

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: P554630

Luminaire Tested: **FUSL-12-2-LD4-2HI-30-UNV-81-87-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P554630  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FUSL-12-2-LD4-2HI-30-UNV-81-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

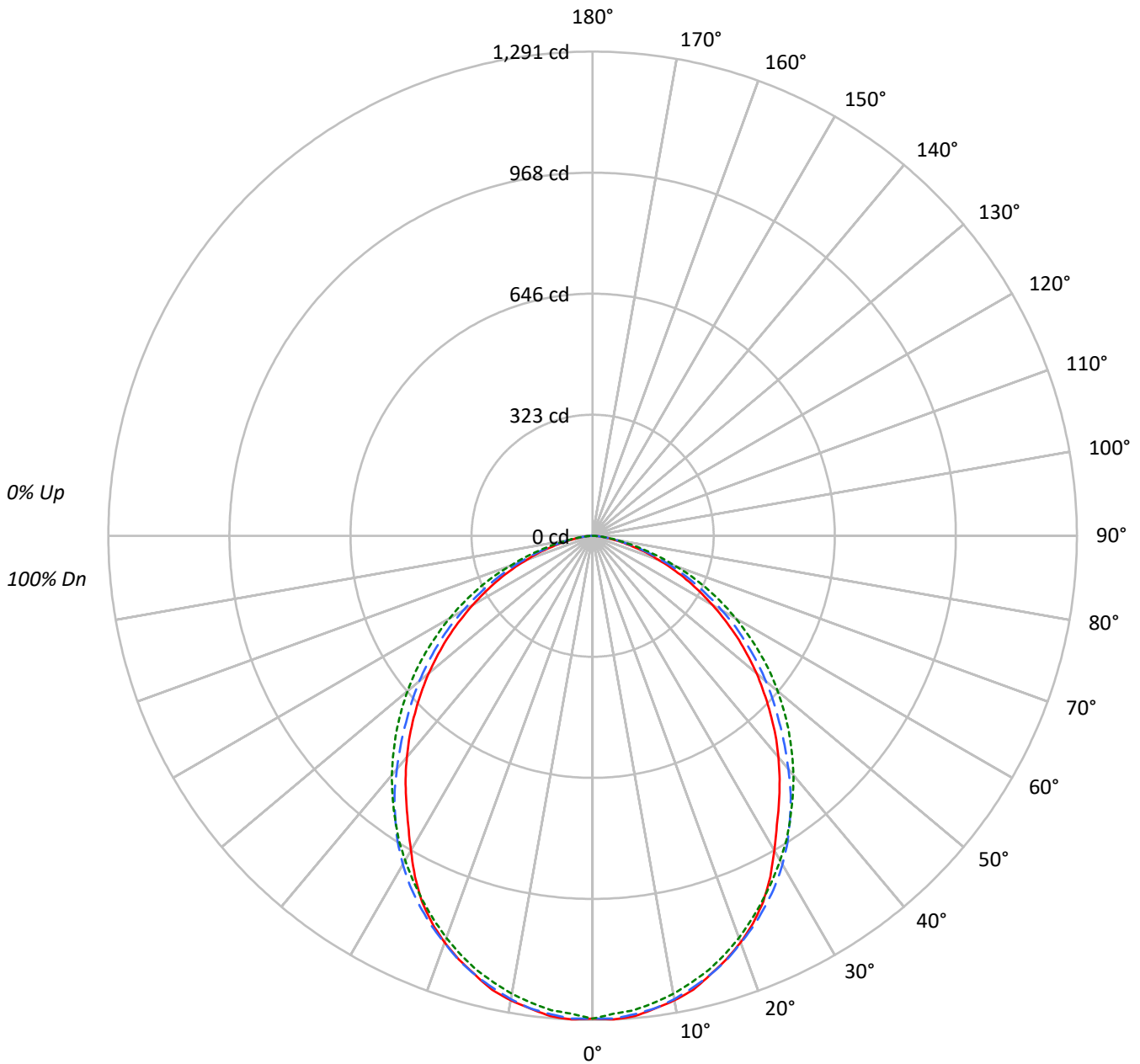
Lumens per Lamp: N/A  
Luminaire Lumens: 2977.0 lumens  
Efficiency: N/A  
Efficacy: 68.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
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									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6929	6929	6929
5°	6948	6918	6860
10°	6874	6855	6777
15°	6752	6752	6675
20°	6609	6617	6533
25°	6391	6470	6368
30°	6019	6289	6212
35°	5687	6028	6038
40°	5410	5703	5852
45°	5101	5357	5632
50°	4775	5048	5392
55°	4404	4696	5101
60°	3967	4286	4744
65°	3502	3810	4315
70°	2919	3246	3666
75°	2294	2591	2870
80°	1640	1826	2024
85°	1068	1068	1007



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.2	4.1
10°-20°	340.5	11.4
20°-30°	497.6	16.7
30°-40°	564.9	19.0
40°-50°	545.3	18.3
50°-60°	449.8	15.1
60°-70°	299.6	10.1
70°-80°	134.0	4.5
80°-90°	24.0	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	959.4	32.2
0°-40°	1524.3	51.2
0°-60°	2519.4	84.6
0°-90°	2977.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2977.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1288	1288	1288	1288	1288	
5°	1286	1286	1281	1274	1270	122
15°	1212	1215	1212	1206	1198	342
25°	1076	1085	1090	1082	1072	493
35°	866	877	918	922	919	542
45°	670	682	704	736	740	517
55°	469	477	500	528	544	419
65°	275	282	299	320	339	273
75°	110	116	125	131	138	121
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1287.5	1287.5	1287.5	1287.5	1287.5
2.5°	1290.9	1291.4	1288.5	1280.6	1275.6
5°	1286.0	1285.5	1280.6	1273.6	1269.7
7.5°	1271.6	1272.6	1271.2	1261.3	1255.8
10°	1257.8	1258.3	1254.3	1246.4	1240.0
12.5°	1240.0	1239.5	1234.1	1230.1	1219.7
15°	1211.8	1214.8	1211.8	1206.4	1198.0
17.5°	1184.6	1184.6	1186.6	1177.2	1170.7
20°	1153.9	1155.4	1155.4	1148.0	1140.6
22.5°	1118.3	1122.8	1124.3	1116.3	1107.4
25°	1076.3	1084.7	1089.6	1081.7	1072.3
27.5°	1025.3	1038.2	1053.0	1047.1	1036.7
30°	968.5	987.2	1012.0	1007.0	999.6
32.5°	914.5	933.3	967.5	965.5	961.5
35°	865.6	877.4	917.5	922.5	919.0
37.5°	819.1	830.0	867.5	878.9	876.0
40°	770.1	782.0	811.7	831.9	832.9
42.5°	721.6	733.0	757.3	786.4	786.4
45°	670.2	681.6	703.8	736.0	739.9
47.5°	619.7	631.6	653.4	685.5	692.0
50°	570.3	581.2	602.9	634.1	644.0
52.5°	518.8	530.7	552.0	580.7	595.0
55°	469.4	477.3	500.5	528.2	543.6
57.5°	417.9	425.4	451.6	475.3	491.1
60°	368.5	377.9	398.2	422.4	440.7
62.5°	321.0	330.9	348.2	369.5	390.2
65°	275.0	282.4	299.2	320.5	338.8
67.5°	230.5	236.9	253.7	268.6	287.9
70°	185.5	193.9	206.3	220.6	233.0
72.5°	149.4	152.8	163.2	173.6	186.5
75°	110.3	116.2	124.6	130.6	138.0
77.5°	79.1	82.6	87.5	92.5	99.4
80°	52.9	54.4	58.9	59.8	65.3
82.5°	32.1	33.1	34.1	34.6	36.6
85°	17.3	17.3	17.3	16.3	16.3
87.5°	9.9	9.9	8.4	6.9	4.9
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)