

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: P554258

Luminaire Tested: **FUSL-12-2-LD4-1LO-40-UNV-82-85-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: P554258  
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-40-UNV-82-85-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

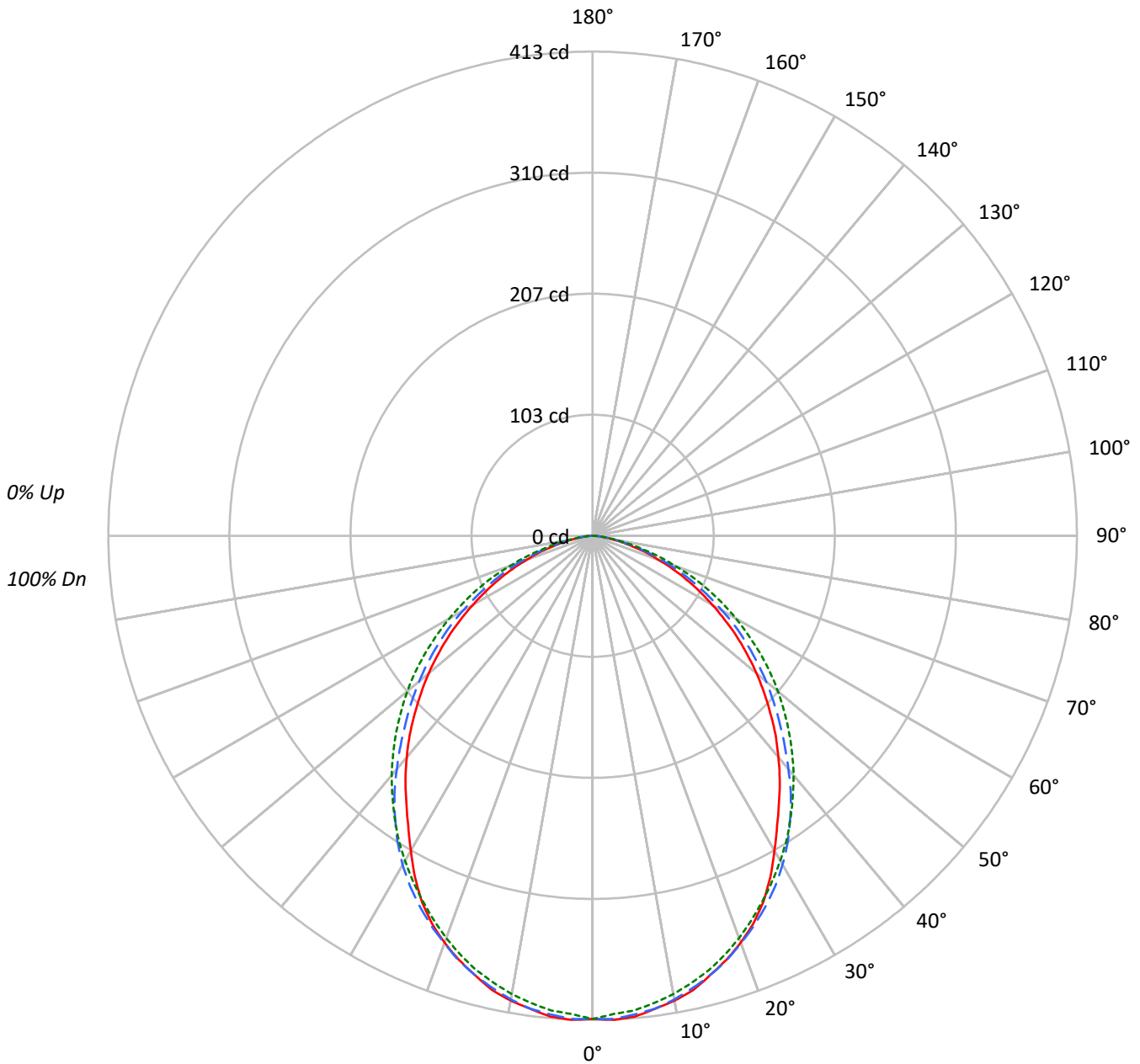
Lumens per Lamp: N/A  
Luminaire Lumens: 953.0 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2218	2218	2218
5°	2224	2214	2196
10°	2200	2194	2169
15°	2161	2161	2137
20°	2116	2119	2091
25°	2046	2071	2039
30°	1927	2014	1989
35°	1821	1930	1933
40°	1732	1825	1873
45°	1633	1715	1803
50°	1529	1616	1726
55°	1410	1503	1633
60°	1270	1372	1519
65°	1121	1220	1382
70°	935	1039	1174
75°	734	830	919
80°	524	583	648
85°	340	340	321



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.8	4.1
10°-20°	109.0	11.4
20°-30°	159.3	16.7
30°-40°	180.8	19.0
40°-50°	174.6	18.3
50°-60°	144.0	15.1
60°-70°	95.9	10.1
70°-80°	42.9	4.5
80°-90°	7.7	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°	307.1	32.2
0°-40°	488.0	51.2
0°-60°	806.5	84.6
0°-90°	953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	953.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	412	412	410	408	406	39
15°	388	389	388	386	384	109
25°	344	347	349	346	343	158
35°	277	281	294	295	294	174
45°	214	218	225	236	237	166
55°	150	153	160	169	174	134
65°	88	90	96	103	108	87
75°	35	37	40	42	44	39
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°	412.1	412.1	412.1	412.1	412.1
2.5°	413.3	413.4	412.5	409.9	408.3
5°	411.7	411.5	409.9	407.7	406.4
7.5°	407.1	407.4	406.9	403.8	402.0
10°	402.6	402.8	401.5	399.0	396.9
12.5°	396.9	396.8	395.0	393.8	390.5
15°	387.9	388.9	387.9	386.2	383.5
17.5°	379.2	379.2	379.8	376.8	374.8
20°	369.4	369.9	369.9	367.5	365.1
22.5°	358.0	359.4	359.9	357.4	354.5
25°	344.5	347.2	348.8	346.3	343.3
27.5°	328.2	332.3	337.1	335.2	331.9
30°	310.0	316.0	324.0	322.4	320.0
32.5°	292.8	298.8	309.7	309.1	307.8
35°	277.1	280.9	293.7	295.3	294.2
37.5°	262.2	265.7	277.7	281.4	280.4
40°	246.5	250.3	259.8	266.3	266.6
42.5°	231.0	234.7	242.4	251.8	251.8
45°	214.5	218.2	225.3	235.6	236.9
47.5°	198.4	202.2	209.2	219.5	221.5
50°	182.6	186.0	193.0	203.0	206.2
52.5°	166.1	169.9	176.7	185.9	190.5
55°	150.3	152.8	160.2	169.1	174.0
57.5°	133.8	136.2	144.6	152.2	157.2
60°	118.0	121.0	127.5	135.2	141.1
62.5°	102.8	105.9	111.5	118.3	124.9
65°	88.0	90.4	95.8	102.6	108.5
67.5°	73.8	75.8	81.2	86.0	92.2
70°	59.4	62.1	66.0	70.6	74.6
72.5°	47.8	48.9	52.3	55.6	59.7
75°	35.3	37.2	39.9	41.8	44.2
77.5°	25.3	26.4	28.0	29.6	31.8
80°	16.9	17.4	18.8	19.2	20.9
82.5°	10.3	10.6	10.9	11.1	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)