

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: P554310

Luminaire Tested: **FUSL-12-2-LD4-1LO-50-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: P554310  
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-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

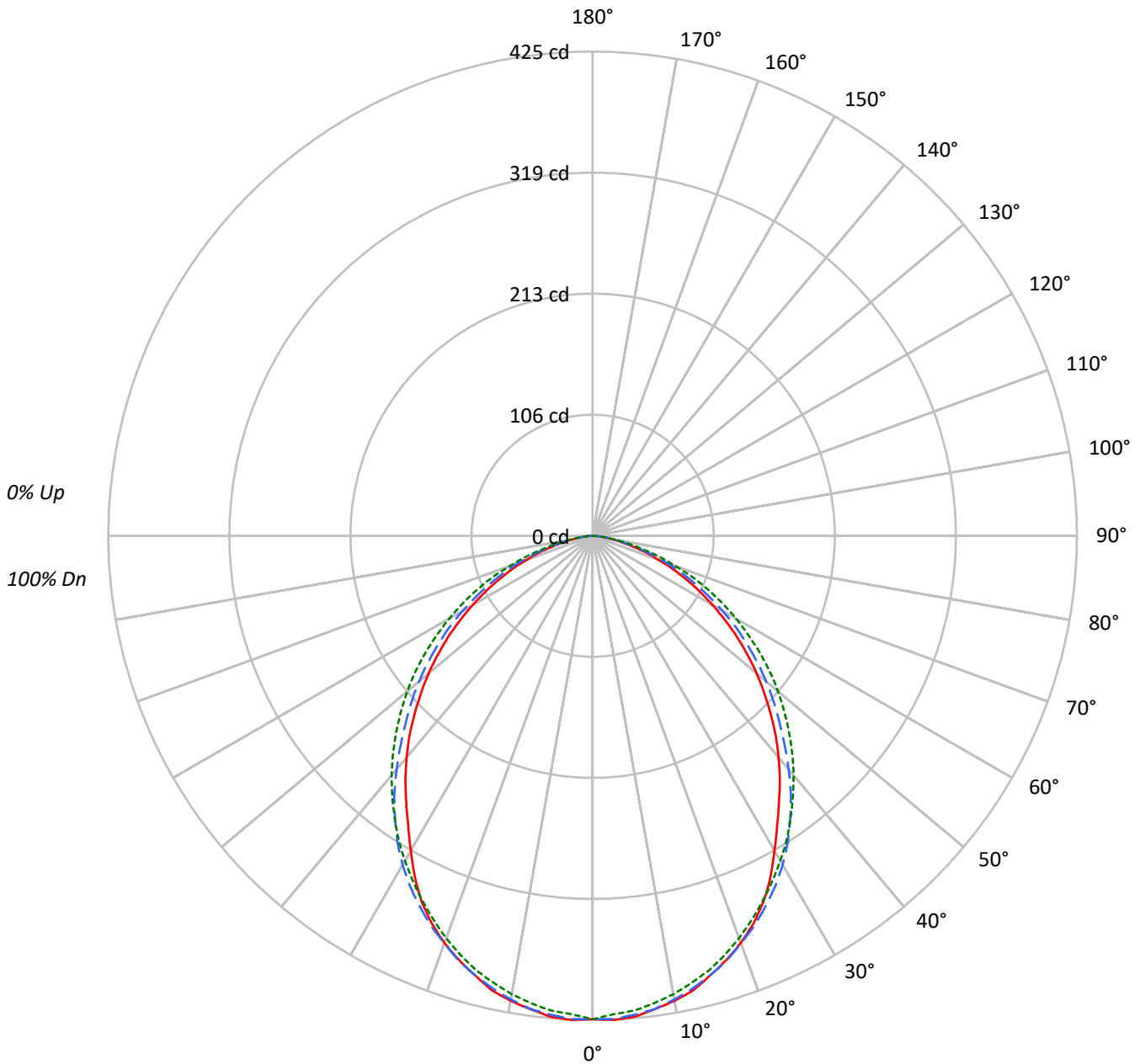
Lumens per Lamp: N/A  
Luminaire Lumens: 981.0 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	2284	2284	2284
5°	2290	2280	2260
10°	2265	2259	2233
15°	2225	2225	2200
20°	2178	2180	2152
25°	2106	2132	2099
30°	1983	2073	2047
35°	1874	1986	1989
40°	1783	1879	1929
45°	1681	1765	1856
50°	1573	1664	1777
55°	1452	1547	1681
60°	1307	1412	1563
65°	1154	1256	1421
70°	961	1070	1209
75°	755	855	946
80°	539	601	666
85°	352	352	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.9	4.1
10°-20°	112.2	11.4
20°-30°	164.0	16.7
30°-40°	186.1	19.0
40°-50°	179.7	18.3
50°-60°	148.2	15.1
60°-70°	98.7	10.1
70°-80°	44.2	4.5
80°-90°	7.9	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°	316.1	32.2
0°-40°	502.3	51.2
0°-60°	830.2	84.6
0°-90°	981.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	981.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	424	424	422	420	418	40
15°	399	400	399	398	395	113
25°	355	357	359	356	353	162
35°	285	289	302	304	303	179
45°	221	225	232	242	244	170
55°	155	157	165	174	179	138
65°	91	93	99	106	112	90
75°	36	38	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°	424.3	424.3	424.3	424.3	424.3
2.5°	425.4	425.6	424.6	422.0	420.3
5°	423.8	423.6	422.0	419.7	418.4
7.5°	419.0	419.4	418.9	415.6	413.8
10°	414.5	414.6	413.3	410.7	408.6
12.5°	408.6	408.4	406.7	405.4	401.9
15°	399.3	400.3	399.3	397.5	394.8
17.5°	390.4	390.4	391.0	387.9	385.8
20°	380.3	380.7	380.7	378.3	375.8
22.5°	368.5	370.0	370.5	367.9	364.9
25°	354.7	357.4	359.1	356.5	353.4
27.5°	337.9	342.1	347.0	345.0	341.6
30°	319.1	325.3	333.5	331.8	329.4
32.5°	301.4	307.6	318.8	318.2	316.8
35°	285.2	289.1	302.3	304.0	302.8
37.5°	269.9	273.5	285.9	289.6	288.7
40°	253.8	257.7	267.5	274.1	274.5
42.5°	237.8	241.5	249.5	259.2	259.2
45°	220.8	224.6	231.9	242.5	243.8
47.5°	204.2	208.1	215.3	225.9	228.0
50°	187.9	191.5	198.7	209.0	212.2
52.5°	171.0	174.9	181.9	191.3	196.1
55°	154.7	157.3	164.9	174.1	179.1
57.5°	137.7	140.2	148.8	156.6	161.8
60°	121.4	124.5	131.2	139.2	145.2
62.5°	105.8	109.0	114.7	121.8	128.6
65°	90.6	93.1	98.6	105.6	111.6
67.5°	76.0	78.1	83.6	88.5	94.9
70°	61.1	63.9	68.0	72.7	76.8
72.5°	49.2	50.4	53.8	57.2	61.4
75°	36.3	38.3	41.1	43.0	45.5
77.5°	26.1	27.2	28.8	30.5	32.8
80°	17.4	17.9	19.4	19.7	21.5
82.5°	10.6	10.9	11.2	11.4	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)