

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: P232070

Luminaire Tested: **FVS4M-3-LD4-40-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232070  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-29)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-3-LD4-40-2STD-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (168) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

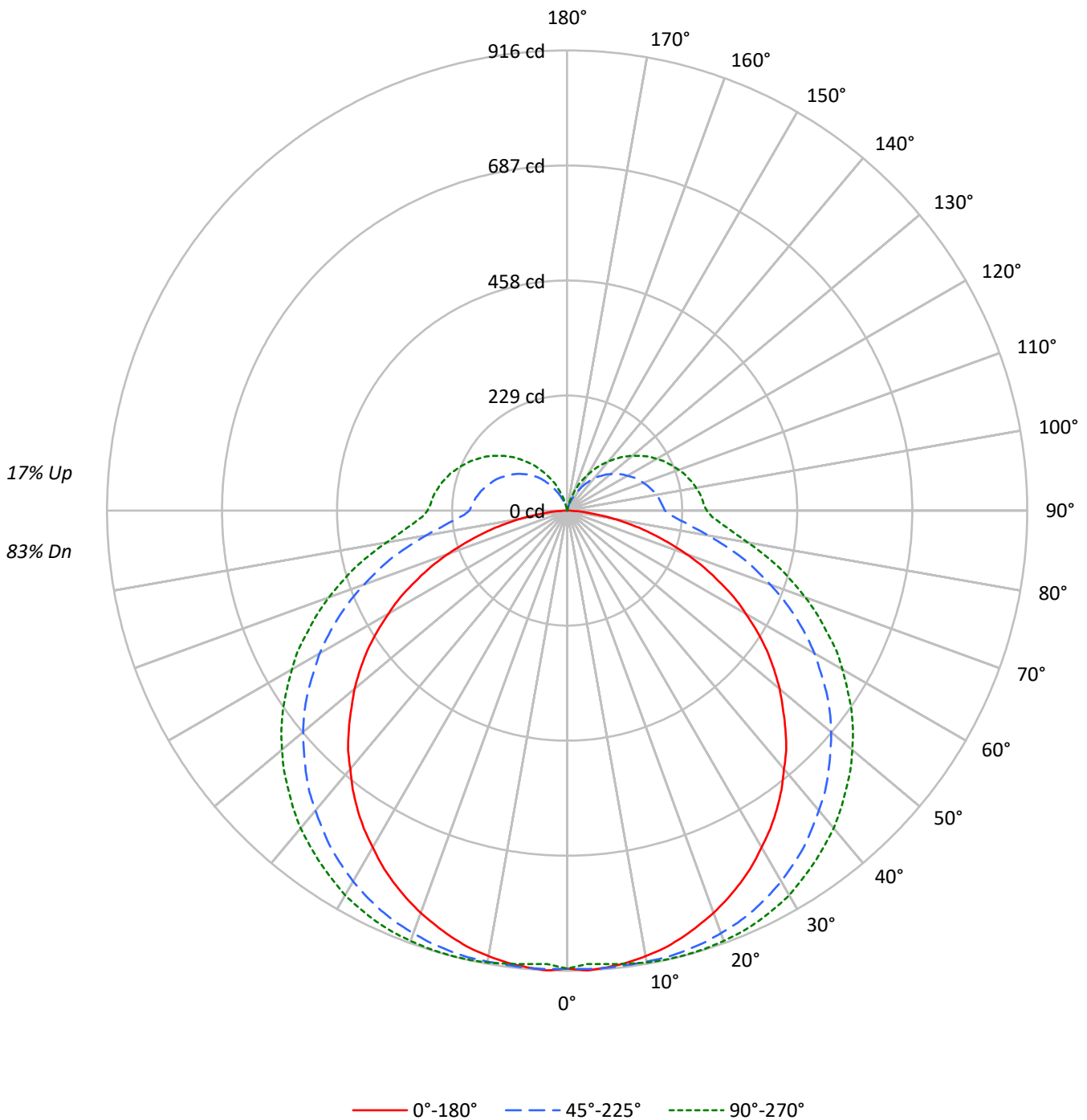
Lumens per Lamp: N/A  
Luminaire Lumens: 4107.0 lumens  
Efficiency: N/A  
Efficacy: 64.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 64  
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-LD4-40-2STD-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	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	103	97	92	88	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	31	39	33	29	26
7	59	46	37	30	57	44	35	30	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	37	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°	10767	10767	10767
5°	10758	10402	10207
10°	10680	10097	9906
15°	10583	9851	9642
20°	10464	9608	9404
25°	10339	9383	9180
30°	10178	9141	8955
35°	10034	8896	8697
40°	9821	8621	8465
45°	9643	8359	8195
50°	9423	8081	7939
55°	9150	7765	7657
60°	8733	7406	7330
65°	8175	6984	6961
70°	7401	6485	6577
75°	6311	5958	6150
80°	4710	5294	5638
85°	2507	4819	5330



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.9	2.1
10°-20°	255.2	6.2
20°-30°	401.1	9.8
30°-40°	505.6	12.3
40°-50°	556.4	13.5
50°-60°	547.2	13.3
60°-70°	476.1	11.6
70°-80°	354.4	8.6
80°-90°	227.2	5.5
90°-100°	180.5	4.4
100°-110°	160.4	3.9
110°-120°	132.5	3.2
120°-130°	100.5	2.4
130°-140°	67.7	1.6
140°-150°	37.8	0.9
150°-160°	15.0	0.4
160°-170°	2.4	0.1
170°-180°	0.0	0.0
0°-30°	743.3	18.1
0°-40°	1248.9	30.4
0°-60°	2352.5	57.3
0°-90°	3410.3	83.0
90°-120°	473.4	11.5
90°-150°	679.3	16.5
90°-180°	697.0	17.0
0°-180°	4107.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	913	912	914	911	906	87
15°	880	889	907	917	915	248
25°	817	842	878	899	902	377
35°	727	768	820	851	857	455
45°	614	670	736	776	785	474
55°	485	553	630	678	691	433
65°	333	412	502	556	570	330
75°	172	260	360	417	437	181
85°	32	123	226	289	309	39
90°	1	93	194	259	278	2
95°	1	88	187	250	270	1
105°	1	78	172	232	250	1
115°	1	66	151	205	222	1
125°	1	53	127	174	189	1
135°	1	39	98	137	150	1
145°	1	22	66	98	106	1
155°	1	9	32	55	62	0
165°	1	1	7	12	16	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°	911.7	911.7	911.7	911.7	911.7	911.7	911.7	911.7	911.7	911.7	911.7
2.5°	916.3	914.4	911.7	911.7	913.5	914.4	916.3	916.3	915.4	913.5	912.6
5°	912.6	911.7	908.9	908.9	910.8	912.6	914.4	914.4	914.4	913.5	912.6
7.5°	908.0	906.2	904.4	904.4	907.1	908.9	911.7	912.6	913.5	912.6	913.5
10°	900.7	899.8	897.9	898.9	901.6	904.4	907.1	909.9	911.7	911.7	913.5
12.5°	892.4	890.6	888.8	890.6	894.3	897.9	903.4	906.2	908.9	910.8	911.7
15°	880.5	879.6	878.7	881.4	886.0	891.5	897.0	901.6	904.4	907.1	909.9
17.5°	866.8	866.8	866.8	870.4	875.9	883.3	888.8	894.3	898.9	902.5	906.2
20°	852.1	851.2	852.1	857.6	865.8	872.3	879.6	886.0	891.5	895.2	899.8
22.5°	835.6	835.6	837.4	842.9	852.1	861.2	868.6	875.9	882.3	887.8	892.4
25°	817.2	818.1	820.9	827.3	837.4	846.6	855.7	864.0	872.3	877.8	884.2
27.5°	797.0	797.0	801.6	809.9	820.9	831.0	841.1	850.2	859.4	865.8	872.3
30°	774.1	775.9	780.5	791.5	802.5	814.5	824.6	835.6	843.8	852.1	859.4
32.5°	752.1	753.0	758.5	769.5	783.3	795.2	806.2	819.1	827.3	836.5	844.7
35°	727.3	729.2	735.6	747.5	761.3	775.0	787.9	799.8	809.9	820.0	828.2
37.5°	700.7	703.5	711.7	723.7	738.3	752.1	765.9	778.7	790.6	799.8	810.8
40°	671.4	676.0	684.2	699.8	714.5	728.3	742.9	755.8	768.6	779.6	790.6
42.5°	645.7	647.5	657.6	673.2	689.7	706.2	720.9	734.7	747.5	759.4	768.6
45°	614.5	619.1	629.2	643.9	661.3	679.6	698.0	708.1	722.8	735.6	746.6
47.5°	582.4	587.9	600.8	617.3	634.7	651.2	666.8	684.2	698.0	710.8	723.7
50°	552.2	557.7	569.6	587.9	604.4	622.8	641.1	656.7	671.4	686.1	698.0
52.5°	519.1	523.7	538.4	555.8	575.1	593.4	610.9	629.2	643.9	659.5	671.4
55°	485.2	489.8	504.5	522.8	543.0	563.2	580.6	599.8	613.6	630.1	643.9
57.5°	448.5	456.8	468.7	487.9	508.1	528.3	548.5	566.8	583.3	598.0	613.6
60°	410.9	419.2	434.8	454.0	473.3	495.3	515.5	533.8	551.2	568.7	581.5
62.5°	375.1	381.6	397.1	417.3	438.4	459.5	482.4	499.9	520.1	535.6	551.2
65°	332.9	342.1	359.5	379.7	400.8	422.8	443.9	465.0	484.3	501.7	517.3
67.5°	294.4	301.8	321.9	340.3	363.2	385.2	410.9	430.2	449.4	466.9	481.5
70°	252.2	264.2	277.9	303.6	325.6	350.4	371.5	393.5	412.7	430.2	446.7
72.5°	210.0	222.0	241.2	262.3	286.2	311.8	333.9	355.0	375.1	394.4	410.0
75°	171.5	180.7	200.9	223.8	249.5	271.5	294.4	318.3	339.4	359.5	374.2
77.5°	132.1	143.1	160.5	183.4	209.1	236.6	259.6	280.7	302.7	320.1	339.4
80°	94.5	103.6	123.8	145.8	172.4	198.1	222.9	245.8	266.0	285.2	302.7
82.5°	58.7	69.7	89.0	115.6	140.3	166.9	189.9	212.8	234.8	253.1	270.6
85°	32.1	40.4	61.5	84.4	111.0	135.7	162.3	184.4	207.3	226.5	245.8
87.5°	11.0	20.2	39.4	64.2	90.8	114.6	141.2	164.2	185.3	205.5	223.8
90°	0.9	10.1	30.3	54.1	79.8	105.5	130.2	153.2	175.2	194.4	212.8
92.5°	0.9	9.2	27.5	51.4	77.0	101.8	126.6	149.5	170.6	190.8	208.2
95°	0.9	8.3	26.6	49.5	75.2	100.0	123.8	146.8	167.8	187.1	204.5
97.5°	0.9	8.3	25.7	48.6	72.5	97.2	121.1	144.0	165.1	184.4	201.8
100°	0.9	7.3	23.8	45.9	70.6	94.5	118.3	140.3	161.4	179.8	198.1
102.5°	0.9	6.4	22.9	44.9	67.9	91.7	114.6	136.7	156.8	176.1	193.5
105°	0.9	6.4	22.0	43.1	66.0	89.0	111.0	133.0	153.2	171.5	188.0
107.5°	0.9	5.5	21.1	41.3	63.3	86.2	108.2	129.3	148.6	166.9	183.4
110°	0.9	5.5	20.2	39.4	60.5	82.5	104.6	124.7	144.0	161.4	177.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	4.6	18.3	37.6	57.8	79.8	100.0	121.1	139.4	156.8	172.4
115°	0.9	4.6	17.4	35.8	55.9	76.1	96.3	115.6	133.9	151.3	166.0
117.5°	0.9	3.7	16.5	33.9	53.2	72.5	92.6	111.0	129.3	144.9	159.6
120°	0.9	3.7	14.7	31.2	49.5	68.8	88.1	106.4	122.9	138.5	153.2
122.5°	0.9	2.8	13.8	29.4	47.7	65.1	83.5	100.9	118.3	133.0	146.8
125°	0.9	2.8	12.8	27.5	44.0	61.5	78.9	96.3	111.9	126.6	139.4
127.5°	0.9	1.8	11.0	24.8	41.3	57.8	74.3	90.8	105.5	120.2	133.0
130°	0.9	1.8	10.1	22.9	38.5	54.1	69.7	85.3	100.0	112.8	124.7
132.5°	0.9	1.8	8.3	20.2	34.9	50.4	65.1	79.8	93.6	106.4	117.4
135°	0.9	1.8	7.3	18.3	31.2	45.9	59.6	73.4	87.1	98.1	109.1
137.5°	0.9	0.9	6.4	15.6	27.5	41.3	54.1	67.9	79.8	91.7	101.8
140°	0.9	0.9	4.6	12.8	23.8	35.8	47.7	60.5	72.5	83.5	93.6
142.5°	0.9	0.9	3.7	11.0	20.2	31.2	42.2	54.1	64.2	75.2	85.3
145°	0.9	0.9	2.8	9.2	17.4	26.6	35.8	46.8	55.9	66.0	75.2
147.5°	0.9	0.9	2.8	7.3	14.7	22.0	31.2	39.4	48.6	57.8	65.1
150°	0.9	0.9	1.8	5.5	11.0	18.3	25.7	33.0	41.3	47.7	56.9
152.5°	0.9	0.9	1.8	3.7	8.3	14.7	21.1	27.5	33.9	40.4	46.8
155°	0.9	0.9	0.9	2.8	6.4	11.0	16.5	22.0	26.6	32.1	37.6
157.5°	0.9	0.9	0.9	1.8	4.6	7.3	11.9	16.5	21.1	24.8	29.4
160°	0.9	0.9	0.9	1.8	2.8	5.5	8.3	11.9	15.6	18.3	21.1
162.5°	0.9	0.9	0.9	0.9	1.8	2.8	5.5	8.3	10.1	11.9	14.7
165°	0.9	0.9	0.9	0.9	0.9	1.8	2.8	3.7	5.5	7.3	8.3
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°	911.7	911.7	911.7	911.7	911.7	911.7	911.7	911.7
2.5°	911.7	910.8	909.9	908.9	908.0	906.2	904.4	903.4
5°	912.6	912.6	911.7	910.8	909.9	908.0	906.2	906.2
7.5°	913.5	914.4	914.4	914.4	913.5	912.6	910.8	909.9
10°	915.4	915.4	916.3	916.3	916.3	915.4	914.4	913.5
12.5°	914.4	915.4	917.2	918.1	918.1	917.2	915.4	915.4
15°	912.6	914.4	916.3	917.2	918.1	917.2	915.4	915.4
17.5°	908.9	911.7	914.4	916.3	916.3	916.3	915.4	914.4
20°	904.4	907.1	909.9	912.6	913.5	913.5	912.6	911.7
22.5°	897.0	901.6	905.3	908.0	908.9	908.9	908.0	908.0
25°	888.8	893.4	897.9	900.7	902.5	903.4	902.5	901.6
27.5°	878.7	883.3	887.8	891.5	893.4	894.3	894.3	893.4
30°	867.7	872.3	876.8	881.4	883.3	884.2	884.2	884.2
32.5°	852.1	858.5	864.0	867.7	871.3	871.3	871.3	870.4
35°	835.6	842.9	848.4	853.9	855.7	857.6	857.6	856.7
37.5°	817.2	826.4	831.9	836.5	840.2	841.1	840.2	841.1
40°	798.9	806.2	815.4	818.1	821.8	824.6	823.6	825.5
42.5°	778.7	787.0	794.3	800.7	803.5	804.4	805.3	806.2
45°	757.6	764.9	774.1	778.7	782.4	785.1	785.1	785.1
47.5°	733.8	743.8	752.1	757.6	761.3	764.0	763.1	764.9
50°	709.0	719.1	728.3	732.8	738.3	739.3	740.2	741.1
52.5°	683.3	693.4	702.6	709.0	711.7	714.5	716.3	717.2
55°	655.8	665.9	674.1	681.5	686.1	688.8	688.8	690.6
57.5°	626.4	637.5	647.5	652.1	656.7	660.4	662.2	661.3
60°	597.1	607.2	614.5	623.7	629.2	631.9	632.9	632.9
62.5°	561.3	575.1	583.3	594.3	597.1	600.8	601.7	604.4
65°	532.0	542.1	553.1	558.6	565.9	567.7	570.5	569.6
67.5°	496.2	510.0	518.2	526.5	533.8	536.6	536.6	538.4
70°	459.5	474.2	482.4	492.5	497.1	502.6	505.4	504.5
72.5°	425.6	437.5	448.5	456.8	463.2	466.9	467.8	469.6
75°	390.7	402.6	412.7	421.0	429.2	432.0	434.8	436.6
77.5°	353.1	364.1	377.9	387.1	392.6	398.1	399.9	399.9
80°	318.3	331.1	342.1	352.2	357.7	363.2	366.9	365.0
82.5°	285.2	299.0	312.8	321.0	327.4	332.9	334.8	333.9
85°	259.6	273.3	284.3	293.5	300.8	306.3	308.2	309.1
87.5°	239.4	253.1	265.1	274.2	280.7	285.2	287.1	288.9
90°	228.4	242.1	254.1	263.2	269.7	274.2	277.0	277.9
92.5°	223.8	237.6	248.6	257.7	265.1	269.7	271.5	272.4
95°	221.0	233.9	245.8	255.0	261.4	266.0	268.7	269.7
97.5°	217.4	231.1	242.1	251.3	257.7	263.2	265.1	266.0
100°	212.8	226.5	237.6	246.7	253.1	257.7	260.5	260.5
102.5°	208.2	222.0	233.0	242.1	248.6	253.1	255.0	255.9
105°	203.6	216.5	227.5	235.7	242.1	246.7	249.5	249.5
107.5°	198.1	211.0	221.0	230.2	236.6	240.3	243.1	244.0
110°	192.6	204.5	215.5	223.8	230.2	233.9	236.6	236.6





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CATALOG NUMBER: FVS4M-3-LD4-40-2STD-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	186.2	198.1	209.1	216.5	222.9	227.5	229.3	229.3
115°	179.8	191.7	201.8	209.1	215.5	219.2	222.0	222.0
117.5°	173.4	185.3	194.4	201.8	207.3	211.9	213.7	214.6
120°	166.0	177.0	187.1	194.4	199.9	203.6	205.5	205.5
122.5°	158.7	169.7	179.8	186.2	191.7	194.4	197.2	198.1
125°	151.3	162.3	171.5	177.0	182.5	186.2	188.0	188.9
127.5°	144.0	153.2	162.3	168.8	173.4	177.0	178.9	178.9
130°	135.7	144.9	153.2	159.6	164.2	166.9	168.8	169.7
132.5°	127.5	136.7	144.0	150.4	155.0	157.8	158.7	159.6
135°	119.2	127.5	133.9	140.3	144.9	146.8	148.6	149.5
137.5°	110.1	118.3	125.7	131.2	133.9	136.7	137.6	138.5
140°	101.8	109.1	115.6	120.2	123.8	125.7	127.5	127.5
142.5°	92.6	100.0	105.5	110.1	112.8	115.6	117.4	116.5
145°	83.5	90.8	95.4	100.0	102.7	104.6	105.5	106.4
147.5°	74.3	80.7	85.3	89.9	91.7	93.6	94.5	93.6
150°	62.4	69.7	75.2	78.9	80.7	82.5	83.5	82.5
152.5°	52.3	59.6	65.1	67.9	69.7	70.6	71.5	71.5
155°	42.2	47.7	53.2	56.9	58.7	59.6	60.5	61.5
157.5°	33.0	37.6	40.4	45.9	48.6	48.6	48.6	48.6
160°	24.8	27.5	30.3	33.9	36.7	37.6	37.6	37.6
162.5°	16.5	18.3	20.2	22.9	24.8	26.6	26.6	26.6
165°	9.2	10.1	11.9	12.8	12.8	15.6	16.5	15.6
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

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