

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: P557660

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-82-96-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: P557660  
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-12-4-LD4-2STD-50-UNV-82-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

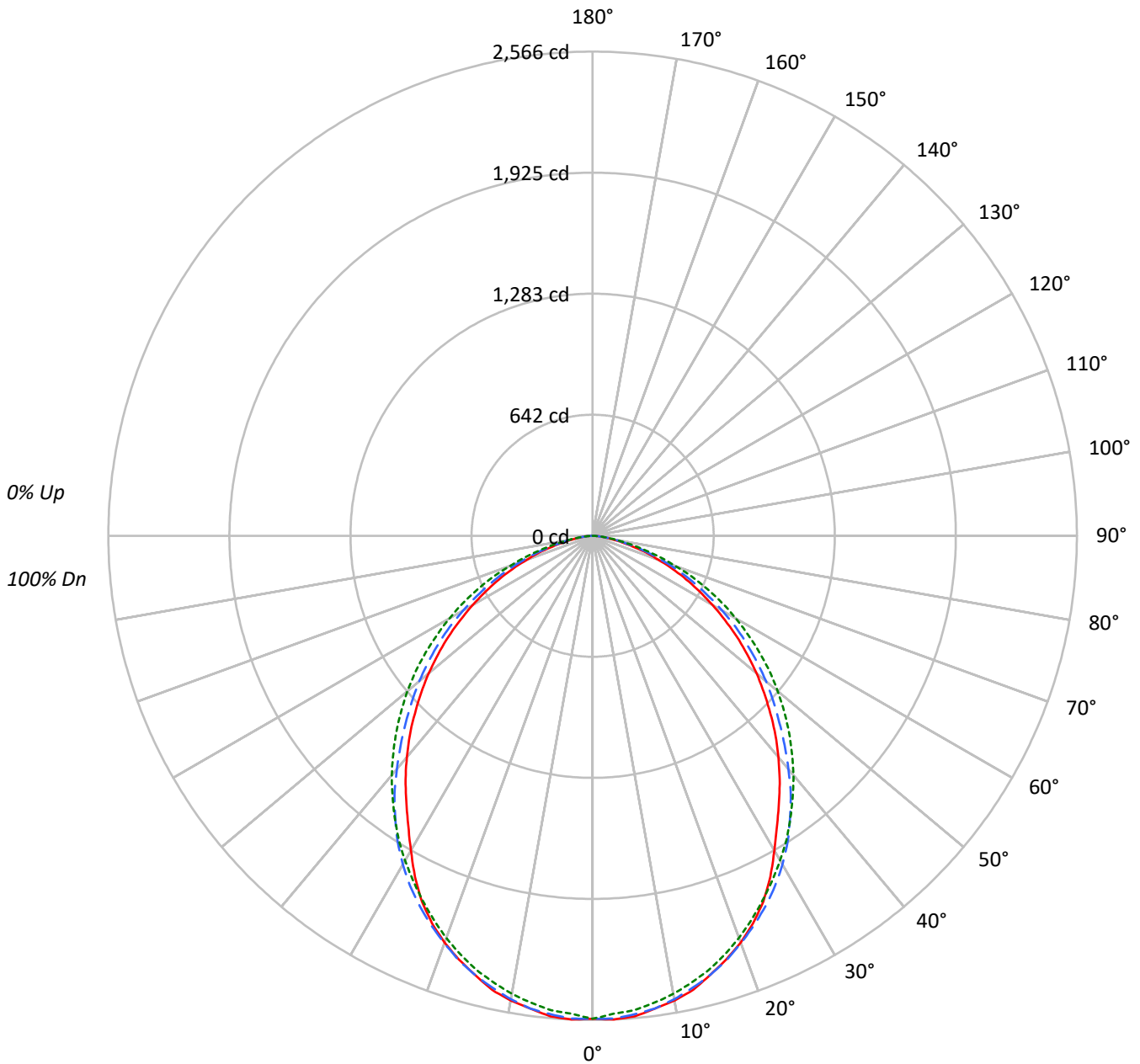
Lumens per Lamp: N/A  
Luminaire Lumens: 5918.0 lumens  
Efficiency: N/A  
Efficacy: 88.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	6887	6887	6887
5°	6905	6876	6818
10°	6832	6813	6736
15°	6711	6711	6634
20°	6569	6578	6493
25°	6353	6432	6329
30°	5982	6251	6174
35°	5653	5992	6002
40°	5378	5668	5817
45°	5070	5325	5598
50°	4746	5018	5359
55°	4378	4668	5070
60°	3942	4260	4715
65°	3481	3788	4288
70°	2901	3226	3644
75°	2280	2576	2852
80°	1630	1813	2011
85°	1062	1062	1000



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.0	4.1
10°-20°	677.0	11.4
20°-30°	989.3	16.7
30°-40°	1122.9	19.0
40°-50°	1084.0	18.3
50°-60°	894.2	15.1
60°-70°	595.5	10.1
70°-80°	266.5	4.5
80°-90°	47.7	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°	1907.2	32.2
0°-40°	3030.1	51.2
0°-60°	5008.4	84.6
0°-90°	5918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5918.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2559	2559	2559	2559	2559	
5°	2556	2555	2546	2532	2524	242
15°	2409	2415	2409	2398	2381	679
25°	2140	2156	2166	2150	2132	980
35°	1721	1744	1824	1834	1827	1078
45°	1332	1355	1399	1463	1471	1028
55°	933	949	995	1050	1081	833
65°	547	561	595	637	674	542
75°	219	231	248	260	274	240
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2559.4	2559.4	2559.4	2559.4	2559.4
2.5°	2566.3	2567.2	2561.3	2545.6	2535.8
5°	2556.4	2555.4	2545.6	2531.9	2524.0
7.5°	2527.9	2529.9	2526.9	2507.3	2496.5
10°	2500.4	2501.4	2493.5	2477.8	2465.0
12.5°	2465.0	2464.0	2453.2	2445.3	2424.7
15°	2408.9	2414.8	2408.9	2398.1	2381.4
17.5°	2354.9	2354.9	2358.8	2340.1	2327.3
20°	2293.9	2296.9	2296.9	2282.1	2267.4
22.5°	2223.1	2232.0	2234.9	2219.2	2201.5
25°	2139.5	2156.3	2166.1	2150.4	2131.7
27.5°	2038.3	2063.8	2093.3	2081.5	2060.9
30°	1925.2	1962.6	2011.7	2001.9	1987.1
32.5°	1818.0	1855.4	1923.2	1919.3	1911.4
35°	1720.7	1744.3	1823.9	1833.7	1826.9
37.5°	1628.3	1649.9	1724.6	1747.2	1741.3
40°	1530.9	1554.5	1613.5	1653.8	1655.8
42.5°	1434.6	1457.2	1505.3	1563.4	1563.4
45°	1332.3	1354.9	1399.2	1463.1	1470.9
47.5°	1232.0	1255.6	1298.9	1362.8	1375.6
50°	1133.7	1155.3	1198.6	1260.5	1280.2
52.5°	1031.4	1055.0	1097.3	1154.3	1182.8
55°	933.1	948.8	995.0	1050.1	1080.6
57.5°	830.8	845.6	897.7	944.9	976.4
60°	732.5	751.2	791.5	839.7	876.1
62.5°	638.1	657.8	692.2	734.5	775.8
65°	546.7	561.4	594.9	637.1	673.5
67.5°	458.2	471.0	504.4	533.9	572.2
70°	368.7	385.4	410.0	438.5	463.1
72.5°	296.9	303.8	324.5	345.1	370.7
75°	219.3	231.1	247.8	259.6	274.3
77.5°	157.3	164.2	174.0	183.9	197.6
80°	105.2	108.2	117.0	119.0	129.8
82.5°	63.9	65.9	67.8	68.8	72.8
85°	34.4	34.4	34.4	32.4	32.4
87.5°	19.7	19.7	16.7	13.8	9.8
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)