

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: P232071

Luminaire Tested: **FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232071
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-LD4-50-2STD-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (168) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

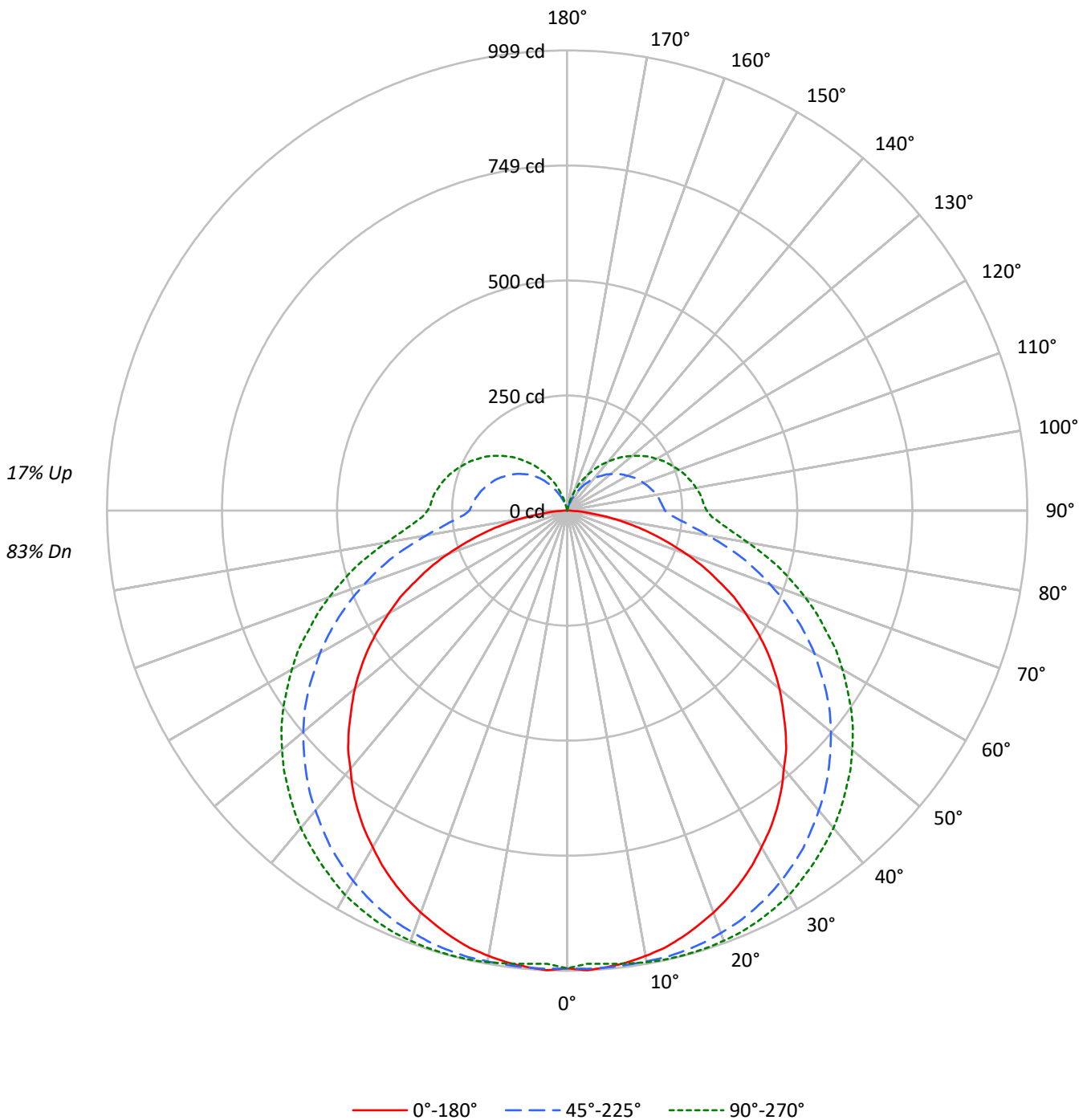
Lumens per Lamp: N/A
Luminaire Lumens: 4477.1 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

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

TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-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°	11736	11736	11736
5°	11727	11339	11126
10°	11642	11006	10799
15°	11536	10738	10510
20°	11406	10473	10251
25°	11270	10227	10007
30°	11096	9964	9761
35°	10939	9697	9480
40°	10706	9398	9226
45°	10512	9112	8934
50°	10271	8809	8655
55°	9974	8465	8348
60°	9519	8073	7991
65°	8912	7613	7587
70°	8070	7068	7169
75°	6882	6495	6704
80°	5133	5771	6146
85°	2734	5255	5809



TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	2.1
10°-20°	278.2	6.2
20°-30°	437.3	9.8
30°-40°	551.2	12.3
40°-50°	606.6	13.5
50°-60°	596.5	13.3
60°-70°	519.0	11.6
70°-80°	386.3	8.6
80°-90°	247.7	5.5
90°-100°	196.8	4.4
100°-110°	174.8	3.9
110°-120°	144.5	3.2
120°-130°	109.5	2.4
130°-140°	73.8	1.6
140°-150°	41.2	0.9
150°-160°	16.4	0.4
160°-170°	2.6	0.1
170°-180°	0.0	0.0
0°-30°	810.3	18.1
0°-40°	1361.4	30.4
0°-60°	2564.5	57.3
0°-90°	3717.5	83.0
90°-120°	516.1	11.5
90°-150°	740.7	16.5
90°-180°	760.0	17.0
0°-180°	4477.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	995	994	996	993	988	95
15°	960	969	989	999	998	271
25°	891	918	957	980	983	410
35°	793	837	894	928	934	496
45°	670	731	802	846	856	517
55°	529	603	687	739	753	472
65°	363	449	547	606	621	360
75°	187	284	392	454	476	197
85°	35	134	247	315	337	43
90°	1	101	212	282	303	2
95°	1	96	204	273	294	1
105°	1	84	187	252	272	1
115°	1	72	165	224	242	1
125°	1	58	138	190	206	1
135°	1	42	107	150	163	1
145°	1	24	72	106	116	1
155°	1	10	35	60	67	0
165°	1	2	8	14	17	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	993.8	993.8	993.8	993.8	993.8	993.8	993.8	993.8	993.8	993.8	993.8
2.5°	998.8	996.8	993.8	993.8	995.8	996.8	998.8	998.8	997.8	995.8	994.8
5°	994.8	993.8	990.8	990.8	992.8	994.8	996.8	996.8	996.8	995.8	994.8
7.5°	989.8	987.8	985.8	985.8	988.8	990.8	993.8	994.8	995.8	994.8	995.8
10°	981.8	980.8	978.8	979.8	982.8	985.8	988.8	991.8	993.8	993.8	995.8
12.5°	972.8	970.8	968.8	970.8	974.8	978.8	984.8	987.8	990.8	992.8	993.8
15°	959.8	958.8	957.8	960.8	965.8	971.8	977.8	982.8	985.8	988.8	991.8
17.5°	944.8	944.8	944.8	948.8	954.8	962.8	968.8	974.8	979.8	983.8	987.8
20°	928.8	927.8	928.8	934.8	943.8	950.8	958.8	965.8	971.8	975.8	980.8
22.5°	910.8	910.8	912.8	918.8	928.8	938.8	946.8	954.8	961.8	967.8	972.8
25°	890.8	891.8	894.8	901.8	912.8	922.8	932.8	941.8	950.8	956.8	963.8
27.5°	868.9	868.9	873.8	882.8	894.8	905.8	916.8	926.8	936.8	943.8	950.8
30°	843.9	845.9	850.9	862.9	874.8	887.8	898.8	910.8	919.8	928.8	936.8
32.5°	819.9	820.9	826.9	838.9	853.9	866.9	878.8	892.8	901.8	911.8	920.8
35°	792.9	794.9	801.9	814.9	829.9	844.9	858.9	871.9	882.8	893.8	902.8
37.5°	763.9	766.9	775.9	788.9	804.9	819.9	834.9	848.9	861.9	871.9	883.8
40°	731.9	736.9	745.9	762.9	778.9	793.9	809.9	823.9	837.9	849.9	861.9
42.5°	703.9	705.9	716.9	733.9	751.9	769.9	785.9	800.9	814.9	827.9	837.9
45°	669.9	674.9	685.9	701.9	720.9	740.9	760.9	771.9	787.9	801.9	813.9
47.5°	634.9	640.9	654.9	672.9	691.9	709.9	726.9	745.9	760.9	774.9	788.9
50°	601.9	607.9	620.9	640.9	658.9	678.9	698.9	715.9	731.9	747.9	760.9
52.5°	565.9	570.9	586.9	605.9	626.9	646.9	665.9	685.9	701.9	718.9	731.9
55°	528.9	533.9	549.9	569.9	591.9	613.9	632.9	653.9	668.9	686.9	701.9
57.5°	488.9	497.9	510.9	531.9	553.9	575.9	597.9	617.9	635.9	651.9	668.9
60°	447.9	456.9	473.9	494.9	515.9	539.9	561.9	581.9	600.9	619.9	633.9
62.5°	408.9	415.9	432.9	454.9	477.9	500.9	525.9	544.9	566.9	583.9	600.9
65°	362.9	372.9	391.9	413.9	436.9	460.9	483.9	506.9	527.9	546.9	563.9
67.5°	320.9	328.9	350.9	370.9	395.9	419.9	447.9	468.9	489.9	508.9	524.9
70°	275.0	288.0	302.9	330.9	354.9	381.9	404.9	428.9	449.9	468.9	486.9
72.5°	229.0	242.0	263.0	286.0	311.9	339.9	363.9	386.9	408.9	429.9	446.9
75°	187.0	197.0	219.0	244.0	272.0	295.9	320.9	346.9	369.9	391.9	407.9
77.5°	144.0	156.0	175.0	200.0	228.0	258.0	283.0	305.9	329.9	348.9	369.9
80°	103.0	113.0	135.0	159.0	188.0	216.0	243.0	268.0	290.0	310.9	329.9
82.5°	64.0	76.0	97.0	126.0	153.0	182.0	207.0	232.0	256.0	276.0	294.9
85°	35.0	44.0	67.0	92.0	121.0	148.0	177.0	201.0	226.0	247.0	268.0
87.5°	12.0	22.0	43.0	70.0	99.0	125.0	154.0	179.0	202.0	224.0	244.0
90°	1.0	11.0	33.0	59.0	87.0	115.0	142.0	167.0	191.0	212.0	232.0
92.5°	1.0	10.0	30.0	56.0	84.0	111.0	138.0	163.0	186.0	208.0	227.0
95°	1.0	9.0	29.0	54.0	82.0	109.0	135.0	160.0	183.0	204.0	223.0
97.5°	1.0	9.0	28.0	53.0	79.0	106.0	132.0	157.0	180.0	201.0	220.0
100°	1.0	8.0	26.0	50.0	77.0	103.0	129.0	153.0	176.0	196.0	216.0
102.5°	1.0	7.0	25.0	49.0	74.0	100.0	125.0	149.0	171.0	192.0	211.0
105°	1.0	7.0	24.0	47.0	72.0	97.0	121.0	145.0	167.0	187.0	205.0
107.5°	1.0	6.0	23.0	45.0	69.0	94.0	118.0	141.0	162.0	182.0	200.0
110°	1.0	6.0	22.0	43.0	66.0	90.0	114.0	136.0	157.0	176.0	194.0



TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	5.0	20.0	41.0	63.0	87.0	109.0	132.0	152.0	171.0	188.0
115°	1.0	5.0	19.0	39.0	61.0	83.0	105.0	126.0	146.0	165.0	181.0
117.5°	1.0	4.0	18.0	37.0	58.0	79.0	101.0	121.0	141.0	158.0	174.0
120°	1.0	4.0	16.0	34.0	54.0	75.0	96.0	116.0	134.0	151.0	167.0
122.5°	1.0	3.0	15.0	32.0	52.0	71.0	91.0	110.0	129.0	145.0	160.0
125°	1.0	3.0	14.0	30.0	48.0	67.0	86.0	105.0	122.0	138.0	152.0
127.5°	1.0	2.0	12.0	27.0	45.0	63.0	81.0	99.0	115.0	131.0	145.0
130°	1.0	2.0	11.0	25.0	42.0	59.0	76.0	93.0	109.0	123.0	136.0
132.5°	1.0	2.0	9.0	22.0	38.0	55.0	71.0	87.0	102.0	116.0	128.0
135°	1.0	2.0	8.0	20.0	34.0	50.0	65.0	80.0	95.0	107.0	119.0
137.5°	1.0	1.0	7.0	17.0	30.0	45.0	59.0	74.0	87.0	100.0	111.0
140°	1.0	1.0	5.0	14.0	26.0	39.0	52.0	66.0	79.0	91.0	102.0
142.5°	1.0	1.0	4.0	12.0	22.0	34.0	46.0	59.0	70.0	82.0	93.0
145°	1.0	1.0	3.0	10.0	19.0	29.0	39.0	51.0	61.0	72.0	82.0
147.5°	1.0	1.0	3.0	8.0	16.0	24.0	34.0	43.0	53.0	63.0	71.0
150°	1.0	1.0	2.0	6.0	12.0	20.0	28.0	36.0	45.0	52.0	62.0
152.5°	1.0	1.0	2.0	4.0	9.0	16.0	23.0	30.0	37.0	44.0	51.0
155°	1.0	1.0	1.0	3.0	7.0	12.0	18.0	24.0	29.0	35.0	41.0
157.5°	1.0	1.0	1.0	2.0	5.0	8.0	13.0	18.0	23.0	27.0	32.0
160°	1.0	1.0	1.0	2.0	3.0	6.0	9.0	13.0	17.0	20.0	23.0
162.5°	1.0	1.0	1.0	1.0	2.0	3.0	6.0	9.0	11.0	13.0	16.0
165°	1.0	1.0	1.0	1.0	1.0	2.0	3.0	4.0	6.0	8.0	9.0
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



TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	993.8	993.8	993.8	993.8	993.8	993.8	993.8	993.8
2.5°	993.8	992.8	991.8	990.8	989.8	987.8	985.8	984.8
5°	994.8	994.8	993.8	992.8	991.8	989.8	987.8	987.8
7.5°	995.8	996.8	996.8	996.8	995.8	994.8	992.8	991.8
10°	997.8	997.8	998.8	998.8	998.8	997.8	996.8	995.8
12.5°	996.8	997.8	999.8	1000.8	1000.8	999.8	997.8	997.8
15°	994.8	996.8	998.8	999.8	1000.8	999.8	997.8	997.8
17.5°	990.8	993.8	996.8	998.8	998.8	998.8	997.8	996.8
20°	985.8	988.8	991.8	994.8	995.8	995.8	994.8	993.8
22.5°	977.8	982.8	986.8	989.8	990.8	990.8	989.8	989.8
25°	968.8	973.8	978.8	981.8	983.8	984.8	983.8	982.8
27.5°	957.8	962.8	967.8	971.8	973.8	974.8	974.8	973.8
30°	945.8	950.8	955.8	960.8	962.8	963.8	963.8	963.8
32.5°	928.8	935.8	941.8	945.8	949.8	949.8	949.8	948.8
35°	910.8	918.8	924.8	930.8	932.8	934.8	934.8	933.8
37.5°	890.8	900.8	906.8	911.8	915.8	916.8	915.8	916.8
40°	870.9	878.8	888.8	891.8	895.8	898.8	897.8	899.8
42.5°	848.9	857.9	865.9	872.9	875.8	876.8	877.8	878.8
45°	825.9	833.9	843.9	848.9	852.9	855.9	855.9	855.9
47.5°	799.9	810.9	819.9	825.9	829.9	832.9	831.9	833.9
50°	772.9	783.9	793.9	798.9	804.9	805.9	806.9	807.9
52.5°	744.9	755.9	765.9	772.9	775.9	778.9	780.9	781.9
55°	714.9	725.9	734.9	742.9	747.9	750.9	750.9	752.9
57.5°	682.9	694.9	705.9	710.9	715.9	719.9	721.9	720.9
60°	650.9	661.9	669.9	679.9	685.9	688.9	689.9	689.9
62.5°	611.9	626.9	635.9	647.9	650.9	654.9	655.9	658.9
65°	579.9	590.9	602.9	608.9	616.9	618.9	621.9	620.9
67.5°	540.9	555.9	564.9	573.9	581.9	584.9	584.9	586.9
70°	500.9	516.9	525.9	536.9	541.9	547.9	550.9	549.9
72.5°	463.9	476.9	488.9	497.9	504.9	508.9	509.9	511.9
75°	425.9	438.9	449.9	458.9	467.9	470.9	473.9	475.9
77.5°	384.9	396.9	411.9	421.9	427.9	433.9	435.9	435.9
80°	346.9	360.9	372.9	383.9	389.9	395.9	399.9	397.9
82.5°	310.9	325.9	340.9	349.9	356.9	362.9	364.9	363.9
85°	283.0	297.9	309.9	319.9	327.9	333.9	335.9	336.9
87.5°	261.0	276.0	289.0	298.9	305.9	310.9	312.9	314.9
90°	249.0	264.0	277.0	287.0	293.9	298.9	301.9	302.9
92.5°	244.0	259.0	271.0	281.0	289.0	293.9	295.9	296.9
95°	241.0	255.0	268.0	278.0	285.0	290.0	292.9	293.9
97.5°	237.0	252.0	264.0	274.0	281.0	287.0	289.0	290.0
100°	232.0	247.0	259.0	269.0	276.0	281.0	284.0	284.0
102.5°	227.0	242.0	254.0	264.0	271.0	276.0	278.0	279.0
105°	222.0	236.0	248.0	257.0	264.0	269.0	272.0	272.0
107.5°	216.0	230.0	241.0	251.0	258.0	262.0	265.0	266.0
110°	210.0	223.0	235.0	244.0	251.0	255.0	258.0	258.0



TEST NUMBER: P232071

CATALOG NUMBER: FVS4M-3-LD4-50-2STD-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	203.0	216.0	228.0	236.0	243.0	248.0	250.0	250.0
115°	196.0	209.0	220.0	228.0	235.0	239.0	242.0	242.0
117.5°	189.0	202.0	212.0	220.0	226.0	231.0	233.0	234.0
120°	181.0	193.0	204.0	212.0	218.0	222.0	224.0	224.0
122.5°	173.0	185.0	196.0	203.0	209.0	212.0	215.0	216.0
125°	165.0	177.0	187.0	193.0	199.0	203.0	205.0	206.0
127.5°	157.0	167.0	177.0	184.0	189.0	193.0	195.0	195.0
130°	148.0	158.0	167.0	174.0	179.0	182.0	184.0	185.0
132.5°	139.0	149.0	157.0	164.0	169.0	172.0	173.0	174.0
135°	130.0	139.0	146.0	153.0	158.0	160.0	162.0	163.0
137.5°	120.0	129.0	137.0	143.0	146.0	149.0	150.0	151.0
140°	111.0	119.0	126.0	131.0	135.0	137.0	139.0	139.0
142.5°	101.0	109.0	115.0	120.0	123.0	126.0	128.0	127.0
145°	91.0	99.0	104.0	109.0	112.0	114.0	115.0	116.0
147.5°	81.0	88.0	93.0	98.0	100.0	102.0	103.0	102.0
150°	68.0	76.0	82.0	86.0	88.0	90.0	91.0	90.0
152.5°	57.0	65.0	71.0	74.0	76.0	77.0	78.0	78.0
155°	46.0	52.0	58.0	62.0	64.0	65.0	66.0	67.0
157.5°	36.0	41.0	44.0	50.0	53.0	53.0	53.0	53.0
160°	27.0	30.0	33.0	37.0	40.0	41.0	41.0	41.0
162.5°	18.0	20.0	22.0	25.0	27.0	29.0	29.0	29.0
165°	10.0	11.0	13.0	14.0	14.0	17.0	18.0	17.0
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)