

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: P554148

Luminaire Tested: **FUSL-12-2-LD4-1LO-30-UNV-93-86-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: P554148  
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-30-UNV-93-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

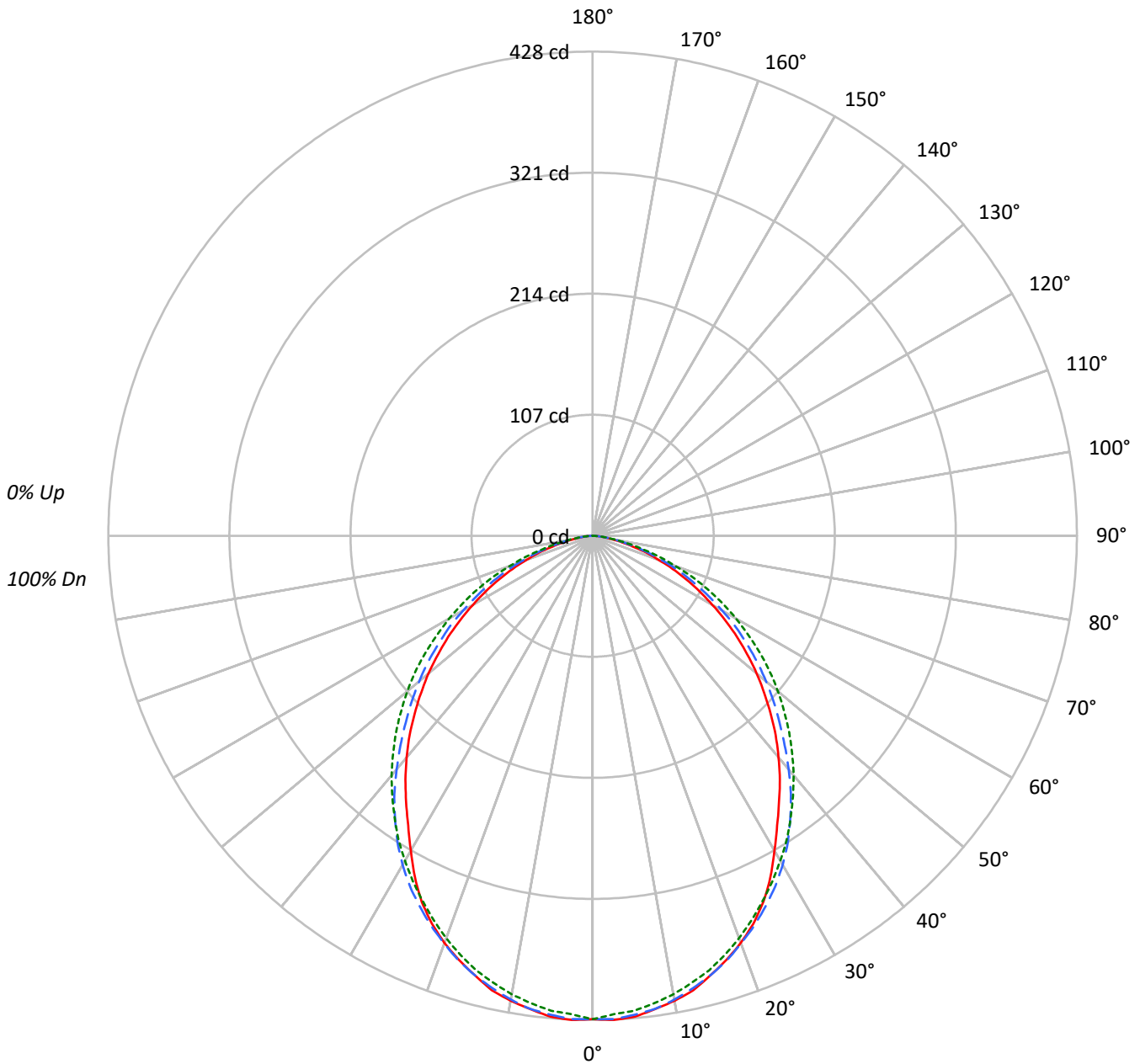
Lumens per Lamp: N/A  
Luminaire Lumens: 988.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
Input Voltage (V): NR  
Input Current (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°	2300	2300	2300
5°	2306	2296	2277
10°	2281	2275	2249
15°	2241	2241	2215
20°	2194	2196	2168
25°	2121	2147	2113
30°	1997	2087	2061
35°	1888	2001	2004
40°	1796	1893	1942
45°	1693	1778	1869
50°	1585	1675	1789
55°	1462	1559	1693
60°	1316	1422	1575
65°	1163	1265	1431
70°	969	1078	1216
75°	761	861	952
80°	545	604	673
85°	352	352	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.2	4.1
10°-20°	113.0	11.4
20°-30°	165.2	16.7
30°-40°	187.5	19.0
40°-50°	181.0	18.3
50°-60°	149.3	15.1
60°-70°	99.4	10.1
70°-80°	44.5	4.5
80°-90°	8.0	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°	318.4	32.2
0°-40°	505.9	51.2
0°-60°	836.1	84.6
0°-90°	988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	988.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	427	427	425	423	421	40
15°	402	403	402	400	398	113
25°	357	360	362	359	356	164
35°	287	291	304	306	305	180
45°	222	226	234	244	246	172
55°	156	158	166	175	180	139
65°	91	94	99	106	112	91
75°	37	39	41	43	46	40
85°	6	6	6	5	5	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	427.3	427.3	427.3	427.3	427.3
2.5°	428.4	428.6	427.6	425.0	423.3
5°	426.8	426.6	425.0	422.7	421.4
7.5°	422.0	422.4	421.9	418.6	416.8
10°	417.4	417.6	416.3	413.7	411.5
12.5°	411.5	411.4	409.6	408.2	404.8
15°	402.2	403.2	402.2	400.4	397.6
17.5°	393.1	393.1	393.8	390.7	388.5
20°	383.0	383.5	383.5	381.0	378.5
22.5°	371.1	372.6	373.1	370.5	367.5
25°	357.2	360.0	361.6	359.0	355.9
27.5°	340.3	344.6	349.5	347.5	344.1
30°	321.4	327.6	335.9	334.2	331.7
32.5°	303.5	309.8	321.1	320.4	319.1
35°	287.3	291.2	304.5	306.1	305.0
37.5°	271.8	275.4	287.9	291.7	290.7
40°	255.6	259.5	269.4	276.1	276.4
42.5°	239.5	243.3	251.3	261.0	261.0
45°	222.4	226.2	233.6	244.3	245.6
47.5°	205.7	209.6	216.8	227.5	229.6
50°	189.3	192.9	200.1	210.4	213.7
52.5°	172.2	176.1	183.2	192.7	197.5
55°	155.8	158.4	166.1	175.3	180.4
57.5°	138.7	141.2	149.9	157.7	163.0
60°	122.3	125.4	132.1	140.2	146.3
62.5°	106.5	109.8	115.6	122.6	129.5
65°	91.3	93.7	99.3	106.4	112.4
67.5°	76.5	78.6	84.2	89.1	95.5
70°	61.6	64.3	68.5	73.2	77.3
72.5°	49.6	50.7	54.2	57.6	61.9
75°	36.6	38.6	41.4	43.3	45.8
77.5°	26.3	27.4	29.1	30.7	33.0
80°	17.6	18.1	19.5	19.9	21.7
82.5°	10.7	11.0	11.3	11.5	12.1
85°	5.7	5.7	5.7	5.4	5.4
87.5°	3.3	3.3	2.8	2.3	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)