

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: P241583

Luminaire Tested: **FVS8M-3-LD4-40-2HI-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241583
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-3-LD4-40-2HI-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
3FT LENGTH, 2-MODULE LED WITH OPAL LENS
Light Source: (168) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

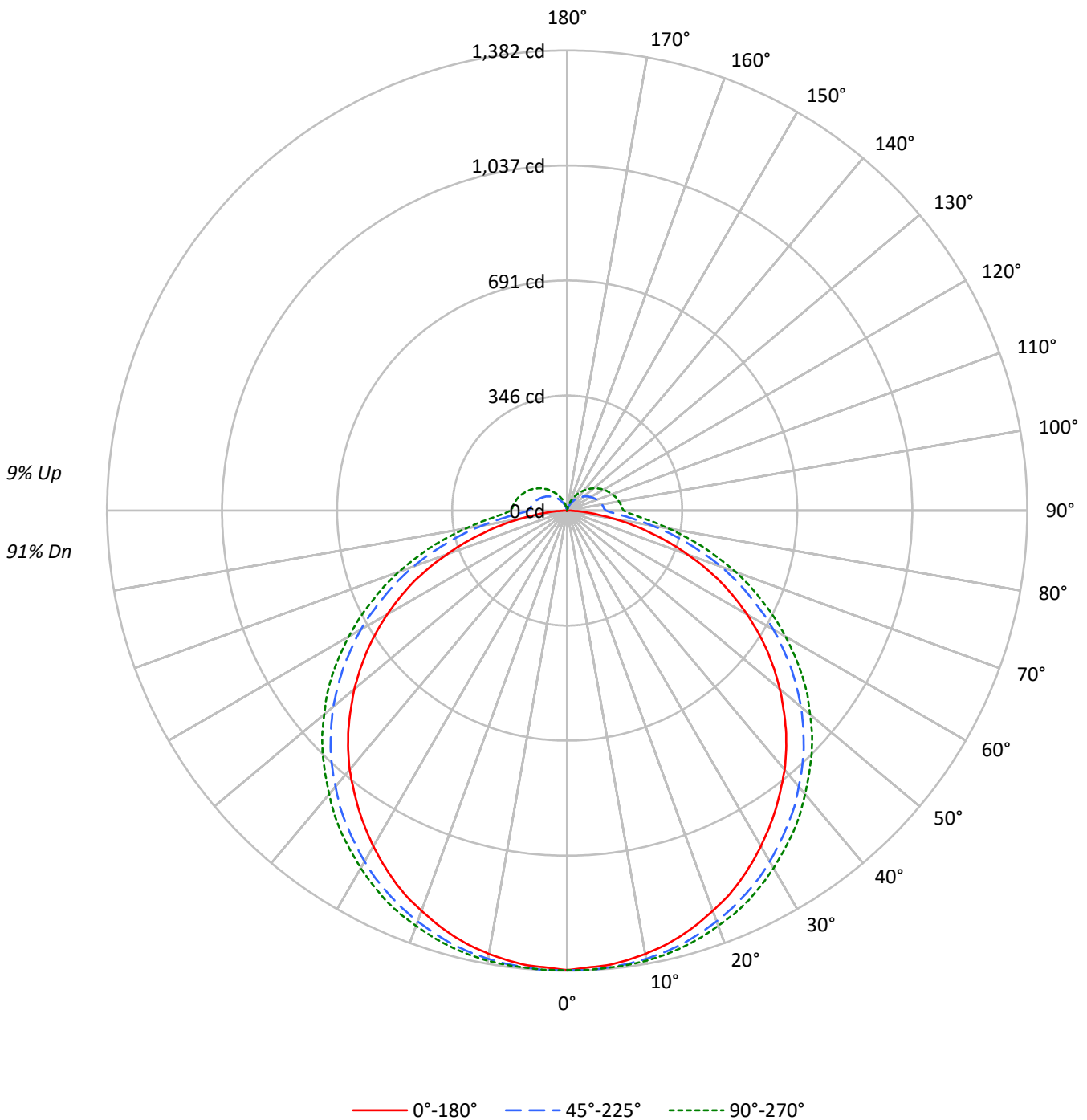
Lumens per Lamp: N/A
Luminaire Lumens: 4857.9 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.33 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 2.85' x H: 0.15')
CIE Type: Direct

Input Watts (W): 69.3
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: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-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	100	100	100	94	94	94	91
1	106	101	96	92	102	97	93	89	92	88	85	86	83	81	81	79	77	74
2	96	87	80	74	92	84	78	72	79	74	69	75	70	66	70	67	64	61
3	87	76	67	61	84	74	66	59	69	63	57	65	60	55	62	57	53	51
4	79	67	58	51	76	65	57	50	61	54	48	58	52	47	55	50	45	43
5	73	60	50	43	70	58	49	43	55	47	42	52	45	40	49	44	39	37
6	67	53	44	38	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	40	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8058	8058	8058
5°	8001	7941	7927
10°	7945	7835	7829
15°	7884	7732	7730
20°	7803	7616	7620
25°	7728	7498	7526
30°	7624	7373	7397
35°	7522	7235	7276
40°	7426	7084	7126
45°	7299	6941	6993
50°	7142	6754	6815
55°	6955	6524	6628
60°	6695	6244	6355
65°	6351	5868	6032
70°	5764	5451	5669
75°	4946	4836	5179
80°	3754	4111	4556
85°	2073	3373	4041



TEST NUMBER: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-O-UNV-EDC1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.0	2.7
10°-20°	379.0	7.8
20°-30°	583.1	12.0
30°-40°	718.0	14.8
40°-50°	767.6	15.8
50°-60°	723.4	14.9
60°-70°	586.9	12.1
70°-80°	379.8	7.8
80°-90°	173.5	3.6
90°-100°	107.3	2.2
100°-110°	95.1	2.0
110°-120°	78.5	1.6
120°-130°	59.4	1.2
130°-140°	40.3	0.8
140°-150°	23.0	0.5
150°-160°	9.8	0.2
160°-170°	2.2	0.0
170°-180°	0.0	0.0
0°-30°	1093.2	22.5
0°-40°	1811.2	37.3
0°-60°	3302.1	68.0
0°-90°	4442.3	91.4
90°-120°	280.8	5.8
90°-150°	403.5	8.3
90°-180°	416.0	8.6
0°-180°	4857.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1371	1373	1378	1380	1379	130
15°	1322	1330	1346	1354	1356	373
25°	1228	1244	1270	1284	1291	566
35°	1093	1121	1154	1176	1182	684
45°	929	964	1005	1028	1038	716
55°	733	772	820	849	861	654
65°	510	552	603	639	648	503
75°	261	312	371	406	423	277
85°	49	102	163	203	216	61
90°	1	54	116	157	170	3
95°	1	50	110	150	163	0
105°	1	44	101	139	152	1
115°	1	37	88	123	135	1
125°	1	30	74	104	115	1
135°	1	22	58	83	92	1
145°	1	12	40	60	66	1
155°	1	5	21	36	40	0
165°	2	1	6	12	15	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-O-UNV-EDC1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1380	1380	1380	1380	1380	1380	1380	1380	1380	1380	1380
2.5°	1374	1375	1375	1375	1376	1377	1378	1380	1381	1382	1382
5°	1371	1371	1371	1371	1372	1373	1375	1376	1377	1378	1378
7.5°	1363	1364	1364	1364	1365	1366	1367	1370	1372	1373	1374
10°	1352	1354	1354	1354	1355	1357	1358	1361	1364	1366	1367
12.5°	1339	1339	1340	1340	1343	1344	1347	1351	1353	1356	1358
15°	1322	1323	1323	1324	1328	1330	1332	1336	1341	1343	1346
17.5°	1302	1303	1305	1306	1310	1313	1315	1320	1325	1328	1330
20°	1279	1281	1282	1285	1290	1293	1295	1301	1306	1309	1313
22.5°	1256	1256	1258	1262	1267	1271	1274	1279	1285	1288	1293
25°	1228	1228	1231	1236	1241	1244	1247	1254	1261	1266	1270
27.5°	1197	1198	1202	1207	1213	1218	1220	1228	1234	1241	1246
30°	1164	1167	1171	1176	1184	1188	1192	1199	1206	1213	1217
32.5°	1129	1131	1138	1143	1151	1156	1160	1168	1175	1181	1186
35°	1093	1095	1101	1108	1117	1121	1124	1134	1143	1149	1154
37.5°	1054	1058	1063	1070	1081	1085	1089	1098	1107	1113	1121
40°	1016	1017	1023	1033	1042	1045	1051	1062	1069	1077	1082
42.5°	974	975	981	991	1000	1006	1012	1022	1030	1038	1045
45°	929	932	938	948	957	964	969	980	989	996	1005
47.5°	881	885	892	902	912	919	924	934	945	953	961
50°	834	839	845	856	866	873	877	888	898	908	917
52.5°	784	788	796	807	817	824	828	841	852	860	868
55°	733	737	745	755	767	772	778	791	801	811	820
57.5°	679	684	692	703	714	719	725	737	750	759	767
60°	624	627	635	648	658	664	671	682	695	705	716
62.5°	568	571	579	592	604	608	616	629	639	652	660
65°	510	514	522	531	546	552	558	571	582	593	603
67.5°	449	451	463	474	484	493	500	513	525	537	549
70°	385	390	400	413	425	433	438	453	466	481	491
72.5°	324	331	341	352	364	374	380	393	406	419	431
75°	261	269	280	292	305	312	322	335	348	360	371
77.5°	202	207	221	233	249	255	261	276	289	302	315
80°	144	150	162	176	191	197	205	219	233	246	258
82.5°	93	99	109	123	138	145	153	167	182	195	207
85°	49	54	65	79	94	102	108	124	136	152	163
87.5°	18	22	32	48	62	71	77	92	106	119	132
90°	1	7	18	32	47	54	62	77	91	104	116
92.5°	0	5	16	29	44	52	59	73	87	100	112
95°	1	5	15	28	43	50	58	72	85	98	110
97.5°	0	4	14	27	41	49	56	70	84	96	108
100°	1	4	13	26	40	47	54	68	82	94	106
102.5°	0	4	13	25	39	46	53	66	79	92	103
105°	1	3	12	24	37	44	51	64	77	89	101
107.5°	0	3	11	23	36	42	49	62	75	87	98
110°	1	3	11	22	34	41	47	60	72	84	95



TEST NUMBER: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1	2	10	21	33	39	45	58	70	81	92
115°	1	2	9	20	31	37	43	55	67	78	88
117.5°	1	2	9	18	30	35	41	53	64	75	85
120°	1	2	8	17	28	33	39	50	61	72	81
122.5°	1	1	7	16	26	32	37	48	58	68	78
125°	1	1	6	15	25	30	35	45	55	65	74
127.5°	1	1	6	14	23	28	33	42	52	61	70
130°	1	1	5	12	21	26	30	40	49	58	66
132.5°	1	1	4	11	19	24	28	37	46	54	62
135°	1	1	4	10	18	22	26	34	42	50	58
137.5°	1	1	3	8	15	19	23	31	39	46	53
140°	1	1	2	7	13	17	21	28	36	43	49
142.5°	1	1	2	6	12	15	18	25	32	39	45
145°	1	1	2	5	10	12	15	21	28	34	40
147.5°	1	1	1	4	8	10	13	18	24	30	35
150°	1	1	1	3	7	9	11	15	20	25	30
152.5°	1	1	1	2	5	7	9	13	17	21	25
155°	1	1	1	2	4	5	7	10	14	17	21
157.5°	1	1	1	2	3	4	5	8	10	13	17
160°	1	1	1	1	2	3	4	5	8	10	12
162.5°	2	2	1	1	2	2	3	4	5	7	9
165°	2	2	2	1	1	1	2	3	4	5	6
167.5°	2	2	2	2	1	1	1	1	2	3	3
170°	2	2	2	2	1	1	1	1	1	1	2
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: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1380	1380	1380	1380	1380	1380	1380	1380	1380	1380
2.5°	1382	1382	1382	1382	1382	1382	1382	1382	1381	1381
5°	1378	1378	1379	1380	1380	1380	1380	1379	1379	1379
7.5°	1374	1376	1377	1377	1377	1377	1378	1378	1377	1377
10°	1368	1369	1371	1372	1372	1372	1372	1373	1373	1373
12.5°	1360	1361	1362	1364	1364	1365	1366	1365	1367	1366
15°	1347	1350	1352	1353	1354	1354	1355	1356	1356	1356
17.5°	1333	1335	1338	1340	1340	1342	1341	1343	1344	1343
20°	1315	1318	1321	1323	1325	1325	1326	1327	1327	1327
22.5°	1296	1299	1302	1305	1306	1307	1309	1310	1310	1311
25°	1273	1277	1281	1283	1284	1286	1287	1288	1289	1291
27.5°	1249	1253	1257	1260	1260	1263	1265	1266	1266	1266
30°	1222	1226	1229	1234	1234	1235	1237	1240	1239	1240
32.5°	1192	1197	1201	1203	1206	1208	1208	1211	1213	1211
35°	1160	1165	1170	1173	1176	1176	1180	1180	1182	1182
37.5°	1127	1131	1136	1139	1142	1145	1147	1147	1148	1149
40°	1089	1094	1101	1106	1107	1108	1111	1112	1114	1112
42.5°	1051	1057	1063	1068	1068	1071	1073	1075	1076	1075
45°	1010	1018	1022	1028	1028	1031	1033	1037	1038	1038
47.5°	967	974	981	987	987	990	991	994	995	998
50°	924	931	936	943	944	946	949	951	952	952
52.5°	878	884	890	895	899	899	904	905	906	910
55°	829	836	842	849	849	851	854	856	859	861
57.5°	777	784	793	796	800	802	806	807	808	810
60°	724	732	738	744	747	749	752	755	757	757
62.5°	671	676	685	692	694	698	700	702	704	705
65°	614	622	631	636	639	639	644	648	647	648
67.5°	557	566	572	579	582	585	590	591	594	595
70°	498	509	516	521	526	525	532	533	536	538
72.5°	441	449	459	464	467	469	473	476	476	478
75°	382	390	398	406	406	412	416	420	420	423
77.5°	323	335	343	348	352	355	358	363	362	363
80°	267	277	285	293	296	299	302	306	308	309
82.5°	216	226	235	242	245	249	254	257	258	261
85°	173	183	192	200	203	205	210	213	215	216
87.5°	143	153	162	169	172	175	180	183	186	186
90°	127	137	146	153	157	160	165	168	170	170
92.5°	123	132	141	148	152	155	159	162	165	165
95°	121	131	139	146	150	153	157	161	163	163
97.5°	119	129	137	144	148	151	155	158	160	161
100°	116	126	135	142	145	148	153	156	158	158
102.5°	114	123	132	139	142	145	149	153	154	155
105°	111	120	129	136	139	142	146	149	151	152
107.5°	108	117	125	132	135	138	143	146	148	148
110°	105	114	122	128	132	134	139	142	144	144



TEST NUMBER: P241583

CATALOG NUMBER: FVS8M-3-LD4-40-2HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	101	110	118	124	127	130	134	137	139	140
115°	98	106	114	120	123	126	130	133	135	135
117.5°	94	102	109	116	119	121	125	128	130	131
120°	90	98	105	111	114	116	120	123	125	126
122.5°	86	94	101	107	109	111	115	118	120	121
125°	82	89	96	102	104	106	110	113	114	115
127.5°	78	85	91	97	99	101	105	107	109	110
130°	73	80	86	91	94	96	99	102	103	104
132.5°	69	75	81	86	88	90	94	96	98	98
135°	64	70	76	81	83	85	88	90	91	92
137.5°	60	66	71	75	77	79	82	84	85	86
140°	55	60	65	69	71	73	76	78	79	79
142.5°	50	55	60	64	66	67	70	71	72	73
145°	46	50	54	58	60	61	63	65	66	66
147.5°	41	45	49	52	54	55	57	59	60	60
150°	35	40	43	46	48	49	51	52	53	53
152.5°	30	34	38	41	42	43	45	46	47	47
155°	25	28	32	35	36	37	38	39	40	40
157.5°	20	23	26	29	30	31	32	33	33	34
160°	15	17	20	23	24	25	26	26	27	27
162.5°	11	13	15	17	17	19	20	21	21	21
165°	7	9	10	11	12	13	14	14	15	15
167.5°	4	5	6	7	7	8	8	9	9	9
170°	2	2	3	3	3	3	4	4	4	5
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)