

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: P241526

Luminaire Tested: **FVS8M-2-LD4-35-1LO-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241526
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-4)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-2-LD4-35-1LO-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (42) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

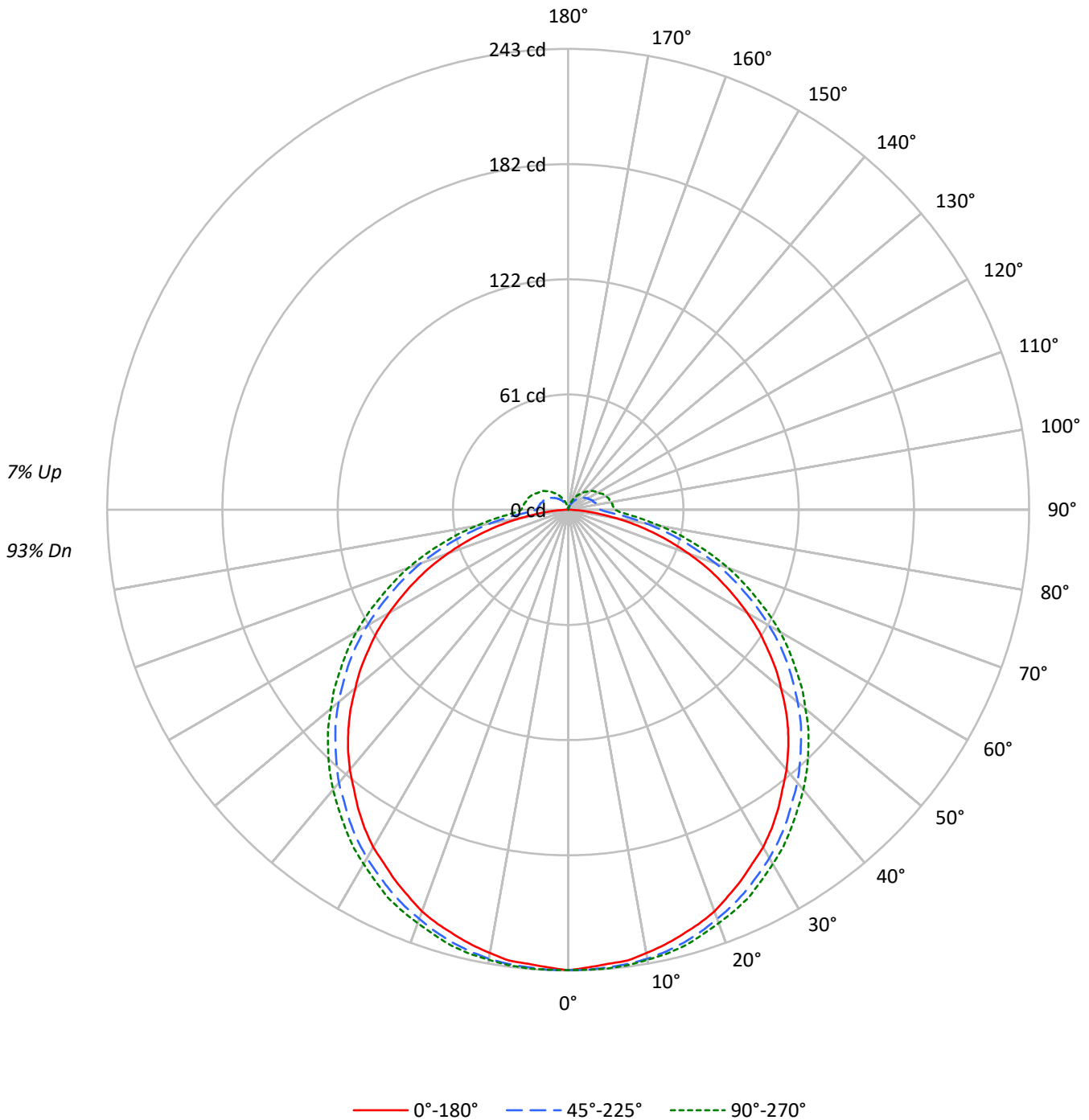
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 825.0 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 1.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 12.4
Input Voltage (V): 120
Input Current (A_{in}): 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: P241526
CATALOG NUMBER: FVS8M-2-LD4-35-1LO-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241526

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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	93
1	106	101	96	92	103	98	94	90	92	89	86	87	85	82	82	80	78	76
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	76	68	61	84	74	66	60	70	64	58	66	61	56	63	58	54	52
4	80	67	58	51	77	66	57	51	62	55	49	59	53	48	56	51	46	44
5	73	60	51	44	70	58	50	43	55	48	42	53	46	41	50	45	40	38
6	67	54	45	38	65	53	44	38	50	42	37	48	41	36	45	40	35	33
7	62	49	40	34	60	48	39	33	45	38	32	43	37	32	41	35	31	29
8	58	44	36	30	56	43	35	29	41	34	29	40	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	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2182	2182	2182
5°	2154	2145	2148
10°	2137	2114	2115
15°	2114	2078	2088
20°	2096	2037	2051
25°	2064	1998	2023
30°	2040	1958	1981
35°	2005	1914	1941
40°	1970	1868	1902
45°	1932	1815	1856
50°	1872	1757	1799
55°	1808	1690	1735
60°	1726	1601	1666
65°	1612	1490	1563
70°	1459	1364	1456
75°	1230	1184	1295
80°	906	970	1108
85°	456	736	936



TEST NUMBER: P241526

CATALOG NUMBER: FVS8M-2-LD4-35-1LO-O-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.0	2.8
10°-20°	66.5	8.1
20°-30°	102.0	12.4
30°-40°	125.1	15.2
40°-50°	133.2	16.1
50°-60°	124.6	15.1
60°-70°	100.0	12.1
70°-80°	63.3	7.7
80°-90°	26.9	3.3
90°-100°	15.5	1.9
100°-110°	13.8	1.7
110°-120°	11.4	1.4
120°-130°	8.7	1.1
130°-140°	5.9	0.7
140°-150°	3.4	0.4
150°-160°	1.5	0.2
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-30°	191.5	23.2
0°-40°	316.5	38.4
0°-60°	574.3	69.6
0°-90°	764.5	92.7
90°-120°	40.7	4.9
90°-150°	58.7	7.1
90°-180°	60.0	7.3
0°-180°	825.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	243	243	243	243	243	
5°	240	241	242	243	243	23
15°	232	234	236	237	238	66
25°	216	218	222	224	225	99
35°	193	196	201	204	205	121
45°	164	168	174	178	179	126
55°	128	134	141	145	146	115
65°	89	95	102	108	109	88
75°	46	53	62	67	69	49
85°	8	16	25	31	32	11
90°	0	8	17	22	25	0
95°	0	7	16	22	24	0
105°	0	7	14	20	22	0
115°	0	5	13	18	20	0
125°	0	4	11	15	17	0
135°	0	3	8	12	13	0
145°	0	2	6	9	10	0
155°	0	1	4	5	6	0
165°	0	0	1	2	2	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241526

CATALOG NUMBER: FVS8M-2-LD4-35-1LO-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8
2.5°	241.6	241.6	241.6	241.6	241.6	242.2	242.2	242.2	242.2	242.8	242.8
5°	240.4	240.4	240.4	241.0	241.0	241.0	241.6	241.6	241.6	242.2	242.2
7.5°	239.8	239.2	239.8	239.8	239.8	240.4	240.4	240.4	241.0	241.0	241.6
10°	237.4	237.4	238.0	238.0	238.0	238.6	238.6	239.2	239.2	239.8	240.4
12.5°	235.0	235.0	235.6	235.6	236.2	236.2	236.8	236.8	237.4	238.0	238.6
15°	232.0	232.0	232.6	233.2	233.2	233.8	233.8	234.4	235.0	235.6	236.2
17.5°	229.0	229.0	229.0	229.6	230.2	230.2	230.8	231.4	232.0	232.6	233.2
20°	225.4	225.4	225.4	226.0	226.6	226.6	227.2	227.8	228.4	229.0	229.6
22.5°	220.5	221.1	221.1	221.7	222.3	222.3	223.0	224.2	224.8	225.4	226.0
25°	215.7	216.3	216.3	216.9	218.1	218.1	218.7	219.3	220.5	221.1	221.7
27.5°	210.3	210.9	211.5	212.1	212.7	213.3	213.9	214.5	215.1	216.3	216.9
30°	205.5	205.5	206.1	206.7	207.3	208.5	208.5	209.7	210.3	211.5	212.1
32.5°	199.5	199.5	200.1	200.7	201.3	202.5	202.5	203.7	204.9	205.5	206.7
35°	192.8	192.8	193.4	194.6	195.2	195.8	196.4	197.6	198.8	200.1	200.7
37.5°	185.6	186.2	186.8	187.4	189.2	189.2	189.8	191.0	192.2	192.8	194.0
40°	179.0	179.0	180.2	180.8	182.0	182.6	183.2	184.4	185.6	186.2	188.0
42.5°	171.7	171.7	172.9	173.5	174.7	175.3	175.9	177.2	178.4	180.2	180.8
45°	163.9	163.9	165.1	166.3	167.5	167.5	168.7	169.9	171.7	172.3	173.5
47.5°	155.5	155.5	157.3	157.9	159.1	160.3	160.9	162.1	163.3	164.5	166.3
50°	146.4	147.0	148.2	149.4	151.2	151.8	152.4	153.7	155.5	156.7	157.9
52.5°	138.0	138.6	139.2	141.0	142.2	143.4	143.4	145.2	146.4	148.2	149.4
55°	128.3	129.6	130.8	132.0	133.2	134.4	135.0	136.2	138.0	139.2	141.0
57.5°	119.3	119.9	121.1	122.3	123.5	124.7	125.3	127.1	128.3	129.6	132.0
60°	109.1	109.7	110.9	112.7	113.9	115.1	116.3	117.5	119.3	120.5	122.3
62.5°	98.8	99.4	100.6	102.4	104.2	104.8	105.4	107.3	109.1	111.5	112.7
65°	88.6	89.2	90.4	92.2	94.0	94.6	95.8	97.6	99.4	100.6	102.4
67.5°	78.3	78.9	80.1	81.9	83.8	85.0	85.6	87.4	89.2	91.0	92.8
70°	67.5	68.7	69.9	71.1	72.9	74.1	75.3	77.1	78.9	80.1	82.6
72.5°	56.6	57.2	58.4	60.9	62.7	63.3	64.5	66.3	68.7	69.9	71.7
75°	45.8	46.4	48.2	50.0	52.4	53.0	54.2	56.0	57.8	59.7	61.5
77.5°	35.6	36.2	38.6	39.8	41.6	42.8	43.4	45.8	48.2	50.0	51.2
80°	25.3	25.9	27.7	29.5	31.9	32.5	33.7	36.2	38.0	39.8	41.6
82.5°	16.3	17.5	18.7	20.5	22.9	24.1	25.3	27.1	28.9	30.7	32.5
85°	8.4	9.0	11.4	12.7	15.1	16.3	17.5	19.3	21.1	23.5	24.7
87.5°	3.0	3.6	5.4	7.2	9.6	10.8	11.4	13.9	15.7	17.5	19.3
90°	0.0	1.2	2.4	4.8	6.6	7.8	9.0	11.4	13.3	15.1	16.9
92.5°	0.0	0.6	2.4	4.2	6.6	7.2	8.4	10.8	12.7	14.5	16.3
95°	0.0	0.6	2.4	4.2	6.0	7.2	8.4	10.2	12.1	14.5	15.7
97.5°	0.0	0.6	1.8	3.6	6.0	7.2	7.8	10.2	12.1	13.9	15.7
100°	0.0	0.6	1.8	3.6	6.0	6.6	7.8	9.6	12.1	13.9	15.1
102.5°	0.0	0.6	1.8	3.6	5.4	6.6	7.8	9.6	11.4	13.3	15.1
105°	0.0	0.6	1.8	3.6	5.4	6.6	7.2	9.0	11.4	12.7	14.5
107.5°	0.0	0.6	1.8	3.6	5.4	6.0	7.2	9.0	10.8	12.7	13.9
110°	0.0	0.6	1.8	3.0	4.8	6.0	6.6	9.0	10.2	12.1	13.9



TEST NUMBER: P241526

CATALOG NUMBER: FVS8M-2-LD4-35-1LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.6	1.2	3.0	4.8	5.4	6.6	8.4	10.2	12.1	13.3
115°	0.0	0.6	1.2	3.0	4.8	5.4	6.0	7.8	9.6	11.4	12.7
117.5°	0.0	0.0	1.2	2.4	4.2	5.4	6.0	7.8	9.6	10.8	12.1
120°	0.0	0.0	1.2	2.4	4.2	4.8	5.4	7.2	9.0	10.2	12.1
122.5°	0.0	0.0	1.2	2.4	3.6	4.8	5.4	7.2	8.4	10.2	11.4
125°	0.0	0.0	1.2	2.4	3.6	4.2	5.4	6.6	7.8	9.6	10.8
127.5°	0.0	0.0	1.2	1.8	3.6	4.2	4.8	6.0	7.8	9.0	10.2
130°	0.0	0.0	0.6	1.8	3.0	3.6	4.2	6.0	7.2	8.4	9.6
132.5°	0.0	0.0	0.6	1.8	3.0	3.6	4.2	5.4	6.6	7.8	9.0
135°	0.0	0.0	0.6	1.8	2.4	3.0	3.6	4.8	6.0	7.2	8.4
137.5°	0.0	0.0	0.6	1.2	2.4	3.0	3.6	4.8	6.0	6.6	7.8
140°	0.0	0.0	0.6	1.2	2.4	2.4	3.0	4.2	5.4	6.0	7.2
142.5°	0.0	0.0	0.6	1.2	1.8	2.4	3.0	3.6	4.8	6.0	6.6
145°	0.0	0.0	0.0	0.6	1.8	1.8	2.4	3.6	4.2	5.4	6.0
147.5°	0.0	0.0	0.0	0.6	1.2	1.8	1.8	3.0	3.6	4.8	5.4
150°	0.0	0.0	0.0	0.6	1.2	1.2	1.8	2.4	3.0	4.2	4.8
152.5°	0.0	0.0	0.0	0.6	0.6	1.2	1.2	1.8	2.4	3.6	4.2
155°	0.0	0.0	0.0	0.0	0.6	0.6	1.2	1.8	2.4	3.0	3.6
157.5°	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.8	2.4	2.4
160°	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.8	1.8
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	1.2
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6
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: P241526

CATALOG NUMBER: FVS8M-2-LD4-35-1LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8
2.5°	242.8	243.4	243.4	243.4	243.4	243.4	243.4	243.4	243.4	242.8
5°	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8	242.8
7.5°	241.6	241.6	242.2	242.2	242.2	242.2	242.2	242.2	242.2	242.2
10°	240.4	240.4	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0
12.5°	238.6	239.2	239.2	239.2	239.2	239.2	239.8	239.8	239.8	239.8
15°	236.2	236.8	236.8	237.4	237.4	237.4	237.4	237.4	237.4	238.0
17.5°	233.8	234.4	234.4	234.4	235.0	235.0	235.0	235.0	235.0	235.0
20°	230.2	230.8	231.4	231.4	232.0	232.0	232.0	232.0	232.0	232.0
22.5°	226.6	227.2	227.8	227.8	228.4	228.4	228.4	229.0	229.0	229.0
25°	222.3	223.0	223.6	224.2	224.2	224.8	224.8	224.8	224.8	225.4
27.5°	218.1	218.1	218.7	219.3	219.9	219.9	219.9	219.9	220.5	220.5
30°	212.7	213.9	214.5	214.5	215.1	215.1	215.1	215.7	215.7	215.7
32.5°	207.3	208.5	209.1	209.1	209.7	210.3	210.3	210.3	210.3	210.9
35°	201.3	202.5	203.1	203.7	204.3	204.3	204.3	204.9	204.9	204.9
37.5°	195.2	195.8	197.0	197.0	197.6	197.6	198.2	198.8	198.8	198.8
40°	188.6	189.8	190.4	191.0	191.6	191.6	192.2	192.2	192.2	192.8
42.5°	182.0	182.6	183.8	184.4	185.0	185.0	185.6	186.2	186.2	186.2
45°	174.7	175.3	176.6	177.8	177.8	177.8	179.0	179.0	179.0	179.0
47.5°	166.9	168.1	169.3	169.9	169.9	170.5	170.5	171.1	171.7	171.7
50°	159.1	160.3	160.9	162.1	162.1	162.7	163.3	163.9	163.9	163.3
52.5°	150.6	151.8	153.1	153.7	154.3	154.3	154.9	154.9	155.5	155.5
55°	141.6	142.8	144.0	145.2	145.2	145.2	146.4	147.0	146.4	146.4
57.5°	132.6	133.8	135.0	135.6	136.2	136.8	136.8	138.0	138.0	138.0
60°	123.5	124.7	125.9	127.1	127.1	127.7	127.7	128.3	128.9	128.9
62.5°	114.5	115.1	116.3	117.5	117.5	117.5	118.7	118.7	119.3	119.3
65°	103.6	105.4	106.7	107.3	107.9	108.5	108.5	109.1	109.7	109.1
67.5°	93.4	95.2	95.8	97.0	97.6	98.2	98.8	99.4	99.4	99.4
70°	83.8	85.0	86.2	87.4	87.4	88.0	88.6	89.2	89.2	89.8
72.5°	73.5	74.7	75.9	76.5	77.1	77.7	78.3	78.9	79.5	79.5
75°	63.3	64.5	65.7	66.9	66.9	66.9	68.1	68.7	68.7	68.7
77.5°	53.0	54.2	55.4	56.6	56.6	57.2	57.8	58.4	59.1	59.1
80°	43.4	44.6	45.8	47.0	47.0	47.6	48.2	48.8	49.4	48.8
82.5°	34.3	35.6	36.8	37.4	38.0	39.2	39.8	39.8	40.4	40.4
85°	26.5	27.7	28.9	30.1	30.7	31.3	31.3	31.9	32.5	32.5
87.5°	21.1	22.3	23.5	24.7	24.7	25.3	25.9	26.5	27.1	27.1
90°	18.1	19.9	21.1	22.3	22.3	22.9	23.5	24.1	24.7	24.7
92.5°	18.1	19.3	20.5	21.7	21.7	22.3	22.9	23.5	24.1	24.1
95°	17.5	18.7	19.9	21.1	21.7	22.3	22.9	23.5	23.5	23.5
97.5°	17.5	18.7	19.9	21.1	21.1	21.7	22.3	22.9	23.5	23.5
100°	16.9	18.1	19.3	20.5	21.1	21.7	22.3	22.9	22.9	22.9
102.5°	16.3	18.1	19.3	19.9	20.5	21.1	21.7	22.3	22.3	22.3
105°	16.3	17.5	18.7	19.9	19.9	20.5	21.1	21.7	21.7	22.3
107.5°	15.7	16.9	18.1	19.3	19.9	19.9	20.5	21.1	21.7	21.7
110°	15.1	16.3	17.5	18.7	19.3	19.3	19.9	20.5	21.1	21.1



TEST NUMBER: P241526

CATALOG NUMBER: FVS8M-2-LD4-35-1LO-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	14.5	15.7	16.9	18.1	18.7	18.7	19.3	19.9	20.5	20.5
115°	14.5	15.7	16.3	17.5	18.1	18.1	18.7	19.3	19.3	19.9
117.5°	13.9	15.1	15.7	16.9	17.5	17.5	18.1	18.7	18.7	18.7
120°	13.3	14.5	15.1	16.3	16.3	16.9	17.5	18.1	18.1	18.1
122.5°	12.7	13.9	14.5	15.7	15.7	16.3	16.9	17.5	17.5	17.5
125°	12.1	13.3	13.9	15.1	15.1	15.7	16.3	16.3	16.9	16.9
127.5°	11.4	12.7	13.3	13.9	14.5	15.1	15.1	15.7	15.7	16.3
130°	10.8	12.1	12.7	13.3	13.9	13.9	14.5	15.1	15.1	15.1
132.5°	10.2	10.8	12.1	12.7	12.7	13.3	13.9	13.9	14.5	14.5
135°	9.6	10.2	11.4	12.1	12.1	12.7	12.7	13.3	13.3	13.3
137.5°	9.0	9.6	10.2	10.8	11.4	11.4	12.1	12.1	12.7	12.7
140°	7.8	9.0	9.6	10.2	10.2	10.8	10.8	11.4	11.4	11.4
142.5°	7.2	8.4	9.0	9.6	9.6	9.6	10.2	10.2	10.8	10.8
145°	6.6	7.2	7.8	8.4	9.0	9.0	9.0	9.6	9.6	9.6
147.5°	6.0	6.6	7.2	7.8	7.8	7.8	8.4	8.4	8.4	9.0
150°	5.4	6.0	6.6	6.6	7.2	7.2	7.2	7.8	7.8	7.8
152.5°	4.8	4.8	5.4	6.0	6.0	6.0	6.6	6.6	6.6	6.6
155°	3.6	4.2	4.8	4.8	5.4	5.4	5.4	6.0	6.0	6.0
157.5°	3.0	3.6	4.2	4.2	4.2	4.8	4.8	4.8	4.8	4.8
160°	2.4	3.0	3.0	3.6	3.6	3.6	3.6	3.6	4.2	4.2
162.5°	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.2	1.2	1.8	1.8	1.8	1.8	1.8	2.4	2.4	2.4
167.5°	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
170°	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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)