

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: P232065

Luminaire Tested: **FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232065
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-LD4-35-2LO-PFS125-UNV-EDC1
Description: FAILSAFE FVS LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH PFS125 LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

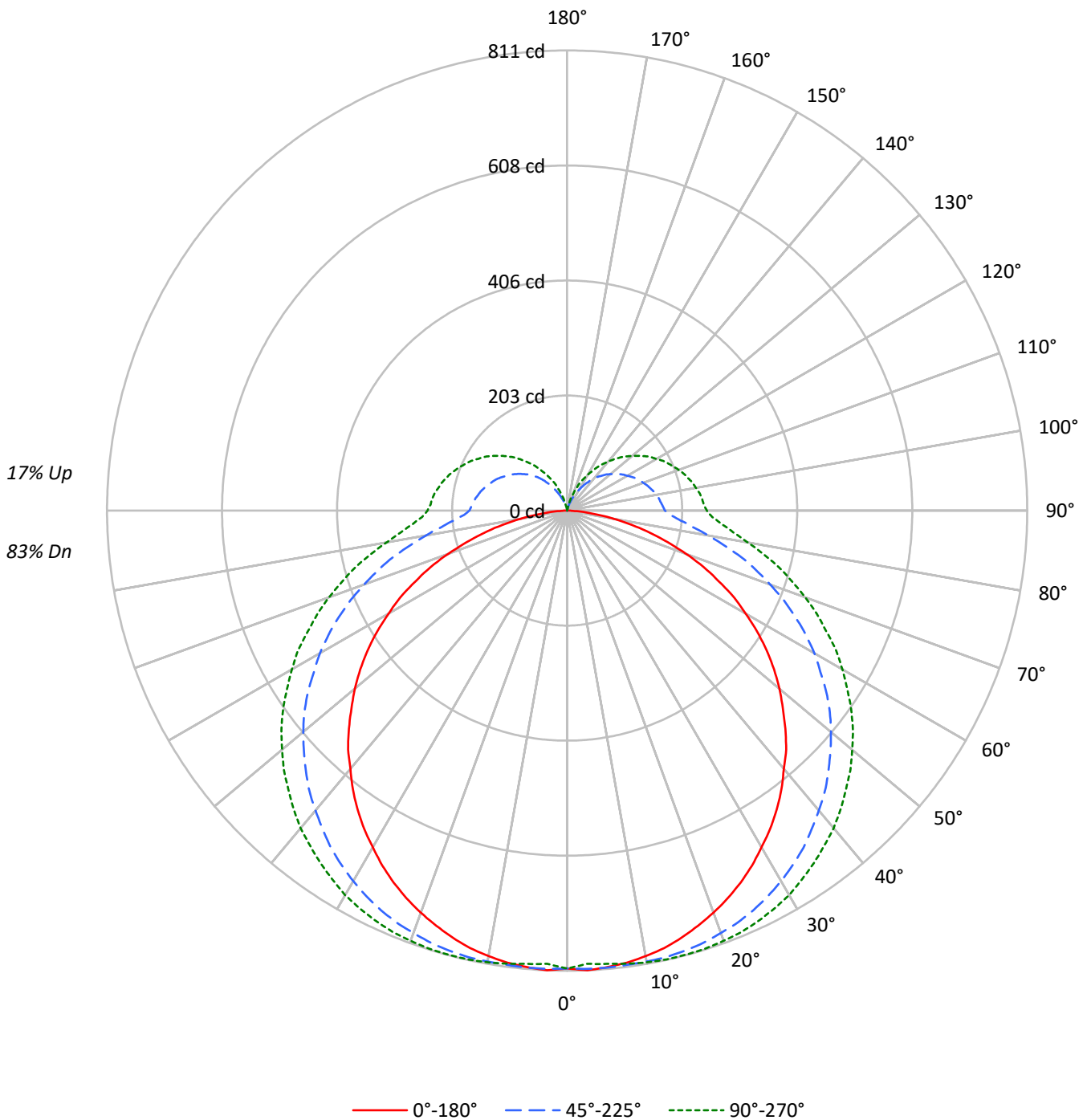
Lumens per Lamp: N/A
Luminaire Lumens: 3635.0 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.44 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 2.92' x H: 0.19')
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-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°	9529	9529	9529
5°	9521	9206	9033
10°	9453	8936	8768
15°	9366	8719	8534
20°	9262	8503	8323
25°	9151	8304	8125
30°	9008	8091	7926
35°	8880	7873	7697
40°	8692	7630	7491
45°	8535	7399	7254
50°	8340	7152	7026
55°	8098	6872	6778
60°	7730	6555	6487
65°	7237	6181	6160
70°	6550	5739	5821
75°	5586	5274	5443
80°	4166	4687	4991
85°	2218	4266	4718



TEST NUMBER: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	2.1
10°-20°	225.9	6.2
20°-30°	355.0	9.8
30°-40°	447.5	12.3
40°-50°	492.5	13.5
50°-60°	484.3	13.3
60°-70°	421.4	11.6
70°-80°	313.7	8.6
80°-90°	201.1	5.5
90°-100°	159.8	4.4
100°-110°	141.9	3.9
110°-120°	117.3	3.2
120°-130°	88.9	2.4
130°-140°	59.9	1.6
140°-150°	33.4	0.9
150°-160°	13.3	0.4
160°-170°	2.1	0.1
170°-180°	0.0	0.0
0°-30°	657.9	18.1
0°-40°	1105.4	30.4
0°-60°	2082.2	57.3
0°-90°	3018.4	83.0
90°-120°	419.0	11.5
90°-150°	601.3	16.5
90°-180°	617.0	17.0
0°-180°	3635.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	807	807	807	807	807	
5°	808	807	808	806	802	77
15°	779	787	803	811	810	220
25°	723	745	777	796	798	333
35°	644	680	726	753	758	402
45°	544	593	651	687	695	419
55°	429	490	558	600	611	383
65°	295	364	444	492	504	292
75°	152	231	318	369	386	160
85°	28	109	200	256	274	35
90°	1	82	172	229	246	2
95°	1	78	166	222	239	1
105°	1	69	152	205	221	1
115°	1	58	134	182	196	1
125°	1	47	112	154	167	1
135°	1	34	87	121	132	1
145°	1	19	58	86	94	1
155°	1	8	28	49	54	0
165°	1	1	6	11	14	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	806.9	806.9	806.9	806.9	806.9	806.9	806.9	806.9	806.9	806.9	806.9
2.5°	811.0	809.4	806.9	806.9	808.5	809.4	811.0	811.0	810.2	808.5	807.7
5°	807.7	806.9	804.5	804.5	806.1	807.7	809.4	809.4	809.4	808.5	807.7
7.5°	803.7	802.0	800.4	800.4	802.9	804.5	806.9	807.7	808.5	807.7	808.5
10°	797.2	796.4	794.7	795.6	798.0	800.4	802.9	805.3	806.9	806.9	808.5
12.5°	789.9	788.2	786.6	788.2	791.5	794.7	799.6	802.0	804.5	806.1	806.9
15°	779.3	778.5	777.7	780.1	784.2	789.1	793.9	798.0	800.4	802.9	805.3
17.5°	767.1	767.1	767.1	770.4	775.3	781.8	786.6	791.5	795.6	798.8	802.0
20°	754.2	753.3	754.2	759.0	766.3	772.0	778.5	784.2	789.1	792.3	796.4
22.5°	739.5	739.5	741.2	746.0	754.2	762.3	768.8	775.3	780.9	785.8	789.9
25°	723.3	724.1	726.6	732.2	741.2	749.3	757.4	764.7	772.0	776.9	782.6
27.5°	705.4	705.4	709.5	716.8	726.6	735.5	744.4	752.5	760.6	766.3	772.0
30°	685.1	686.8	690.8	700.6	710.3	720.9	729.8	739.5	746.8	754.2	760.6
32.5°	665.7	666.5	671.3	681.1	693.3	703.8	713.6	724.9	732.2	740.4	747.7
35°	643.7	645.4	651.1	661.6	673.8	686.0	697.3	707.9	716.8	725.7	733.0
37.5°	620.2	622.6	629.9	640.5	653.5	665.7	677.8	689.2	699.8	707.9	717.6
40°	594.2	598.3	605.6	619.4	632.4	644.6	657.5	668.9	680.3	690.0	699.8
42.5°	571.5	573.1	582.1	595.9	610.5	625.1	638.1	650.2	661.6	672.2	680.3
45°	543.9	548.0	556.9	569.9	585.3	601.5	617.8	626.7	639.7	651.1	660.8
47.5°	515.5	520.4	531.7	546.3	561.8	576.4	590.2	605.6	617.8	629.1	640.5
50°	488.7	493.6	504.1	520.4	535.0	551.2	567.4	581.2	594.2	607.2	617.8
52.5°	459.5	463.5	476.5	491.9	509.0	525.2	540.7	556.9	569.9	583.7	594.2
55°	429.4	433.5	446.5	462.7	480.6	498.4	513.9	530.9	543.1	557.7	569.9
57.5°	397.0	404.3	414.8	431.9	449.7	467.6	485.4	501.7	516.3	529.3	543.1
60°	363.7	371.0	384.8	401.8	418.9	438.4	456.2	472.5	487.9	503.3	514.7
62.5°	332.0	337.7	351.5	369.4	388.0	406.7	427.0	442.4	460.3	474.1	487.9
65°	294.7	302.8	318.2	336.1	354.8	374.2	392.9	411.6	428.6	444.0	457.8
67.5°	260.6	267.1	284.9	301.2	321.5	341.0	363.7	380.7	397.8	413.2	426.2
70°	223.2	233.8	246.0	268.7	288.2	310.1	328.8	348.3	365.3	380.7	395.3
72.5°	185.9	196.5	213.5	232.2	253.3	276.0	295.5	314.2	332.0	349.1	362.9
75°	151.8	159.9	177.8	198.1	220.8	240.3	260.6	281.7	300.4	318.2	331.2
77.5°	116.9	126.6	142.1	162.4	185.1	209.4	229.7	248.4	267.9	283.3	300.4
80°	83.6	91.7	109.6	129.1	152.6	175.3	197.3	217.6	235.4	252.5	267.9
82.5°	52.0	61.7	78.7	102.3	124.2	147.7	168.0	188.3	207.8	224.1	239.5
85°	28.4	35.7	54.4	74.7	98.2	120.1	143.7	163.2	183.5	200.5	217.6
87.5°	9.7	17.9	34.9	56.8	80.4	101.5	125.0	145.3	164.0	181.8	198.1
90°	0.8	8.9	26.8	47.9	70.6	93.4	115.3	135.6	155.1	172.1	188.3
92.5°	0.8	8.1	24.4	45.5	68.2	90.1	112.0	132.3	151.0	168.9	184.3
95°	0.8	7.3	23.5	43.8	66.6	88.5	109.6	129.9	148.6	165.6	181.0
97.5°	0.8	7.3	22.7	43.0	64.1	86.0	107.2	127.5	146.1	163.2	178.6
100°	0.8	6.5	21.1	40.6	62.5	83.6	104.7	124.2	142.9	159.1	175.3
102.5°	0.8	5.7	20.3	39.8	60.1	81.2	101.5	121.0	138.8	155.9	171.3
105°	0.8	5.7	19.5	38.2	58.4	78.7	98.2	117.7	135.6	151.8	166.4
107.5°	0.8	4.9	18.7	36.5	56.0	76.3	95.8	114.5	131.5	147.7	162.4
110°	0.8	4.9	17.9	34.9	53.6	73.1	92.5	110.4	127.5	142.9	157.5



TEST NUMBER: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.8	4.1	16.2	33.3	51.1	70.6	88.5	107.2	123.4	138.8	152.6
115°	0.8	4.1	15.4	31.7	49.5	67.4	85.2	102.3	118.5	133.9	146.9
117.5°	0.8	3.2	14.6	30.0	47.1	64.1	82.0	98.2	114.5	128.3	141.3
120°	0.8	3.2	13.0	27.6	43.8	60.9	77.9	94.2	108.8	122.6	135.6
122.5°	0.8	2.4	12.2	26.0	42.2	57.6	73.9	89.3	104.7	117.7	129.9
125°	0.8	2.4	11.4	24.4	39.0	54.4	69.8	85.2	99.0	112.0	123.4
127.5°	0.8	1.6	9.7	21.9	36.5	51.1	65.8	80.4	93.4	106.3	117.7
130°	0.8	1.6	8.9	20.3	34.1	47.9	61.7	75.5	88.5	99.8	110.4
132.5°	0.8	1.6	7.3	17.9	30.8	44.6	57.6	70.6	82.8	94.2	103.9
135°	0.8	1.6	6.5	16.2	27.6	40.6	52.8	64.9	77.1	86.9	96.6
137.5°	0.8	0.8	5.7	13.8	24.4	36.5	47.9	60.1	70.6	81.2	90.1
140°	0.8	0.8	4.1	11.4	21.1	31.7	42.2	53.6	64.1	73.9	82.8
142.5°	0.8	0.8	3.2	9.7	17.9	27.6	37.3	47.9	56.8	66.6	75.5
145°	0.8	0.8	2.4	8.1	15.4	23.5	31.7	41.4	49.5	58.4	66.6
147.5°	0.8	0.8	2.4	6.5	13.0	19.5	27.6	34.9	43.0	51.1	57.6
150°	0.8	0.8	1.6	4.9	9.7	16.2	22.7	29.2	36.5	42.2	50.3
152.5°	0.8	0.8	1.6	3.2	7.3	13.0	18.7	24.4	30.0	35.7	41.4
155°	0.8	0.8	0.8	2.4	5.7	9.7	14.6	19.5	23.5	28.4	33.3
157.5°	0.8	0.8	0.8	1.6	4.1	6.5	10.6	14.6	18.7	21.9	26.0
160°	0.8	0.8	0.8	1.6	2.4	4.9	7.3	10.6	13.8	16.2	18.7
162.5°	0.8	0.8	0.8	0.8	1.6	2.4	4.9	7.3	8.9	10.6	13.0
165°	0.8	0.8	0.8	0.8	0.8	1.6	2.4	3.2	4.9	6.5	7.3
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: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	806.9	806.9	806.9	806.9	806.9	806.9	806.9	806.9
2.5°	806.9	806.1	805.3	804.5	803.7	802.0	800.4	799.6
5°	807.7	807.7	806.9	806.1	805.3	803.7	802.0	802.0
7.5°	808.5	809.4	809.4	809.4	808.5	807.7	806.1	805.3
10°	810.2	810.2	811.0	811.0	811.0	810.2	809.4	808.5
12.5°	809.4	810.2	811.8	812.6	812.6	811.8	810.2	810.2
15°	807.7	809.4	811.0	811.8	812.6	811.8	810.2	810.2
17.5°	804.5	806.9	809.4	811.0	811.0	811.0	810.2	809.4
20°	800.4	802.9	805.3	807.7	808.5	808.5	807.7	806.9
22.5°	793.9	798.0	801.2	803.7	804.5	804.5	803.7	803.7
25°	786.6	790.7	794.7	797.2	798.8	799.6	798.8	798.0
27.5°	777.7	781.8	785.8	789.1	790.7	791.5	791.5	790.7
30°	768.0	772.0	776.1	780.1	781.8	782.6	782.6	782.6
32.5°	754.2	759.8	764.7	768.0	771.2	771.2	771.2	770.4
35°	739.5	746.0	750.9	755.8	757.4	759.0	759.0	758.2
37.5°	723.3	731.4	736.3	740.4	743.6	744.4	743.6	744.4
40°	707.1	713.6	721.7	724.1	727.4	729.8	729.0	730.6
42.5°	689.2	696.5	703.0	708.7	711.1	711.9	712.7	713.6
45°	670.5	677.0	685.1	689.2	692.5	694.9	694.9	694.9
47.5°	649.4	658.4	665.7	670.5	673.8	676.2	675.4	677.0
50°	627.5	636.4	644.6	648.6	653.5	654.3	655.1	655.9
52.5°	604.8	613.7	621.8	627.5	629.9	632.4	634.0	634.8
55°	580.4	589.4	596.7	603.2	607.2	609.7	609.7	611.3
57.5°	554.5	564.2	573.1	577.2	581.2	584.5	586.1	585.3
60°	528.5	537.4	543.9	552.0	556.9	559.3	560.1	560.1
62.5°	496.8	509.0	516.3	526.0	528.5	531.7	532.5	535.0
65°	470.8	479.8	489.5	494.4	500.9	502.5	504.9	504.1
67.5°	439.2	451.4	458.7	466.0	472.5	474.9	474.9	476.5
70°	406.7	419.7	427.0	435.9	440.0	444.9	447.3	446.5
72.5°	376.7	387.2	397.0	404.3	410.0	413.2	414.0	415.6
75°	345.8	356.4	365.3	372.6	379.9	382.4	384.8	386.4
77.5°	312.5	322.3	334.5	342.6	347.4	352.3	353.9	353.9
80°	281.7	293.1	302.8	311.7	316.6	321.5	324.7	323.1
82.5°	252.5	264.6	276.8	284.1	289.8	294.7	296.3	295.5
85°	229.7	241.9	251.7	259.8	266.3	271.1	272.8	273.6
87.5°	211.9	224.1	234.6	242.7	248.4	252.5	254.1	255.7
90°	202.1	214.3	224.9	233.0	238.7	242.7	245.2	246.0
92.5°	198.1	210.3	220.0	228.1	234.6	238.7	240.3	241.1
95°	195.6	207.0	217.6	225.7	231.4	235.4	237.9	238.7
97.5°	192.4	204.6	214.3	222.4	228.1	233.0	234.6	235.4
100°	188.3	200.5	210.3	218.4	224.1	228.1	230.5	230.5
102.5°	184.3	196.5	206.2	214.3	220.0	224.1	225.7	226.5
105°	180.2	191.6	201.3	208.6	214.3	218.4	220.8	220.8
107.5°	175.3	186.7	195.6	203.8	209.4	212.7	215.1	215.9
110°	170.5	181.0	190.8	198.1	203.8	207.0	209.4	209.4



TEST NUMBER: P232065

CATALOG NUMBER: FVS4M-3-LD4-35-2LO-PFS125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	164.8	175.3	185.1	191.6	197.3	201.3	202.9	202.9
115°	159.1	169.7	178.6	185.1	190.8	194.0	196.5	196.5
117.5°	153.4	164.0	172.1	178.6	183.5	187.5	189.1	190.0
120°	146.9	156.7	165.6	172.1	177.0	180.2	181.8	181.8
122.5°	140.4	150.2	159.1	164.8	169.7	172.1	174.5	175.3
125°	133.9	143.7	151.8	156.7	161.5	164.8	166.4	167.2
127.5°	127.5	135.6	143.7	149.4	153.4	156.7	158.3	158.3
130°	120.1	128.3	135.6	141.3	145.3	147.7	149.4	150.2
132.5°	112.8	121.0	127.5	133.1	137.2	139.6	140.4	141.3
135°	105.5	112.8	118.5	124.2	128.3	129.9	131.5	132.3
137.5°	97.4	104.7	111.2	116.1	118.5	121.0	121.8	122.6
140°	90.1	96.6	102.3	106.3	109.6	111.2	112.8	112.8
142.5°	82.0	88.5	93.4	97.4	99.8	102.3	103.9	103.1
145°	73.9	80.4	84.4	88.5	90.9	92.5	93.4	94.2
147.5°	65.8	71.4	75.5	79.6	81.2	82.8	83.6	82.8
150°	55.2	61.7	66.6	69.8	71.4	73.1	73.9	73.1
152.5°	46.3	52.8	57.6	60.1	61.7	62.5	63.3	63.3
155°	37.3	42.2	47.1	50.3	52.0	52.8	53.6	54.4
157.5°	29.2	33.3	35.7	40.6	43.0	43.0	43.0	43.0
160°	21.9	24.4	26.8	30.0	32.5	33.3	33.3	33.3
162.5°	14.6	16.2	17.9	20.3	21.9	23.5	23.5	23.5
165°	8.1	8.9	10.6	11.4	11.4	13.8	14.6	13.8
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)