

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: P557532

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-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: P557532  
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-35-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 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

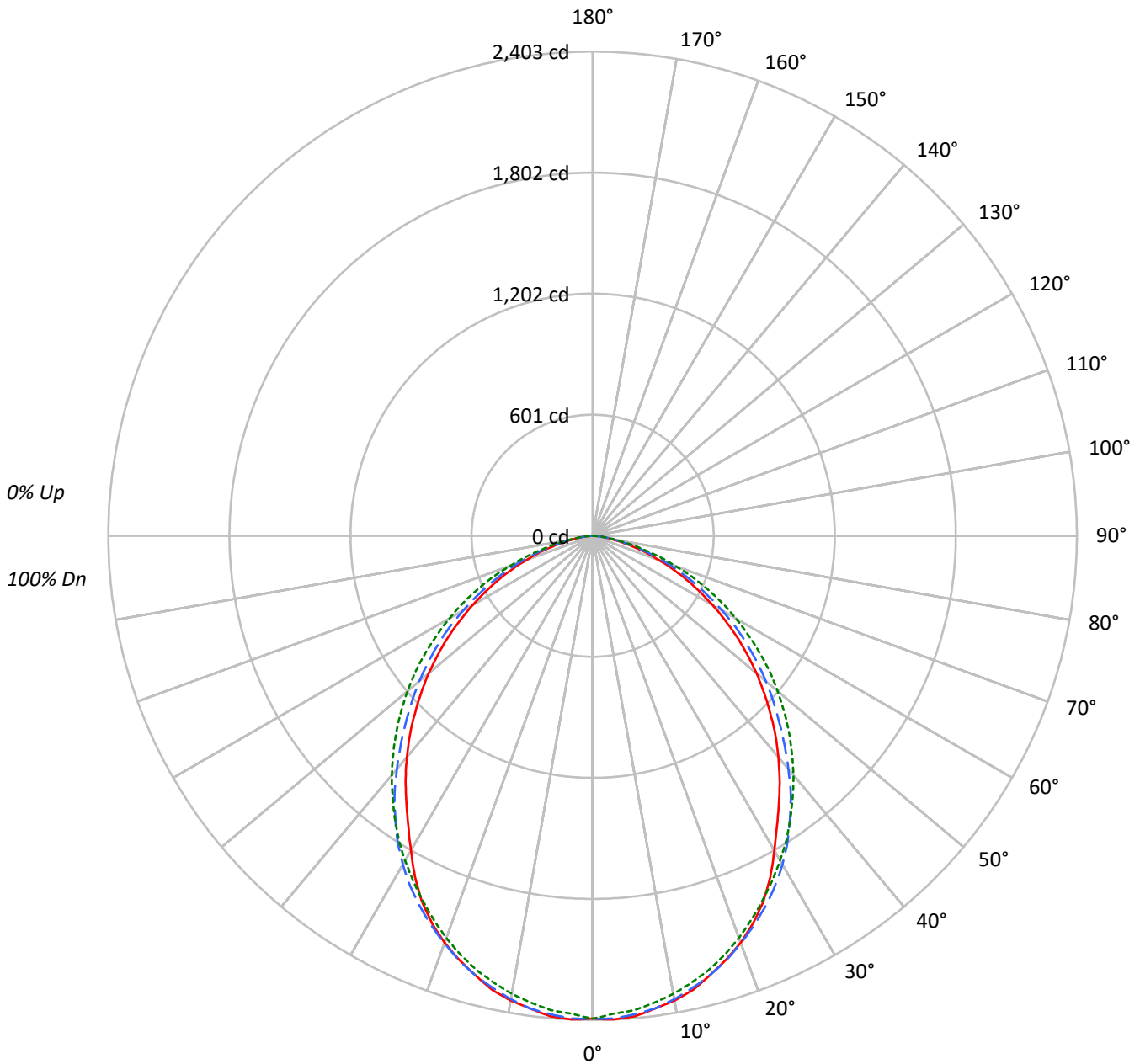
Lumens per Lamp: N/A  
Luminaire Lumens: 5542.0 lumens  
Efficiency: N/A  
Efficacy: 83.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (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°	6450	6450	6450
5°	6467	6440	6385
10°	6398	6381	6308
15°	6285	6285	6213
20°	6152	6159	6080
25°	5949	6023	5927
30°	5602	5854	5782
35°	5294	5611	5620
40°	5036	5308	5447
45°	4748	4987	5242
50°	4445	4699	5019
55°	4100	4372	4747
60°	3692	3989	4415
65°	3259	3547	4016
70°	2717	3021	3412
75°	2135	2412	2671
80°	1526	1698	1883
85°	994	994	939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.7	4.1
10°-20°	634.0	11.4
20°-30°	926.4	16.7
30°-40°	1051.6	19.0
40°-50°	1015.1	18.3
50°-60°	837.4	15.1
60°-70°	557.7	10.1
70°-80°	249.5	4.5
80°-90°	44.6	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°	1786.0	32.2
0°-40°	2837.6	51.2
0°-60°	4690.2	84.6
0°-90°	5542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2397	2397	2397	2397	2397	
5°	2394	2393	2384	2371	2364	227
15°	2256	2261	2256	2246	2230	636
25°	2004	2019	2028	2014	1996	918
35°	1611	1634	1708	1717	1711	1010
45°	1248	1269	1310	1370	1378	963
55°	874	888	932	983	1012	780
65°	512	526	557	597	631	508
75°	205	216	232	243	257	225
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2396.8	2396.8	2396.8	2396.8	2396.8
2.5°	2403.2	2404.1	2398.6	2383.9	2374.7
5°	2394.0	2393.1	2383.9	2371.0	2363.6
7.5°	2367.3	2369.1	2366.4	2348.0	2337.8
10°	2341.5	2342.4	2335.1	2320.3	2308.4
12.5°	2308.4	2307.5	2297.3	2290.0	2270.6
15°	2255.9	2261.4	2255.9	2245.8	2230.1
17.5°	2205.3	2205.3	2208.9	2191.4	2179.5
20°	2148.2	2150.9	2150.9	2137.1	2123.3
22.5°	2081.9	2090.2	2092.9	2078.2	2061.6
25°	2003.6	2019.3	2028.5	2013.7	1996.2
27.5°	1908.8	1932.7	1960.3	1949.3	1929.9
30°	1802.9	1837.9	1883.9	1874.7	1860.9
32.5°	1702.5	1737.5	1801.0	1797.3	1790.0
35°	1611.4	1633.5	1708.0	1717.2	1710.8
37.5°	1524.8	1545.1	1615.0	1636.2	1630.7
40°	1433.6	1455.7	1511.0	1548.7	1550.6
42.5°	1343.4	1364.6	1409.7	1464.0	1464.0
45°	1247.6	1268.8	1310.3	1370.1	1377.5
47.5°	1153.7	1175.8	1216.3	1276.2	1288.2
50°	1061.7	1081.9	1122.4	1180.4	1198.8
52.5°	965.9	988.0	1027.6	1081.0	1107.7
55°	873.8	888.5	931.8	983.4	1011.9
57.5°	778.1	791.9	840.7	884.9	914.3
60°	686.0	703.5	741.2	786.3	820.4
62.5°	597.6	616.0	648.2	687.8	726.5
65°	511.9	525.8	557.1	596.7	630.7
67.5°	429.1	441.1	472.4	500.0	535.9
70°	345.3	360.9	384.0	410.7	433.7
72.5°	278.1	284.5	303.9	323.2	347.1
75°	205.3	216.4	232.0	243.1	256.9
77.5°	147.3	153.8	163.0	172.2	185.1
80°	98.5	101.3	109.6	111.4	121.5
82.5°	59.9	61.7	63.5	64.5	68.1
85°	32.2	32.2	32.2	30.4	30.4
87.5°	18.4	18.4	15.7	12.9	9.2
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)