

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: P557725

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-82-96-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: P557725  
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-30-UNV-82-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

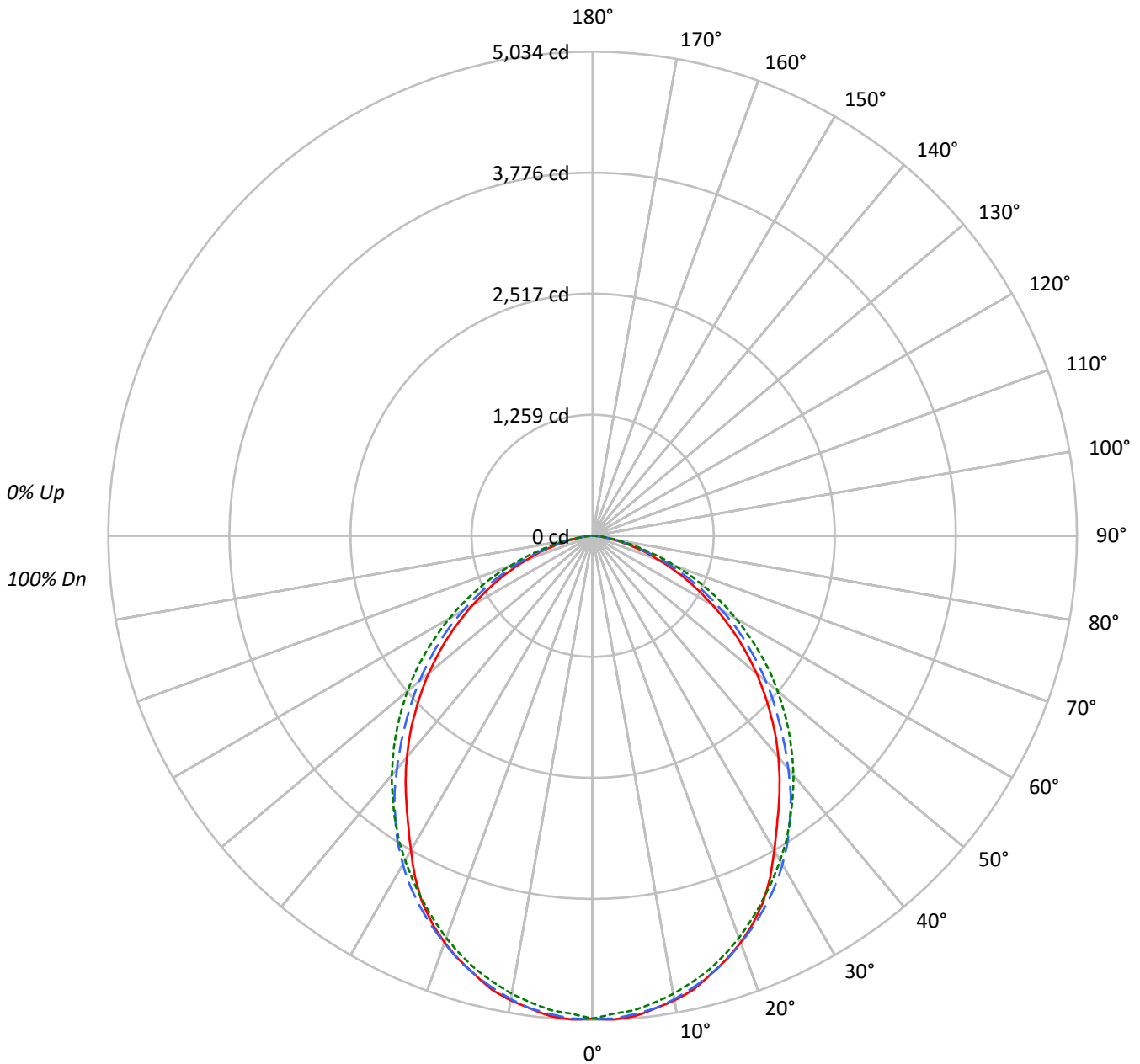
Lumens per Lamp: N/A  
Luminaire Lumens: 11609.0 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
Input Voltage (V): NR  
Input Current (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°	13510	13510	13510
5°	13546	13489	13374
10°	13403	13366	13213
15°	13165	13165	13014
20°	12886	12903	12737
25°	12462	12616	12416
30°	11735	12262	12112
35°	11088	11754	11773
40°	10549	11118	11410
45°	9946	10445	10981
50°	9310	9843	10513
55°	8587	9157	9945
60°	7733	8357	9249
65°	6828	7430	8413
70°	5691	6328	7148
75°	4472	5054	5595
80°	3199	3556	3945
85°	2084	2084	1964



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	472.7	4.1
10°-20°	1328.0	11.4
20°-30°	1940.6	16.7
30°-40°	2202.8	19.0
40°-50°	2126.4	18.3
50°-60°	1754.2	15.1
60°-70°	1168.1	10.1
70°-80°	522.7	4.5
80°-90°	93.5	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°	3741.2	32.2
0°-40°	5944.0	51.2
0°-60°	9824.6	84.6
0°-90°	11609.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11609.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5021	5021	5021	5021	5021	
5°	5015	5013	4994	4967	4951	475
15°	4726	4737	4726	4704	4672	1332
25°	4197	4230	4249	4218	4182	1922
35°	3375	3422	3578	3597	3584	2115
45°	2614	2658	2745	2870	2885	2016
55°	1830	1861	1952	2060	2120	1634
65°	1072	1101	1167	1250	1321	1063
75°	430	453	486	509	538	470
85°	68	68	68	64	64	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5020.6	5020.6	5020.6	5020.6	5020.6
2.5°	5034.1	5036.0	5024.5	4993.6	4974.3
5°	5014.8	5012.9	4993.6	4966.6	4951.2
7.5°	4958.9	4962.7	4956.9	4918.4	4897.2
10°	4904.9	4906.8	4891.4	4860.5	4835.4
12.5°	4835.4	4833.5	4812.3	4796.9	4756.4
15°	4725.5	4737.1	4725.5	4704.3	4671.5
17.5°	4619.4	4619.4	4627.1	4590.5	4565.4
20°	4499.8	4505.6	4505.6	4476.7	4447.7
22.5°	4361.0	4378.3	4384.1	4353.2	4318.5
25°	4197.0	4229.8	4249.1	4218.2	4181.6
27.5°	3998.3	4048.5	4106.4	4083.2	4042.7
30°	3776.5	3849.8	3946.3	3927.0	3898.0
32.5°	3566.3	3639.6	3772.7	3765.0	3749.5
35°	3375.4	3421.6	3577.9	3597.2	3583.7
37.5°	3194.0	3236.5	3383.1	3427.4	3415.9
40°	3003.1	3049.4	3165.1	3244.2	3248.1
42.5°	2814.1	2858.4	2952.9	3066.7	3066.7
45°	2613.5	2657.8	2744.6	2870.0	2885.4
47.5°	2416.8	2463.0	2547.9	2673.3	2698.4
50°	2223.9	2266.3	2351.2	2472.7	2511.3
52.5°	2023.3	2069.6	2152.5	2264.4	2320.3
55°	1830.4	1861.3	1951.9	2059.9	2119.7
57.5°	1629.8	1658.7	1761.0	1853.5	1915.3
60°	1436.9	1473.6	1552.7	1647.2	1718.5
62.5°	1251.8	1290.3	1357.9	1440.8	1521.8
65°	1072.4	1101.3	1166.9	1249.8	1321.2
67.5°	898.8	923.9	989.5	1047.3	1122.5
70°	723.3	756.1	804.3	860.2	908.5
72.5°	582.5	596.0	636.5	677.0	727.1
75°	430.1	453.3	486.1	509.2	538.1
77.5°	308.6	322.1	341.4	360.7	387.7
80°	206.4	212.2	229.5	233.4	254.6
82.5°	125.4	129.2	133.1	135.0	142.7
85°	67.5	67.5	67.5	63.6	63.6
87.5°	38.6	38.6	32.8	27.0	19.3
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)