

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: P554313

Luminaire Tested: **FUSL-12-2-LD4-1LO-50-UNV-81-88-EDD**

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: P554313  
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-81-88-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

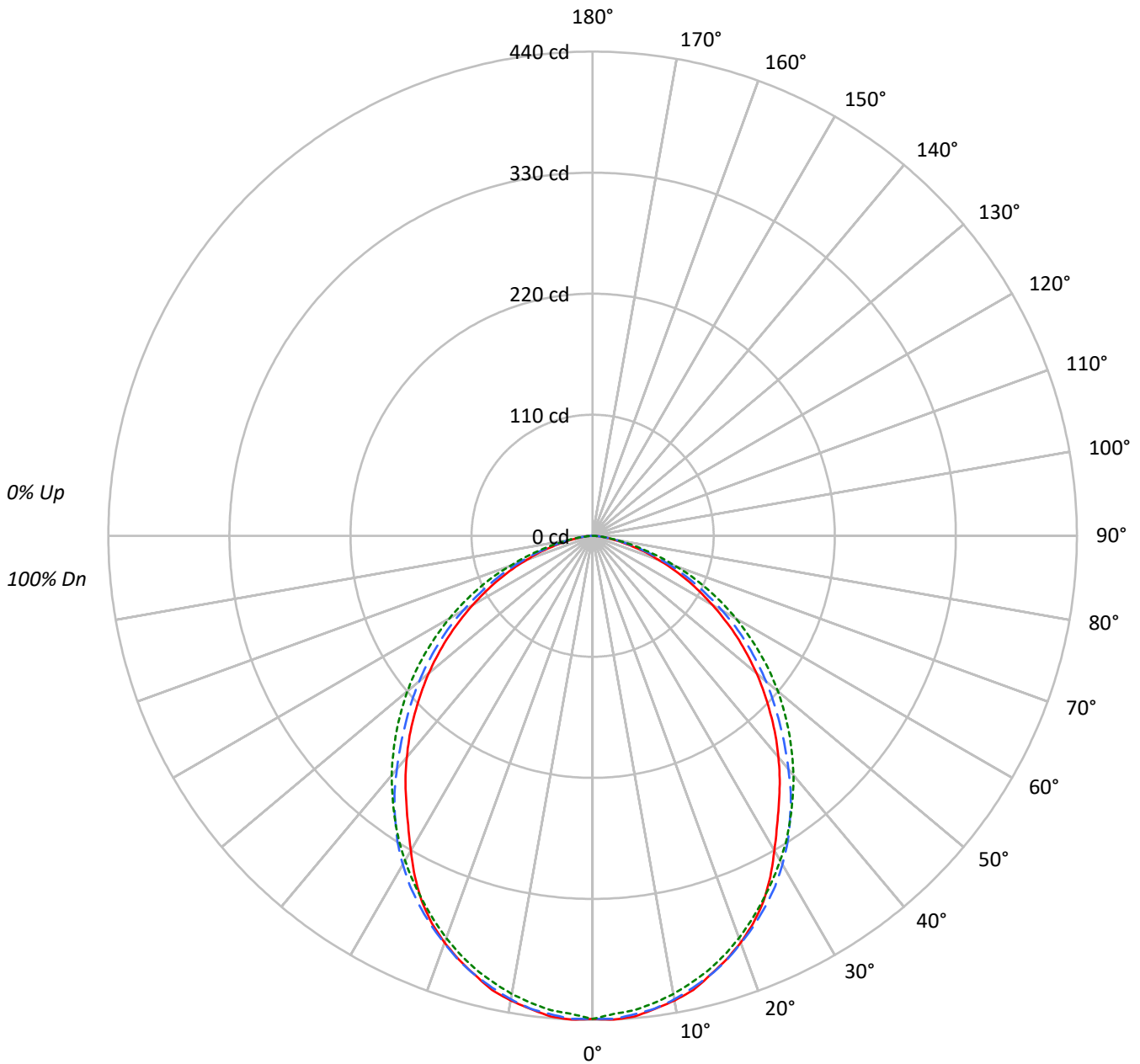
Lumens per Lamp: N/A  
Luminaire Lumens: 1015.0 lumens  
Efficiency: N/A  
Efficacy: 86.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2363	2363	2363
5°	2369	2359	2339
10°	2343	2337	2311
15°	2302	2302	2276
20°	2253	2256	2227
25°	2179	2206	2171
30°	2052	2144	2118
35°	1939	2055	2058
40°	1845	1944	1995
45°	1739	1827	1920
50°	1628	1721	1839
55°	1501	1602	1739
60°	1352	1462	1618
65°	1195	1299	1471
70°	995	1106	1249
75°	782	884	977
80°	558	623	691
85°	364	364	346



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.3	4.1
10°-20°	116.1	11.4
20°-30°	169.7	16.7
30°-40°	192.6	19.0
40°-50°	185.9	18.3
50°-60°	153.4	15.1
60°-70°	102.1	10.1
70°-80°	45.7	4.5
80°-90°	8.2	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°	327.1	32.2
0°-40°	519.7	51.2
0°-60°	859.0	84.6
0°-90°	1015.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1015.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	439	439	439	439	439	
5°	438	438	437	434	433	42
15°	413	414	413	411	408	116
25°	367	370	372	369	366	168
35°	295	299	313	314	313	185
45°	228	232	240	251	252	176
55°	160	163	171	180	185	143
65°	94	96	102	109	116	93
75°	38	40	42	44	47	41
85°	6	6	6	6	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	439.0	439.0	439.0	439.0	439.0
2.5°	440.1	440.3	439.3	436.6	434.9
5°	438.5	438.3	436.6	434.2	432.9
7.5°	433.6	433.9	433.4	430.0	428.2
10°	428.8	429.0	427.7	425.0	422.8
12.5°	422.8	422.6	420.7	419.4	415.9
15°	413.2	414.2	413.2	411.3	408.4
17.5°	403.9	403.9	404.6	401.4	399.2
20°	393.4	393.9	393.9	391.4	388.9
22.5°	381.3	382.8	383.3	380.6	377.6
25°	367.0	369.8	371.5	368.8	365.6
27.5°	349.6	354.0	359.0	357.0	353.5
30°	330.2	336.6	345.0	343.3	340.8
32.5°	311.8	318.2	329.9	329.2	327.8
35°	295.1	299.2	312.8	314.5	313.3
37.5°	279.3	283.0	295.8	299.7	298.7
40°	262.6	266.6	276.7	283.6	284.0
42.5°	246.0	249.9	258.2	268.1	268.1
45°	228.5	232.4	240.0	250.9	252.3
47.5°	211.3	215.3	222.8	233.7	235.9
50°	194.4	198.1	205.6	216.2	219.6
52.5°	176.9	180.9	188.2	198.0	202.9
55°	160.0	162.7	170.7	180.1	185.3
57.5°	142.5	145.0	154.0	162.1	167.5
60°	125.6	128.8	135.8	144.0	150.3
62.5°	109.4	112.8	118.7	126.0	133.1
65°	93.8	96.3	102.0	109.3	115.5
67.5°	78.6	80.8	86.5	91.6	98.1
70°	63.2	66.1	70.3	75.2	79.4
72.5°	50.9	52.1	55.7	59.2	63.6
75°	37.6	39.6	42.5	44.5	47.0
77.5°	27.0	28.2	29.8	31.5	33.9
80°	18.0	18.6	20.1	20.4	22.3
82.5°	11.0	11.3	11.6	11.8	12.5
85°	5.9	5.9	5.9	5.6	5.6
87.5°	3.4	3.4	2.9	2.4	1.7
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)