

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: P558269

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-80-96-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: P558269  
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-LD4-3STD-35-UNV-80-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

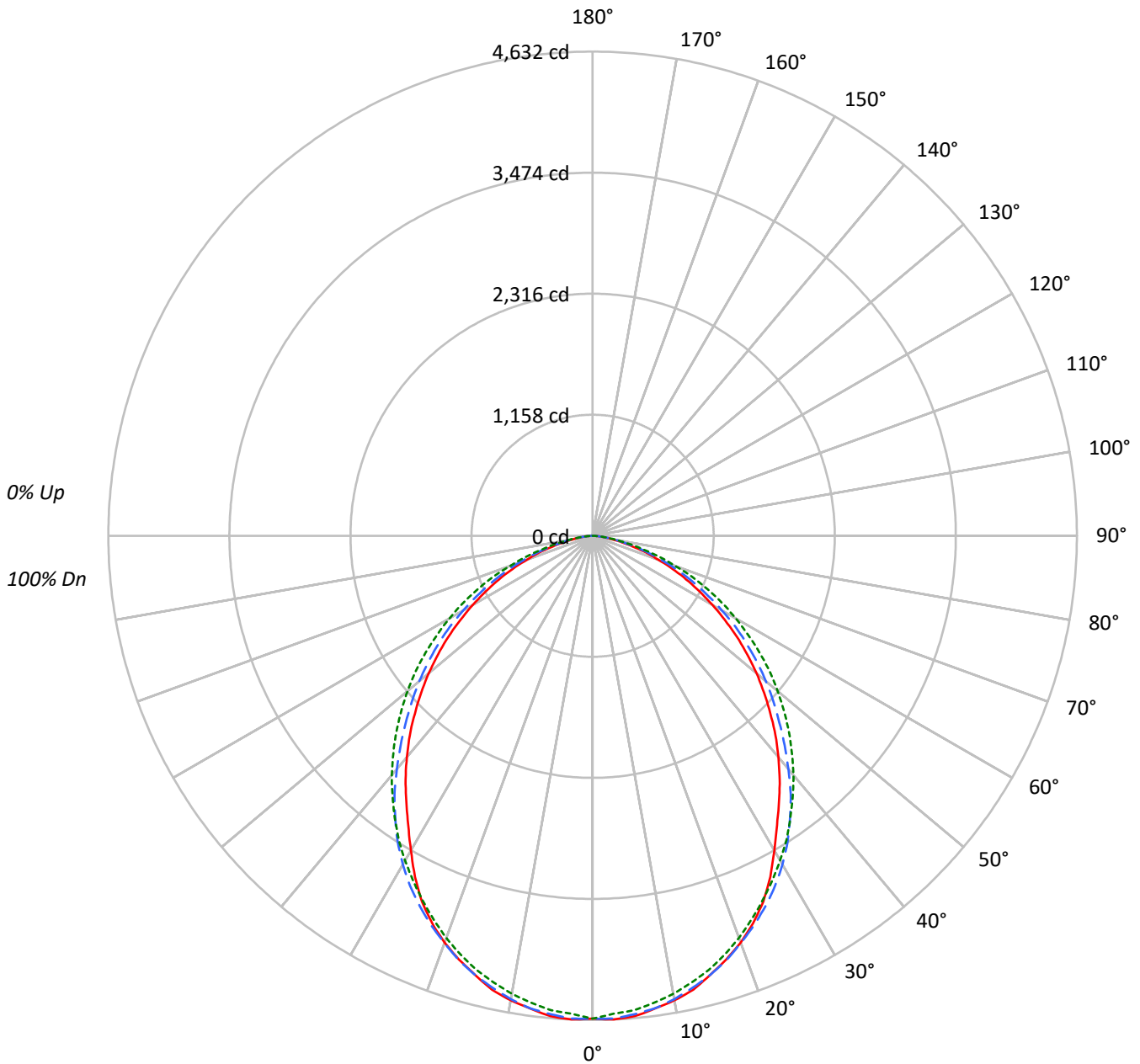
Lumens per Lamp: N/A  
Luminaire Lumens: 10682.0 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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					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								
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°	12432	12432	12432
5°	12465	12412	12306
10°	12332	12298	12158
15°	12114	12114	11975
20°	11857	11872	11720
25°	11467	11609	11424
30°	10798	11283	11145
35°	10203	10815	10833
40°	9707	10231	10499
45°	9152	9611	10104
50°	8567	9057	9674
55°	7902	8427	9151
60°	7116	7689	8510
65°	6283	6837	7741
70°	5236	5823	6577
75°	4115	4650	5149
80°	2943	3273	3631
85°	1917	1917	1809



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	435.0	4.1
10°-20°	1221.9	11.4
20°-30°	1785.6	16.7
30°-40°	2026.9	19.0
40°-50°	1956.6	18.3
50°-60°	1614.1	15.1
60°-70°	1074.8	10.1
70°-80°	481.0	4.5
80°-90°	86.0	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°	3442.5	32.2
0°-40°	5469.4	51.2
0°-60°	9040.1	84.6
0°-90°	10682.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10682.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4620	4620	4620	4620	4620	
5°	4614	4613	4595	4570	4556	437
15°	4348	4359	4348	4329	4298	1226
25°	3862	3892	3910	3881	3848	1769
35°	3106	3148	3292	3310	3298	1946
45°	2405	2446	2526	2641	2655	1855
55°	1684	1713	1796	1895	1950	1503
65°	987	1013	1074	1150	1216	978
75°	396	417	447	468	495	433
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4619.7	4619.7	4619.7	4619.7	4619.7
2.5°	4632.1	4633.9	4623.2	4594.8	4577.1
5°	4614.4	4612.6	4594.8	4570.0	4555.8
7.5°	4562.9	4566.4	4561.1	4525.6	4506.1
10°	4513.2	4515.0	4500.8	4472.4	4449.3
12.5°	4449.3	4447.5	4428.0	4413.8	4376.5
15°	4348.2	4358.8	4348.2	4328.6	4298.5
17.5°	4250.5	4250.5	4257.6	4223.9	4200.8
20°	4140.5	4145.8	4145.8	4119.2	4092.6
22.5°	4012.7	4028.7	4034.0	4005.6	3973.7
25°	3861.9	3892.0	3909.8	3881.4	3847.7
27.5°	3679.1	3725.2	3778.5	3757.2	3719.9
30°	3475.0	3542.4	3631.2	3613.4	3586.8
32.5°	3281.5	3349.0	3471.4	3464.3	3450.1
35°	3105.8	3148.4	3292.2	3309.9	3297.5
37.5°	2939.0	2978.0	3112.9	3153.7	3143.1
40°	2763.3	2805.9	2912.4	2985.1	2988.7
42.5°	2589.4	2630.2	2717.2	2821.9	2821.9
45°	2404.8	2445.6	2525.5	2640.8	2655.0
47.5°	2223.8	2266.4	2344.5	2459.8	2482.9
50°	2046.3	2085.3	2163.4	2275.2	2310.7
52.5°	1861.7	1904.3	1980.6	2083.6	2135.0
55°	1684.2	1712.6	1796.1	1895.4	1950.5
57.5°	1499.7	1526.3	1620.4	1705.5	1762.3
60°	1322.2	1355.9	1428.7	1515.6	1581.3
62.5°	1151.8	1187.3	1249.4	1325.7	1400.3
65°	986.8	1013.4	1073.7	1150.0	1215.7
67.5°	827.0	850.1	910.4	963.7	1032.9
70°	665.5	695.7	740.1	791.5	835.9
72.5°	536.0	548.4	585.7	622.9	669.1
75°	395.8	417.1	447.2	468.5	495.2
77.5°	284.0	296.4	314.1	331.9	356.7
80°	189.9	195.2	211.2	214.7	234.3
82.5°	115.4	118.9	122.5	124.2	131.3
85°	62.1	62.1	62.1	58.6	58.6
87.5°	35.5	35.5	30.2	24.8	17.7
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)