

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: P554642

Luminaire Tested: **FUSL-12-2-LD4-2HI-30-UNV-82-85-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: P554642  
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-82-85-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

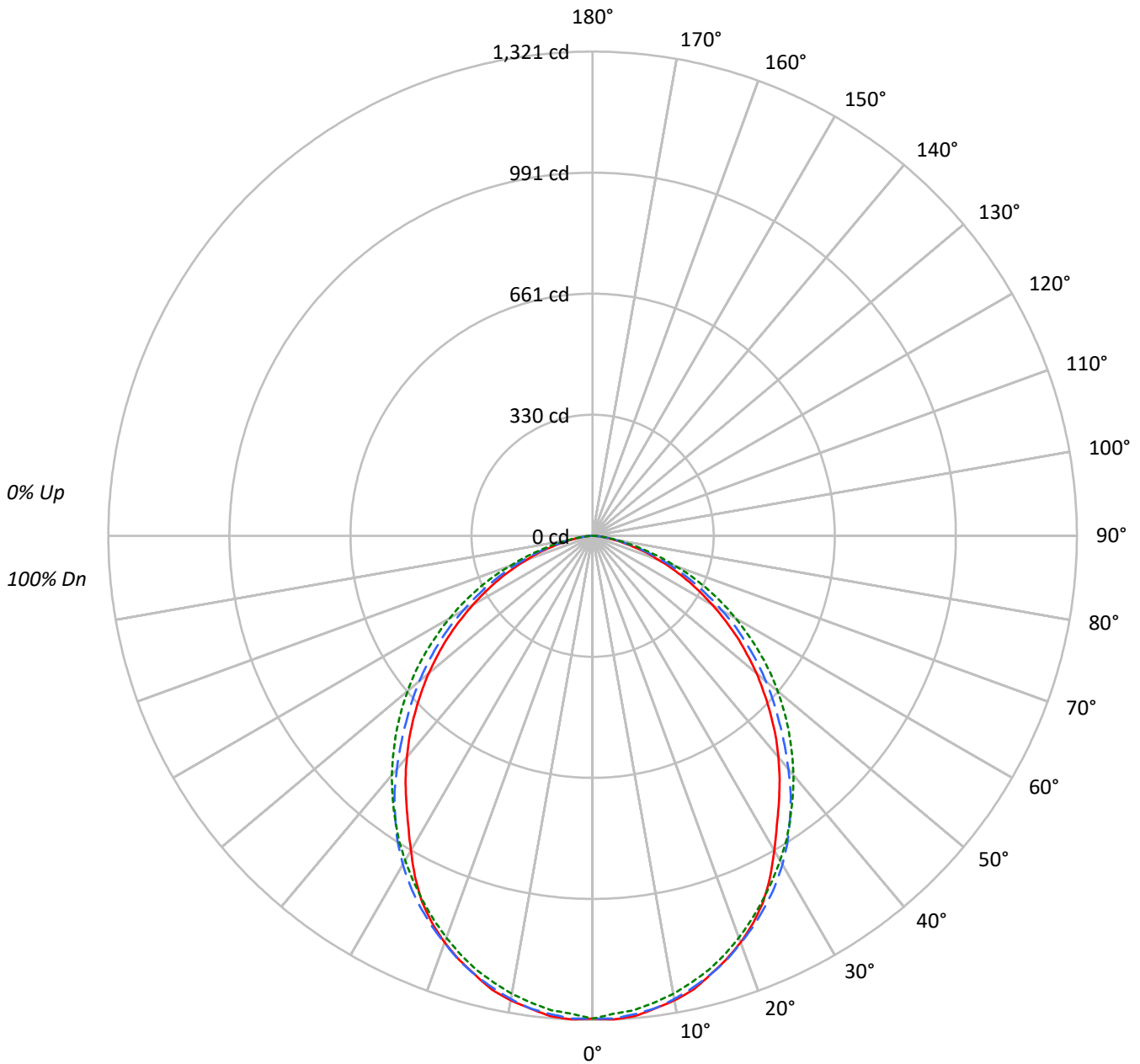
Lumens per Lamp: N/A  
Luminaire Lumens: 3046.0 lumens  
Efficiency: N/A  
Efficacy: 70.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	7090	7090	7090
5°	7109	7078	7018
10°	7033	7014	6933
15°	6908	6908	6829
20°	6762	6771	6684
25°	6539	6621	6516
30°	6158	6435	6356
35°	5819	6168	6178
40°	5536	5835	5987
45°	5219	5481	5762
50°	4886	5165	5517
55°	4507	4805	5219
60°	4058	4385	4853
65°	3584	3899	4415
70°	2987	3320	3751
75°	2348	2651	2936
80°	1680	1866	2070
85°	1093	1093	1031



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	4.1
10°-20°	348.4	11.4
20°-30°	509.2	16.7
30°-40°	578.0	19.0
40°-50°	557.9	18.3
50°-60°	460.3	15.1
60°-70°	306.5	10.1
70°-80°	137.1	4.5
80°-90°	24.5	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°	981.6	32.2
0°-40°	1559.6	51.2
0°-60°	2577.8	84.6
0°-90°	3046.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3046.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1317	1317	1317	1317	1317	
5°	1316	1315	1310	1303	1299	125
15°	1240	1243	1240	1234	1226	350
25°	1101	1110	1115	1107	1097	504
35°	886	898	939	944	940	555
45°	686	697	720	753	757	529
55°	480	488	512	540	556	429
65°	281	289	306	328	347	279
75°	113	119	128	134	141	123
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1317.3	1317.3	1317.3	1317.3	1317.3
2.5°	1320.9	1321.4	1318.3	1310.2	1305.2
5°	1315.8	1315.3	1310.2	1303.1	1299.1
7.5°	1301.1	1302.1	1300.6	1290.5	1284.9
10°	1287.0	1287.5	1283.4	1275.3	1268.7
12.5°	1268.7	1268.2	1262.7	1258.6	1248.0
15°	1239.9	1242.9	1239.9	1234.3	1225.7
17.5°	1212.1	1212.1	1214.1	1204.5	1197.9
20°	1180.7	1182.2	1182.2	1174.6	1167.0
22.5°	1144.2	1148.8	1150.3	1142.2	1133.1
25°	1101.2	1109.8	1114.9	1106.8	1097.2
27.5°	1049.1	1062.3	1077.4	1071.4	1060.7
30°	990.9	1010.1	1035.4	1030.4	1022.8
32.5°	935.7	955.0	989.9	987.9	983.8
35°	885.6	897.8	938.8	943.8	940.3
37.5°	838.1	849.2	887.7	899.3	896.3
40°	788.0	800.1	830.5	851.2	852.2
42.5°	738.4	750.0	774.8	804.7	804.7
45°	685.7	697.4	720.1	753.0	757.1
47.5°	634.1	646.3	668.5	701.4	708.0
50°	583.5	594.6	616.9	648.8	658.9
52.5°	530.9	543.0	564.8	594.1	608.8
55°	480.3	488.4	512.1	540.5	556.2
57.5°	427.6	435.2	462.0	486.3	502.5
60°	377.0	386.6	407.4	432.2	450.9
62.5°	328.4	338.6	356.3	378.0	399.3
65°	281.4	289.0	306.2	327.9	346.7
67.5°	235.8	242.4	259.6	274.8	294.5
70°	189.8	198.4	211.0	225.7	238.4
72.5°	152.8	156.4	167.0	177.6	190.8
75°	112.9	118.9	127.5	133.6	141.2
77.5°	81.0	84.5	89.6	94.6	101.7
80°	54.2	55.7	60.2	61.2	66.8
82.5°	32.9	33.9	34.9	35.4	37.4
85°	17.7	17.7	17.7	16.7	16.7
87.5°	10.1	10.1	8.6	7.1	5.1
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)