

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: P557533

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-82-96-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: P557533  
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  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

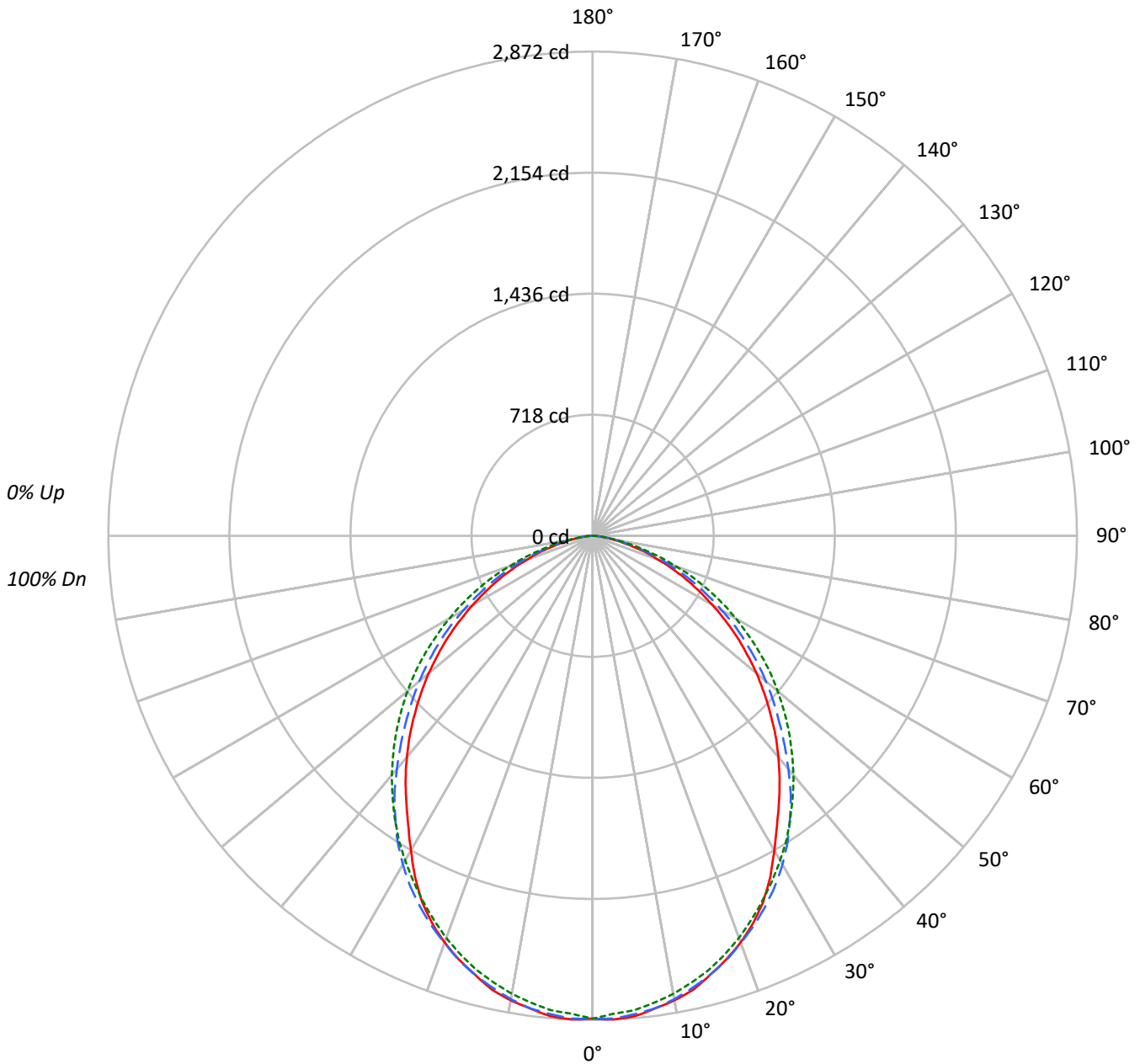
Lumens per Lamp: N/A  
Luminaire Lumens: 6623.0 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7708	7708	7708
5°	7728	7696	7630
10°	7646	7625	7538
15°	7511	7511	7425
20°	7352	7361	7267
25°	7109	7198	7083
30°	6695	6996	6910
35°	6326	6706	6716
40°	6019	6343	6509
45°	5674	5959	6265
50°	5311	5616	5998
55°	4899	5225	5674
60°	4412	4767	5276
65°	3896	4239	4800
70°	3246	3611	4078
75°	2551	2883	3192
80°	1824	2029	2250
85°	1189	1189	1121



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.7	4.1
10°-20°	757.6	11.4
20°-30°	1107.1	16.7
30°-40°	1256.7	19.0
40°-50°	1213.1	18.3
50°-60°	1000.8	15.1
60°-70°	666.4	10.1
70°-80°	298.2	4.5
80°-90°	53.3	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°	2134.4	32.2
0°-40°	3391.1	51.2
0°-60°	5605.0	84.6
0°-90°	6623.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6623.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2864	2864	2864	2864	2864	
5°	2861	2860	2849	2834	2825	271
15°	2696	2702	2696	2684	2665	760
25°	2394	2413	2424	2406	2386	1097
35°	1926	1952	2041	2052	2044	1207
45°	1491	1516	1566	1637	1646	1150
55°	1044	1062	1114	1175	1209	932
65°	612	628	666	713	754	607
75°	245	259	277	290	307	268
85°	38	38	38	36	36	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2864.3	2864.3	2864.3	2864.3	2864.3
2.5°	2872.0	2873.1	2866.5	2848.9	2837.9
5°	2861.0	2859.9	2848.9	2833.5	2824.7
7.5°	2829.1	2831.3	2828.0	2806.0	2793.9
10°	2798.3	2799.4	2790.6	2772.9	2758.6
12.5°	2758.6	2757.5	2745.4	2736.6	2713.5
15°	2695.9	2702.5	2695.9	2683.8	2665.1
17.5°	2635.4	2635.4	2639.8	2618.9	2604.6
20°	2567.2	2570.5	2570.5	2554.0	2537.5
22.5°	2487.9	2497.9	2501.2	2483.5	2463.7
25°	2394.4	2413.1	2424.1	2406.5	2385.6
27.5°	2281.1	2309.7	2342.7	2329.5	2306.4
30°	2154.5	2196.3	2251.4	2240.4	2223.9
32.5°	2034.6	2076.4	2152.3	2147.9	2139.1
35°	1925.7	1952.1	2041.2	2052.2	2044.5
37.5°	1822.2	1846.4	1930.1	1955.4	1948.8
40°	1713.3	1739.7	1805.7	1850.8	1853.0
42.5°	1605.4	1630.8	1684.7	1749.6	1749.6
45°	1491.0	1516.3	1565.8	1637.4	1646.2
47.5°	1378.8	1405.2	1453.6	1525.1	1539.4
50°	1268.7	1292.9	1341.4	1410.7	1432.7
52.5°	1154.3	1180.7	1228.0	1291.8	1323.8
55°	1044.3	1061.9	1113.6	1175.2	1209.3
57.5°	929.8	946.3	1004.6	1057.5	1092.7
60°	819.8	840.7	885.8	939.7	980.4
62.5°	714.1	736.2	774.7	822.0	868.2
65°	611.8	628.3	665.7	713.0	753.8
67.5°	512.8	527.1	564.5	597.5	640.4
70°	412.6	431.3	458.9	490.8	518.3
72.5°	332.3	340.0	363.1	386.2	414.8
75°	245.4	258.6	277.3	290.5	307.0
77.5°	176.1	183.8	194.8	205.8	221.2
80°	117.7	121.0	130.9	133.1	145.2
82.5°	71.5	73.7	75.9	77.0	81.4
85°	38.5	38.5	38.5	36.3	36.3
87.5°	22.0	22.0	18.7	15.4	11.0
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)