

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: P241535

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241535
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-LD4-40-1HI-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (42) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

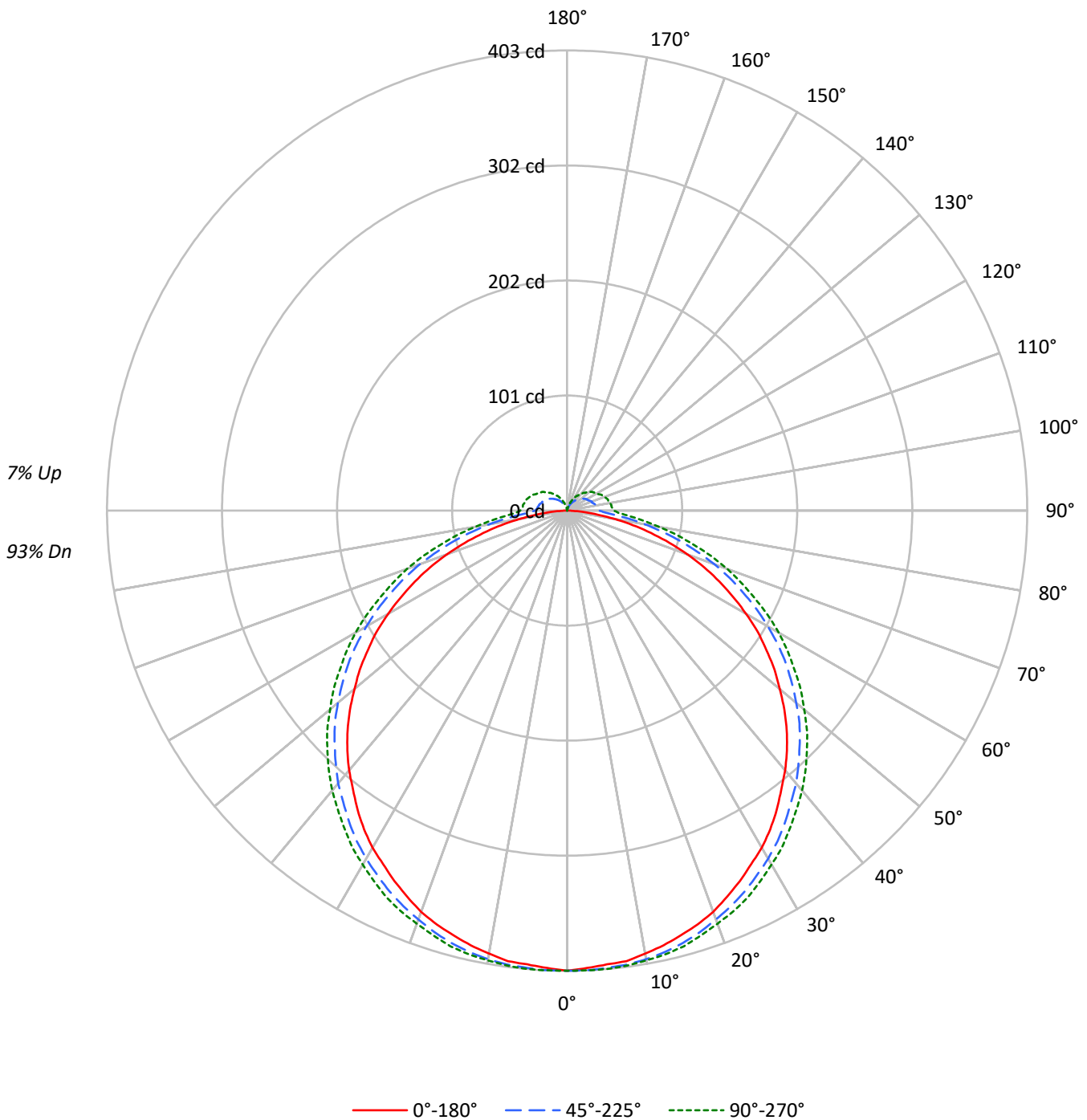
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1369.1 lumens
Efficiency: N/A
Efficacy: 61.4 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): 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

TEST NUMBER: P241535
CATALOG NUMBER: FVS8M-2-LD4-40-1HI-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241535

CATALOG NUMBER: FVS8M-2-LD4-40-1HI-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	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°	3622	3622	3622
5°	3576	3560	3566
10°	3547	3509	3511
15°	3509	3449	3466
20°	3478	3380	3403
25°	3425	3317	3356
30°	3386	3250	3287
35°	3328	3175	3222
40°	3269	3101	3157
45°	3206	3013	3080
50°	3107	2916	2986
55°	3001	2805	2880
60°	2864	2658	2766
65°	2675	2474	2594
70°	2420	2262	2417
75°	2041	1964	2149
80°	1503	1608	1839
85°	760	1222	1555



TEST NUMBER: P241535

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.2	2.8
10°-20°	110.3	8.1
20°-30°	169.2	12.4
30°-40°	207.5	15.2
40°-50°	221.0	16.1
50°-60°	206.8	15.1
60°-70°	165.9	12.1
70°-80°	105.0	7.7
80°-90°	44.7	3.3
90°-100°	25.8	1.9
100°-110°	22.9	1.7
110°-120°	18.9	1.4
120°-130°	14.4	1.1
130°-140°	9.8	0.7
140°-150°	5.7	0.4
150°-160°	2.4	0.2
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-30°	317.8	23.2
0°-40°	525.3	38.4
0°-60°	953.1	69.6
0°-90°	1268.7	92.7
90°-120°	67.5	4.9
90°-150°	97.4	7.1
90°-180°	100.0	7.3
0°-180°	1369.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	403	403	403	403	403	
5°	399	400	402	403	403	38
15°	385	388	392	394	395	109
25°	358	362	368	372	374	165
35°	320	325	333	339	340	200
45°	272	278	288	295	297	209
55°	213	223	234	241	243	191
65°	147	157	170	179	181	145
75°	76	88	102	111	114	81
85°	14	27	41	51	54	18
90°	0	13	28	37	41	1
95°	0	12	26	36	39	0
105°	0	11	24	33	37	0
115°	0	9	21	30	33	0
125°	0	7	18	25	28	0
135°	0	5	14	20	22	0
145°	0	3	10	15	16	0
155°	0	1	6	9	10	0
165°	0	0	2	3	4	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241535

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	403	403	403	403	403	403	403	403	403	403	403
2.5°	401	401	401	401	401	402	402	402	402	403	403
5°	399	399	399	400	400	400	401	401	401	402	402
7.5°	398	397	398	398	398	399	399	399	400	400	401
10°	394	394	395	395	395	396	396	397	397	398	399
12.5°	390	390	391	391	392	392	393	393	394	395	396
15°	385	385	386	387	387	388	388	389	390	391	392
17.5°	380	380	380	381	382	382	383	384	385	386	387
20°	374	374	374	375	376	376	377	378	379	380	381
22.5°	366	367	367	368	369	369	370	372	373	374	375
25°	358	359	359	360	362	362	363	364	366	367	368
27.5°	349	350	351	352	353	354	355	356	357	359	360
30°	341	341	342	343	344	346	346	348	349	351	352
32.5°	331	331	332	333	334	336	336	338	340	341	343
35°	320	320	321	323	324	325	326	328	330	332	333
37.5°	308	309	310	311	314	314	315	317	319	320	322
40°	297	297	299	300	302	303	304	306	308	309	312
42.5°	285	285	287	288	290	291	292	294	296	299	300
45°	272	272	274	276	278	278	280	282	285	286	288
47.5°	258	258	261	262	264	266	267	269	271	273	276
50°	243	244	246	248	251	252	253	255	258	260	262
52.5°	229	230	231	234	236	238	238	241	243	246	248
55°	213	215	217	219	221	223	224	226	229	231	234
57.5°	198	199	201	203	205	207	208	211	213	215	219
60°	181	182	184	187	189	191	193	195	198	200	203
62.5°	164	165	167	170	173	174	175	178	181	185	187
65°	147	148	150	153	156	157	159	162	165	167	170
67.5°	130	131	133	136	139	141	142	145	148	151	154
70°	112	114	116	118	121	123	125	128	131	133	137
72.5°	94	95	97	101	104	105	107	110	114	116	119
75°	76	77	80	83	87	88	90	93	96	99	102
77.5°	59	60	64	66	69	71	72	76	80	83	85
80°	42	43	46	49	53	54	56	60	63	66	69
82.5°	27	29	31	34	38	40	42	45	48	51	54
85°	14	15	19	21	25	27	29	32	35	39	41
87.5°	5	6	9	12	16	18	19	23	26	29	32
90°	0	2	4	8	11	13	15	19	22	25	28
92.5°	0	1	4	7	11	12	14	18	21	24	27
95°	0	1	4	7	10	12	14	17	20	24	26
97.5°	0	1	3	6	10	12	13	17	20	23	26
100°	0	1	3	6	10	11	13	16	20	23	25
102.5°	0	1	3	6	9	11	13	16	19	22	25
105°	0	1	3	6	9	11	12	15	19	21	24
107.5°	0	1	3	6	9	10	12	15	18	21	23
110°	0	1	3	5	8	10	11	15	17	20	23



TEST NUMBER: P241535

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0	1	2	5	8	9	11	14	17	20	22
115°	0	1	2	5	8	9	10	13	16	19	21
117.5°	0	0	2	4	7	9	10	13	16	18	20
120°	0	0	2	4	7	8	9	12	15	17	20
122.5°	0	0	2	4	6	8	9	12	14	17	19
125°	0	0	2	4	6	7	9	11	13	16	18
127.5°	0	0	2	3	6	7	8	10	13	15	17
130°	0	0	1	3	5	6	7	10	12	14	16
132.5°	0	0	1	3	5	6	7	9	11	13	15
135°	0	0	1	3	4	5	6	8	10	12	14
137.5°	0	0	1	2	4	5	6	8	10	11	13
140°	0	0	1	2	4	4	5	7	9	10	12
142.5°	0	0	1	2	3	4	5	6	8	10	11
145°	0	0	0	1	3	3	4	6	7	9	10
147.5°	0	0	0	1	2	3	3	5	6	8	9
150°	0	0	0	1	2	2	3	4	5	7	8
152.5°	0	0	0	1	1	2	2	3	4	6	7
155°	0	0	0	0	1	1	2	3	4	5	6
157.5°	0	0	0	0	1	1	1	2	3	4	4
160°	0	0	0	0	0	1	1	1	2	3	3
162.5°	0	0	0	0	0	0	1	1	1	2	2
165°	0	0	0	0	0	0	0	1	1	1	2
167.5°	0	0	0	0	0	0	0	0	0	1	1
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P241535

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	403	403	403	403	403	403	403	403	403	403
2.5°	403	404	404	404	404	404	404	404	404	403
5°	403	403	403	403	403	403	403	403	403	403
7.5°	401	401	402	402	402	402	402	402	402	402
10°	399	399	400	400	400	400	400	400	400	400
12.5°	396	397	397	397	397	397	398	398	398	398
15°	392	393	393	394	394	394	394	394	394	395
17.5°	388	389	389	389	390	390	390	390	390	390
20°	382	383	384	384	385	385	385	385	385	385
22.5°	376	377	378	378	379	379	379	380	380	380
25°	369	370	371	372	372	373	373	373	373	374
27.5°	362	362	363	364	365	365	365	365	366	366
30°	353	355	356	356	357	357	357	358	358	358
32.5°	344	346	347	347	348	349	349	349	349	350
35°	334	336	337	338	339	339	339	340	340	340
37.5°	324	325	327	327	328	328	329	330	330	330
40°	313	315	316	317	318	318	319	319	319	320
42.5°	302	303	305	306	307	307	308	309	309	309
45°	290	291	293	295	295	295	297	297	297	297
47.5°	277	279	281	282	282	283	283	284	285	285
50°	264	266	267	269	269	270	271	272	272	271
52.5°	250	252	254	255	256	256	257	257	258	258
55°	235	237	239	241	241	241	243	244	243	243
57.5°	220	222	224	225	226	227	227	229	229	229
60°	205	207	209	211	211	212	212	213	214	214
62.5°	190	191	193	195	195	195	197	197	198	198
65°	172	175	177	178	179	180	180	181	182	181
67.5°	155	158	159	161	162	163	164	165	165	165
70°	139	141	143	145	145	146	147	148	148	149
72.5°	122	124	126	127	128	129	130	131	132	132
75°	105	107	109	111	111	111	113	114	114	114
77.5°	88	90	92	94	94	95	96	97	98	98
80°	72	74	76	78	78	79	80	81	82	81
82.5°	57	59	61	62	63	65	66	66	67	67
85°	44	46	48	50	51	52	52	53	54	54
87.5°	35	37	39	41	41	42	43	44	45	45
90°	30	33	35	37	37	38	39	40	41	41
92.5°	30	32	34	36	36	37	38	39	40	40
95°	29	31	33	35	36	37	38	39	39	39
97.5°	29	31	33	35	35	36	37	38	39	39
100°	28	30	32	34	35	36	37	38	38	38
102.5°	27	30	32	33	34	35	36	37	37	37
105°	27	29	31	33	33	34	35	36	36	37
107.5°	26	28	30	32	33	33	34	35	36	36
110°	25	27	29	31	32	32	33	34	35	35



TEST NUMBER: P241535

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	24	26	28	30	31	31	32	33	34	34
115°	24	26	27	29	30	30	31	32	32	33
117.5°	23	25	26	28	29	29	30	31	31	31
120°	22	24	25	27	27	28	29	30	30	30
122.5°	21	23	24	26	26	27	28	29	29	29
125°	20	22	23	25	25	26	27	27	28	28
127.5°	19	21	22	23	24	25	25	26	26	27
130°	18	20	21	22	23	23	24	25	25	25
132.5°	17	18	20	21	21	22	23	23	24	24
135°	16	17	19	20	20	21	21	22	22	22
137.5°	15	16	17	18	19	19	20	20	21	21
140°	13	15	16	17	17	18	18	19	19	19
142.5°	12	14	15	16	16	16	17	17	18	18
145°	11	12	13	14	15	15	15	16	16	16
147.5°	10	11	12	13	13	13	14	14	14	15
150°	9	10	11	11	12	12	12	13	13	13
152.5°	8	8	9	10	10	10	11	11	11	11
155°	6	7	8	8	9	9	9	10	10	10
157.5°	5	6	7	7	7	8	8	8	8	8
160°	4	5	5	6	6	6	6	6	7	7
162.5°	3	3	4	4	5	5	5	5	5	5
165°	2	2	3	3	3	3	3	4	4	4
167.5°	1	1	2	2	2	2	2	2	2	2
170°	0	0	1	1	1	1	1	1	1	1
172.5°	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)