

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: P231927

Luminaire Tested: **FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231927
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-LD4-50-2STD-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (84) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

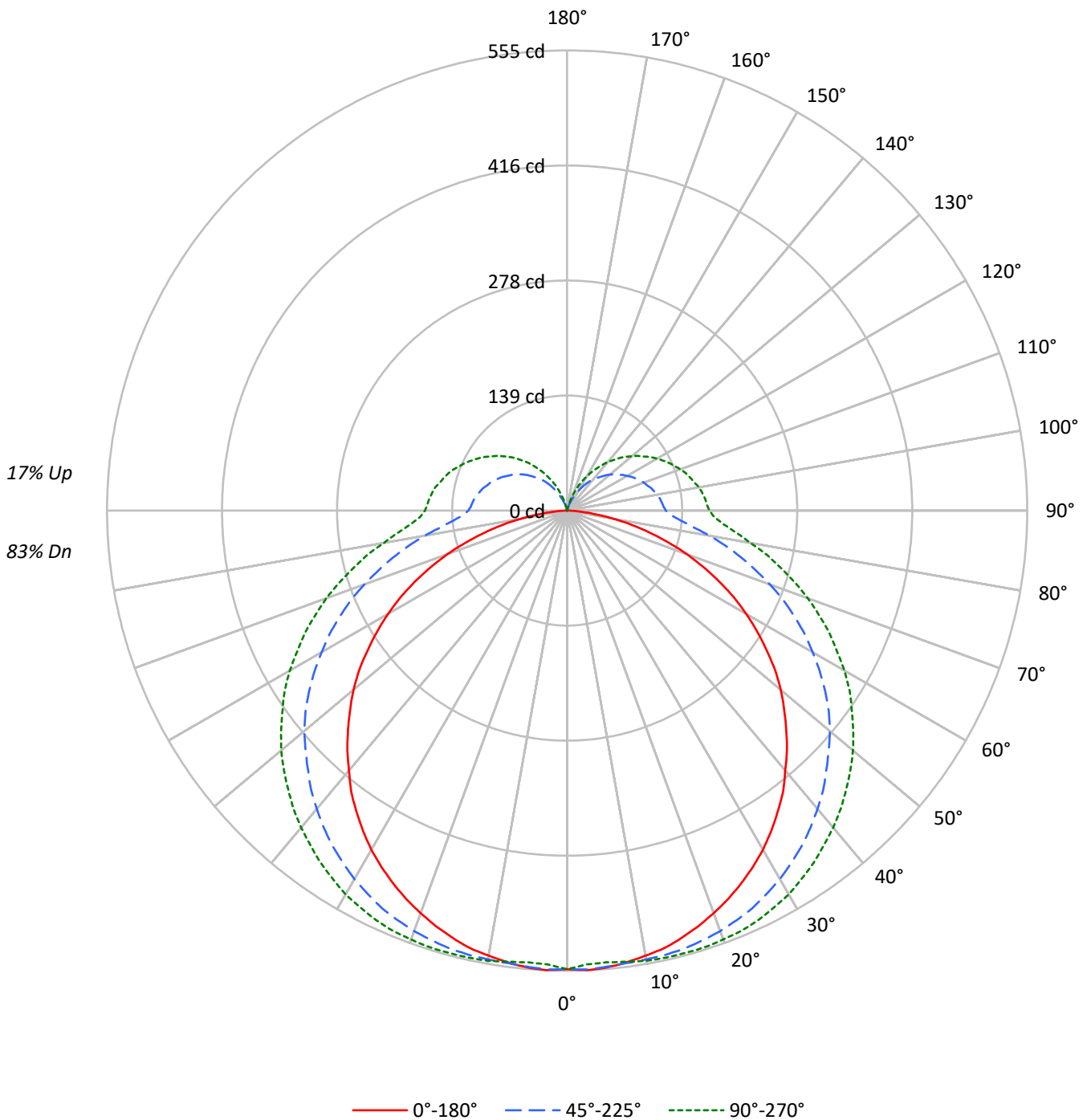
Lumens per Lamp: N/A
Luminaire Lumens: 2482.0 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 33.9
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: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

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°	9940	9940	9940
5°	9893	9549	9374
10°	9778	9226	9098
15°	9674	8987	8851
20°	9542	8752	8641
25°	9412	8529	8446
30°	9277	8288	8238
35°	9096	8048	8010
40°	8874	7793	7786
45°	8654	7524	7559
50°	8426	7283	7337
55°	8080	6984	7072
60°	7668	6624	6807
65°	7114	6254	6488
70°	6361	5802	6130
75°	5239	5293	5708
80°	3781	4741	5279
85°	1733	4273	4962



TEST NUMBER: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.5	2.1
10°-20°	153.9	6.2
20°-30°	242.0	9.7
30°-40°	305.1	12.3
40°-50°	335.9	13.5
50°-60°	330.5	13.3
60°-70°	287.9	11.6
70°-80°	215.1	8.7
80°-90°	138.8	5.6
90°-100°	110.9	4.5
100°-110°	97.8	3.9
110°-120°	80.2	3.2
120°-130°	60.2	2.4
130°-140°	40.0	1.6
140°-150°	21.9	0.9
150°-160°	8.3	0.3
160°-170°	1.0	0.0
170°-180°	0.0	0.0
0°-30°	448.4	18.1
0°-40°	753.5	30.4
0°-60°	1419.9	57.2
0°-90°	2061.7	83.1
90°-120°	288.9	11.6
90°-150°	411.0	16.6
90°-180°	420.0	16.9
0°-180°	2482.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	553	552	552	550	547	53
15°	534	535	547	553	552	151
25°	496	507	529	542	545	229
35°	443	463	494	513	518	277
45°	374	403	442	469	476	289
55°	294	332	380	410	419	263
65°	202	247	303	337	349	200
75°	103	156	217	255	266	110
85°	18	75	138	177	189	23
90°	0	57	119	159	171	1
95°	0	53	114	154	167	0
105°	0	46	105	142	154	0
115°	0	39	91	125	136	0
125°	0	30	76	105	114	0
135°	0	21	58	83	90	0
145°	0	11	39	57	62	0
155°	1	3	18	31	34	0
165°	0	0	2	5	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	553.1	553.1	553.1	553.1	553.1	553.1	553.1	553.1	553.1	553.1	553.1
2.5°	554.9	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0
5°	553.1	552.2	552.2	552.2	552.2	552.2	553.1	552.2	553.1	552.2	552.2
7.5°	549.6	548.7	548.7	548.7	548.7	549.6	549.6	549.6	549.6	550.5	550.5
10°	545.1	544.2	544.2	544.2	545.1	545.1	546.0	546.9	548.7	549.6	550.5
12.5°	540.7	538.9	539.8	538.9	539.8	540.7	542.5	545.1	546.9	548.7	550.5
15°	533.6	531.8	532.7	532.7	533.6	536.2	538.9	541.6	544.2	546.9	548.7
17.5°	525.6	524.7	524.7	524.7	528.3	530.9	534.5	538.0	540.7	543.4	546.0
20°	516.7	515.8	515.8	516.7	520.3	524.7	528.3	532.7	536.2	539.8	543.4
22.5°	507.0	506.1	506.1	508.7	512.3	517.6	522.0	526.5	530.9	534.5	538.9
25°	496.3	496.3	496.3	499.8	504.3	509.6	514.9	519.4	524.7	529.1	533.6
27.5°	484.8	483.9	484.8	489.2	494.5	500.7	506.1	511.4	516.7	521.2	525.6
30°	472.3	470.5	472.3	477.7	483.9	490.1	496.3	502.5	507.8	513.2	518.5
32.5°	458.1	457.2	459.0	465.2	471.4	478.5	485.6	491.9	498.1	503.4	509.6
35°	443.0	441.3	443.9	451.9	459.0	466.1	473.2	480.3	487.4	493.6	499.8
37.5°	427.9	426.2	429.7	437.7	444.8	452.8	460.8	468.8	475.9	482.1	488.3
40°	409.3	409.3	413.7	421.7	429.7	438.6	446.6	455.5	463.4	469.7	476.8
42.5°	392.4	392.4	397.7	405.7	414.6	423.5	436.8	444.8	449.2	457.2	464.3
45°	373.8	373.8	380.0	388.9	397.7	407.5	417.3	426.2	435.0	442.1	451.0
47.5°	355.1	355.1	363.1	372.0	381.8	392.4	401.3	411.1	419.9	427.9	436.8
50°	336.5	335.6	343.6	353.4	364.0	378.2	385.3	395.1	404.0	413.7	421.7
52.5°	316.1	316.1	324.9	334.7	345.4	356.0	367.6	378.2	388.9	397.7	405.7
55°	293.9	294.8	303.6	314.3	326.7	337.4	348.9	359.6	369.3	380.0	388.9
57.5°	271.7	273.5	283.2	294.8	305.4	317.8	329.4	340.9	351.6	361.3	370.2
60°	249.5	251.3	261.0	271.7	284.1	296.5	309.9	321.4	332.0	341.8	351.6
62.5°	226.4	228.2	237.9	250.4	263.7	276.1	288.5	301.0	311.6	323.2	332.9
65°	202.4	205.1	215.7	227.3	240.6	253.9	267.2	279.7	291.2	302.7	311.6
67.5°	177.6	182.0	191.8	205.1	218.4	231.7	245.0	258.4	270.8	282.3	291.2
70°	153.6	157.1	166.9	182.0	195.3	209.5	222.8	237.1	249.5	260.1	269.9
72.5°	127.8	133.2	144.7	157.1	172.2	186.4	200.6	214.0	227.3	237.9	248.6
75°	103.0	108.3	119.9	135.0	148.3	164.2	177.6	191.8	204.2	216.6	228.2
77.5°	79.9	85.2	96.8	111.0	126.1	141.2	155.4	169.6	183.8	195.3	205.1
80°	56.8	62.1	74.6	88.8	103.9	119.0	135.0	148.3	161.6	174.0	183.8
82.5°	35.5	41.7	54.2	69.3	84.3	99.4	114.5	128.7	142.1	153.6	165.1
85°	17.8	24.0	36.4	52.4	67.5	82.6	98.5	111.9	125.2	137.6	148.3
87.5°	6.2	12.4	24.0	40.0	55.0	70.1	85.2	99.4	113.6	125.2	135.8
90°	0.0	6.2	18.6	33.7	48.8	64.8	79.9	94.1	106.5	119.0	130.5
92.5°	0.0	5.3	16.9	31.1	47.1	62.1	77.2	91.4	104.8	116.3	127.8
95°	0.0	5.3	16.0	30.2	45.3	60.4	75.5	89.7	103.0	114.5	125.2
97.5°	0.0	4.4	15.1	29.3	43.5	59.5	73.7	87.9	100.3	112.8	123.4
100°	0.0	4.4	14.2	27.5	42.6	56.8	71.9	85.2	97.7	110.1	120.7
102.5°	0.0	3.6	13.3	26.6	40.8	55.0	69.3	82.6	95.9	107.4	118.1
105°	0.0	3.6	12.4	25.7	39.1	53.3	67.5	80.8	93.2	104.8	114.5
107.5°	0.0	2.7	12.4	24.0	37.3	51.5	64.8	78.1	89.7	101.2	111.9
110°	0.0	2.7	11.5	23.1	36.4	49.7	63.0	75.5	87.0	98.5	108.3



TEST NUMBER: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.8	10.7	21.3	34.6	47.1	60.4	72.8	84.3	95.0	103.9
115°	0.0	1.8	9.8	20.4	32.8	45.3	57.7	69.3	80.8	91.4	100.3
117.5°	0.0	0.9	8.9	18.6	31.1	42.6	55.0	66.6	77.2	87.9	96.8
120°	0.0	0.9	8.0	17.8	29.3	40.8	52.4	63.0	73.7	83.5	92.3
122.5°	0.0	0.9	7.1	16.0	27.5	38.2	49.7	60.4	70.1	79.9	87.9
125°	0.0	0.9	6.2	15.1	24.9	35.5	46.2	56.8	66.6	75.5	84.3
127.5°	0.0	0.9	5.3	13.3	23.1	33.7	43.5	53.3	63.0	71.9	79.9
130°	0.0	0.9	4.4	12.4	21.3	31.1	40.8	49.7	58.6	67.5	74.6
132.5°	0.0	0.0	3.6	10.7	18.6	28.4	37.3	46.2	55.0	63.0	70.1
135°	0.0	0.0	2.7	8.9	16.9	25.7	34.6	42.6	50.6	57.7	64.8
137.5°	0.0	0.0	1.8	8.0	15.1	23.1	31.1	39.1	46.2	53.3	59.5
140°	0.0	0.0	0.9	6.2	13.3	20.4	27.5	35.5	42.6	48.8	55.0
142.5°	0.0	0.0	0.9	4.4	10.7	17.8	24.0	31.1	38.2	44.4	49.7
145°	0.0	0.0	0.0	3.6	8.0	14.2	20.4	26.6	33.7	39.1	44.4
147.5°	0.0	0.0	0.0	2.7	6.2	11.5	16.9	22.2	28.4	33.7	39.1
150°	0.0	0.0	0.0	0.9	4.4	8.9	14.2	18.6	24.0	28.4	32.8
152.5°	0.0	0.0	0.0	0.9	3.6	7.1	10.7	15.1	18.6	23.1	27.5
155°	0.9	0.0	0.0	0.0	1.8	4.4	8.0	10.7	14.2	17.8	21.3
157.5°	0.0	0.0	0.0	0.0	0.9	2.7	5.3	8.0	10.7	13.3	16.0
160°	0.9	0.0	0.0	0.0	0.0	0.9	2.7	4.4	7.1	8.9	10.7
162.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.9	1.8	3.6	5.3	6.2
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	2.7
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: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	553.1	553.1	553.1	553.1	553.1	553.1	553.1	553.1
2.5°	553.1	552.2	551.3	550.5	549.6	548.7	547.8	547.8
5°	551.3	551.3	550.5	549.6	548.7	547.8	546.9	546.9
7.5°	551.3	551.3	551.3	550.5	550.5	549.6	548.7	548.7
10°	551.3	552.2	552.2	552.2	552.2	551.3	551.3	551.3
12.5°	551.3	553.1	553.1	553.1	553.1	553.1	553.1	552.2
15°	550.5	551.3	552.2	553.1	553.1	553.1	552.2	552.2
17.5°	548.7	550.5	551.3	552.2	552.2	552.2	552.2	552.2
20°	545.1	547.8	548.7	550.5	550.5	551.3	550.5	550.5
22.5°	541.6	544.2	546.0	546.9	547.8	548.7	548.7	548.7
25°	536.2	539.8	541.6	543.4	544.2	545.1	545.1	545.1
27.5°	530.0	533.6	536.2	538.0	538.9	539.8	539.8	539.8
30°	522.9	525.6	529.1	531.8	532.7	533.6	533.6	534.5
32.5°	514.1	517.6	521.2	523.8	524.7	525.6	526.5	526.5
35°	504.3	508.7	511.4	514.9	516.7	517.6	517.6	518.5
37.5°	494.5	499.0	501.6	505.2	507.0	507.8	508.7	508.7
40°	482.1	487.4	491.0	494.5	496.3	498.1	498.1	499.0
42.5°	470.5	475.9	479.4	483.0	485.6	487.4	488.3	488.3
45°	457.2	462.6	467.0	470.5	473.2	475.0	475.9	475.9
47.5°	443.0	449.2	454.6	458.1	460.8	462.6	463.4	463.4
50°	427.9	435.0	439.5	443.9	446.6	448.4	449.2	450.1
52.5°	412.8	419.1	424.4	428.8	432.4	434.1	435.0	435.0
55°	396.0	403.1	407.5	412.8	416.4	417.3	419.1	419.1
57.5°	379.1	385.3	390.6	396.0	398.6	401.3	403.1	404.0
60°	360.5	366.7	372.9	378.2	381.8	384.4	385.3	386.2
62.5°	341.8	348.9	355.1	359.6	363.1	365.8	367.6	366.7
65°	321.4	328.5	334.7	340.0	344.5	347.1	348.0	348.9
67.5°	301.0	309.9	315.2	320.5	324.1	327.6	328.5	328.5
70°	279.7	288.5	295.6	299.2	303.6	306.3	309.0	309.0
72.5°	258.4	266.3	273.5	278.8	282.3	285.9	287.7	287.7
75°	236.2	244.2	252.1	257.5	261.9	264.6	265.5	266.3
77.5°	214.9	223.7	230.8	236.2	240.6	243.3	245.0	246.8
80°	193.5	202.4	209.5	215.7	219.3	222.8	224.6	224.6
82.5°	174.9	183.8	190.9	197.1	200.6	204.2	205.1	206.0
85°	158.0	167.8	174.0	180.2	184.7	187.3	189.1	189.1
87.5°	146.5	155.4	162.5	168.7	173.1	175.8	177.6	177.6
90°	140.3	149.2	156.3	162.5	166.9	169.6	171.4	171.4
92.5°	137.6	146.5	153.6	159.8	163.4	166.9	168.7	168.7
95°	135.8	143.8	150.9	157.1	161.6	165.1	166.0	166.9
97.5°	133.2	142.1	149.2	155.4	158.9	162.5	164.2	164.2
100°	130.5	138.5	145.6	151.8	156.3	158.9	160.7	161.6
102.5°	127.0	135.8	142.9	148.3	152.7	155.4	157.1	157.1
105°	124.3	132.3	139.4	144.7	149.2	151.8	153.6	153.6
107.5°	120.7	128.7	135.8	141.2	144.7	148.3	149.2	150.0
110°	117.2	125.2	131.4	136.7	141.2	143.8	144.7	145.6



TEST NUMBER: P231927

CATALOG NUMBER: FVS4M-2-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	112.8	120.7	127.0	132.3	135.8	138.5	140.3	140.3
115°	109.2	116.3	122.5	127.8	131.4	134.1	135.8	135.8
117.5°	104.8	111.9	118.1	122.5	126.1	128.7	130.5	130.5
120°	100.3	107.4	113.6	118.1	121.6	124.3	125.2	125.2
122.5°	95.9	103.0	108.3	112.8	116.3	118.1	119.9	119.9
125°	91.4	97.7	103.0	107.4	111.0	112.8	113.6	113.6
127.5°	86.1	92.3	97.7	102.1	104.8	107.4	107.4	108.3
130°	81.7	87.0	92.3	95.9	98.5	101.2	102.1	102.1
132.5°	76.4	81.7	86.1	89.7	93.2	95.0	95.0	95.9
135°	71.0	76.4	80.8	84.3	87.0	87.9	89.7	89.7
137.5°	65.7	70.1	74.6	78.1	80.8	81.7	82.6	82.6
140°	60.4	64.8	68.4	71.9	73.7	75.5	76.4	76.4
142.5°	54.2	58.6	62.1	64.8	67.5	68.4	69.3	69.3
145°	48.8	52.4	55.9	58.6	60.4	62.1	62.1	62.1
147.5°	43.5	47.1	49.7	52.4	54.2	55.0	55.0	55.0
150°	37.3	40.8	43.5	45.3	47.1	47.9	47.9	47.9
152.5°	31.1	34.6	36.4	38.2	40.0	40.8	40.8	41.7
155°	24.9	27.5	30.2	32.0	32.8	33.7	33.7	33.7
157.5°	18.6	21.3	23.1	24.9	25.7	26.6	26.6	26.6
160°	12.4	15.1	16.9	18.6	19.5	19.5	19.5	19.5
162.5°	8.0	8.9	9.8	11.5	12.4	12.4	12.4	12.4
165°	3.6	3.6	4.4	5.3	5.3	6.2	6.2	6.2
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)