

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: P554180

Luminaire Tested: **FUSL-12-2-LD4-1LO-35-UNV-81-86-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: P554180  
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-LD4-1LO-35-UNV-81-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

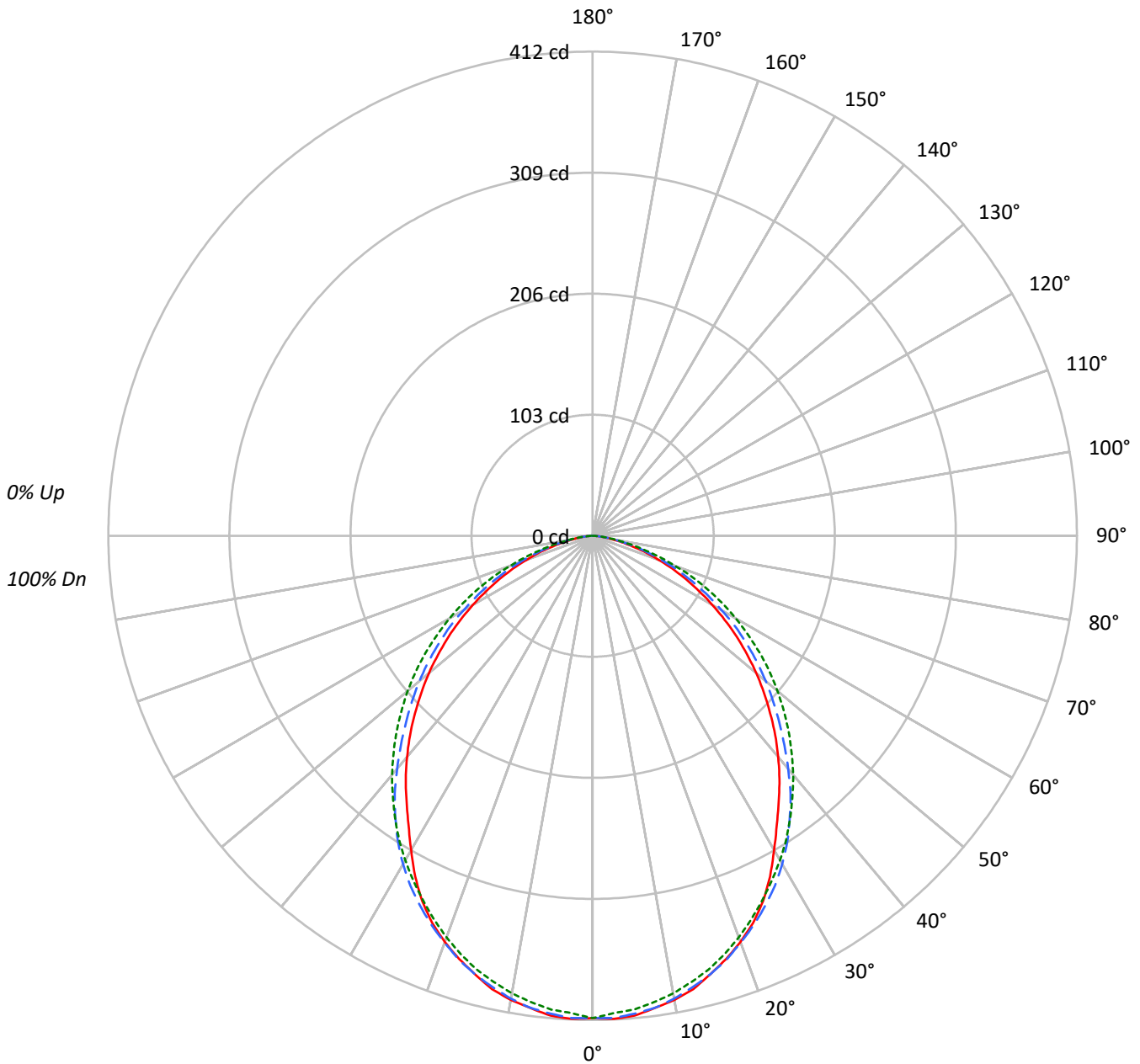
Lumens per Lamp: N/A  
Luminaire Lumens: 949.0 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
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°	2209	2209	2209
5°	2214	2205	2186
10°	2191	2185	2160
15°	2152	2152	2128
20°	2107	2109	2082
25°	2037	2062	2030
30°	1918	2005	1981
35°	1813	1922	1925
40°	1725	1818	1865
45°	1626	1708	1795
50°	1522	1609	1719
55°	1404	1498	1626
60°	1265	1366	1512
65°	1117	1215	1375
70°	930	1034	1169
75°	732	826	915
80°	524	583	645
85°	340	340	321



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.6	4.1
10°-20°	108.6	11.4
20°-30°	158.6	16.7
30°-40°	180.1	19.0
40°-50°	173.8	18.3
50°-60°	143.4	15.1
60°-70°	95.5	10.1
70°-80°	42.7	4.5
80°-90°	7.6	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°	305.8	32.2
0°-40°	485.9	51.2
0°-60°	803.2	84.6
0°-90°	949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	949.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	410	410	408	406	405	39
15°	386	387	386	385	382	109
25°	343	346	347	345	342	157
35°	276	280	292	294	293	173
45°	214	217	224	235	236	165
55°	150	152	160	168	173	134
65°	88	90	95	102	108	87
75°	35	37	40	42	44	38
85°	6	6	6	5	5	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	410.4	410.4	410.4	410.4	410.4
2.5°	411.5	411.7	410.7	408.2	406.6
5°	409.9	409.8	408.2	406.0	404.7
7.5°	405.4	405.7	405.2	402.1	400.3
10°	401.0	401.1	399.9	397.3	395.3
12.5°	395.3	395.1	393.4	392.1	388.8
15°	386.3	387.2	386.3	384.6	381.9
17.5°	377.6	377.6	378.3	375.3	373.2
20°	367.8	368.3	368.3	366.0	363.6
22.5°	356.5	357.9	358.4	355.9	353.0
25°	343.1	345.8	347.3	344.8	341.8
27.5°	326.9	331.0	335.7	333.8	330.5
30°	308.7	314.7	322.6	321.0	318.7
32.5°	291.5	297.5	308.4	307.8	306.5
35°	275.9	279.7	292.5	294.1	293.0
37.5°	261.1	264.6	276.6	280.2	279.2
40°	245.5	249.3	258.7	265.2	265.5
42.5°	230.0	233.7	241.4	250.7	250.7
45°	213.6	217.3	224.4	234.6	235.9
47.5°	197.6	201.3	208.3	218.5	220.6
50°	181.8	185.3	192.2	202.1	205.3
52.5°	165.4	169.2	176.0	185.1	189.7
55°	149.6	152.2	159.6	168.4	173.3
57.5°	133.2	135.6	144.0	151.5	156.6
60°	117.5	120.5	126.9	134.7	140.5
62.5°	102.3	105.5	111.0	117.8	124.4
65°	87.7	90.0	95.4	102.2	108.0
67.5°	73.5	75.5	80.9	85.6	91.8
70°	59.1	61.8	65.7	70.3	74.3
72.5°	47.6	48.7	52.0	55.3	59.4
75°	35.2	37.1	39.7	41.6	44.0
77.5°	25.2	26.3	27.9	29.5	31.7
80°	16.9	17.3	18.8	19.1	20.8
82.5°	10.2	10.6	10.9	11.0	11.7
85°	5.5	5.5	5.5	5.2	5.2
87.5°	3.2	3.2	2.7	2.2	1.6
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)