

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: P556592

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-80-84-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: P556592  
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-LD4-1LO-50-UNV-80-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

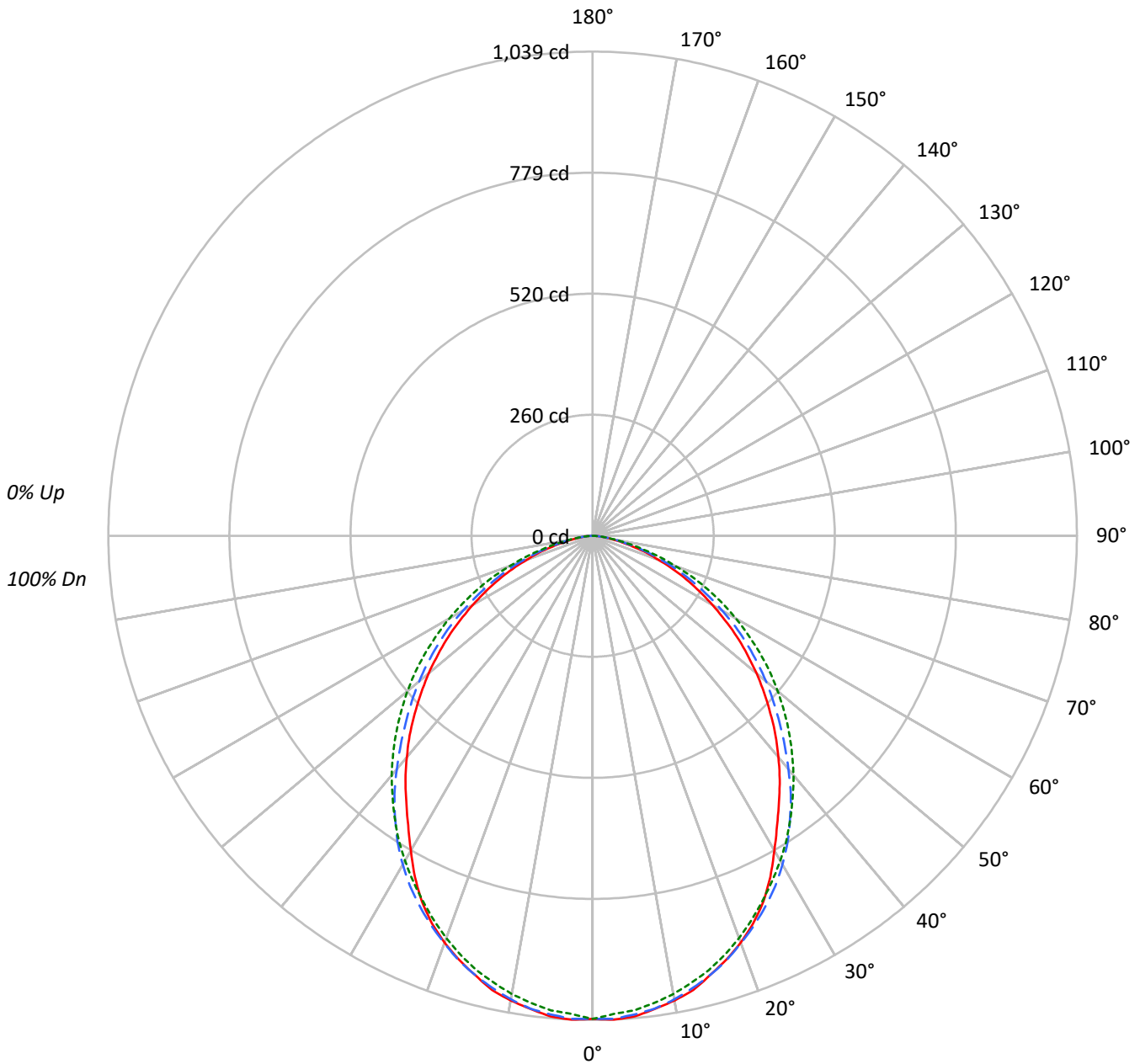
Lumens per Lamp: N/A  
Luminaire Lumens: 2397.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2789	2789	2789
5°	2797	2785	2761
10°	2767	2760	2728
15°	2718	2718	2687
20°	2661	2664	2630
25°	2573	2605	2564
30°	2423	2532	2501
35°	2289	2427	2431
40°	2178	2296	2356
45°	2054	2157	2267
50°	1922	2033	2171
55°	1773	1891	2054
60°	1597	1725	1910
65°	1410	1534	1737
70°	1175	1307	1476
75°	923	1044	1155
80°	660	735	815
85°	429	429	404



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	4.1
10°-20°	274.2	11.4
20°-30°	400.7	16.7
30°-40°	454.8	19.0
40°-50°	439.1	18.3
50°-60°	362.2	15.1
60°-70°	241.2	10.1
70°-80°	107.9	4.5
80°-90°	19.3	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°	772.5	32.2
0°-40°	1227.3	51.2
0°-60°	2028.6	84.6
0°-90°	2397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2397.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1037	1037	1037	1037	1037	
5°	1035	1035	1031	1026	1022	98
15°	976	978	976	971	965	275
25°	867	873	877	871	863	397
35°	697	706	739	743	740	437
45°	540	549	567	593	596	416
55°	378	384	403	425	438	337
65°	221	227	241	258	273	220
75°	89	94	100	105	111	97
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1036.6	1036.6	1036.6	1036.6	1036.6
2.5°	1039.4	1039.8	1037.4	1031.1	1027.1
5°	1035.4	1035.0	1031.1	1025.5	1022.3
7.5°	1023.9	1024.7	1023.5	1015.5	1011.2
10°	1012.7	1013.1	1010.0	1003.6	998.4
12.5°	998.4	998.0	993.6	990.4	982.1
15°	975.7	978.1	975.7	971.3	964.6
17.5°	953.8	953.8	955.4	947.8	942.7
20°	929.1	930.3	930.3	924.3	918.4
22.5°	900.4	904.0	905.2	898.8	891.7
25°	866.6	873.4	877.3	871.0	863.4
27.5°	825.6	835.9	847.9	843.1	834.7
30°	779.8	794.9	814.8	810.8	804.9
32.5°	736.4	751.5	779.0	777.4	774.2
35°	696.9	706.5	738.8	742.7	739.9
37.5°	659.5	668.3	698.5	707.7	705.3
40°	620.1	629.6	653.5	669.9	670.7
42.5°	581.0	590.2	609.7	633.2	633.2
45°	539.6	548.8	566.7	592.6	595.8
47.5°	499.0	508.6	526.1	552.0	557.1
50°	459.2	467.9	485.5	510.6	518.5
52.5°	417.8	427.3	444.4	467.5	479.1
55°	377.9	384.3	403.0	425.3	437.7
57.5°	336.5	342.5	363.6	382.7	395.5
60°	296.7	304.3	320.6	340.1	354.8
62.5°	258.5	266.4	280.4	297.5	314.2
65°	221.4	227.4	240.9	258.1	272.8
67.5°	185.6	190.8	204.3	216.2	231.8
70°	149.3	156.1	166.1	177.6	187.6
72.5°	120.3	123.1	131.4	139.8	150.1
75°	88.8	93.6	100.4	105.1	111.1
77.5°	63.7	66.5	70.5	74.5	80.0
80°	42.6	43.8	47.4	48.2	52.6
82.5°	25.9	26.7	27.5	27.9	29.5
85°	13.9	13.9	13.9	13.1	13.1
87.5°	8.0	8.0	6.8	5.6	4.0
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)