

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: P557994

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-94-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: P557994  
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-12-4-LD4-3LO-30-UNV-93-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE  
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

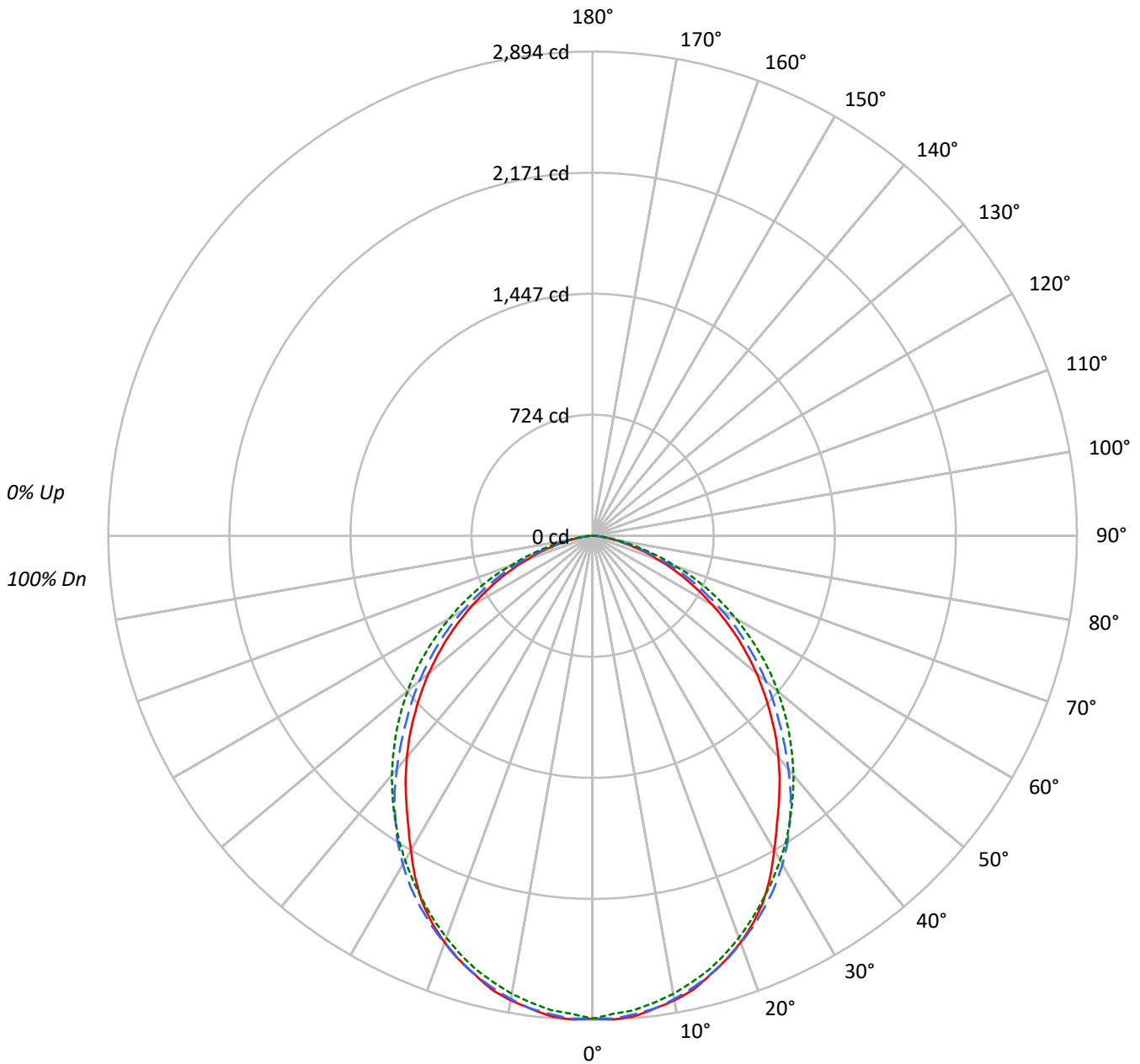
Lumens per Lamp: N/A  
Luminaire Lumens: 6673.0 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	7766	7766	7766
5°	7787	7754	7688
10°	7704	7683	7595
15°	7567	7567	7481
20°	7407	7417	7321
25°	7163	7252	7137
30°	6745	7049	6962
35°	6374	6756	6767
40°	6064	6391	6558
45°	5717	6004	6312
50°	5352	5658	6043
55°	4936	5264	5716
60°	4445	4803	5316
65°	3925	4271	4835
70°	3271	3637	4109
75°	2570	2905	3216
80°	1838	2044	2267
85°	1198	1198	1130



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.7	4.1
10°-20°	763.3	11.4
20°-30°	1115.5	16.7
30°-40°	1266.2	19.0
40°-50°	1222.3	18.3
50°-60°	1008.3	15.1
60°-70°	671.5	10.1
70°-80°	300.5	4.5
80°-90°	53.8	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°	2150.5	32.2
0°-40°	3416.7	51.2
0°-60°	5647.3	84.6
0°-90°	6673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6673.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2886	2886	2886	2886	2886	
5°	2883	2882	2870	2855	2846	273
15°	2716	2723	2716	2704	2685	766
25°	2412	2431	2442	2425	2404	1105
35°	1940	1967	2057	2068	2060	1216
45°	1502	1528	1578	1650	1659	1159
55°	1052	1070	1122	1184	1218	939
65°	616	633	671	718	759	611
75°	247	260	279	293	309	270
85°	39	39	39	37	37	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2885.9	2885.9	2885.9	2885.9	2885.9
2.5°	2893.7	2894.8	2888.1	2870.4	2859.3
5°	2882.6	2881.5	2870.4	2854.9	2846.0
7.5°	2850.4	2852.6	2849.3	2827.1	2814.9
10°	2819.4	2820.5	2811.6	2793.9	2779.5
12.5°	2779.5	2778.4	2766.2	2757.3	2734.0
15°	2716.3	2722.9	2716.3	2704.1	2685.2
17.5°	2655.3	2655.3	2659.7	2638.7	2624.3
20°	2586.6	2589.9	2589.9	2573.3	2556.6
22.5°	2506.7	2516.7	2520.0	2502.3	2482.3
25°	2412.5	2431.3	2442.4	2424.7	2403.6
27.5°	2298.3	2327.1	2360.4	2347.1	2323.8
30°	2170.8	2212.9	2268.4	2257.3	2240.6
32.5°	2050.0	2092.1	2168.6	2164.1	2155.3
35°	1940.2	1966.8	2056.6	2067.7	2059.9
37.5°	1836.0	1860.4	1944.6	1970.1	1963.5
40°	1726.2	1752.8	1819.3	1864.8	1867.0
42.5°	1617.6	1643.1	1697.4	1762.8	1762.8
45°	1502.3	1527.8	1577.7	1649.7	1658.6
47.5°	1389.2	1415.8	1464.6	1536.6	1551.0
50°	1278.3	1302.7	1351.5	1421.3	1443.5
52.5°	1163.0	1189.6	1237.3	1301.6	1333.7
55°	1052.1	1069.9	1122.0	1184.1	1218.4
57.5°	936.8	953.5	1012.2	1065.4	1100.9
60°	826.0	847.0	892.5	946.8	987.8
62.5°	719.5	741.7	780.5	828.2	874.8
65°	616.4	633.1	670.8	718.4	759.4
67.5°	516.6	531.1	568.8	602.0	645.3
70°	415.8	434.6	462.3	494.5	522.2
72.5°	334.8	342.6	365.9	389.1	418.0
75°	247.2	260.5	279.4	292.7	309.3
77.5°	177.4	185.1	196.2	207.3	222.8
80°	118.6	122.0	131.9	134.2	146.3
82.5°	72.1	74.3	76.5	77.6	82.0
85°	38.8	38.8	38.8	36.6	36.6
87.5°	22.2	22.2	18.8	15.5	11.1
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)