

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: P554031

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-93-97-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: P554031  
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-LD4-1HI-40-UNV-93-97-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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**

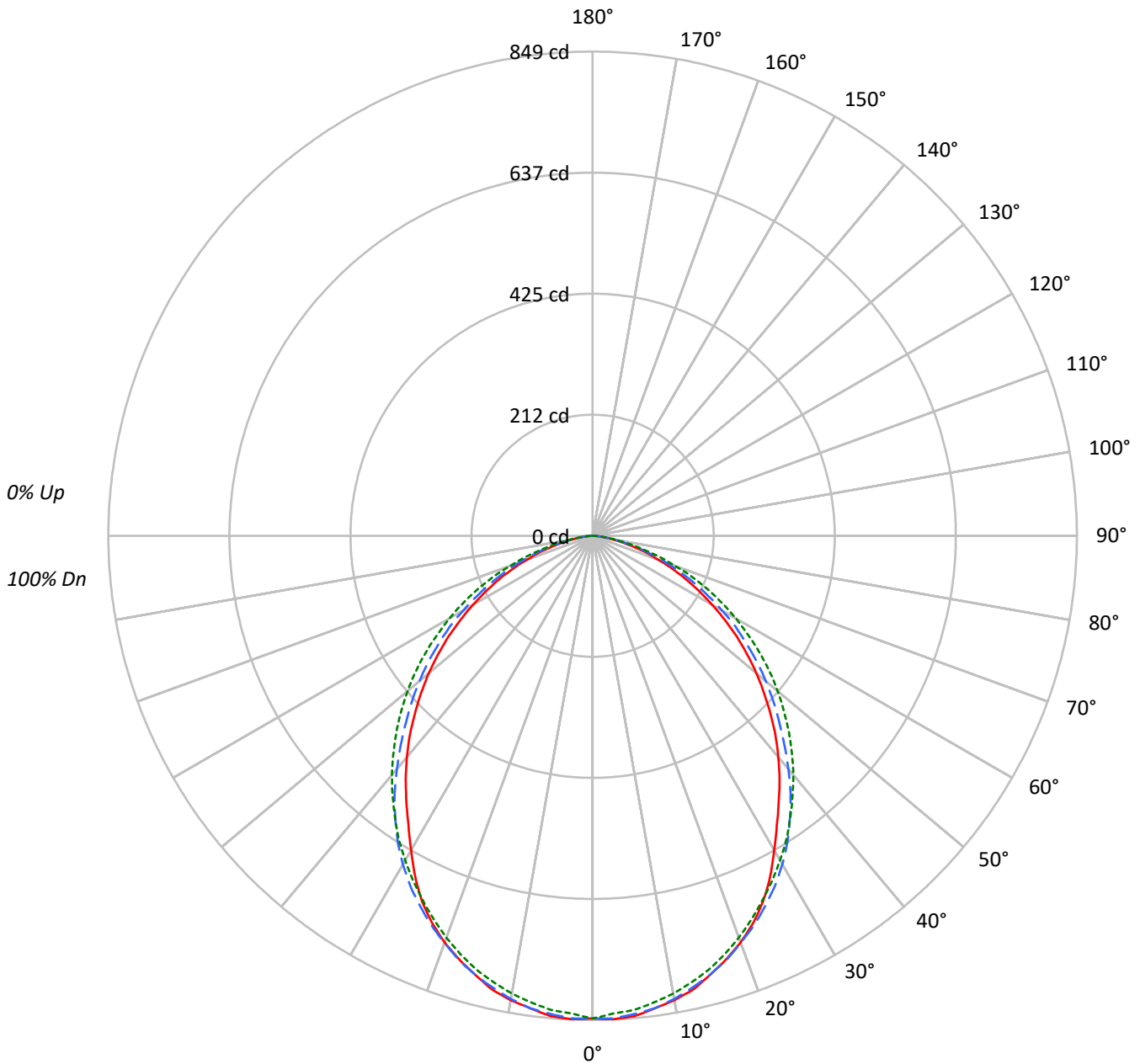
Lumens per Lamp: N/A  
Luminaire Lumens: 1957.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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°	4555	4555	4555
5°	4567	4548	4509
10°	4518	4506	4455
15°	4439	4439	4388
20°	4345	4350	4294
25°	4201	4254	4186
30°	3956	4134	4084
35°	3738	3962	3969
40°	3557	3749	3847
45°	3354	3522	3702
50°	3139	3319	3544
55°	2896	3087	3353
60°	2607	2817	3118
65°	2302	2505	2836
70°	1918	2134	2409
75°	1508	1703	1886
80°	1079	1199	1330
85°	704	704	661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.7	4.1
10°-20°	223.9	11.4
20°-30°	327.1	16.7
30°-40°	371.3	19.0
40°-50°	358.5	18.3
50°-60°	295.7	15.1
60°-70°	196.9	10.1
70°-80°	88.1	4.5
80°-90°	15.8	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°	630.7	32.2
0°-40°	1002.0	51.2
0°-60°	1656.2	84.6
0°-90°	1957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1957.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	845	845	842	837	835	80
15°	797	799	797	793	788	225
25°	708	713	716	711	705	324
35°	569	577	603	606	604	357
45°	441	448	463	484	486	340
55°	309	314	329	347	357	275
65°	181	186	197	211	223	179
75°	72	76	82	86	91	79
85°	11	11	11	11	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	846.4	846.4	846.4	846.4	846.4
2.5°	848.6	849.0	847.0	841.8	838.5
5°	845.4	845.1	841.8	837.2	834.6
7.5°	835.9	836.6	835.6	829.1	825.5
10°	826.8	827.2	824.6	819.4	815.1
12.5°	815.1	814.8	811.2	808.6	801.8
15°	796.6	798.6	796.6	793.0	787.5
17.5°	778.7	778.7	780.0	773.8	769.6
20°	758.6	759.5	759.5	754.7	749.8
22.5°	735.2	738.1	739.1	733.9	728.0
25°	707.5	713.0	716.3	711.1	704.9
27.5°	674.0	682.5	692.2	688.3	681.5
30°	636.6	649.0	665.2	662.0	657.1
32.5°	601.2	613.5	636.0	634.7	632.1
35°	569.0	576.8	603.1	606.4	604.1
37.5°	538.4	545.6	570.3	577.8	575.8
40°	506.3	514.1	533.6	546.9	547.5
42.5°	474.4	481.9	497.8	517.0	517.0
45°	440.6	448.0	462.7	483.8	486.4
47.5°	407.4	415.2	429.5	450.7	454.9
50°	374.9	382.0	396.4	416.8	423.3
52.5°	341.1	348.9	362.9	381.7	391.1
55°	308.6	313.8	329.0	347.3	357.3
57.5°	274.7	279.6	296.9	312.5	322.9
60°	242.2	248.4	261.7	277.7	289.7
62.5°	211.0	217.5	228.9	242.9	256.5
65°	180.8	185.7	196.7	210.7	222.7
67.5°	151.5	155.7	166.8	176.6	189.2
70°	121.9	127.5	135.6	145.0	153.1
72.5°	98.2	100.5	107.3	114.1	122.6
75°	72.5	76.4	81.9	85.8	90.7
77.5°	52.0	54.3	57.6	60.8	65.4
80°	34.8	35.8	38.7	39.3	42.9
82.5°	21.1	21.8	22.4	22.8	24.1
85°	11.4	11.4	11.4	10.7	10.7
87.5°	6.5	6.5	5.5	4.6	3.3
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)