

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: P554511

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-81-97-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: P554511  
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-LD4-1STD-40-UNV-81-97-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

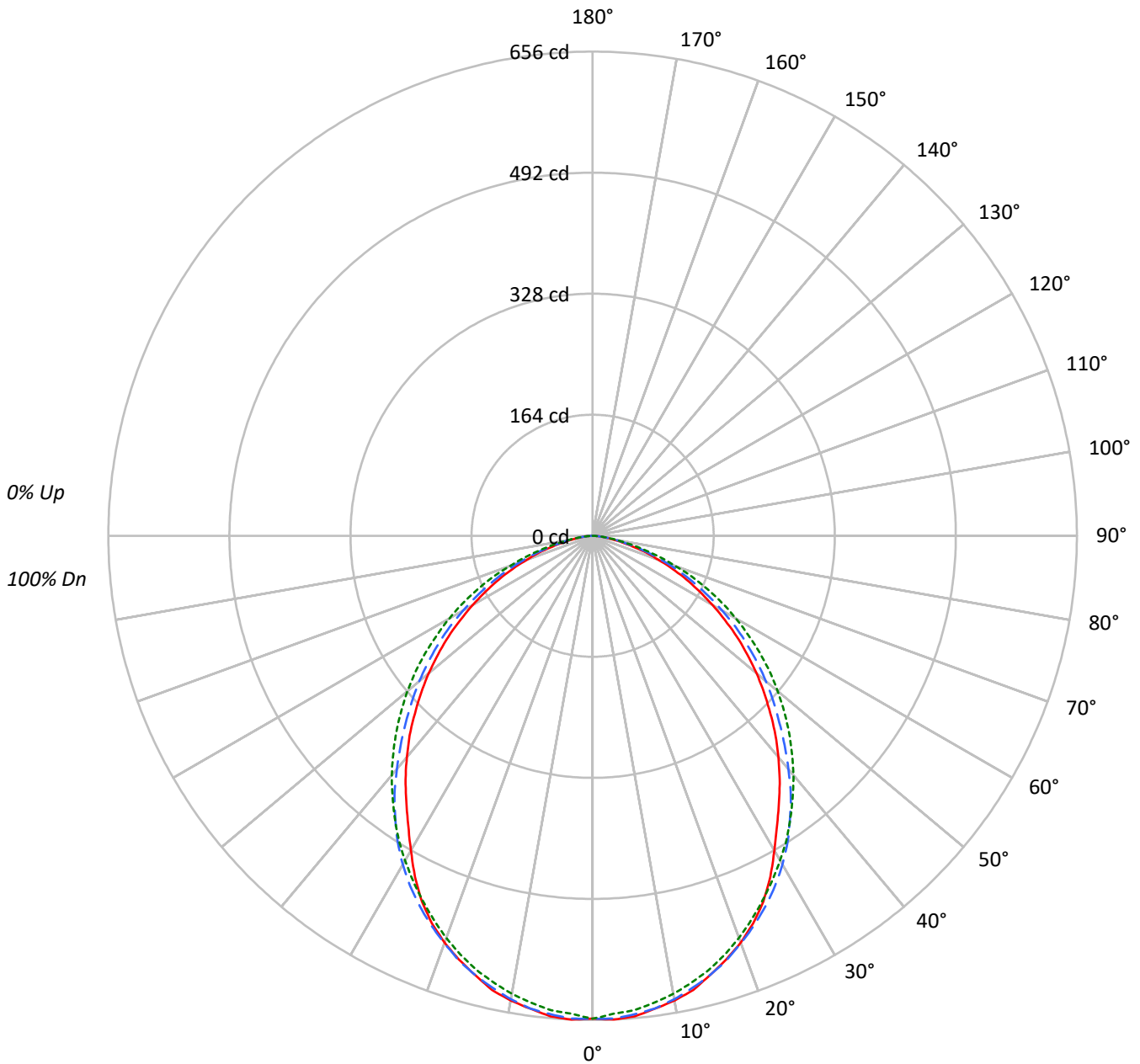
Lumens per Lamp: N/A  
Luminaire Lumens: 1513.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3521	3521	3521
5°	3531	3516	3486
10°	3494	3484	3444
15°	3432	3432	3392
20°	3359	3363	3320
25°	3248	3289	3236
30°	3059	3196	3157
35°	2890	3064	3069
40°	2750	2898	2974
45°	2592	2723	2863
50°	2426	2565	2740
55°	2239	2387	2593
60°	2016	2179	2411
65°	1780	1937	2193
70°	1484	1649	1863
75°	1167	1316	1458
80°	834	927	1029
85°	543	543	513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.6	4.1
10°-20°	173.1	11.4
20°-30°	252.9	16.7
30°-40°	287.1	19.0
40°-50°	277.1	18.3
50°-60°	228.6	15.1
60°-70°	152.2	10.1
70°-80°	68.1	4.5
80°-90°	12.2	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°	487.6	32.2
0°-40°	774.7	51.2
0°-60°	1280.4	84.6
0°-90°	1513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1513.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	654	653	651	647	645	62
15°	616	617	616	613	609	174
25°	547	551	554	550	545	251
35°	440	446	466	469	467	276
45°	341	346	358	374	376	263
55°	239	243	254	268	276	213
65°	140	144	152	163	172	139
75°	56	59	63	66	70	61
85°	9	9	9	8	8	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	654.3	654.3	654.3	654.3	654.3
2.5°	656.1	656.3	654.8	650.8	648.3
5°	653.6	653.3	650.8	647.3	645.3
7.5°	646.3	646.8	646.0	641.0	638.2
10°	639.3	639.5	637.5	633.5	630.2
12.5°	630.2	629.9	627.2	625.2	619.9
15°	615.9	617.4	615.9	613.1	608.8
17.5°	602.0	602.0	603.1	598.3	595.0
20°	586.5	587.2	587.2	583.4	579.7
22.5°	568.4	570.6	571.4	567.4	562.8
25°	547.0	551.3	553.8	549.8	545.0
27.5°	521.1	527.6	535.2	532.2	526.9
30°	492.2	501.7	514.3	511.8	508.0
32.5°	464.8	474.3	491.7	490.7	488.7
35°	439.9	445.9	466.3	468.8	467.1
37.5°	416.3	421.8	440.9	446.7	445.2
40°	391.4	397.4	412.5	422.8	423.3
42.5°	366.8	372.5	384.9	399.7	399.7
45°	340.6	346.4	357.7	374.0	376.1
47.5°	315.0	321.0	332.1	348.4	351.7
50°	289.8	295.4	306.4	322.3	327.3
52.5°	263.7	269.7	280.5	295.1	302.4
55°	238.6	242.6	254.4	268.5	276.3
57.5°	212.4	216.2	229.5	241.6	249.6
60°	187.3	192.1	202.4	214.7	224.0
62.5°	163.1	168.2	177.0	187.8	198.3
65°	139.8	143.5	152.1	162.9	172.2
67.5°	117.1	120.4	129.0	136.5	146.3
70°	94.3	98.5	104.8	112.1	118.4
72.5°	75.9	77.7	83.0	88.2	94.8
75°	56.1	59.1	63.3	66.4	70.1
77.5°	40.2	42.0	44.5	47.0	50.5
80°	26.9	27.7	29.9	30.4	33.2
82.5°	16.3	16.8	17.3	17.6	18.6
85°	8.8	8.8	8.8	8.3	8.3
87.5°	5.0	5.0	4.3	3.5	2.5
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)