

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: P557595

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-82-94-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: P557595  
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-40-UNV-82-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

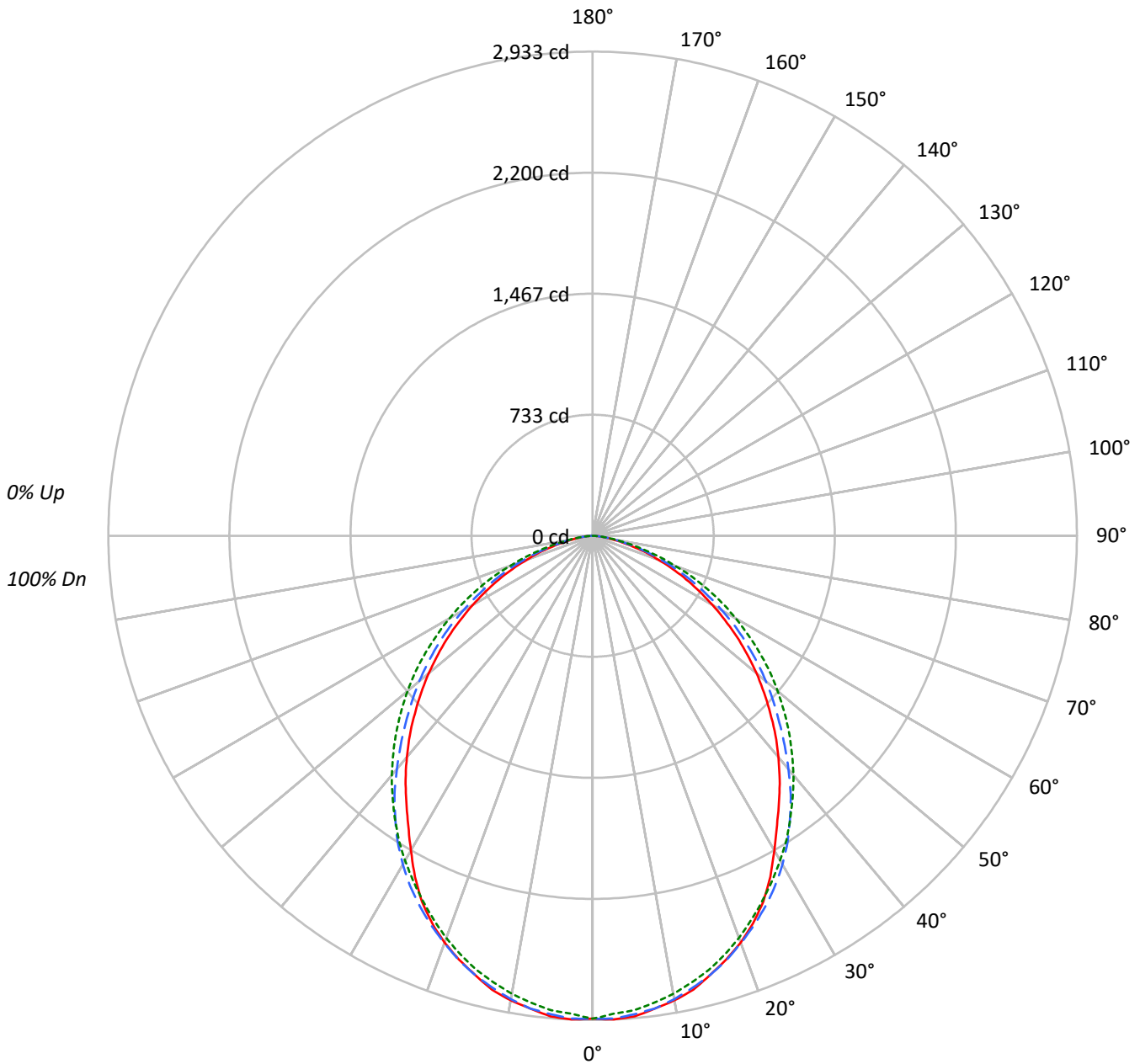
Lumens per Lamp: N/A  
Luminaire Lumens: 6764.0 lumens  
Efficiency: N/A  
Efficacy: 101.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7872	7872	7872
5°	7893	7859	7793
10°	7809	7788	7699
15°	7670	7670	7583
20°	7508	7518	7421
25°	7261	7351	7234
30°	6837	7145	7057
35°	6461	6848	6859
40°	6147	6478	6648
45°	5795	6086	6398
50°	5424	5735	6126
55°	5004	5336	5795
60°	4506	4869	5389
65°	3978	4329	4902
70°	3316	3687	4164
75°	2606	2944	3260
80°	1863	2072	2298
85°	1213	1213	1145



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.4	4.1
10°-20°	773.7	11.4
20°-30°	1130.7	16.7
30°-40°	1283.5	19.0
40°-50°	1239.0	18.3
50°-60°	1022.1	15.1
60°-70°	680.6	10.1
70°-80°	304.6	4.5
80°-90°	54.5	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°	2179.8	32.2
0°-40°	3463.3	51.2
0°-60°	5724.3	84.6
0°-90°	6764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6764.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2925	2925	2925	2925	2925	
5°	2922	2921	2910	2894	2885	277
15°	2753	2760	2753	2741	2722	776
25°	2445	2464	2476	2458	2436	1120
35°	1967	1994	2085	2096	2088	1232
45°	1523	1549	1599	1672	1681	1175
55°	1066	1084	1137	1200	1235	952
65°	625	642	680	728	770	620
75°	251	264	283	297	314	274
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2925.3	2925.3	2925.3	2925.3	2925.3
2.5°	2933.1	2934.2	2927.5	2909.5	2898.3
5°	2921.9	2920.8	2909.5	2893.8	2884.8
7.5°	2889.3	2891.5	2888.2	2865.7	2853.3
10°	2857.8	2859.0	2850.0	2832.0	2817.4
12.5°	2817.4	2816.2	2803.9	2794.9	2771.3
15°	2753.3	2760.1	2753.3	2741.0	2721.8
17.5°	2691.5	2691.5	2696.0	2674.6	2660.0
20°	2621.8	2625.2	2625.2	2608.3	2591.5
22.5°	2540.9	2551.0	2554.4	2536.4	2516.2
25°	2445.4	2464.5	2475.7	2457.8	2436.4
27.5°	2329.6	2358.9	2392.6	2379.1	2355.5
30°	2200.4	2243.1	2299.3	2288.1	2271.2
32.5°	2077.9	2120.6	2198.2	2193.7	2184.7
35°	1966.7	1993.6	2084.7	2095.9	2088.0
37.5°	1861.0	1885.7	1971.1	1997.0	1990.3
40°	1749.8	1776.7	1844.2	1890.2	1892.5
42.5°	1639.6	1665.5	1720.5	1786.8	1786.8
45°	1522.8	1548.6	1599.2	1672.2	1681.2
47.5°	1408.1	1435.1	1484.5	1557.6	1572.2
50°	1295.7	1320.5	1369.9	1440.7	1463.2
52.5°	1178.9	1205.8	1254.2	1319.3	1351.9
55°	1066.5	1084.5	1137.3	1200.2	1235.1
57.5°	949.6	966.5	1026.0	1080.0	1115.9
60°	837.2	858.6	904.7	959.7	1001.3
62.5°	729.3	751.8	791.2	839.5	886.7
65°	624.8	641.7	679.9	728.2	769.8
67.5°	523.7	538.3	576.5	610.2	654.1
70°	421.4	440.5	468.6	501.2	529.3
72.5°	339.4	347.3	370.9	394.5	423.7
75°	250.6	264.1	283.2	296.7	313.5
77.5°	179.8	187.7	198.9	210.2	225.9
80°	120.2	123.6	133.7	136.0	148.3
82.5°	73.0	75.3	77.5	78.7	83.2
85°	39.3	39.3	39.3	37.1	37.1
87.5°	22.5	22.5	19.1	15.7	11.2
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)