

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: P553990

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-81-87-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: P553990  
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-LD4-1HI-40-UNV-81-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375  
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

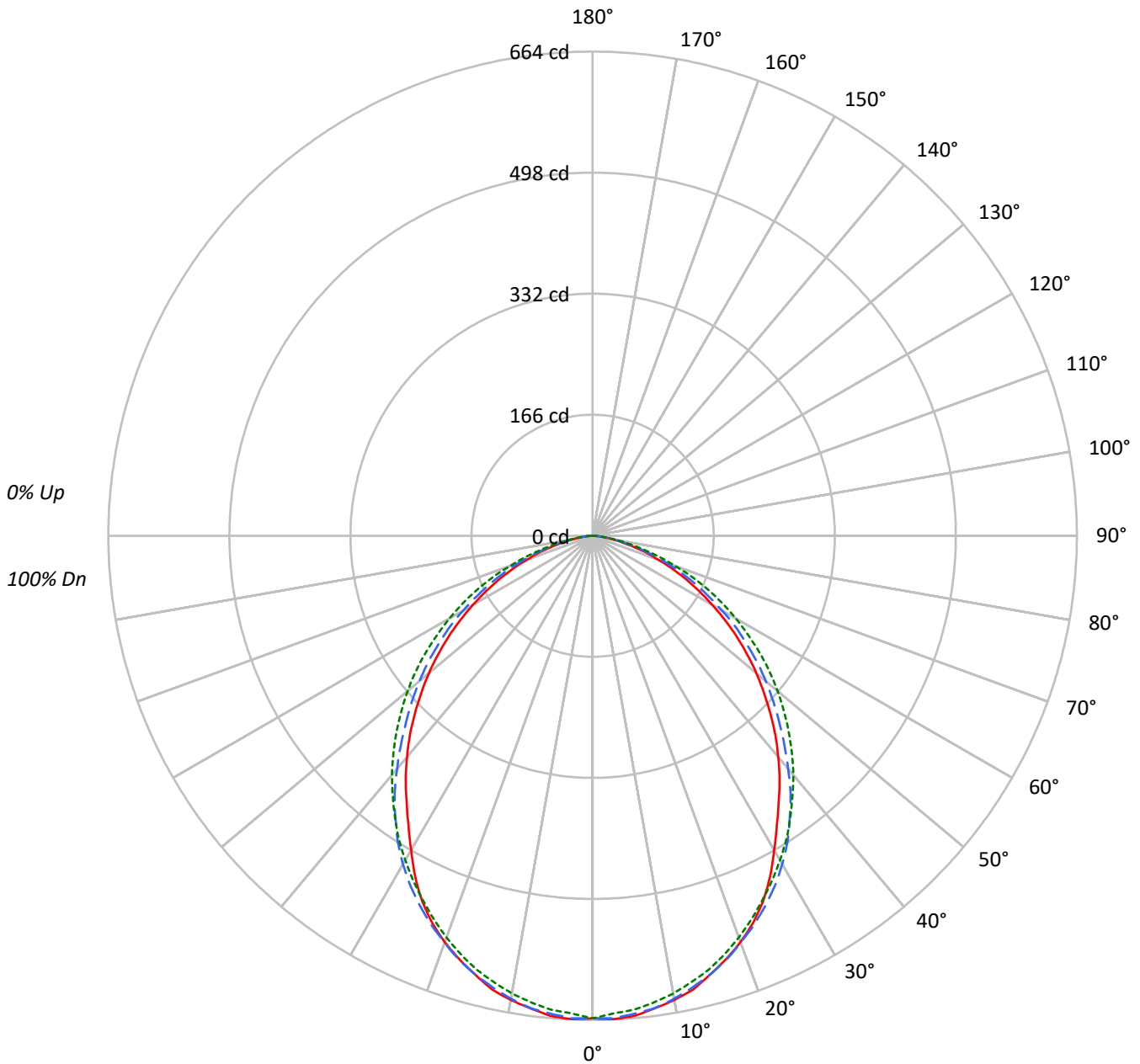
Lumens per Lamp: N/A  
Luminaire Lumens: 1530.0 lumens  
Efficiency: N/A  
Efficacy: 70.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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°	3561	3561	3561
5°	3571	3555	3525
10°	3533	3523	3483
15°	3470	3470	3431
20°	3397	3401	3357
25°	3284	3325	3273
30°	3093	3232	3192
35°	2923	3098	3103
40°	2781	2930	3008
45°	2621	2753	2895
50°	2454	2595	2771
55°	2263	2414	2622
60°	2039	2202	2438
65°	1799	1959	2217
70°	1500	1668	1884
75°	1179	1333	1474
80°	843	936	1041
85°	550	550	519



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.3	4.1
10°-20°	175.0	11.4
20°-30°	255.8	16.7
30°-40°	290.3	19.0
40°-50°	280.3	18.3
50°-60°	231.2	15.1
60°-70°	154.0	10.1
70°-80°	68.9	4.5
80°-90°	12.3	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°	493.1	32.2
0°-40°	783.4	51.2
0°-60°	1294.8	84.6
0°-90°	1530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	661	661	658	655	652	63
15°	623	624	623	620	616	176
25°	553	558	560	556	551	253
35°	445	451	472	474	472	279
45°	344	350	362	378	380	266
55°	241	245	257	272	279	215
65°	141	145	154	165	174	140
75°	57	60	64	67	71	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°	661.7	661.7	661.7	661.7	661.7
2.5°	663.5	663.7	662.2	658.1	655.6
5°	660.9	660.7	658.1	654.6	652.5
7.5°	653.6	654.1	653.3	648.2	645.4
10°	646.4	646.7	644.7	640.6	637.3
12.5°	637.3	637.0	634.2	632.2	626.9
15°	622.8	624.3	622.8	620.0	615.7
17.5°	608.8	608.8	609.8	605.0	601.7
20°	593.1	593.8	593.8	590.0	586.2
22.5°	574.7	577.0	577.8	573.7	569.2
25°	553.1	557.5	560.0	555.9	551.1
27.5°	527.0	533.6	541.2	538.1	532.8
30°	497.7	507.4	520.1	517.6	513.7
32.5°	470.0	479.7	497.2	496.2	494.2
35°	444.9	451.0	471.5	474.1	472.3
37.5°	421.0	426.5	445.9	451.7	450.2
40°	395.8	401.9	417.1	427.6	428.1
42.5°	370.9	376.7	389.2	404.2	404.2
45°	344.4	350.3	361.7	378.3	380.3
47.5°	318.5	324.6	335.8	352.3	355.6
50°	293.1	298.7	309.9	325.9	331.0
52.5°	266.7	272.8	283.7	298.4	305.8
55°	241.2	245.3	257.3	271.5	279.4
57.5°	214.8	218.6	232.1	244.3	252.4
60°	189.4	194.2	204.6	217.1	226.5
62.5°	165.0	170.1	179.0	189.9	200.6
65°	141.3	145.1	153.8	164.7	174.1
67.5°	118.5	121.8	130.4	138.0	147.9
70°	95.3	99.6	106.0	113.4	119.7
72.5°	76.8	78.5	83.9	89.2	95.8
75°	56.7	59.7	64.1	67.1	70.9
77.5°	40.7	42.5	45.0	47.5	51.1
80°	27.2	28.0	30.2	30.8	33.6
82.5°	16.5	17.0	17.5	17.8	18.8
85°	8.9	8.9	8.9	8.4	8.4
87.5°	5.1	5.1	4.3	3.6	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)