

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: P554510

Luminaire Tested: **FUSL-12-2-LD4-1STD-40-UNV-81-97-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: P554510  
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-81-97-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

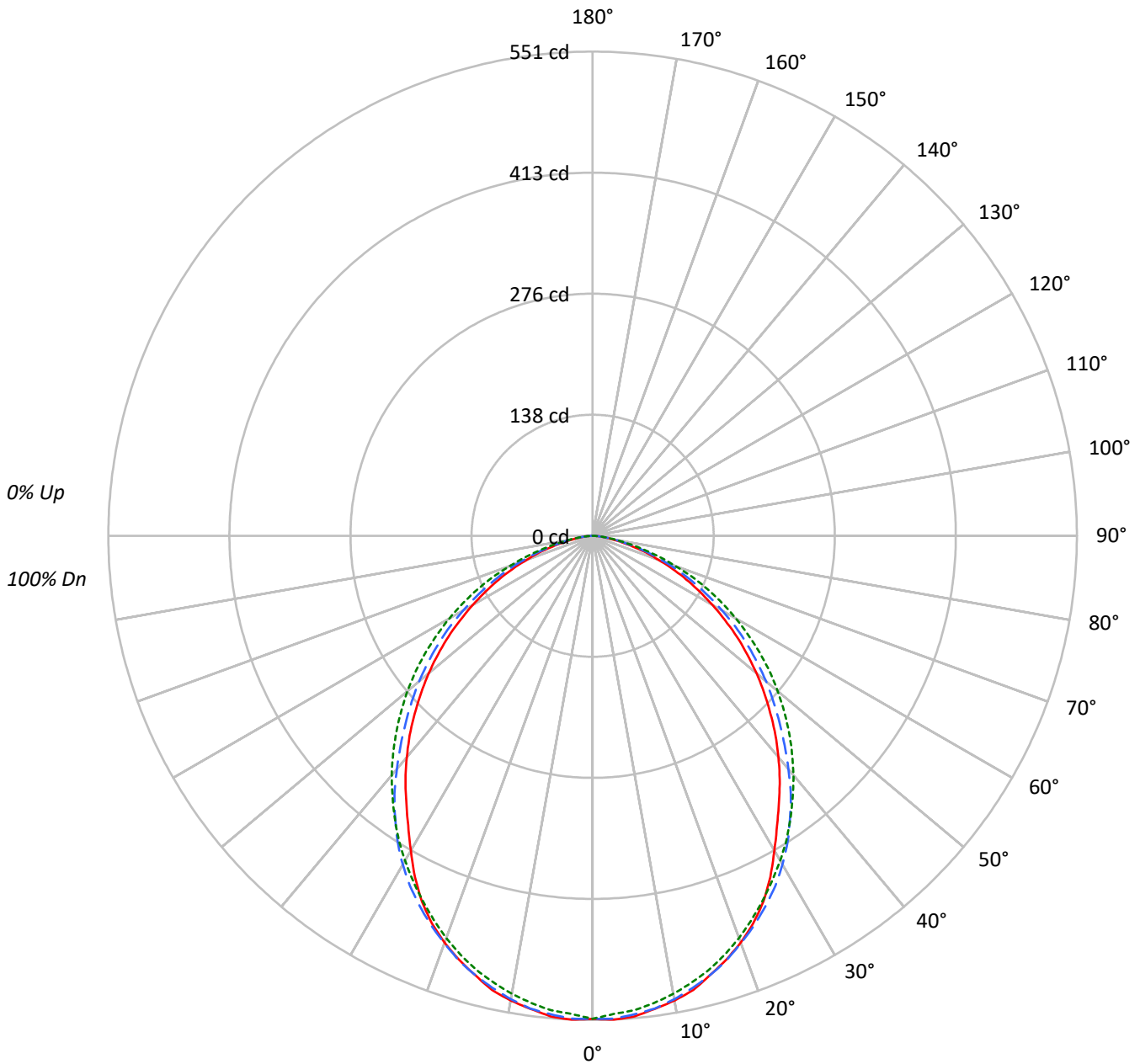
Lumens per Lamp: N/A  
Luminaire Lumens: 1271.0 lumens  
Efficiency: N/A  
Efficacy: 76.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2958	2958	2958
5°	2966	2954	2929
10°	2935	2926	2893
15°	2883	2883	2850
20°	2822	2825	2789
25°	2729	2763	2719
30°	2570	2685	2652
35°	2428	2574	2578
40°	2310	2434	2498
45°	2178	2287	2404
50°	2039	2155	2302
55°	1880	2005	2178
60°	1693	1830	2026
65°	1495	1628	1843
70°	1246	1386	1566
75°	979	1106	1225
80°	700	778	865
85°	457	457	432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.8	4.1
10°-20°	145.4	11.4
20°-30°	212.5	16.7
30°-40°	241.2	19.0
40°-50°	232.8	18.3
50°-60°	192.0	15.1
60°-70°	127.9	10.1
70°-80°	57.2	4.5
80°-90°	10.2	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°	409.6	32.2
0°-40°	650.8	51.2
0°-60°	1075.6	84.6
0°-90°	1271.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1271.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	549	549	547	544	542	52
15°	517	519	517	515	512	146
25°	460	463	465	462	458	210
35°	370	375	392	394	392	232
45°	286	291	300	314	316	221
55°	200	204	214	226	232	179
65°	117	121	128	137	145	116
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°	549.7	549.7	549.7	549.7	549.7
2.5°	551.2	551.4	550.1	546.7	544.6
5°	549.0	548.8	546.7	543.8	542.1
7.5°	542.9	543.3	542.7	538.5	536.2
10°	537.0	537.2	535.5	532.1	529.4
12.5°	529.4	529.2	526.9	525.2	520.7
15°	517.4	518.6	517.4	515.0	511.5
17.5°	505.8	505.8	506.6	502.6	499.8
20°	492.7	493.3	493.3	490.1	487.0
22.5°	477.5	479.4	480.0	476.6	472.8
25°	459.5	463.1	465.2	461.8	457.8
27.5°	437.8	443.2	449.6	447.0	442.6
30°	413.5	421.5	432.1	429.9	426.8
32.5°	390.5	398.5	413.0	412.2	410.5
35°	369.5	374.6	391.7	393.8	392.4
37.5°	349.7	354.3	370.4	375.2	374.0
40°	328.8	333.9	346.5	355.2	355.6
42.5°	308.1	313.0	323.3	335.8	335.8
45°	286.1	291.0	300.5	314.2	315.9
47.5°	264.6	269.7	279.0	292.7	295.4
50°	243.5	248.1	257.4	270.7	274.9
52.5°	221.5	226.6	235.7	247.9	254.0
55°	200.4	203.8	213.7	225.5	232.1
57.5°	178.4	181.6	192.8	202.9	209.7
60°	157.3	161.3	170.0	180.3	188.2
62.5°	137.0	141.3	148.7	157.7	166.6
65°	117.4	120.6	127.8	136.8	144.7
67.5°	98.4	101.2	108.3	114.7	122.9
70°	79.2	82.8	88.1	94.2	99.5
72.5°	63.8	65.3	69.7	74.1	79.6
75°	47.1	49.6	53.2	55.7	58.9
77.5°	33.8	35.3	37.4	39.5	42.4
80°	22.6	23.2	25.1	25.6	27.9
82.5°	13.7	14.1	14.6	14.8	15.6
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)