

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: P554901

Luminaire Tested: **FUSL-12-2-LD4-2LO-30-UNV-82-86-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: P554901  
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-LD4-2LO-30-UNV-82-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

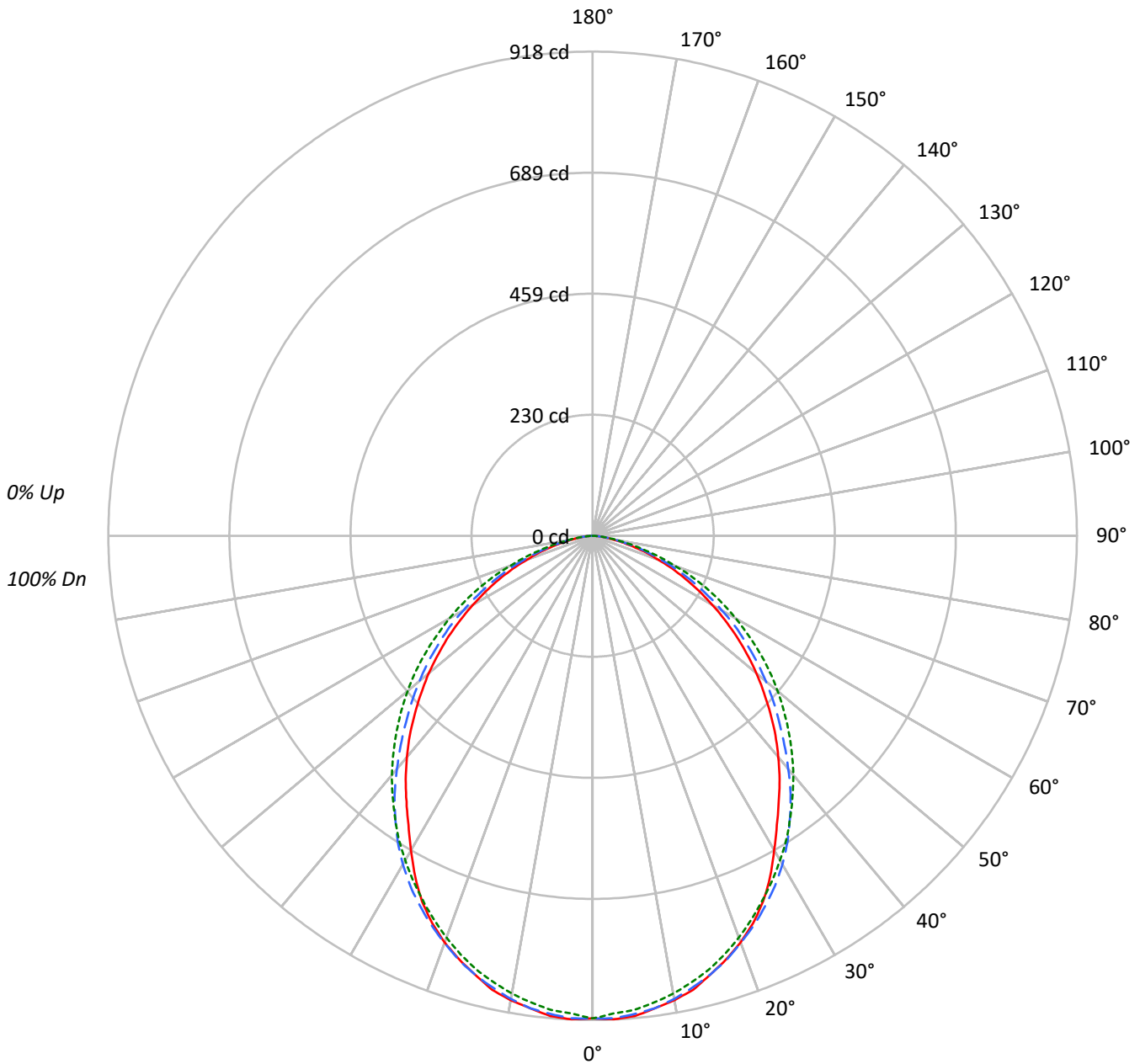
Lumens per Lamp: N/A  
Luminaire Lumens: 2116.0 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	4925	4925	4925
5°	4938	4917	4876
10°	4886	4873	4817
15°	4799	4799	4744
20°	4698	4703	4643
25°	4543	4599	4526
30°	4278	4470	4415
35°	4042	4284	4292
40°	3846	4053	4159
45°	3626	3808	4003
50°	3394	3589	3832
55°	3130	3339	3626
60°	2819	3046	3371
65°	2490	2709	3067
70°	2074	2307	2606
75°	1630	1842	2040
80°	1165	1296	1438
85°	760	760	716



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	4.1
10°-20°	242.0	11.4
20°-30°	353.7	16.7
30°-40°	401.5	19.0
40°-50°	387.6	18.3
50°-60°	319.7	15.1
60°-70°	212.9	10.1
70°-80°	95.3	4.5
80°-90°	17.0	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°	681.9	32.2
0°-40°	1083.4	51.2
0°-60°	1790.8	84.6
0°-90°	2116.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2116.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	914	914	910	905	902	87
15°	861	863	861	858	852	243
25°	765	771	774	769	762	350
35°	615	624	652	656	653	385
45°	476	484	500	523	526	368
55°	334	339	356	376	386	298
65°	196	201	213	228	241	194
75°	78	83	89	93	98	86
85°	12	12	12	12	12	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	915.1	915.1	915.1	915.1	915.1
2.5°	917.6	917.9	915.8	910.2	906.7
5°	914.1	913.7	910.2	905.3	902.5
7.5°	903.9	904.6	903.5	896.5	892.6
10°	894.0	894.4	891.6	885.9	881.4
12.5°	881.4	881.0	877.1	874.3	867.0
15°	861.3	863.4	861.3	857.5	851.5
17.5°	842.0	842.0	843.4	836.7	832.1
20°	820.2	821.2	821.2	816.0	810.7
22.5°	794.9	798.0	799.1	793.5	787.1
25°	765.0	771.0	774.5	768.9	762.2
27.5°	728.8	737.9	748.5	744.3	736.9
30°	688.4	701.7	719.3	715.8	710.5
32.5°	650.0	663.4	687.7	686.2	683.4
35°	615.2	623.7	652.1	655.7	653.2
37.5°	582.2	589.9	616.6	624.7	622.6
40°	547.4	555.8	576.9	591.3	592.0
42.5°	512.9	521.0	538.2	559.0	559.0
45°	476.4	484.5	500.3	523.1	525.9
47.5°	440.5	448.9	464.4	487.3	491.8
50°	405.4	413.1	428.6	450.7	457.7
52.5°	368.8	377.2	392.3	412.7	422.9
55°	333.6	339.3	355.8	375.5	386.4
57.5°	297.1	302.3	321.0	337.9	349.1
60°	261.9	268.6	283.0	300.2	313.2
62.5°	228.2	235.2	247.5	262.6	277.4
65°	195.5	200.7	212.7	227.8	240.8
67.5°	163.8	168.4	180.4	190.9	204.6
70°	131.8	137.8	146.6	156.8	165.6
72.5°	106.2	108.6	116.0	123.4	132.5
75°	78.4	82.6	88.6	92.8	98.1
77.5°	56.2	58.7	62.2	65.7	70.7
80°	37.6	38.7	41.8	42.5	46.4
82.5°	22.9	23.6	24.3	24.6	26.0
85°	12.3	12.3	12.3	11.6	11.6
87.5°	7.0	7.0	6.0	4.9	3.5
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)