

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: P241554

Luminaire Tested: **FVS8M-2-LD4-35-3STD-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241554
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-14)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-35-3STD-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (126) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

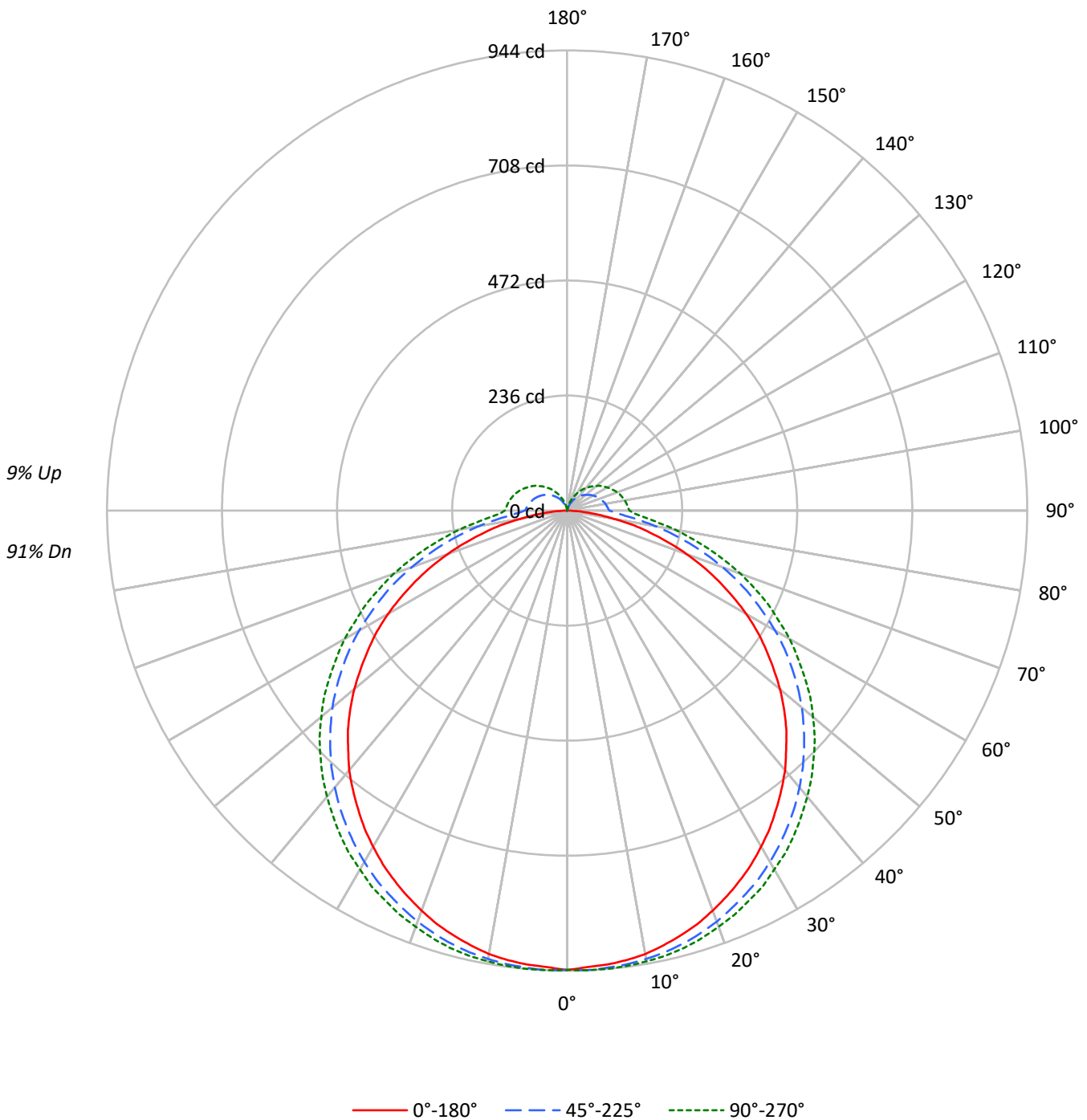
Lumens per Lamp: N/A
Luminaire Lumens: 3375.0 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 50.6
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: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-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	117	117	117	117	113	113	113	113	106	106	106		99	99	99		93	93	93	91
1	105	100	96	91	102	97	93	89	91	88	84		85	83	80		80	78	76	73
2	95	87	79	73	92	84	77	72	79	73	69		74	70	66		70	66	63	60
3	87	76	67	60	83	73	65	59	69	62	57		65	59	55		61	57	53	50
4	79	67	58	51	76	65	56	50	61	54	48		57	51	46		54	49	45	42
5	72	59	50	43	70	58	49	43	54	47	41		51	45	40		49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36		46	40	35		44	38	34	31
7	62	48	39	33	59	47	38	32	44	37	32		42	36	31		40	34	30	28
8	57	44	35	29	55	43	34	29	41	33	28		39	32	27		37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25		35	29	25		34	28	24	22
10	50	37	29	24	48	36	28	23	34	27	23		33	27	22		31	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8469	8469	8469
5°	8379	8337	8352
10°	8317	8215	8242
15°	8221	8092	8148
20°	8119	7959	8030
25°	8014	7819	7922
30°	7902	7682	7803
35°	7776	7529	7694
40°	7655	7368	7558
45°	7494	7190	7420
50°	7288	6997	7255
55°	7023	6746	7040
60°	6717	6453	6816
65°	6248	6072	6520
70°	5647	5603	6142
75°	4750	5001	5622
80°	3540	4272	5091
85°	1879	3546	4585



TEST NUMBER: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	2.7
10°-20°	259.1	7.7
20°-30°	398.6	11.8
30°-40°	491.6	14.6
40°-50°	526.3	15.6
50°-60°	497.1	14.7
60°-70°	405.3	12.0
70°-80°	265.6	7.9
80°-90°	126.1	3.7
90°-100°	81.0	2.4
100°-110°	71.9	2.1
110°-120°	59.4	1.8
120°-130°	45.3	1.3
130°-140°	30.9	0.9
140°-150°	17.9	0.5
150°-160°	7.8	0.2
160°-170°	1.8	0.1
170°-180°	0.0	0.0
0°-30°	747.2	22.1
0°-40°	1238.8	36.7
0°-60°	2262.2	67.0
0°-90°	3059.2	90.6
90°-120°	212.3	6.3
90°-150°	306.3	9.1
90°-180°	316.0	9.4
0°-180°	3375.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	935	937	941	944	944	89
15°	902	908	920	926	929	255
25°	838	850	868	880	883	386
35°	748	766	790	806	812	468
45°	636	658	687	708	716	490
55°	498	527	563	587	594	446
65°	343	376	417	445	455	339
75°	177	216	260	289	298	189
85°	35	73	119	150	159	42
90°	0	41	87	118	128	2
95°	0	38	83	113	124	0
105°	0	33	76	105	115	0
115°	0	28	67	93	102	0
125°	0	22	56	80	88	0
135°	1	17	44	64	70	0
145°	1	10	31	46	52	0
155°	1	4	18	28	31	0
165°	1	1	5	10	12	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2
2.5°	937.4	937.4	938.2	939.0	939.0	939.8	939.8	940.6	942.2	943.1	943.9
5°	935.0	935.0	935.8	936.6	937.4	937.4	938.2	939.0	939.8	940.6	941.4
7.5°	930.2	930.2	931.0	931.8	932.6	933.4	933.4	934.2	935.8	937.4	939.0
10°	923.8	923.0	923.8	924.6	925.4	926.2	927.8	929.4	931.0	933.4	934.2
12.5°	913.3	914.1	914.1	915.7	917.3	918.9	918.9	921.3	923.8	926.2	927.8
15°	902.0	902.0	902.9	905.3	906.9	908.5	909.3	912.5	914.9	917.3	919.7
17.5°	889.2	889.2	890.8	892.4	894.8	896.4	898.0	900.4	903.7	906.9	909.3
20°	873.1	873.9	875.5	877.9	881.1	882.8	883.6	887.6	891.6	894.0	897.2
22.5°	856.2	856.2	858.6	861.9	865.1	866.7	868.3	872.3	876.3	879.5	882.8
25°	837.7	838.5	840.9	844.2	847.4	849.8	851.4	857.0	860.2	863.5	867.5
27.5°	818.4	818.4	821.7	824.9	828.9	830.5	833.7	837.7	842.6	846.6	851.4
30°	795.9	796.7	800.8	804.8	808.0	812.0	813.6	818.4	823.3	827.3	832.1
32.5°	773.4	773.4	776.6	782.3	785.5	788.7	791.1	796.7	802.4	807.2	812.0
35°	747.7	750.1	753.3	758.1	763.0	766.2	768.6	774.2	780.7	784.7	789.5
37.5°	722.0	723.6	727.6	732.4	737.2	740.5	743.7	750.1	755.7	761.4	767.0
40°	695.4	695.4	699.5	705.9	711.5	713.9	717.1	723.6	729.2	735.6	741.3
42.5°	664.9	666.5	671.3	676.9	683.4	686.6	689.8	696.2	702.7	709.1	715.5
45°	635.9	636.7	641.6	647.2	653.6	657.6	661.7	667.3	675.3	681.0	687.4
47.5°	603.8	605.4	610.2	616.6	623.1	627.9	630.3	637.5	644.8	652.0	658.4
50°	570.0	571.6	577.2	585.3	591.7	594.1	599.0	607.8	614.2	622.3	628.7
52.5°	533.8	537.9	545.1	550.7	558.0	562.0	566.0	573.2	582.9	589.3	596.5
55°	498.5	500.9	507.3	514.5	523.4	527.4	531.4	539.5	549.1	556.3	562.8
57.5°	463.1	465.5	471.9	478.4	488.0	492.0	496.9	505.7	513.7	520.2	529.0
60°	424.5	426.1	433.3	442.2	450.2	455.8	459.1	468.7	476.8	484.8	492.8
62.5°	383.5	388.3	393.9	403.6	411.6	418.9	422.1	430.1	439.8	447.8	454.2
65°	343.3	347.3	353.7	364.2	372.2	375.5	381.9	390.7	400.4	410.0	417.3
67.5°	302.3	307.9	311.9	323.2	334.4	337.7	344.1	351.3	362.6	371.4	379.5
70°	261.3	264.5	271.7	282.2	291.0	296.7	301.5	311.9	321.6	332.0	339.3
72.5°	218.7	223.5	231.5	240.4	252.4	256.5	262.1	270.9	283.0	291.8	299.1
75°	176.9	180.9	188.1	200.2	210.6	215.5	221.1	231.5	242.0	251.6	259.7
77.5°	139.9	141.5	149.5	160.0	170.4	176.1	181.7	192.1	202.6	213.9	221.1
80°	98.9	103.7	110.9	121.4	132.7	138.3	143.9	153.6	164.0	173.7	183.3
82.5°	62.7	67.5	75.6	86.0	98.1	102.1	108.5	120.6	129.4	138.3	148.7
85°	34.6	37.8	45.0	56.3	67.5	73.2	78.8	90.0	99.7	109.3	119.0
87.5°	12.1	16.1	24.1	34.6	45.8	51.5	57.1	68.3	78.0	88.4	98.1
90°	0.0	5.6	13.7	24.1	35.4	41.0	46.6	57.1	68.3	78.0	86.8
92.5°	0.0	4.0	12.1	21.7	33.0	38.6	44.2	55.5	65.9	75.6	84.4
95°	0.0	3.2	11.3	20.9	32.2	37.8	43.4	53.9	64.3	74.0	82.8
97.5°	0.0	3.2	10.5	20.1	31.4	36.2	41.8	53.1	62.7	72.4	81.2
100°	0.0	3.2	10.5	19.3	30.6	35.4	41.0	51.5	61.1	70.7	79.6
102.5°	0.0	3.2	9.6	19.3	28.9	34.6	39.4	49.8	59.5	69.1	78.0
105°	0.0	2.4	8.8	18.5	28.1	33.0	38.6	48.2	57.9	67.5	75.6
107.5°	0.0	2.4	8.8	17.7	27.3	32.2	37.0	46.6	56.3	65.1	74.0
110°	0.0	2.4	8.0	16.9	25.7	30.6	36.2	45.8	54.7	63.5	71.6



TEST NUMBER: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	2.4	8.0	16.1	24.9	29.7	34.6	43.4	53.1	61.1	69.1
115°	0.0	1.6	7.2	15.3	23.3	28.1	33.0	41.8	50.6	58.7	66.7
117.5°	0.0	1.6	6.4	14.5	22.5	26.5	31.4	40.2	49.0	57.1	64.3
120°	0.0	1.6	6.4	13.7	21.7	25.7	29.7	38.6	46.6	54.7	61.9
122.5°	0.0	0.8	5.6	12.9	20.1	24.1	28.1	36.2	44.2	52.3	58.7
125°	0.0	0.8	5.6	11.3	19.3	22.5	26.5	34.6	41.8	49.0	56.3
127.5°	0.0	0.8	4.8	10.5	17.7	21.7	24.9	33.0	40.2	46.6	53.1
130°	0.0	0.8	4.0	9.6	16.1	20.1	23.3	30.6	37.8	44.2	49.8
132.5°	0.0	0.8	4.0	8.8	15.3	18.5	21.7	28.1	35.4	41.0	47.4
135°	0.8	0.8	3.2	8.0	13.7	16.9	20.1	26.5	33.0	38.6	44.2
137.5°	0.0	0.8	2.4	7.2	12.9	15.3	18.5	24.1	30.6	35.4	41.0
140°	0.0	0.8	2.4	6.4	11.3	13.7	16.9	22.5	27.3	33.0	37.8
142.5°	0.8	0.8	1.6	5.6	9.6	12.1	14.5	20.1	24.9	29.7	34.6
145°	0.8	0.8	0.8	4.0	8.0	10.5	12.9	17.7	22.5	27.3	31.4
147.5°	0.8	0.8	0.8	3.2	7.2	8.8	11.3	15.3	20.1	24.1	28.1
150°	0.8	0.8	0.8	2.4	5.6	7.2	8.8	12.9	16.9	20.9	24.9
152.5°	0.8	0.8	0.8	1.6	4.0	5.6	7.2	10.5	14.5	17.7	20.9
155°	0.8	0.8	0.8	1.6	3.2	4.0	5.6	8.8	11.3	14.5	17.7
157.5°	0.8	0.8	0.8	0.8	2.4	3.2	4.0	6.4	8.8	11.3	13.7
160°	0.8	0.8	0.8	0.8	1.6	2.4	2.4	4.8	6.4	8.8	10.5
162.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.6	3.2	4.0	5.6	7.2
165°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	2.4	4.0	4.8
167.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6	2.4
170°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	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



TEST NUMBER: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2
2.5°	943.9	944.7	944.7	944.7	944.7	944.7	944.7	944.7	944.7	943.9
5°	942.2	943.1	943.1	943.9	943.9	943.9	943.9	943.9	943.9	943.9
7.5°	939.8	940.6	941.4	942.2	942.2	942.2	942.2	942.2	942.2	942.2
10°	935.8	936.6	938.2	938.2	939.0	939.0	939.0	939.0	939.8	939.0
12.5°	929.4	931.0	932.6	933.4	933.4	934.2	934.2	934.2	935.0	935.0
15°	921.3	923.0	924.6	925.4	926.2	927.0	927.0	927.8	927.8	928.6
17.5°	911.7	914.1	915.7	916.5	917.3	918.1	918.1	918.9	919.7	919.7
20°	900.4	902.0	904.5	905.3	906.1	906.9	908.5	908.5	909.3	908.5
22.5°	886.0	889.2	891.6	893.2	894.0	894.0	895.6	897.2	897.2	897.2
25°	870.7	873.9	877.1	878.7	879.5	879.5	882.0	882.0	882.8	882.8
27.5°	853.8	857.8	860.2	862.7	863.5	864.3	865.1	866.7	867.5	869.1
30°	835.3	838.5	841.8	845.0	845.8	846.6	848.2	849.0	850.6	849.8
32.5°	816.0	819.2	823.3	826.5	827.3	827.3	829.7	829.7	831.3	832.9
35°	794.3	798.3	801.6	804.8	806.4	806.4	809.6	810.4	812.0	812.0
37.5°	771.0	776.6	779.0	783.1	784.7	785.5	787.9	787.9	789.5	789.5
40°	746.9	750.9	755.7	758.1	759.7	762.2	763.0	766.2	766.2	766.2
42.5°	721.2	724.4	730.8	733.2	735.6	735.6	738.0	739.6	741.3	742.1
45°	693.8	697.8	702.7	706.7	708.3	709.9	711.5	713.1	715.5	715.5
47.5°	664.1	670.5	673.7	678.5	680.2	681.8	684.2	685.8	687.4	689.0
50°	633.5	640.0	645.6	648.8	649.6	652.0	654.4	656.0	657.6	658.4
52.5°	602.2	607.8	612.6	617.4	619.1	623.1	623.1	625.5	627.1	628.7
55°	570.0	574.8	581.3	584.5	586.9	587.7	592.5	594.1	594.1	594.1
57.5°	534.6	541.9	545.9	552.3	553.1	554.7	557.1	560.4	560.4	560.4
60°	499.3	505.7	511.3	515.3	518.6	518.6	522.6	525.8	526.6	527.4
62.5°	463.1	468.7	475.1	479.2	482.4	484.0	486.4	489.6	491.2	489.6
65°	424.5	430.9	437.4	442.2	444.6	446.2	449.4	451.8	454.2	455.0
67.5°	386.7	392.3	399.6	405.2	406.8	410.0	412.4	414.0	415.7	415.7
70°	347.3	354.5	361.0	365.8	366.6	369.8	373.8	376.3	375.5	378.7
72.5°	307.9	315.2	320.8	327.2	328.0	330.4	333.6	336.1	336.9	337.7
75°	267.7	276.6	281.4	287.0	289.4	291.0	295.1	298.3	298.3	298.3
77.5°	229.1	236.4	242.0	246.8	250.0	252.4	256.5	258.9	258.9	259.7
80°	189.7	199.4	204.2	209.8	213.9	215.5	218.7	221.9	222.7	224.3
82.5°	156.0	164.8	170.4	176.1	179.3	182.5	184.1	187.3	188.1	188.1
85°	127.0	134.3	140.7	146.3	149.5	151.9	155.2	156.8	159.2	159.2
87.5°	106.1	112.6	119.8	125.4	127.8	130.2	133.5	135.9	138.3	137.5
90°	95.7	102.9	109.3	115.0	118.2	120.6	123.0	126.2	127.8	127.8
92.5°	92.5	99.7	106.9	112.6	115.0	116.6	120.6	123.0	124.6	125.4
95°	90.8	98.9	105.3	110.9	113.4	115.8	119.0	121.4	123.0	123.8
97.5°	90.0	97.3	103.7	109.3	111.8	114.2	117.4	119.8	121.4	122.2
100°	87.6	94.9	102.1	107.7	109.3	111.8	115.8	118.2	119.8	119.8
102.5°	86.0	93.3	99.7	105.3	107.7	109.3	113.4	115.8	117.4	117.4
105°	83.6	90.8	97.3	102.9	105.3	106.9	110.9	113.4	114.2	115.0
107.5°	81.2	88.4	94.9	99.7	102.1	104.5	107.7	110.1	111.8	112.6
110°	78.8	86.0	91.7	97.3	99.7	101.3	105.3	106.9	108.5	109.3



TEST NUMBER: P241554

CATALOG NUMBER: FVS8M-2-LD4-35-3STD-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	76.4	82.8	89.2	94.1	96.5	98.1	101.3	104.5	105.3	106.1
115°	74.0	80.4	86.0	90.8	93.3	94.9	98.1	100.5	102.1	102.1
117.5°	70.7	77.2	82.8	87.6	90.0	91.7	94.9	97.3	98.1	98.9
120°	68.3	74.8	79.6	84.4	86.8	88.4	90.8	93.3	94.9	94.9
122.5°	65.1	71.6	76.4	81.2	82.8	84.4	87.6	90.0	90.8	90.8
125°	61.9	68.3	73.2	77.2	79.6	81.2	83.6	86.0	86.8	87.6
127.5°	59.5	64.3	69.9	74.0	75.6	77.2	79.6	82.0	82.8	83.6
130°	56.3	61.1	65.9	69.9	71.6	73.2	75.6	77.2	78.8	78.8
132.5°	52.3	57.9	61.9	65.9	67.5	68.3	71.6	73.2	74.0	74.0
135°	49.0	53.9	57.9	61.9	63.5	64.3	66.7	68.3	69.9	69.9
137.5°	45.8	49.8	53.9	57.9	58.7	60.3	62.7	64.3	65.1	65.1
140°	42.6	46.6	49.8	53.1	54.7	55.5	57.9	59.5	60.3	60.3
142.5°	38.6	42.6	45.8	49.0	50.6	51.5	53.1	54.7	55.5	56.3
145°	35.4	38.6	41.8	45.0	45.8	46.6	49.0	49.8	50.6	51.5
147.5°	31.4	34.6	37.8	40.2	41.0	42.6	44.2	45.0	45.8	45.8
150°	28.1	30.6	33.8	36.2	37.0	37.8	39.4	40.2	41.0	41.0
152.5°	24.1	27.3	29.7	31.4	32.2	33.0	34.6	35.4	36.2	36.2
155°	20.9	23.3	24.9	27.3	28.1	28.9	29.7	30.6	30.6	30.6
157.5°	16.9	19.3	20.9	22.5	23.3	24.1	24.9	25.7	25.7	26.5
160°	12.9	15.3	16.9	18.5	18.5	19.3	20.1	20.9	20.9	20.9
162.5°	9.6	11.3	12.9	13.7	14.5	14.5	16.1	16.1	16.1	16.1
165°	5.6	7.2	8.0	9.6	10.5	10.5	11.3	11.3	11.3	12.1
167.5°	3.2	4.0	4.8	5.6	6.4	6.4	7.2	7.2	7.2	7.2
170°	0.8	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
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)