

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: P231924

Luminaire Tested: **FVS4M-2-LD4-30-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231924  
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-LD4-30-2STD-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
2FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (84) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

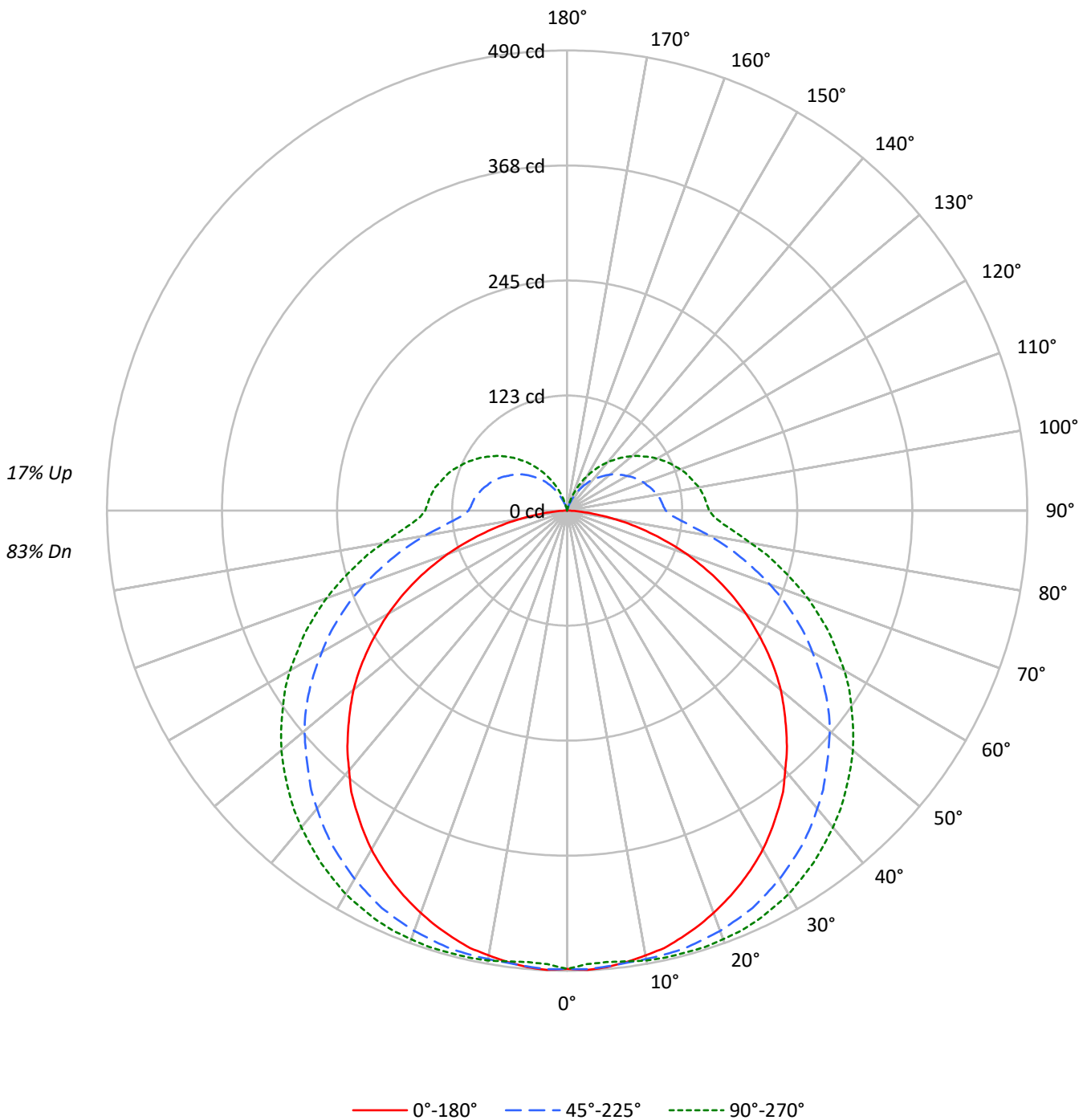
Lumens per Lamp: N/A  
Luminaire Lumens: 2190.1 lumens  
Efficiency: N/A  
Efficacy: 64.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.51  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 1.92' x H: 0.19')  
CIE Type: Semi-Direct

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

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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	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°	8770	8770	8770
5°	8729	8427	8272
10°	8629	8140	8028
15°	8536	7930	7811
20°	8419	7722	7624
25°	8304	7526	7453
30°	8187	7313	7268
35°	8026	7102	7068
40°	7829	6875	6870
45°	7635	6639	6670
50°	7434	6428	6475
55°	7128	6163	6240
60°	6765	5845	6007
65°	6278	5518	5726
70°	5611	5119	5408
75°	4624	4670	5037
80°	3335	4182	4659
85°	1528	3770	4379



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.4	2.1
10°-20°	135.8	6.2
20°-30°	213.5	9.7
30°-40°	269.2	12.3
40°-50°	296.4	13.5
50°-60°	291.6	13.3
60°-70°	254.0	11.6
70°-80°	189.8	8.7
80°-90°	122.5	5.6
90°-100°	97.8	4.5
100°-110°	86.3	3.9
110°-120°	70.7	3.2
120°-130°	53.1	2.4
130°-140°	35.3	1.6
140°-150°	19.4	0.9
150°-160°	7.3	0.3
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	395.7	18.1
0°-40°	664.9	30.4
0°-60°	1252.9	57.2
0°-90°	1819.1	83.1
90°-120°	254.9	11.6
90°-150°	362.7	16.6
90°-180°	371.0	16.9
0°-180°	2190.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	488	488	488	488	488	
5°	488	487	487	485	483	46
15°	471	472	483	488	487	133
25°	438	447	467	479	481	202
35°	391	408	436	453	458	245
45°	330	355	390	414	420	255
55°	259	293	335	362	370	232
65°	179	218	267	298	308	176
75°	91	138	191	225	235	97
85°	16	66	121	156	167	20
90°	0	50	105	141	151	1
95°	0	47	101	136	147	0
105°	0	41	92	125	136	0
115°	0	34	81	110	120	0
125°	0	27	67	93	100	0
135°	0	19	51	73	79	0
145°	0	10	34	51	55	0
155°	1	3	16	27	30	0
165°	0	0	2	4	6	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
2.5°	489.6	488.8	488.8	488.8	488.8	488.8	488.8	488.8	488.8	488.8	488.8
5°	488.0	487.3	487.3	487.3	487.3	487.3	488.0	487.3	488.0	487.3	487.3
7.5°	484.9	484.1	484.1	484.1	484.1	484.9	484.9	484.9	484.9	485.7	485.7
10°	481.0	480.2	480.2	480.2	481.0	481.0	481.8	482.6	484.1	484.9	485.7
12.5°	477.1	475.5	476.3	475.5	476.3	477.1	478.6	481.0	482.6	484.1	485.7
15°	470.8	469.2	470.0	470.0	470.8	473.2	475.5	477.9	480.2	482.6	484.1
17.5°	463.8	463.0	463.0	463.0	466.1	468.5	471.6	474.7	477.1	479.4	481.8
20°	455.9	455.1	455.1	455.9	459.1	463.0	466.1	470.0	473.2	476.3	479.4
22.5°	447.3	446.5	446.5	448.9	452.0	456.7	460.6	464.5	468.5	471.6	475.5
25°	437.9	437.9	437.9	441.0	445.0	449.7	454.4	458.3	463.0	466.9	470.8
27.5°	427.7	426.9	427.7	431.6	436.3	441.8	446.5	451.2	455.9	459.8	463.8
30°	416.8	415.2	416.8	421.5	426.9	432.4	437.9	443.4	448.1	452.8	457.5
32.5°	404.2	403.4	405.0	410.5	416.0	422.2	428.5	434.0	439.5	444.2	449.7
35°	390.9	389.3	391.7	398.7	405.0	411.3	417.5	423.8	430.1	435.6	441.0
37.5°	377.6	376.0	379.2	386.2	392.5	399.5	406.6	413.6	419.9	425.4	430.9
40°	361.1	361.1	365.1	372.1	379.2	387.0	394.0	401.9	408.9	414.4	420.7
42.5°	346.3	346.3	351.0	358.0	365.8	373.7	385.4	392.5	396.4	403.4	409.7
45°	329.8	329.8	335.3	343.1	351.0	359.6	368.2	376.0	383.9	390.1	398.0
47.5°	313.4	313.4	320.4	328.2	336.9	346.3	354.1	362.7	370.5	377.6	385.4
50°	296.9	296.1	303.2	311.8	321.2	333.7	340.0	348.6	356.4	365.1	372.1
52.5°	278.9	278.9	286.7	295.3	304.7	314.1	324.3	333.7	343.1	351.0	358.0
55°	259.3	260.1	267.9	277.3	288.3	297.7	307.9	317.3	325.9	335.3	343.1
57.5°	239.7	241.3	249.9	260.1	269.5	280.4	290.6	300.8	310.2	318.8	326.7
60°	220.1	221.7	230.3	239.7	250.7	261.6	273.4	283.6	293.0	301.6	310.2
62.5°	199.8	201.3	209.9	220.9	232.7	243.6	254.6	265.6	275.0	285.2	293.8
65°	178.6	181.0	190.4	200.5	212.3	224.0	235.8	246.8	256.9	267.1	275.0
67.5°	156.7	160.6	169.2	181.0	192.7	204.5	216.2	228.0	238.9	249.1	256.9
70°	135.5	138.7	147.3	160.6	172.3	184.9	196.6	209.2	220.1	229.5	238.1
72.5°	112.8	117.5	127.7	138.7	152.0	164.5	177.0	188.8	200.5	209.9	219.3
75°	90.9	95.6	105.8	119.1	130.8	144.9	156.7	169.2	180.2	191.1	201.3
77.5°	70.5	75.2	85.4	97.9	111.2	124.6	137.1	149.6	162.2	172.3	181.0
80°	50.1	54.8	65.8	78.3	91.7	105.0	119.1	130.8	142.6	153.5	162.2
82.5°	31.3	36.8	47.8	61.1	74.4	87.7	101.1	113.6	125.3	135.5	145.7
85°	15.7	21.2	32.1	46.2	59.5	72.9	87.0	98.7	110.5	121.4	130.8
87.5°	5.5	11.0	21.2	35.3	48.6	61.9	75.2	87.7	100.3	110.5	119.9
90°	0.0	5.5	16.5	29.8	43.1	57.2	70.5	83.0	94.0	105.0	115.2
92.5°	0.0	4.7	14.9	27.4	41.5	54.8	68.2	80.7	92.4	102.6	112.8
95°	0.0	4.7	14.1	26.6	40.0	53.3	66.6	79.1	90.9	101.1	110.5
97.5°	0.0	3.9	13.3	25.9	38.4	52.5	65.0	77.6	88.5	99.5	108.9
100°	0.0	3.9	12.5	24.3	37.6	50.1	63.5	75.2	86.2	97.1	106.5
102.5°	0.0	3.1	11.8	23.5	36.0	48.6	61.1	72.9	84.6	94.8	104.2
105°	0.0	3.1	11.0	22.7	34.5	47.0	59.5	71.3	82.3	92.4	101.1
107.5°	0.0	2.4	11.0	21.2	32.9	45.4	57.2	68.9	79.1	89.3	98.7
110°	0.0	2.4	10.2	20.4	32.1	43.9	55.6	66.6	76.8	87.0	95.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.6	9.4	18.8	30.6	41.5	53.3	64.2	74.4	83.8	91.7
115°	0.0	1.6	8.6	18.0	29.0	40.0	50.9	61.1	71.3	80.7	88.5
117.5°	0.0	0.8	7.8	16.5	27.4	37.6	48.6	58.8	68.2	77.6	85.4
120°	0.0	0.8	7.1	15.7	25.9	36.0	46.2	55.6	65.0	73.6	81.5
122.5°	0.0	0.8	6.3	14.1	24.3	33.7	43.9	53.3	61.9	70.5	77.6
125°	0.0	0.8	5.5	13.3	21.9	31.3	40.7	50.1	58.8	66.6	74.4
127.5°	0.0	0.8	4.7	11.8	20.4	29.8	38.4	47.0	55.6	63.5	70.5
130°	0.0	0.8	3.9	11.0	18.8	27.4	36.0	43.9	51.7	59.5	65.8
132.5°	0.0	0.0	3.1	9.4	16.5	25.1	32.9	40.7	48.6	55.6	61.9
135°	0.0	0.0	2.4	7.8	14.9	22.7	30.6	37.6	44.7	50.9	57.2
137.5°	0.0	0.0	1.6	7.1	13.3	20.4	27.4	34.5	40.7	47.0	52.5
140°	0.0	0.0	0.8	5.5	11.8	18.0	24.3	31.3	37.6	43.1	48.6
142.5°	0.0	0.0	0.8	3.9	9.4	15.7	21.2	27.4	33.7	39.2	43.9
145°	0.0	0.0	0.0	3.1	7.1	12.5	18.0	23.5	29.8	34.5	39.2
147.5°	0.0	0.0	0.0	2.4	5.5	10.2	14.9	19.6	25.1	29.8	34.5
150°	0.0	0.0	0.0	0.8	3.9	7.8	12.5	16.5	21.2	25.1	29.0
152.5°	0.0	0.0	0.0	0.8	3.1	6.3	9.4	13.3	16.5	20.4	24.3
155°	0.8	0.0	0.0	0.0	1.6	3.9	7.1	9.4	12.5	15.7	18.8
157.5°	0.0	0.0	0.0	0.0	0.8	2.4	4.7	7.1	9.4	11.8	14.1
160°	0.8	0.0	0.0	0.0	0.0	0.8	2.4	3.9	6.3	7.8	9.4
162.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.8	1.6	3.1	4.7	5.5
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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
2.5°	488.0	487.3	486.5	485.7	484.9	484.1	483.3	483.3
5°	486.5	486.5	485.7	484.9	484.1	483.3	482.6	482.6
7.5°	486.5	486.5	486.5	485.7	485.7	484.9	484.1	484.1
10°	486.5	487.3	487.3	487.3	487.3	486.5	486.5	486.5
12.5°	486.5	488.0	488.0	488.0	488.0	488.0	488.0	487.3
15°	485.7	486.5	487.3	488.0	488.0	488.0	487.3	487.3
17.5°	484.1	485.7	486.5	487.3	487.3	487.3	487.3	487.3
20°	481.0	483.3	484.1	485.7	485.7	486.5	485.7	485.7
22.5°	477.9	480.2	481.8	482.6	483.3	484.1	484.1	484.1
25°	473.2	476.3	477.9	479.4	480.2	481.0	481.0	481.0
27.5°	467.7	470.8	473.2	474.7	475.5	476.3	476.3	476.3
30°	461.4	463.8	466.9	469.2	470.0	470.8	470.8	471.6
32.5°	453.6	456.7	459.8	462.2	463.0	463.8	464.5	464.5
35°	445.0	448.9	451.2	454.4	455.9	456.7	456.7	457.5
37.5°	436.3	440.3	442.6	445.7	447.3	448.1	448.9	448.9
40°	425.4	430.1	433.2	436.3	437.9	439.5	439.5	440.3
42.5°	415.2	419.9	423.0	426.2	428.5	430.1	430.9	430.9
45°	403.4	408.1	412.1	415.2	417.5	419.1	419.9	419.9
47.5°	390.9	396.4	401.1	404.2	406.6	408.1	408.9	408.9
50°	377.6	383.9	387.8	391.7	394.0	395.6	396.4	397.2
52.5°	364.3	369.8	374.5	378.4	381.5	383.1	383.9	383.9
55°	349.4	355.7	359.6	364.3	367.4	368.2	369.8	369.8
57.5°	334.5	340.0	344.7	349.4	351.7	354.1	355.7	356.4
60°	318.1	323.5	329.0	333.7	336.9	339.2	340.0	340.8
62.5°	301.6	307.9	313.4	317.3	320.4	322.8	324.3	323.5
65°	283.6	289.9	295.3	300.0	304.0	306.3	307.1	307.9
67.5°	265.6	273.4	278.1	282.8	285.9	289.1	289.9	289.9
70°	246.8	254.6	260.9	264.0	267.9	270.3	272.6	272.6
72.5°	228.0	235.0	241.3	246.0	249.1	252.2	253.8	253.8
75°	208.4	215.4	222.5	227.2	231.1	233.4	234.2	235.0
77.5°	189.6	197.4	203.7	208.4	212.3	214.6	216.2	217.8
80°	170.8	178.6	184.9	190.4	193.5	196.6	198.2	198.2
82.5°	154.3	162.2	168.4	173.9	177.0	180.2	181.0	181.7
85°	139.4	148.1	153.5	159.0	162.9	165.3	166.9	166.9
87.5°	129.3	137.1	143.4	148.8	152.8	155.1	156.7	156.7
90°	123.8	131.6	137.9	143.4	147.3	149.6	151.2	151.2
92.5°	121.4	129.3	135.5	141.0	144.1	147.3	148.8	148.8
95°	119.9	126.9	133.2	138.7	142.6	145.7	146.5	147.3
97.5°	117.5	125.3	131.6	137.1	140.2	143.4	144.9	144.9
100°	115.2	122.2	128.5	134.0	137.9	140.2	141.8	142.6
102.5°	112.0	119.9	126.1	130.8	134.7	137.1	138.7	138.7
105°	109.7	116.7	123.0	127.7	131.6	134.0	135.5	135.5
107.5°	106.5	113.6	119.9	124.6	127.7	130.8	131.6	132.4
110°	103.4	110.5	115.9	120.6	124.6	126.9	127.7	128.5





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CATALOG NUMBER: FVS4M-2-LD4-30-2STD-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	99.5	106.5	112.0	116.7	119.9	122.2	123.8	123.8
115°	96.4	102.6	108.1	112.8	115.9	118.3	119.9	119.9
117.5°	92.4	98.7	104.2	108.1	111.2	113.6	115.2	115.2
120°	88.5	94.8	100.3	104.2	107.3	109.7	110.5	110.5
122.5°	84.6	90.9	95.6	99.5	102.6	104.2	105.8	105.8
125°	80.7	86.2	90.9	94.8	97.9	99.5	100.3	100.3
127.5°	76.0	81.5	86.2	90.1	92.4	94.8	94.8	95.6
130°	72.1	76.8	81.5	84.6	87.0	89.3	90.1	90.1
132.5°	67.4	72.1	76.0	79.1	82.3	83.8	83.8	84.6
135°	62.7	67.4	71.3	74.4	76.8	77.6	79.1	79.1
137.5°	58.0	61.9	65.8	68.9	71.3	72.1	72.9	72.9
140°	53.3	57.2	60.3	63.5	65.0	66.6	67.4	67.4
142.5°	47.8	51.7	54.8	57.2	59.5	60.3	61.1	61.1
145°	43.1	46.2	49.4	51.7	53.3	54.8	54.8	54.8
147.5°	38.4	41.5	43.9	46.2	47.8	48.6	48.6	48.6
150°	32.9	36.0	38.4	40.0	41.5	42.3	42.3	42.3
152.5°	27.4	30.6	32.1	33.7	35.3	36.0	36.0	36.8
155°	21.9	24.3	26.6	28.2	29.0	29.8	29.8	29.8
157.5°	16.5	18.8	20.4	21.9	22.7	23.5	23.5	23.5
160°	11.0	13.3	14.9	16.5	17.2	17.2	17.2	17.2
162.5°	7.1	7.8	8.6	10.2	11.0	11.0	11.0	11.0
165°	3.1	3.1	3.9	4.7	4.7	5.5	5.5	5.5
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)