

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: P554538

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-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: P554538  
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-93-94-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

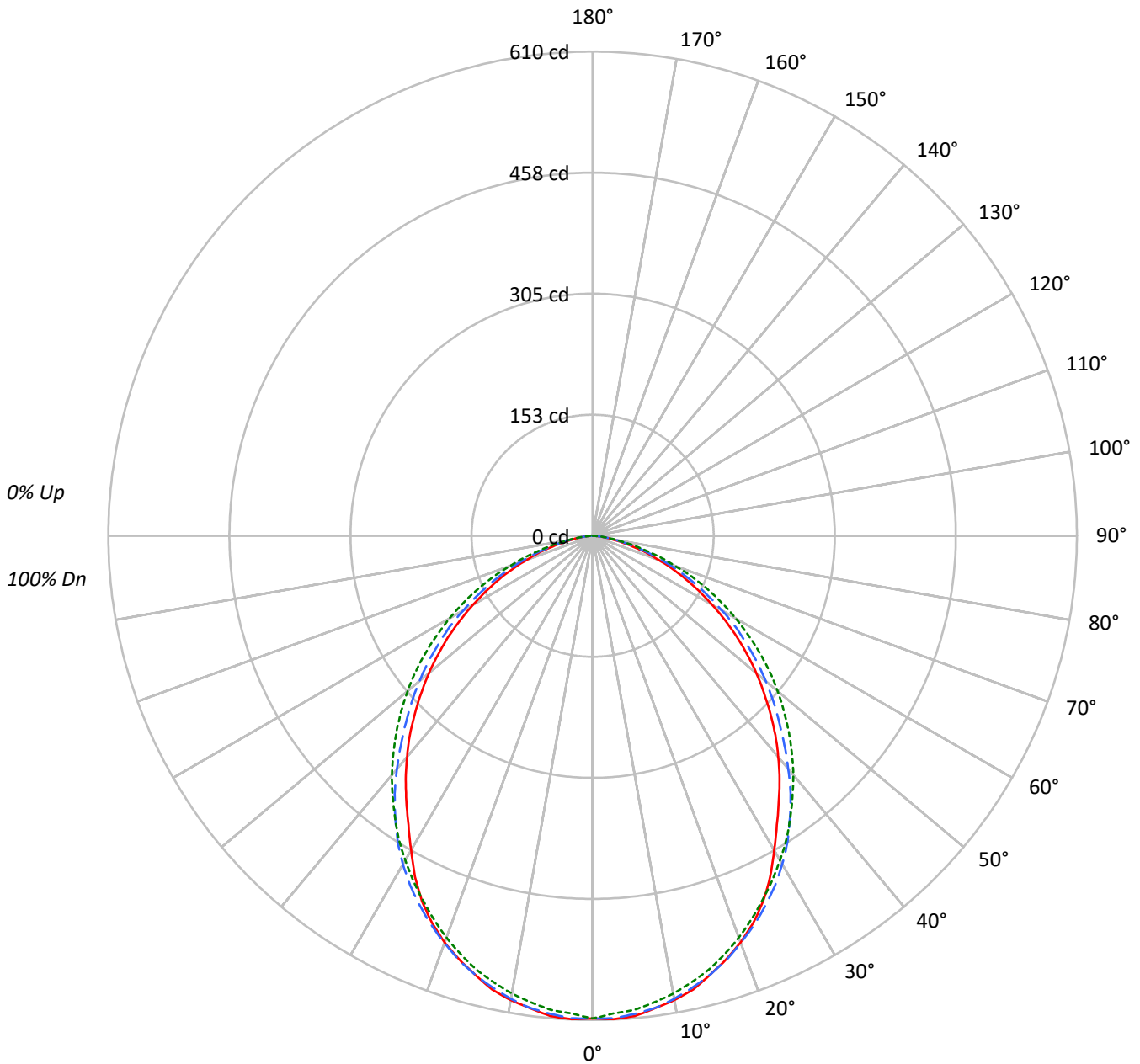
Lumens per Lamp: N/A  
Luminaire Lumens: 1406.0 lumens  
Efficiency: N/A  
Efficacy: 84.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3273	3273	3273
5°	3281	3267	3239
10°	3246	3237	3200
15°	3189	3189	3153
20°	3121	3125	3085
25°	3018	3056	3007
30°	2843	2970	2934
35°	2686	2847	2851
40°	2555	2693	2764
45°	2409	2530	2660
50°	2255	2385	2546
55°	2080	2218	2409
60°	1873	2024	2240
65°	1654	1799	2038
70°	1378	1533	1731
75°	1083	1225	1356
80°	775	862	955
85°	506	506	475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.3	4.1
10°-20°	160.8	11.4
20°-30°	235.0	16.7
30°-40°	266.8	19.0
40°-50°	257.5	18.3
50°-60°	212.5	15.1
60°-70°	141.5	10.1
70°-80°	63.3	4.5
80°-90°	11.3	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°	453.1	32.2
0°-40°	719.9	51.2
0°-60°	1189.9	84.6
0°-90°	1406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1406.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	607	607	605	602	600	57
15°	572	574	572	570	566	161
25°	508	512	515	511	506	233
35°	409	414	433	436	434	256
45°	316	322	332	348	350	244
55°	222	225	236	250	257	198
65°	130	133	141	151	160	129
75°	52	55	59	62	65	57
85°	8	8	8	8	8	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	608.1	608.1	608.1	608.1	608.1
2.5°	609.7	609.9	608.5	604.8	602.5
5°	607.4	607.1	604.8	601.5	599.6
7.5°	600.6	601.1	600.3	595.7	593.1
10°	594.0	594.3	592.4	588.7	585.6
12.5°	585.6	585.4	582.8	581.0	576.1
15°	572.3	573.7	572.3	569.7	565.8
17.5°	559.5	559.5	560.4	556.0	552.9
20°	545.0	545.7	545.7	542.2	538.7
22.5°	528.2	530.3	531.0	527.2	523.0
25°	508.3	512.3	514.6	510.9	506.4
27.5°	484.3	490.3	497.3	494.5	489.6
30°	457.4	466.3	477.9	475.6	472.1
32.5°	431.9	440.8	456.9	456.0	454.1
35°	408.8	414.4	433.3	435.7	434.0
37.5°	386.8	392.0	409.7	415.1	413.7
40°	363.7	369.3	383.3	392.9	393.4
42.5°	340.8	346.2	357.6	371.4	371.4
45°	316.5	321.9	332.4	347.6	349.5
47.5°	292.7	298.3	308.6	323.8	326.8
50°	269.3	274.5	284.8	299.5	304.1
52.5°	245.0	250.7	260.7	274.2	281.0
55°	221.7	225.4	236.4	249.5	256.7
57.5°	197.4	200.9	213.3	224.5	232.0
60°	174.0	178.5	188.0	199.5	208.1
62.5°	151.6	156.3	164.5	174.5	184.3
65°	129.9	133.4	141.3	151.4	160.0
67.5°	108.9	111.9	119.8	126.8	136.0
70°	87.6	91.6	97.4	104.2	110.0
72.5°	70.5	72.2	77.1	82.0	88.1
75°	52.1	54.9	58.9	61.7	65.2
77.5°	37.4	39.0	41.3	43.7	47.0
80°	25.0	25.7	27.8	28.3	30.8
82.5°	15.2	15.7	16.1	16.4	17.3
85°	8.2	8.2	8.2	7.7	7.7
87.5°	4.7	4.7	4.0	3.3	2.3
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)