

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: P554469

Luminaire Tested: **FUSL-12-2-LD4-1STD-35-UNV-93-86-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: P554469  
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-35-UNV-93-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

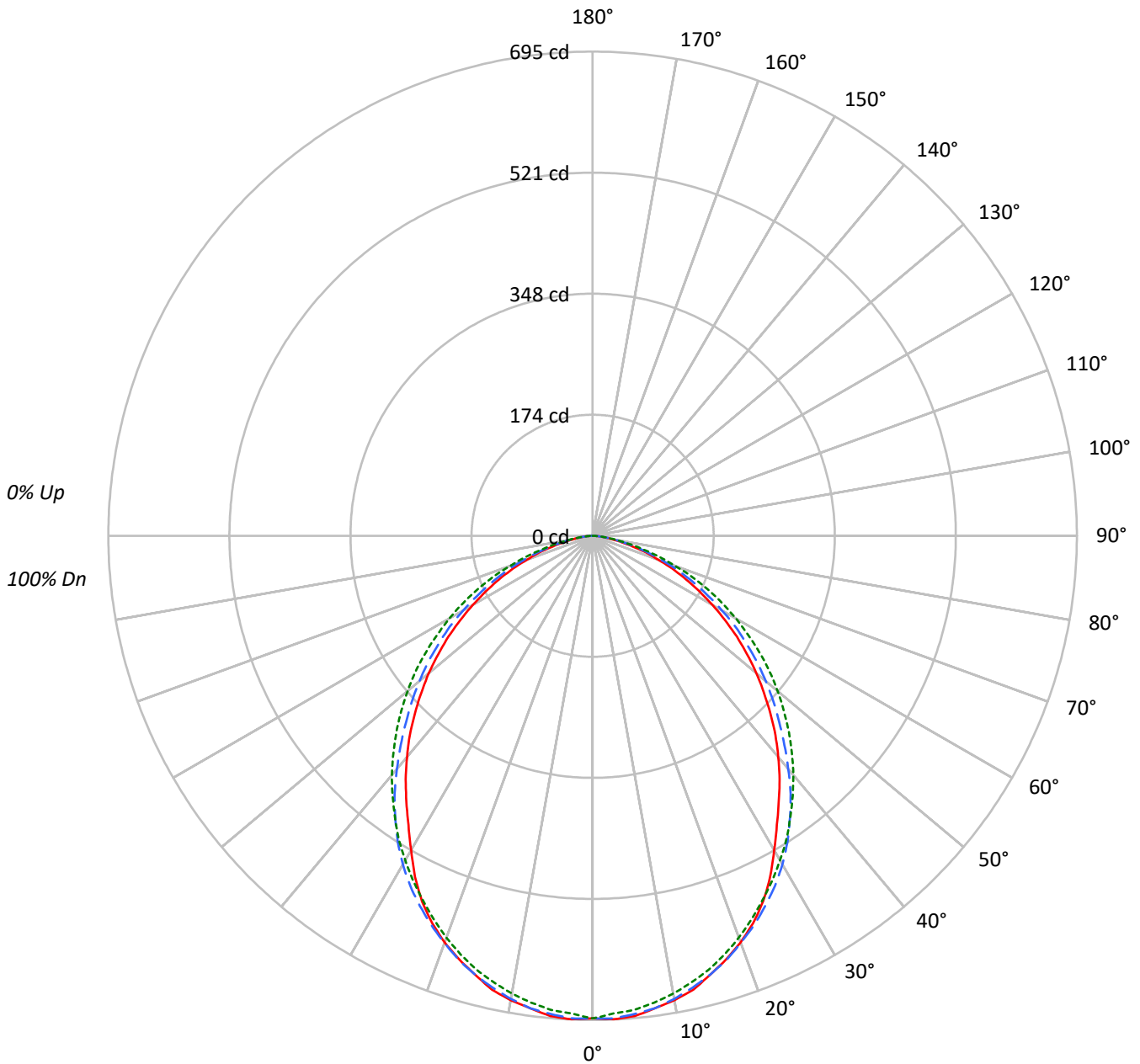
Lumens per Lamp: N/A  
Luminaire Lumens: 1602.0 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3729	3729	3729
5°	3739	3723	3691
10°	3699	3689	3647
15°	3633	3633	3592
20°	3557	3561	3515
25°	3439	3482	3426
30°	3238	3384	3343
35°	3060	3244	3249
40°	2911	3069	3149
45°	2745	2883	3031
50°	2570	2717	2901
55°	2370	2528	2745
60°	2134	2307	2553
65°	1885	2050	2322
70°	1570	1747	1973
75°	1235	1395	1545
80°	883	982	1088
85°	574	574	543



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.2	4.1
10°-20°	183.3	11.4
20°-30°	267.8	16.7
30°-40°	304.0	19.0
40°-50°	293.5	18.3
50°-60°	242.1	15.1
60°-70°	161.2	10.1
70°-80°	72.1	4.5
80°-90°	12.9	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°	516.3	32.2
0°-40°	820.3	51.2
0°-60°	1355.8	84.6
0°-90°	1602.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1602.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	692	692	689	685	683	65
15°	652	654	652	649	645	184
25°	579	584	586	582	577	265
35°	466	472	494	496	494	292
45°	361	367	379	396	398	278
55°	253	257	269	284	292	225
65°	148	152	161	172	182	147
75°	59	62	67	70	74	65
85°	9	9	9	9	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	692.8	692.8	692.8	692.8	692.8
2.5°	694.7	695.0	693.4	689.1	686.4
5°	692.0	691.8	689.1	685.4	683.2
7.5°	684.3	684.8	684.0	678.7	675.8
10°	676.9	677.1	675.0	670.7	667.3
12.5°	667.3	667.0	664.1	661.9	656.4
15°	652.1	653.7	652.1	649.2	644.6
17.5°	637.5	637.5	638.5	633.5	630.0
20°	621.0	621.8	621.8	617.8	613.8
22.5°	601.8	604.2	605.0	600.7	595.9
25°	579.2	583.7	586.4	582.1	577.0
27.5°	551.8	558.7	566.7	563.5	557.9
30°	521.1	531.3	544.6	541.9	537.9
32.5°	492.1	502.3	520.6	519.6	517.4
35°	465.8	472.2	493.7	496.4	494.5
37.5°	440.8	446.6	466.9	473.0	471.4
40°	414.4	420.8	436.8	447.7	448.2
42.5°	388.3	394.5	407.5	423.2	423.2
45°	360.7	366.8	378.8	396.1	398.2
47.5°	333.5	339.9	351.6	368.9	372.4
50°	306.9	312.7	324.5	341.2	346.5
52.5°	279.2	285.6	297.0	312.5	320.2
55°	252.6	256.8	269.4	284.3	292.5
57.5°	224.9	228.9	243.0	255.8	264.3
60°	198.3	203.3	214.3	227.3	237.2
62.5°	172.7	178.1	187.4	198.8	210.0
65°	148.0	152.0	161.0	172.5	182.3
67.5°	124.0	127.5	136.5	144.5	154.9
70°	99.8	104.3	111.0	118.7	125.4
72.5°	80.4	82.2	87.8	93.4	100.3
75°	59.4	62.5	67.1	70.3	74.3
77.5°	42.6	44.4	47.1	49.8	53.5
80°	28.5	29.3	31.7	32.2	35.1
82.5°	17.3	17.8	18.4	18.6	19.7
85°	9.3	9.3	9.3	8.8	8.8
87.5°	5.3	5.3	4.5	3.7	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)