

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: P556987

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-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: P556987  
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-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

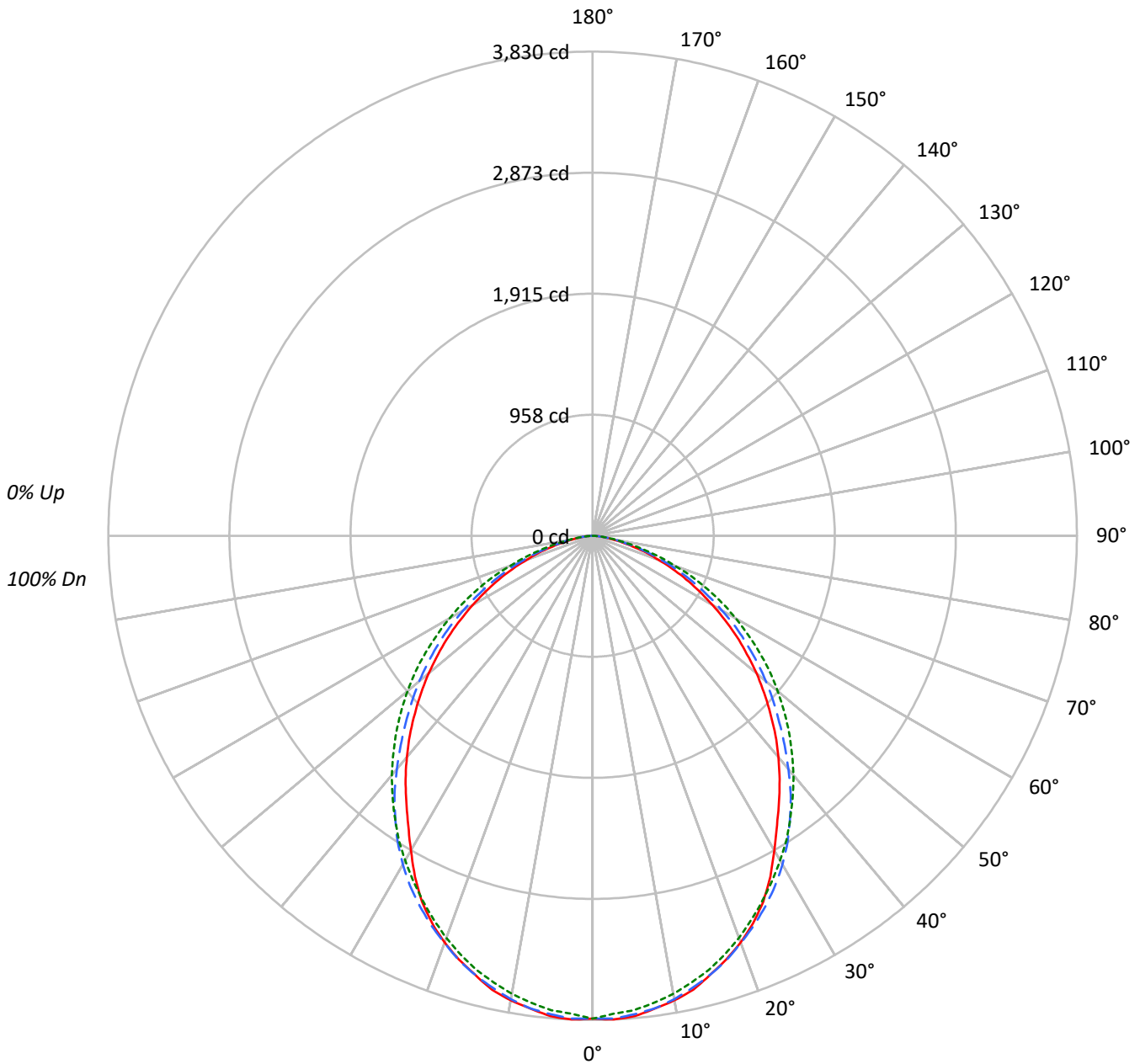
Lumens per Lamp: N/A  
Luminaire Lumens: 8832.0 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	10278	10278	10278
5°	10306	10262	10175
10°	10197	10168	10052
15°	10016	10016	9901
20°	9804	9816	9690
25°	9481	9598	9446
30°	8928	9329	9215
35°	8436	8942	8956
40°	8026	8459	8681
45°	7567	7947	8354
50°	7083	7488	7998
55°	6533	6967	7566
60°	5884	6357	7036
65°	5195	5653	6401
70°	4330	4814	5438
75°	3402	3845	4257
80°	2433	2706	3002
85°	1587	1587	1494



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	359.6	4.1
10°-20°	1010.3	11.4
20°-30°	1476.4	16.7
30°-40°	1675.8	19.0
40°-50°	1617.8	18.3
50°-60°	1334.6	15.1
60°-70°	888.7	10.1
70°-80°	397.7	4.5
80°-90°	71.1	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°	2846.3	32.2
0°-40°	4522.1	51.2
0°-60°	7474.5	84.6
0°-90°	8832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8832.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3820	3820	3820	3820	3820	
5°	3815	3814	3799	3778	3767	361
15°	3595	3604	3595	3579	3554	1013
25°	3193	3218	3233	3209	3181	1462
35°	2568	2603	2722	2737	2726	1609
45°	1988	2022	2088	2184	2195	1534
55°	1393	1416	1485	1567	1613	1243
65°	816	838	888	951	1005	809
75°	327	345	370	387	409	358
85°	51	51	51	48	48	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3819.6	3819.6	3819.6	3819.6	3819.6
2.5°	3829.9	3831.4	3822.5	3799.1	3784.4
5°	3815.2	3813.7	3799.1	3778.5	3766.8
7.5°	3772.7	3775.6	3771.2	3741.8	3725.7
10°	3731.6	3733.0	3721.3	3697.8	3678.7
12.5°	3678.7	3677.3	3661.1	3649.4	3618.6
15°	3595.1	3603.9	3595.1	3579.0	3554.0
17.5°	3514.4	3514.4	3520.3	3492.4	3473.3
20°	3423.4	3427.8	3427.8	3405.8	3383.8
22.5°	3317.8	3331.0	3335.4	3311.9	3285.5
25°	3193.0	3218.0	3232.7	3209.2	3181.3
27.5°	3041.9	3080.0	3124.1	3106.5	3075.6
30°	2873.1	2928.9	3002.3	2987.6	2965.6
32.5°	2713.2	2769.0	2870.2	2864.3	2852.6
35°	2567.9	2603.1	2722.0	2736.7	2726.4
37.5°	2430.0	2462.3	2573.8	2607.5	2598.7
40°	2284.7	2319.9	2408.0	2468.1	2471.1
42.5°	2140.9	2174.7	2246.6	2333.1	2333.1
45°	1988.3	2022.1	2088.1	2183.5	2195.2
47.5°	1838.6	1873.9	1938.4	2033.8	2052.9
50°	1691.9	1724.2	1788.7	1881.2	1910.5
52.5°	1539.3	1574.5	1637.6	1722.7	1765.3
55°	1392.6	1416.0	1485.0	1567.2	1612.7
57.5°	1239.9	1262.0	1339.7	1410.2	1457.1
60°	1093.2	1121.1	1181.2	1253.1	1307.4
62.5°	952.3	981.7	1033.0	1096.1	1157.8
65°	815.9	837.9	887.8	950.9	1005.2
67.5°	683.8	702.9	752.8	796.8	854.0
70°	550.3	575.2	611.9	654.5	691.1
72.5°	443.2	453.4	484.2	515.1	553.2
75°	327.2	344.8	369.8	387.4	409.4
77.5°	234.8	245.1	259.7	274.4	294.9
80°	157.0	161.4	174.6	177.6	193.7
82.5°	95.4	98.3	101.2	102.7	108.6
85°	51.4	51.4	51.4	48.4	48.4
87.5°	29.3	29.3	24.9	20.5	14.7
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)