

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: P555021

Luminaire Tested: **FUSL-12-2-LD4-2LO-40-UNV-81-96-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: P555021  
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-12-2-LD4-2LO-40-UNV-81-96-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

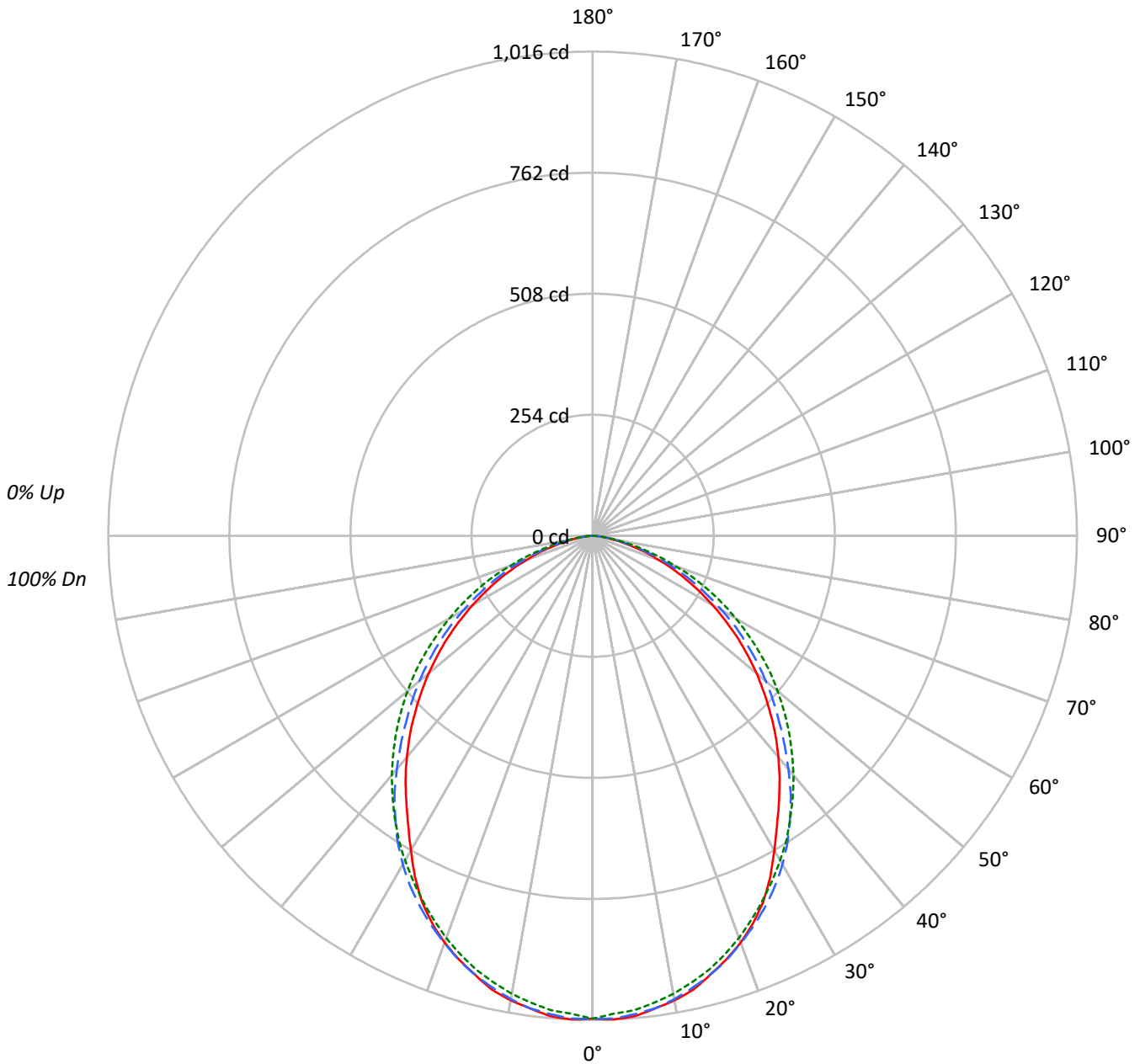
Lumens per Lamp: N/A  
Luminaire Lumens: 2343.0 lumens  
Efficiency: N/A  
Efficacy: 100.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	5454	5454	5454
5°	5468	5445	5399
10°	5410	5395	5333
15°	5314	5314	5253
20°	5202	5208	5141
25°	5030	5093	5012
30°	4737	4950	4889
35°	4476	4744	4752
40°	4258	4488	4605
45°	4015	4216	4433
50°	3758	3973	4243
55°	3466	3696	4014
60°	3122	3373	3733
65°	2756	2999	3396
70°	2297	2554	2884
75°	1805	2040	2258
80°	1292	1435	1593
85°	840	840	790



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.4	4.1
10°-20°	268.0	11.4
20°-30°	391.7	16.7
30°-40°	444.6	19.0
40°-50°	429.2	18.3
50°-60°	354.0	15.1
60°-70°	235.8	10.1
70°-80°	105.5	4.5
80°-90°	18.9	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°	755.1	32.2
0°-40°	1199.7	51.2
0°-60°	1982.9	84.6
0°-90°	2343.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2343.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1013	1013	1013	1013	1013	
5°	1012	1012	1008	1002	999	96
15°	954	956	954	949	943	269
25°	847	854	858	851	844	388
35°	681	691	722	726	723	427
45°	528	536	554	579	582	407
55°	369	376	394	416	428	330
65°	216	222	236	252	267	215
75°	87	92	98	103	109	95
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1013.3	1013.3	1013.3	1013.3	1013.3
2.5°	1016.0	1016.4	1014.1	1007.8	1003.9
5°	1012.1	1011.7	1007.8	1002.4	999.3
7.5°	1000.8	1001.6	1000.4	992.7	988.4
10°	989.9	990.3	987.2	981.0	975.9
12.5°	975.9	975.5	971.2	968.1	960.0
15°	953.7	956.1	953.7	949.4	942.8
17.5°	932.3	932.3	933.9	926.5	921.4
20°	908.2	909.4	909.4	903.5	897.7
22.5°	880.2	883.7	884.8	878.6	871.6
25°	847.1	853.7	857.6	851.3	844.0
27.5°	807.0	817.1	828.8	824.1	815.9
30°	762.2	777.0	796.5	792.6	786.7
32.5°	719.8	734.6	761.4	759.9	756.8
35°	681.2	690.6	722.1	726.0	723.3
37.5°	644.6	653.2	682.8	691.7	689.4
40°	606.1	615.4	638.8	654.8	655.5
42.5°	568.0	576.9	596.0	618.9	618.9
45°	527.5	536.4	553.9	579.2	582.4
47.5°	487.8	497.1	514.2	539.5	544.6
50°	448.8	457.4	474.5	499.1	506.8
52.5°	408.4	417.7	434.4	457.0	468.3
55°	369.4	375.7	393.9	415.7	427.8
57.5°	328.9	334.8	355.4	374.1	386.6
60°	290.0	297.4	313.4	332.4	346.8
62.5°	252.6	260.4	274.1	290.8	307.1
65°	216.4	222.3	235.5	252.3	266.7
67.5°	181.4	186.5	199.7	211.4	226.6
70°	146.0	152.6	162.3	173.6	183.3
72.5°	117.6	120.3	128.5	136.6	146.8
75°	86.8	91.5	98.1	102.8	108.6
77.5°	62.3	65.0	68.9	72.8	78.2
80°	41.7	42.8	46.3	47.1	51.4
82.5°	25.3	26.1	26.9	27.2	28.8
85°	13.6	13.6	13.6	12.8	12.8
87.5°	7.8	7.8	6.6	5.4	3.9
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)