

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: P241463

Luminaire Tested: **FVS8M-3-LD4-40-1HI-PA187-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-40-1HI-PA187-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 1-MODULE LED WITH PA187 LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

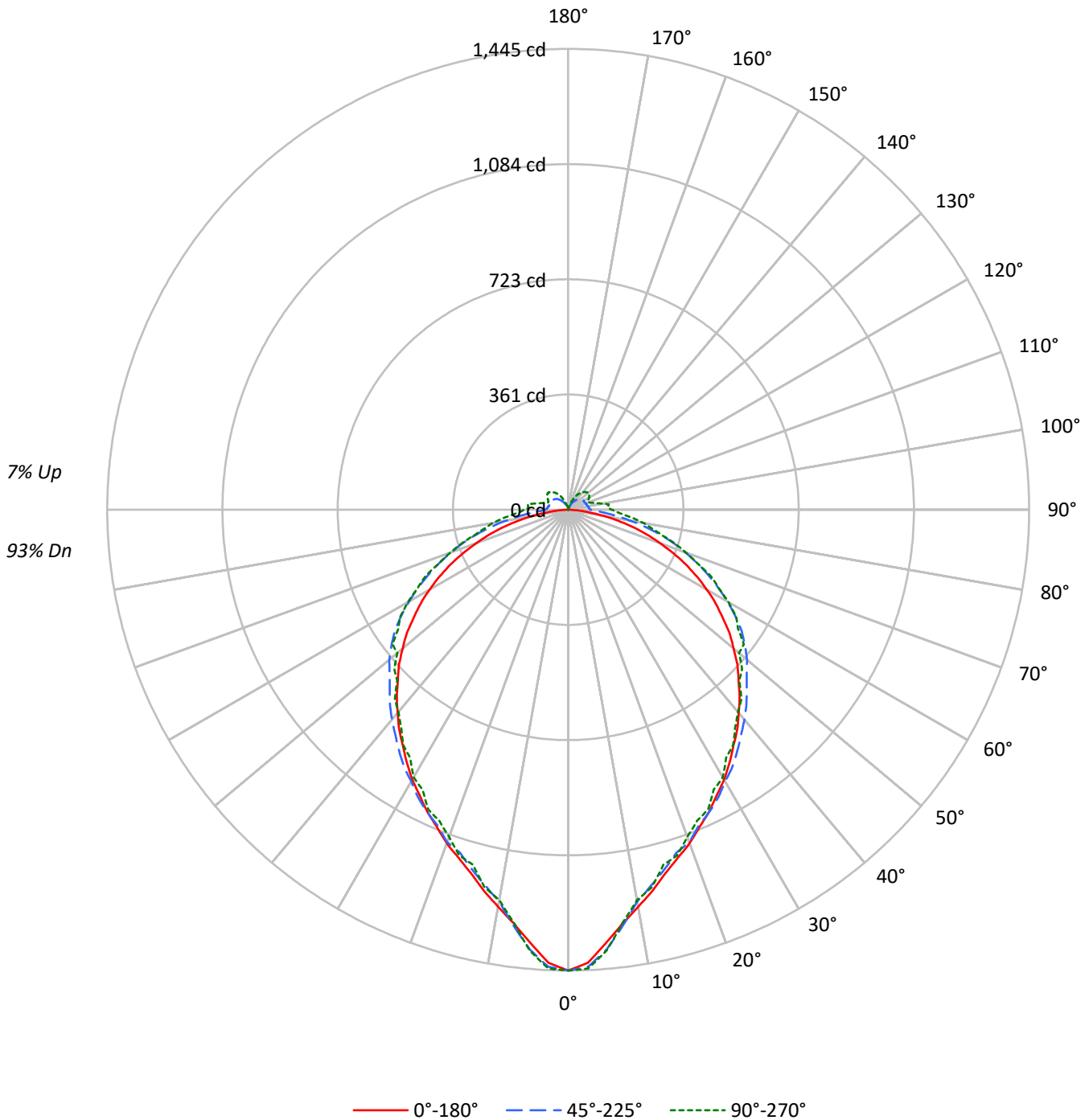
Lumens per Lamp: N/A
Luminaire Lumens: 3844.1 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.23
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 36
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	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					93			
1	106	101	97	92	103	98	94	90	93	89	86	87	85	82	83	80	78	76					76			
2	96	88	81	75	93	85	79	73	80	75	70	76	72	68	72	68	65	62					62			
3	88	77	68	62	84	75	67	61	71	64	59	67	61	57	63	59	55	52					52			
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	56	51	47	44					44			
5	74	60	51	45	71	59	50	44	56	49	43	53	47	42	51	45	41	38					38			
6	68	54	45	39	65	53	45	38	51	43	37	48	42	37	46	40	36	33					33			
7	63	49	40	34	61	48	40	34	46	39	33	44	37	32	42	36	32	30					30			
8	59	45	36	31	57	44	36	30	42	35	30	40	34	29	39	33	28	26					26			
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24					24			
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8438	8438	8438
5°	7954	7976	7973
10°	7428	7147	7088
15°	7031	6703	6573
20°	6790	6433	6271
25°	6576	6176	6045
30°	6399	5961	5780
35°	6215	5793	5546
40°	6081	5624	5306
45°	5932	5463	5107
50°	5797	5392	5004
55°	5608	5283	5004
60°	5386	5023	4869
65°	5068	4710	4599
70°	4566	4330	4141
75°	3960	3846	3685
80°	2972	3155	3524
85°	1607	2400	3218



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.3	3.3
10°-20°	330.1	8.6
20°-30°	480.6	12.5
30°-40°	572.4	14.9
40°-50°	601.7	15.7
50°-60°	573.4	14.9
60°-70°	459.9	12.0
70°-80°	293.0	7.6
80°-90°	128.4	3.3
90°-100°	68.4	1.8
100°-110°	56.1	1.5
110°-120°	46.7	1.2
120°-130°	43.2	1.1
130°-140°	33.1	0.9
140°-150°	20.1	0.5
150°-160°	8.1	0.2
160°-170°	1.5	0.0
170°-180°	0.0	0.0
0°-30°	938.1	24.4
0°-40°	1510.5	39.3
0°-60°	2685.6	69.9
0°-90°	3567.0	92.8
90°-120°	171.1	4.5
90°-150°	267.5	7.0
90°-180°	277.0	7.2
0°-180°	3844.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1363	1372	1384	1381	1387	127
15°	1179	1175	1167	1161	1153	333
25°	1045	1046	1046	1032	1037	481
35°	903	918	924	913	901	567
45°	755	779	791	786	758	584
55°	591	624	664	659	650	529
65°	407	440	484	493	494	401
75°	209	245	295	309	301	221
85°	38	69	116	157	172	47
90°	1	29	70	104	137	2
95°	0	27	66	94	126	0
105°	0	26	60	82	82	0
115°	0	25	56	70	69	0
125°	0	23	56	76	80	1
135°	1	17	47	69	78	1
145°	1	9	33	54	62	1
155°	1	3	16	30	35	0
165°	1	1	3	8	10	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°	1445	1445	1445	1445	1445	1445	1445	1445	1445	1445	1445
2.5°	1422	1418	1418	1422	1425	1425	1428	1432	1435	1434	1434
5°	1363	1362	1361	1368	1370	1372	1374	1383	1384	1387	1384
7.5°	1308	1304	1304	1309	1311	1313	1315	1319	1314	1311	1315
10°	1264	1258	1257	1260	1259	1258	1259	1255	1257	1253	1247
12.5°	1223	1219	1214	1214	1213	1213	1211	1211	1205	1199	1206
15°	1179	1178	1172	1175	1175	1175	1176	1175	1171	1174	1167
17.5°	1144	1141	1140	1146	1144	1142	1143	1139	1142	1135	1128
20°	1113	1109	1109	1110	1108	1106	1107	1110	1106	1101	1109
22.5°	1076	1071	1072	1077	1077	1080	1082	1077	1074	1077	1071
25°	1045	1042	1045	1045	1043	1046	1049	1051	1048	1047	1046
27.5°	1009	1005	1008	1011	1018	1019	1018	1018	1017	1021	1018
30°	977	974	978	983	983	984	985	989	986	992	984
32.5°	941	938	942	944	953	953	956	960	959	961	957
35°	903	901	906	915	918	918	924	924	928	928	924
37.5°	870	869	872	882	886	889	893	894	899	895	890
40°	832	830	835	844	849	852	855	862	862	861	859
42.5°	795	795	799	806	815	819	820	828	831	826	827
45°	755	755	759	769	776	779	783	788	792	797	791
47.5°	719	719	722	729	741	741	746	753	757	761	759
50°	677	680	684	690	696	703	710	718	722	726	732
52.5°	638	636	641	648	657	665	669	681	689	696	698
55°	591	597	599	608	613	624	629	638	650	658	664
57.5°	549	550	554	563	574	578	584	595	605	615	621
60°	502	505	511	517	528	533	538	553	560	569	576
62.5°	455	458	465	473	479	485	490	505	518	523	530
65°	407	411	415	421	431	440	443	458	469	478	484
67.5°	357	360	368	375	384	391	396	410	422	434	437
70°	305	311	316	327	336	342	348	362	373	381	390
72.5°	258	261	268	278	288	294	298	314	324	337	344
75°	209	213	219	227	239	245	253	265	277	288	295
77.5°	161	165	170	180	190	196	205	217	230	238	246
80°	114	118	123	134	145	149	157	167	181	190	198
82.5°	72	75	81	91	102	106	113	124	136	146	155
85°	38	39	47	54	64	69	74	85	97	106	116
87.5°	11	14	20	29	37	42	47	57	68	76	86
90°	1	3	8	16	24	29	33	43	52	61	70
92.5°	0	2	8	15	23	28	32	41	50	58	67
95°	0	2	7	14	23	27	32	41	49	58	66
97.5°	0	2	7	14	23	27	31	40	49	56	64
100°	0	2	7	14	22	27	31	39	48	55	62
102.5°	0	2	7	14	22	26	31	39	46	54	61
105°	0	2	7	14	22	26	30	38	45	53	60
107.5°	0	2	7	14	22	26	30	38	45	52	59
110°	0	1	6	14	22	26	30	37	45	52	58



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CATALOG NUMBER: FVS8M-3-LD4-40-1HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0	1	6	13	21	26	30	37	45	51	57
115°	0	1	6	13	21	25	29	37	44	50	56
117.5°	0	1	6	13	21	25	29	37	44	50	56
120°	0	1	5	12	20	24	28	36	44	50	56
122.5°	0	1	5	12	19	23	27	35	43	50	56
125°	0	1	4	11	19	23	27	34	42	49	56
127.5°	1	1	4	10	18	22	26	33	40	47	54
130°	1	1	4	9	16	20	24	32	39	46	52
132.5°	1	1	3	8	15	19	22	30	36	43	50
135°	1	1	2	7	14	17	20	28	34	40	47
137.5°	1	1	2	6	12	15	18	25	32	37	44
140°	1	1	2	5	10	13	16	22	29	35	40
142.5°	1	1	1	4	9	11	14	19	25	31	37
145°	1	1	1	3	7	9	12	17	22	28	33
147.5°	1	1	1	3	6	8	10	14	19	24	29
150°	1	1	1	2	4	6	8	12	16	20	25
152.5°	1	1	1	1	3	5	6	9	13	17	20
155°	1	1	1	1	2	3	5	7	10	13	16
157.5°	1	1	1	1	2	2	3	5	7	10	12
160°	1	1	1	1	1	2	2	4	5	7	9
162.5°	1	1	1	1	1	1	1	2	3	5	6
165°	1	1	1	1	1	1	1	1	2	3	3
167.5°	1	1	1	1	1	1	1	1	1	1	2
170°	1	1	1	1	1	1	1	1	1	1	1
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



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CATALOG NUMBER: FVS8M-3-LD4-40-1HI-PA187-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1445	1445	1445	1445	1445	1445	1445	1445	1445	1445
2.5°	1436	1435	1436	1439	1439	1440	1441	1442	1441	1440
5°	1385	1380	1379	1383	1381	1382	1385	1388	1387	1387
7.5°	1316	1313	1314	1305	1304	1300	1301	1301	1303	1306
10°	1239	1242	1250	1257	1259	1256	1251	1245	1242	1243
12.5°	1207	1198	1186	1181	1186	1193	1203	1210	1212	1212
15°	1154	1158	1166	1171	1161	1157	1155	1152	1153	1153
17.5°	1138	1132	1122	1133	1140	1148	1148	1140	1133	1136
20°	1098	1104	1119	1105	1093	1087	1087	1088	1095	1092
22.5°	1078	1079	1061	1069	1082	1086	1079	1067	1054	1056
25°	1042	1036	1052	1040	1032	1027	1030	1035	1039	1037
27.5°	1011	1021	1000	1012	1019	1023	1017	998	995	989
30°	987	972	990	986	972	966	958	965	965	969
32.5°	950	955	946	936	943	949	944	936	925	922
35°	925	918	911	922	913	903	895	898	902	901
37.5°	895	883	888	871	875	881	886	872	866	860
40°	852	862	844	859	854	843	827	824	829	828
42.5°	825	818	828	807	802	804	813	816	808	804
45°	794	795	781	781	786	785	769	758	759	758
47.5°	756	760	752	755	740	738	739	743	741	739
50°	735	725	736	720	726	730	721	705	701	699
52.5°	705	711	698	712	707	694	686	692	693	694
55°	661	672	676	663	659	663	666	656	652	650
57.5°	628	625	624	625	628	626	617	617	623	624
60°	580	588	577	582	575	575	585	584	582	580
62.5°	532	534	541	530	534	540	534	529	532	532
65°	488	488	486	493	493	485	482	489	493	494
67.5°	444	447	445	446	439	439	444	438	436	438
70°	393	397	405	395	400	401	391	388	391	393
72.5°	347	349	353	356	356	353	350	350	349	349
75°	299	306	306	311	309	307	310	306	301	301
77.5°	253	263	264	265	266	270	269	266	266	267
80°	207	215	221	223	225	229	230	236	238	239
82.5°	163	173	179	187	190	194	200	205	209	206
85°	126	134	143	154	157	162	166	167	169	172
87.5°	95	106	117	126	128	129	132	138	145	150
90°	80	90	99	103	104	106	112	120	129	137
92.5°	76	84	89	93	96	99	104	110	119	125
95°	73	80	85	90	94	97	102	110	120	126
97.5°	71	78	84	90	94	97	106	117	127	128
100°	70	76	82	89	93	97	106	111	110	110
102.5°	68	74	81	87	90	92	96	96	94	93
105°	67	72	78	82	82	84	85	84	83	82
107.5°	65	70	74	75	76	77	77	76	74	73
110°	63	67	70	71	71	72	71	70	68	67



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	62	65	68	69	69	70	70	69	68	67
115°	61	65	68	69	70	71	72	71	70	69
117.5°	61	65	69	71	72	73	74	75	73	72
120°	62	66	70	73	74	75	77	77	76	76
122.5°	62	67	71	74	76	77	78	79	78	78
125°	62	67	71	74	76	77	79	81	80	80
127.5°	61	66	70	74	75	76	79	81	81	82
130°	59	64	69	72	74	75	78	80	81	82
132.5°	56	62	66	70	71	73	76	78	80	81
135°	53	58	63	67	69	71	73	76	78	78
137.5°	49	55	60	64	65	67	70	73	74	75
140°	46	51	56	60	62	64	67	69	71	71
142.5°	42	48	52	56	58	60	63	65	67	67
145°	39	44	48	52	54	55	58	60	62	62
147.5°	35	39	44	47	49	50	53	55	56	57
150°	30	34	38	41	43	44	47	49	50	51
152.5°	24	28	32	35	36	38	40	41	43	43
155°	20	23	26	29	30	31	33	34	35	35
157.5°	15	17	20	23	24	24	26	27	28	28
160°	11	13	15	17	18	19	20	21	21	21
162.5°	7	9	10	12	12	13	14	15	15	15
165°	4	5	6	7	8	8	9	9	10	10
167.5°	2	3	3	4	4	4	5	5	6	5
170°	1	1	1	1	1	2	2	2	2	2
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)