

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: P241567

Luminaire Tested: **FVS8M-3-LD4-40-1STD-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241567
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-40-1STD-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

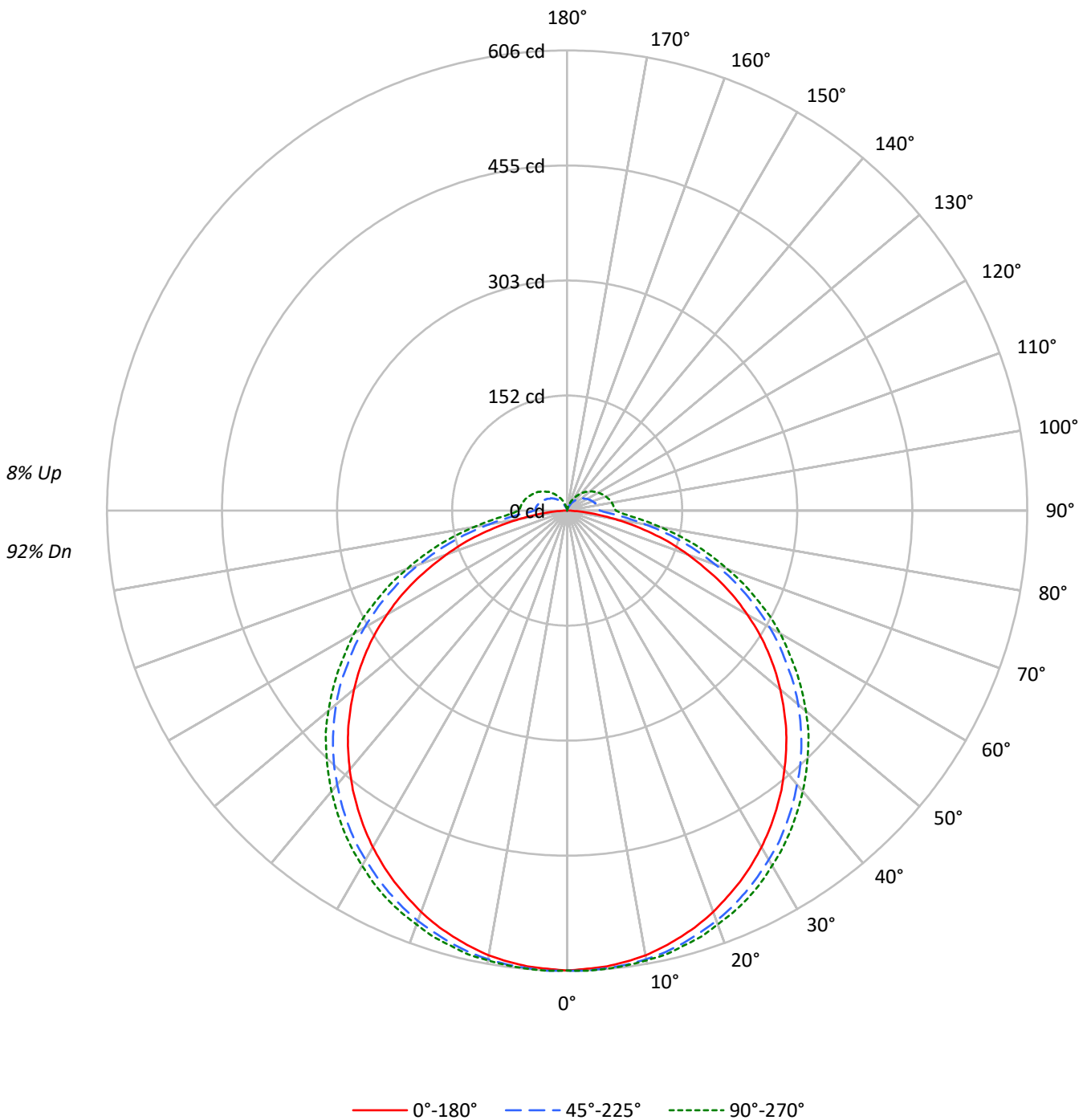
Lumens per Lamp: N/A
Luminaire Lumens: 2075.0 lumens
Efficiency: N/A
Efficacy: 72.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.43
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 28.5
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	95	95	95	92
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	71	68	65	62
3	87	76	68	61	84	74	66	60	70	63	58	66	61	56	63	58	54	52
4	80	67	58	51	77	65	57	51	62	55	49	59	53	48	56	50	46	44
5	73	60	51	44	70	58	50	43	55	48	42	53	46	41	50	44	40	38
6	67	54	45	38	65	52	44	38	50	42	37	47	41	36	45	39	35	33
7	62	49	40	33	60	47	39	33	45	38	32	43	37	32	41	35	31	29
8	58	44	36	30	56	43	35	29	41	34	29	39	33	28	38	32	28	26
9	54	41	32	27	52	40	32	26	38	31	26	36	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3537	3537	3537
5°	3515	3485	3482
10°	3496	3438	3430
15°	3464	3388	3382
20°	3432	3335	3330
25°	3393	3277	3284
30°	3352	3216	3221
35°	3305	3157	3161
40°	3255	3084	3093
45°	3205	3012	3022
50°	3138	2925	2938
55°	3059	2809	2834
60°	2942	2688	2720
65°	2773	2522	2560
70°	2526	2306	2363
75°	2189	2026	2137
80°	1645	1668	1837
85°	880	1324	1555



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	2.8
10°-20°	166.2	8.0
20°-30°	255.0	12.3
30°-40°	313.2	15.1
40°-50°	333.8	16.1
50°-60°	312.9	15.1
60°-70°	251.6	12.1
70°-80°	159.7	7.7
80°-90°	68.8	3.3
90°-100°	40.3	1.9
100°-110°	35.8	1.7
110°-120°	29.5	1.4
120°-130°	22.4	1.1
130°-140°	15.1	0.7
140°-150°	8.7	0.4
150°-160°	3.7	0.2
160°-170°	0.9	0.0
170°-180°	0.0	0.0
0°-30°	478.7	23.1
0°-40°	791.9	38.2
0°-60°	1438.6	69.3
0°-90°	1918.7	92.5
90°-120°	105.5	5.1
90°-150°	151.7	7.3
90°-180°	156.0	7.5
0°-180°	2075.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	602	602	605	606	606	57
15°	581	583	590	592	593	164
25°	539	545	555	562	563	248
35°	480	491	504	512	514	301
45°	408	421	436	445	449	314
55°	322	336	353	366	368	288
65°	223	238	259	272	275	220
75°	116	135	155	169	174	122
85°	21	41	64	79	83	26
90°	1	21	43	59	64	1
95°	0	19	42	56	62	0
105°	0	17	38	52	57	0
115°	0	14	33	46	51	0
125°	0	11	27	39	43	0
135°	0	8	22	31	35	0
145°	1	5	15	22	25	1
155°	1	2	8	13	15	0
165°	1	1	2	4	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°	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7
2.5°	604.0	604.0	603.2	604.0	604.0	604.8	604.8	605.7	606.5	607.3	606.5
5°	602.4	601.5	601.5	602.4	602.4	602.4	603.2	604.0	604.8	604.8	604.8
7.5°	599.0	598.2	598.2	599.0	599.0	599.9	599.9	601.5	602.4	602.4	603.2
10°	594.9	594.0	594.0	594.0	594.9	595.7	595.7	597.4	599.0	599.9	599.9
12.5°	588.2	588.2	587.4	589.1	589.1	589.9	591.6	593.2	594.0	594.9	595.7
15°	580.8	580.8	580.8	581.6	582.4	583.2	584.9	586.6	588.2	589.1	589.9
17.5°	572.4	572.4	572.4	573.3	574.9	575.8	577.4	579.1	580.8	581.6	582.4
20°	562.5	561.6	562.5	564.1	565.8	566.6	567.5	570.8	572.4	574.1	574.9
22.5°	550.8	550.8	551.7	553.3	555.8	556.7	557.5	560.0	562.5	564.1	565.8
25°	539.2	539.2	540.0	541.7	544.2	545.0	546.7	550.0	551.7	553.3	555.0
27.5°	525.9	525.9	526.7	529.2	532.6	533.4	534.2	537.5	540.0	541.7	543.4
30°	511.8	511.8	513.5	515.9	518.4	520.1	521.8	525.1	527.6	529.2	530.9
32.5°	496.8	496.8	498.5	501.0	504.3	506.0	507.6	511.0	513.5	515.9	518.4
35°	480.2	481.1	483.5	485.2	488.5	491.0	492.7	496.0	498.5	501.0	503.5
37.5°	463.6	463.6	465.3	468.6	472.7	473.6	476.9	480.2	482.7	486.0	487.7
40°	445.3	446.2	447.8	452.0	456.1	457.0	459.4	463.6	466.1	469.4	471.1
42.5°	427.0	427.9	430.4	434.5	437.0	439.5	442.0	445.3	447.8	452.0	454.5
45°	407.9	407.1	411.3	415.4	417.9	421.2	422.9	427.0	431.2	433.7	436.2
47.5°	387.2	388.8	392.2	394.6	398.8	401.3	403.0	407.1	410.4	413.8	417.1
50°	366.4	367.2	371.4	374.7	378.0	379.7	383.0	387.2	390.5	393.0	397.1
52.5°	344.8	346.5	348.9	351.4	356.4	358.9	361.4	364.7	369.7	373.0	376.4
55°	322.4	323.2	325.7	329.8	334.8	336.5	338.1	343.1	347.3	349.8	353.1
57.5°	299.1	299.9	303.3	306.6	309.9	314.1	315.7	319.0	324.0	328.2	331.5
60°	274.2	275.0	278.3	281.7	285.8	289.1	291.6	296.6	299.9	304.1	308.2
62.5°	249.2	249.2	253.4	255.9	261.7	265.0	265.9	270.9	275.8	279.2	284.1
65°	222.7	224.3	226.8	231.8	236.8	238.4	240.9	245.9	250.1	255.1	259.2
67.5°	195.2	196.9	201.1	204.4	210.2	213.5	215.2	219.3	226.0	230.1	234.3
70°	168.7	172.8	174.5	178.6	183.6	186.9	189.4	194.4	198.6	203.6	207.7
72.5°	143.7	144.6	147.1	152.9	157.9	160.4	163.7	167.0	172.8	177.8	181.1
75°	115.5	117.1	120.5	126.3	131.3	134.6	136.3	142.1	146.2	150.4	155.4
77.5°	88.1	90.6	95.5	99.7	105.5	108.0	111.3	116.3	121.3	125.5	129.6
80°	63.1	65.6	69.8	74.8	80.6	83.1	86.4	92.2	96.4	101.4	104.7
82.5°	40.7	42.4	47.4	52.3	57.3	60.7	63.1	69.0	73.9	78.1	82.3
85°	20.8	23.3	27.4	32.4	37.4	40.7	43.2	49.0	54.8	59.8	64.0
87.5°	7.5	9.1	13.3	19.1	24.1	26.6	29.9	34.9	40.7	45.7	49.8
90°	0.8	2.5	6.6	11.6	17.4	20.8	23.3	29.1	34.1	39.0	43.2
92.5°	0.0	1.7	5.8	10.8	16.6	19.1	22.4	27.4	32.4	37.4	41.5
95°	0.0	1.7	5.8	10.8	15.8	19.1	21.6	26.6	32.4	36.6	41.5
97.5°	0.0	1.7	5.0	10.0	15.8	18.3	20.8	26.6	31.6	36.6	40.7
100°	0.0	1.7	5.0	10.0	15.0	17.4	20.8	25.8	30.7	35.7	39.9
102.5°	0.0	1.7	5.0	9.1	15.0	17.4	19.9	24.9	29.9	34.9	39.0
105°	0.0	1.7	5.0	9.1	14.1	16.6	19.1	24.1	29.1	33.2	38.2
107.5°	0.0	0.8	4.2	8.3	13.3	15.8	18.3	23.3	28.2	32.4	36.6
110°	0.0	0.8	4.2	8.3	13.3	15.8	17.4	22.4	27.4	31.6	35.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.8	4.2	7.5	12.5	15.0	17.4	21.6	26.6	30.7	34.1
115°	0.0	0.8	3.3	7.5	11.6	14.1	16.6	20.8	24.9	29.1	33.2
117.5°	0.0	0.8	3.3	6.6	10.8	13.3	15.8	19.9	24.1	28.2	31.6
120°	0.0	0.8	3.3	6.6	10.8	12.5	15.0	19.1	23.3	26.6	30.7
122.5°	0.0	0.8	2.5	5.8	10.0	11.6	14.1	18.3	21.6	25.8	29.1
125°	0.0	0.8	2.5	5.8	9.1	10.8	13.3	16.6	20.8	24.1	27.4
127.5°	0.0	0.8	2.5	5.0	8.3	10.8	12.5	15.8	19.9	23.3	26.6
130°	0.0	0.0	1.7	5.0	8.3	10.0	11.6	15.0	18.3	21.6	24.9
132.5°	0.0	0.0	1.7	4.2	7.5	9.1	10.8	14.1	17.4	19.9	23.3
135°	0.0	0.8	1.7	3.3	6.6	8.3	10.0	12.5	15.8	19.1	21.6
137.5°	0.0	0.8	0.8	3.3	5.8	7.5	9.1	11.6	15.0	17.4	19.9
140°	0.8	0.8	0.8	2.5	5.0	6.6	7.5	10.8	13.3	15.8	18.3
142.5°	0.8	0.8	0.8	2.5	4.2	5.8	6.6	9.1	11.6	14.1	16.6
145°	0.8	0.8	0.8	1.7	3.3	5.0	5.8	8.3	10.8	12.5	15.0
147.5°	0.8	0.8	0.8	1.7	3.3	4.2	5.0	6.6	9.1	10.8	13.3
150°	0.8	0.8	0.8	0.8	2.5	3.3	4.2	5.8	7.5	9.1	11.6
152.5°	0.8	0.8	0.8	0.8	1.7	2.5	3.3	5.0	6.6	8.3	9.1
155°	0.8	0.8	0.8	0.8	1.7	1.7	2.5	4.2	5.0	6.6	7.5
157.5°	0.8	0.8	0.8	0.8	0.8	1.7	1.7	3.3	4.2	5.0	5.8
160°	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	3.3	4.2	5.0
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	2.5	3.3
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7	2.5
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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°	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7	605.7
2.5°	606.5	606.5	607.3	607.3	606.5	607.3	607.3	606.5	606.5	606.5
5°	604.8	604.8	605.7	605.7	605.7	605.7	605.7	605.7	604.8	605.7
7.5°	603.2	603.2	603.2	604.0	604.0	604.0	604.0	604.0	604.0	604.0
10°	599.9	600.7	600.7	601.5	601.5	601.5	602.4	601.5	601.5	601.5
12.5°	595.7	596.5	597.4	598.2	597.4	598.2	598.2	598.2	598.2	599.0
15°	590.7	591.6	591.6	592.4	592.4	593.2	593.2	593.2	593.2	593.2
17.5°	584.1	584.9	585.7	586.6	587.4	586.6	587.4	587.4	588.2	588.2
20°	575.8	577.4	578.3	579.1	579.9	579.1	579.9	579.9	580.8	579.9
22.5°	566.6	568.3	569.1	570.8	570.8	571.6	571.6	572.4	571.6	572.4
25°	556.7	558.3	559.1	560.8	561.6	561.6	562.5	562.5	562.5	563.3
27.5°	545.0	546.7	547.5	549.2	549.2	550.0	550.8	550.8	551.7	552.5
30°	533.4	534.2	536.7	537.5	538.4	538.4	539.2	540.0	540.0	540.0
32.5°	520.1	520.9	523.4	524.3	525.1	525.9	526.7	526.7	526.7	527.6
35°	505.1	507.6	508.5	511.0	511.8	512.6	512.6	513.5	512.6	513.5
37.5°	490.2	492.7	493.5	495.2	496.0	496.8	497.7	497.7	498.5	498.5
40°	473.6	476.1	477.7	479.4	480.2	481.1	481.1	481.9	483.5	482.7
42.5°	457.0	457.8	461.1	462.8	462.8	464.4	465.3	465.3	466.1	466.1
45°	438.7	441.2	442.8	444.5	445.3	446.2	447.0	447.8	447.8	448.6
47.5°	419.6	422.9	424.6	427.0	427.0	427.9	429.5	429.5	429.5	431.2
50°	399.6	402.1	405.4	406.3	407.1	407.9	408.8	409.6	410.4	410.4
52.5°	378.9	382.2	383.8	386.3	387.2	387.2	388.8	389.7	389.7	389.7
55°	357.3	360.6	362.2	363.9	365.6	366.4	366.4	368.1	368.9	368.1
57.5°	334.0	336.5	339.0	342.3	343.1	344.0	344.0	344.8	347.3	345.6
60°	309.9	313.2	315.7	319.0	319.9	319.9	320.7	322.4	323.2	324.0
62.5°	286.6	290.8	292.5	294.9	294.9	297.4	298.3	299.1	299.9	300.8
65°	261.7	265.0	267.5	270.0	271.7	271.7	274.2	275.8	275.8	275.0
67.5°	236.8	240.1	243.4	245.1	246.8	246.8	248.4	250.1	250.1	250.9
70°	211.9	214.4	217.7	220.2	221.8	221.8	223.5	225.2	225.2	224.3
72.5°	185.3	187.8	191.9	193.6	195.2	196.1	197.7	198.6	199.4	199.4
75°	159.5	162.8	165.3	167.8	168.7	170.3	172.0	172.8	173.6	174.5
77.5°	132.9	137.9	140.4	143.7	143.7	145.4	148.7	147.9	148.7	148.7
80°	108.8	113.0	115.5	118.8	119.6	120.5	122.1	123.8	124.6	124.6
82.5°	87.2	90.6	93.9	95.5	98.0	98.0	99.7	101.4	102.2	103.0
85°	68.1	71.5	74.8	78.1	78.9	79.8	82.3	83.1	83.1	83.1
87.5°	54.8	58.2	61.5	64.0	65.6	66.5	68.1	69.0	70.6	70.6
90°	47.4	51.5	54.8	57.3	59.0	59.8	61.5	63.1	63.1	64.0
92.5°	46.5	49.8	53.2	55.7	56.5	58.2	59.8	60.7	61.5	62.3
95°	45.7	49.0	52.3	54.8	56.5	57.3	59.0	60.7	60.7	61.5
97.5°	44.9	48.2	51.5	54.0	55.7	56.5	58.2	59.8	60.7	60.7
100°	44.0	47.4	50.7	53.2	54.8	55.7	57.3	58.2	59.0	59.8
102.5°	43.2	46.5	49.8	52.3	53.2	54.0	56.5	57.3	58.2	58.2
105°	41.5	44.9	48.2	50.7	52.3	53.2	54.8	56.5	56.5	57.3
107.5°	40.7	44.0	47.4	49.8	50.7	51.5	53.2	54.8	55.7	55.7
110°	39.0	42.4	45.7	48.2	49.8	50.7	52.3	53.2	54.0	54.0



TEST NUMBER: P241567

CATALOG NUMBER: FVS8M-3-LD4-40-1STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	38.2	41.5	44.0	46.5	48.2	49.0	50.7	51.5	52.3	52.3
115°	36.6	39.9	42.4	44.9	46.5	47.4	49.0	49.8	50.7	50.7
117.5°	34.9	38.2	41.5	43.2	44.9	45.7	47.4	48.2	49.0	49.0
120°	34.1	36.6	39.9	41.5	43.2	44.0	44.9	46.5	47.4	47.4
122.5°	32.4	35.7	38.2	39.9	40.7	41.5	43.2	44.0	44.9	45.7
125°	30.7	34.1	35.7	38.2	39.0	39.9	41.5	42.4	43.2	43.2
127.5°	29.1	31.6	34.1	36.6	37.4	38.2	39.9	40.7	40.7	41.5
130°	27.4	29.9	32.4	34.1	34.9	35.7	37.4	38.2	39.0	39.0
132.5°	25.8	28.2	30.7	32.4	33.2	34.1	34.9	35.7	36.6	36.6
135°	24.1	26.6	28.2	29.9	30.7	31.6	33.2	34.1	34.1	34.9
137.5°	22.4	24.9	26.6	28.2	29.1	29.9	30.7	31.6	32.4	32.4
140°	20.8	22.4	24.9	25.8	26.6	27.4	28.2	29.1	29.9	29.9
142.5°	19.1	20.8	22.4	24.1	24.9	24.9	25.8	26.6	27.4	27.4
145°	17.4	19.1	20.8	21.6	22.4	23.3	24.1	24.9	24.9	24.9
147.5°	15.0	16.6	18.3	19.9	19.9	20.8	21.6	22.4	22.4	22.4
150°	13.3	15.0	16.6	17.4	18.3	18.3	19.1	19.9	19.9	19.9
152.5°	10.8	12.5	14.1	15.0	15.8	15.8	16.6	17.4	17.4	17.4
155°	9.1	10.8	11.6	13.3	13.3	14.1	14.1	15.0	15.0	15.0
157.5°	7.5	8.3	10.0	10.8	11.6	11.6	11.6	12.5	12.5	12.5
160°	5.8	6.6	7.5	8.3	9.1	9.1	10.0	10.0	10.0	10.0
162.5°	4.2	5.0	5.8	5.8	6.6	6.6	7.5	7.5	7.5	7.5
165°	2.5	3.3	3.3	4.2	4.2	5.0	5.0	5.0	5.8	5.8
167.5°	1.7	1.7	2.5	2.5	2.5	2.5	3.3	3.3	3.3	3.3
170°	0.8	0.8	0.8	0.8	0.8	1.7	1.7	1.7	1.7	1.7
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)