

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: P557050

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-80-94-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: P557050  
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-LD4-2HI-40-UNV-80-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

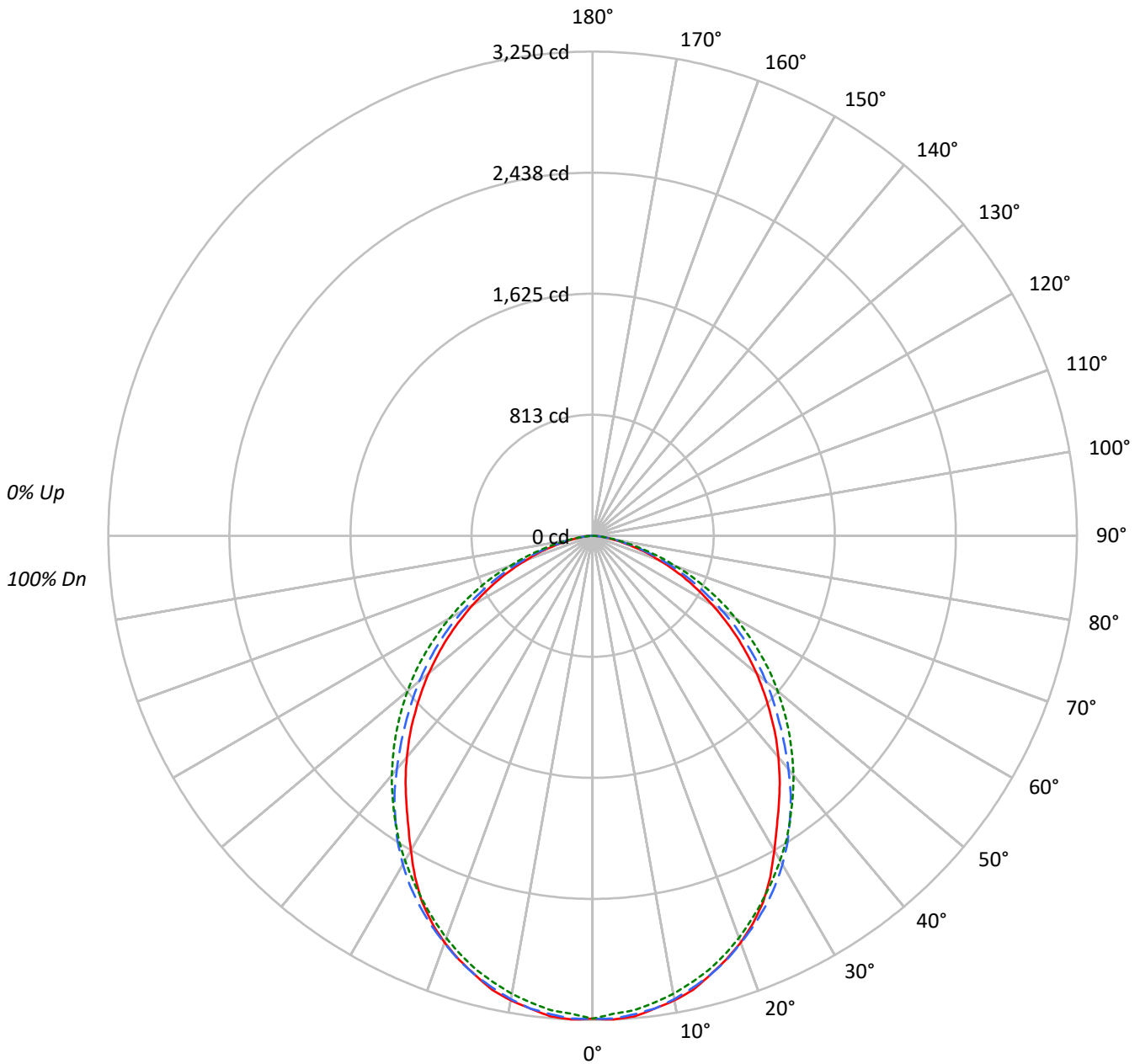
Lumens per Lamp: N/A  
Luminaire Lumens: 7495.0 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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°	8723	8723	8723
5°	8746	8709	8635
10°	8653	8629	8530
15°	8500	8500	8402
20°	8320	8330	8223
25°	8046	8145	8016
30°	7576	7917	7820
35°	7159	7588	7601
40°	6811	7178	7366
45°	6421	6744	7089
50°	6011	6355	6787
55°	5544	5912	6420
60°	4993	5395	5971
65°	4409	4797	5431
70°	3674	4086	4615
75°	2887	3263	3612
80°	2064	2297	2548
85°	1346	1346	1269



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	305.2	4.1
10°-20°	857.4	11.4
20°-30°	1252.9	16.7
30°-40°	1422.2	19.0
40°-50°	1372.9	18.3
50°-60°	1132.5	15.1
60°-70°	754.2	10.1
70°-80°	337.5	4.5
80°-90°	60.4	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°	2415.4	32.2
0°-40°	3837.6	51.2
0°-60°	6343.0	84.6
0°-90°	7495.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7495.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3241	3241	3241	3241	3241	
5°	3238	3236	3224	3206	3197	306
15°	3051	3058	3051	3037	3016	860
25°	2710	2731	2743	2723	2700	1241
35°	2179	2209	2310	2322	2314	1365
45°	1687	1716	1772	1853	1863	1302
55°	1182	1202	1260	1330	1368	1055
65°	692	711	753	807	853	687
75°	278	293	314	329	347	304
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3241.4	3241.4	3241.4	3241.4	3241.4
2.5°	3250.1	3251.4	3243.9	3224.0	3211.5
5°	3237.7	3236.4	3224.0	3206.5	3196.6
7.5°	3201.5	3204.0	3200.3	3175.4	3161.7
10°	3166.7	3167.9	3158.0	3138.0	3121.8
12.5°	3121.8	3120.6	3106.9	3096.9	3070.8
15°	3050.9	3058.3	3050.9	3037.2	3016.0
17.5°	2982.4	2982.4	2987.4	2963.7	2947.5
20°	2905.2	2908.9	2908.9	2890.2	2871.6
22.5°	2815.5	2826.7	2830.5	2810.5	2788.1
25°	2709.7	2730.8	2743.3	2723.4	2699.7
27.5°	2581.4	2613.8	2651.1	2636.2	2610.1
30°	2438.2	2485.5	2547.8	2535.3	2516.7
32.5°	2302.5	2349.8	2435.7	2430.7	2420.8
35°	2179.2	2209.1	2309.9	2322.4	2313.7
37.5°	2062.1	2089.5	2184.2	2212.8	2205.3
40°	1938.9	1968.7	2043.5	2094.5	2097.0
42.5°	1816.8	1845.5	1906.5	1980.0	1980.0
45°	1687.3	1716.0	1772.0	1852.9	1862.9
47.5°	1560.3	1590.2	1645.0	1725.9	1742.1
50°	1435.8	1463.2	1518.0	1596.4	1621.3
52.5°	1306.3	1336.2	1389.7	1461.9	1498.0
55°	1181.7	1201.7	1260.2	1329.9	1368.5
57.5°	1052.2	1070.9	1136.9	1196.7	1236.5
60°	927.7	951.4	1002.4	1063.4	1109.5
62.5°	808.2	833.1	876.7	930.2	982.5
65°	692.4	711.0	753.4	806.9	853.0
67.5°	580.3	596.5	638.8	676.2	724.7
70°	467.0	488.1	519.3	555.4	586.5
72.5°	376.1	384.8	410.9	437.1	469.5
75°	277.7	292.6	313.8	328.7	347.4
77.5°	199.2	208.0	220.4	232.9	250.3
80°	133.2	137.0	148.2	150.7	164.4
82.5°	80.9	83.4	85.9	87.2	92.1
85°	43.6	43.6	43.6	41.1	41.1
87.5°	24.9	24.9	21.2	17.4	12.5
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)