

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: P231929

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231929
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-9)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS4M-2-LD4-35-2HI-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (84) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

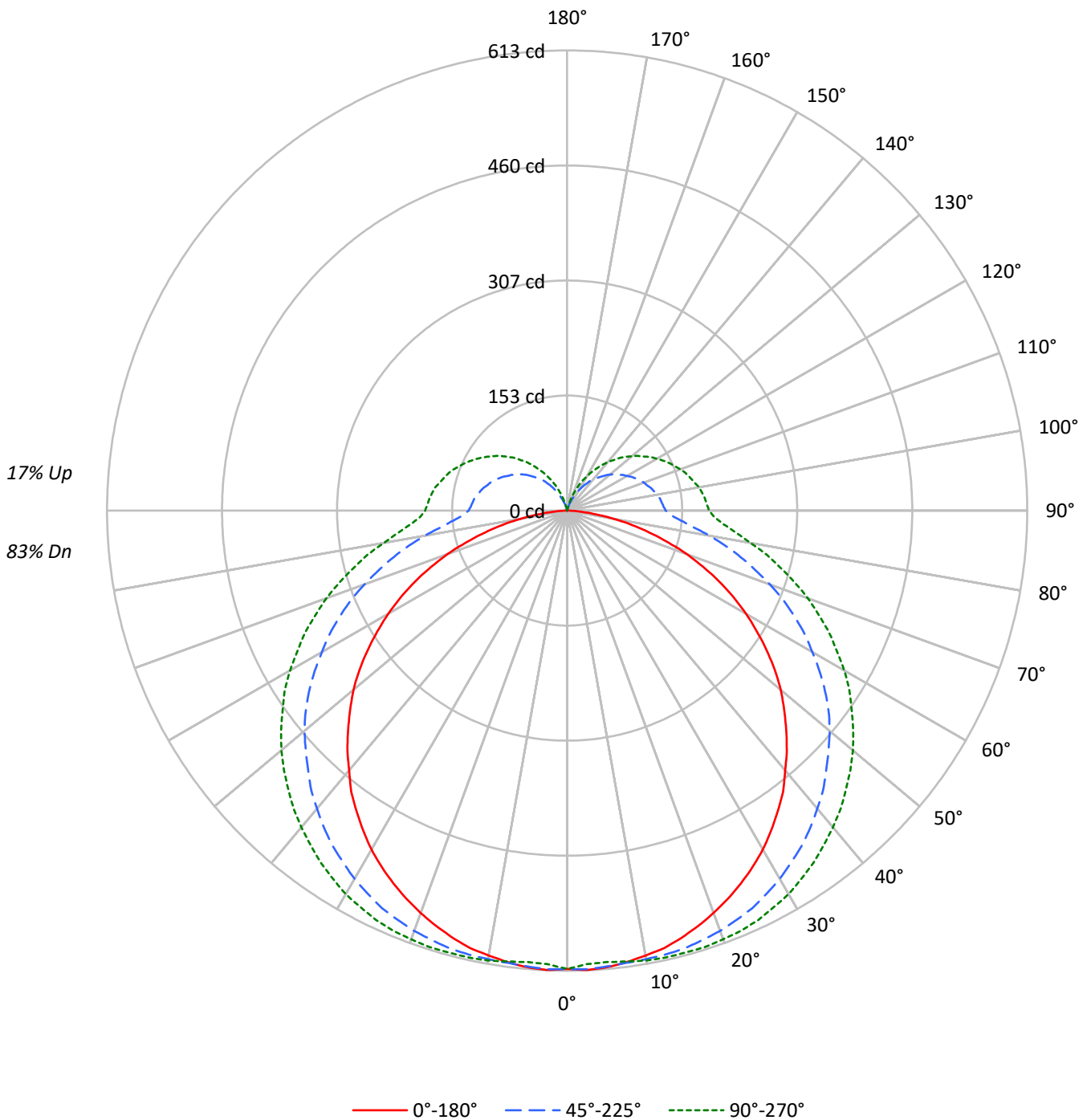
Lumens per Lamp: N/A
Luminaire Lumens: 2740.0 lumens
Efficiency: N/A
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 44.8
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-2-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	87	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	30	39	33	29	26
7	59	45	36	30	57	44	35	29	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	36	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°	10973	10973	10973
5°	10922	10542	10349
10°	10796	10185	10045
15°	10680	9922	9771
20°	10534	9661	9539
25°	10390	9417	9324
30°	10241	9149	9093
35°	10042	8885	8843
40°	9795	8602	8595
45°	9552	8306	8344
50°	9302	8040	8100
55°	8918	7710	7806
60°	8464	7312	7515
65°	7856	6905	7163
70°	7024	6406	6767
75°	5783	5843	6302
80°	4173	5234	5829
85°	1908	4717	5479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	2.1
10°-20°	169.9	6.2
20°-30°	267.1	9.7
30°-40°	336.8	12.3
40°-50°	370.8	13.5
50°-60°	364.9	13.3
60°-70°	317.8	11.6
70°-80°	237.4	8.7
80°-90°	153.2	5.6
90°-100°	122.4	4.5
100°-110°	108.0	3.9
110°-120°	88.5	3.2
120°-130°	66.4	2.4
130°-140°	44.1	1.6
140°-150°	24.2	0.9
150°-160°	9.1	0.3
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-30°	495.1	18.1
0°-40°	831.8	30.4
0°-60°	1567.5	57.2
0°-90°	2276.0	83.1
90°-120°	318.9	11.6
90°-150°	453.7	16.6
90°-180°	464.0	16.9
0°-180°	2740.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	611	611	611	611	611	
5°	611	610	610	607	604	58
15°	589	591	604	610	610	166
25°	548	560	584	599	602	253
35°	489	511	545	566	572	306
45°	413	444	488	518	525	318
55°	324	367	420	453	463	290
65°	224	273	334	372	385	221
75°	114	172	239	281	294	121
85°	20	83	152	196	209	25
90°	0	63	131	176	189	1
95°	0	58	126	170	184	0
105°	0	51	116	157	170	0
115°	0	43	101	138	150	0
125°	0	33	83	116	126	0
135°	0	24	64	91	99	0
145°	0	12	43	63	69	0
155°	1	3	20	34	37	0
165°	0	0	2	5	7	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231929

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	610.6	610.6	610.6	610.6	610.6	610.6	610.6	610.6	610.6	610.6	610.6
2.5°	612.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
5°	610.6	609.6	609.6	609.6	609.6	609.6	610.6	609.6	610.6	609.6	609.6
7.5°	606.7	605.7	605.7	605.7	605.7	606.7	606.7	606.7	606.7	607.7	607.7
10°	601.8	600.8	600.8	600.8	601.8	601.8	602.8	603.8	605.7	606.7	607.7
12.5°	596.9	594.9	595.9	594.9	595.9	596.9	598.9	601.8	603.8	605.7	607.7
15°	589.1	587.1	588.1	588.1	589.1	592.0	594.9	597.9	600.8	603.8	605.7
17.5°	580.2	579.2	579.2	579.2	583.2	586.1	590.0	594.0	596.9	599.8	602.8
20°	570.4	569.4	569.4	570.4	574.3	579.2	583.2	588.1	592.0	595.9	599.8
22.5°	559.6	558.7	558.7	561.6	565.5	571.4	576.3	581.2	586.1	590.0	594.9
25°	547.9	547.9	547.9	551.8	556.7	562.6	568.5	573.4	579.2	584.2	589.1
27.5°	535.1	534.2	535.1	540.0	545.9	552.8	558.7	564.5	570.4	575.3	580.2
30°	521.4	519.5	521.4	527.3	534.2	541.0	547.9	554.7	560.6	566.5	572.4
32.5°	505.7	504.8	506.7	513.6	520.4	528.3	536.1	543.0	549.8	555.7	562.6
35°	489.1	487.1	490.1	498.9	506.7	514.6	522.4	530.2	538.1	544.9	551.8
37.5°	472.4	470.5	474.4	483.2	491.0	499.9	508.7	517.5	525.3	532.2	539.1
40°	451.8	451.8	456.7	465.6	474.4	484.2	493.0	502.8	511.6	518.5	526.3
42.5°	433.2	433.2	439.1	447.9	457.7	467.5	482.2	491.0	495.9	504.8	512.6
45°	412.6	412.6	419.5	429.3	439.1	449.9	460.7	470.5	480.3	488.1	497.9
47.5°	392.0	392.0	400.9	410.7	421.5	433.2	443.0	453.8	463.6	472.4	482.2
50°	371.5	370.5	379.3	390.1	401.8	417.5	425.4	436.2	446.0	456.7	465.6
52.5°	348.9	348.9	358.7	369.5	381.3	393.0	405.8	417.5	429.3	439.1	447.9
55°	324.4	325.4	335.2	347.0	360.7	372.4	385.2	396.9	407.7	419.5	429.3
57.5°	299.9	301.9	312.7	325.4	337.2	350.9	363.6	376.4	388.1	398.9	408.7
60°	275.4	277.4	288.2	299.9	313.6	327.4	342.1	354.8	366.6	377.3	388.1
62.5°	249.9	251.9	262.7	276.4	291.1	304.8	318.5	332.3	344.0	356.8	367.5
65°	223.5	226.4	238.2	250.9	265.6	280.3	295.0	308.7	321.5	334.2	344.0
67.5°	196.0	200.9	211.7	226.4	241.1	255.8	270.5	285.2	298.9	311.7	321.5
70°	169.6	173.5	184.3	200.9	215.6	231.3	246.0	261.7	275.4	287.2	298.0
72.5°	141.1	147.0	159.8	173.5	190.1	205.8	221.5	236.2	250.9	262.7	274.4
75°	113.7	119.6	132.3	149.0	163.7	181.3	196.0	211.7	225.4	239.1	251.9
77.5°	88.2	94.1	106.8	122.5	139.2	155.8	171.5	187.2	202.9	215.6	226.4
80°	62.7	68.6	82.3	98.0	114.7	131.3	149.0	163.7	178.4	192.1	202.9
82.5°	39.2	46.1	59.8	76.4	93.1	109.8	126.4	142.1	156.8	169.6	182.3
85°	19.6	26.5	40.2	57.8	74.5	91.2	108.8	123.5	138.2	151.9	163.7
87.5°	6.9	13.7	26.5	44.1	60.8	77.4	94.1	109.8	125.5	138.2	150.0
90°	0.0	6.9	20.6	37.2	53.9	71.5	88.2	103.9	117.6	131.3	144.1
92.5°	0.0	5.9	18.6	34.3	51.9	68.6	85.3	101.0	115.7	128.4	141.1
95°	0.0	5.9	17.6	33.3	50.0	66.6	83.3	99.0	113.7	126.4	138.2
97.5°	0.0	4.9	16.7	32.3	48.0	65.7	81.3	97.0	110.8	124.5	136.2
100°	0.0	4.9	15.7	30.4	47.0	62.7	79.4	94.1	107.8	121.5	133.3
102.5°	0.0	3.9	14.7	29.4	45.1	60.8	76.4	91.2	105.9	118.6	130.4
105°	0.0	3.9	13.7	28.4	43.1	58.8	74.5	89.2	102.9	115.7	126.4
107.5°	0.0	2.9	13.7	26.5	41.2	56.8	71.5	86.3	99.0	111.7	123.5
110°	0.0	2.9	12.7	25.5	40.2	54.9	69.6	83.3	96.1	108.8	119.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	2.0	11.8	23.5	38.2	51.9	66.6	80.4	93.1	104.9	114.7
115°	0.0	2.0	10.8	22.5	36.3	50.0	63.7	76.4	89.2	101.0	110.8
117.5°	0.0	1.0	9.8	20.6	34.3	47.0	60.8	73.5	85.3	97.0	106.8
120°	0.0	1.0	8.8	19.6	32.3	45.1	57.8	69.6	81.3	92.1	101.9
122.5°	0.0	1.0	7.8	17.6	30.4	42.1	54.9	66.6	77.4	88.2	97.0
125°	0.0	1.0	6.9	16.7	27.4	39.2	51.0	62.7	73.5	83.3	93.1
127.5°	0.0	1.0	5.9	14.7	25.5	37.2	48.0	58.8	69.6	79.4	88.2
130°	0.0	1.0	4.9	13.7	23.5	34.3	45.1	54.9	64.7	74.5	82.3
132.5°	0.0	0.0	3.9	11.8	20.6	31.4	41.2	51.0	60.8	69.6	77.4
135°	0.0	0.0	2.9	9.8	18.6	28.4	38.2	47.0	55.9	63.7	71.5
137.5°	0.0	0.0	2.0	8.8	16.7	25.5	34.3	43.1	51.0	58.8	65.7
140°	0.0	0.0	1.0	6.9	14.7	22.5	30.4	39.2	47.0	53.9	60.8
142.5°	0.0	0.0	1.0	4.9	11.8	19.6	26.5	34.3	42.1	49.0	54.9
145°	0.0	0.0	0.0	3.9	8.8	15.7	22.5	29.4	37.2	43.1	49.0
147.5°	0.0	0.0	0.0	2.9	6.9	12.7	18.6	24.5	31.4	37.2	43.1
150°	0.0	0.0	0.0	1.0	4.9	9.8	15.7	20.6	26.5	31.4	36.3
152.5°	0.0	0.0	0.0	1.0	3.9	7.8	11.8	16.7	20.6	25.5	30.4
155°	1.0	0.0	0.0	0.0	2.0	4.9	8.8	11.8	15.7	19.6	23.5
157.5°	0.0	0.0	0.0	0.0	1.0	2.9	5.9	8.8	11.8	14.7	17.6
160°	1.0	0.0	0.0	0.0	0.0	1.0	2.9	4.9	7.8	9.8	11.8
162.5°	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.9	5.9	6.9
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.9
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°	610.6	610.6	610.6	610.6	610.6	610.6	610.6	610.6
2.5°	610.6	609.6	608.7	607.7	606.7	605.7	604.7	604.7
5°	608.7	608.7	607.7	606.7	605.7	604.7	603.8	603.8
7.5°	608.7	608.7	608.7	607.7	607.7	606.7	605.7	605.7
10°	608.7	609.6	609.6	609.6	609.6	608.7	608.7	608.7
12.5°	608.7	610.6	610.6	610.6	610.6	610.6	610.6	609.6
15°	607.7	608.7	609.6	610.6	610.6	610.6	609.6	609.6
17.5°	605.7	607.7	608.7	609.6	609.6	609.6	609.6	609.6
20°	601.8	604.7	605.7	607.7	607.7	608.7	607.7	607.7
22.5°	597.9	600.8	602.8	603.8	604.7	605.7	605.7	605.7
25°	592.0	595.9	597.9	599.8	600.8	601.8	601.8	601.8
27.5°	585.1	589.1	592.0	594.0	594.9	595.9	595.9	595.9
30°	577.3	580.2	584.2	587.1	588.1	589.1	589.1	590.0
32.5°	567.5	571.4	575.3	578.3	579.2	580.2	581.2	581.2
35°	556.7	561.6	564.5	568.5	570.4	571.4	571.4	572.4
37.5°	545.9	550.8	553.8	557.7	559.6	560.6	561.6	561.6
40°	532.2	538.1	542.0	545.9	547.9	549.8	549.8	550.8
42.5°	519.5	525.3	529.3	533.2	536.1	538.1	539.1	539.1
45°	504.8	510.6	515.5	519.5	522.4	524.4	525.3	525.3
47.5°	489.1	495.9	501.8	505.7	508.7	510.6	511.6	511.6
50°	472.4	480.3	485.2	490.1	493.0	495.0	495.9	496.9
52.5°	455.8	462.6	468.5	473.4	477.3	479.3	480.3	480.3
55°	437.1	445.0	449.9	455.8	459.7	460.7	462.6	462.6
57.5°	418.5	425.4	431.3	437.1	440.1	443.0	445.0	446.0
60°	397.9	404.8	411.6	417.5	421.5	424.4	425.4	426.4
62.5°	377.3	385.2	392.0	396.9	400.9	403.8	405.8	404.8
65°	354.8	362.6	369.5	375.4	380.3	383.2	384.2	385.2
67.5°	332.3	342.1	347.9	353.8	357.7	361.7	362.6	362.6
70°	308.7	318.5	326.4	330.3	335.2	338.1	341.1	341.1
72.5°	285.2	294.0	301.9	307.8	311.7	315.6	317.6	317.6
75°	260.7	269.5	278.4	284.2	289.1	292.1	293.1	294.0
77.5°	237.2	247.0	254.8	260.7	265.6	268.6	270.5	272.5
80°	213.7	223.5	231.3	238.2	242.1	246.0	248.0	248.0
82.5°	193.1	202.9	210.7	217.6	221.5	225.4	226.4	227.4
85°	174.5	185.2	192.1	199.0	203.9	206.8	208.8	208.8
87.5°	161.7	171.5	179.4	186.2	191.1	194.1	196.0	196.0
90°	154.9	164.7	172.5	179.4	184.3	187.2	189.2	189.2
92.5°	151.9	161.7	169.6	176.4	180.3	184.3	186.2	186.2
95°	150.0	158.8	166.6	173.5	178.4	182.3	183.3	184.3
97.5°	147.0	156.8	164.7	171.5	175.4	179.4	181.3	181.3
100°	144.1	152.9	160.7	167.6	172.5	175.4	177.4	178.4
102.5°	140.2	150.0	157.8	163.7	168.6	171.5	173.5	173.5
105°	137.2	146.0	153.9	159.8	164.7	167.6	169.6	169.6
107.5°	133.3	142.1	150.0	155.8	159.8	163.7	164.7	165.6
110°	129.4	138.2	145.1	150.9	155.8	158.8	159.8	160.7



TEST NUMBER: P231929

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	124.5	133.3	140.2	146.0	150.0	152.9	154.9	154.9
115°	120.6	128.4	135.3	141.1	145.1	148.0	150.0	150.0
117.5°	115.7	123.5	130.4	135.3	139.2	142.1	144.1	144.1
120°	110.8	118.6	125.5	130.4	134.3	137.2	138.2	138.2
122.5°	105.9	113.7	119.6	124.5	128.4	130.4	132.3	132.3
125°	101.0	107.8	113.7	118.6	122.5	124.5	125.5	125.5
127.5°	95.1	101.9	107.8	112.7	115.7	118.6	118.6	119.6
130°	90.2	96.1	101.9	105.9	108.8	111.7	112.7	112.7
132.5°	84.3	90.2	95.1	99.0	102.9	104.9	104.9	105.9
135°	78.4	84.3	89.2	93.1	96.1	97.0	99.0	99.0
137.5°	72.5	77.4	82.3	86.3	89.2	90.2	91.2	91.2
140°	66.6	71.5	75.5	79.4	81.3	83.3	84.3	84.3
142.5°	59.8	64.7	68.6	71.5	74.5	75.5	76.4	76.4
145°	53.9	57.8	61.7	64.7	66.6	68.6	68.6	68.6
147.5°	48.0	51.9	54.9	57.8	59.8	60.8	60.8	60.8
150°	41.2	45.1	48.0	50.0	51.9	52.9	52.9	52.9
152.5°	34.3	38.2	40.2	42.1	44.1	45.1	45.1	46.1
155°	27.4	30.4	33.3	35.3	36.3	37.2	37.2	37.2
157.5°	20.6	23.5	25.5	27.4	28.4	29.4	29.4	29.4
160°	13.7	16.7	18.6	20.6	21.6	21.6	21.6	21.6
162.5°	8.8	9.8	10.8	12.7	13.7	13.7	13.7	13.7
165°	3.9	3.9	4.9	5.9	5.9	6.9	6.9	6.9
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)