

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: P557754

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-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: P557754  
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-LD4-3HI-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

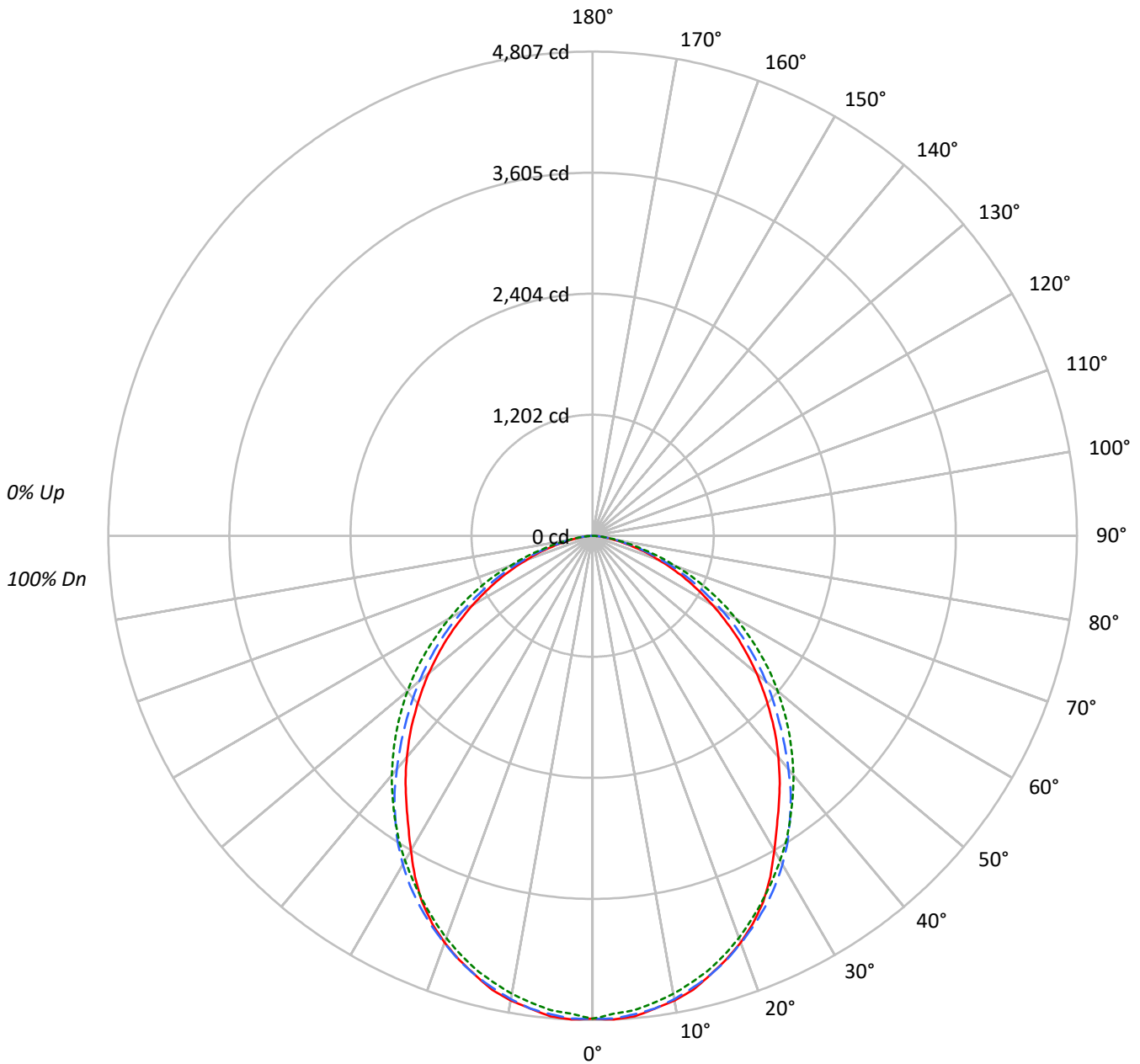
Lumens per Lamp: N/A  
Luminaire Lumens: 11086.0 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12902	12902	12902
5°	12936	12881	12772
10°	12799	12763	12618
15°	12572	12572	12428
20°	12306	12321	12163
25°	11900	12048	11856
30°	11206	11710	11567
35°	10589	11224	11242
40°	10074	10618	10896
45°	9498	9975	10486
50°	8891	9399	10039
55°	8200	8745	9497
60°	7385	7980	8832
65°	6521	7095	8034
70°	5434	6043	6825
75°	4270	4826	5343
80°	3054	3397	3767
85°	1991	1991	1877



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	451.4	4.1
10°-20°	1268.1	11.4
20°-30°	1853.2	16.7
30°-40°	2103.5	19.0
40°-50°	2030.6	18.3
50°-60°	1675.1	15.1
60°-70°	1115.5	10.1
70°-80°	499.2	4.5
80°-90°	89.3	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°	3572.7	32.2
0°-40°	5676.2	51.2
0°-60°	9382.0	84.6
0°-90°	11086.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11086.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4794	4794	4794	4794	4794	
5°	4789	4787	4769	4743	4728	453
15°	4513	4524	4513	4492	4461	1272
25°	4008	4039	4058	4028	3993	1835
35°	3223	3268	3417	3435	3422	2020
45°	2496	2538	2621	2741	2755	1926
55°	1748	1777	1864	1967	2024	1560
65°	1024	1052	1114	1194	1262	1015
75°	411	433	464	486	514	449
85°	64	64	64	61	61	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4794.4	4794.4	4794.4	4794.4	4794.4
2.5°	4807.3	4809.1	4798.1	4768.6	4750.2
5°	4788.9	4787.0	4768.6	4742.8	4728.1
7.5°	4735.5	4739.2	4733.6	4696.8	4676.5
10°	4683.9	4685.7	4671.0	4641.5	4617.6
12.5°	4617.6	4615.7	4595.5	4580.8	4542.1
15°	4512.6	4523.7	4512.6	4492.3	4461.0
17.5°	4411.3	4411.3	4418.7	4383.7	4359.7
20°	4297.1	4302.6	4302.6	4275.0	4247.4
22.5°	4164.5	4181.1	4186.6	4157.1	4124.0
25°	4007.9	4039.2	4057.7	4028.2	3993.2
27.5°	3818.2	3866.1	3921.4	3899.3	3860.6
30°	3606.4	3676.4	3768.5	3750.1	3722.4
32.5°	3405.6	3475.6	3602.7	3595.3	3580.6
35°	3223.3	3267.5	3416.7	3435.1	3422.2
37.5°	3050.2	3090.7	3230.7	3273.0	3262.0
40°	2867.8	2912.0	3022.5	3098.0	3101.7
42.5°	2687.3	2729.7	2819.9	2928.6	2928.6
45°	2495.7	2538.1	2621.0	2740.7	2755.4
47.5°	2307.9	2352.1	2433.1	2552.8	2576.8
50°	2123.7	2164.2	2245.2	2361.3	2398.1
52.5°	1932.1	1976.3	2055.5	2162.4	2215.8
55°	1747.9	1777.4	1864.0	1967.1	2024.2
57.5°	1556.4	1584.0	1681.6	1770.0	1829.0
60°	1372.2	1407.2	1482.7	1573.0	1641.1
62.5°	1195.4	1232.2	1296.7	1375.9	1453.2
65°	1024.1	1051.7	1114.3	1193.5	1261.7
67.5°	858.3	882.3	944.9	1000.1	1072.0
70°	690.7	722.0	768.1	821.5	867.5
72.5°	556.2	569.1	607.8	646.5	694.4
75°	410.7	432.8	464.2	486.3	513.9
77.5°	294.7	307.6	326.0	344.4	370.2
80°	197.1	202.6	219.2	222.9	243.1
82.5°	119.7	123.4	127.1	128.9	136.3
85°	64.5	64.5	64.5	60.8	60.8
87.5°	36.8	36.8	31.3	25.8	18.4
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)