

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: P554514

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-82-85-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: P554514  
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-40-UNV-82-85-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

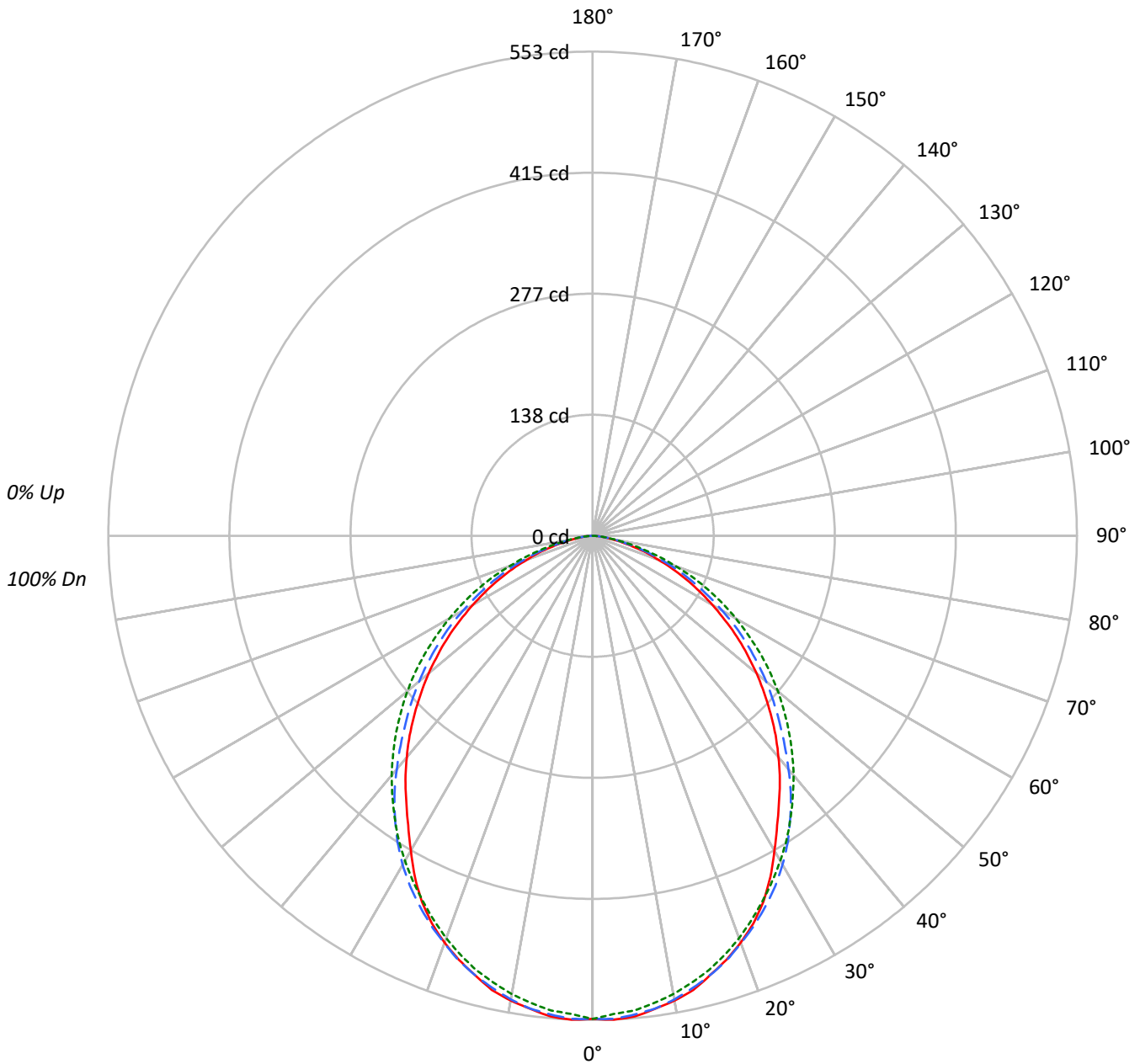
Lumens per Lamp: N/A  
Luminaire Lumens: 1276.0 lumens  
Efficiency: N/A  
Efficacy: 76.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (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°	2970	2970	2970
5°	2978	2965	2940
10°	2946	2938	2905
15°	2894	2894	2861
20°	2833	2836	2800
25°	2739	2773	2729
30°	2580	2696	2663
35°	2438	2584	2588
40°	2319	2444	2508
45°	2187	2296	2414
50°	2046	2164	2311
55°	1888	2013	2186
60°	1700	1837	2033
65°	1501	1634	1849
70°	1251	1391	1572
75°	984	1110	1229
80°	704	781	868
85°	457	457	432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.0	4.1
10°-20°	146.0	11.4
20°-30°	213.3	16.7
30°-40°	242.1	19.0
40°-50°	233.7	18.3
50°-60°	192.8	15.1
60°-70°	128.4	10.1
70°-80°	57.4	4.5
80°-90°	10.3	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°	411.2	32.2
0°-40°	653.3	51.2
0°-60°	1079.9	84.6
0°-90°	1276.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1276.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	551	551	549	546	544	52
15°	519	521	519	517	514	146
25°	461	465	467	464	460	211
35°	371	376	393	395	394	232
45°	287	292	302	316	317	222
55°	201	205	214	226	233	180
65°	118	121	128	137	145	117
75°	47	50	53	56	59	52
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°	551.8	551.8	551.8	551.8	551.8
2.5°	553.3	553.5	552.3	548.9	546.7
5°	551.2	551.0	548.9	545.9	544.2
7.5°	545.1	545.5	544.8	540.6	538.3
10°	539.1	539.3	537.6	534.2	531.5
12.5°	531.5	531.3	528.9	527.2	522.8
15°	519.4	520.7	519.4	517.1	513.5
17.5°	507.7	507.7	508.6	504.6	501.8
20°	494.6	495.2	495.2	492.1	488.9
22.5°	479.3	481.2	481.9	478.5	474.7
25°	461.3	464.9	467.0	463.6	459.6
27.5°	439.5	445.0	451.3	448.8	444.4
30°	415.1	423.2	433.8	431.6	428.5
32.5°	392.0	400.0	414.7	413.8	412.1
35°	371.0	376.1	393.3	395.4	393.9
37.5°	351.1	355.7	371.8	376.7	375.5
40°	330.1	335.2	347.9	356.6	357.0
42.5°	309.3	314.2	324.6	337.1	337.1
45°	287.3	292.1	301.7	315.5	317.2
47.5°	265.6	270.7	280.1	293.8	296.6
50°	244.4	249.1	258.4	271.8	276.0
52.5°	222.4	227.5	236.6	248.9	255.0
55°	201.2	204.6	214.5	226.4	233.0
57.5°	179.1	182.3	193.6	203.7	210.5
60°	157.9	162.0	170.7	181.0	188.9
62.5°	137.6	141.8	149.2	158.4	167.3
65°	117.9	121.1	128.3	137.4	145.2
67.5°	98.8	101.5	108.8	115.1	123.4
70°	79.5	83.1	88.4	94.6	99.9
72.5°	64.0	65.5	70.0	74.4	79.9
75°	47.3	49.8	53.4	56.0	59.1
77.5°	33.9	35.4	37.5	39.6	42.6
80°	22.7	23.3	25.2	25.7	28.0
82.5°	13.8	14.2	14.6	14.8	15.7
85°	7.4	7.4	7.4	7.0	7.0
87.5°	4.2	4.2	3.6	3.0	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)