

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: P232038

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232038  
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-LD4-40-1HI-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**

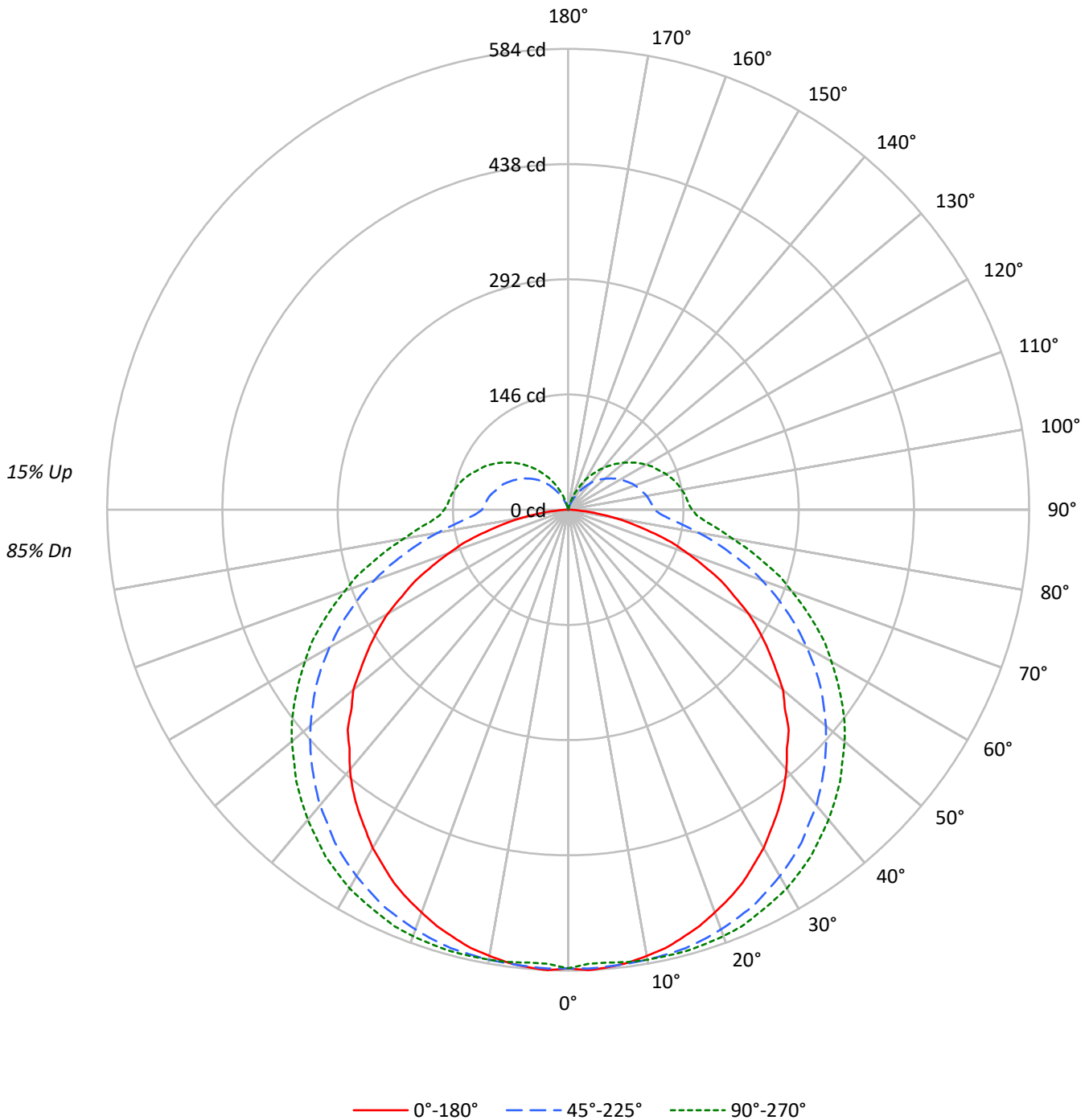
Lumens per Lamp: N/A  
Luminaire Lumens: 2491.9 lumens  
Efficiency: N/A  
Efficacy: 68.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 36.3  
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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CATALOG NUMBER: FVS4M-3-LD4-40-1HI-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	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°	6863	6863	6863
5°	6862	6617	6489
10°	6807	6413	6280
15°	6744	6245	6100
20°	6669	6076	5932
25°	6605	5923	5764
30°	6510	5751	5612
35°	6403	5588	5442
40°	6291	5408	5261
45°	6200	5217	5084
50°	6060	5019	4897
55°	5829	4807	4691
60°	5613	4546	4460
65°	5255	4261	4217
70°	4695	3934	3925
75°	3974	3530	3606
80°	2990	3100	3259
85°	1406	2723	3018



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.3	2.2
10°-20°	161.7	6.5
20°-30°	253.2	10.2
30°-40°	317.9	12.8
40°-50°	347.7	14.0
50°-60°	339.4	13.6
60°-70°	291.8	11.7
70°-80°	212.3	8.5
80°-90°	130.4	5.2
90°-100°	101.0	4.1
100°-110°	89.2	3.6
110°-120°	73.1	2.9
120°-130°	54.8	2.2
130°-140°	36.2	1.5
140°-150°	19.7	0.8
150°-160°	7.3	0.3
160°-170°	1.0	0.0
170°-180°	0.0	0.0
0°-30°	470.3	18.9
0°-40°	788.2	31.6
0°-60°	1475.3	59.2
0°-90°	2109.7	84.7
90°-120°	263.3	10.6
90°-150°	373.9	15.0
90°-180°	382.0	15.3
0°-180°	2491.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	582	581	581	580	576	55
15°	561	565	575	580	579	158
25°	522	533	554	565	566	240
35°	464	485	515	532	536	290
45°	395	422	459	482	487	303
55°	309	346	390	417	423	277
65°	214	256	306	338	345	210
75°	108	158	213	246	256	115
85°	18	71	128	164	175	24
90°	0	52	109	146	157	1
95°	0	49	105	140	151	0
105°	0	42	95	130	140	0
115°	0	36	83	114	123	0
125°	0	28	69	96	104	0
135°	0	19	53	74	81	0
145°	0	10	34	52	56	0
155°	0	3	16	28	30	0
165°	1	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°	581.1	581.1	581.1	581.1	581.1	581.1	581.1	581.1	581.1	581.1	581.1
2.5°	584.1	582.1	581.1	581.1	582.1	582.1	583.1	584.1	583.1	582.1	581.1
5°	582.1	580.1	579.1	579.1	580.1	581.1	581.1	582.1	582.1	581.1	581.1
7.5°	579.1	577.1	576.1	576.1	577.1	578.1	580.1	581.1	581.1	580.1	581.1
10°	574.1	572.1	571.1	572.1	573.1	575.1	577.1	578.1	579.1	579.1	579.1
12.5°	569.1	567.1	566.1	567.1	569.1	571.1	573.1	575.1	576.1	577.1	578.1
15°	561.1	560.1	559.1	561.1	563.1	566.1	569.1	571.1	573.1	575.1	576.1
17.5°	553.1	552.1	552.1	553.1	556.1	559.1	563.1	567.1	569.1	571.1	572.1
20°	543.1	542.1	542.1	545.1	548.1	552.1	556.1	561.1	563.1	566.1	568.1
22.5°	533.1	532.1	533.1	536.1	540.1	545.1	550.1	554.1	557.1	560.1	563.1
25°	522.1	521.1	522.1	526.1	530.1	536.1	542.1	546.1	550.1	554.1	557.1
27.5°	508.1	508.1	509.1	513.1	519.1	526.1	531.1	537.1	541.1	545.1	549.1
30°	495.1	494.1	496.1	501.1	507.1	515.1	521.1	527.1	532.1	536.1	540.1
32.5°	479.1	479.1	483.1	488.1	495.1	502.1	509.1	516.1	521.1	526.1	531.1
35°	464.1	464.1	466.1	474.1	481.1	489.1	497.1	503.1	509.1	515.1	519.1
37.5°	448.1	448.1	452.1	458.1	466.1	475.1	482.1	490.1	495.1	501.1	507.1
40°	430.1	431.1	435.1	442.1	451.1	459.1	468.1	476.1	483.1	489.1	494.1
42.5°	410.1	411.1	417.1	425.1	434.1	443.1	451.1	460.1	467.1	474.1	479.1
45°	395.1	393.1	400.1	408.1	417.1	427.1	436.1	445.1	452.1	459.1	465.1
47.5°	372.1	374.1	381.1	389.1	399.1	408.1	419.1	428.1	436.1	443.1	450.1
50°	355.1	355.1	361.1	370.1	380.1	390.1	401.1	410.1	418.1	426.1	433.1
52.5°	331.1	333.1	341.1	351.1	360.1	370.1	381.1	392.1	400.1	408.1	415.1
55°	309.1	311.1	320.1	329.1	339.1	352.1	362.1	371.1	381.1	390.1	397.1
57.5°	287.1	289.1	297.1	308.1	318.1	330.1	342.1	352.1	361.1	370.1	378.1
60°	264.1	266.1	274.1	285.1	296.1	308.1	319.1	330.1	340.1	349.1	358.1
62.5°	237.0	242.0	250.0	260.0	274.1	286.1	298.1	308.1	320.1	328.1	338.1
65°	214.0	217.0	226.0	237.0	249.0	262.0	275.1	286.1	296.1	306.1	315.1
67.5°	186.0	191.0	201.0	213.0	226.0	238.0	252.0	264.1	274.1	284.1	292.1
70°	160.0	165.0	176.0	189.0	200.0	214.0	227.0	239.0	250.0	261.0	269.1
72.5°	137.0	139.0	150.0	163.0	176.0	190.0	202.0	216.0	226.0	238.0	246.0
75°	108.0	115.0	124.0	138.0	151.0	166.0	178.0	191.0	202.0	213.0	221.0
77.5°	83.0	89.0	101.0	113.0	128.0	141.0	156.0	168.0	179.0	191.0	200.0
80°	60.0	66.0	76.0	91.0	103.0	119.0	132.0	145.0	157.0	167.0	177.0
82.5°	37.0	43.0	55.0	68.0	83.0	98.0	110.0	123.0	136.0	146.0	156.0
85°	18.0	25.0	36.0	50.0	63.0	79.0	93.0	105.0	118.0	128.0	139.0
87.5°	6.0	11.0	23.0	36.0	51.0	66.0	80.0	92.0	105.0	116.0	126.0
90°	0.0	5.0	17.0	30.0	45.0	59.0	73.0	86.0	98.0	109.0	119.0
92.5°	0.0	5.0	15.0	29.0	43.0	57.0	71.0	84.0	96.0	107.0	117.0
95°	0.0	4.0	14.0	28.0	42.0	56.0	69.0	82.0	94.0	105.0	115.0
97.5°	0.0	4.0	14.0	27.0	40.0	54.0	68.0	80.0	92.0	103.0	113.0
100°	0.0	4.0	13.0	25.0	39.0	52.0	66.0	78.0	90.0	101.0	111.0
102.5°	0.0	3.0	12.0	24.0	37.0	51.0	64.0	76.0	88.0	98.0	108.0
105°	0.0	3.0	12.0	23.0	36.0	49.0	62.0	74.0	85.0	95.0	105.0
107.5°	0.0	2.0	11.0	22.0	34.0	47.0	60.0	71.0	83.0	93.0	102.0
110°	0.0	2.0	10.0	21.0	33.0	45.0	57.0	69.0	80.0	90.0	99.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	2.0	9.0	20.0	31.0	43.0	55.0	66.0	77.0	87.0	95.0
115°	0.0	2.0	9.0	19.0	30.0	41.0	53.0	64.0	74.0	83.0	92.0
117.5°	0.0	1.0	8.0	17.0	28.0	39.0	50.0	61.0	71.0	80.0	88.0
120°	0.0	1.0	7.0	16.0	26.0	37.0	48.0	58.0	68.0	76.0	84.0
122.5°	0.0	1.0	6.0	15.0	25.0	35.0	45.0	55.0	64.0	73.0	81.0
125°	0.0	1.0	6.0	14.0	23.0	33.0	42.0	52.0	61.0	69.0	76.0
127.5°	0.0	1.0	5.0	12.0	21.0	30.0	40.0	49.0	57.0	65.0	72.0
130°	0.0	1.0	4.0	11.0	19.0	28.0	37.0	45.0	53.0	61.0	68.0
132.5°	0.0	0.0	3.0	9.0	17.0	26.0	34.0	42.0	50.0	57.0	63.0
135°	0.0	0.0	3.0	8.0	15.0	23.0	31.0	39.0	46.0	53.0	59.0
137.5°	0.0	0.0	2.0	7.0	13.0	20.0	28.0	35.0	42.0	49.0	54.0
140°	0.0	0.0	2.0	6.0	11.0	17.0	24.0	31.0	38.0	44.0	50.0
142.5°	0.0	0.0	1.0	4.0	9.0	15.0	21.0	27.0	33.0	39.0	45.0
145°	0.0	0.0	1.0	3.0	7.0	12.0	18.0	23.0	29.0	34.0	40.0
147.5°	0.0	0.0	1.0	2.0	6.0	10.0	15.0	19.0	24.0	29.0	34.0
150°	0.0	0.0	0.0	2.0	4.0	8.0	12.0	16.0	20.0	24.0	28.0
152.5°	0.0	0.0	0.0	1.0	3.0	6.0	9.0	13.0	16.0	19.0	23.0
155°	0.0	0.0	0.0	1.0	2.0	4.0	7.0	10.0	12.0	16.0	18.0
157.5°	1.0	0.0	0.0	1.0	1.0	3.0	5.0	7.0	9.0	11.0	13.0
160°	1.0	0.0	0.0	0.0	1.0	2.0	3.0	4.0	6.0	8.0	10.0
162.5°	1.0	1.0	0.0	0.0	0.0	1.0	2.0	3.0	4.0	5.0	6.0
165°	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	3.0
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°	581.1	581.1	581.1	581.1	581.1	581.1	581.1	581.1
2.5°	581.1	580.1	580.1	579.1	579.1	578.1	577.1	576.1
5°	581.1	580.1	580.1	580.1	579.1	578.1	577.1	576.1
7.5°	581.1	581.1	581.1	580.1	580.1	579.1	578.1	578.1
10°	580.1	580.1	581.1	581.1	581.1	580.1	579.1	579.1
12.5°	579.1	580.1	581.1	581.1	581.1	581.1	580.1	579.1
15°	577.1	579.1	579.1	580.1	580.1	580.1	579.1	579.1
17.5°	574.1	576.1	577.1	578.1	579.1	578.1	577.1	577.1
20°	570.1	573.1	574.1	575.1	576.1	576.1	575.1	575.1
22.5°	566.1	568.1	570.1	571.1	573.1	573.1	572.1	572.1
25°	560.1	562.1	564.1	566.1	567.1	567.1	567.1	566.1
27.5°	552.1	555.1	558.1	560.1	561.1	561.1	561.1	560.1
30°	544.1	547.1	550.1	552.1	554.1	554.1	554.1	554.1
32.5°	534.1	538.1	541.1	543.1	545.1	546.1	545.1	545.1
35°	524.1	528.1	531.1	533.1	535.1	536.1	535.1	536.1
37.5°	512.1	516.1	519.1	523.1	524.1	524.1	524.1	524.1
40°	499.1	503.1	507.1	510.1	512.1	512.1	513.1	513.1
42.5°	485.1	489.1	494.1	498.1	498.1	499.1	500.1	500.1
45°	471.1	475.1	480.1	483.1	485.1	487.1	486.1	487.1
47.5°	456.1	461.1	465.1	469.1	470.1	472.1	472.1	471.1
50°	440.1	445.1	449.1	453.1	456.1	456.1	457.1	457.1
52.5°	422.1	428.1	433.1	438.1	438.1	441.1	442.1	441.1
55°	404.1	409.1	414.1	419.1	421.1	422.1	423.1	423.1
57.5°	385.1	391.1	395.1	400.1	403.1	403.1	405.1	404.1
60°	365.1	371.1	376.1	380.1	384.1	385.1	387.1	385.1
62.5°	345.1	352.1	356.1	360.1	363.1	365.1	367.1	367.1
65°	324.1	330.1	335.1	340.1	342.1	343.1	346.1	345.1
67.5°	301.1	307.1	312.1	318.1	322.1	323.1	325.1	323.1
70°	278.1	285.1	291.1	295.1	297.1	301.1	300.1	301.1
72.5°	254.0	261.0	267.1	272.1	276.1	279.1	280.1	281.1
75°	230.0	239.0	244.0	248.0	253.0	254.0	257.0	256.0
77.5°	209.0	216.0	222.0	226.0	231.0	233.0	234.0	234.0
80°	185.0	193.0	199.0	205.0	207.0	210.0	213.0	211.0
82.5°	165.0	173.0	180.0	185.0	189.0	191.0	192.0	193.0
85°	147.0	155.0	162.0	167.0	171.0	174.0	176.0	175.0
87.5°	135.0	143.0	149.0	155.0	160.0	161.0	163.0	163.0
90°	128.0	136.0	143.0	148.0	152.0	155.0	156.0	157.0
92.5°	125.0	133.0	140.0	145.0	149.0	151.0	153.0	153.0
95°	123.0	131.0	137.0	143.0	147.0	149.0	151.0	151.0
97.5°	122.0	129.0	136.0	140.0	144.0	147.0	148.0	149.0
100°	119.0	127.0	133.0	138.0	142.0	144.0	146.0	146.0
102.5°	116.0	124.0	130.0	135.0	139.0	141.0	142.0	143.0
105°	113.0	121.0	127.0	132.0	135.0	138.0	139.0	140.0
107.5°	110.0	117.0	123.0	128.0	132.0	134.0	135.0	136.0
110°	107.0	114.0	120.0	125.0	128.0	130.0	132.0	132.0





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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	103.0	110.0	116.0	121.0	124.0	126.0	127.0	127.0
115°	100.0	106.0	112.0	116.0	120.0	122.0	123.0	123.0
117.5°	96.0	102.0	108.0	112.0	115.0	117.0	118.0	119.0
120°	92.0	98.0	103.0	107.0	111.0	113.0	114.0	114.0
122.5°	87.0	93.0	99.0	103.0	106.0	108.0	109.0	109.0
125°	83.0	89.0	94.0	98.0	101.0	102.0	103.0	104.0
127.5°	78.0	84.0	89.0	93.0	95.0	97.0	98.0	98.0
130°	74.0	79.0	84.0	87.0	90.0	92.0	93.0	93.0
132.5°	69.0	74.0	79.0	82.0	84.0	86.0	87.0	87.0
135°	64.0	69.0	73.0	76.0	79.0	80.0	81.0	81.0
137.5°	59.0	64.0	68.0	71.0	73.0	74.0	75.0	75.0
140°	54.0	59.0	62.0	65.0	67.0	68.0	69.0	69.0
142.5°	49.0	53.0	57.0	59.0	61.0	62.0	63.0	63.0
145°	44.0	48.0	50.0	53.0	55.0	56.0	56.0	56.0
147.5°	38.0	43.0	45.0	47.0	49.0	49.0	50.0	50.0
150°	32.0	36.0	39.0	41.0	42.0	43.0	44.0	44.0
152.5°	26.0	30.0	33.0	35.0	36.0	37.0	38.0	37.0
155°	21.0	23.0	26.0	29.0	30.0	30.0	31.0	30.0
157.5°	15.0	17.0	20.0	22.0	24.0	24.0	24.0	24.0
160°	11.0	12.0	14.0	15.0	17.0	18.0	18.0	18.0
162.5°	7.0	8.0	9.0	10.0	10.0	12.0	12.0	11.0
165°	3.0	3.0	4.0	4.0	5.0	6.0	6.0	6.0
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)