

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: P232034

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232034
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-LD4-40-1STD-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

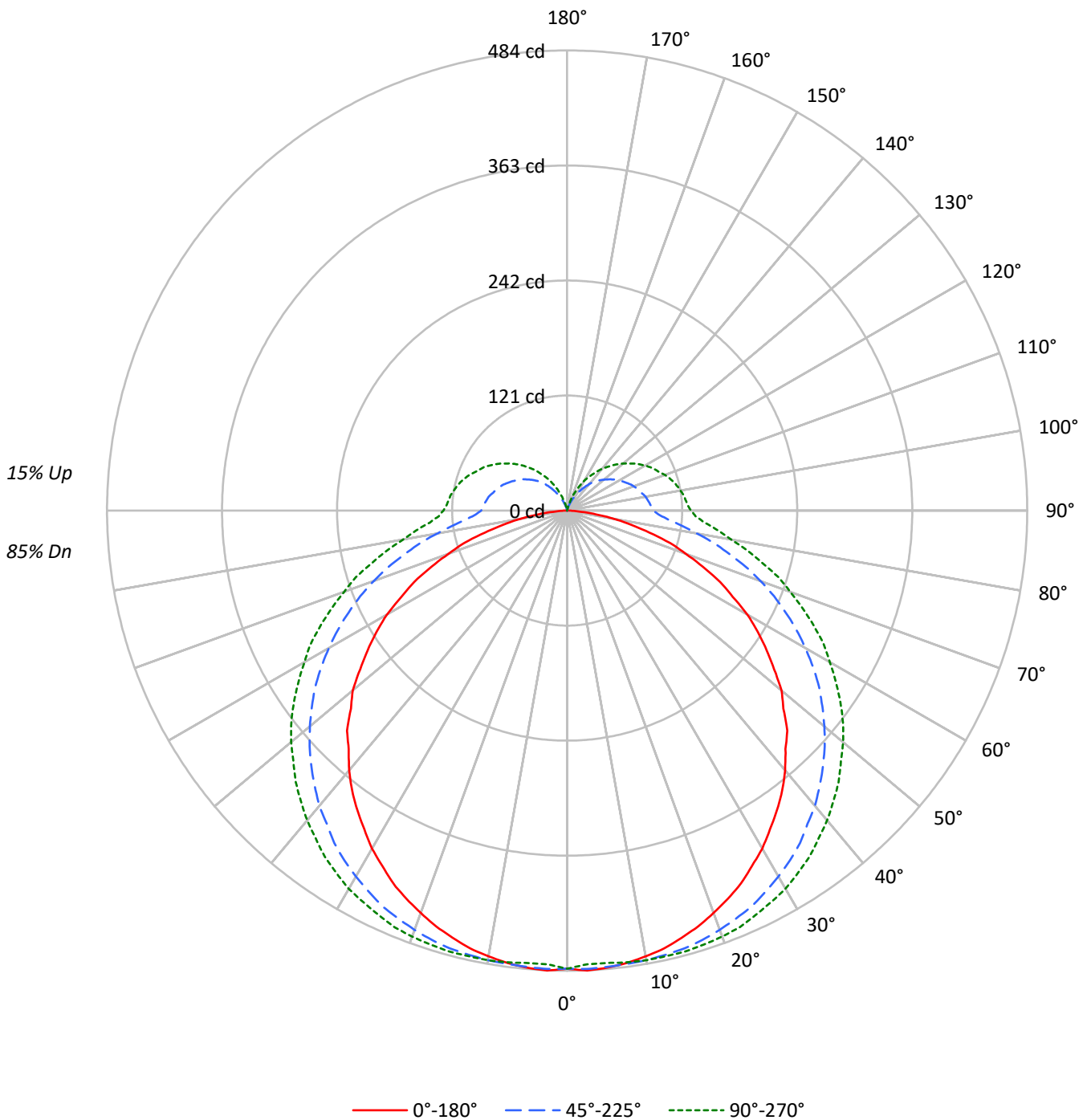
Lumens per Lamp: N/A
Luminaire Lumens: 2066.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.42 / 1.5
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 28.5
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	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°	5690	5690	5690
5°	5689	5486	5379
10°	5644	5317	5206
15°	5591	5178	5057
20°	5530	5037	4918
25°	5475	4911	4778
30°	5397	4768	4653
35°	5309	4632	4512
40°	5216	4484	4362
45°	5139	4325	4215
50°	5024	4160	4059
55°	4831	3985	3890
60°	4652	3769	3697
65°	4359	3532	3496
70°	3894	3262	3254
75°	3297	2927	2991
80°	2482	2571	2703
85°	1164	2257	2502



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	2.2
10°-20°	134.1	6.5
20°-30°	209.9	10.2
30°-40°	263.5	12.8
40°-50°	288.3	14.0
50°-60°	281.3	13.6
60°-70°	241.9	11.7
70°-80°	176.0	8.5
80°-90°	108.1	5.2
90°-100°	83.8	4.1
100°-110°	73.9	3.6
110°-120°	60.6	2.9
120°-130°	45.4	2.2
130°-140°	30.0	1.5
140°-150°	16.3	0.8
150°-160°	6.1	0.3
160°-170°	0.8	0.0
170°-180°	0.0	0.0
0°-30°	389.9	18.9
0°-40°	653.4	31.6
0°-60°	1223.0	59.2
0°-90°	1749.0	84.7
90°-120°	218.3	10.6
90°-150°	310.1	15.0
90°-180°	317.0	15.3
0°-180°	2066.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	482	482	482	482	482	
5°	483	481	482	481	478	46
15°	465	468	477	480	480	131
25°	433	442	459	468	469	199
35°	385	402	427	441	444	241
45°	328	350	381	399	404	251
55°	256	286	323	345	351	229
65°	178	212	254	280	286	174
75°	90	131	177	204	212	96
85°	15	59	106	136	145	20
90°	0	43	90	121	130	1
95°	0	41	87	116	125	0
105°	0	35	79	107	116	0
115°	0	29	69	95	102	0
125°	0	23	57	80	86	0
135°	0	16	44	62	67	0
145°	0	8	28	43	46	0
155°	0	2	13	23	25	0
165°	1	0	2	3	5	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°	481.8	481.8	481.8	481.8	481.8	481.8	481.8	481.8	481.8	481.8	481.8
2.5°	484.3	482.6	481.8	481.8	482.6	482.6	483.4	484.3	483.4	482.6	481.8
5°	482.6	480.9	480.1	480.1	480.9	481.8	481.8	482.6	482.6	481.8	481.8
7.5°	480.1	478.5	477.6	477.6	478.5	479.3	480.9	481.8	481.8	480.9	481.8
10°	476.0	474.3	473.5	474.3	475.1	476.8	478.5	479.3	480.1	480.1	480.1
12.5°	471.8	470.2	469.3	470.2	471.8	473.5	475.1	476.8	477.6	478.5	479.3
15°	465.2	464.4	463.5	465.2	466.8	469.3	471.8	473.5	475.1	476.8	477.6
17.5°	458.6	457.7	457.7	458.6	461.0	463.5	466.8	470.2	471.8	473.5	474.3
20°	450.3	449.4	449.4	451.9	454.4	457.7	461.0	465.2	466.8	469.3	471.0
22.5°	442.0	441.1	442.0	444.5	447.8	451.9	456.1	459.4	461.9	464.4	466.8
25°	432.8	432.0	432.8	436.2	439.5	444.5	449.4	452.7	456.1	459.4	461.9
27.5°	421.2	421.2	422.1	425.4	430.4	436.2	440.3	445.3	448.6	451.9	455.2
30°	410.5	409.6	411.3	415.4	420.4	427.0	432.0	437.0	441.1	444.5	447.8
32.5°	397.2	397.2	400.5	404.7	410.5	416.3	422.1	427.9	432.0	436.2	440.3
35°	384.8	384.8	386.4	393.0	398.9	405.5	412.1	417.1	422.1	427.0	430.4
37.5°	371.5	371.5	374.8	379.8	386.4	393.9	399.7	406.3	410.5	415.4	420.4
40°	356.6	357.4	360.7	366.5	374.0	380.6	388.1	394.7	400.5	405.5	409.6
42.5°	340.0	340.8	345.8	352.4	359.9	367.3	374.0	381.4	387.2	393.0	397.2
45°	327.5	325.9	331.7	338.3	345.8	354.1	361.5	369.0	374.8	380.6	385.6
47.5°	308.5	310.1	315.9	322.6	330.9	338.3	347.4	354.9	361.5	367.3	373.1
50°	294.4	294.4	299.3	306.8	315.1	323.4	332.5	340.0	346.6	353.2	359.0
52.5°	274.5	276.1	282.8	291.1	298.5	306.8	315.9	325.1	331.7	338.3	344.1
55°	256.2	257.9	265.3	272.8	281.1	291.9	300.2	307.6	315.9	323.4	329.2
57.5°	238.0	239.6	246.3	255.4	263.7	273.6	283.6	291.9	299.3	306.8	313.4
60°	218.9	220.6	227.2	236.3	245.4	255.4	264.5	273.6	281.9	289.4	296.9
62.5°	196.5	200.7	207.3	215.6	227.2	237.2	247.1	255.4	265.3	272.0	280.3
65°	177.5	179.9	187.4	196.5	206.5	217.3	228.0	237.2	245.4	253.7	261.2
67.5°	154.2	158.4	166.7	176.6	187.4	197.4	209.0	218.9	227.2	235.5	242.1
70°	132.7	136.8	145.9	156.7	165.8	177.5	188.2	198.2	207.3	216.4	223.1
72.5°	113.6	115.3	124.4	135.2	145.9	157.6	167.5	179.1	187.4	197.4	204.0
75°	89.6	95.4	102.8	114.4	125.2	137.6	147.6	158.4	167.5	176.6	183.3
77.5°	68.8	73.8	83.8	93.7	106.1	116.9	129.4	139.3	148.4	158.4	165.8
80°	49.8	54.7	63.0	75.5	85.4	98.7	109.5	120.2	130.2	138.5	146.8
82.5°	30.7	35.7	45.6	56.4	68.8	81.3	91.2	102.0	112.8	121.1	129.4
85°	14.9	20.7	29.9	41.5	52.2	65.5	77.1	87.1	97.8	106.1	115.3
87.5°	5.0	9.1	19.1	29.9	42.3	54.7	66.3	76.3	87.1	96.2	104.5
90°	0.0	4.1	14.1	24.9	37.3	48.9	60.5	71.3	81.3	90.4	98.7
92.5°	0.0	4.1	12.4	24.0	35.7	47.3	58.9	69.7	79.6	88.7	97.0
95°	0.0	3.3	11.6	23.2	34.8	46.4	57.2	68.0	77.9	87.1	95.4
97.5°	0.0	3.3	11.6	22.4	33.2	44.8	56.4	66.3	76.3	85.4	93.7
100°	0.0	3.3	10.8	20.7	32.3	43.1	54.7	64.7	74.6	83.8	92.0
102.5°	0.0	2.5	10.0	19.9	30.7	42.3	53.1	63.0	73.0	81.3	89.6
105°	0.0	2.5	10.0	19.1	29.9	40.6	51.4	61.4	70.5	78.8	87.1
107.5°	0.0	1.7	9.1	18.2	28.2	39.0	49.8	58.9	68.8	77.1	84.6
110°	0.0	1.7	8.3	17.4	27.4	37.3	47.3	57.2	66.3	74.6	82.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	1.7	7.5	16.6	25.7	35.7	45.6	54.7	63.8	72.1	78.8
115°	0.0	1.7	7.5	15.8	24.9	34.0	43.9	53.1	61.4	68.8	76.3
117.5°	0.0	0.8	6.6	14.1	23.2	32.3	41.5	50.6	58.9	66.3	73.0
120°	0.0	0.8	5.8	13.3	21.6	30.7	39.8	48.1	56.4	63.0	69.7
122.5°	0.0	0.8	5.0	12.4	20.7	29.0	37.3	45.6	53.1	60.5	67.2
125°	0.0	0.8	5.0	11.6	19.1	27.4	34.8	43.1	50.6	57.2	63.0
127.5°	0.0	0.8	4.1	10.0	17.4	24.9	33.2	40.6	47.3	53.9	59.7
130°	0.0	0.8	3.3	9.1	15.8	23.2	30.7	37.3	43.9	50.6	56.4
132.5°	0.0	0.0	2.5	7.5	14.1	21.6	28.2	34.8	41.5	47.3	52.2
135°	0.0	0.0	2.5	6.6	12.4	19.1	25.7	32.3	38.1	43.9	48.9
137.5°	0.0	0.0	1.7	5.8	10.8	16.6	23.2	29.0	34.8	40.6	44.8
140°	0.0	0.0	1.7	5.0	9.1	14.1	19.9	25.7	31.5	36.5	41.5
142.5°	0.0	0.0	0.8	3.3	7.5	12.4	17.4	22.4	27.4	32.3	37.3
145°	0.0	0.0	0.8	2.5	5.8	10.0	14.9	19.1	24.0	28.2	33.2
147.5°	0.0	0.0	0.8	1.7	5.0	8.3	12.4	15.8	19.9	24.0	28.2
150°	0.0	0.0	0.0	1.7	3.3	6.6	10.0	13.3	16.6	19.9	23.2
152.5°	0.0	0.0	0.0	0.8	2.5	5.0	7.5	10.8	13.3	15.8	19.1
155°	0.0	0.0	0.0	0.8	1.7	3.3	5.8	8.3	10.0	13.3	14.9
157.5°	0.8	0.0	0.0	0.8	0.8	2.5	4.1	5.8	7.5	9.1	10.8
160°	0.8	0.0	0.0	0.0	0.8	1.7	2.5	3.3	5.0	6.6	8.3
162.5°	0.8	0.8	0.0	0.0	0.0	0.8	1.7	2.5	3.3	4.1	5.0
165°	0.8	0.8	0.0	0.0	0.0	0.0	0.8	0.8	1.7	1.7	2.5
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°	481.8	481.8	481.8	481.8	481.8	481.8	481.8	481.8
2.5°	481.8	480.9	480.9	480.1	480.1	479.3	478.5	477.6
5°	481.8	480.9	480.9	480.9	480.1	479.3	478.5	477.6
7.5°	481.8	481.8	481.8	480.9	480.9	480.1	479.3	479.3
10°	480.9	480.9	481.8	481.8	481.8	480.9	480.1	480.1
12.5°	480.1	480.9	481.8	481.8	481.8	481.8	480.9	480.1
15°	478.5	480.1	480.1	480.9	480.9	480.9	480.1	480.1
17.5°	476.0	477.6	478.5	479.3	480.1	479.3	478.5	478.5
20°	472.7	475.1	476.0	476.8	477.6	477.6	476.8	476.8
22.5°	469.3	471.0	472.7	473.5	475.1	475.1	474.3	474.3
25°	464.4	466.0	467.7	469.3	470.2	470.2	470.2	469.3
27.5°	457.7	460.2	462.7	464.4	465.2	465.2	465.2	464.4
30°	451.1	453.6	456.1	457.7	459.4	459.4	459.4	459.4
32.5°	442.8	446.1	448.6	450.3	451.9	452.7	451.9	451.9
35°	434.5	437.8	440.3	442.0	443.6	444.5	443.6	444.5
37.5°	424.6	427.9	430.4	433.7	434.5	434.5	434.5	434.5
40°	413.8	417.1	420.4	422.9	424.6	424.6	425.4	425.4
42.5°	402.2	405.5	409.6	412.9	412.9	413.8	414.6	414.6
45°	390.6	393.9	398.0	400.5	402.2	403.8	403.0	403.8
47.5°	378.1	382.3	385.6	388.9	389.7	391.4	391.4	390.6
50°	364.9	369.0	372.3	375.6	378.1	378.1	378.9	378.9
52.5°	349.9	354.9	359.0	363.2	363.2	365.7	366.5	365.7
55°	335.0	339.1	343.3	347.4	349.1	349.9	350.8	350.8
57.5°	319.2	324.2	327.5	331.7	334.2	334.2	335.8	335.0
60°	302.7	307.6	311.8	315.1	318.4	319.2	320.9	319.2
62.5°	286.1	291.9	295.2	298.5	301.0	302.7	304.3	304.3
65°	268.7	273.6	277.8	281.9	283.6	284.4	286.9	286.1
67.5°	249.6	254.6	258.7	263.7	267.0	267.8	269.5	267.8
70°	230.5	236.3	241.3	244.6	246.3	249.6	248.8	249.6
72.5°	210.6	216.4	221.4	225.5	228.9	231.3	232.2	233.0
75°	190.7	198.2	202.3	205.6	209.8	210.6	213.1	212.3
77.5°	173.3	179.1	184.1	187.4	191.5	193.2	194.0	194.0
80°	153.4	160.0	165.0	170.0	171.6	174.1	176.6	175.0
82.5°	136.8	143.5	149.3	153.4	156.7	158.4	159.2	160.0
85°	121.9	128.5	134.3	138.5	141.8	144.3	145.9	145.1
87.5°	111.9	118.6	123.6	128.5	132.7	133.5	135.2	135.2
90°	106.1	112.8	118.6	122.7	126.0	128.5	129.4	130.2
92.5°	103.7	110.3	116.1	120.2	123.6	125.2	126.9	126.9
95°	102.0	108.6	113.6	118.6	121.9	123.6	125.2	125.2
97.5°	101.2	107.0	112.8	116.1	119.4	121.9	122.7	123.6
100°	98.7	105.3	110.3	114.4	117.7	119.4	121.1	121.1
102.5°	96.2	102.8	107.8	111.9	115.3	116.9	117.7	118.6
105°	93.7	100.3	105.3	109.5	111.9	114.4	115.3	116.1
107.5°	91.2	97.0	102.0	106.1	109.5	111.1	111.9	112.8
110°	88.7	94.5	99.5	103.7	106.1	107.8	109.5	109.5



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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	85.4	91.2	96.2	100.3	102.8	104.5	105.3	105.3
115°	82.9	87.9	92.9	96.2	99.5	101.2	102.0	102.0
117.5°	79.6	84.6	89.6	92.9	95.4	97.0	97.8	98.7
120°	76.3	81.3	85.4	88.7	92.0	93.7	94.5	94.5
122.5°	72.1	77.1	82.1	85.4	87.9	89.6	90.4	90.4
125°	68.8	73.8	77.9	81.3	83.8	84.6	85.4	86.2
127.5°	64.7	69.7	73.8	77.1	78.8	80.4	81.3	81.3
130°	61.4	65.5	69.7	72.1	74.6	76.3	77.1	77.1
132.5°	57.2	61.4	65.5	68.0	69.7	71.3	72.1	72.1
135°	53.1	57.2	60.5	63.0	65.5	66.3	67.2	67.2
137.5°	48.9	53.1	56.4	58.9	60.5	61.4	62.2	62.2
140°	44.8	48.9	51.4	53.9	55.6	56.4	57.2	57.2
142.5°	40.6	43.9	47.3	48.9	50.6	51.4	52.2	52.2
145°	36.5	39.8	41.5	43.9	45.6	46.4	46.4	46.4
147.5°	31.5	35.7	37.3	39.0	40.6	40.6	41.5	41.5
150°	26.5	29.9	32.3	34.0	34.8	35.7	36.5	36.5
152.5°	21.6	24.9	27.4	29.0	29.9	30.7	31.5	30.7
155°	17.4	19.1	21.6	24.0	24.9	24.9	25.7	24.9
157.5°	12.4	14.1	16.6	18.2	19.9	19.9	19.9	19.9
160°	9.1	10.0	11.6	12.4	14.1	14.9	14.9	14.9
162.5°	5.8	6.6	7.5	8.3	8.3	10.0	10.0	9.1
165°	2.5	2.5	3.3	3.3	4.1	5.0	5.0	5.0
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)