

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: P557934

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-93-97-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: P557934  
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-50-UNV-93-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

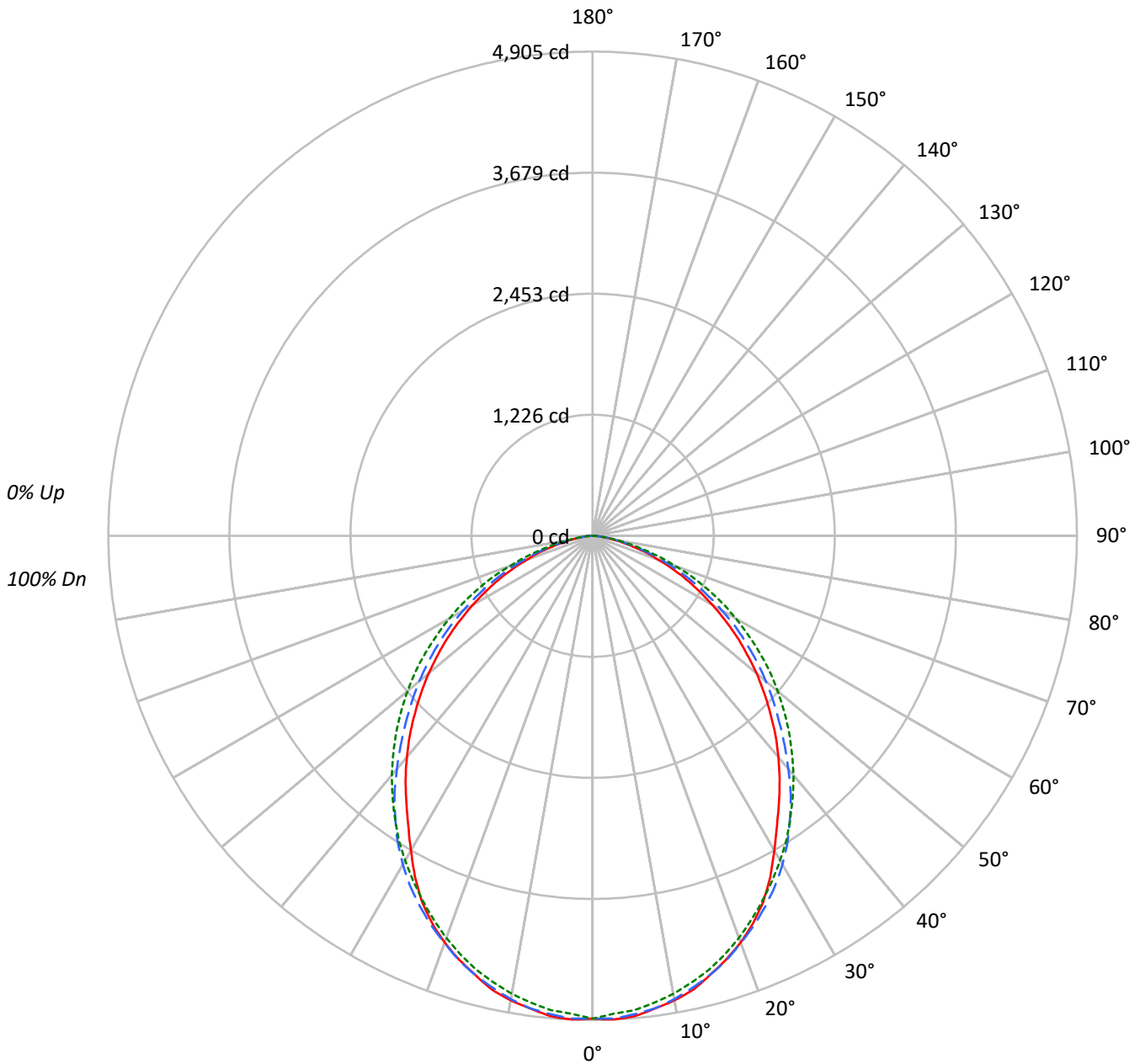
Lumens per Lamp: N/A  
Luminaire Lumens: 11311.0 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	13163	13163	13163
5°	13199	13143	13031
10°	13059	13023	12874
15°	12827	12827	12680
20°	12555	12572	12410
25°	12142	12292	12097
30°	11434	11947	11801
35°	10804	11452	11471
40°	10279	10833	11117
45°	9691	10177	10699
50°	9071	9590	10243
55°	8367	8922	9690
60°	7535	8142	9012
65°	6653	7240	8197
70°	5545	6166	6964
75°	4357	4924	5451
80°	3116	3465	3845
85°	2032	2032	1914



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	460.6	4.1
10°-20°	1293.9	11.4
20°-30°	1890.8	16.7
30°-40°	2146.2	19.0
40°-50°	2071.8	18.3
50°-60°	1709.1	15.1
60°-70°	1138.2	10.1
70°-80°	509.3	4.5
80°-90°	91.1	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°	3645.2	32.2
0°-40°	5791.4	51.2
0°-60°	9572.4	84.6
0°-90°	11311.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11311.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4892	4892	4892	4892	4892	
5°	4886	4884	4865	4839	4824	462
15°	4604	4616	4604	4584	4552	1298
25°	4089	4121	4140	4110	4074	1873
35°	3289	3334	3486	3505	3492	2061
45°	2546	2590	2674	2796	2811	1965
55°	1783	1814	1902	2007	2065	1592
65°	1045	1073	1137	1218	1287	1036
75°	419	442	474	496	524	458
85°	66	66	66	62	62	89
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4891.7	4891.7	4891.7	4891.7	4891.7
2.5°	4904.9	4906.7	4895.5	4865.4	4846.6
5°	4886.1	4884.2	4865.4	4839.1	4824.1
7.5°	4831.6	4835.3	4829.7	4792.1	4771.4
10°	4779.0	4780.8	4765.8	4735.7	4711.3
12.5°	4711.3	4709.4	4688.8	4673.7	4634.3
15°	4604.2	4615.5	4604.2	4583.5	4551.6
17.5°	4500.8	4500.8	4508.3	4472.6	4448.2
20°	4384.3	4390.0	4390.0	4361.8	4333.6
22.5°	4249.0	4265.9	4271.6	4241.5	4207.7
25°	4089.3	4121.2	4140.0	4109.9	4074.2
27.5°	3895.7	3944.6	4000.9	3978.4	3938.9
30°	3679.6	3751.0	3845.0	3826.2	3798.0
32.5°	3474.8	3546.2	3675.8	3668.3	3653.3
35°	3288.7	3333.8	3486.0	3504.8	3491.7
37.5°	3112.1	3153.4	3296.2	3339.4	3328.2
40°	2926.0	2971.1	3083.9	3160.9	3164.7
42.5°	2741.8	2785.1	2877.1	2988.0	2988.0
45°	2546.4	2589.6	2674.2	2796.3	2811.4
47.5°	2354.7	2399.8	2482.5	2604.7	2629.1
50°	2166.8	2208.1	2290.8	2409.2	2446.8
52.5°	1971.3	2016.4	2097.3	2206.3	2260.8
55°	1783.4	1813.5	1901.8	2007.1	2065.3
57.5°	1588.0	1616.2	1715.8	1806.0	1866.1
60°	1400.0	1435.8	1512.8	1604.9	1674.4
62.5°	1219.6	1257.2	1323.0	1403.8	1482.7
65°	1044.9	1073.1	1137.0	1217.8	1287.3
67.5°	875.7	900.2	964.1	1020.4	1093.7
70°	704.7	736.7	783.7	838.2	885.1
72.5°	567.5	580.7	620.2	659.6	708.5
75°	419.1	441.6	473.6	496.1	524.3
77.5°	300.7	313.8	332.6	351.4	377.7
80°	201.1	206.7	223.6	227.4	248.1
82.5°	122.2	125.9	129.7	131.5	139.1
85°	65.8	65.8	65.8	62.0	62.0
87.5°	37.6	37.6	31.9	26.3	18.8
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)