

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: P554369

Luminaire Tested: **FUSL-12-2-LD4-1STD-30-UNV-81-84-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: P554369  
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-81-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

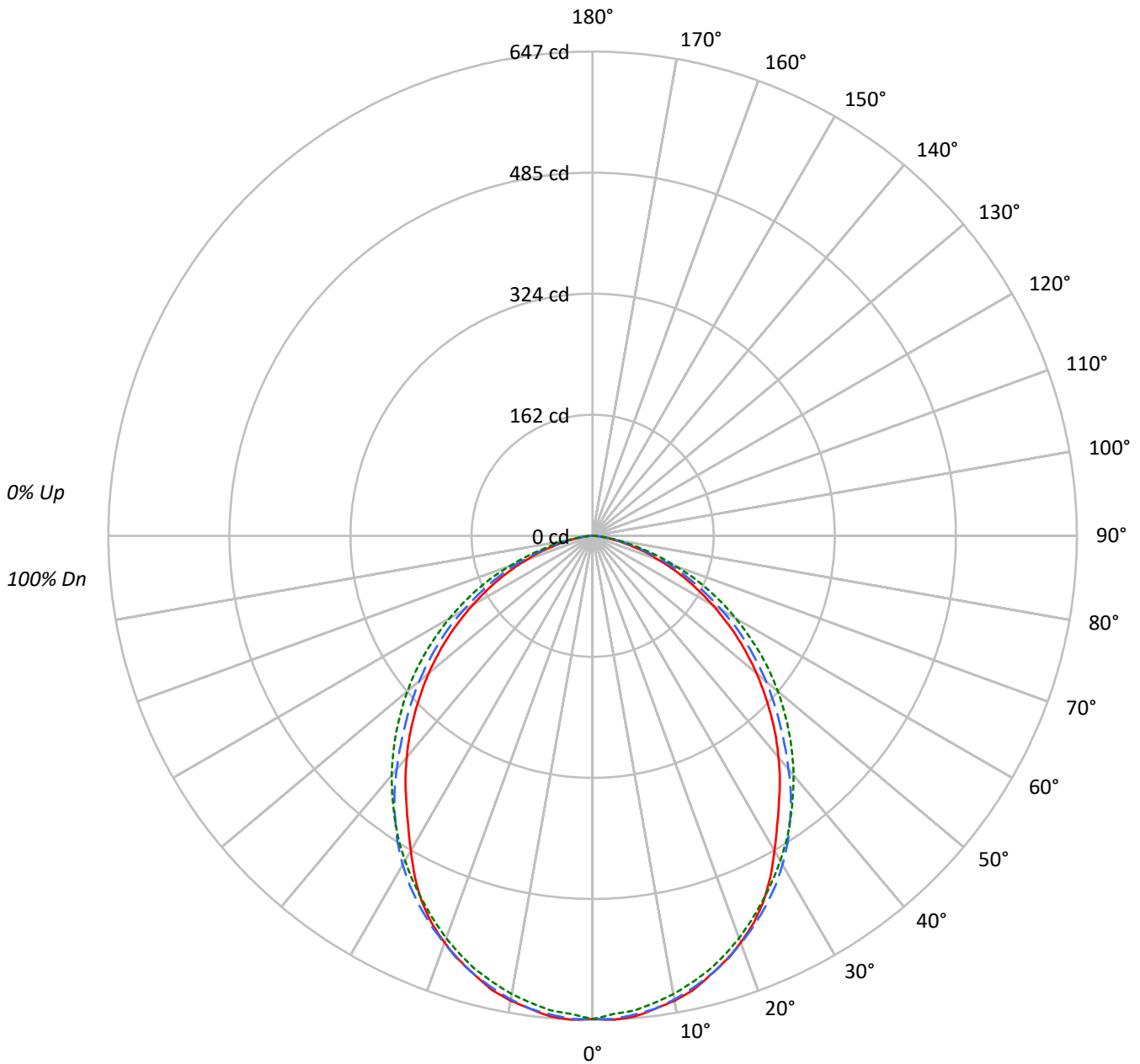
Lumens per Lamp: N/A  
Luminaire Lumens: 1493.0 lumens  
Efficiency: N/A  
Efficacy: 89.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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					20					
RC	80					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3475	3475	3475
5°	3484	3469	3440
10°	3447	3438	3399
15°	3386	3386	3348
20°	3314	3319	3276
25°	3206	3245	3194
30°	3018	3154	3115
35°	2852	3023	3028
40°	2713	2860	2935
45°	2558	2687	2825
50°	2395	2532	2704
55°	2209	2355	2558
60°	1989	2150	2379
65°	1756	1911	2164
70°	1463	1627	1838
75°	1150	1300	1439
80°	821	914	1013
85°	537	537	506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.8	4.1
10°-20°	170.8	11.4
20°-30°	249.6	16.7
30°-40°	283.3	19.0
40°-50°	273.5	18.3
50°-60°	225.6	15.1
60°-70°	150.2	10.1
70°-80°	67.2	4.5
80°-90°	12.0	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°	481.2	32.2
0°-40°	764.4	51.2
0°-60°	1263.5	84.6
0°-90°	1493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1493.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	645	645	642	639	637	61
15°	608	609	608	605	601	171
25°	540	544	546	542	538	247
35°	434	440	460	463	461	272
45°	336	342	353	369	371	259
55°	235	239	251	265	273	210
65°	138	142	150	161	170	137
75°	55	58	62	66	69	60
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°	645.7	645.7	645.7	645.7	645.7
2.5°	647.4	647.7	646.2	642.2	639.7
5°	644.9	644.7	642.2	638.7	636.8
7.5°	637.7	638.2	637.5	632.5	629.8
10°	630.8	631.0	629.1	625.1	621.9
12.5°	621.9	621.6	618.9	616.9	611.7
15°	607.7	609.2	607.7	605.0	600.8
17.5°	594.1	594.1	595.1	590.4	587.1
20°	578.7	579.5	579.5	575.7	572.0
22.5°	560.8	563.1	563.8	559.9	555.4
25°	539.8	544.0	546.5	542.5	537.8
27.5°	514.2	520.7	528.1	525.1	519.9
30°	485.7	495.1	507.5	505.0	501.3
32.5°	458.7	468.1	485.2	484.2	482.2
35°	434.1	440.0	460.1	462.6	460.9
37.5°	410.8	416.2	435.1	440.8	439.3
40°	386.2	392.2	407.1	417.2	417.7
42.5°	361.9	367.6	379.8	394.4	394.4
45°	336.1	341.8	353.0	369.1	371.1
47.5°	310.8	316.8	327.7	343.8	347.0
50°	286.0	291.5	302.4	318.0	323.0
52.5°	260.2	266.2	276.8	291.2	298.4
55°	235.4	239.4	251.0	264.9	272.6
57.5°	209.6	213.3	226.5	238.4	246.3
60°	184.8	189.5	199.7	211.8	221.0
62.5°	161.0	165.9	174.6	185.3	195.7
65°	137.9	141.6	150.1	160.7	169.9
67.5°	115.6	118.8	127.3	134.7	144.4
70°	93.0	97.2	103.4	110.6	116.8
72.5°	74.9	76.6	81.9	87.1	93.5
75°	55.3	58.3	62.5	65.5	69.2
77.5°	39.7	41.4	43.9	46.4	49.9
80°	26.5	27.3	29.5	30.0	32.7
82.5°	16.1	16.6	17.1	17.4	18.4
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)