

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: P241607

Luminaire Tested: **FVS8M-4-LD4-40-1HI-O-UNV-EDC1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P241607
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1711-410-34)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FVS8M-4-LD4-40-1HI-O-UNV-EDC1
Description: FAILSAFE FVS8M LED FIXTURE
4FT LENGTH, 1-MODULE LED WITH OPAL LENS
Light Source: (84) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

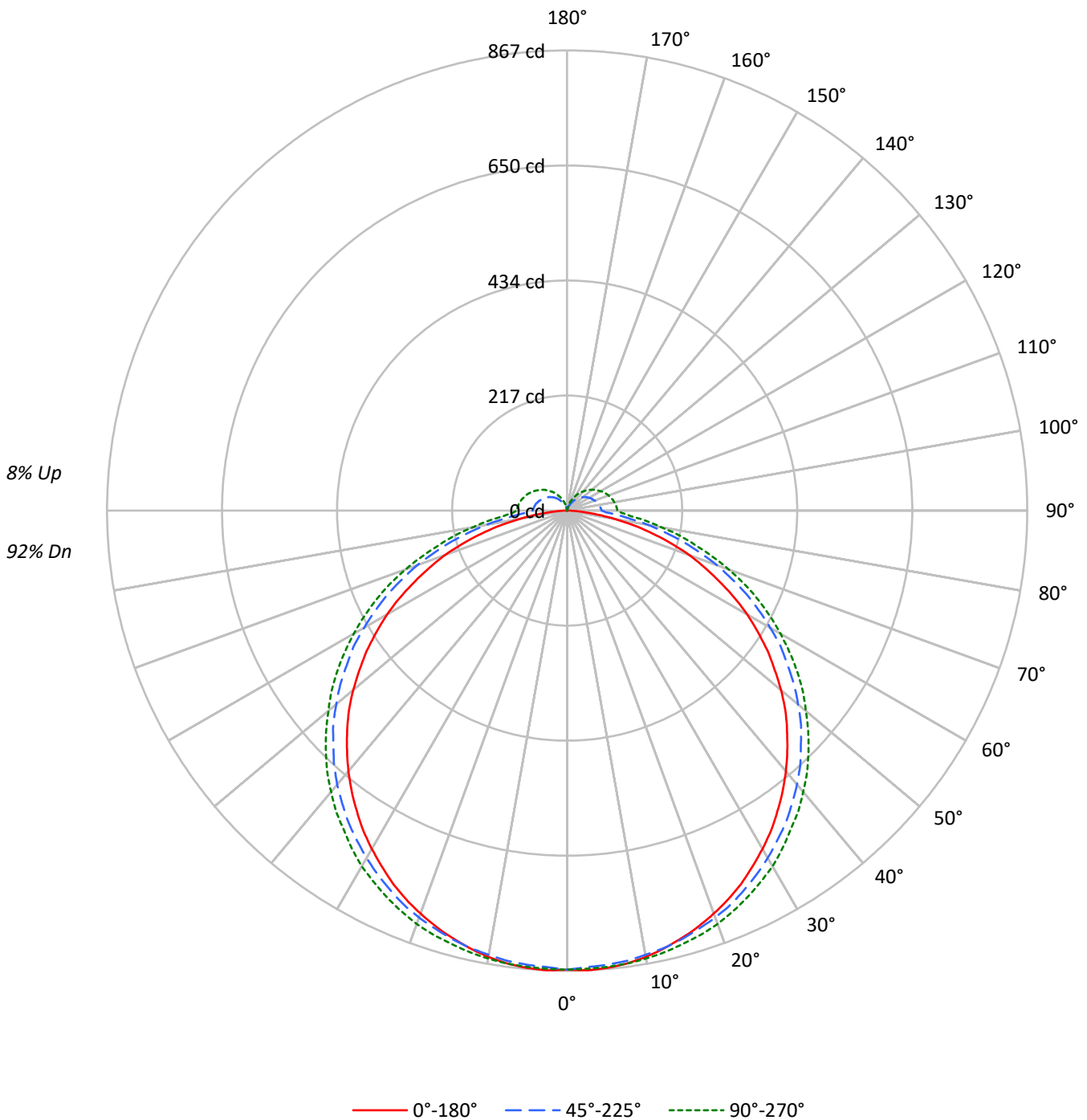
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2994.0 lumens
Efficiency: N/A
Efficacy: 67.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.32 / 1.43
Luminous Opening: Rectangular w/ Sides (W: 0.65' x L: 3.73' x H: 0.15')
CIE Type: Direct

Input Watts (W): 44.2
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





TEST NUMBER: P241607

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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	113	113	113	113	107	107	107	100	100	100	95	95	95	92
1	106	101	96	92	102	98	94	90	92	89	85	87	84	81	82	80	78	75
2	96	87	80	74	92	85	78	72	80	74	70	75	71	67	71	67	64	61
3	87	76	68	61	84	74	66	60	70	63	58	66	60	56	62	58	54	51
4	79	67	58	51	77	65	57	50	62	55	49	58	52	47	55	50	46	43
5	73	60	51	44	70	58	50	43	55	48	42	52	46	41	50	44	40	37
6	67	54	45	38	65	52	44	37	50	42	37	47	41	36	45	39	35	32
7	62	48	40	33	60	47	39	33	45	38	32	43	36	31	41	35	31	28
8	58	44	36	30	56	43	35	29	41	34	29	39	33	28	37	32	27	25
9	54	40	32	27	52	39	32	26	38	31	26	36	30	25	35	29	25	23
10	51	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3866	3866	3866
5°	3867	3792	3797
10°	3849	3734	3740
15°	3819	3683	3687
20°	3789	3633	3643
25°	3758	3578	3587
30°	3714	3521	3534
35°	3670	3463	3458
40°	3621	3398	3394
45°	3564	3316	3315
50°	3494	3229	3216
55°	3402	3117	3117
60°	3282	2983	2981
65°	3093	2814	2829
70°	2891	2588	2613
75°	2501	2287	2333
80°	1896	1922	2031
85°	1028	1518	1733



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	2.7
10°-20°	236.9	7.9
20°-30°	364.2	12.2
30°-40°	448.1	15.0
40°-50°	478.2	16.0
50°-60°	448.9	15.0
60°-70°	361.9	12.1
70°-80°	230.5	7.7
80°-90°	99.9	3.3
90°-100°	61.0	2.0
100°-110°	55.0	1.8
110°-120°	45.9	1.5
120°-130°	35.3	1.2
130°-140°	24.2	0.8
140°-150°	14.0	0.5
150°-160°	6.2	0.2
160°-170°	1.6	0.1
170°-180°	0.0	0.0
0°-30°	683.2	22.8
0°-40°	1131.3	37.8
0°-60°	2058.4	68.7
0°-90°	2750.7	91.9
90°-120°	161.8	5.4
90°-150°	235.5	7.9
90°-180°	243.0	8.1
0°-180°	2994.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	865	865	865	865	865	
5°	865	863	859	863	863	82
15°	834	835	836	844	845	235
25°	776	780	789	801	804	357
35°	691	702	718	731	734	433
45°	586	603	623	638	643	452
55°	461	482	507	524	529	411
65°	317	344	373	391	397	314
75°	166	193	225	245	249	176
85°	29	59	93	114	121	37
90°	0	30	65	87	94	1
95°	0	29	63	85	93	0
105°	0	26	58	80	87	0
115°	0	23	52	71	78	0
125°	0	19	44	61	67	0
135°	1	14	35	49	54	0
145°	1	9	24	36	40	1
155°	1	4	13	22	25	0
165°	1	1	5	8	11	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P241607

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	865	865	865	865	865	865	865	865	865	865	865
2.5°	867	866	866	866	866	866	866	866	864	863	861
5°	865	864	863	863	863	863	863	863	862	860	859
7.5°	861	860	859	859	859	859	860	859	858	856	856
10°	854	853	852	852	853	853	853	853	852	851	850
12.5°	845	845	844	844	844	845	845	846	845	844	844
15°	834	834	833	833	834	835	835	837	836	836	836
17.5°	822	821	821	821	823	824	824	825	826	826	826
20°	808	808	807	809	810	811	812	813	814	814	816
22.5°	793	792	792	793	795	796	798	800	800	801	804
25°	776	775	774	776	778	780	782	784	785	787	789
27.5°	756	756	757	758	761	763	765	767	769	771	773
30°	736	736	736	738	742	745	746	749	750	753	756
32.5°	715	713	715	718	722	724	726	729	731	734	737
35°	691	691	692	695	700	702	704	709	711	714	718
37.5°	667	666	668	672	677	679	682	685	688	692	696
40°	641	641	643	648	652	655	657	662	665	669	674
42.5°	614	615	617	621	627	630	633	637	641	645	650
45°	586	585	589	594	600	603	606	611	615	620	623
47.5°	558	555	560	564	571	576	577	583	588	593	598
50°	526	526	531	535	543	545	548	554	559	565	568
52.5°	493	493	498	505	512	515	518	525	530	534	539
55°	461	462	466	472	480	482	487	492	498	503	507
57.5°	426	428	432	438	447	449	454	461	465	471	477
60°	392	393	398	407	413	415	419	426	432	436	442
62.5°	355	358	362	370	376	381	383	390	397	402	407
65°	317	321	325	332	340	344	348	354	362	367	373
67.5°	280	283	288	296	302	307	309	318	323	330	335
70°	245	247	251	258	265	269	274	280	288	295	300
72.5°	205	206	211	218	227	231	234	244	250	257	261
75°	166	168	173	180	189	193	197	206	213	219	225
77.5°	129	129	135	144	152	156	159	169	175	182	188
80°	90	93	100	107	116	121	125	131	139	147	154
82.5°	58	60	66	75	83	87	92	99	107	115	121
85°	29	33	38	46	55	59	63	71	79	86	93
87.5°	9	12	18	26	35	39	43	51	59	66	73
90°	0	3	10	17	26	30	34	43	51	58	65
92.5°	0	3	9	17	25	30	34	42	50	57	64
95°	0	3	9	16	25	29	33	41	49	56	63
97.5°	0	3	8	16	24	28	32	41	48	55	62
100°	0	2	8	16	24	28	32	40	47	54	61
102.5°	0	2	8	15	23	27	31	39	46	53	60
105°	0	2	8	15	22	26	30	38	45	52	58
107.5°	0	2	7	14	22	25	29	37	44	50	57
110°	0	2	7	14	21	25	28	35	42	49	55



TEST NUMBER: P241607

CATALOG NUMBER: FVS8M-4-LD4-40-1HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0	2	7	13	20	24	27	34	41	47	53
115°	0	2	6	12	19	23	26	33	40	46	52
117.5°	0	1	6	12	18	22	25	32	38	44	50
120°	0	1	6	11	18	21	24	30	37	43	48
122.5°	0	1	5	11	16	20	23	29	35	41	46
125°	0	1	5	10	16	19	22	28	33	39	44
127.5°	0	1	5	9	15	18	20	26	32	37	42
130°	0	1	4	9	14	16	19	25	30	35	39
132.5°	0	1	3	8	13	15	18	23	28	33	37
135°	1	1	3	7	11	14	16	21	26	31	35
137.5°	1	1	3	6	10	12	15	19	24	28	32
140°	1	1	2	5	9	11	13	17	21	25	30
142.5°	1	1	2	5	8	10	12	15	19	23	27
145°	1	1	2	4	7	9	10	14	17	20	24
147.5°	1	1	1	3	6	7	9	12	15	18	21
150°	1	1	1	3	5	6	8	10	13	16	18
152.5°	1	1	1	2	4	5	6	9	11	13	16
155°	1	1	1	2	4	4	5	7	9	11	13
157.5°	1	1	1	2	3	4	4	6	8	9	11
160°	1	1	1	1	2	3	3	5	6	7	9
162.5°	1	1	1	1	2	2	2	4	5	6	7
165°	1	1	1	1	1	1	2	2	3	4	5
167.5°	1	1	1	1	1	1	1	2	2	3	3
170°	1	1	1	1	1	1	1	1	1	2	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: P241607

CATALOG NUMBER: FVS8M-4-LD4-40-1HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	865	865	865	865	865	865	865	865	865	865
2.5°	861	863	864	865	865	865	865	865	865	864
5°	859	861	862	863	863	863	863	863	863	863
7.5°	856	858	859	860	860	861	861	861	861	861
10°	851	853	855	856	856	857	857	857	857	857
12.5°	846	848	849	851	851	851	852	852	852	852
15°	838	841	842	844	844	844	845	845	846	845
17.5°	829	831	834	834	836	836	836	837	837	838
20°	818	821	823	825	825	827	827	828	828	829
22.5°	806	809	812	814	814	815	816	817	817	817
25°	792	795	798	800	801	802	803	803	804	804
27.5°	776	780	783	785	786	786	788	789	789	789
30°	760	763	766	769	769	770	772	773	772	774
32.5°	742	745	748	750	751	752	753	755	755	755
35°	721	725	728	731	731	732	734	735	735	734
37.5°	700	704	707	710	711	711	713	713	714	715
40°	678	682	685	686	688	689	691	692	691	692
42.5°	655	657	660	664	664	666	667	668	669	669
45°	628	631	635	638	638	640	641	642	644	643
47.5°	602	605	608	611	611	613	616	616	616	616
50°	573	577	579	583	584	585	586	588	588	587
52.5°	543	548	552	554	555	556	557	559	559	560
55°	512	517	520	524	524	525	528	529	528	529
57.5°	480	484	488	491	493	493	495	497	497	497
60°	447	450	455	458	461	460	464	464	464	464
62.5°	411	417	420	425	426	427	429	430	430	431
65°	377	382	386	389	391	391	394	395	396	397
67.5°	341	346	350	355	356	356	357	361	360	361
70°	304	309	313	317	318	319	321	324	324	324
72.5°	267	273	277	280	280	282	286	285	288	286
75°	231	235	241	243	245	247	249	250	251	249
77.5°	195	200	204	207	209	211	213	215	214	217
80°	160	163	167	172	174	176	179	180	179	180
82.5°	127	132	136	141	142	144	146	149	149	150
85°	99	104	110	113	114	116	119	120	122	121
87.5°	79	85	90	93	95	97	99	101	102	103
90°	71	76	81	85	87	88	91	93	94	94
92.5°	70	75	80	84	86	88	90	92	93	94
95°	69	74	79	83	85	87	89	91	92	93
97.5°	68	74	78	82	84	86	88	90	91	92
100°	67	72	77	81	83	84	87	89	90	90
102.5°	66	71	76	80	81	83	85	87	88	89
105°	64	69	74	78	80	81	84	86	87	87
107.5°	63	68	72	76	78	80	82	84	85	85
110°	61	66	70	74	76	77	80	82	83	83



TEST NUMBER: P241607

CATALOG NUMBER: FVS8M-4-LD4-40-1HI-O-UNV-EDC1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	59	64	68	72	74	75	78	79	80	81
115°	57	62	66	70	71	73	75	77	78	78
117.5°	55	60	64	67	69	70	73	74	75	76
120°	53	58	62	65	67	68	70	72	73	73
122.5°	51	55	59	62	64	65	67	69	70	70
125°	49	53	56	60	61	62	65	66	67	67
127.5°	46	50	54	57	58	60	61	63	64	64
130°	44	48	51	54	55	57	58	60	61	61
132.5°	41	45	48	51	52	53	55	57	57	58
135°	39	42	45	48	49	50	52	53	54	54
137.5°	36	39	42	45	46	47	49	50	51	51
140°	33	37	39	42	43	44	45	46	47	47
142.5°	31	34	36	38	39	40	42	43	43	44
145°	27	31	33	35	36	37	38	39	40	40
147.5°	24	27	30	32	33	33	35	35	36	36
150°	21	24	27	29	29	30	31	32	32	32
152.5°	18	20	23	25	26	26	27	28	29	29
155°	15	17	19	21	22	23	24	25	25	25
157.5°	13	14	16	18	19	20	20	21	21	21
160°	10	11	13	14	15	16	17	17	18	18
162.5°	8	9	10	11	12	12	13	14	14	14
165°	6	6	7	8	8	9	10	11	11	11
167.5°	4	4	5	5	6	6	6	7	7	7
170°	2	2	3	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)