

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: P241319

Luminaire Tested: **FVS8M-2-LD4-40-1HI-P125-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241319
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-3)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-40-1HI-P125-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH P125 LENS
Light Source: (42) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

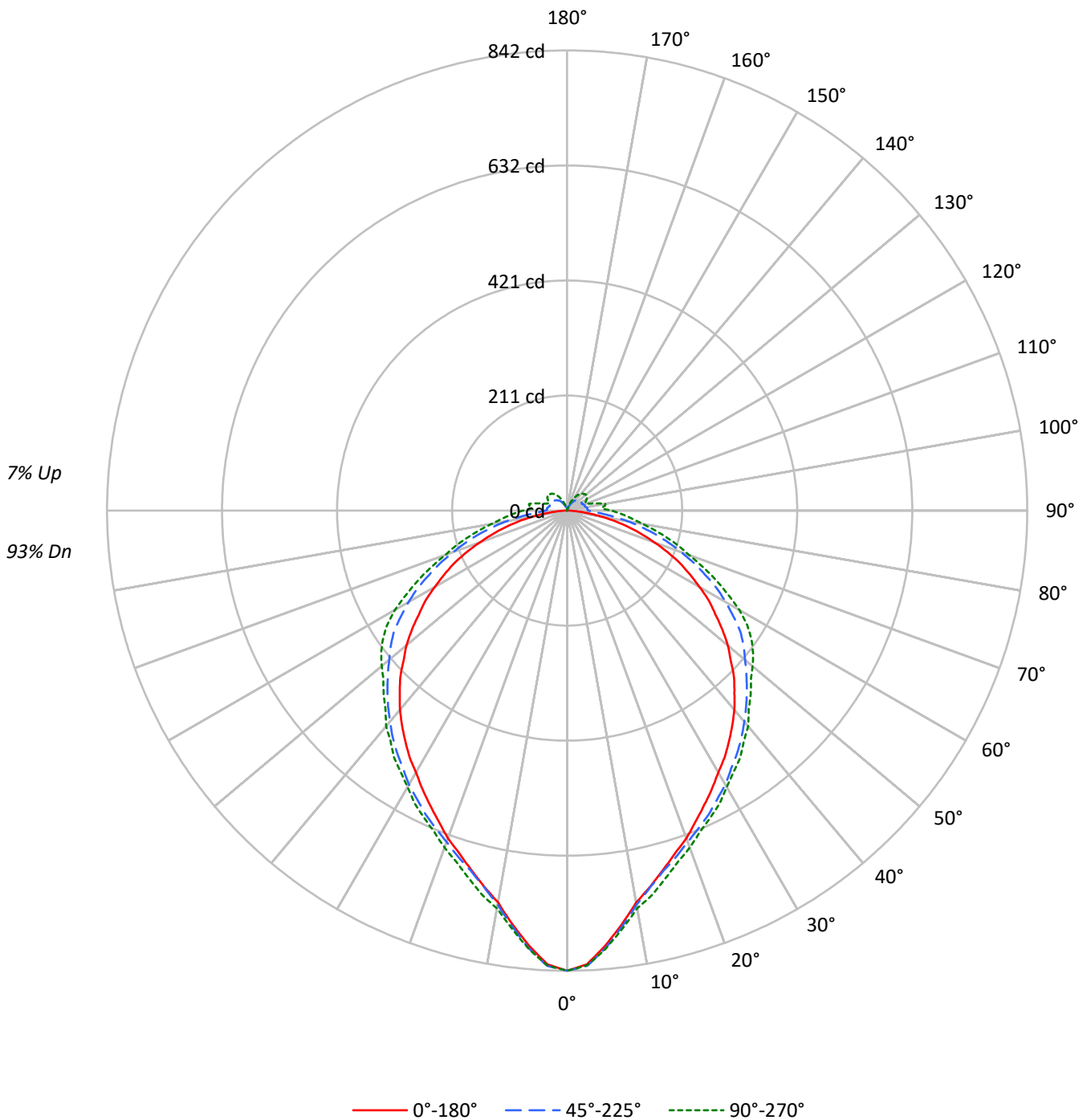
Lumens per Lamp: N/A
Luminaire Lumens: 2243.1 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.04 / 1.24
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 22.3
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	97	93	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	81	75	93	85	79	73	81	75	71	76	72	68	72	69	65	63
3	88	77	68	62	85	75	67	61	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	56	50	60	53	49	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	45	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7568	7568	7568
5°	7159	7120	7122
10°	6554	6437	6487
15°	6197	6000	6107
20°	5933	5722	5799
25°	5683	5525	5563
30°	5490	5345	5362
35°	5367	5168	5230
40°	5240	5009	5080
45°	5091	4864	4926
50°	4910	4730	4881
55°	4663	4639	4882
60°	4430	4387	4704
65°	4150	4060	4299
70°	3674	3666	3844
75°	3114	3216	3524
80°	2255	2610	3178
85°	1141	1907	3082



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	3.3
10°-20°	193.4	8.6
20°-30°	281.7	12.6
30°-40°	337.3	15.0
40°-50°	354.8	15.8
50°-60°	337.6	15.0
60°-70°	268.1	12.0
70°-80°	168.7	7.5
80°-90°	73.4	3.3
90°-100°	37.5	1.7
100°-110°	31.9	1.4
110°-120°	24.7	1.1
120°-130°	23.2	1.0
130°-140°	18.6	0.8
140°-150°	11.9	0.5
150°-160°	5.0	0.2
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	549.6	24.5
0°-40°	886.9	39.5
0°-60°	1579.2	70.4
0°-90°	2089.4	93.1
90°-120°	94.1	4.2
90°-150°	147.8	6.6
90°-180°	154.0	6.9
0°-180°	2243.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	799	804	804	806	805	74
15°	680	680	682	689	696	192
25°	594	602	613	621	620	274
35°	516	530	542	551	552	323
45°	432	441	465	473	475	332
55°	331	351	387	409	412	297
65°	228	247	279	294	300	224
75°	116	136	167	184	187	122
85°	21	38	64	89	107	26
90°	0	16	39	62	80	1
95°	0	15	37	49	64	0
105°	0	15	33	47	50	0
115°	0	14	30	35	37	0
125°	0	13	30	40	44	0
135°	0	10	27	38	43	0
145°	0	7	21	31	35	0
155°	0	3	11	18	20	0
165°	0	0	2	5	6	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°	22.5°	25°	30°	35°	40°	45°
0°	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9
2.5°	830.9	831.9	830.9	831.9	832.9	833.9	832.9	833.9	833.9	834.9	833.9
5°	798.9	799.9	800.9	802.9	803.9	803.9	802.9	803.9	803.9	802.9	803.9
7.5°	763.9	762.9	763.9	764.9	764.9	765.9	765.9	763.9	764.9	764.9	767.9
10°	728.0	729.0	728.0	729.0	728.0	728.0	728.0	729.0	729.0	730.0	732.0
12.5°	704.0	704.0	702.0	702.0	703.0	703.0	703.0	703.0	702.0	704.0	705.0
15°	680.0	683.0	681.0	682.0	680.0	680.0	679.0	679.0	680.0	678.0	682.0
17.5°	657.0	660.0	659.0	660.0	660.0	658.0	658.0	659.0	660.0	660.0	664.0
20°	638.0	638.0	638.0	640.0	641.0	642.0	641.0	641.0	643.0	644.0	645.0
22.5°	615.0	616.0	620.0	620.0	619.0	621.0	620.0	623.0	625.0	626.0	629.0
25°	594.0	598.0	599.0	598.0	601.0	602.0	603.0	608.0	607.0	609.0	613.0
27.5°	574.0	576.0	579.0	581.0	584.0	582.0	584.0	587.0	586.0	594.0	595.0
30°	553.0	558.0	559.0	562.0	562.0	562.0	567.0	568.0	573.0	575.0	579.0
32.5°	536.0	537.0	540.0	543.0	544.0	547.0	549.0	551.0	554.0	556.0	559.0
35°	516.0	520.0	519.0	522.0	525.0	530.0	530.0	532.0	534.0	540.0	542.0
37.5°	496.0	499.0	499.0	504.0	506.0	509.0	506.0	515.0	518.0	521.0	524.0
40°	476.0	478.0	480.0	482.0	484.0	486.0	489.0	494.0	498.0	501.0	504.0
42.5°	453.0	456.0	458.0	460.0	464.0	466.0	469.0	472.0	478.0	481.0	485.0
45°	432.0	434.0	436.0	438.0	442.0	441.0	446.0	452.0	458.0	461.0	465.0
47.5°	406.0	410.0	414.0	415.0	418.0	422.0	424.0	431.0	437.0	439.0	445.0
50°	384.0	384.0	389.0	392.0	395.0	400.0	402.0	408.0	415.0	421.0	425.0
52.5°	358.0	361.0	364.0	368.0	373.0	376.0	379.0	386.0	395.0	403.0	407.0
55°	331.0	334.0	339.0	343.0	348.0	351.0	356.0	364.0	372.0	379.0	387.0
57.5°	308.0	308.0	311.0	316.0	322.0	326.0	330.0	339.0	349.0	352.0	361.0
60°	280.0	283.0	286.0	291.0	297.0	301.0	304.0	313.0	321.0	329.0	335.0
62.5°	253.0	256.0	259.0	264.0	271.0	275.0	278.0	286.0	295.0	301.0	309.0
65°	228.0	227.0	231.0	237.0	244.0	247.0	250.0	259.0	266.0	272.0	279.0
67.5°	199.0	202.0	205.0	210.0	216.0	220.0	223.0	231.0	237.0	244.0	251.0
70°	170.0	173.0	176.0	183.0	189.0	191.0	194.0	202.0	207.0	217.0	222.0
72.5°	142.0	145.0	149.0	154.0	161.0	163.0	167.0	173.0	181.0	188.0	194.0
75°	116.0	119.0	121.0	126.0	132.0	136.0	139.0	146.0	153.0	160.0	167.0
77.5°	90.0	92.0	95.0	100.0	105.0	109.0	111.0	118.0	125.0	132.0	139.0
80°	63.0	66.0	69.0	74.0	79.0	83.0	86.0	93.0	99.0	106.0	112.0
82.5°	40.0	42.0	46.0	51.0	56.0	58.0	62.0	67.0	74.0	80.0	86.0
85°	21.0	23.0	26.0	30.0	36.0	38.0	41.0	46.0	52.0	58.0	64.0
87.5°	8.0	9.0	12.0	16.0	20.0	23.0	26.0	31.0	36.0	42.0	48.0
90°	0.0	2.0	5.0	9.0	13.0	16.0	18.0	23.0	28.0	33.0	39.0
92.5°	0.0	1.0	4.0	8.0	13.0	15.0	17.0	22.0	27.0	32.0	37.0
95°	0.0	1.0	4.0	8.0	13.0	15.0	17.0	22.0	27.0	32.0	37.0
97.5°	0.0	1.0	4.0	8.0	13.0	15.0	17.0	22.0	27.0	32.0	37.0
100°	0.0	1.0	4.0	8.0	13.0	15.0	17.0	22.0	27.0	32.0	35.0
102.5°	0.0	1.0	4.0	8.0	12.0	15.0	17.0	22.0	27.0	31.0	34.0
105°	0.0	1.0	4.0	8.0	12.0	15.0	17.0	22.0	26.0	30.0	33.0
107.5°	0.0	1.0	4.0	8.0	12.0	14.0	17.0	21.0	25.0	29.0	33.0
110°	0.0	1.0	3.0	7.0	12.0	14.0	16.0	21.0	25.0	29.0	32.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	1.0	3.0	7.0	12.0	14.0	16.0	21.0	24.0	28.0	31.0
115°	0.0	1.0	3.0	7.0	11.0	14.0	16.0	20.0	24.0	27.0	30.0
117.5°	0.0	1.0	3.0	7.0	11.0	14.0	16.0	20.0	24.0	27.0	30.0
120°	0.0	0.0	3.0	7.0	11.0	13.0	16.0	20.0	24.0	27.0	30.0
122.5°	0.0	0.0	3.0	7.0	11.0	13.0	16.0	20.0	24.0	27.0	30.0
125°	0.0	0.0	3.0	6.0	11.0	13.0	15.0	20.0	23.0	27.0	30.0
127.5°	0.0	0.0	2.0	6.0	10.0	12.0	15.0	19.0	23.0	27.0	30.0
130°	0.0	0.0	2.0	6.0	9.0	12.0	14.0	19.0	22.0	26.0	29.0
132.5°	0.0	0.0	2.0	5.0	9.0	11.0	13.0	18.0	22.0	25.0	28.0
135°	0.0	0.0	2.0	5.0	8.0	10.0	12.0	16.0	20.0	24.0	27.0
137.5°	0.0	0.0	1.0	4.0	8.0	9.0	11.0	15.0	19.0	22.0	25.0
140°	0.0	0.0	1.0	4.0	7.0	9.0	11.0	14.0	18.0	21.0	24.0
142.5°	0.0	0.0	1.0	3.0	6.0	8.0	10.0	13.0	16.0	20.0	23.0
145°	0.0	0.0	1.0	3.0	5.0	7.0	9.0	12.0	15.0	18.0	21.0
147.5°	0.0	0.0	1.0	2.0	4.0	6.0	7.0	11.0	13.0	16.0	19.0
150°	0.0	0.0	0.0	2.0	4.0	5.0	6.0	9.0	12.0	14.0	17.0
152.5°	0.0	0.0	0.0	1.0	3.0	4.0	5.0	7.0	9.0	12.0	14.0
155°	0.0	0.0	0.0	1.0	2.0	3.0	4.0	5.0	7.0	9.0	11.0
157.5°	0.0	0.0	0.0	0.0	1.0	2.0	2.0	4.0	5.0	7.0	9.0
160°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	2.0	4.0	5.0	6.0
162.5°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	3.0	4.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9	841.9
2.5°	833.9	833.9	833.9	832.9	832.9	832.9	832.9	832.9	833.9	832.9
5°	804.9	804.9	803.9	804.9	805.9	804.9	805.9	804.9	804.9	804.9
7.5°	768.9	768.9	768.9	768.9	769.9	769.9	769.9	770.9	771.9	771.9
10°	733.0	734.0	734.0	734.0	734.0	736.0	737.0	737.0	738.0	739.0
12.5°	706.0	706.0	709.0	713.0	714.0	716.0	718.0	717.0	717.0	720.0
15°	684.0	687.0	688.0	688.0	689.0	690.0	693.0	694.0	693.0	696.0
17.5°	665.0	665.0	670.0	671.0	671.0	672.0	672.0	673.0	673.0	674.0
20°	648.0	649.0	651.0	652.0	654.0	655.0	657.0	656.0	658.0	656.0
22.5°	630.0	631.0	637.0	638.0	638.0	637.0	635.0	637.0	637.0	636.0
25°	614.0	617.0	619.0	622.0	621.0	622.0	623.0	621.0	620.0	620.0
27.5°	597.0	599.0	603.0	604.0	604.0	602.0	602.0	602.0	601.0	604.0
30°	582.0	586.0	587.0	584.0	585.0	588.0	589.0	588.0	586.0	584.0
32.5°	562.0	564.0	567.0	574.0	573.0	572.0	567.0	566.0	566.0	567.0
35°	544.0	548.0	553.0	550.0	551.0	551.0	553.0	552.0	548.0	552.0
37.5°	526.0	532.0	532.0	537.0	535.0	533.0	530.0	532.0	531.0	531.0
40°	507.0	510.0	515.0	514.0	513.0	515.0	515.0	515.0	515.0	515.0
42.5°	488.0	492.0	492.0	493.0	497.0	498.0	497.0	490.0	493.0	492.0
45°	467.0	471.0	473.0	475.0	473.0	472.0	474.0	475.0	473.0	475.0
47.5°	449.0	449.0	455.0	454.0	454.0	456.0	454.0	454.0	453.0	456.0
50°	429.0	435.0	436.0	439.0	439.0	438.0	438.0	439.0	443.0	443.0
52.5°	413.0	419.0	423.0	424.0	424.0	427.0	430.0	429.0	431.0	429.0
55°	393.0	397.0	402.0	405.0	409.0	409.0	409.0	411.0	411.0	412.0
57.5°	368.0	372.0	375.0	382.0	384.0	383.0	384.0	388.0	387.0	391.0
60°	341.0	346.0	350.0	351.0	353.0	355.0	356.0	358.0	360.0	364.0
62.5°	313.0	317.0	322.0	321.0	323.0	325.0	327.0	328.0	332.0	331.0
65°	285.0	288.0	291.0	292.0	294.0	292.0	296.0	298.0	298.0	300.0
67.5°	257.0	259.0	263.0	264.0	265.0	265.0	264.0	267.0	268.0	268.0
70°	227.0	232.0	235.0	237.0	236.0	237.0	236.0	236.0	238.0	237.0
72.5°	200.0	204.0	207.0	210.0	210.0	210.0	210.0	211.0	212.0	213.0
75°	172.0	177.0	182.0	183.0	184.0	184.0	186.0	187.0	187.0	187.0
77.5°	144.0	150.0	154.0	157.0	158.0	160.0	161.0	163.0	163.0	163.0
80°	117.0	123.0	127.0	132.0	134.0	135.0	137.0	140.0	140.0	140.0
82.5°	92.0	98.0	104.0	107.0	110.0	113.0	116.0	118.0	120.0	122.0
85°	69.0	76.0	82.0	87.0	89.0	91.0	95.0	100.0	105.0	107.0
87.5°	54.0	59.0	65.0	70.0	73.0	76.0	81.0	85.0	91.0	94.0
90°	44.0	49.0	55.0	61.0	62.0	64.0	67.0	72.0	76.0	80.0
92.5°	42.0	47.0	51.0	52.0	53.0	54.0	56.0	59.0	63.0	67.0
95°	43.0	45.0	46.0	48.0	49.0	51.0	53.0	57.0	62.0	64.0
97.5°	40.0	42.0	45.0	48.0	49.0	51.0	55.0	61.0	67.0	70.0
100°	38.0	42.0	45.0	48.0	50.0	52.0	58.0	65.0	70.0	71.0
102.5°	38.0	41.0	44.0	48.0	50.0	52.0	57.0	60.0	60.0	60.0
105°	37.0	40.0	43.0	46.0	47.0	48.0	50.0	50.0	50.0	50.0
107.5°	36.0	38.0	41.0	42.0	42.0	43.0	43.0	43.0	43.0	42.0
110°	34.0	36.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0



TEST NUMBER: P241319

CATALOG NUMBER: FVS8M-2-LD4-40-1HI-P125-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	33.0	35.0	35.0	36.0	36.0	36.0	36.0	37.0	36.0	36.0
115°	32.0	34.0	34.0	35.0	35.0	35.0	36.0	37.0	37.0	37.0
117.5°	32.0	34.0	35.0	36.0	36.0	37.0	38.0	39.0	39.0	39.0
120°	32.0	34.0	36.0	37.0	38.0	38.0	40.0	41.0	41.0	41.0
122.5°	33.0	35.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	43.0
125°	33.0	35.0	38.0	39.0	40.0	40.0	41.0	43.0	43.0	44.0
127.5°	32.0	35.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0	44.0
130°	32.0	35.0	37.0	39.0	40.0	41.0	42.0	43.0	44.0	45.0
132.5°	31.0	33.0	36.0	38.0	39.0	40.0	41.0	43.0	44.0	44.0
135°	30.0	32.0	35.0	37.0	38.0	39.0	41.0	42.0	43.0	43.0
137.5°	28.0	31.0	33.0	35.0	36.0	37.0	39.0	41.0	41.0	42.0
140°	27.0	29.0	32.0	34.0	35.0	36.0	37.0	39.0	40.0	40.0
142.5°	25.0	28.0	30.0	32.0	33.0	34.0	35.0	37.0	38.0	38.0
145°	23.0	26.0	28.0	30.0	31.0	32.0	33.0	34.0	35.0	35.0
147.5°	21.0	24.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	32.0
150°	19.0	21.0	23.0	24.0	25.0	26.0	27.0	27.0	28.0	28.0
152.5°	16.0	18.0	20.0	21.0	22.0	22.0	23.0	24.0	24.0	24.0
155°	13.0	15.0	16.0	17.0	18.0	19.0	19.0	20.0	20.0	20.0
157.5°	10.0	12.0	13.0	14.0	15.0	15.0	16.0	16.0	16.0	16.0
160°	7.0	9.0	10.0	11.0	11.0	11.0	12.0	12.0	12.0	12.0
162.5°	5.0	6.0	7.0	8.0	8.0	8.0	8.0	9.0	9.0	9.0
165°	3.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0
167.5°	1.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0
170°	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
172.5°	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
177.5°	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

(END OF REPORT)