

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: P554542

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-93-97-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: P554542  
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-93-97-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

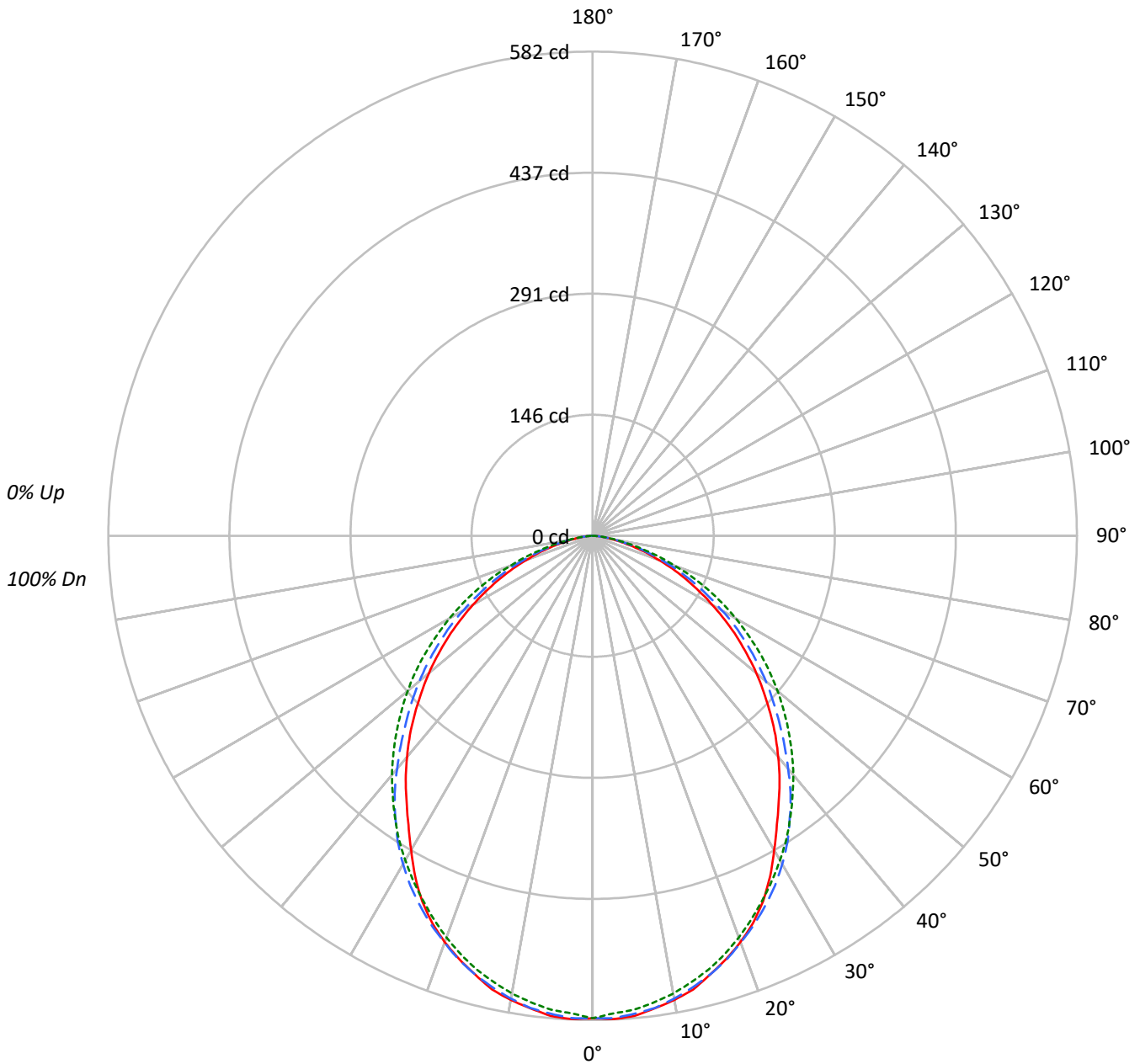
Lumens per Lamp: N/A  
Luminaire Lumens: 1341.0 lumens  
Efficiency: N/A  
Efficacy: 80.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (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°	3121	3121	3121
5°	3130	3116	3090
10°	3096	3088	3053
15°	3042	3042	3007
20°	2977	2981	2943
25°	2879	2915	2868
30°	2711	2833	2798
35°	2562	2715	2720
40°	2437	2569	2636
45°	2298	2413	2537
50°	2151	2274	2429
55°	1984	2116	2298
60°	1787	1931	2137
65°	1578	1717	1943
70°	1314	1462	1651
75°	1033	1167	1293
80°	738	821	911
85°	482	482	457



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.6	4.1
10°-20°	153.4	11.4
20°-30°	224.2	16.7
30°-40°	254.4	19.0
40°-50°	245.6	18.3
50°-60°	202.6	15.1
60°-70°	134.9	10.1
70°-80°	60.4	4.5
80°-90°	10.8	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°	432.2	32.2
0°-40°	686.6	51.2
0°-60°	1134.9	84.6
0°-90°	1341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1341.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	579	579	577	574	572	55
15°	546	547	546	543	540	154
25°	485	489	491	487	483	222
35°	390	395	413	416	414	244
45°	302	307	317	332	333	233
55°	211	215	226	238	245	189
65°	124	127	135	144	153	123
75°	50	52	56	59	62	54
85°	8	8	8	7	7	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	579.9	579.9	579.9	579.9	579.9
2.5°	581.5	581.7	580.4	576.8	574.6
5°	579.3	579.1	576.8	573.7	571.9
7.5°	572.8	573.3	572.6	568.1	565.7
10°	566.6	566.8	565.0	561.5	558.6
12.5°	558.6	558.3	555.9	554.1	549.4
15°	545.9	547.2	545.9	543.4	539.6
17.5°	533.6	533.6	534.5	530.3	527.4
20°	519.8	520.5	520.5	517.1	513.8
22.5°	503.8	505.8	506.4	502.9	498.8
25°	484.8	488.6	490.8	487.3	483.0
27.5°	461.9	467.7	474.3	471.7	467.0
30°	436.2	444.7	455.8	453.6	450.3
32.5°	412.0	420.4	435.8	434.9	433.1
35°	389.9	395.2	413.3	415.5	414.0
37.5°	369.0	373.9	390.8	395.9	394.6
40°	346.9	352.2	365.6	374.7	375.2
42.5°	325.1	330.2	341.1	354.3	354.3
45°	301.9	307.0	317.0	331.5	333.3
47.5°	279.2	284.5	294.3	308.8	311.7
50°	256.9	261.8	271.6	285.6	290.1
52.5°	233.7	239.1	248.6	261.6	268.0
55°	211.4	215.0	225.5	238.0	244.9
57.5°	188.3	191.6	203.4	214.1	221.2
60°	166.0	170.2	179.4	190.3	198.5
62.5°	144.6	149.1	156.9	166.4	175.8
65°	123.9	127.2	134.8	144.4	152.6
67.5°	103.8	106.7	114.3	121.0	129.7
70°	83.5	87.3	92.9	99.4	104.9
72.5°	67.3	68.8	73.5	78.2	84.0
75°	49.7	52.4	56.1	58.8	62.2
77.5°	35.6	37.2	39.4	41.7	44.8
80°	23.8	24.5	26.5	27.0	29.4
82.5°	14.5	14.9	15.4	15.6	16.5
85°	7.8	7.8	7.8	7.4	7.4
87.5°	4.5	4.5	3.8	3.1	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)