

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: P553956

Luminaire Tested: **FUSL-12-2-LD4-1HI-35-UNV-93-86-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: P553956  
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-35-UNV-93-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

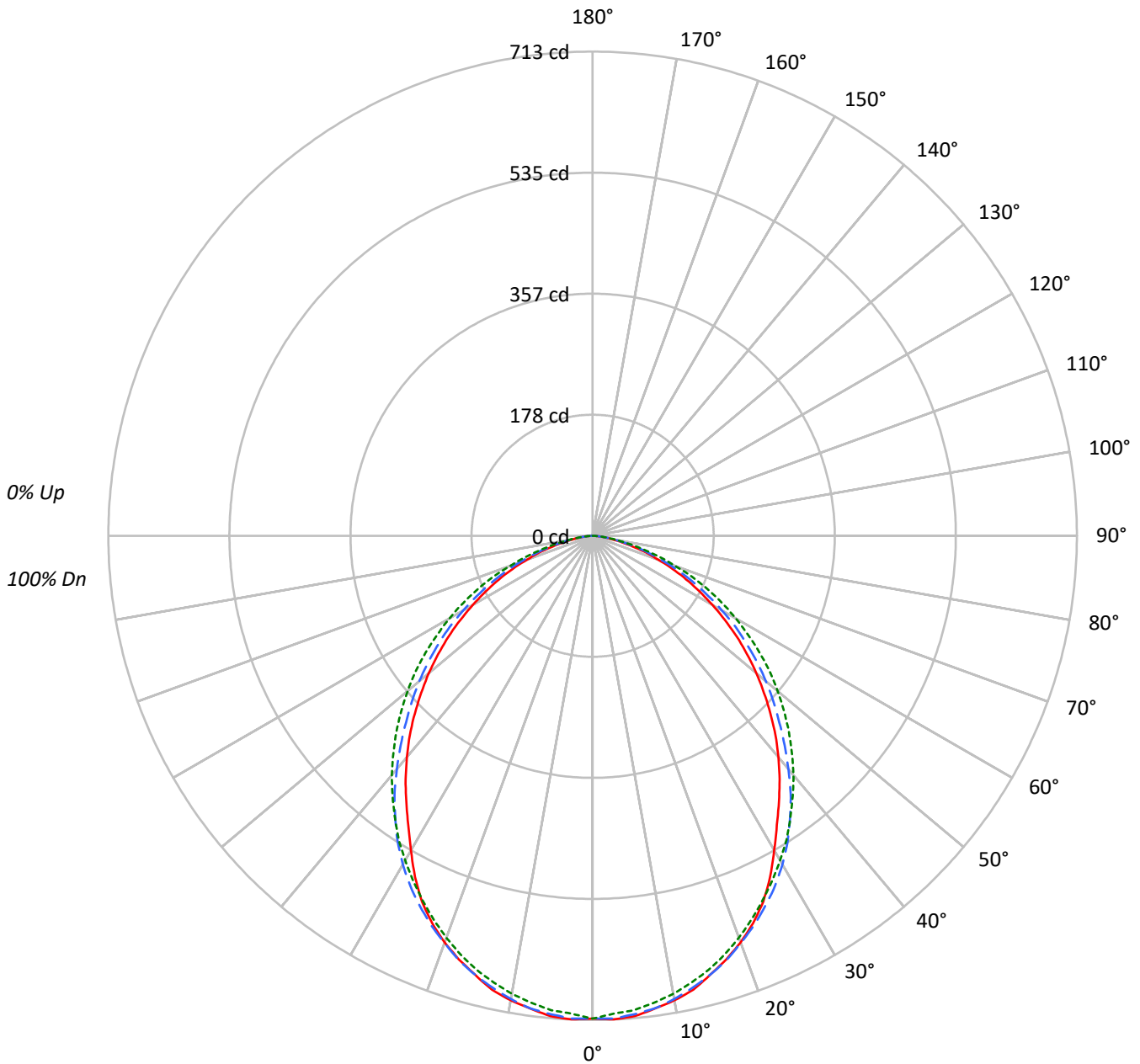
Lumens per Lamp: N/A  
Luminaire Lumens: 1644.0 lumens  
Efficiency: N/A  
Efficacy: 76.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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°	3827	3827	3827
5°	3837	3821	3788
10°	3796	3786	3742
15°	3729	3729	3686
20°	3649	3655	3608
25°	3530	3573	3517
30°	3324	3473	3430
35°	3141	3329	3334
40°	2988	3149	3232
45°	2817	2958	3110
50°	2637	2788	2977
55°	2432	2594	2817
60°	2190	2367	2620
65°	1934	2105	2383
70°	1611	1792	2024
75°	1266	1431	1585
80°	905	1007	1119
85°	593	593	556



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.9	4.1
10°-20°	188.1	11.4
20°-30°	274.8	16.7
30°-40°	311.9	19.0
40°-50°	301.1	18.3
50°-60°	248.4	15.1
60°-70°	165.4	10.1
70°-80°	74.0	4.5
80°-90°	13.2	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°	529.8	32.2
0°-40°	841.8	51.2
0°-60°	1391.3	84.6
0°-90°	1644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	710	710	707	703	701	67
15°	669	671	669	666	662	189
25°	594	599	602	597	592	272
35°	478	485	507	509	508	299
45°	370	376	389	406	409	286
55°	259	264	276	292	300	231
65°	152	156	165	177	187	151
75°	61	64	69	72	76	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°	711.0	711.0	711.0	711.0	711.0
2.5°	712.9	713.2	711.5	707.2	704.4
5°	710.2	709.9	707.2	703.3	701.2
7.5°	702.2	702.8	702.0	696.5	693.5
10°	694.6	694.9	692.7	688.3	684.8
12.5°	684.8	684.5	681.5	679.3	673.6
15°	669.2	670.8	669.2	666.2	661.5
17.5°	654.2	654.2	655.3	650.1	646.5
20°	637.2	638.1	638.1	634.0	629.9
22.5°	617.6	620.0	620.9	616.5	611.6
25°	594.4	599.0	601.7	597.4	592.2
27.5°	566.2	573.3	581.5	578.2	572.5
30°	534.8	545.2	558.8	556.1	552.0
32.5°	505.0	515.4	534.3	533.2	531.0
35°	478.0	484.6	506.7	509.4	507.5
37.5°	452.3	458.3	479.1	485.4	483.7
40°	425.3	431.8	448.2	459.4	460.0
42.5°	398.5	404.8	418.2	434.3	434.3
45°	370.1	376.4	388.7	406.4	408.6
47.5°	342.2	348.8	360.8	378.6	382.1
50°	314.9	320.9	333.0	350.2	355.6
52.5°	286.5	293.1	304.8	320.7	328.6
55°	259.2	263.6	276.4	291.7	300.2
57.5°	230.8	234.9	249.4	262.5	271.2
60°	203.5	208.7	219.9	233.3	243.4
62.5°	177.3	182.7	192.3	204.0	215.5
65°	151.9	156.0	165.3	177.0	187.1
67.5°	127.3	130.8	140.1	148.3	159.0
70°	102.4	107.1	113.9	121.8	128.6
72.5°	82.5	84.4	90.1	95.9	103.0
75°	60.9	64.2	68.8	72.1	76.2
77.5°	43.7	45.6	48.3	51.1	54.9
80°	29.2	30.0	32.5	33.1	36.1
82.5°	17.8	18.3	18.8	19.1	20.2
85°	9.6	9.6	9.6	9.0	9.0
87.5°	5.5	5.5	4.6	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)