

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: P554568

Luminaire Tested: **FUSL-12-2-LD4-1STD-50-UNV-81-88-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: P554568  
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-50-UNV-81-88-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

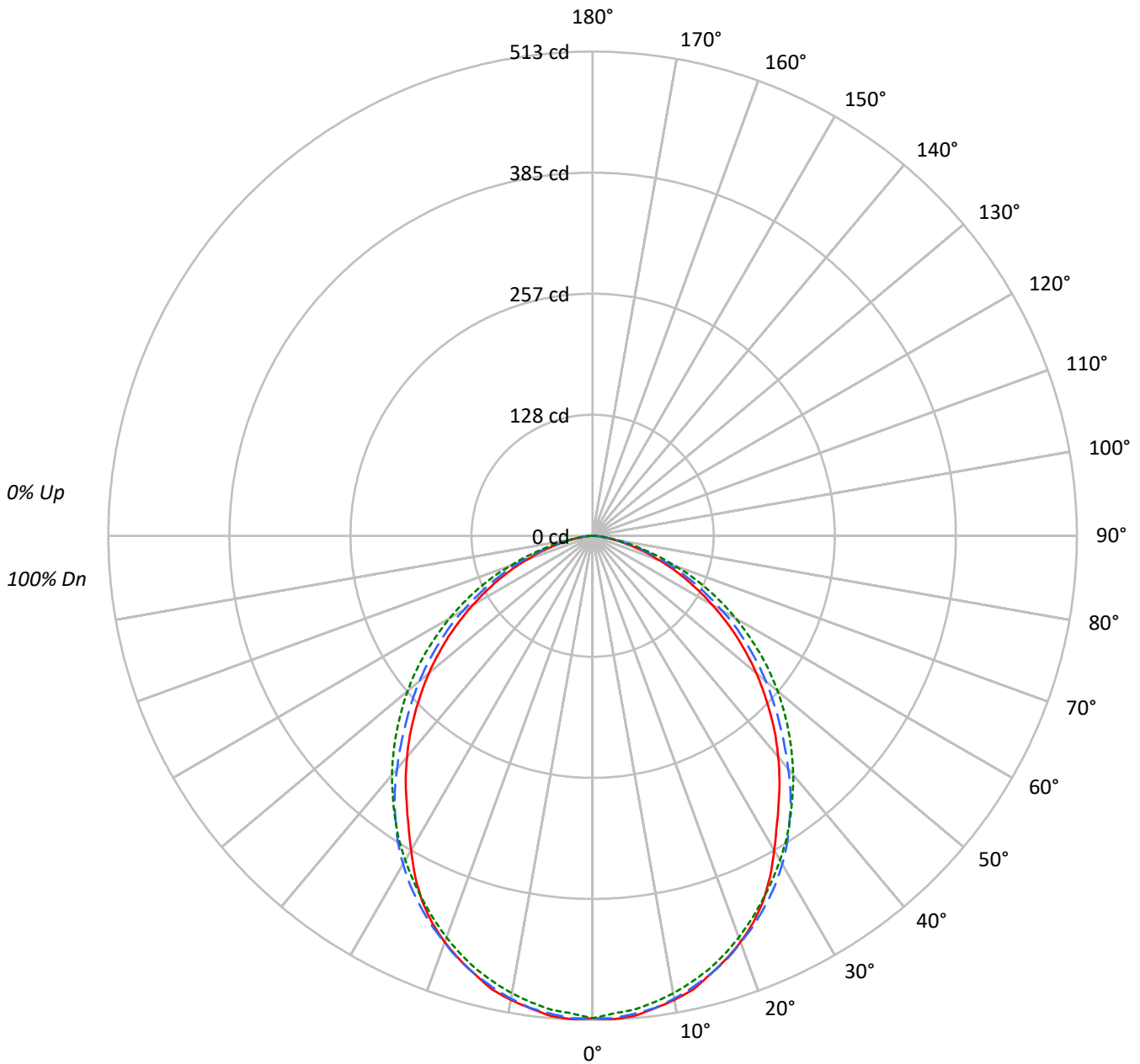
Lumens per Lamp: N/A  
Luminaire Lumens: 1182.0 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2751	2751	2751
5°	2759	2747	2723
10°	2729	2722	2690
15°	2681	2681	2650
20°	2624	2628	2594
25°	2537	2569	2529
30°	2389	2497	2467
35°	2258	2394	2397
40°	2148	2264	2323
45°	2025	2127	2236
50°	1896	2004	2141
55°	1749	1864	2025
60°	1575	1702	1884
65°	1391	1513	1713
70°	1158	1289	1456
75°	911	1029	1140
80°	651	725	803
85°	426	426	401



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.1	4.1
10°-20°	135.2	11.4
20°-30°	197.6	16.7
30°-40°	224.3	19.0
40°-50°	216.5	18.3
50°-60°	178.6	15.1
60°-70°	118.9	10.1
70°-80°	53.2	4.5
80°-90°	9.5	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°	380.9	32.2
0°-40°	605.2	51.2
0°-60°	1000.3	84.6
0°-90°	1182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1182.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	511	510	508	506	504	48
15°	481	482	481	479	476	136
25°	427	431	433	430	426	196
35°	344	348	364	366	365	215
45°	266	271	280	292	294	205
55°	186	190	199	210	216	166
65°	109	112	119	127	134	108
75°	44	46	50	52	55	48
85°	7	7	7	6	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	511.2	511.2	511.2	511.2	511.2
2.5°	512.6	512.8	511.6	508.4	506.5
5°	510.6	510.4	508.4	505.7	504.1
7.5°	504.9	505.3	504.7	500.8	498.6
10°	499.4	499.6	498.0	494.9	492.3
12.5°	492.3	492.1	490.0	488.4	484.3
15°	481.1	482.3	481.1	479.0	475.6
17.5°	470.3	470.3	471.1	467.4	464.8
20°	458.2	458.8	458.8	455.8	452.9
22.5°	444.0	445.8	446.4	443.2	439.7
25°	427.3	430.7	432.6	429.5	425.8
27.5°	407.1	412.2	418.1	415.7	411.6
30°	384.5	392.0	401.8	399.8	396.9
32.5°	363.1	370.6	384.1	383.3	381.8
35°	343.7	348.4	364.3	366.3	364.9
37.5°	325.2	329.5	344.5	349.0	347.8
40°	305.8	310.5	322.3	330.3	330.7
42.5°	286.5	291.0	300.7	312.2	312.2
45°	266.1	270.6	279.5	292.2	293.8
47.5°	246.1	250.8	259.4	272.2	274.7
50°	226.4	230.7	239.4	251.8	255.7
52.5°	206.0	210.7	219.2	230.6	236.2
55°	186.4	189.5	198.7	209.7	215.8
57.5°	165.9	168.9	179.3	188.7	195.0
60°	146.3	150.0	158.1	167.7	175.0
62.5°	127.5	131.4	138.3	146.7	154.9
65°	109.2	112.1	118.8	127.3	134.5
67.5°	91.5	94.1	100.7	106.6	114.3
70°	73.6	77.0	81.9	87.6	92.5
72.5°	59.3	60.7	64.8	68.9	74.0
75°	43.8	46.1	49.5	51.8	54.8
77.5°	31.4	32.8	34.8	36.7	39.5
80°	21.0	21.6	23.4	23.8	25.9
82.5°	12.8	13.2	13.6	13.7	14.5
85°	6.9	6.9	6.9	6.5	6.5
87.5°	3.9	3.9	3.3	2.7	2.0
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)