

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: P557886

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-80-97-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: P557886  
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-80-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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**

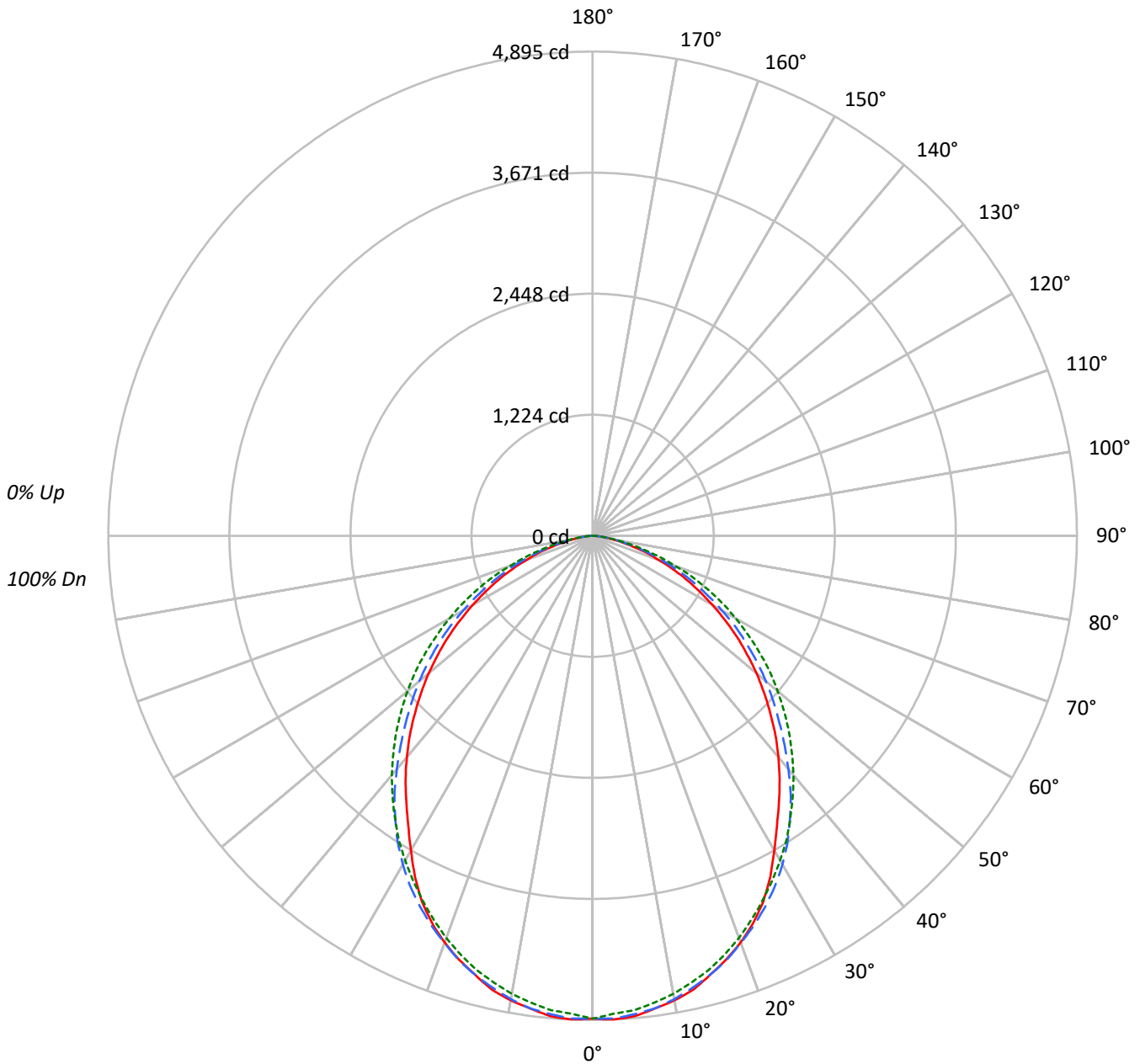
Lumens per Lamp: N/A  
Luminaire Lumens: 11288.0 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	13137	13137	13137
5°	13172	13116	13005
10°	13032	12996	12847
15°	12801	12801	12654
20°	12530	12546	12385
25°	12117	12267	12073
30°	11410	11923	11778
35°	10782	11428	11447
40°	10258	10811	11094
45°	9671	10156	10677
50°	9053	9571	10222
55°	8350	8904	9670
60°	7520	8125	8993
65°	6639	7224	8180
70°	5533	6153	6950
75°	4348	4914	5440
80°	3110	3459	3837
85°	2025	2025	1911



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	459.6	4.1
10°-20°	1291.2	11.4
20°-30°	1886.9	16.7
30°-40°	2141.9	19.0
40°-50°	2067.6	18.3
50°-60°	1705.7	15.1
60°-70°	1135.8	10.1
70°-80°	508.3	4.5
80°-90°	90.9	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°	3637.8	32.2
0°-40°	5779.7	51.2
0°-60°	9553.0	84.6
0°-90°	11288.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11288.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4882	4882	4882	4882	4882	
5°	4876	4874	4856	4829	4814	462
15°	4595	4606	4595	4574	4542	1295
25°	4081	4113	4132	4102	4066	1869
35°	3282	3327	3479	3498	3485	2056
45°	2541	2584	2669	2791	2806	1961
55°	1780	1810	1898	2003	2061	1589
65°	1043	1071	1135	1215	1285	1034
75°	418	441	473	495	523	457
85°	66	66	66	62	62	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4881.8	4881.8	4881.8	4881.8	4881.8
2.5°	4894.9	4896.8	4885.5	4855.5	4836.8
5°	4876.1	4874.3	4855.5	4829.3	4814.3
7.5°	4821.8	4825.5	4819.9	4782.4	4761.7
10°	4769.2	4771.1	4756.1	4726.1	4701.7
12.5°	4701.7	4699.9	4679.2	4664.2	4624.8
15°	4594.8	4606.1	4594.8	4574.2	4542.3
17.5°	4491.7	4491.7	4499.2	4463.5	4439.2
20°	4375.4	4381.0	4381.0	4352.9	4324.8
22.5°	4240.4	4257.2	4262.9	4232.9	4199.1
25°	4081.0	4112.8	4131.6	4101.6	4066.0
27.5°	3887.8	3936.5	3992.8	3970.3	3930.9
30°	3672.1	3743.4	3837.1	3818.4	3790.3
32.5°	3467.7	3539.0	3668.4	3660.9	3645.9
35°	3282.0	3327.0	3478.9	3497.7	3484.6
37.5°	3105.7	3147.0	3289.5	3332.7	3321.4
40°	2920.1	2965.1	3077.6	3154.5	3158.2
42.5°	2736.3	2779.4	2871.3	2981.9	2981.9
45°	2541.2	2584.4	2668.8	2790.7	2805.7
47.5°	2349.9	2394.9	2477.5	2599.4	2623.7
50°	2162.4	2203.6	2286.2	2404.3	2441.8
52.5°	1967.3	2012.3	2093.0	2201.8	2256.2
55°	1779.8	1809.8	1897.9	2003.0	2061.1
57.5°	1584.7	1612.9	1712.3	1802.3	1862.3
60°	1397.2	1432.8	1509.7	1601.6	1671.0
62.5°	1217.2	1254.7	1320.3	1401.0	1479.7
65°	1042.7	1070.9	1134.6	1215.3	1284.7
67.5°	874.0	898.3	962.1	1018.4	1091.5
70°	703.3	735.2	782.1	836.4	883.3
72.5°	566.4	579.5	618.9	658.3	707.0
75°	418.2	440.7	472.6	495.1	523.2
77.5°	300.1	313.2	332.0	350.7	377.0
80°	200.7	206.3	223.2	226.9	247.6
82.5°	121.9	125.7	129.4	131.3	138.8
85°	65.6	65.6	65.6	61.9	61.9
87.5°	37.5	37.5	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)