

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: P241559

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241559
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-LD4-40-3HI-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
2FT LENGTH, 3-MODULE LED WITH OPAL LENS
Light Source: (126) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

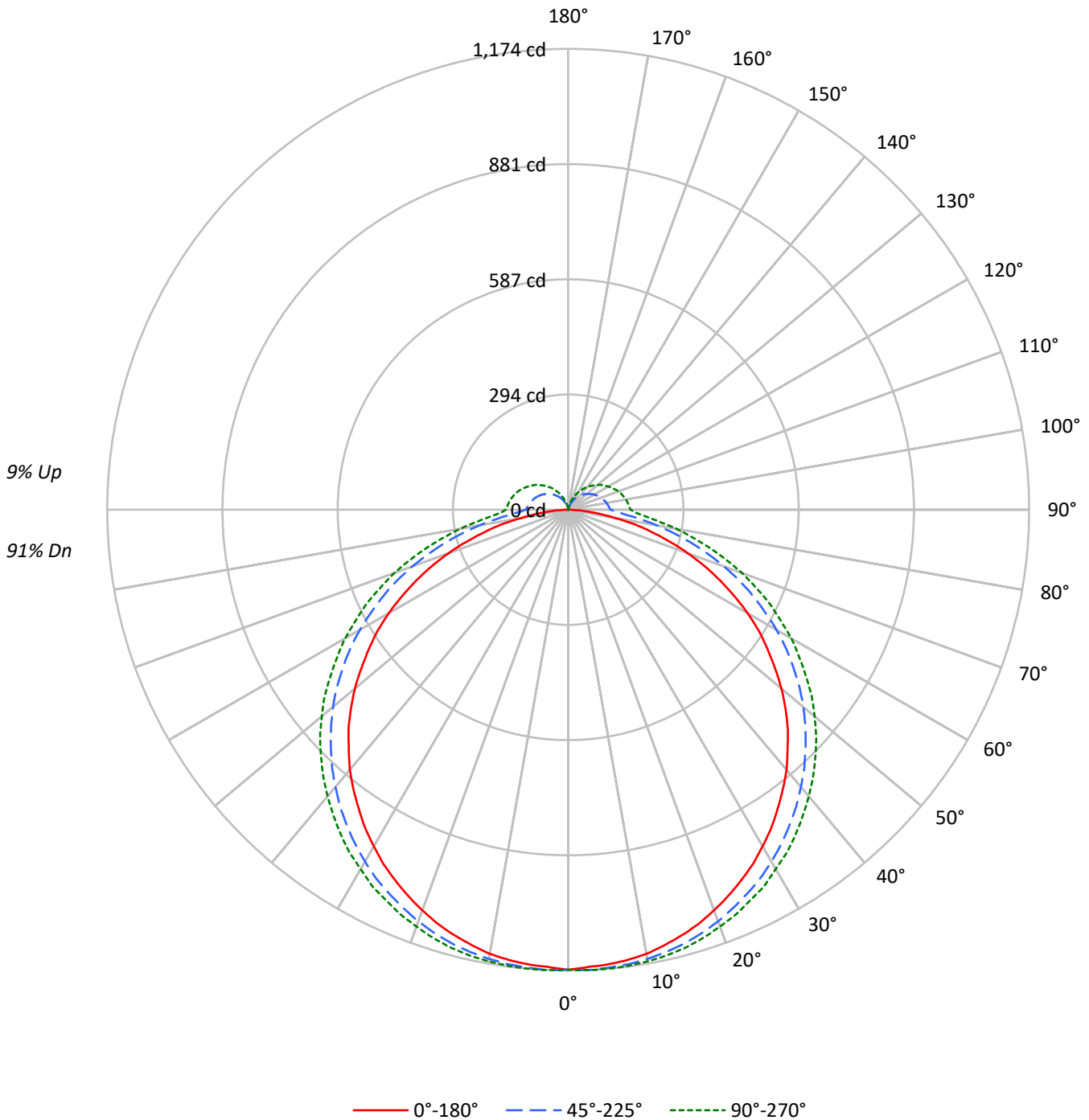
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4197.9 lumens
Efficiency: N/A
Efficacy: 63.1 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): 66.5
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: P241559
CATALOG NUMBER: FVS8M-2-LD4-40-3HI-O-UNV-EDC1

Luminous Intensity Polar Plot





TEST NUMBER: P241559

CATALOG NUMBER: FVS8M-2-LD4-40-3HI-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°	10535	10535	10535
5°	10422	10371	10388
10°	10344	10218	10253
15°	10226	10065	10135
20°	10099	9900	9988
25°	9969	9725	9853
30°	9829	9555	9706
35°	9672	9364	9570
40°	9522	9163	9401
45°	9322	8943	9230
50°	9065	8703	9024
55°	8735	8390	8757
60°	8354	8027	8478
65°	7771	7552	8111
70°	7024	6969	7639
75°	5907	6220	6992
80°	4403	5314	6333
85°	2335	4411	5703



TEST NUMBER: P241559

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.4	2.7
10°-20°	322.2	7.7
20°-30°	495.8	11.8
30°-40°	611.4	14.6
40°-50°	654.6	15.6
50°-60°	618.3	14.7
60°-70°	504.1	12.0
70°-80°	330.4	7.9
80°-90°	156.9	3.7
90°-100°	100.7	2.4
100°-110°	89.4	2.1
110°-120°	73.9	1.8
120°-130°	56.3	1.3
130°-140°	38.4	0.9
140°-150°	22.2	0.5
150°-160°	9.7	0.2
160°-170°	2.2	0.1
170°-180°	0.0	0.0
0°-30°	929.4	22.1
0°-40°	1540.9	36.7
0°-60°	2813.7	67.0
0°-90°	3805.1	90.6
90°-120°	264.0	6.3
90°-150°	381.0	9.1
90°-180°	393.0	9.4
0°-180°	4197.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1163	1166	1171	1174	1174	111
15°	1122	1130	1144	1152	1155	317
25°	1042	1057	1079	1094	1098	480
35°	930	953	982	1003	1010	582
45°	791	818	855	881	890	609
55°	620	656	700	730	739	554
65°	427	467	519	553	566	422
75°	220	268	323	360	371	235
85°	43	91	148	186	198	52
90°	0	51	108	147	159	2
95°	0	47	103	141	154	0
105°	0	41	94	131	143	0
115°	0	35	83	116	127	0
125°	0	28	70	99	109	0
135°	1	21	55	79	87	0
145°	1	13	39	57	64	1
155°	1	5	22	35	38	0
165°	1	1	6	13	15	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241559

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1172	1172	1172	1172	1172	1172	1172	1172	1172	1172	1172
2.5°	1166	1166	1167	1168	1168	1169	1169	1170	1172	1173	1174
5°	1163	1163	1164	1165	1166	1166	1167	1168	1169	1170	1171
7.5°	1157	1157	1158	1159	1160	1161	1161	1162	1164	1166	1168
10°	1149	1148	1149	1150	1151	1152	1154	1156	1158	1161	1162
12.5°	1136	1137	1137	1139	1141	1143	1143	1146	1149	1152	1154
15°	1122	1122	1123	1126	1128	1130	1131	1135	1138	1141	1144
17.5°	1106	1106	1108	1110	1113	1115	1117	1120	1124	1128	1131
20°	1086	1087	1089	1092	1096	1098	1099	1104	1109	1112	1116
22.5°	1065	1065	1068	1072	1076	1078	1080	1085	1090	1094	1098
25°	1042	1043	1046	1050	1054	1057	1059	1066	1070	1074	1079
27.5°	1018	1018	1022	1026	1031	1033	1037	1042	1048	1053	1059
30°	990	991	996	1001	1005	1010	1012	1018	1024	1029	1035
32.5°	962	962	966	973	977	981	984	991	998	1004	1010
35°	930	933	937	943	949	953	956	963	971	976	982
37.5°	898	900	905	911	917	921	925	933	940	947	954
40°	865	865	870	878	885	888	892	900	907	915	922
42.5°	827	829	835	842	850	854	858	866	874	882	890
45°	791	792	798	805	813	818	823	830	840	847	855
47.5°	751	753	759	767	775	781	784	793	802	811	819
50°	709	711	718	728	736	739	745	756	764	774	782
52.5°	664	669	678	685	694	699	704	713	725	733	742
55°	620	623	631	640	651	656	661	671	683	692	700
57.5°	576	579	587	595	607	612	618	629	639	647	658
60°	528	530	539	550	560	567	571	583	593	603	613
62.5°	477	483	490	502	512	521	525	535	547	557	565
65°	427	432	440	453	463	467	475	486	498	510	519
67.5°	376	383	388	402	416	420	428	437	451	462	472
70°	325	329	338	351	362	369	375	388	400	413	422
72.5°	272	278	288	299	314	319	326	337	352	363	372
75°	220	225	234	249	262	268	275	288	301	313	323
77.5°	174	176	186	199	212	219	226	239	252	266	275
80°	123	129	138	151	165	172	179	191	204	216	228
82.5°	78	84	94	107	122	127	135	150	161	172	185
85°	43	47	56	70	84	91	98	112	124	136	148
87.5°	15	20	30	43	57	64	71	85	97	110	122
90°	0	7	17	30	44	51	58	71	85	97	108
92.5°	0	5	15	27	41	48	55	69	82	94	105
95°	0	4	14	26	40	47	54	67	80	92	103
97.5°	0	4	13	25	39	45	52	66	78	90	101
100°	0	4	13	24	38	44	51	64	76	88	99
102.5°	0	4	12	24	36	43	49	62	74	86	97
105°	0	3	11	23	35	41	48	60	72	84	94
107.5°	0	3	11	22	34	40	46	58	70	81	92
110°	0	3	10	21	32	38	45	57	68	79	89



TEST NUMBER: P241559

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0	3	10	20	31	37	43	54	66	76	86
115°	0	2	9	19	29	35	41	52	63	73	83
117.5°	0	2	8	18	28	33	39	50	61	71	80
120°	0	2	8	17	27	32	37	48	58	68	77
122.5°	0	1	7	16	25	30	35	45	55	65	73
125°	0	1	7	14	24	28	33	43	52	61	70
127.5°	0	1	6	13	22	27	31	41	50	58	66
130°	0	1	5	12	20	25	29	38	47	55	62
132.5°	0	1	5	11	19	23	27	35	44	51	59
135°	1	1	4	10	17	21	25	33	41	48	55
137.5°	0	1	3	9	16	19	23	30	38	44	51
140°	0	1	3	8	14	17	21	28	34	41	47
142.5°	1	1	2	7	12	15	18	25	31	37	43
145°	1	1	1	5	10	13	16	22	28	34	39
147.5°	1	1	1	4	9	11	14	19	25	30	35
150°	1	1	1	3	7	9	11	16	21	26	31
152.5°	1	1	1	2	5	7	9	13	18	22	26
155°	1	1	1	2	4	5	7	11	14	18	22
157.5°	1	1	1	1	3	4	5	8	11	14	17
160°	1	1	1	1	2	3	3	6	8	11	13
162.5°	1	1	1	1	1	1	2	4	5	7	9
165°	1	1	1	1	1	1	1	2	3	5	6
167.5°	1	1	1	1	1	1	1	1	2	2	3
170°	1	1	1	1	1	1	0	0	0	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



TEST NUMBER: P241559

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1172	1172	1172	1172	1172	1172	1172	1172	1172	1172
2.5°	1174	1175	1175	1175	1175	1175	1175	1175	1175	1174
5°	1172	1173	1173	1174	1174	1174	1174	1174	1174	1174
7.5°	1169	1170	1171	1172	1172	1172	1172	1172	1172	1172
10°	1164	1165	1167	1167	1168	1168	1168	1168	1169	1168
12.5°	1156	1158	1160	1161	1161	1162	1162	1162	1163	1163
15°	1146	1148	1150	1151	1152	1153	1153	1154	1154	1155
17.5°	1134	1137	1139	1140	1141	1142	1142	1143	1144	1144
20°	1120	1122	1125	1126	1127	1128	1130	1130	1131	1130
22.5°	1102	1106	1109	1111	1112	1112	1114	1116	1116	1116
25°	1083	1087	1091	1093	1094	1094	1097	1097	1098	1098
27.5°	1062	1067	1070	1073	1074	1075	1076	1078	1079	1081
30°	1039	1043	1047	1051	1052	1053	1055	1056	1058	1057
32.5°	1015	1019	1024	1028	1029	1029	1032	1032	1034	1036
35°	988	993	997	1001	1003	1003	1007	1008	1010	1010
37.5°	959	966	969	974	976	977	980	980	982	982
40°	929	934	940	943	945	948	949	953	953	953
42.5°	897	901	909	912	915	915	918	920	922	923
45°	863	868	874	879	881	883	885	887	890	890
47.5°	826	834	838	844	846	848	851	853	855	857
50°	788	796	803	807	808	811	814	816	818	819
52.5°	749	756	762	768	770	775	775	778	780	782
55°	709	715	723	727	730	731	737	739	739	739
57.5°	665	674	679	687	688	690	693	697	697	697
60°	621	629	636	641	645	645	650	654	655	656
62.5°	576	583	591	596	600	602	605	609	611	609
65°	528	536	544	550	553	555	559	562	565	566
67.5°	481	488	497	504	506	510	513	515	517	517
70°	432	441	449	455	456	460	465	468	467	471
72.5°	383	392	399	407	408	411	415	418	419	420
75°	333	344	350	357	360	362	367	371	371	371
77.5°	285	294	301	307	311	314	319	322	322	323
80°	236	248	254	261	266	268	272	276	277	279
82.5°	194	205	212	219	223	227	229	233	234	234
85°	158	167	175	182	186	189	193	195	198	198
87.5°	132	140	149	156	159	162	166	169	172	171
90°	119	128	136	143	147	150	153	157	159	159
92.5°	115	124	133	140	143	145	150	153	155	156
95°	113	123	131	138	141	144	148	151	153	154
97.5°	112	121	129	136	139	142	146	149	151	152
100°	109	118	127	134	136	139	144	147	149	149
102.5°	107	116	124	131	134	136	141	144	146	146
105°	104	113	121	128	131	133	138	141	142	143
107.5°	101	110	118	124	127	130	134	137	139	140
110°	98	107	114	121	124	126	131	133	135	136



TEST NUMBER: P241559

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	95	103	111	117	120	122	126	130	131	132
115°	92	100	107	113	116	118	122	125	127	127
117.5°	88	96	103	109	112	114	118	121	122	123
120°	85	93	99	105	108	110	113	116	118	118
122.5°	81	89	95	101	103	105	109	112	113	113
125°	77	85	91	96	99	101	104	107	108	109
127.5°	74	80	87	92	94	96	99	102	103	104
130°	70	76	82	87	89	91	94	96	98	98
132.5°	65	72	77	82	84	85	89	91	92	92
135°	61	67	72	77	79	80	83	85	87	87
137.5°	57	62	67	72	73	75	78	80	81	81
140°	53	58	62	66	68	69	72	74	75	75
142.5°	48	53	57	61	63	64	66	68	69	70
145°	44	48	52	56	57	58	61	62	63	64
147.5°	39	43	47	50	51	53	55	56	57	57
150°	35	38	42	45	46	47	49	50	51	51
152.5°	30	34	37	39	40	41	43	44	45	45
155°	26	29	31	34	35	36	37	38	38	38
157.5°	21	24	26	28	29	30	31	32	32	33
160°	16	19	21	23	23	24	25	26	26	26
162.5°	12	14	16	17	18	18	20	20	20	20
165°	7	9	10	12	13	13	14	14	14	15
167.5°	4	5	6	7	8	8	9	9	9	9
170°	1	2	2	3	3	3	4	4	4	4
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)