

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: P232072

Luminaire Tested: **FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232072
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-LD4-30-2HI-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

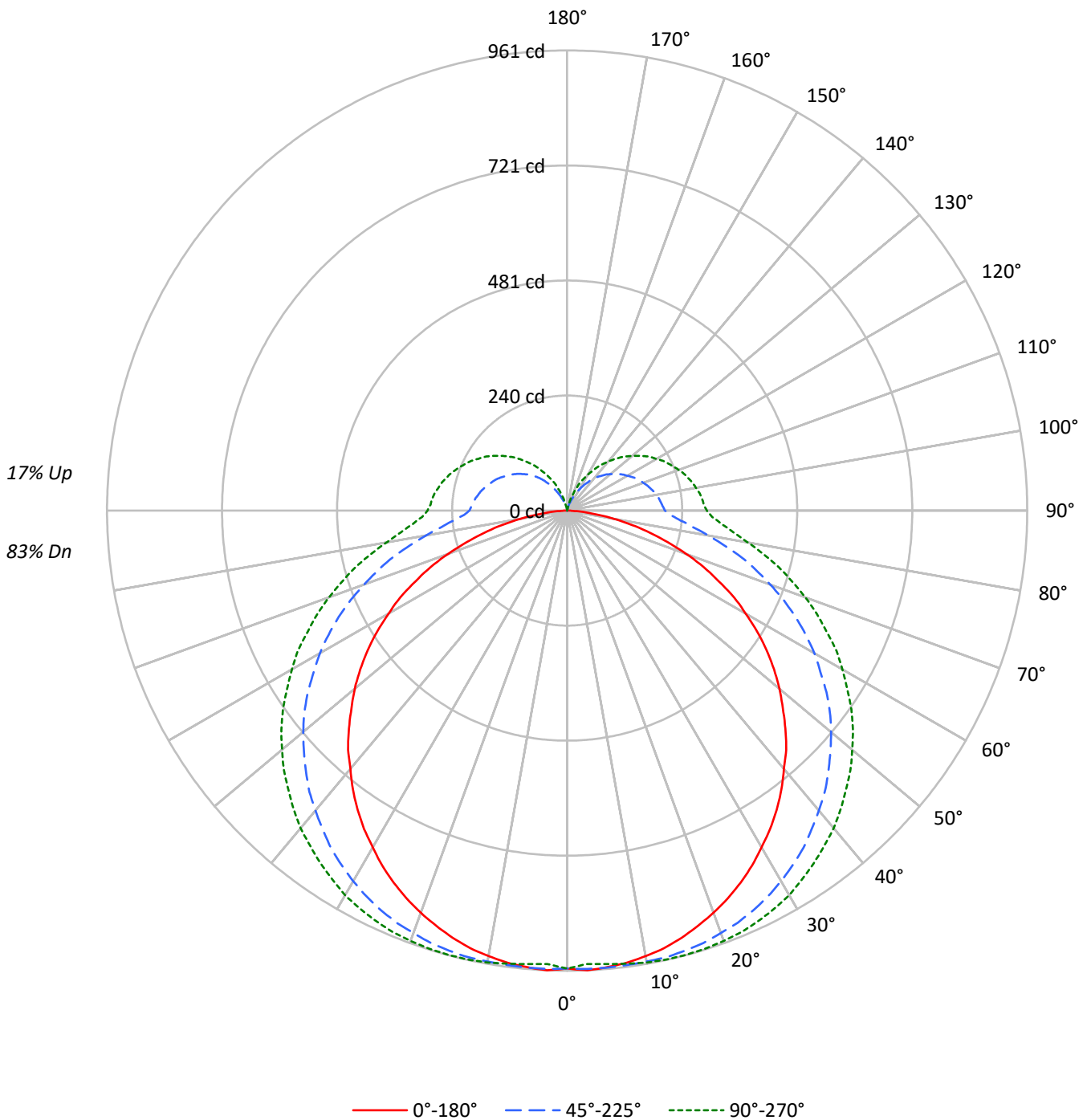
Lumens per Lamp: N/A
Luminaire Lumens: 4308.0 lumens
Efficiency: N/A
Efficacy: 60.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 71.7
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

TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

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°	11293	11293	11293
5°	11285	10911	10706
10°	11203	10591	10391
15°	11101	10333	10114
20°	10976	10078	9864
25°	10845	9841	9629
30°	10677	9588	9394
35°	10525	9331	9122
40°	10301	9043	8879
45°	10115	8768	8596
50°	9884	8476	8328
55°	9597	8145	8033
60°	9160	7768	7688
65°	8576	7327	7302
70°	7765	6802	6898
75°	6620	6250	6452
80°	4939	5554	5915
85°	2632	5055	5590



TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	2.1
10°-20°	267.7	6.2
20°-30°	420.8	9.8
30°-40°	530.4	12.3
40°-50°	583.6	13.5
50°-60°	574.0	13.3
60°-70°	499.4	11.6
70°-80°	371.7	8.6
80°-90°	238.3	5.5
90°-100°	189.3	4.4
100°-110°	168.2	3.9
110°-120°	139.0	3.2
120°-130°	105.4	2.4
130°-140°	71.0	1.6
140°-150°	39.6	0.9
150°-160°	15.8	0.4
160°-170°	2.5	0.1
170°-180°	0.0	0.0
0°-30°	779.7	18.1
0°-40°	1310.1	30.4
0°-60°	2467.7	57.3
0°-90°	3577.1	83.0
90°-120°	496.6	11.5
90°-150°	712.6	16.5
90°-180°	731.0	17.0
0°-180°	4308.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	957	956	958	956	950	91
15°	924	932	952	962	960	261
25°	857	883	921	943	946	395
35°	763	806	860	893	899	477
45°	645	703	772	814	824	497
55°	509	580	661	711	724	454
65°	349	432	526	583	598	346
75°	180	273	377	437	458	190
85°	34	129	238	303	324	41
90°	1	97	204	271	292	2
95°	1	92	196	263	283	1
105°	1	81	180	243	262	1
115°	1	69	159	216	233	1
125°	1	55	133	183	198	1
135°	1	40	103	144	157	1
145°	1	23	69	102	112	1
155°	1	9	34	58	64	0
165°	1	1	8	13	16	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	956.3	956.3	956.3	956.3	956.3	956.3	956.3	956.3	956.3	956.3	956.3
2.5°	961.1	959.2	956.3	956.3	958.2	959.2	961.1	961.1	960.2	958.2	957.3
5°	957.3	956.3	953.4	953.4	955.4	957.3	959.2	959.2	959.2	958.2	957.3
7.5°	952.5	950.5	948.6	948.6	951.5	953.4	956.3	957.3	958.2	957.3	958.2
10°	944.8	943.8	941.9	942.8	945.7	948.6	951.5	954.4	956.3	956.3	958.2
12.5°	936.1	934.2	932.3	934.2	938.0	941.9	947.7	950.5	953.4	955.4	956.3
15°	923.6	922.6	921.7	924.6	929.4	935.1	940.9	945.7	948.6	951.5	954.4
17.5°	909.2	909.2	909.2	913.0	918.8	926.5	932.3	938.0	942.8	946.7	950.5
20°	893.8	892.8	893.8	899.6	908.2	914.9	922.6	929.4	935.1	939.0	943.8
22.5°	876.5	876.5	878.4	884.2	893.8	903.4	911.1	918.8	925.5	931.3	936.1
25°	857.2	858.2	861.1	867.8	878.4	888.0	897.6	906.3	914.9	920.7	927.5
27.5°	836.1	836.1	840.9	849.5	861.1	871.7	882.2	891.9	901.5	908.2	914.9
30°	812.0	813.9	818.7	830.3	841.8	854.3	864.9	876.5	885.1	893.8	901.5
32.5°	788.9	789.9	795.6	807.2	821.6	834.1	845.7	859.1	867.8	877.4	886.1
35°	762.9	764.9	771.6	784.1	798.5	813.0	826.4	838.9	849.5	860.1	868.8
37.5°	735.0	737.9	746.6	759.1	774.5	788.9	803.3	816.8	829.3	838.9	850.5
40°	704.2	709.1	717.7	734.1	749.5	763.9	779.3	792.8	806.2	817.8	829.3
42.5°	677.3	679.2	689.8	706.2	723.5	740.8	756.2	770.6	784.1	796.6	806.2
45°	644.6	649.4	660.0	675.4	693.7	712.9	732.1	742.7	758.1	771.6	783.1
47.5°	610.9	616.7	630.2	647.5	665.8	683.1	699.4	717.7	732.1	745.6	759.1
50°	579.2	584.9	597.5	616.7	634.0	653.3	672.5	688.9	704.2	719.6	732.1
52.5°	544.5	549.4	564.7	583.0	603.2	622.5	640.7	660.0	675.4	691.7	704.2
55°	508.9	513.8	529.1	548.4	569.6	590.7	609.0	629.2	643.6	661.0	675.4
57.5°	470.5	479.1	491.6	511.8	533.0	554.2	575.3	594.6	611.9	627.3	643.6
60°	431.0	439.7	456.0	476.2	496.4	519.5	540.7	559.9	578.2	596.5	610.0
62.5°	393.5	400.2	416.6	437.7	459.9	482.0	506.1	524.3	545.5	561.9	578.2
65°	349.2	358.9	377.1	398.3	420.4	443.5	465.6	487.8	508.0	526.3	542.6
67.5°	308.8	316.5	337.7	356.9	381.0	404.1	431.0	451.2	471.4	489.7	505.1
70°	264.6	277.1	291.5	318.5	341.5	367.5	389.6	412.7	432.9	451.2	468.5
72.5°	220.3	232.8	253.0	275.2	300.2	327.1	350.2	372.3	393.5	413.7	430.1
75°	179.9	189.5	210.7	234.7	261.7	284.8	308.8	333.8	356.0	377.1	392.5
77.5°	138.5	150.1	168.4	192.4	219.4	248.2	272.3	294.4	317.5	335.8	356.0
80°	99.1	108.7	129.9	153.0	180.9	207.8	233.8	257.8	279.0	299.2	317.5
82.5°	61.6	73.1	93.3	121.2	147.2	175.1	199.2	223.2	246.3	265.5	283.8
85°	33.7	42.3	64.5	88.5	116.4	142.4	170.3	193.4	217.4	237.6	257.8
87.5°	11.5	21.2	41.4	67.3	95.2	120.3	148.2	172.2	194.3	215.5	234.7
90°	1.0	10.6	31.7	56.8	83.7	110.6	136.6	160.7	183.8	204.0	223.2
92.5°	1.0	9.6	28.9	53.9	80.8	106.8	132.8	156.8	178.9	200.1	218.4
95°	1.0	8.7	27.9	52.0	78.9	104.9	129.9	153.9	176.1	196.3	214.5
97.5°	1.0	8.7	26.9	51.0	76.0	102.0	127.0	151.0	173.2	193.4	211.7
100°	1.0	7.7	25.0	48.1	74.1	99.1	124.1	147.2	169.3	188.6	207.8
102.5°	1.0	6.7	24.1	47.1	71.2	96.2	120.3	143.4	164.5	184.7	203.0
105°	1.0	6.7	23.1	45.2	69.3	93.3	116.4	139.5	160.7	179.9	197.2
107.5°	1.0	5.8	22.1	43.3	66.4	90.4	113.5	135.7	155.9	175.1	192.4
110°	1.0	5.8	21.2	41.4	63.5	86.6	109.7	130.8	151.0	169.3	186.6



TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	4.8	19.2	39.4	60.6	83.7	104.9	127.0	146.2	164.5	180.9
115°	1.0	4.8	18.3	37.5	58.7	79.9	101.0	121.2	140.5	158.7	174.1
117.5°	1.0	3.8	17.3	35.6	55.8	76.0	97.2	116.4	135.7	152.0	167.4
120°	1.0	3.8	15.4	32.7	52.0	72.2	92.4	111.6	128.9	145.3	160.7
122.5°	1.0	2.9	14.4	30.8	50.0	68.3	87.5	105.8	124.1	139.5	153.9
125°	1.0	2.9	13.5	28.9	46.2	64.5	82.7	101.0	117.4	132.8	146.2
127.5°	1.0	1.9	11.5	26.0	43.3	60.6	77.9	95.2	110.6	126.0	139.5
130°	1.0	1.9	10.6	24.1	40.4	56.8	73.1	89.5	104.9	118.3	130.8
132.5°	1.0	1.9	8.7	21.2	36.6	52.9	68.3	83.7	98.1	111.6	123.1
135°	1.0	1.9	7.7	19.2	32.7	48.1	62.5	77.0	91.4	102.9	114.5
137.5°	1.0	1.0	6.7	16.4	28.9	43.3	56.8	71.2	83.7	96.2	106.8
140°	1.0	1.0	4.8	13.5	25.0	37.5	50.0	63.5	76.0	87.5	98.1
142.5°	1.0	1.0	3.8	11.5	21.2	32.7	44.3	56.8	67.3	78.9	89.5
145°	1.0	1.0	2.9	9.6	18.3	27.9	37.5	49.1	58.7	69.3	78.9
147.5°	1.0	1.0	2.9	7.7	15.4	23.1	32.7	41.4	51.0	60.6	68.3
150°	1.0	1.0	1.9	5.8	11.5	19.2	26.9	34.6	43.3	50.0	59.6
152.5°	1.0	1.0	1.9	3.8	8.7	15.4	22.1	28.9	35.6	42.3	49.1
155°	1.0	1.0	1.0	2.9	6.7	11.5	17.3	23.1	27.9	33.7	39.4
157.5°	1.0	1.0	1.0	1.9	4.8	7.7	12.5	17.3	22.1	26.0	30.8
160°	1.0	1.0	1.0	1.9	2.9	5.8	8.7	12.5	16.4	19.2	22.1
162.5°	1.0	1.0	1.0	1.0	1.9	2.9	5.8	8.7	10.6	12.5	15.4
165°	1.0	1.0	1.0	1.0	1.0	1.9	2.9	3.8	5.8	7.7	8.7
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



TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	956.3	956.3	956.3	956.3	956.3	956.3	956.3	956.3
2.5°	956.3	955.4	954.4	953.4	952.5	950.5	948.6	947.7
5°	957.3	957.3	956.3	955.4	954.4	952.5	950.5	950.5
7.5°	958.2	959.2	959.2	959.2	958.2	957.3	955.4	954.4
10°	960.2	960.2	961.1	961.1	961.1	960.2	959.2	958.2
12.5°	959.2	960.2	962.1	963.0	963.0	962.1	960.2	960.2
15°	957.3	959.2	961.1	962.1	963.0	962.1	960.2	960.2
17.5°	953.4	956.3	959.2	961.1	961.1	961.1	960.2	959.2
20°	948.6	951.5	954.4	957.3	958.2	958.2	957.3	956.3
22.5°	940.9	945.7	949.6	952.5	953.4	953.4	952.5	952.5
25°	932.3	937.1	941.9	944.8	946.7	947.7	946.7	945.7
27.5°	921.7	926.5	931.3	935.1	937.1	938.0	938.0	937.1
30°	910.1	914.9	919.8	924.6	926.5	927.5	927.5	927.5
32.5°	893.8	900.5	906.3	910.1	914.0	914.0	914.0	913.0
35°	876.5	884.2	889.9	895.7	897.6	899.6	899.6	898.6
37.5°	857.2	866.8	872.6	877.4	881.3	882.2	881.3	882.2
40°	838.0	845.7	855.3	858.2	862.0	864.9	864.0	865.9
42.5°	816.8	825.5	833.2	839.9	842.8	843.7	844.7	845.7
45°	794.7	802.4	812.0	816.8	820.7	823.5	823.5	823.5
47.5°	769.7	780.3	788.9	794.7	798.5	801.4	800.5	802.4
50°	743.7	754.3	763.9	768.7	774.5	775.4	776.4	777.4
52.5°	716.8	727.3	737.0	743.7	746.6	749.5	751.4	752.4
55°	687.9	698.5	707.1	714.8	719.6	722.5	722.5	724.5
57.5°	657.1	668.6	679.2	684.0	688.9	692.7	694.6	693.7
60°	626.3	636.9	644.6	654.2	660.0	662.9	663.8	663.8
62.5°	588.8	603.2	611.9	623.4	626.3	630.2	631.1	634.0
65°	558.0	568.6	580.1	585.9	593.6	595.5	598.4	597.5
67.5°	520.5	534.9	543.6	552.2	559.9	562.8	562.8	564.7
70°	482.0	497.4	506.1	516.6	521.5	527.2	530.1	529.1
72.5°	446.4	458.9	470.5	479.1	485.9	489.7	490.7	492.6
75°	409.8	422.4	432.9	441.6	450.3	453.1	456.0	458.0
77.5°	370.4	381.9	396.4	406.0	411.8	417.5	419.5	419.5
80°	333.8	347.3	358.9	369.4	375.2	381.0	384.8	382.9
82.5°	299.2	313.6	328.1	336.7	343.5	349.2	351.2	350.2
85°	272.3	286.7	298.2	307.9	315.6	321.3	323.3	324.2
87.5°	251.1	265.5	278.0	287.7	294.4	299.2	301.1	303.1
90°	239.6	254.0	266.5	276.1	282.9	287.7	290.6	291.5
92.5°	234.7	249.2	260.7	270.3	278.0	282.9	284.8	285.7
95°	231.9	245.3	257.8	267.5	274.2	279.0	281.9	282.9
97.5°	228.0	242.4	254.0	263.6	270.3	276.1	278.0	279.0
100°	223.2	237.6	249.2	258.8	265.5	270.3	273.2	273.2
102.5°	218.4	232.8	244.4	254.0	260.7	265.5	267.5	268.4
105°	213.6	227.1	238.6	247.3	254.0	258.8	261.7	261.7
107.5°	207.8	221.3	231.9	241.5	248.2	252.1	255.0	255.9
110°	202.0	214.5	226.1	234.7	241.5	245.3	248.2	248.2



TEST NUMBER: P232072

CATALOG NUMBER: FVS4M-3-LD4-30-2HI-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	195.3	207.8	219.4	227.1	233.8	238.6	240.5	240.5
115°	188.6	201.1	211.7	219.4	226.1	229.9	232.8	232.8
117.5°	181.8	194.3	204.0	211.7	217.4	222.2	224.2	225.1
120°	174.1	185.7	196.3	204.0	209.7	213.6	215.5	215.5
122.5°	166.4	178.0	188.6	195.3	201.1	204.0	206.8	207.8
125°	158.7	170.3	179.9	185.7	191.5	195.3	197.2	198.2
127.5°	151.0	160.7	170.3	177.0	181.8	185.7	187.6	187.6
130°	142.4	152.0	160.7	167.4	172.2	175.1	177.0	178.0
132.5°	133.7	143.4	151.0	157.8	162.6	165.5	166.4	167.4
135°	125.1	133.7	140.5	147.2	152.0	153.9	155.9	156.8
137.5°	115.5	124.1	131.8	137.6	140.5	143.4	144.3	145.3
140°	106.8	114.5	121.2	126.0	129.9	131.8	133.7	133.7
142.5°	97.2	104.9	110.6	115.5	118.3	121.2	123.1	122.2
145°	87.5	95.2	100.1	104.9	107.8	109.7	110.6	111.6
147.5°	77.9	84.7	89.5	94.3	96.2	98.1	99.1	98.1
150°	65.4	73.1	78.9	82.7	84.7	86.6	87.5	86.6
152.5°	54.8	62.5	68.3	71.2	73.1	74.1	75.0	75.0
155°	44.3	50.0	55.8	59.6	61.6	62.5	63.5	64.5
157.5°	34.6	39.4	42.3	48.1	51.0	51.0	51.0	51.0
160°	26.0	28.9	31.7	35.6	38.5	39.4	39.4	39.4
162.5°	17.3	19.2	21.2	24.1	26.0	27.9	27.9	27.9
165°	9.6	10.6	12.5	13.5	13.5	16.4	17.3	16.4
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)