

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: P557907

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-82-85-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: P557907  
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-82-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

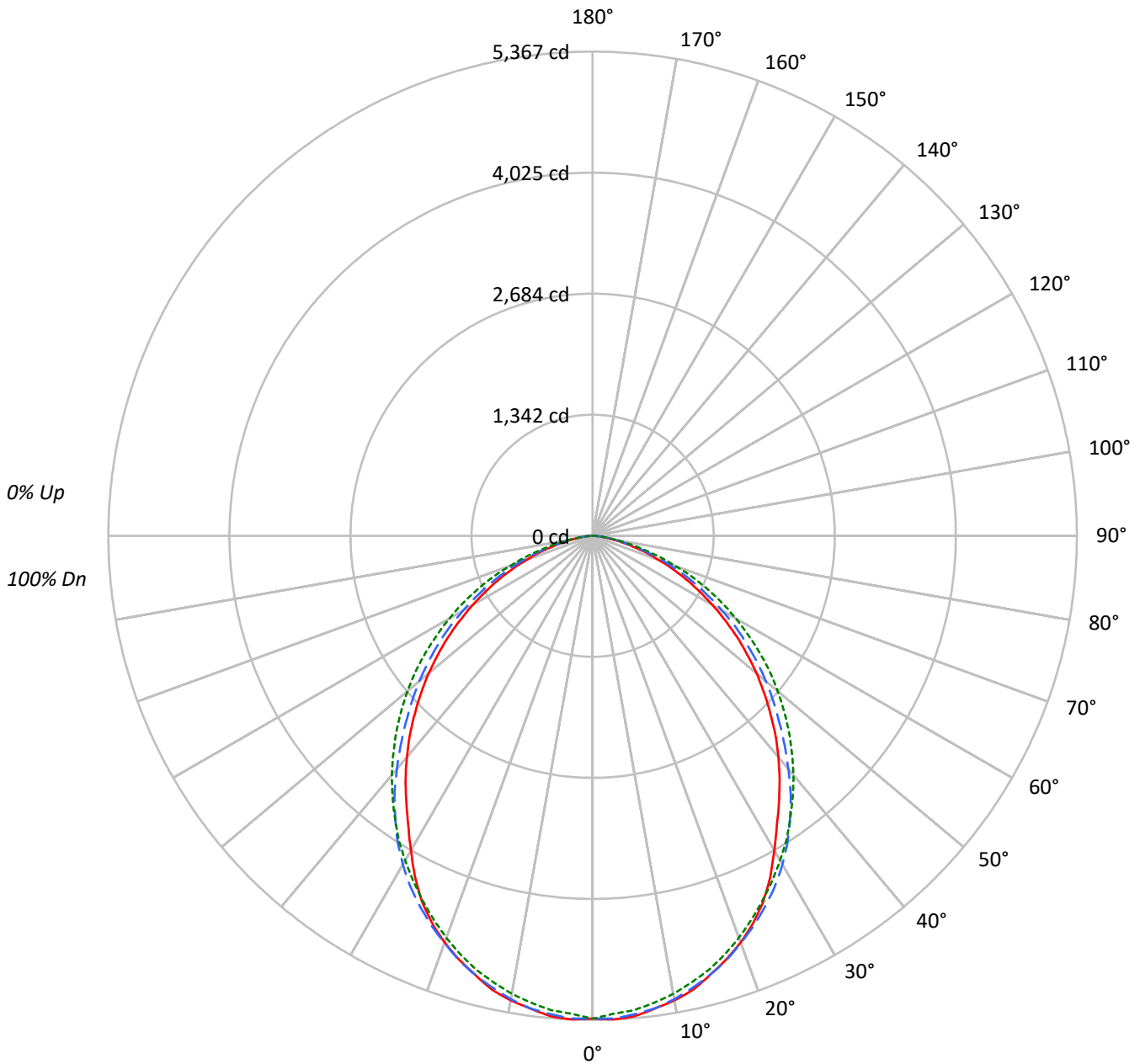
Lumens per Lamp: N/A  
Luminaire Lumens: 12376.0 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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									
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°	14403	14403	14403
5°	14441	14380	14258
10°	14288	14249	14086
15°	14035	14035	13874
20°	13737	13755	13578
25°	13285	13450	13236
30°	12510	13072	12913
35°	11821	12530	12550
40°	11246	11853	12164
45°	10603	11135	11706
50°	9925	10493	11208
55°	9155	9763	10602
60°	8245	8908	9860
65°	7279	7921	8968
70°	6067	6746	7620
75°	4767	5388	5965
80°	3409	3792	4206
85°	2223	2223	2096



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	503.9	4.1
10°-20°	1415.7	11.4
20°-30°	2068.8	16.7
30°-40°	2348.3	19.0
40°-50°	2266.9	18.3
50°-60°	1870.1	15.1
60°-70°	1245.3	10.1
70°-80°	557.3	4.5
80°-90°	99.7	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°	3988.4	32.2
0°-40°	6336.7	51.2
0°-60°	10473.7	84.6
0°-90°	12376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12376.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5352	5352	5352	5352	5352	
5°	5346	5344	5324	5295	5278	506
15°	5038	5050	5038	5015	4980	1420
25°	4474	4509	4530	4497	4458	2049
35°	3598	3648	3814	3835	3820	2255
45°	2786	2833	2926	3060	3076	2150
55°	1951	1984	2081	2196	2260	1742
65°	1143	1174	1244	1332	1408	1134
75°	458	483	518	543	574	501
85°	72	72	72	68	68	97
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5352.3	5352.3	5352.3	5352.3	5352.3
2.5°	5366.7	5368.8	5356.4	5323.5	5303.0
5°	5346.1	5344.1	5323.5	5294.7	5278.3
7.5°	5286.5	5290.6	5284.4	5243.3	5220.7
10°	5228.9	5231.0	5214.5	5181.6	5154.9
12.5°	5154.9	5152.8	5130.2	5113.8	5070.6
15°	5037.7	5050.0	5037.7	5015.1	4980.1
17.5°	4924.6	4924.6	4932.8	4893.8	4867.0
20°	4797.1	4803.3	4803.3	4772.5	4741.6
22.5°	4649.1	4667.6	4673.8	4640.9	4603.8
25°	4474.3	4509.3	4529.8	4496.9	4457.9
27.5°	4262.5	4316.0	4377.7	4353.0	4309.8
30°	4026.0	4104.2	4207.0	4186.4	4155.6
32.5°	3801.9	3880.1	4021.9	4013.7	3997.3
35°	3598.4	3647.7	3814.3	3834.8	3820.4
37.5°	3405.1	3450.3	3606.6	3653.9	3641.5
40°	3201.5	3250.9	3374.2	3458.5	3462.6
42.5°	3000.0	3047.3	3148.0	3269.4	3269.4
45°	2786.2	2833.4	2926.0	3059.6	3076.1
47.5°	2576.4	2625.8	2716.2	2849.9	2876.6
50°	2370.8	2416.0	2506.5	2636.1	2677.2
52.5°	2157.0	2206.3	2294.7	2414.0	2473.6
55°	1951.3	1984.2	2080.9	2196.0	2259.8
57.5°	1737.5	1768.3	1877.3	1976.0	2041.8
60°	1531.9	1570.9	1655.2	1756.0	1832.1
62.5°	1334.5	1375.6	1447.6	1536.0	1622.3
65°	1143.2	1174.1	1244.0	1332.4	1408.5
67.5°	958.2	984.9	1054.8	1116.5	1196.7
70°	771.1	806.0	857.4	917.1	968.5
72.5°	621.0	635.4	678.5	721.7	775.2
75°	458.5	483.2	518.2	542.8	573.7
77.5°	329.0	343.4	363.9	384.5	413.3
80°	220.0	226.2	244.7	248.8	271.4
82.5°	133.7	137.8	141.9	143.9	152.2
85°	72.0	72.0	72.0	67.9	67.9
87.5°	41.1	41.1	35.0	28.8	20.6
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)