

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: P554437

Luminaire Tested: **FUSL-12-2-LD4-1STD-35-UNV-81-86-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: P554437  
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-81-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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**

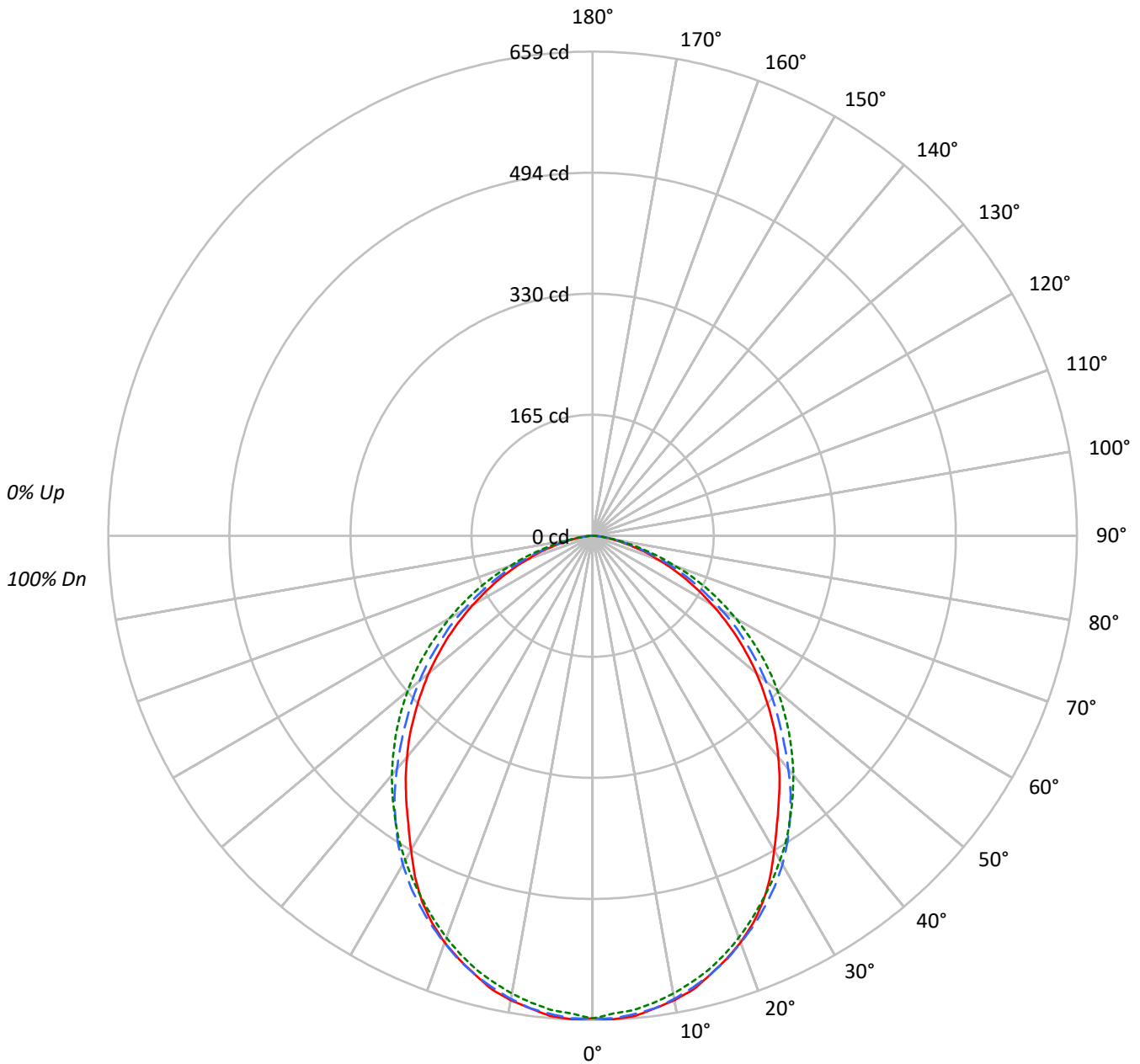
Lumens per Lamp: N/A  
Luminaire Lumens: 1519.0 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3535	3535	3535
5°	3545	3530	3500
10°	3507	3498	3458
15°	3445	3445	3405
20°	3372	3376	3333
25°	3261	3302	3249
30°	3071	3209	3169
35°	2902	3076	3081
40°	2760	2909	2986
45°	2603	2733	2874
50°	2436	2575	2751
55°	2247	2396	2603
60°	2024	2187	2421
65°	1787	1945	2202
70°	1489	1655	1871
75°	1171	1323	1464
80°	837	930	1032
85°	543	543	513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.9	4.1
10°-20°	173.8	11.4
20°-30°	253.9	16.7
30°-40°	288.2	19.0
40°-50°	278.2	18.3
50°-60°	229.5	15.1
60°-70°	152.8	10.1
70°-80°	68.4	4.5
80°-90°	12.2	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°	489.5	32.2
0°-40°	777.8	51.2
0°-60°	1285.5	84.6
0°-90°	1519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1519.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	656	656	653	650	648	62
15°	618	620	618	616	611	174
25°	549	554	556	552	547	251
35°	442	448	468	471	469	277
45°	342	348	359	376	378	264
55°	240	244	255	270	277	214
65°	140	144	153	164	173	139
75°	56	59	64	67	70	62
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°	656.9	656.9	656.9	656.9	656.9
2.5°	658.7	658.9	657.4	653.4	650.9
5°	656.2	655.9	653.4	649.9	647.8
7.5°	648.9	649.4	648.6	643.6	640.8
10°	641.8	642.0	640.0	636.0	632.7
12.5°	632.7	632.4	629.7	627.7	622.4
15°	618.3	619.8	618.3	615.5	611.2
17.5°	604.4	604.4	605.4	600.6	597.4
20°	588.8	589.5	589.5	585.8	582.0
22.5°	570.6	572.9	573.6	569.6	565.1
25°	549.2	553.5	556.0	551.9	547.1
27.5°	523.2	529.7	537.3	534.3	529.0
30°	494.1	503.7	516.4	513.8	510.0
32.5°	466.6	476.2	493.6	492.6	490.6
35°	441.7	447.7	468.2	470.7	468.9
37.5°	417.9	423.5	442.7	448.5	447.0
40°	392.9	399.0	414.1	424.5	425.0
42.5°	368.2	374.0	386.4	401.3	401.3
45°	342.0	347.8	359.1	375.5	377.6
47.5°	316.2	322.3	333.4	349.8	353.1
50°	291.0	296.5	307.6	323.5	328.6
52.5°	264.7	270.8	281.6	296.3	303.6
55°	239.5	243.5	255.4	269.5	277.4
57.5°	213.3	217.0	230.4	242.5	250.6
60°	188.0	192.8	203.2	215.5	224.9
62.5°	163.8	168.8	177.7	188.5	199.1
65°	140.3	144.1	152.7	163.5	172.9
67.5°	117.6	120.9	129.5	137.0	146.9
70°	94.6	98.9	105.2	112.6	118.9
72.5°	76.2	78.0	83.3	88.6	95.1
75°	56.3	59.3	63.6	66.6	70.4
77.5°	40.4	42.1	44.7	47.2	50.7
80°	27.0	27.8	30.0	30.5	33.3
82.5°	16.4	16.9	17.4	17.7	18.7
85°	8.8	8.8	8.8	8.3	8.3
87.5°	5.0	5.0	4.3	3.5	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)