131.9	135.2	137.4	138.4	138.4
115°	109.0	115.6	122.1	126.5	130.8	133.0	134.1	134.1
117.5°	104.6	111.2	117.7	122.1	125.4	127.5	128.6	129.7
120°	100.3	106.8	112.3	116.6	121.0	123.2	124.3	124.3
122.5°	94.8	101.4	107.9	112.3	115.6	117.7	118.8	118.8
125°	90.5	97.0	102.5	106.8	110.1	111.2	112.3	113.4
127.5°	85.0	91.6	97.0	101.4	103.6	105.7	106.8	106.8
130°	80.7	86.1	91.6	94.8	98.1	100.3	101.4	101.4
132.5°	75.2	80.7	86.1	89.4	91.6	93.7	94.8	94.8
135°	69.8	75.2	79.6	82.8	86.1	87.2	88.3	88.3
137.5°	64.3	69.8	74.1	77.4	79.6	80.7	81.8	81.8
140°	58.9	64.3	67.6	70.9	73.0	74.1	75.2	75.2
142.5°	53.4	57.8	62.1	64.3	66.5	67.6	68.7	68.7
145°	48.0	52.3	54.5	57.8	60.0	61.0	61.0	61.0
147.5°	41.4	46.9	49.1	51.2	53.4	53.4	54.5	54.5
150°	34.9	39.2	42.5	44.7	45.8	46.9	48.0	48.0
152.5°	28.3	32.7	36.0	38.2	39.2	40.3	41.4	40.3
155°	22.9	25.1	28.3	31.6	32.7	32.7	33.8	32.7
157.5°	16.4	18.5	21.8	24.0	26.2	26.2	26.2	26.2
160°	12.0	13.1	15.3	16.4	18.5	19.6	19.6	19.6
162.5°	7.6	8.7	9.8	10.9	10.9	13.1	13.1	12.0
165°	3.3	3.3	4.4	4.4	5.5	6.5	6.5	6.5
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)