

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: P557919

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-82-97-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: P557919  
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-82-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

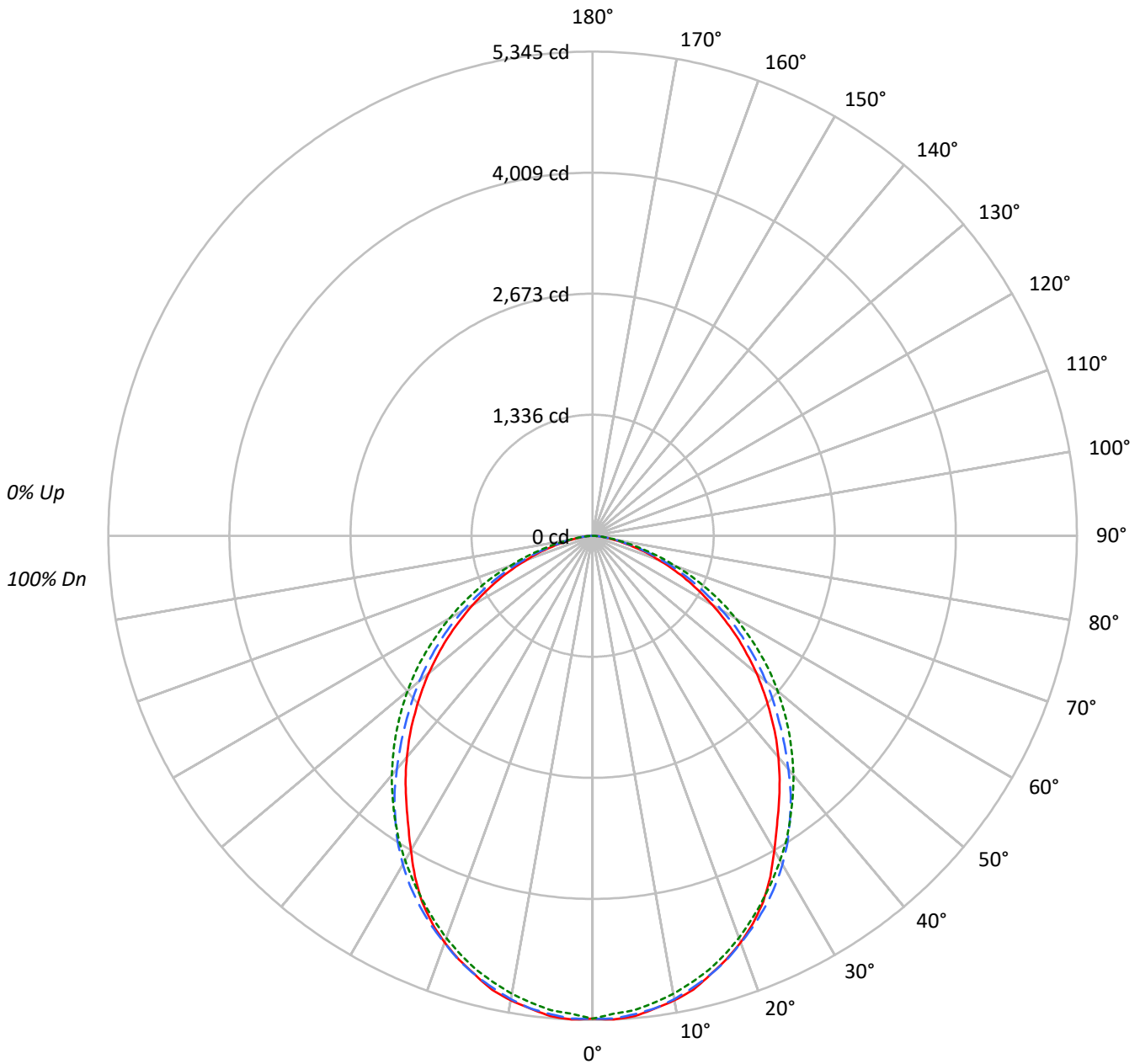
Lumens per Lamp: N/A  
Luminaire Lumens: 12326.0 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	14345	14345	14345
5°	14383	14322	14201
10°	14230	14191	14029
15°	13978	13978	13818
20°	13682	13700	13524
25°	13231	13395	13183
30°	12460	13019	12860
35°	11773	12479	12500
40°	11201	11805	12115
45°	10560	11090	11659
50°	9885	10451	11163
55°	9118	9723	10559
60°	8211	8873	9820
65°	7250	7889	8932
70°	6043	6719	7589
75°	4748	5366	5941
80°	3395	3777	4189
85°	2214	2214	2087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	501.9	4.1
10°-20°	1410.0	11.4
20°-30°	2060.4	16.7
30°-40°	2338.8	19.0
40°-50°	2257.8	18.3
50°-60°	1862.5	15.1
60°-70°	1240.3	10.1
70°-80°	555.0	4.5
80°-90°	99.3	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°	3972.3	32.2
0°-40°	6311.1	51.2
0°-60°	10431.4	84.6
0°-90°	12326.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12326.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5331	5331	5331	5331	5331	
5°	5324	5322	5302	5273	5257	504
15°	5017	5030	5017	4995	4960	1414
25°	4456	4491	4512	4479	4440	2041
35°	3584	3633	3799	3819	3805	2245
45°	2775	2822	2914	3047	3064	2141
55°	1944	1976	2072	2187	2251	1735
65°	1139	1169	1239	1327	1403	1129
75°	457	481	516	541	571	499
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°	5330.7	5330.7	5330.7	5330.7	5330.7
2.5°	5345.0	5347.1	5334.8	5302.0	5281.5
5°	5324.5	5322.5	5302.0	5273.3	5257.0
7.5°	5265.1	5269.2	5263.1	5222.1	5199.6
10°	5207.8	5209.9	5193.5	5160.7	5134.1
12.5°	5134.1	5132.0	5109.5	5093.1	5050.1
15°	5017.3	5029.6	5017.3	4994.8	4960.0
17.5°	4904.7	4904.7	4912.9	4874.0	4847.4
20°	4777.7	4783.9	4783.9	4753.2	4722.5
22.5°	4630.3	4648.7	4654.9	4622.1	4585.2
25°	4456.2	4491.0	4511.5	4478.8	4439.8
27.5°	4245.3	4298.5	4360.0	4335.4	4292.4
30°	4009.8	4087.6	4190.0	4169.5	4138.8
32.5°	3786.6	3864.4	4005.7	3997.5	3981.1
35°	3583.8	3633.0	3798.8	3819.3	3805.0
37.5°	3391.3	3436.4	3592.0	3639.1	3626.8
40°	3188.6	3237.7	3360.6	3444.6	3448.7
42.5°	2987.9	3035.0	3135.3	3256.2	3256.2
45°	2774.9	2822.0	2914.2	3047.3	3063.7
47.5°	2566.0	2615.2	2705.3	2838.4	2865.0
50°	2361.2	2406.3	2496.4	2625.4	2666.4
52.5°	2148.2	2197.4	2285.5	2404.2	2463.6
55°	1943.5	1976.2	2072.5	2187.2	2250.6
57.5°	1730.5	1761.2	1869.7	1968.0	2033.6
60°	1525.7	1564.6	1648.6	1748.9	1824.7
62.5°	1329.1	1370.0	1441.7	1529.8	1615.8
65°	1138.6	1169.3	1239.0	1327.0	1402.8
67.5°	954.3	980.9	1050.6	1112.0	1191.9
70°	768.0	802.8	854.0	913.4	964.6
72.5°	618.5	632.8	675.8	718.8	772.1
75°	456.7	481.3	516.1	540.6	571.4
77.5°	327.7	342.0	362.5	383.0	411.6
80°	219.1	225.3	243.7	247.8	270.3
82.5°	133.1	137.2	141.3	143.4	151.5
85°	71.7	71.7	71.7	67.6	67.6
87.5°	41.0	41.0	34.8	28.7	20.5
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)