

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: P231993

Luminaire Tested: **FVS4M-4-LD4-35-2LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P231993  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-121-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FVS4M-4-LD4-35-2LO-PFS125-UNV-EDC1  
Description: FAILSAFE FVS LED FIXTURE  
4FT LENGTH, 2-MODULE LED WITH PFS125 LENS  
Light Source: (168) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

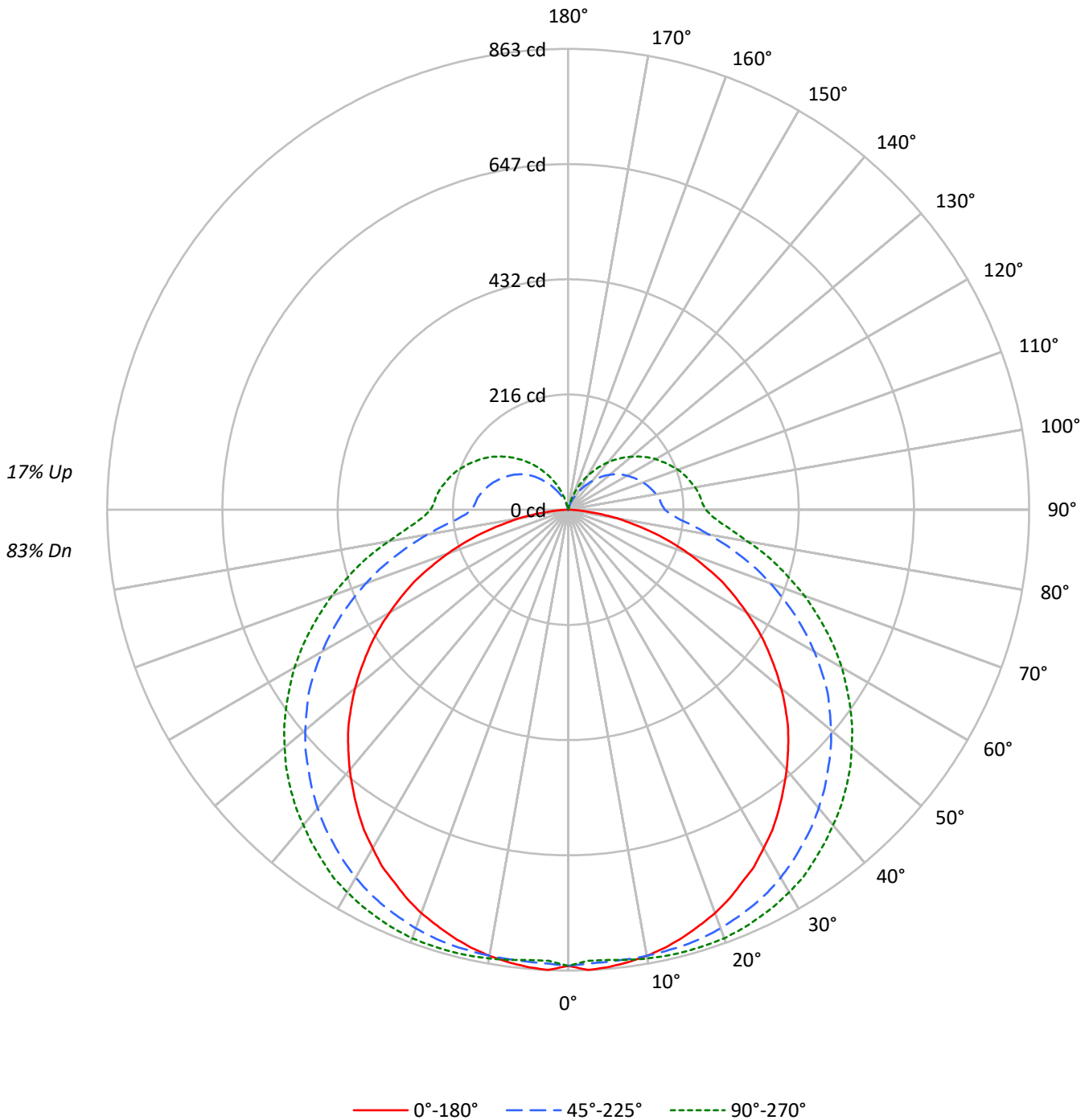
Lumens per Lamp: N/A  
Luminaire Lumens: 3828.0 lumens  
Efficiency: N/A  
Efficacy: 66.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.44 / 1.52  
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.79' x H: 0.19')  
CIE Type: Semi-Direct

Input Watts (W): 57.4  
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	87	87	87	83
1	103	97	92	88	98	93	89	85	86	82	79	79	76	74	73	71	68	65
2	93	83	76	69	88	80	73	67	74	68	63	68	63	59	63	59	56	52
3	84	72	64	57	80	70	62	55	64	57	52	59	54	49	55	50	46	43
4	76	64	54	47	73	61	53	46	57	49	44	52	46	41	48	43	39	36
5	70	56	47	40	67	54	46	39	50	43	37	47	40	35	43	38	33	31
6	64	51	41	35	61	49	40	34	45	38	32	42	36	31	39	33	29	27
7	59	46	37	30	57	44	36	30	41	34	28	38	32	27	35	30	26	23
8	55	41	33	27	53	40	32	26	37	30	25	35	28	24	32	27	23	21
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	32	25	20	29	24	19	28	22	18	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7759	7759	7759
5°	7807	7450	7332
10°	7758	7240	7119
15°	7697	7070	6937
20°	7634	6910	6777
25°	7543	6753	6606
30°	7462	6595	6445
35°	7365	6419	6266
40°	7243	6245	6084
45°	7130	6055	5909
50°	6951	5868	5709
55°	6741	5665	5498
60°	6466	5385	5271
65°	6161	5080	5002
70°	5593	4728	4719
75°	4845	4320	4401
80°	3787	3872	4045
85°	1931	3494	3811



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.4	2.1
10°-20°	238.9	6.2
20°-30°	375.8	9.8
30°-40°	474.1	12.4
40°-50°	521.7	13.6
50°-60°	512.8	13.4
60°-70°	445.8	11.6
70°-80°	331.4	8.7
80°-90°	211.6	5.5
90°-100°	167.0	4.4
100°-110°	148.0	3.9
110°-120°	121.6	3.2
120°-130°	91.4	2.4
130°-140°	60.2	1.6
140°-150°	32.5	0.8
150°-160°	12.3	0.3
160°-170°	1.7	0.0
170°-180°	0.0	0.0
0°-30°	696.1	18.2
0°-40°	1170.2	30.6
0°-60°	2204.7	57.6
0°-90°	3193.4	83.4
90°-120°	436.6	11.4
90°-150°	620.6	16.2
90°-180°	635.0	16.6
0°-180°	3828.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	860	857	850	851	846	82
15°	829	834	844	857	856	234
25°	770	791	818	842	844	355
35°	687	722	765	797	802	430
45°	582	630	688	727	736	448
55°	456	520	592	634	645	407
65°	317	388	469	520	532	311
75°	164	244	334	389	406	172
85°	29	117	210	268	287	37
90°	0	86	181	240	258	1
95°	0	81	173	231	249	0
105°	0	71	158	214	231	0
115°	0	60	139	190	204	0
125°	0	47	115	160	173	0
135°	0	31	87	125	135	0
145°	1	17	54	88	96	0
155°	1	6	26	44	52	0
165°	1	0	4	7	12	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°	854.1	854.1	854.1	854.1	854.1	854.1	854.1	854.1	854.1	854.1	854.1
2.5°	862.6	861.2	859.0	858.3	859.0	859.0	859.0	857.6	854.1	850.6	850.6
5°	859.8	859.0	856.2	855.5	856.2	856.9	856.9	855.5	852.7	849.8	849.8
7.5°	854.8	854.1	852.0	851.3	852.7	853.4	854.1	852.7	851.3	849.1	849.8
10°	848.4	847.0	845.6	844.9	846.3	848.4	849.8	849.8	849.1	848.4	850.6
12.5°	839.9	839.2	837.1	837.8	839.9	843.5	845.6	847.0	847.0	846.3	849.8
15°	829.3	829.3	827.9	828.6	831.4	836.4	839.9	842.1	842.8	844.2	847.7
17.5°	816.6	817.3	815.9	817.3	823.0	828.6	833.6	835.7	837.8	839.9	844.9
20°	803.9	803.9	802.4	806.0	811.6	818.7	823.7	827.9	830.7	834.3	839.2
22.5°	788.3	788.3	788.3	792.5	799.6	806.7	814.5	819.4	823.0	826.5	832.9
25°	769.9	772.0	771.3	777.7	786.2	795.4	802.4	807.4	813.0	818.0	825.1
27.5°	753.6	752.2	753.6	760.7	770.6	779.1	789.0	794.7	801.0	808.1	815.2
30°	731.7	731.0	734.5	743.0	752.9	764.2	773.4	780.5	788.3	795.4	803.9
32.5°	711.2	709.0	714.0	724.6	734.5	747.9	756.4	764.2	772.0	781.2	789.7
35°	687.1	686.4	692.0	702.7	715.4	728.1	739.5	748.7	756.4	764.9	775.5
37.5°	661.6	664.5	669.4	680.0	694.2	707.6	718.9	728.1	737.3	748.7	759.3
40°	636.1	637.6	643.2	656.7	671.5	685.7	697.7	706.2	718.9	729.6	740.2
42.5°	609.3	608.5	619.9	633.3	647.5	663.0	675.1	686.4	698.4	709.7	721.1
45°	582.4	580.2	591.6	606.4	622.0	638.3	652.4	665.2	676.5	687.8	699.1
47.5°	551.9	552.6	564.7	579.5	596.5	612.8	632.6	640.4	652.4	666.6	677.9
50°	520.8	520.8	535.0	551.2	567.5	586.6	600.8	614.9	629.8	642.5	654.5
52.5°	488.3	491.1	503.8	522.2	541.3	557.6	572.5	589.4	603.6	617.0	629.1
55°	455.7	458.5	474.8	491.1	511.6	528.6	544.9	560.4	575.3	592.3	602.9
57.5°	422.4	426.7	441.6	459.2	478.3	498.2	516.6	531.4	547.7	561.8	575.3
60°	386.4	392.7	406.9	424.6	446.5	466.3	484.0	500.3	516.6	532.1	544.9
62.5°	351.0	356.6	372.2	390.6	412.5	434.5	450.0	469.9	486.1	501.0	515.1
65°	317.0	321.3	338.2	356.6	378.6	398.4	418.2	436.6	452.9	469.1	484.0
67.5°	276.7	284.5	300.7	321.3	343.2	363.7	382.8	402.6	420.3	435.9	450.8
70°	239.2	246.3	262.5	284.5	307.8	330.5	350.3	368.7	387.1	402.6	417.5
72.5°	201.7	209.5	225.7	245.5	269.6	290.8	312.8	333.3	353.1	369.4	384.2
75°	163.5	170.5	188.9	210.9	234.9	254.0	278.8	297.9	317.0	334.0	351.0
77.5°	123.1	133.7	150.7	174.1	196.7	220.8	243.4	263.9	282.3	300.7	318.4
80°	92.7	98.4	114.6	140.1	162.0	186.8	208.0	230.0	250.5	266.8	283.0
82.5°	56.6	65.1	85.6	105.4	132.3	153.6	177.6	198.8	218.7	237.1	252.6
85°	29.0	38.2	55.9	80.0	104.7	129.5	150.0	172.0	191.8	209.5	225.7
87.5°	8.5	17.0	36.8	59.4	84.2	109.0	131.6	152.8	172.7	191.1	207.3
90°	0.0	8.5	27.6	50.2	74.3	98.4	121.0	142.9	162.8	181.1	197.4
92.5°	0.0	7.8	25.5	47.4	71.5	94.8	117.5	138.7	157.8	176.2	192.5
95°	0.0	7.1	24.1	46.0	69.3	92.7	115.3	136.6	155.7	173.4	189.6
97.5°	0.0	6.4	22.6	43.9	67.2	89.9	112.5	133.7	152.8	171.2	187.5
100°	0.0	5.7	21.9	42.5	65.1	87.0	109.7	130.2	149.3	167.0	183.3
102.5°	0.0	5.0	20.5	40.3	62.3	84.9	106.1	126.7	145.8	162.8	179.0
105°	0.0	5.0	19.1	38.9	60.1	82.1	102.6	123.1	141.5	158.5	174.8
107.5°	0.0	4.2	18.4	36.8	58.0	78.5	99.1	118.9	137.3	154.3	169.8
110°	0.0	3.5	17.0	35.4	55.2	75.7	96.2	115.3	133.0	149.3	164.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	2.8	15.6	33.3	52.4	72.2	92.0	110.4	128.1	143.6	158.5
115°	0.0	2.1	14.9	31.1	50.2	69.3	87.7	106.1	123.1	138.7	152.8
117.5°	0.0	1.4	13.4	29.0	47.4	65.8	84.2	101.9	118.2	133.0	147.2
120°	0.0	1.4	12.0	27.6	44.6	62.3	80.0	96.9	113.2	127.4	140.8
122.5°	0.0	0.7	10.6	25.5	41.7	58.7	75.7	92.0	106.8	121.7	134.4
125°	0.0	0.7	9.2	23.4	38.9	55.2	71.5	87.0	101.9	115.3	128.1
127.5°	0.0	0.7	7.8	20.5	35.4	50.9	66.5	81.4	96.2	109.0	121.0
130°	0.0	0.7	6.4	18.4	31.8	46.7	61.6	75.7	89.9	101.9	113.9
132.5°	0.0	0.7	5.0	15.6	28.3	41.7	55.2	69.3	82.1	94.8	106.1
135°	0.0	0.0	3.5	13.4	24.8	37.5	49.5	62.3	75.0	87.0	98.4
137.5°	0.7	0.7	2.8	11.3	21.9	32.6	44.6	55.9	67.2	78.5	89.9
140°	0.7	0.7	2.1	9.2	18.4	29.0	38.9	49.5	60.1	70.1	80.0
142.5°	0.7	0.7	1.4	7.1	15.6	24.8	34.0	43.9	53.1	61.6	70.8
145°	0.7	0.7	1.4	5.0	12.7	20.5	29.7	37.5	46.0	54.5	61.6
147.5°	0.7	0.7	0.7	3.5	9.9	17.0	24.8	31.8	39.6	46.7	53.1
150°	0.7	0.7	0.7	2.8	7.8	14.2	20.5	26.2	33.3	38.9	45.3
152.5°	0.7	0.7	0.7	2.1	5.7	11.3	16.3	21.9	26.9	32.6	36.8
155°	0.7	0.7	0.7	1.4	3.5	7.8	12.7	17.0	21.2	25.5	29.7
157.5°	0.7	0.7	0.7	0.7	2.1	5.0	9.2	12.7	16.3	19.1	23.4
160°	0.7	0.7	0.7	0.7	1.4	2.8	5.7	8.5	11.3	14.2	16.3
162.5°	0.7	0.7	0.7	0.0	0.7	1.4	2.8	5.0	7.1	9.2	10.6
165°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	1.4	2.8	4.2	5.0
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°	854.1	854.1	854.1	854.1	854.1	854.1	854.1	854.1
2.5°	851.3	852.0	851.3	850.6	849.1	847.7	846.3	845.6
5°	851.3	852.0	851.3	851.3	849.8	848.4	847.0	846.3
7.5°	852.7	853.4	853.4	853.4	853.4	852.7	851.3	850.6
10°	853.4	855.5	856.2	856.2	856.2	855.5	854.8	853.4
12.5°	853.4	856.2	856.9	857.6	858.3	857.6	856.2	855.5
15°	852.0	855.5	856.9	857.6	858.3	858.3	856.9	856.2
17.5°	849.8	853.4	855.5	856.2	857.6	856.9	856.2	855.5
20°	844.9	849.1	852.0	854.1	854.8	855.5	854.8	854.1
22.5°	839.2	843.5	847.0	849.1	850.6	851.3	850.6	849.8
25°	831.4	836.4	840.6	842.8	844.2	845.6	844.9	843.5
27.5°	822.2	827.2	831.4	834.3	837.1	837.1	837.1	836.4
30°	810.2	816.6	820.8	824.4	826.5	827.9	827.9	827.2
32.5°	798.2	804.6	808.8	813.0	815.2	815.9	816.6	817.3
35°	783.3	789.7	795.4	798.9	801.7	803.1	803.1	802.4
37.5°	767.1	774.8	780.5	784.0	788.3	788.3	788.3	787.6
40°	748.7	755.7	762.8	767.1	771.3	772.0	771.3	771.3
42.5°	731.0	738.0	744.4	749.4	752.2	753.6	754.3	755.0
45°	709.7	718.2	724.6	730.3	733.1	735.2	735.9	735.9
47.5°	687.1	696.3	703.4	708.3	712.6	715.4	714.0	716.1
50°	665.2	672.9	681.4	685.7	689.9	693.5	692.8	692.8
52.5°	640.4	648.2	656.7	663.0	666.6	669.4	670.1	670.1
55°	613.5	622.7	631.2	636.9	641.1	643.2	644.6	644.6
57.5°	586.6	595.8	603.6	611.4	615.6	619.2	619.2	617.7
60°	557.6	567.5	576.0	582.4	589.4	590.2	590.9	591.6
62.5°	527.9	537.8	547.0	554.8	558.3	561.8	564.0	562.6
65°	496.7	505.2	517.3	522.2	527.2	529.3	532.8	532.1
67.5°	465.6	476.2	484.0	492.5	498.2	498.9	503.1	501.0
70°	430.2	440.8	452.2	457.8	464.2	466.3	468.4	470.6
72.5°	397.7	409.0	418.2	426.7	430.2	433.8	436.6	437.3
75°	363.7	377.2	384.2	393.4	398.4	401.2	405.5	406.2
77.5°	329.7	341.8	352.4	358.8	365.1	368.7	371.5	374.3
80°	296.5	307.1	319.1	328.3	334.7	337.5	341.1	340.4
82.5°	266.8	278.8	289.4	297.2	304.3	308.5	312.1	312.1
85°	242.0	255.4	263.9	272.4	278.8	283.0	286.6	287.3
87.5°	223.6	235.6	247.0	254.0	261.1	265.4	268.2	268.9
90°	212.3	225.0	235.6	244.1	250.5	254.7	257.6	257.6
92.5°	207.3	219.4	230.7	238.5	244.8	249.1	251.2	251.9
95°	204.5	216.5	227.1	235.6	242.0	246.3	248.4	249.1
97.5°	201.7	213.7	223.6	232.8	238.5	242.7	244.8	245.5
100°	197.4	209.5	220.1	227.9	234.9	238.5	240.6	241.3
102.5°	193.2	204.5	215.1	222.9	229.3	232.8	235.6	235.6
105°	188.2	201.0	210.2	217.9	224.3	228.6	230.0	230.7
107.5°	183.3	195.3	205.2	213.0	218.7	222.2	225.0	225.0
110°	178.3	189.6	198.8	206.6	212.3	215.8	217.9	218.7





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CATALOG NUMBER: FVS4M-4-LD4-35-2LO-PFS125-UNV-EDC1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	172.0	183.3	192.5	200.3	205.2	208.7	210.9	210.9
115°	165.6	176.9	186.1	193.9	198.8	202.4	203.8	204.5
117.5°	159.2	169.8	179.0	186.1	191.1	194.6	196.0	196.0
120°	152.8	163.5	172.0	179.0	184.0	186.8	188.9	189.6
122.5°	145.8	155.7	164.2	171.2	176.2	179.0	180.4	181.1
125°	138.7	148.6	156.4	162.8	167.7	170.5	172.7	172.7
127.5°	131.6	140.8	148.6	154.3	158.5	161.3	162.8	163.5
130°	123.8	131.6	139.4	145.1	150.0	152.1	154.3	154.3
132.5°	116.0	123.8	130.9	137.3	140.1	142.9	145.1	145.1
135°	108.3	115.3	122.4	127.4	130.9	133.7	135.2	135.2
137.5°	99.8	107.6	113.9	118.2	121.7	123.8	125.2	126.0
140°	90.6	99.1	104.0	108.3	111.8	113.9	115.3	115.3
142.5°	80.0	88.5	94.8	99.8	101.9	103.3	105.4	105.4
145°	70.1	77.8	85.6	89.9	92.7	94.1	94.8	95.5
147.5°	60.1	67.2	74.3	79.3	82.1	82.8	83.5	83.5
150°	50.9	56.6	63.0	69.3	71.5	72.9	73.6	74.3
152.5°	42.5	46.7	52.4	57.3	61.6	62.3	63.0	63.0
155°	34.0	38.2	41.7	46.0	50.9	51.7	52.4	52.4
157.5°	26.2	29.0	31.8	34.7	38.9	41.7	41.7	42.5
160°	18.4	21.2	22.6	24.8	27.6	31.1	31.1	31.1
162.5°	12.0	13.4	14.9	15.6	17.0	19.8	21.2	21.2
165°	6.4	6.4	7.1	7.8	8.5	9.2	11.3	12.0
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

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