

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: P557483

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-93-94-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: P557483  
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-30-UNV-93-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

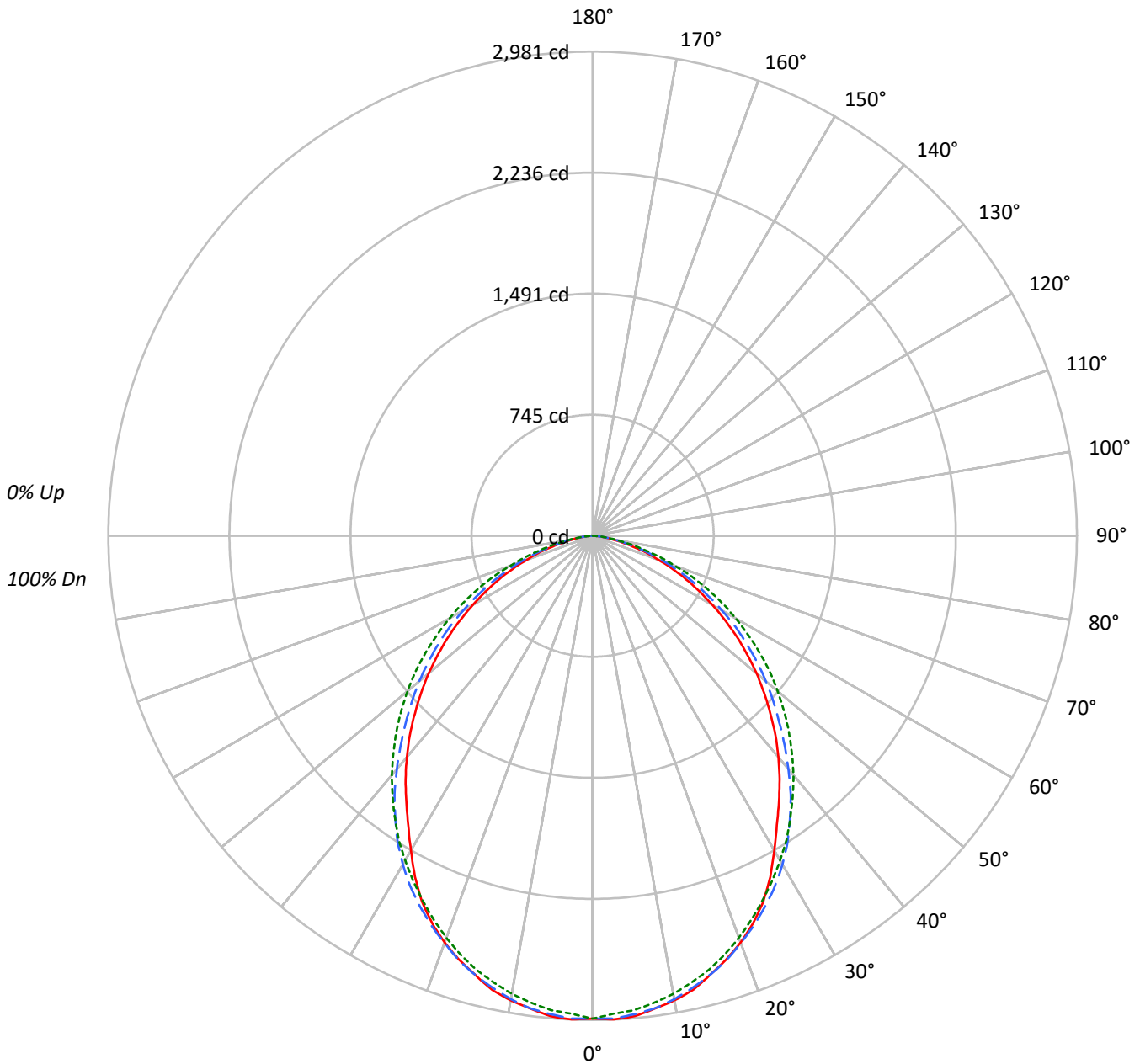
Lumens per Lamp: N/A  
Luminaire Lumens: 6874.0 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	8000	8000	8000
5°	8021	7987	7919
10°	7936	7914	7824
15°	7795	7795	7706
20°	7630	7640	7542
25°	7379	7470	7352
30°	6948	7261	7172
35°	6566	6960	6971
40°	6247	6583	6756
45°	5889	6185	6502
50°	5513	5828	6225
55°	5085	5423	5888
60°	4579	4948	5477
65°	4043	4400	4981
70°	3370	3747	4232
75°	2648	2992	3313
80°	1894	2106	2337
85°	1235	1235	1164



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	279.9	4.1
10°-20°	786.3	11.4
20°-30°	1149.1	16.7
30°-40°	1304.3	19.0
40°-50°	1259.1	18.3
50°-60°	1038.7	15.1
60°-70°	691.7	10.1
70°-80°	309.5	4.5
80°-90°	55.4	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°	2215.3	32.2
0°-40°	3519.6	51.2
0°-60°	5817.4	84.6
0°-90°	6874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6874.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2973	2973	2973	2973	2973	
5°	2969	2968	2957	2941	2932	281
15°	2798	2805	2798	2786	2766	789
25°	2485	2505	2516	2498	2476	1138
35°	1999	2026	2119	2130	2122	1252
45°	1548	1574	1625	1699	1708	1194
55°	1084	1102	1156	1220	1255	967
65°	635	652	691	740	782	630
75°	255	268	288	302	319	278
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2972.8	2972.8	2972.8	2972.8	2972.8
2.5°	2980.8	2982.0	2975.1	2956.8	2945.4
5°	2969.4	2968.3	2956.8	2940.8	2931.7
7.5°	2936.3	2938.6	2935.1	2912.3	2899.7
10°	2904.3	2905.4	2896.3	2878.0	2863.2
12.5°	2863.2	2862.0	2849.5	2840.3	2816.4
15°	2798.1	2804.9	2798.1	2785.5	2766.1
17.5°	2735.3	2735.3	2739.8	2718.1	2703.3
20°	2664.5	2667.9	2667.9	2650.8	2633.6
22.5°	2582.2	2592.5	2595.9	2577.7	2557.1
25°	2485.2	2504.6	2516.0	2497.7	2476.0
27.5°	2367.5	2397.2	2431.5	2417.8	2393.8
30°	2236.2	2279.6	2336.7	2325.3	2308.1
32.5°	2111.7	2155.1	2233.9	2229.3	2220.2
35°	1998.6	2026.0	2118.6	2130.0	2122.0
37.5°	1891.3	1916.4	2003.2	2029.5	2022.6
40°	1778.2	1805.6	1874.1	1921.0	1923.3
42.5°	1666.3	1692.6	1748.5	1815.9	1815.9
45°	1547.5	1573.8	1625.2	1699.4	1708.5
47.5°	1431.0	1458.4	1508.7	1582.9	1597.8
50°	1316.8	1341.9	1392.2	1464.1	1487.0
52.5°	1198.0	1225.4	1274.6	1340.8	1373.9
55°	1083.8	1102.1	1155.8	1219.7	1255.1
57.5°	965.1	982.2	1042.7	1097.5	1134.1
60°	850.8	872.5	919.4	975.3	1017.6
62.5°	741.2	764.0	804.0	853.1	901.1
65°	635.0	652.1	691.0	740.1	782.3
67.5°	532.2	547.1	585.9	620.1	664.7
70°	428.3	447.7	476.2	509.4	537.9
72.5°	344.9	352.9	376.9	400.9	430.6
75°	254.7	268.4	287.8	301.5	318.6
77.5°	182.7	190.7	202.1	213.6	229.6
80°	122.2	125.6	135.9	138.2	150.8
82.5°	74.2	76.5	78.8	79.9	84.5
85°	40.0	40.0	40.0	37.7	37.7
87.5°	22.8	22.8	19.4	16.0	11.4
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)