

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: P232066

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232066
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-LD4-40-2LO-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

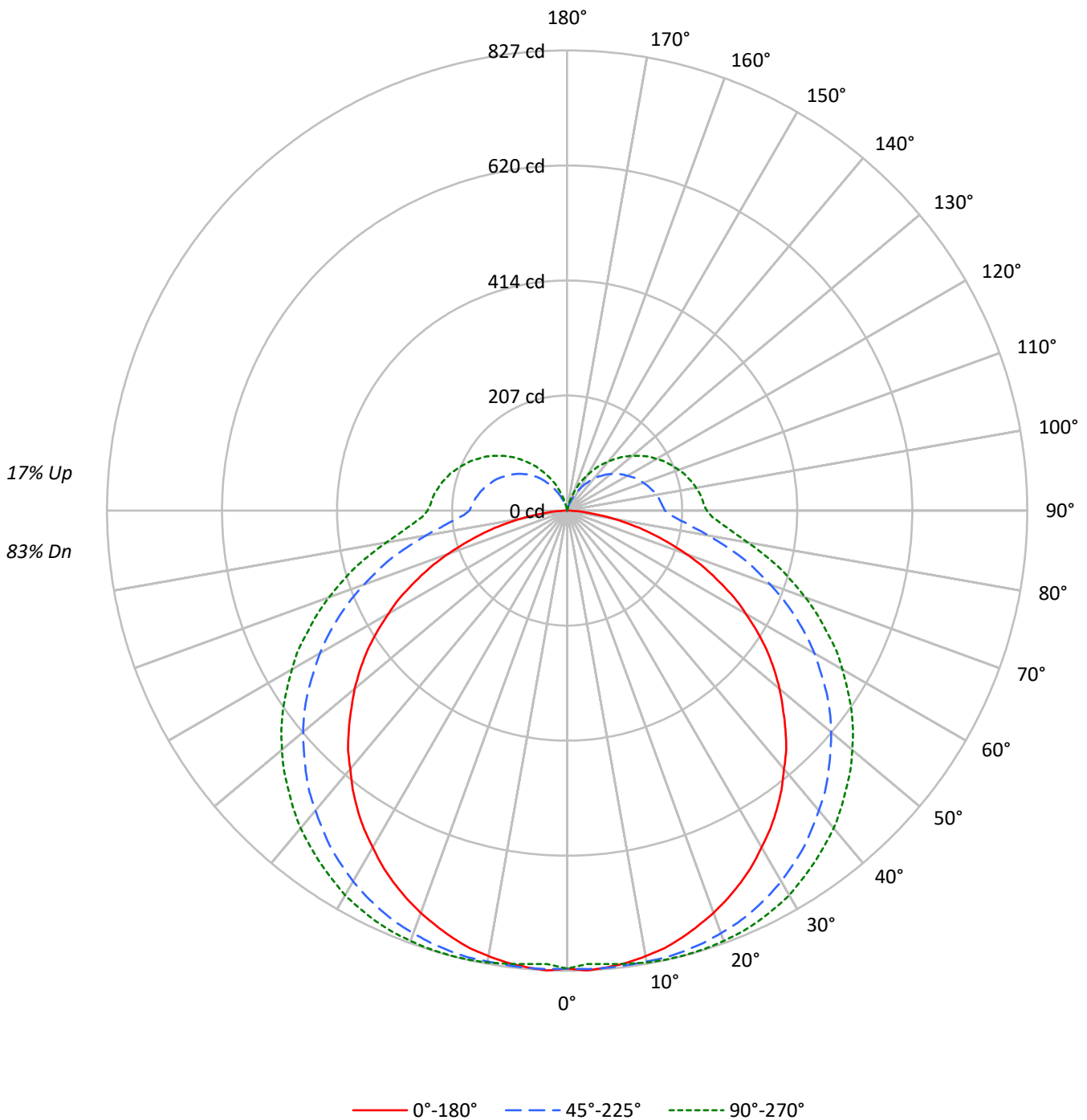
Lumens per Lamp: N/A
Luminaire Lumens: 3708.0 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 56.8
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	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°	9720	9720	9720
5°	9714	9392	9216
10°	9642	9115	8944
15°	9555	8894	8704
20°	9447	8674	8490
25°	9334	8471	8288
30°	9189	8253	8085
35°	9060	8031	7851
40°	8867	7784	7642
45°	8706	7547	7399
50°	8507	7296	7168
55°	8262	7010	6915
60°	7885	6686	6618
65°	7382	6306	6284
70°	6682	5855	5937
75°	5700	5380	5553
80°	4251	4780	5091
85°	2265	4351	4813



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	2.1
10°-20°	230.4	6.2
20°-30°	362.2	9.8
30°-40°	456.5	12.3
40°-50°	502.4	13.5
50°-60°	494.0	13.3
60°-70°	429.8	11.6
70°-80°	320.0	8.6
80°-90°	205.1	5.5
90°-100°	163.0	4.4
100°-110°	144.8	3.9
110°-120°	119.7	3.2
120°-130°	90.7	2.4
130°-140°	61.1	1.6
140°-150°	34.1	0.9
150°-160°	13.6	0.4
160°-170°	2.1	0.1
170°-180°	0.0	0.0
0°-30°	671.1	18.1
0°-40°	1127.6	30.4
0°-60°	2124.0	57.3
0°-90°	3078.9	83.0
90°-120°	427.4	11.5
90°-150°	613.3	16.5
90°-180°	629.0	17.0
0°-180°	3708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	824	823	825	823	818	78
15°	795	802	819	828	826	224
25°	738	760	792	812	814	340
35°	657	694	740	768	773	410
45°	555	605	664	701	709	428
55°	438	499	569	612	624	391
65°	301	372	453	502	514	298
75°	155	235	325	376	394	163
85°	29	111	204	261	279	35
90°	1	84	176	234	251	2
95°	1	79	169	226	244	1
105°	1	70	155	209	225	1
115°	1	60	137	186	200	1
125°	1	48	114	157	171	1
135°	1	35	89	124	135	1
145°	1	20	60	88	96	1
155°	1	8	29	50	56	0
165°	1	1	7	11	14	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°	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1
2.5°	827.3	825.6	823.1	823.1	824.8	825.6	827.3	827.3	826.4	824.8	824.0
5°	824.0	823.1	820.6	820.6	822.3	824.0	825.6	825.6	825.6	824.8	824.0
7.5°	819.8	818.2	816.5	816.5	819.0	820.6	823.1	824.0	824.8	824.0	824.8
10°	813.2	812.4	810.7	811.5	814.0	816.5	819.0	821.5	823.1	823.1	824.8
12.5°	805.7	804.1	802.4	804.1	807.4	810.7	815.7	818.2	820.6	822.3	823.1
15°	795.0	794.1	793.3	795.8	799.9	804.9	809.9	814.0	816.5	819.0	821.5
17.5°	782.5	782.5	782.5	785.9	790.8	797.5	802.4	807.4	811.5	814.8	818.2
20°	769.3	768.5	769.3	774.3	781.7	787.5	794.1	799.9	804.9	808.2	812.4
22.5°	754.4	754.4	756.0	761.0	769.3	777.6	784.2	790.8	796.6	801.6	805.7
25°	737.8	738.7	741.1	746.9	756.0	764.3	772.6	780.1	787.5	792.5	798.3
27.5°	719.6	719.6	723.8	731.2	741.1	750.3	759.4	767.6	775.9	781.7	787.5
30°	698.9	700.6	704.7	714.6	724.6	735.3	744.5	754.4	761.8	769.3	775.9
32.5°	679.0	679.9	684.8	694.8	707.2	718.0	727.9	739.5	746.9	755.2	762.7
35°	656.7	658.3	664.1	674.9	687.3	699.7	711.3	722.1	731.2	740.3	747.8
37.5°	632.7	635.1	642.6	653.4	666.6	679.0	691.5	703.0	713.8	722.1	732.0
40°	606.2	610.3	617.8	631.8	645.1	657.5	670.8	682.3	693.9	703.9	713.8
42.5°	583.0	584.6	593.7	607.8	622.7	637.6	650.9	663.3	674.9	685.7	693.9
45°	554.8	559.0	568.1	581.3	597.1	613.6	630.2	639.3	652.5	664.1	674.1
47.5°	525.8	530.8	542.4	557.3	573.0	587.9	602.0	617.8	630.2	641.8	653.4
50°	498.5	503.5	514.2	530.8	545.7	562.3	578.8	592.9	606.2	619.4	630.2
52.5°	468.7	472.8	486.1	501.8	519.2	535.8	551.5	568.1	581.3	595.4	606.2
55°	438.1	442.2	455.4	472.0	490.2	508.4	524.2	541.6	554.0	568.9	581.3
57.5°	404.9	412.4	423.2	440.5	458.8	477.0	495.2	511.8	526.7	539.9	554.0
60°	371.0	378.4	392.5	409.9	427.3	447.2	465.4	481.9	497.7	513.4	525.0
62.5°	338.7	344.5	358.6	376.8	395.8	414.9	435.6	451.3	469.5	483.6	497.7
65°	300.6	308.9	324.6	342.8	361.9	381.7	400.8	419.8	437.2	453.0	467.0
67.5°	265.8	272.4	290.7	307.2	327.9	347.8	371.0	388.4	405.8	421.5	434.7
70°	227.7	238.5	250.9	274.1	294.0	316.3	335.4	355.3	372.6	388.4	403.3
72.5°	189.6	200.4	217.8	236.8	258.4	281.6	301.4	320.5	338.7	356.1	370.2
75°	154.9	163.1	181.4	202.1	225.2	245.1	265.8	287.3	306.4	324.6	337.9
77.5°	119.2	129.2	144.9	165.6	188.8	213.6	234.3	253.4	273.3	289.0	306.4
80°	85.3	93.6	111.8	131.7	155.7	178.9	201.2	221.9	240.1	257.5	273.3
82.5°	53.0	62.9	80.3	104.3	126.7	150.7	171.4	192.1	212.0	228.6	244.3
85°	29.0	36.4	55.5	76.2	100.2	122.6	146.6	166.4	187.1	204.5	221.9
87.5°	9.9	18.2	35.6	58.0	82.0	103.5	127.5	148.2	167.3	185.5	202.1
90°	0.8	9.1	27.3	48.9	72.0	95.2	117.6	138.3	158.2	175.6	192.1
92.5°	0.8	8.3	24.8	46.4	69.6	91.9	114.3	135.0	154.0	172.2	188.0
95°	0.8	7.5	24.0	44.7	67.9	90.3	111.8	132.5	151.5	168.9	184.7
97.5°	0.8	7.5	23.2	43.9	65.4	87.8	109.3	130.0	149.1	166.4	182.2
100°	0.8	6.6	21.5	41.4	63.8	85.3	106.8	126.7	145.7	162.3	178.9
102.5°	0.8	5.8	20.7	40.6	61.3	82.8	103.5	123.4	141.6	159.0	174.7
105°	0.8	5.8	19.9	38.9	59.6	80.3	100.2	120.1	138.3	154.9	169.8
107.5°	0.8	5.0	19.0	37.3	57.1	77.8	97.7	116.8	134.2	150.7	165.6
110°	0.8	5.0	18.2	35.6	54.7	74.5	94.4	112.6	130.0	145.7	160.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.8	4.1	16.6	34.0	52.2	72.0	90.3	109.3	125.9	141.6	155.7
115°	0.8	4.1	15.7	32.3	50.5	68.7	86.9	104.3	120.9	136.6	149.9
117.5°	0.8	3.3	14.9	30.6	48.0	65.4	83.6	100.2	116.8	130.8	144.1
120°	0.8	3.3	13.2	28.2	44.7	62.1	79.5	96.1	111.0	125.0	138.3
122.5°	0.8	2.5	12.4	26.5	43.1	58.8	75.4	91.1	106.8	120.1	132.5
125°	0.8	2.5	11.6	24.8	39.7	55.5	71.2	86.9	101.0	114.3	125.9
127.5°	0.8	1.7	9.9	22.4	37.3	52.2	67.1	82.0	95.2	108.5	120.1
130°	0.8	1.7	9.1	20.7	34.8	48.9	62.9	77.0	90.3	101.9	112.6
132.5°	0.8	1.7	7.5	18.2	31.5	45.5	58.8	72.0	84.5	96.1	106.0
135°	0.8	1.7	6.6	16.6	28.2	41.4	53.8	66.2	78.7	88.6	98.5
137.5°	0.8	0.8	5.8	14.1	24.8	37.3	48.9	61.3	72.0	82.8	91.9
140°	0.8	0.8	4.1	11.6	21.5	32.3	43.1	54.7	65.4	75.4	84.5
142.5°	0.8	0.8	3.3	9.9	18.2	28.2	38.1	48.9	58.0	67.9	77.0
145°	0.8	0.8	2.5	8.3	15.7	24.0	32.3	42.2	50.5	59.6	67.9
147.5°	0.8	0.8	2.5	6.6	13.2	19.9	28.2	35.6	43.9	52.2	58.8
150°	0.8	0.8	1.7	5.0	9.9	16.6	23.2	29.8	37.3	43.1	51.3
152.5°	0.8	0.8	1.7	3.3	7.5	13.2	19.0	24.8	30.6	36.4	42.2
155°	0.8	0.8	0.8	2.5	5.8	9.9	14.9	19.9	24.0	29.0	34.0
157.5°	0.8	0.8	0.8	1.7	4.1	6.6	10.8	14.9	19.0	22.4	26.5
160°	0.8	0.8	0.8	1.7	2.5	5.0	7.5	10.8	14.1	16.6	19.0
162.5°	0.8	0.8	0.8	0.8	1.7	2.5	5.0	7.5	9.1	10.8	13.2
165°	0.8	0.8	0.8	0.8	0.8	1.7	2.5	3.3	5.0	6.6	7.5
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°	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1
2.5°	823.1	822.3	821.5	820.6	819.8	818.2	816.5	815.7
5°	824.0	824.0	823.1	822.3	821.5	819.8	818.2	818.2
7.5°	824.8	825.6	825.6	825.6	824.8	824.0	822.3	821.5
10°	826.4	826.4	827.3	827.3	827.3	826.4	825.6	824.8
12.5°	825.6	826.4	828.1	828.9	828.9	828.1	826.4	826.4
15°	824.0	825.6	827.3	828.1	828.9	828.1	826.4	826.4
17.5°	820.6	823.1	825.6	827.3	827.3	827.3	826.4	825.6
20°	816.5	819.0	821.5	824.0	824.8	824.8	824.0	823.1
22.5°	809.9	814.0	817.3	819.8	820.6	820.6	819.8	819.8
25°	802.4	806.6	810.7	813.2	814.8	815.7	814.8	814.0
27.5°	793.3	797.5	801.6	804.9	806.6	807.4	807.4	806.6
30°	783.4	787.5	791.7	795.8	797.5	798.3	798.3	798.3
32.5°	769.3	775.1	780.1	783.4	786.7	786.7	786.7	785.9
35°	754.4	761.0	766.0	771.0	772.6	774.3	774.3	773.4
37.5°	737.8	746.1	751.1	755.2	758.5	759.4	758.5	759.4
40°	721.3	727.9	736.2	738.7	742.0	744.5	743.6	745.3
42.5°	703.0	710.5	717.1	722.9	725.4	726.2	727.1	727.9
45°	684.0	690.6	698.9	703.0	706.4	708.8	708.8	708.8
47.5°	662.5	671.6	679.0	684.0	687.3	689.8	689.0	690.6
50°	640.1	649.2	657.5	661.6	666.6	667.4	668.3	669.1
52.5°	616.9	626.0	634.3	640.1	642.6	645.1	646.7	647.6
55°	592.1	601.2	608.6	615.3	619.4	621.9	621.9	623.6
57.5°	565.6	575.5	584.6	588.8	592.9	596.2	597.9	597.1
60°	539.1	548.2	554.8	563.1	568.1	570.6	571.4	571.4
62.5°	506.8	519.2	526.7	536.6	539.1	542.4	543.2	545.7
65°	480.3	489.4	499.3	504.3	510.9	512.6	515.1	514.2
67.5°	448.0	460.4	467.9	475.3	481.9	484.4	484.4	486.1
70°	414.9	428.1	435.6	444.7	448.8	453.8	456.3	455.4
72.5°	384.2	395.0	404.9	412.4	418.2	421.5	422.3	424.0
75°	352.8	363.5	372.6	380.1	387.5	390.0	392.5	394.2
77.5°	318.8	328.8	341.2	349.5	354.4	359.4	361.0	361.0
80°	287.3	298.9	308.9	318.0	323.0	327.9	331.2	329.6
82.5°	257.5	270.0	282.4	289.8	295.6	300.6	302.3	301.4
85°	234.3	246.8	256.7	265.0	271.6	276.6	278.2	279.1
87.5°	216.1	228.6	239.3	247.6	253.4	257.5	259.2	260.8
90°	206.2	218.6	229.4	237.7	243.5	247.6	250.1	250.9
92.5°	202.1	214.5	224.4	232.7	239.3	243.5	245.1	245.9
95°	199.6	211.2	221.9	230.2	236.0	240.1	242.6	243.5
97.5°	196.3	208.7	218.6	226.9	232.7	237.7	239.3	240.1
100°	192.1	204.5	214.5	222.8	228.6	232.7	235.2	235.2
102.5°	188.0	200.4	210.3	218.6	224.4	228.6	230.2	231.0
105°	183.8	195.4	205.4	212.8	218.6	222.8	225.2	225.2
107.5°	178.9	190.5	199.6	207.9	213.6	217.0	219.4	220.3
110°	173.9	184.7	194.6	202.1	207.9	211.2	213.6	213.6



TEST NUMBER: P232066

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	168.1	178.9	188.8	195.4	201.2	205.4	207.0	207.0
115°	162.3	173.1	182.2	188.8	194.6	197.9	200.4	200.4
117.5°	156.5	167.3	175.6	182.2	187.1	191.3	192.9	193.8
120°	149.9	159.8	168.9	175.6	180.5	183.8	185.5	185.5
122.5°	143.3	153.2	162.3	168.1	173.1	175.6	178.0	178.9
125°	136.6	146.6	154.9	159.8	164.8	168.1	169.8	170.6
127.5°	130.0	138.3	146.6	152.4	156.5	159.8	161.5	161.5
130°	122.6	130.8	138.3	144.1	148.2	150.7	152.4	153.2
132.5°	115.1	123.4	130.0	135.8	139.9	142.4	143.3	144.1
135°	107.7	115.1	120.9	126.7	130.8	132.5	134.2	135.0
137.5°	99.4	106.8	113.4	118.4	120.9	123.4	124.2	125.0
140°	91.9	98.5	104.3	108.5	111.8	113.4	115.1	115.1
142.5°	83.6	90.3	95.2	99.4	101.9	104.3	106.0	105.2
145°	75.4	82.0	86.1	90.3	92.7	94.4	95.2	96.1
147.5°	67.1	72.9	77.0	81.2	82.8	84.5	85.3	84.5
150°	56.3	62.9	67.9	71.2	72.9	74.5	75.4	74.5
152.5°	47.2	53.8	58.8	61.3	62.9	63.8	64.6	64.6
155°	38.1	43.1	48.0	51.3	53.0	53.8	54.7	55.5
157.5°	29.8	34.0	36.4	41.4	43.9	43.9	43.9	43.9
160°	22.4	24.8	27.3	30.6	33.1	34.0	34.0	34.0
162.5°	14.9	16.6	18.2	20.7	22.4	24.0	24.0	24.0
165°	8.3	9.1	10.8	11.6	11.6	14.1	14.9	14.1
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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