

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: P554502

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-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: P554502  
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-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

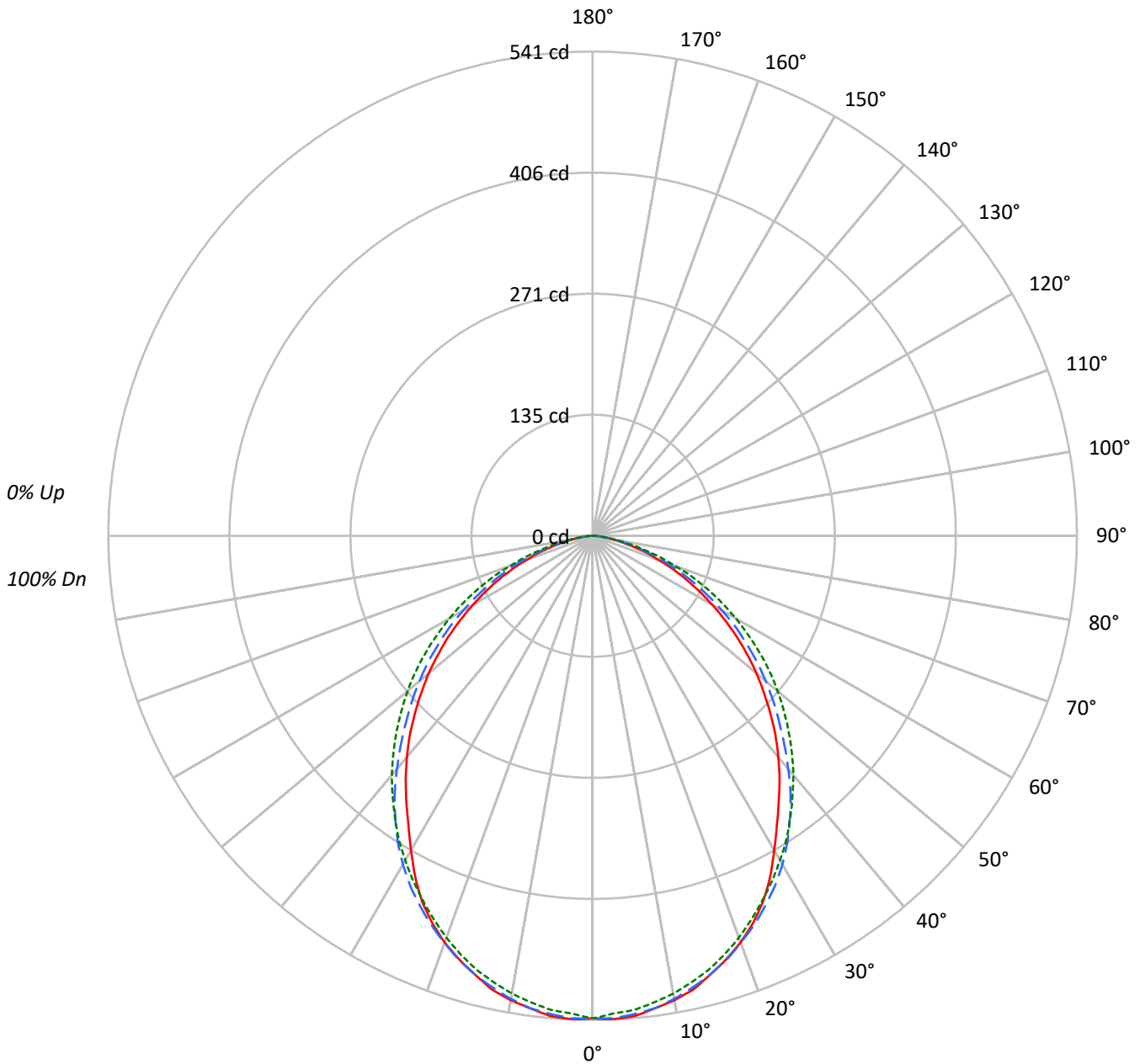
Lumens per Lamp: N/A  
Luminaire Lumens: 1247.0 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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

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

	0°	45°	90°
0°	2902	2902	2902
5°	2910	2898	2873
10°	2879	2871	2839
15°	2828	2828	2796
20°	2769	2772	2737
25°	2677	2710	2667
30°	2521	2634	2602
35°	2382	2525	2529
40°	2266	2389	2451
45°	2136	2244	2359
50°	2000	2115	2259
55°	1845	1968	2137
60°	1662	1795	1987
65°	1467	1596	1807
70°	1223	1360	1536
75°	961	1085	1202
80°	688	766	846
85°	451	451	420



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.8	4.1
10°-20°	142.6	11.4
20°-30°	208.5	16.7
30°-40°	236.6	19.0
40°-50°	228.4	18.3
50°-60°	188.4	15.1
60°-70°	125.5	10.1
70°-80°	56.1	4.5
80°-90°	10.0	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°	401.9	32.2
0°-40°	638.5	51.2
0°-60°	1055.3	84.6
0°-90°	1247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1247.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	539	539	539	539	539	
5°	539	538	536	534	532	51
15°	508	509	508	505	502	143
25°	451	454	456	453	449	206
35°	363	368	384	386	385	227
45°	281	286	295	308	310	217
55°	197	200	210	221	228	175
65°	115	118	125	134	142	114
75°	46	49	52	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°	539.3	539.3	539.3	539.3	539.3
2.5°	540.7	541.0	539.7	536.4	534.3
5°	538.7	538.5	536.4	533.5	531.8
7.5°	532.7	533.1	532.5	528.3	526.0
10°	526.9	527.1	525.4	522.1	519.4
12.5°	519.4	519.2	516.9	515.3	510.9
15°	507.6	508.8	507.6	505.3	501.8
17.5°	496.2	496.2	497.0	493.1	490.4
20°	483.4	484.0	484.0	480.9	477.8
22.5°	468.4	470.3	470.9	467.6	463.9
25°	450.8	454.4	456.4	453.1	449.2
27.5°	429.5	434.9	441.1	438.6	434.3
30°	405.7	413.5	423.9	421.8	418.7
32.5°	383.1	391.0	405.2	404.4	402.8
35°	362.6	367.5	384.3	386.4	384.9
37.5°	343.1	347.7	363.4	368.2	366.9
40°	322.6	327.6	340.0	348.5	348.9
42.5°	302.3	307.0	317.2	329.4	329.4
45°	280.7	285.5	294.8	308.3	309.9
47.5°	259.6	264.6	273.7	287.2	289.8
50°	238.9	243.4	252.6	265.6	269.8
52.5°	217.3	222.3	231.2	243.2	249.2
55°	196.6	199.9	209.7	221.3	227.7
57.5°	175.1	178.2	189.2	199.1	205.7
60°	154.4	158.3	166.8	176.9	184.6
62.5°	134.5	138.6	145.9	154.8	163.5
65°	115.2	118.3	125.3	134.3	141.9
67.5°	96.5	99.2	106.3	112.5	120.6
70°	77.7	81.2	86.4	92.4	97.6
72.5°	62.6	64.0	68.4	72.7	78.1
75°	46.2	48.7	52.2	54.7	57.8
77.5°	33.1	34.6	36.7	38.7	41.6
80°	22.2	22.8	24.7	25.1	27.3
82.5°	13.5	13.9	14.3	14.5	15.3
85°	7.3	7.3	7.3	6.8	6.8
87.5°	4.1	4.1	3.5	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)