

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: P554521

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-82-88-EDD**

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: P554521  
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-LD4-1STD-40-UNV-82-88-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

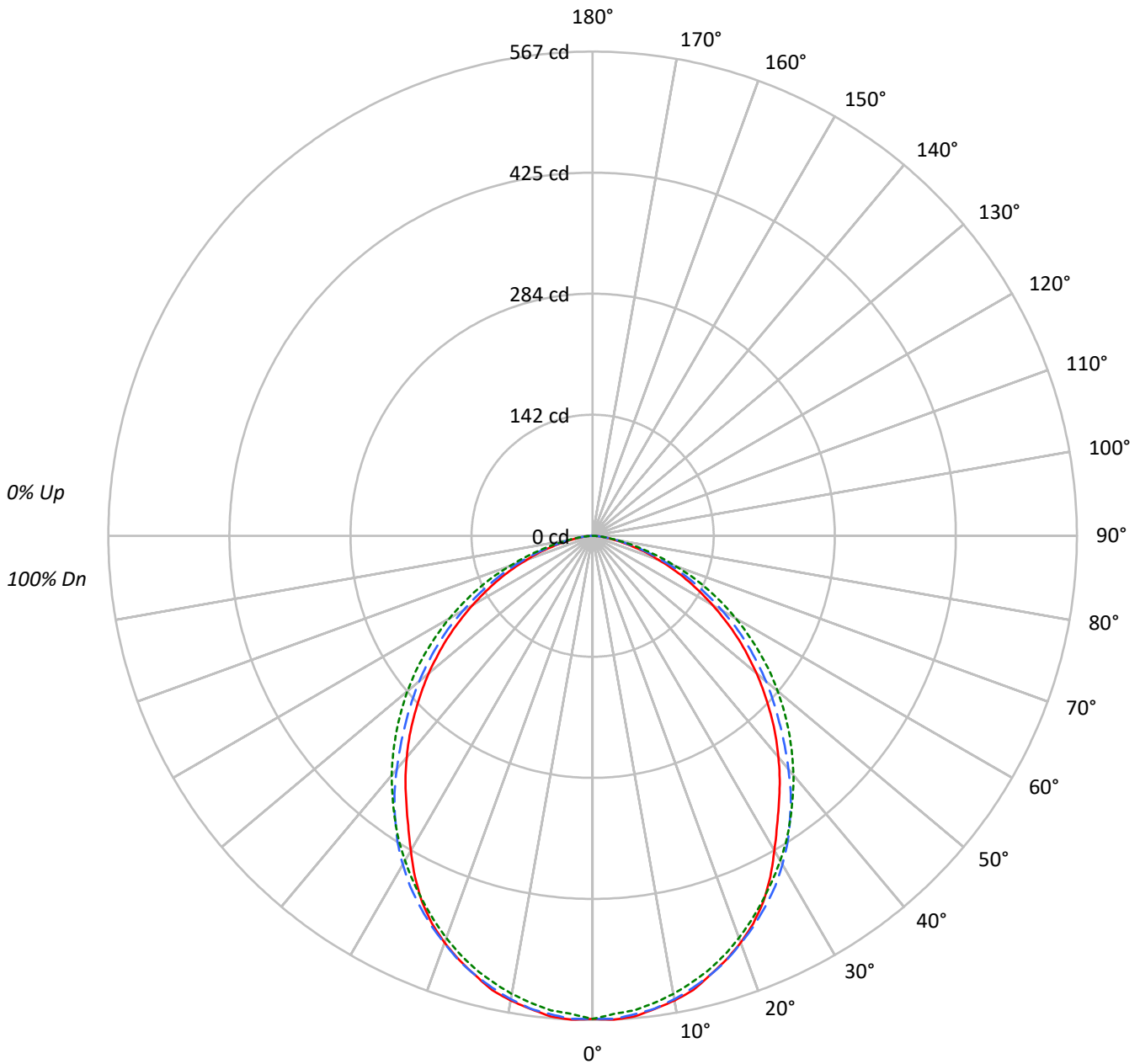
Lumens per Lamp: N/A  
Luminaire Lumens: 1308.0 lumens  
Efficiency: N/A  
Efficacy: 78.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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°	3045	3045	3045
5°	3052	3039	3014
10°	3020	3012	2977
15°	2966	2966	2932
20°	2904	2908	2870
25°	2808	2843	2798
30°	2644	2763	2729
35°	2499	2648	2653
40°	2377	2505	2571
45°	2242	2353	2474
50°	2098	2218	2369
55°	1935	2063	2241
60°	1743	1883	2084
65°	1538	1675	1896
70°	1282	1426	1611
75°	1009	1140	1260
80°	722	803	890
85°	469	469	445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.3	4.1
10°-20°	149.6	11.4
20°-30°	218.7	16.7
30°-40°	248.2	19.0
40°-50°	239.6	18.3
50°-60°	197.6	15.1
60°-70°	131.6	10.1
70°-80°	58.9	4.5
80°-90°	10.5	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°	421.5	32.2
0°-40°	669.7	51.2
0°-60°	1107.0	84.6
0°-90°	1308.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1308.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	565	565	563	560	558	53
15°	532	534	532	530	526	150
25°	473	477	479	475	471	217
35°	380	386	403	405	404	238
45°	294	300	309	323	325	227
55°	206	210	220	232	239	184
65°	121	124	132	141	149	120
75°	48	51	55	57	61	53
85°	8	8	8	7	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	565.7	565.7	565.7	565.7	565.7
2.5°	567.2	567.4	566.1	562.6	560.5
5°	565.0	564.8	562.6	559.6	557.9
7.5°	558.7	559.2	558.5	554.2	551.8
10°	552.6	552.9	551.1	547.6	544.8
12.5°	544.8	544.6	542.2	540.5	535.9
15°	532.4	533.7	532.4	530.0	526.3
17.5°	520.5	520.5	521.3	517.2	514.4
20°	507.0	507.7	507.7	504.4	501.1
22.5°	491.4	493.3	494.0	490.5	486.6
25°	472.9	476.6	478.7	475.3	471.1
27.5°	450.5	456.1	462.7	460.1	455.5
30°	425.5	433.8	444.6	442.5	439.2
32.5°	401.8	410.1	425.1	424.2	422.5
35°	380.3	385.5	403.1	405.3	403.8
37.5°	359.9	364.7	381.2	386.2	384.9
40°	338.4	343.6	356.6	365.5	366.0
42.5°	317.1	322.1	332.7	345.5	345.5
45°	294.5	299.5	309.2	323.4	325.1
47.5°	272.3	277.5	287.1	301.2	304.0
50°	250.6	255.3	264.9	278.6	282.9
52.5°	228.0	233.2	242.5	255.1	261.4
55°	206.2	209.7	219.9	232.1	238.8
57.5°	183.6	186.9	198.4	208.8	215.8
60°	161.9	166.0	174.9	185.6	193.6
62.5°	141.0	145.4	153.0	162.3	171.5
65°	120.8	124.1	131.5	140.8	148.9
67.5°	101.3	104.1	111.5	118.0	126.5
70°	81.5	85.2	90.6	96.9	102.4
72.5°	65.6	67.2	71.7	76.3	81.9
75°	48.5	51.1	54.8	57.4	60.6
77.5°	34.8	36.3	38.5	40.6	43.7
80°	23.3	23.9	25.9	26.3	28.7
82.5°	14.1	14.6	15.0	15.2	16.1
85°	7.6	7.6	7.6	7.2	7.2
87.5°	4.3	4.3	3.7	3.0	2.2
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)