

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: P554517

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-82-86-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: P554517  
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-82-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

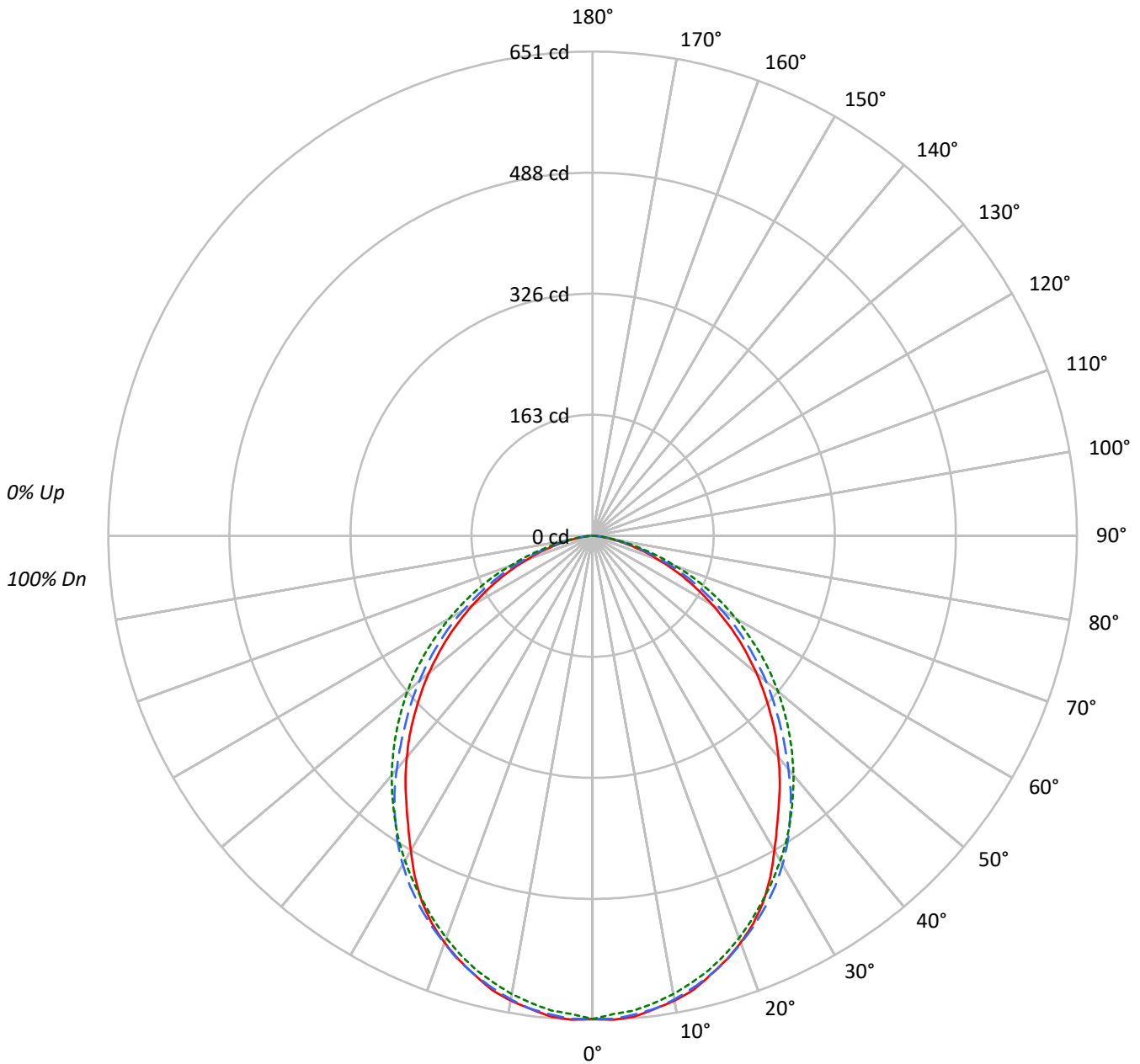
Lumens per Lamp: N/A  
Luminaire Lumens: 1502.0 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3496	3496	3496
5°	3505	3491	3461
10°	3468	3459	3419
15°	3407	3407	3368
20°	3334	3338	3296
25°	3225	3265	3213
30°	3036	3173	3134
35°	2869	3041	3047
40°	2729	2877	2952
45°	2573	2703	2841
50°	2409	2547	2720
55°	2222	2369	2574
60°	2001	2162	2393
65°	1766	1923	2176
70°	1473	1638	1849
75°	1156	1308	1447
80°	828	921	1020
85°	537	537	506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.2	4.1
10°-20°	171.8	11.4
20°-30°	251.1	16.7
30°-40°	285.0	19.0
40°-50°	275.1	18.3
50°-60°	227.0	15.1
60°-70°	151.1	10.1
70°-80°	67.6	4.5
80°-90°	12.1	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°	484.1	32.2
0°-40°	769.0	51.2
0°-60°	1271.1	84.6
0°-90°	1502.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1502.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	649	649	646	643	641	61
15°	611	613	611	609	604	172
25°	543	547	550	546	541	249
35°	437	443	463	465	464	274
45°	338	344	355	371	373	261
55°	237	241	252	266	274	211
65°	139	142	151	162	171	138
75°	56	59	63	66	70	61
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°	649.6	649.6	649.6	649.6	649.6
2.5°	651.3	651.6	650.1	646.1	643.6
5°	648.8	648.6	646.1	642.6	640.6
7.5°	641.6	642.1	641.3	636.4	633.6
10°	634.6	634.9	632.9	628.9	625.6
12.5°	625.6	625.4	622.6	620.6	615.4
15°	611.4	612.9	611.4	608.7	604.4
17.5°	597.7	597.7	598.7	593.9	590.7
20°	582.2	582.9	582.9	579.2	575.5
22.5°	564.2	566.5	567.2	563.2	558.7
25°	543.0	547.3	549.8	545.8	541.0
27.5°	517.3	523.8	531.3	528.3	523.1
30°	488.6	498.1	510.6	508.1	504.3
32.5°	461.4	470.9	488.1	487.1	485.1
35°	436.7	442.7	462.9	465.4	463.7
37.5°	413.3	418.7	437.7	443.4	442.0
40°	388.5	394.5	409.5	419.7	420.2
42.5°	364.1	369.8	382.1	396.8	396.8
45°	338.1	343.9	355.1	371.3	373.3
47.5°	312.7	318.7	329.7	345.9	349.1
50°	287.7	293.2	304.2	319.9	324.9
52.5°	261.8	267.8	278.5	293.0	300.2
55°	236.8	240.8	252.5	266.5	274.3
57.5°	210.9	214.6	227.8	239.8	247.8
60°	185.9	190.7	200.9	213.1	222.3
62.5°	162.0	166.9	175.7	186.4	196.9
65°	138.7	142.5	151.0	161.7	170.9
67.5°	116.3	119.5	128.0	135.5	145.2
70°	93.6	97.8	104.1	111.3	117.5
72.5°	75.4	77.1	82.4	87.6	94.1
75°	55.6	58.6	62.9	65.9	69.6
77.5°	39.9	41.7	44.2	46.7	50.2
80°	26.7	27.5	29.7	30.2	32.9
82.5°	16.2	16.7	17.2	17.5	18.5
85°	8.7	8.7	8.7	8.2	8.2
87.5°	5.0	5.0	4.2	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)