

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: P554516

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-82-86-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: P554516  
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-82-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

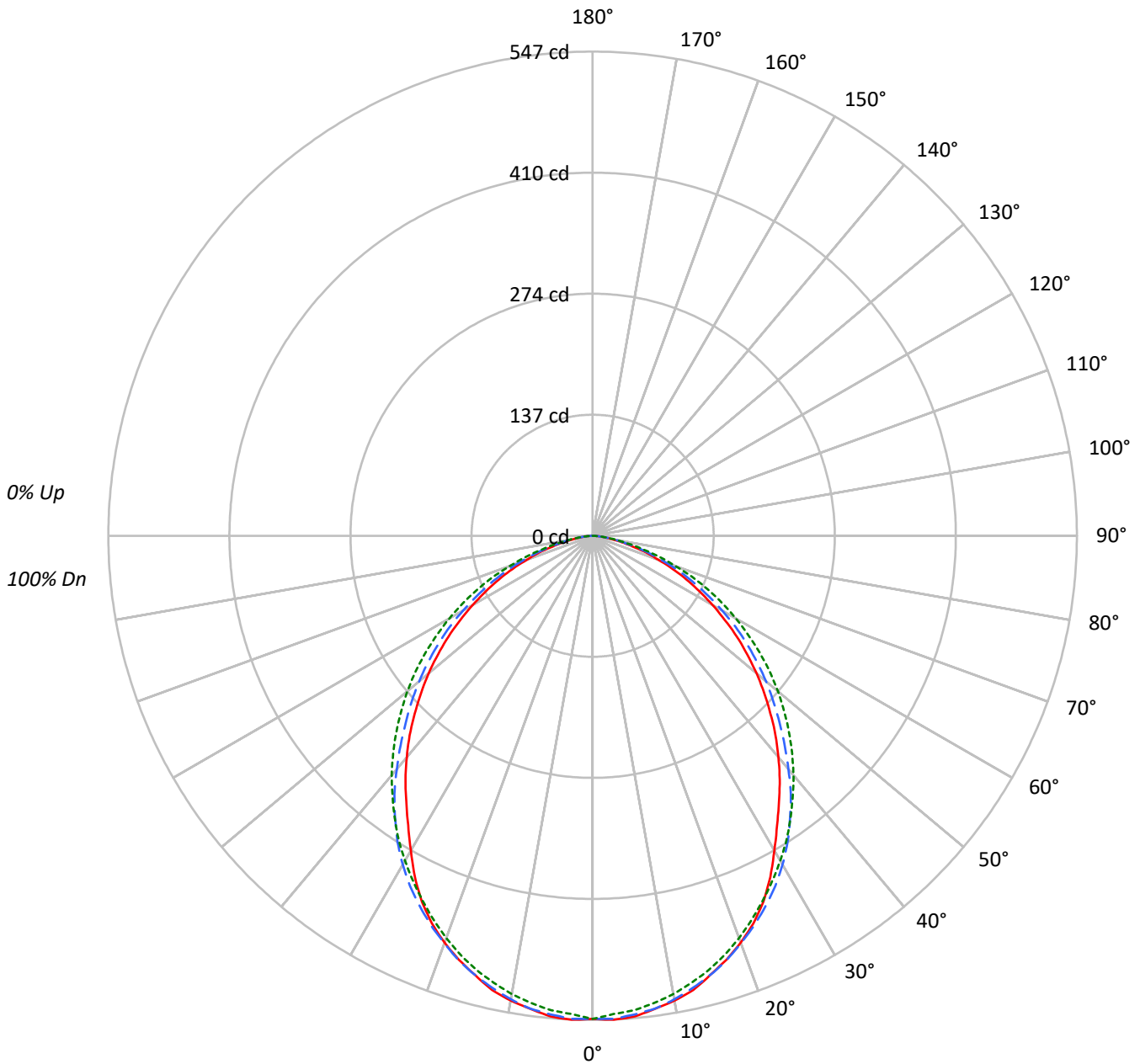
Lumens per Lamp: N/A  
Luminaire Lumens: 1262.0 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2937	2937	2937
5°	2945	2932	2908
10°	2914	2906	2873
15°	2862	2862	2829
20°	2802	2805	2769
25°	2710	2743	2700
30°	2551	2666	2634
35°	2411	2555	2560
40°	2294	2418	2481
45°	2162	2271	2388
50°	2025	2140	2286
55°	1867	1991	2162
60°	1681	1817	2011
65°	1485	1616	1829
70°	1237	1375	1555
75°	973	1098	1216
80°	694	775	859
85°	451	451	426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.4	4.1
10°-20°	144.4	11.4
20°-30°	211.0	16.7
30°-40°	239.5	19.0
40°-50°	231.2	18.3
50°-60°	190.7	15.1
60°-70°	127.0	10.1
70°-80°	56.8	4.5
80°-90°	10.2	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°	406.7	32.2
0°-40°	646.2	51.2
0°-60°	1068.0	84.6
0°-90°	1262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1262.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	545	545	543	540	538	52
15°	514	515	514	511	508	145
25°	456	460	462	459	455	209
35°	367	372	389	391	390	230
45°	284	289	298	312	314	219
55°	199	202	212	224	230	178
65°	117	120	127	136	144	116
75°	47	49	53	55	58	51
85°	7	7	7	7	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	545.8	545.8	545.8	545.8	545.8
2.5°	547.3	547.5	546.2	542.8	540.8
5°	545.2	544.9	542.8	539.9	538.2
7.5°	539.1	539.5	538.9	534.7	532.4
10°	533.2	533.4	531.7	528.4	525.7
12.5°	525.7	525.4	523.1	521.5	517.1
15°	513.7	515.0	513.7	511.4	507.8
17.5°	502.2	502.2	503.0	499.0	496.3
20°	489.2	489.8	489.8	486.7	483.5
22.5°	474.1	476.0	476.6	473.2	469.5
25°	456.3	459.8	461.9	458.6	454.6
27.5°	434.7	440.1	446.4	443.9	439.5
30°	410.5	418.5	429.0	426.9	423.8
32.5°	387.7	395.7	410.1	409.3	407.6
35°	366.9	372.0	388.9	391.0	389.6
37.5°	347.2	351.8	367.8	372.6	371.3
40°	326.5	331.5	344.1	352.7	353.1
42.5°	305.9	310.7	321.0	333.4	333.4
45°	284.1	288.9	298.4	312.0	313.7
47.5°	262.7	267.8	277.0	290.6	293.3
50°	241.8	246.4	255.6	268.8	273.0
52.5°	219.9	225.0	234.0	246.2	252.2
55°	199.0	202.3	212.2	223.9	230.4
57.5°	177.2	180.3	191.4	201.5	208.2
60°	156.2	160.2	168.8	179.1	186.8
62.5°	136.1	140.3	147.6	156.6	165.4
65°	116.6	119.7	126.9	135.9	143.6
67.5°	97.7	100.4	107.6	113.9	122.0
70°	78.6	82.2	87.4	93.5	98.8
72.5°	63.3	64.8	69.2	73.6	79.0
75°	46.8	49.3	52.8	55.4	58.5
77.5°	33.5	35.0	37.1	39.2	42.1
80°	22.4	23.1	25.0	25.4	27.7
82.5°	13.6	14.0	14.5	14.7	15.5
85°	7.3	7.3	7.3	6.9	6.9
87.5°	4.2	4.2	3.6	2.9	2.1
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)