

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: P231926

Luminaire Tested: **FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P231926
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-LD4-40-2STD-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
2FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

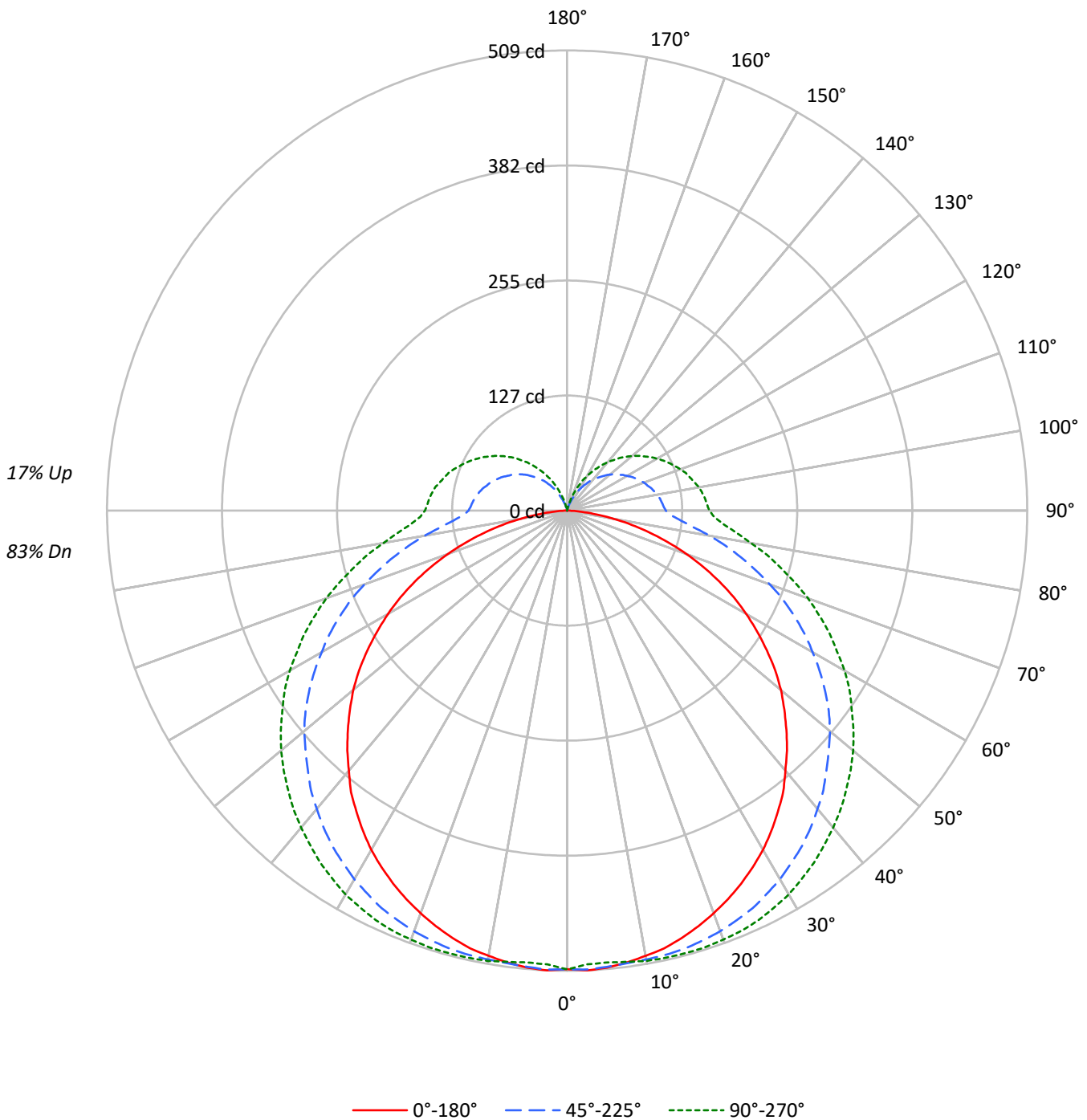
Lumens per Lamp: N/A
Luminaire Lumens: 2277.0 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.51
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')
CIE Type: Semi-Direct

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: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-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°	9119	9119	9119
5°	9076	8761	8599
10°	8971	8464	8347
15°	8875	8244	8120
20°	8753	8029	7927
25°	8634	7825	7749
30°	8511	7604	7557
35°	8344	7385	7349
40°	8141	7149	7142
45°	7938	6902	6935
50°	7729	6683	6733
55°	7412	6407	6486
60°	7035	6077	6245
65°	6527	5737	5953
70°	5835	5322	5622
75°	4807	4855	5237
80°	3468	4348	4845
85°	1587	3919	4553



TEST NUMBER: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	2.1
10°-20°	141.2	6.2
20°-30°	222.0	9.7
30°-40°	279.9	12.3
40°-50°	308.2	13.5
50°-60°	303.2	13.3
60°-70°	264.1	11.6
70°-80°	197.3	8.7
80°-90°	127.3	5.6
90°-100°	101.7	4.5
100°-110°	89.8	3.9
110°-120°	73.5	3.2
120°-130°	55.2	2.4
130°-140°	36.7	1.6
140°-150°	20.1	0.9
150°-160°	7.6	0.3
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	411.4	18.1
0°-40°	691.3	30.4
0°-60°	1302.7	57.2
0°-90°	1891.4	83.1
90°-120°	265.0	11.6
90°-150°	377.1	16.6
90°-180°	386.0	17.0
0°-180°	2277.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	507	507	507	507	507	
5°	507	507	507	505	502	48
15°	490	491	502	507	507	138
25°	455	465	485	498	500	210
35°	406	424	453	471	476	254
45°	343	369	406	430	437	265
55°	270	305	349	376	384	241
65°	186	227	278	310	320	183
75°	94	143	199	234	244	101
85°	16	69	126	162	174	21
90°	0	52	109	146	157	1
95°	0	48	105	141	153	0
105°	0	42	96	130	141	0
115°	0	36	84	115	125	0
125°	0	28	69	97	104	0
135°	0	20	53	76	82	0
145°	0	10	36	53	57	0
155°	1	3	16	28	31	0
165°	0	0	2	4	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	507.4	507.4	507.4	507.4	507.4	507.4	507.4	507.4	507.4	507.4	507.4
2.5°	509.1	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2
5°	507.4	506.6	506.6	506.6	506.6	506.6	507.4	506.6	507.4	506.6	506.6
7.5°	504.2	503.4	503.4	503.4	503.4	504.2	504.2	504.2	504.2	505.0	505.0
10°	500.1	499.3	499.3	499.3	500.1	500.1	500.9	501.7	503.4	504.2	505.0
12.5°	496.0	494.4	495.2	494.4	495.2	496.0	497.7	500.1	501.7	503.4	505.0
15°	489.5	487.9	488.7	488.7	489.5	492.0	494.4	496.8	499.3	501.7	503.4
17.5°	482.2	481.4	481.4	481.4	484.6	487.1	490.3	493.6	496.0	498.5	500.9
20°	474.0	473.2	473.2	474.0	477.3	481.4	484.6	488.7	492.0	495.2	498.5
22.5°	465.1	464.3	464.3	466.7	470.0	474.9	478.9	483.0	487.1	490.3	494.4
25°	455.3	455.3	455.3	458.6	462.6	467.5	472.4	476.5	481.4	485.4	489.5
27.5°	444.7	443.9	444.7	448.8	453.7	459.4	464.3	469.2	474.0	478.1	482.2
30°	433.3	431.7	433.3	438.2	443.9	449.6	455.3	461.0	465.9	470.8	475.7
32.5°	420.3	419.5	421.1	426.8	432.5	439.0	445.5	451.2	456.9	461.8	467.5
35°	406.4	404.8	407.2	414.6	421.1	427.6	434.1	440.6	447.2	452.9	458.6
37.5°	392.6	391.0	394.2	401.5	408.1	415.4	422.7	430.1	436.6	442.3	448.0
40°	375.5	375.5	379.6	386.9	394.2	402.4	409.7	417.8	425.2	430.9	437.4
42.5°	360.0	360.0	364.9	372.2	380.4	388.5	400.7	408.1	412.1	419.5	426.0
45°	342.9	342.9	348.6	356.8	364.9	373.9	382.8	391.0	399.1	405.6	413.8
47.5°	325.8	325.8	333.1	341.3	350.2	360.0	368.2	377.1	385.3	392.6	400.7
50°	308.7	307.9	315.2	324.2	333.9	347.0	353.5	362.5	370.6	379.6	386.9
52.5°	290.0	290.0	298.1	307.1	316.8	326.6	337.2	347.0	356.8	364.9	372.2
55°	269.6	270.4	278.6	288.3	299.7	309.5	320.1	329.9	338.8	348.6	356.8
57.5°	249.2	250.9	259.8	270.4	280.2	291.6	302.2	312.8	322.5	331.5	339.6
60°	228.9	230.5	239.5	249.2	260.6	272.0	284.3	294.8	304.6	313.6	322.5
62.5°	207.7	209.3	218.3	229.7	241.9	253.3	264.7	276.1	285.9	296.5	305.4
65°	185.7	188.1	197.9	208.5	220.7	232.9	245.2	256.6	267.2	277.7	285.9
67.5°	162.9	167.0	175.9	188.1	200.4	212.6	224.8	237.0	248.4	259.0	267.2
70°	140.9	144.2	153.1	167.0	179.2	192.2	204.4	217.5	228.9	238.6	247.6
72.5°	117.3	122.2	132.8	144.2	158.0	171.0	184.1	196.3	208.5	218.3	228.1
75°	94.5	99.4	110.0	123.8	136.0	150.7	162.9	175.9	187.3	198.7	209.3
77.5°	73.3	78.2	88.8	101.8	115.7	129.5	142.5	155.6	168.6	179.2	188.1
80°	52.1	57.0	68.4	81.4	95.3	109.1	123.8	136.0	148.2	159.6	168.6
82.5°	32.6	38.3	49.7	63.5	77.4	91.2	105.1	118.1	130.3	140.9	151.5
85°	16.3	22.0	33.4	48.1	61.9	75.7	90.4	102.6	114.8	126.2	136.0
87.5°	5.7	11.4	22.0	36.7	50.5	64.3	78.2	91.2	104.3	114.8	124.6
90°	0.0	5.7	17.1	31.0	44.8	59.5	73.3	86.3	97.7	109.1	119.7
92.5°	0.0	4.9	15.5	28.5	43.2	57.0	70.9	83.9	96.1	106.7	117.3
95°	0.0	4.9	14.7	27.7	41.5	55.4	69.2	82.3	94.5	105.1	114.8
97.5°	0.0	4.1	13.8	26.9	39.9	54.6	67.6	80.6	92.0	103.4	113.2
100°	0.0	4.1	13.0	25.2	39.1	52.1	66.0	78.2	89.6	101.0	110.8
102.5°	0.0	3.3	12.2	24.4	37.5	50.5	63.5	75.7	88.0	98.6	108.3
105°	0.0	3.3	11.4	23.6	35.8	48.9	61.9	74.1	85.5	96.1	105.1
107.5°	0.0	2.4	11.4	22.0	34.2	47.2	59.5	71.7	82.3	92.9	102.6
110°	0.0	2.4	10.6	21.2	33.4	45.6	57.8	69.2	79.8	90.4	99.4



TEST NUMBER: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.6	9.8	19.5	31.8	43.2	55.4	66.8	77.4	87.2	95.3
115°	0.0	1.6	9.0	18.7	30.1	41.5	52.9	63.5	74.1	83.9	92.0
117.5°	0.0	0.8	8.1	17.1	28.5	39.1	50.5	61.1	70.9	80.6	88.8
120°	0.0	0.8	7.3	16.3	26.9	37.5	48.1	57.8	67.6	76.6	84.7
122.5°	0.0	0.8	6.5	14.7	25.2	35.0	45.6	55.4	64.3	73.3	80.6
125°	0.0	0.8	5.7	13.8	22.8	32.6	42.4	52.1	61.1	69.2	77.4
127.5°	0.0	0.8	4.9	12.2	21.2	31.0	39.9	48.9	57.8	66.0	73.3
130°	0.0	0.8	4.1	11.4	19.5	28.5	37.5	45.6	53.8	61.9	68.4
132.5°	0.0	0.0	3.3	9.8	17.1	26.1	34.2	42.4	50.5	57.8	64.3
135°	0.0	0.0	2.4	8.1	15.5	23.6	31.8	39.1	46.4	52.9	59.5
137.5°	0.0	0.0	1.6	7.3	13.8	21.2	28.5	35.8	42.4	48.9	54.6
140°	0.0	0.0	0.8	5.7	12.2	18.7	25.2	32.6	39.1	44.8	50.5
142.5°	0.0	0.0	0.8	4.1	9.8	16.3	22.0	28.5	35.0	40.7	45.6
145°	0.0	0.0	0.0	3.3	7.3	13.0	18.7	24.4	31.0	35.8	40.7
147.5°	0.0	0.0	0.0	2.4	5.7	10.6	15.5	20.4	26.1	31.0	35.8
150°	0.0	0.0	0.0	0.8	4.1	8.1	13.0	17.1	22.0	26.1	30.1
152.5°	0.0	0.0	0.0	0.8	3.3	6.5	9.8	13.8	17.1	21.2	25.2
155°	0.8	0.0	0.0	0.0	1.6	4.1	7.3	9.8	13.0	16.3	19.5
157.5°	0.0	0.0	0.0	0.0	0.8	2.4	4.9	7.3	9.8	12.2	14.7
160°	0.8	0.0	0.0	0.0	0.0	0.8	2.4	4.1	6.5	8.1	9.8
162.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.8	1.6	3.3	4.9	5.7
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	2.4
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: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	507.4	507.4	507.4	507.4	507.4	507.4	507.4	507.4
2.5°	507.4	506.6	505.8	505.0	504.2	503.4	502.5	502.5
5°	505.8	505.8	505.0	504.2	503.4	502.5	501.7	501.7
7.5°	505.8	505.8	505.8	505.0	505.0	504.2	503.4	503.4
10°	505.8	506.6	506.6	506.6	506.6	505.8	505.8	505.8
12.5°	505.8	507.4	507.4	507.4	507.4	507.4	507.4	506.6
15°	505.0	505.8	506.6	507.4	507.4	507.4	506.6	506.6
17.5°	503.4	505.0	505.8	506.6	506.6	506.6	506.6	506.6
20°	500.1	502.5	503.4	505.0	505.0	505.8	505.0	505.0
22.5°	496.8	499.3	500.9	501.7	502.5	503.4	503.4	503.4
25°	492.0	495.2	496.8	498.5	499.3	500.1	500.1	500.1
27.5°	486.3	489.5	492.0	493.6	494.4	495.2	495.2	495.2
30°	479.7	482.2	485.4	487.9	488.7	489.5	489.5	490.3
32.5°	471.6	474.9	478.1	480.6	481.4	482.2	483.0	483.0
35°	462.6	466.7	469.2	472.4	474.0	474.9	474.9	475.7
37.5°	453.7	457.7	460.2	463.5	465.1	465.9	466.7	466.7
40°	442.3	447.2	450.4	453.7	455.3	456.9	456.9	457.7
42.5°	431.7	436.6	439.8	443.1	445.5	447.2	448.0	448.0
45°	419.5	424.4	428.4	431.7	434.1	435.8	436.6	436.6
47.5°	406.4	412.1	417.0	420.3	422.7	424.4	425.2	425.2
50°	392.6	399.1	403.2	407.2	409.7	411.3	412.1	413.0
52.5°	378.7	384.4	389.3	393.4	396.7	398.3	399.1	399.1
55°	363.3	369.8	373.9	378.7	382.0	382.8	384.4	384.4
57.5°	347.8	353.5	358.4	363.3	365.7	368.2	369.8	370.6
60°	330.7	336.4	342.1	347.0	350.2	352.7	353.5	354.3
62.5°	313.6	320.1	325.8	329.9	333.1	335.6	337.2	336.4
65°	294.8	301.4	307.1	312.0	316.0	318.5	319.3	320.1
67.5°	276.1	284.3	289.1	294.0	297.3	300.6	301.4	301.4
70°	256.6	264.7	271.2	274.5	278.6	281.0	283.4	283.4
72.5°	237.0	244.3	250.9	255.8	259.0	262.3	263.9	263.9
75°	216.7	224.0	231.3	236.2	240.3	242.7	243.5	244.3
77.5°	197.1	205.3	211.8	216.7	220.7	223.2	224.8	226.4
80°	177.6	185.7	192.2	197.9	201.2	204.4	206.1	206.1
82.5°	160.5	168.6	175.1	180.8	184.1	187.3	188.1	189.0
85°	145.0	153.9	159.6	165.3	169.4	171.9	173.5	173.5
87.5°	134.4	142.5	149.1	154.8	158.8	161.3	162.9	162.9
90°	128.7	136.8	143.4	149.1	153.1	155.6	157.2	157.2
92.5°	126.2	134.4	140.9	146.6	149.9	153.1	154.8	154.8
95°	124.6	131.9	138.5	144.2	148.2	151.5	152.3	153.1
97.5°	122.2	130.3	136.8	142.5	145.8	149.1	150.7	150.7
100°	119.7	127.1	133.6	139.3	143.4	145.8	147.4	148.2
102.5°	116.5	124.6	131.1	136.0	140.1	142.5	144.2	144.2
105°	114.0	121.4	127.9	132.8	136.8	139.3	140.9	140.9
107.5°	110.8	118.1	124.6	129.5	132.8	136.0	136.8	137.7
110°	107.5	114.8	120.5	125.4	129.5	131.9	132.8	133.6



TEST NUMBER: P231926

CATALOG NUMBER: FVS4M-2-LD4-40-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	103.4	110.8	116.5	121.4	124.6	127.1	128.7	128.7
115°	100.2	106.7	112.4	117.3	120.5	123.0	124.6	124.6
117.5°	96.1	102.6	108.3	112.4	115.7	118.1	119.7	119.7
120°	92.0	98.6	104.3	108.3	111.6	114.0	114.8	114.8
122.5°	88.0	94.5	99.4	103.4	106.7	108.3	110.0	110.0
125°	83.9	89.6	94.5	98.6	101.8	103.4	104.3	104.3
127.5°	79.0	84.7	89.6	93.7	96.1	98.6	98.6	99.4
130°	74.9	79.8	84.7	88.0	90.4	92.9	93.7	93.7
132.5°	70.0	74.9	79.0	82.3	85.5	87.2	87.2	88.0
135°	65.2	70.0	74.1	77.4	79.8	80.6	82.3	82.3
137.5°	60.3	64.3	68.4	71.7	74.1	74.9	75.7	75.7
140°	55.4	59.5	62.7	66.0	67.6	69.2	70.0	70.0
142.5°	49.7	53.8	57.0	59.5	61.9	62.7	63.5	63.5
145°	44.8	48.1	51.3	53.8	55.4	57.0	57.0	57.0
147.5°	39.9	43.2	45.6	48.1	49.7	50.5	50.5	50.5
150°	34.2	37.5	39.9	41.5	43.2	44.0	44.0	44.0
152.5°	28.5	31.8	33.4	35.0	36.7	37.5	37.5	38.3
155°	22.8	25.2	27.7	29.3	30.1	31.0	31.0	31.0
157.5°	17.1	19.5	21.2	22.8	23.6	24.4	24.4	24.4
160°	11.4	13.8	15.5	17.1	17.9	17.9	17.9	17.9
162.5°	7.3	8.1	9.0	10.6	11.4	11.4	11.4	11.4
165°	3.3	3.3	4.1	4.9	4.9	5.7	5.7	5.7
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)