

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: P554372

Luminaire Tested: **FUSL-12-2-LD4-1STD-30-UNV-81-86-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: P554372  
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-30-UNV-81-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

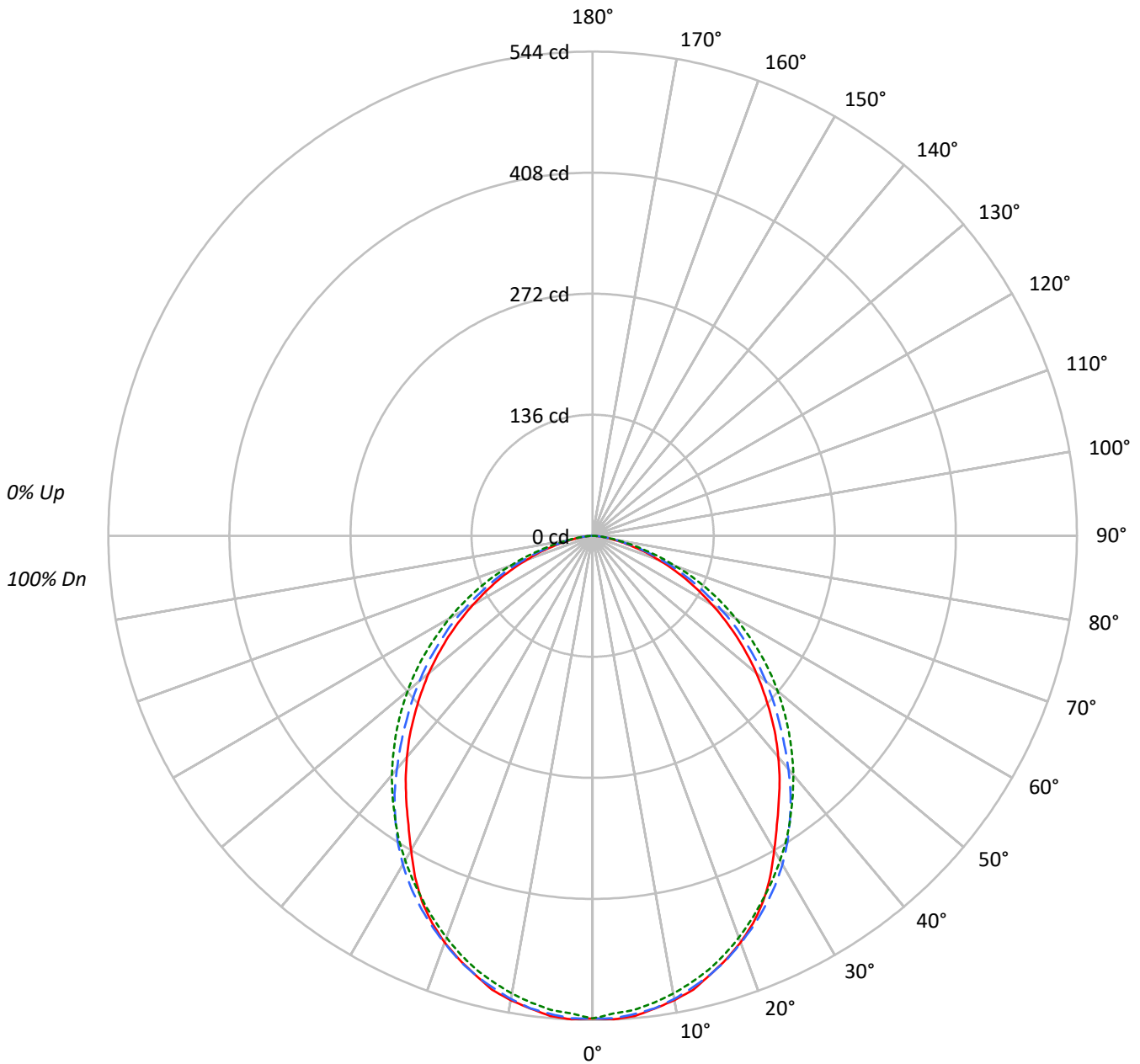
Lumens per Lamp: N/A  
Luminaire Lumens: 1254.0 lumens  
Efficiency: N/A  
Efficacy: 75.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (Ain): 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°	2919	2919	2919
5°	2927	2914	2889
10°	2895	2888	2854
15°	2844	2844	2812
20°	2784	2788	2751
25°	2692	2726	2682
30°	2535	2649	2617
35°	2395	2539	2543
40°	2279	2402	2465
45°	2149	2257	2372
50°	2011	2127	2272
55°	1855	1978	2149
60°	1671	1805	1998
65°	1475	1605	1817
70°	1229	1367	1544
75°	967	1092	1208
80°	691	769	852
85°	451	451	426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	4.1
10°-20°	143.4	11.4
20°-30°	209.6	16.7
30°-40°	237.9	19.0
40°-50°	229.7	18.3
50°-60°	189.5	15.1
60°-70°	126.2	10.1
70°-80°	56.5	4.5
80°-90°	10.1	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°	404.1	32.2
0°-40°	642.1	51.2
0°-60°	1061.3	84.6
0°-90°	1254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1254.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	542	542	539	536	535	51
15°	510	512	510	508	505	144
25°	453	457	459	456	452	208
35°	365	370	386	389	387	228
45°	282	287	296	310	312	218
55°	198	201	211	222	229	176
65°	116	119	126	135	143	115
75°	46	49	52	55	58	51
85°	7	7	7	7	7	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	542.3	542.3	542.3	542.3	542.3
2.5°	543.8	544.0	542.7	539.4	537.3
5°	541.7	541.5	539.4	536.5	534.8
7.5°	535.7	536.1	535.4	531.3	529.0
10°	529.8	530.0	528.4	525.0	522.3
12.5°	522.3	522.1	519.8	518.2	513.8
15°	510.4	511.7	510.4	508.2	504.6
17.5°	499.0	499.0	499.8	495.9	493.2
20°	486.1	486.7	486.7	483.6	480.4
22.5°	471.1	472.9	473.6	470.2	466.5
25°	453.4	456.9	459.0	455.7	451.7
27.5°	431.9	437.3	443.6	441.1	436.7
30°	407.9	415.9	426.3	424.2	421.1
32.5°	385.2	393.1	407.5	406.7	405.0
35°	364.6	369.6	386.5	388.6	387.1
37.5°	345.0	349.6	365.4	370.2	369.0
40°	324.4	329.4	341.9	350.4	350.9
42.5°	304.0	308.8	319.0	331.3	331.3
45°	282.3	287.1	296.5	310.0	311.7
47.5°	261.1	266.1	275.2	288.8	291.5
50°	240.2	244.8	254.0	267.1	271.3
52.5°	218.6	223.6	232.5	244.6	250.6
55°	197.7	201.1	210.8	222.5	229.0
57.5°	176.1	179.2	190.2	200.2	206.9
60°	155.2	159.2	167.7	177.9	185.6
62.5°	135.2	139.4	146.7	155.6	164.4
65°	115.8	119.0	126.0	135.0	142.7
67.5°	97.1	99.8	106.9	113.1	121.3
70°	78.1	81.7	86.9	92.9	98.1
72.5°	62.9	64.4	68.8	73.1	78.5
75°	46.5	49.0	52.5	55.0	58.1
77.5°	33.3	34.8	36.9	39.0	41.9
80°	22.3	22.9	24.8	25.2	27.5
82.5°	13.5	14.0	14.4	14.6	15.4
85°	7.3	7.3	7.3	6.9	6.9
87.5°	4.2	4.2	3.5	2.9	2.1
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)