

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: P557115

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-94-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: P557115  
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-50-UNV-80-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

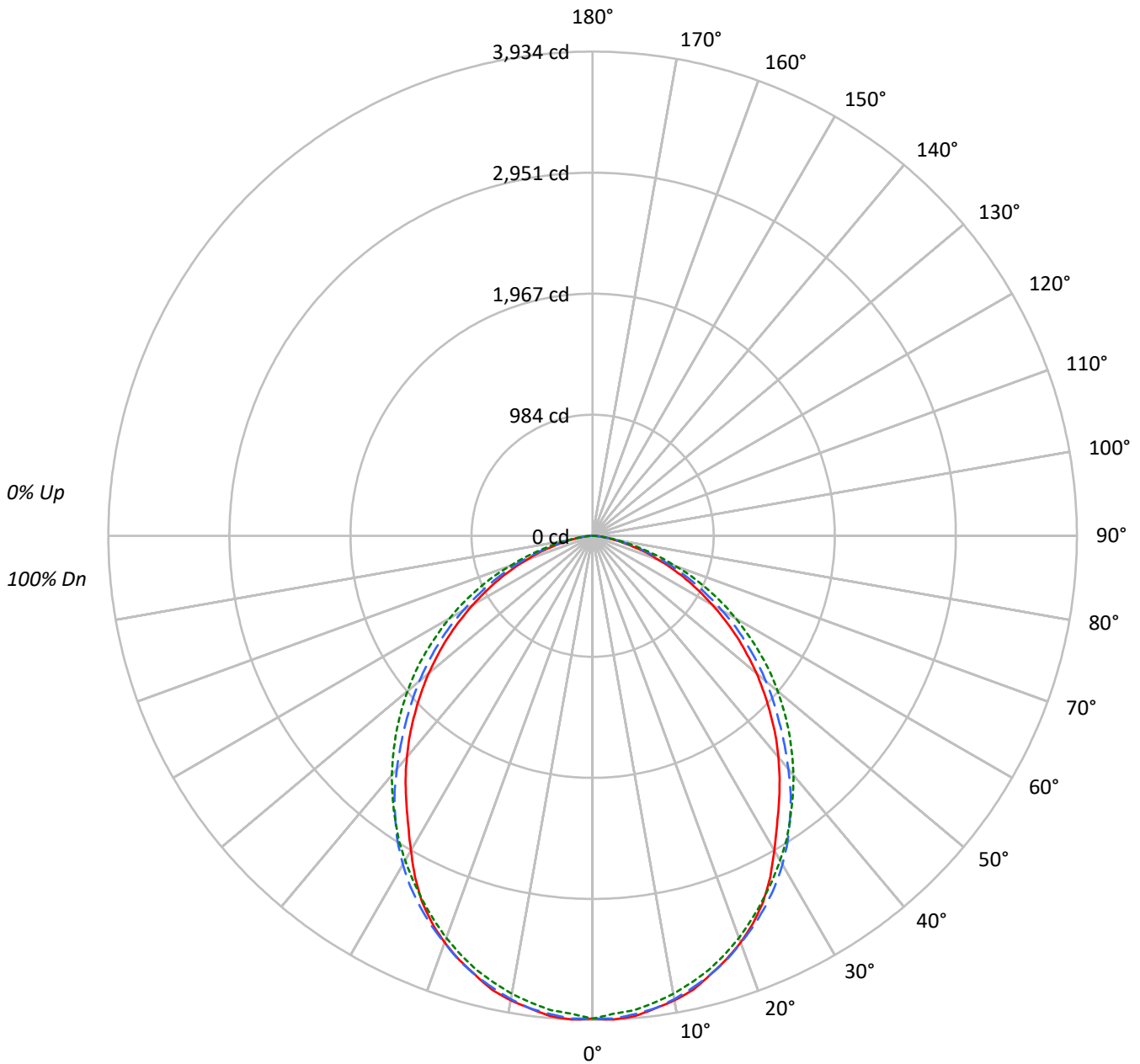
Lumens per Lamp: N/A  
Luminaire Lumens: 9072.0 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	10558	10558	10558
5°	10586	10541	10451
10°	10474	10445	10325
15°	10288	10288	10170
20°	10070	10083	9953
25°	9738	9859	9702
30°	9170	9583	9465
35°	8665	9185	9200
40°	8244	8689	8916
45°	7772	8162	8581
50°	7276	7692	8216
55°	6711	7157	7772
60°	6043	6530	7228
65°	5336	5806	6574
70°	4447	4945	5585
75°	3494	3949	4372
80°	2500	2780	3084
85°	1630	1630	1535



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	369.4	4.1
10°-20°	1037.8	11.4
20°-30°	1516.5	16.7
30°-40°	1721.4	19.0
40°-50°	1661.7	18.3
50°-60°	1370.8	15.1
60°-70°	912.8	10.1
70°-80°	408.5	4.5
80°-90°	73.1	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°	2923.6	32.2
0°-40°	4645.0	51.2
0°-60°	7677.6	84.6
0°-90°	9072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9072.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3923	3923	3923	3923	3923	
5°	3919	3917	3902	3881	3869	371
15°	3693	3702	3693	3676	3651	1041
25°	3280	3305	3320	3296	3268	1502
35°	2638	2674	2796	2811	2800	1653
45°	2042	2077	2145	2243	2255	1576
55°	1430	1454	1525	1610	1656	1277
65°	838	861	912	977	1032	831
75°	336	354	380	398	420	368
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3923.4	3923.4	3923.4	3923.4	3923.4
2.5°	3934.0	3935.5	3926.4	3902.3	3887.2
5°	3918.9	3917.4	3902.3	3881.2	3869.1
7.5°	3875.2	3878.2	3873.7	3843.5	3826.9
10°	3833.0	3834.5	3822.4	3798.3	3778.7
12.5°	3778.7	3777.2	3760.6	3748.6	3716.9
15°	3692.8	3701.8	3692.8	3676.2	3650.6
17.5°	3609.9	3609.9	3615.9	3587.3	3567.7
20°	3516.4	3521.0	3521.0	3498.4	3475.7
22.5°	3407.9	3421.5	3426.0	3401.9	3374.8
25°	3279.8	3305.4	3320.5	3296.4	3267.7
27.5°	3124.6	3163.7	3209.0	3190.9	3159.2
30°	2951.2	3008.5	3083.9	3068.8	3046.2
32.5°	2786.9	2844.2	2948.2	2942.2	2930.1
35°	2637.7	2673.9	2796.0	2811.0	2800.5
37.5°	2496.0	2529.2	2643.7	2678.4	2669.4
40°	2346.8	2383.0	2473.4	2535.2	2538.2
42.5°	2199.1	2233.8	2307.6	2396.5	2396.5
45°	2042.3	2077.0	2144.8	2242.8	2254.9
47.5°	1888.6	1924.8	1991.1	2089.1	2108.7
50°	1737.9	1771.0	1837.4	1932.3	1962.5
52.5°	1581.1	1617.3	1682.1	1769.5	1813.2
55°	1430.4	1454.5	1525.4	1609.8	1656.5
57.5°	1273.6	1296.2	1376.1	1448.5	1496.7
60°	1122.9	1151.5	1213.3	1287.2	1343.0
62.5°	978.2	1008.4	1061.1	1125.9	1189.2
65°	838.0	860.6	911.9	976.7	1032.5
67.5°	702.4	722.0	773.2	818.4	877.2
70°	565.2	590.8	628.5	672.2	709.9
72.5°	455.2	465.7	497.4	529.0	568.2
75°	336.1	354.2	379.8	397.9	420.5
77.5°	241.2	251.7	266.8	281.9	303.0
80°	161.3	165.8	179.4	182.4	199.0
82.5°	98.0	101.0	104.0	105.5	111.5
85°	52.8	52.8	52.8	49.7	49.7
87.5°	30.1	30.1	25.6	21.1	15.1
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)