

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: P554602

Luminaire Tested: **FUSL-12-2-LD4-1STD-50-UNV-93-94-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: P554602  
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-50-UNV-93-94-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

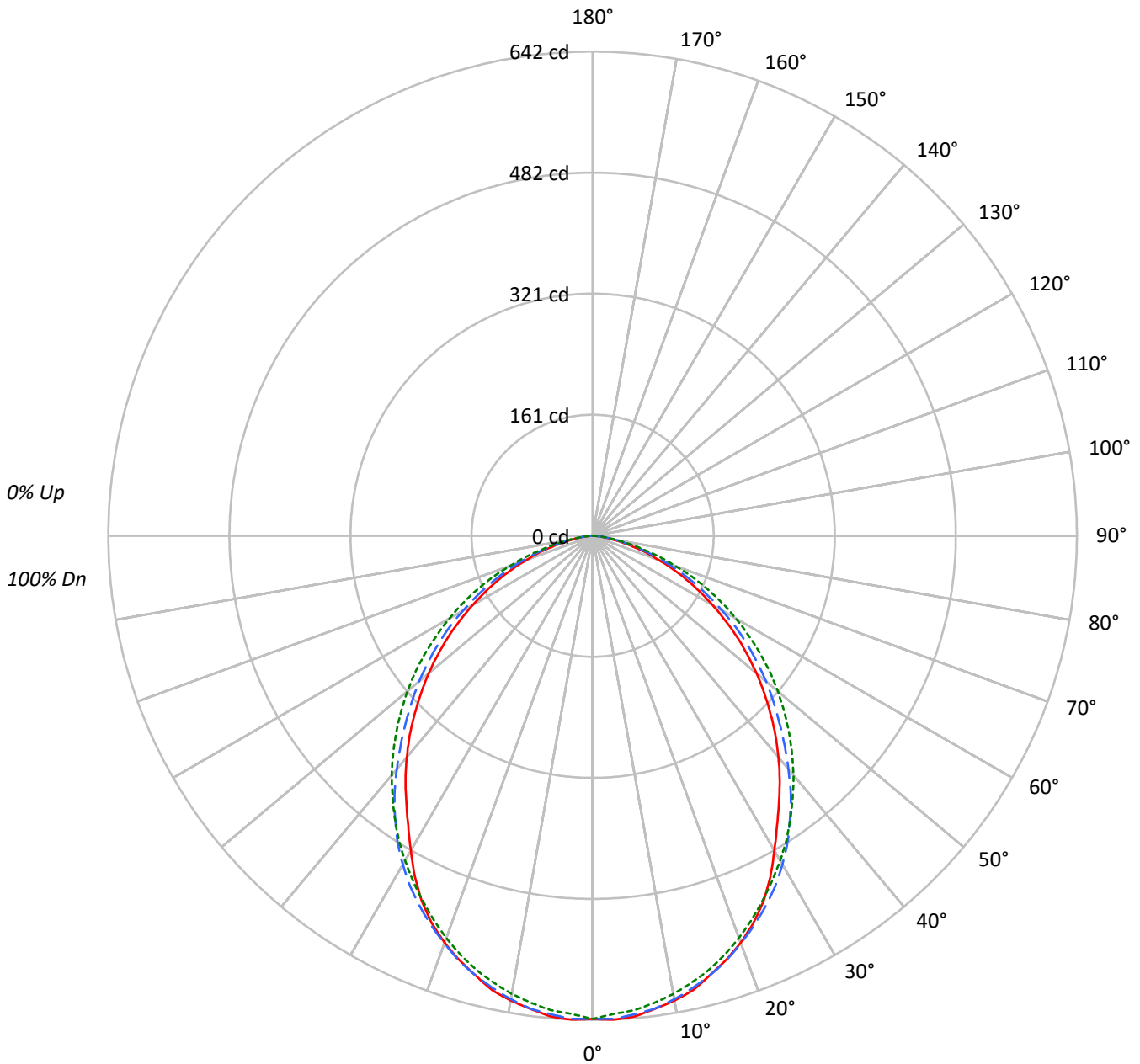
Lumens per Lamp: N/A  
Luminaire Lumens: 1481.0 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3447	3447	3447
5°	3457	3441	3412
10°	3419	3410	3371
15°	3359	3359	3321
20°	3288	3292	3250
25°	3179	3219	3168
30°	2994	3128	3090
35°	2829	2999	3004
40°	2692	2837	2911
45°	2538	2665	2802
50°	2375	2511	2683
55°	2191	2336	2537
60°	1973	2132	2359
65°	1742	1896	2147
70°	1452	1614	1824
75°	1142	1289	1429
80°	815	908	1007
85°	531	531	500



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.3	4.1
10°-20°	169.4	11.4
20°-30°	247.6	16.7
30°-40°	281.0	19.0
40°-50°	271.3	18.3
50°-60°	223.8	15.1
60°-70°	149.0	10.1
70°-80°	66.7	4.5
80°-90°	11.9	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°	477.3	32.2
0°-40°	758.3	51.2
0°-60°	1253.3	84.6
0°-90°	1481.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1481.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	640	640	637	634	632	61
15°	603	604	603	600	596	170
25°	535	540	542	538	534	245
35°	431	436	456	459	457	270
45°	333	339	350	366	368	257
55°	234	237	249	263	270	208
65°	137	140	149	159	169	136
75°	55	58	62	65	69	60
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°	640.5	640.5	640.5	640.5	640.5
2.5°	642.2	642.5	641.0	637.0	634.6
5°	639.8	639.5	637.0	633.6	631.6
7.5°	632.6	633.1	632.4	627.5	624.7
10°	625.7	626.0	624.0	620.1	616.9
12.5°	616.9	616.6	613.9	612.0	606.8
15°	602.8	604.3	602.8	600.1	596.0
17.5°	589.3	589.3	590.3	585.6	582.4
20°	574.1	574.8	574.8	571.1	567.4
22.5°	556.3	558.6	559.3	555.4	550.9
25°	535.4	539.6	542.1	538.1	533.5
27.5°	510.1	516.5	523.9	520.9	515.7
30°	481.8	491.1	503.4	501.0	497.3
32.5°	455.0	464.3	481.3	480.3	478.3
35°	430.6	436.5	456.4	458.9	457.2
37.5°	407.5	412.9	431.6	437.2	435.8
40°	383.1	389.0	403.8	413.9	414.4
42.5°	359.0	364.7	376.7	391.2	391.2
45°	333.4	339.1	350.1	366.1	368.1
47.5°	308.3	314.2	325.0	341.0	344.2
50°	283.7	289.1	299.9	315.4	320.4
52.5°	258.1	264.0	274.6	288.9	296.0
55°	233.5	237.4	249.0	262.8	270.4
57.5°	207.9	211.6	224.7	236.5	244.3
60°	183.3	188.0	198.1	210.1	219.2
62.5°	159.7	164.6	173.2	183.8	194.1
65°	136.8	140.5	148.9	159.4	168.6
67.5°	114.7	117.9	126.2	133.6	143.2
70°	92.3	96.5	102.6	109.7	115.9
72.5°	74.3	76.0	81.2	86.4	92.8
75°	54.9	57.8	62.0	65.0	68.7
77.5°	39.4	41.1	43.6	46.0	49.5
80°	26.3	27.1	29.3	29.8	32.5
82.5°	16.0	16.5	17.0	17.2	18.2
85°	8.6	8.6	8.6	8.1	8.1
87.5°	4.9	4.9	4.2	3.4	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)