

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: P232030

Luminaire Tested: **FVS4M-3-LD4-40-1LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232030  
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-LD4-40-1LO-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
3FT LENGTH, 1-MODULE LED WITH PFS125 LENS  
Light Source: (84) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

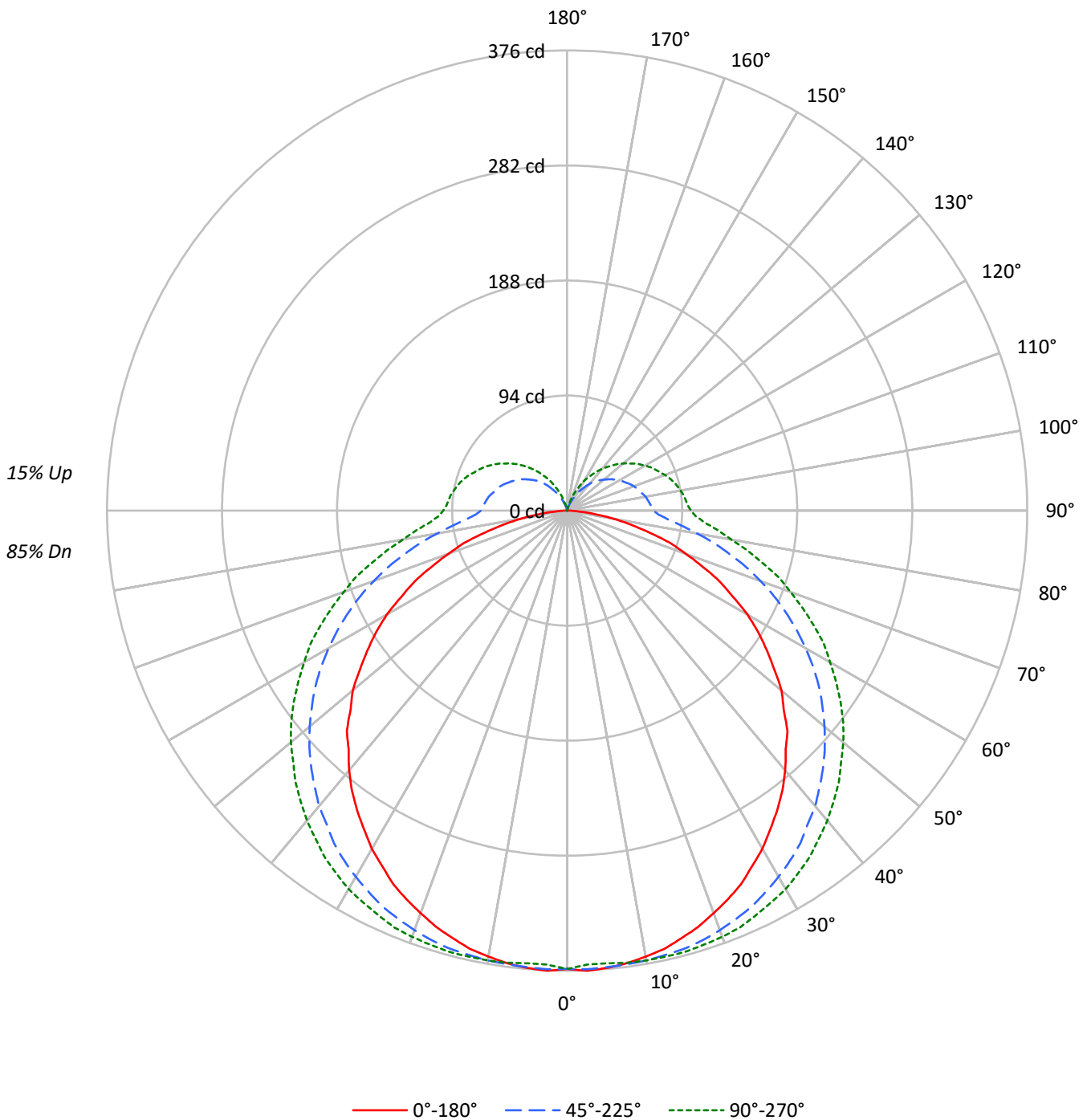
Lumens per Lamp: N/A  
Luminaire Lumens: 1606.0 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 21.3  
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

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### 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	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°	4423	4423	4423
5°	4422	4264	4182
10°	4387	4133	4047
15°	4346	4024	3931
20°	4298	3915	3823
25°	4257	3817	3714
30°	4196	3706	3617
35°	4126	3602	3507
40°	4055	3485	3391
45°	3995	3362	3277
50°	3904	3234	3156
55°	3757	3098	3024
60°	3617	2930	2875
65°	3387	2745	2718
70°	3026	2536	2529
75°	2561	2276	2324
80°	1929	1997	2101
85°	906	1755	1945



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.6	2.2
10°-20°	104.2	6.5
20°-30°	163.2	10.2
30°-40°	204.9	12.8
40°-50°	224.1	14.0
50°-60°	218.7	13.6
60°-70°	188.1	11.7
70°-80°	136.8	8.5
80°-90°	84.0	5.2
90°-100°	65.1	4.1
100°-110°	57.5	3.6
110°-120°	47.1	2.9
120°-130°	35.3	2.2
130°-140°	23.4	1.5
140°-150°	12.7	0.8
150°-160°	4.7	0.3
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-30°	303.1	18.9
0°-40°	507.9	31.6
0°-60°	950.7	59.2
0°-90°	1359.6	84.7
90°-120°	169.7	10.6
90°-150°	241.0	15.0
90°-180°	246.0	15.3
0°-180°	1606.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	375	374	374	374	371	36
15°	362	364	371	374	373	102
25°	336	344	357	364	365	155
35°	299	313	332	343	346	187
45°	255	272	296	310	314	195
55°	199	223	251	268	273	178
65°	138	165	197	218	222	135
75°	70	102	137	159	165	74
85°	12	46	82	106	113	15
90°	0	34	70	94	101	1
95°	0	32	68	90	97	0
105°	0	27	61	84	90	0
115°	0	23	54	74	79	0
125°	0	18	44	62	67	0
135°	0	12	34	48	52	0
145°	0	6	22	33	36	0
155°	0	2	10	18	19	0
165°	1	0	1	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232030

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	374.5	374.5	374.5	374.5	374.5	374.5	374.5	374.5	374.5	374.5	374.5
2.5°	376.4	375.1	374.5	374.5	375.1	375.1	375.8	376.4	375.8	375.1	374.5
5°	375.1	373.9	373.2	373.2	373.9	374.5	374.5	375.1	375.1	374.5	374.5
7.5°	373.2	371.9	371.3	371.3	371.9	372.6	373.9	374.5	374.5	373.9	374.5
10°	370.0	368.7	368.1	368.7	369.3	370.6	371.9	372.6	373.2	373.2	373.2
12.5°	366.8	365.5	364.8	365.5	366.8	368.1	369.3	370.6	371.3	371.9	372.6
15°	361.6	361.0	360.3	361.6	362.9	364.8	366.8	368.1	369.3	370.6	371.3
17.5°	356.5	355.8	355.8	356.5	358.4	360.3	362.9	365.5	366.8	368.1	368.7
20°	350.0	349.4	349.4	351.3	353.2	355.8	358.4	361.6	362.9	364.8	366.1
22.5°	343.6	342.9	343.6	345.5	348.1	351.3	354.5	357.1	359.0	361.0	362.9
25°	336.5	335.8	336.5	339.1	341.6	345.5	349.4	351.9	354.5	357.1	359.0
27.5°	327.4	327.4	328.1	330.7	334.5	339.1	342.3	346.1	348.7	351.3	353.9
30°	319.1	318.4	319.7	322.9	326.8	332.0	335.8	339.7	342.9	345.5	348.1
32.5°	308.8	308.8	311.3	314.6	319.1	323.6	328.1	332.6	335.8	339.1	342.3
35°	299.1	299.1	300.4	305.5	310.0	315.2	320.4	324.2	328.1	332.0	334.5
37.5°	288.8	288.8	291.4	295.2	300.4	306.2	310.7	315.8	319.1	322.9	326.8
40°	277.2	277.8	280.4	284.9	290.7	295.9	301.7	306.8	311.3	315.2	318.4
42.5°	264.3	264.9	268.8	273.9	279.7	285.6	290.7	296.5	301.0	305.5	308.8
45°	254.6	253.3	257.8	263.0	268.8	275.2	281.0	286.8	291.4	295.9	299.7
47.5°	239.8	241.1	245.6	250.7	257.2	263.0	270.1	275.9	281.0	285.6	290.1
50°	228.8	228.8	232.7	238.5	244.9	251.4	258.5	264.3	269.4	274.6	279.1
52.5°	213.4	214.6	219.8	226.2	232.1	238.5	245.6	252.7	257.8	263.0	267.5
55°	199.2	200.5	206.3	212.1	218.5	226.9	233.3	239.1	245.6	251.4	255.9
57.5°	185.0	186.3	191.4	198.5	205.0	212.7	220.4	226.9	232.7	238.5	243.7
60°	170.2	171.5	176.6	183.7	190.8	198.5	205.6	212.7	219.2	225.0	230.8
62.5°	152.8	156.0	161.1	167.6	176.6	184.4	192.1	198.5	206.3	211.4	217.9
65°	137.9	139.9	145.7	152.8	160.5	168.9	177.3	184.4	190.8	197.2	203.0
67.5°	119.9	123.1	129.6	137.3	145.7	153.4	162.4	170.2	176.6	183.1	188.2
70°	103.1	106.4	113.4	121.8	128.9	137.9	146.3	154.1	161.1	168.2	173.4
72.5°	88.3	89.6	96.7	105.1	113.4	122.5	130.2	139.2	145.7	153.4	158.6
75°	69.6	74.1	79.9	89.0	97.3	107.0	114.7	123.1	130.2	137.3	142.5
77.5°	53.5	57.4	65.1	72.8	82.5	90.9	100.6	108.3	115.4	123.1	128.9
80°	38.7	42.5	49.0	58.7	66.4	76.7	85.1	93.5	101.2	107.6	114.1
82.5°	23.8	27.7	35.5	43.8	53.5	63.2	70.9	79.3	87.7	94.1	100.6
85°	11.6	16.1	23.2	32.2	40.6	50.9	59.9	67.7	76.1	82.5	89.6
87.5°	3.9	7.1	14.8	23.2	32.9	42.5	51.6	59.3	67.7	74.8	81.2
90°	0.0	3.2	11.0	19.3	29.0	38.0	47.1	55.4	63.2	70.3	76.7
92.5°	0.0	3.2	9.7	18.7	27.7	36.7	45.8	54.1	61.9	69.0	75.4
95°	0.0	2.6	9.0	18.0	27.1	36.1	44.5	52.9	60.6	67.7	74.1
97.5°	0.0	2.6	9.0	17.4	25.8	34.8	43.8	51.6	59.3	66.4	72.8
100°	0.0	2.6	8.4	16.1	25.1	33.5	42.5	50.3	58.0	65.1	71.5
102.5°	0.0	1.9	7.7	15.5	23.8	32.9	41.3	49.0	56.7	63.2	69.6
105°	0.0	1.9	7.7	14.8	23.2	31.6	40.0	47.7	54.8	61.2	67.7
107.5°	0.0	1.3	7.1	14.2	21.9	30.3	38.7	45.8	53.5	59.9	65.7
110°	0.0	1.3	6.4	13.5	21.3	29.0	36.7	44.5	51.6	58.0	63.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.3	5.8	12.9	20.0	27.7	35.5	42.5	49.6	56.1	61.2
115°	0.0	1.3	5.8	12.2	19.3	26.4	34.2	41.3	47.7	53.5	59.3
117.5°	0.0	0.6	5.2	11.0	18.0	25.1	32.2	39.3	45.8	51.6	56.7
120°	0.0	0.6	4.5	10.3	16.8	23.8	30.9	37.4	43.8	49.0	54.1
122.5°	0.0	0.6	3.9	9.7	16.1	22.6	29.0	35.5	41.3	47.1	52.2
125°	0.0	0.6	3.9	9.0	14.8	21.3	27.1	33.5	39.3	44.5	49.0
127.5°	0.0	0.6	3.2	7.7	13.5	19.3	25.8	31.6	36.7	41.9	46.4
130°	0.0	0.6	2.6	7.1	12.2	18.0	23.8	29.0	34.2	39.3	43.8
132.5°	0.0	0.0	1.9	5.8	11.0	16.8	21.9	27.1	32.2	36.7	40.6
135°	0.0	0.0	1.9	5.2	9.7	14.8	20.0	25.1	29.7	34.2	38.0
137.5°	0.0	0.0	1.3	4.5	8.4	12.9	18.0	22.6	27.1	31.6	34.8
140°	0.0	0.0	1.3	3.9	7.1	11.0	15.5	20.0	24.5	28.4	32.2
142.5°	0.0	0.0	0.6	2.6	5.8	9.7	13.5	17.4	21.3	25.1	29.0
145°	0.0	0.0	0.6	1.9	4.5	7.7	11.6	14.8	18.7	21.9	25.8
147.5°	0.0	0.0	0.6	1.3	3.9	6.4	9.7	12.2	15.5	18.7	21.9
150°	0.0	0.0	0.0	1.3	2.6	5.2	7.7	10.3	12.9	15.5	18.0
152.5°	0.0	0.0	0.0	0.6	1.9	3.9	5.8	8.4	10.3	12.2	14.8
155°	0.0	0.0	0.0	0.6	1.3	2.6	4.5	6.4	7.7	10.3	11.6
157.5°	0.6	0.0	0.0	0.6	0.6	1.9	3.2	4.5	5.8	7.1	8.4
160°	0.6	0.0	0.0	0.0	0.6	1.3	1.9	2.6	3.9	5.2	6.4
162.5°	0.6	0.6	0.0	0.0	0.0	0.6	1.3	1.9	2.6	3.2	3.9
165°	0.6	0.6	0.0	0.0	0.0	0.0	0.6	0.6	1.3	1.3	1.9
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°	374.5	374.5	374.5	374.5	374.5	374.5	374.5	374.5
2.5°	374.5	373.9	373.9	373.2	373.2	372.6	371.9	371.3
5°	374.5	373.9	373.9	373.9	373.2	372.6	371.9	371.3
7.5°	374.5	374.5	374.5	373.9	373.9	373.2	372.6	372.6
10°	373.9	373.9	374.5	374.5	374.5	373.9	373.2	373.2
12.5°	373.2	373.9	374.5	374.5	374.5	374.5	373.9	373.2
15°	371.9	373.2	373.2	373.9	373.9	373.9	373.2	373.2
17.5°	370.0	371.3	371.9	372.6	373.2	372.6	371.9	371.9
20°	367.4	369.3	370.0	370.6	371.3	371.3	370.6	370.6
22.5°	364.8	366.1	367.4	368.1	369.3	369.3	368.7	368.7
25°	361.0	362.3	363.5	364.8	365.5	365.5	365.5	364.8
27.5°	355.8	357.7	359.7	361.0	361.6	361.6	361.6	361.0
30°	350.7	352.6	354.5	355.8	357.1	357.1	357.1	357.1
32.5°	344.2	346.8	348.7	350.0	351.3	351.9	351.3	351.3
35°	337.8	340.3	342.3	343.6	344.9	345.5	344.9	345.5
37.5°	330.0	332.6	334.5	337.1	337.8	337.8	337.8	337.8
40°	321.6	324.2	326.8	328.7	330.0	330.0	330.7	330.7
42.5°	312.6	315.2	318.4	321.0	321.0	321.6	322.3	322.3
45°	303.6	306.2	309.4	311.3	312.6	313.9	313.3	313.9
47.5°	293.9	297.2	299.7	302.3	303.0	304.2	304.2	303.6
50°	283.6	286.8	289.4	292.0	293.9	293.9	294.6	294.6
52.5°	272.0	275.9	279.1	282.3	282.3	284.3	284.9	284.3
55°	260.4	263.6	266.9	270.1	271.4	272.0	272.7	272.7
57.5°	248.2	252.0	254.6	257.8	259.8	259.8	261.1	260.4
60°	235.3	239.1	242.4	244.9	247.5	248.2	249.5	248.2
62.5°	222.4	226.9	229.5	232.1	234.0	235.3	236.6	236.6
65°	208.8	212.7	215.9	219.2	220.4	221.1	223.0	222.4
67.5°	194.0	197.9	201.1	205.0	207.6	208.2	209.5	208.2
70°	179.2	183.7	187.6	190.2	191.4	194.0	193.4	194.0
72.5°	163.7	168.2	172.1	175.3	177.9	179.8	180.5	181.1
75°	148.3	154.1	157.3	159.9	163.1	163.7	165.7	165.0
77.5°	134.7	139.2	143.1	145.7	148.9	150.2	150.8	150.8
80°	119.2	124.4	128.3	132.1	133.4	135.4	137.3	136.0
82.5°	106.4	111.5	116.0	119.2	121.8	123.1	123.8	124.4
85°	94.8	99.9	104.4	107.6	110.2	112.2	113.4	112.8
87.5°	87.0	92.2	96.0	99.9	103.1	103.8	105.1	105.1
90°	82.5	87.7	92.2	95.4	98.0	99.9	100.6	101.2
92.5°	80.6	85.7	90.2	93.5	96.0	97.3	98.6	98.6
95°	79.3	84.4	88.3	92.2	94.8	96.0	97.3	97.3
97.5°	78.6	83.2	87.7	90.2	92.8	94.8	95.4	96.0
100°	76.7	81.9	85.7	89.0	91.5	92.8	94.1	94.1
102.5°	74.8	79.9	83.8	87.0	89.6	90.9	91.5	92.2
105°	72.8	78.0	81.9	85.1	87.0	89.0	89.6	90.2
107.5°	70.9	75.4	79.3	82.5	85.1	86.4	87.0	87.7
110°	69.0	73.5	77.4	80.6	82.5	83.8	85.1	85.1





TEST NUMBER: P232030

CATALOG NUMBER: FVS4M-3-LD4-40-1LO-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	66.4	70.9	74.8	78.0	79.9	81.2	81.9	81.9
115°	64.5	68.3	72.2	74.8	77.4	78.6	79.3	79.3
117.5°	61.9	65.7	69.6	72.2	74.1	75.4	76.1	76.7
120°	59.3	63.2	66.4	69.0	71.5	72.8	73.5	73.5
122.5°	56.1	59.9	63.8	66.4	68.3	69.6	70.3	70.3
125°	53.5	57.4	60.6	63.2	65.1	65.7	66.4	67.0
127.5°	50.3	54.1	57.4	59.9	61.2	62.5	63.2	63.2
130°	47.7	50.9	54.1	56.1	58.0	59.3	59.9	59.9
132.5°	44.5	47.7	50.9	52.9	54.1	55.4	56.1	56.1
135°	41.3	44.5	47.1	49.0	50.9	51.6	52.2	52.2
137.5°	38.0	41.3	43.8	45.8	47.1	47.7	48.3	48.3
140°	34.8	38.0	40.0	41.9	43.2	43.8	44.5	44.5
142.5°	31.6	34.2	36.7	38.0	39.3	40.0	40.6	40.6
145°	28.4	30.9	32.2	34.2	35.5	36.1	36.1	36.1
147.5°	24.5	27.7	29.0	30.3	31.6	31.6	32.2	32.2
150°	20.6	23.2	25.1	26.4	27.1	27.7	28.4	28.4
152.5°	16.8	19.3	21.3	22.6	23.2	23.8	24.5	23.8
155°	13.5	14.8	16.8	18.7	19.3	19.3	20.0	19.3
157.5°	9.7	11.0	12.9	14.2	15.5	15.5	15.5	15.5
160°	7.1	7.7	9.0	9.7	11.0	11.6	11.6	11.6
162.5°	4.5	5.2	5.8	6.4	6.4	7.7	7.7	7.1
165°	1.9	1.9	2.6	2.6	3.2	3.9	3.9	3.9
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)