

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: P554541

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-93-96-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: P554541  
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-93-96-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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**

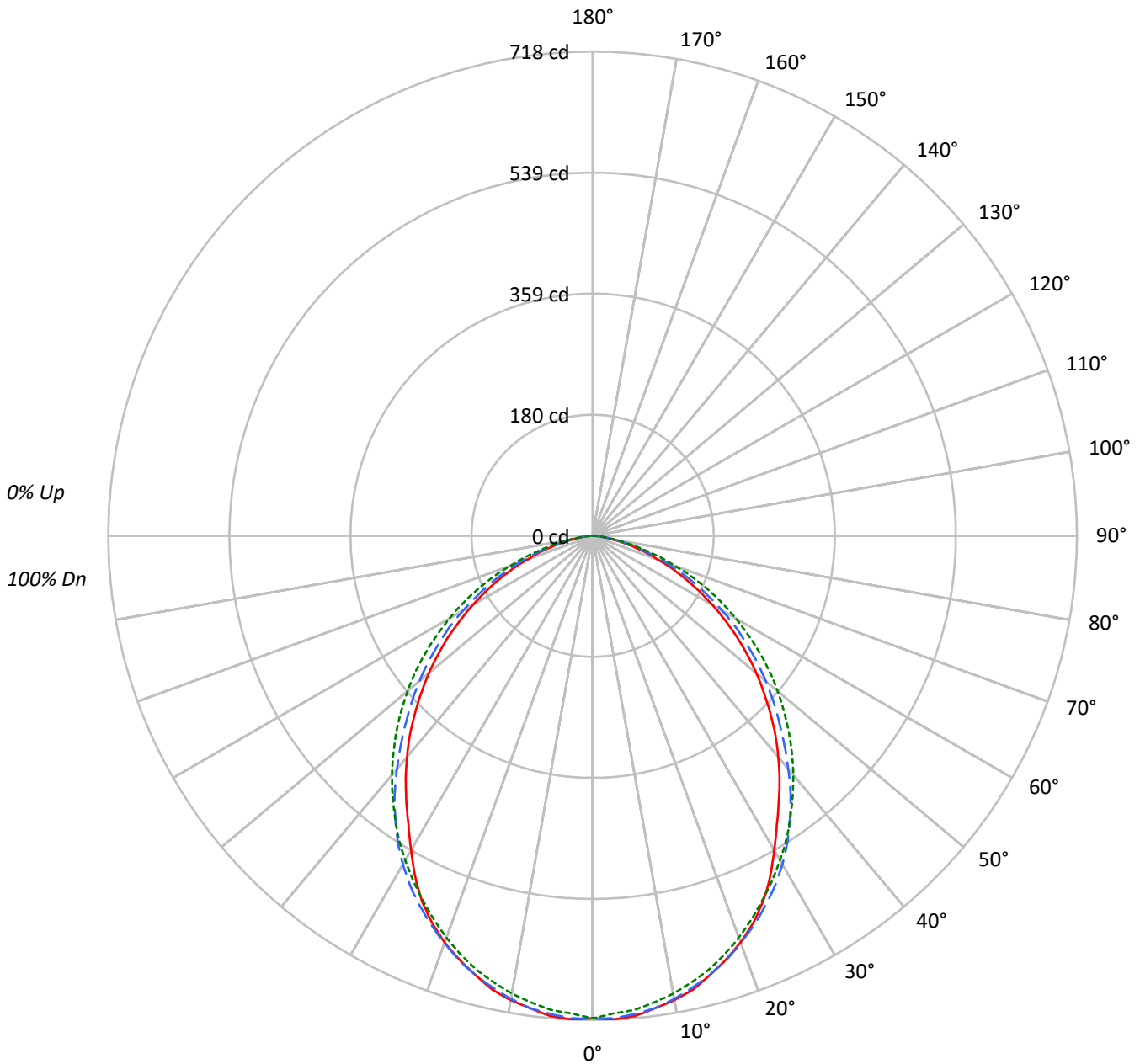
Lumens per Lamp: N/A  
Luminaire Lumens: 1655.0 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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									
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°	3852	3852	3852
5°	3862	3846	3813
10°	3821	3811	3767
15°	3754	3754	3711
20°	3674	3679	3632
25°	3553	3597	3540
30°	3346	3496	3453
35°	3162	3351	3357
40°	3008	3170	3253
45°	2836	2978	3131
50°	2654	2807	2997
55°	2448	2611	2836
60°	2206	2383	2637
65°	1947	2119	2399
70°	1622	1805	2038
75°	1275	1441	1595
80°	911	1013	1125
85°	593	593	562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.4	4.1
10°-20°	189.3	11.4
20°-30°	276.7	16.7
30°-40°	314.0	19.0
40°-50°	303.1	18.3
50°-60°	250.1	15.1
60°-70°	166.5	10.1
70°-80°	74.5	4.5
80°-90°	13.3	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°	533.4	32.2
0°-40°	847.4	51.2
0°-60°	1400.6	84.6
0°-90°	1655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1655.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	716	716	716	716	716	
5°	715	715	712	708	706	68
15°	674	675	674	671	666	190
25°	598	603	606	601	596	274
35°	481	488	510	513	511	301
45°	373	379	391	409	411	287
55°	261	265	278	294	302	233
65°	153	157	166	178	188	152
75°	61	65	69	73	77	67
85°	10	10	10	9	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	715.7	715.7	715.7	715.7	715.7
2.5°	717.7	717.9	716.3	711.9	709.1
5°	714.9	714.6	711.9	708.0	705.8
7.5°	706.9	707.5	706.7	701.2	698.1
10°	699.2	699.5	697.3	692.9	689.3
12.5°	689.3	689.1	686.0	683.8	678.1
15°	673.7	675.3	673.7	670.6	666.0
17.5°	658.6	658.6	659.7	654.4	650.9
20°	641.5	642.3	642.3	638.2	634.1
22.5°	621.7	624.2	625.0	620.6	615.7
25°	598.3	603.0	605.8	601.4	596.1
27.5°	570.0	577.2	585.4	582.1	576.3
30°	538.4	548.8	562.6	559.8	555.7
32.5°	508.4	518.9	537.8	536.7	534.5
35°	481.2	487.8	510.1	512.8	510.9
37.5°	455.3	461.4	482.3	488.6	487.0
40°	428.1	434.7	451.2	462.5	463.0
42.5°	401.2	407.5	421.0	437.2	437.2
45°	372.6	378.9	391.3	409.2	411.4
47.5°	344.5	351.1	363.2	381.1	384.7
50°	317.0	323.1	335.2	352.5	358.0
52.5°	288.4	295.0	306.9	322.8	330.8
55°	260.9	265.3	278.3	293.7	302.2
57.5°	232.3	236.5	251.0	264.2	273.0
60°	204.9	210.1	221.4	234.8	245.0
62.5°	178.5	184.0	193.6	205.4	217.0
65°	152.9	157.0	166.4	178.2	188.4
67.5°	128.1	131.7	141.1	149.3	160.0
70°	103.1	107.8	114.7	122.6	129.5
72.5°	83.0	85.0	90.7	96.5	103.7
75°	61.3	64.6	69.3	72.6	76.7
77.5°	44.0	45.9	48.7	51.4	55.3
80°	29.4	30.2	32.7	33.3	36.3
82.5°	17.9	18.4	19.0	19.2	20.3
85°	9.6	9.6	9.6	9.1	9.1
87.5°	5.5	5.5	4.7	3.8	2.7
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)