

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: P554089

Luminaire Tested: **FUSL-12-2-LD4-1HI-50-UNV-93-88-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: P554089  
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-50-UNV-93-88-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

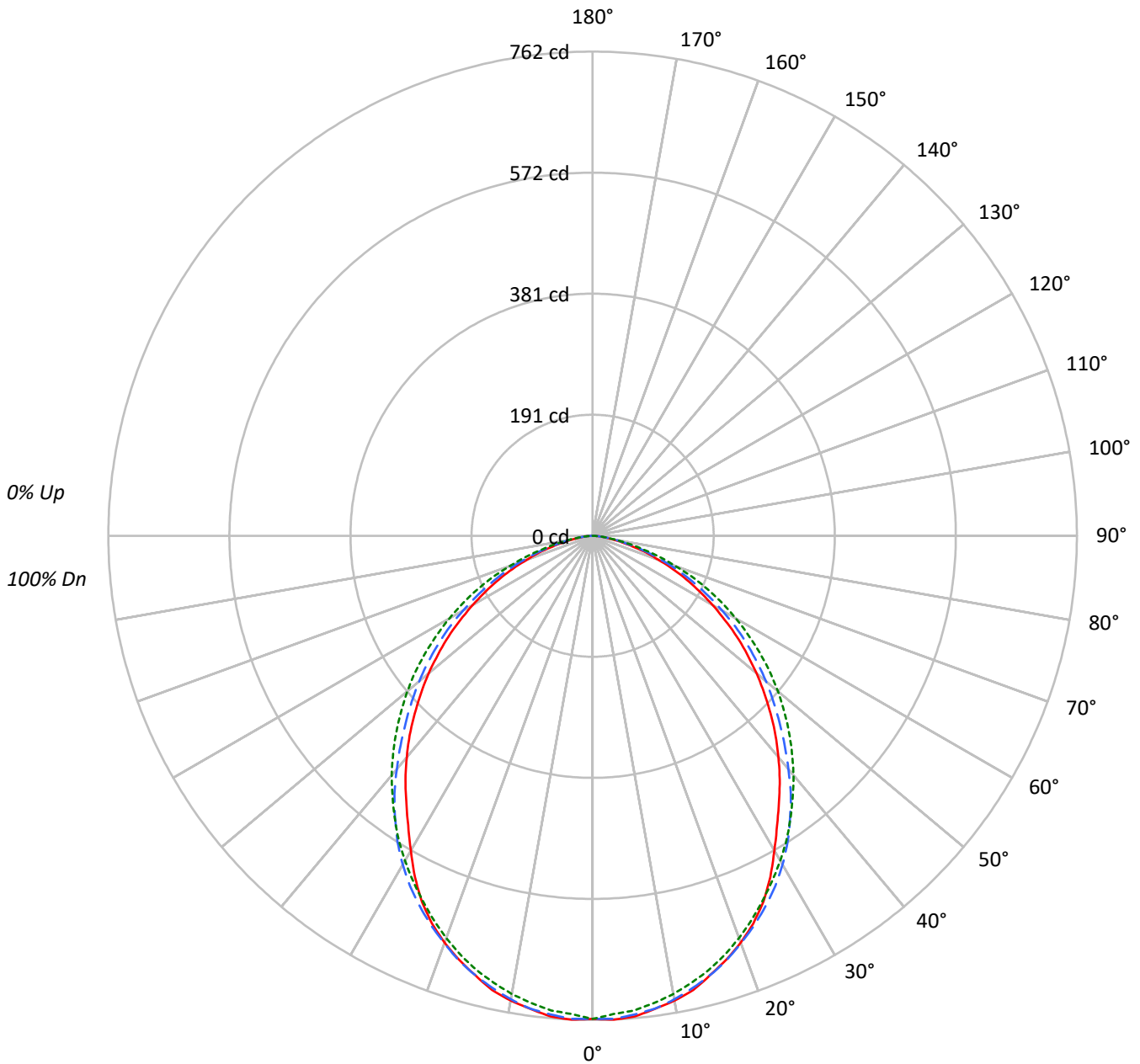
Lumens per Lamp: N/A  
Luminaire Lumens: 1758.0 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
Input Voltage (V): NR  
Input Current (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°	4092	4092	4092
5°	4103	4085	4051
10°	4059	4048	4001
15°	3987	3987	3942
20°	3903	3908	3857
25°	3774	3821	3760
30°	3554	3714	3668
35°	3358	3560	3566
40°	3195	3367	3456
45°	3013	3163	3326
50°	2820	2981	3184
55°	2601	2774	3012
60°	2342	2531	2801
65°	2068	2250	2548
70°	1723	1917	2165
75°	1354	1530	1695
80°	970	1079	1196
85°	630	630	593



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.6	4.1
10°-20°	201.1	11.4
20°-30°	293.9	16.7
30°-40°	333.6	19.0
40°-50°	322.0	18.3
50°-60°	265.6	15.1
60°-70°	176.9	10.1
70°-80°	79.2	4.5
80°-90°	14.2	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°	566.5	32.2
0°-40°	900.1	51.2
0°-60°	1487.8	84.6
0°-90°	1758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1758.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	760	760	760	760	760	
5°	759	759	756	752	750	72
15°	716	717	716	712	707	202
25°	636	640	644	639	633	291
35°	511	518	542	545	543	320
45°	396	402	416	435	437	305
55°	277	282	296	312	321	247
65°	162	167	177	189	200	161
75°	65	69	74	77	82	71
85°	10	10	10	10	10	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	760.3	760.3	760.3	760.3	760.3
2.5°	762.3	762.6	760.9	756.2	753.3
5°	759.4	759.1	756.2	752.1	749.8
7.5°	750.9	751.5	750.7	744.8	741.6
10°	742.8	743.1	740.7	736.0	732.2
12.5°	732.2	732.0	728.7	726.4	720.3
15°	715.6	717.4	715.6	712.4	707.4
17.5°	699.5	699.5	700.7	695.2	691.4
20°	681.4	682.3	682.3	677.9	673.5
22.5°	660.4	663.0	663.9	659.2	654.0
25°	635.6	640.5	643.5	638.8	633.2
27.5°	605.5	613.1	621.8	618.3	612.2
30°	571.9	583.0	597.6	594.7	590.3
32.5°	540.1	551.2	571.3	570.1	567.8
35°	511.1	518.2	541.8	544.7	542.7
37.5°	483.7	490.1	512.3	519.0	517.3
40°	454.8	461.8	479.3	491.3	491.9
42.5°	426.1	432.9	447.2	464.4	464.4
45°	395.8	402.5	415.6	434.6	437.0
47.5°	366.0	373.0	385.8	404.8	408.6
50°	336.8	343.2	356.0	374.4	380.3
52.5°	306.4	313.4	326.0	342.9	351.4
55°	277.2	281.9	295.6	311.9	321.0
57.5°	246.8	251.2	266.7	280.7	290.0
60°	217.6	223.2	235.1	249.4	260.2
62.5°	189.6	195.4	205.6	218.2	230.5
65°	162.4	166.8	176.7	189.3	200.1
67.5°	136.1	139.9	149.8	158.6	170.0
70°	109.5	114.5	121.8	130.3	137.6
72.5°	88.2	90.3	96.4	102.5	110.1
75°	65.1	68.6	73.6	77.1	81.5
77.5°	46.7	48.8	51.7	54.6	58.7
80°	31.3	32.1	34.8	35.3	38.6
82.5°	19.0	19.6	20.2	20.4	21.6
85°	10.2	10.2	10.2	9.6	9.6
87.5°	5.8	5.8	5.0	4.1	2.9
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)