

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: P558058

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-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: P558058  
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-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

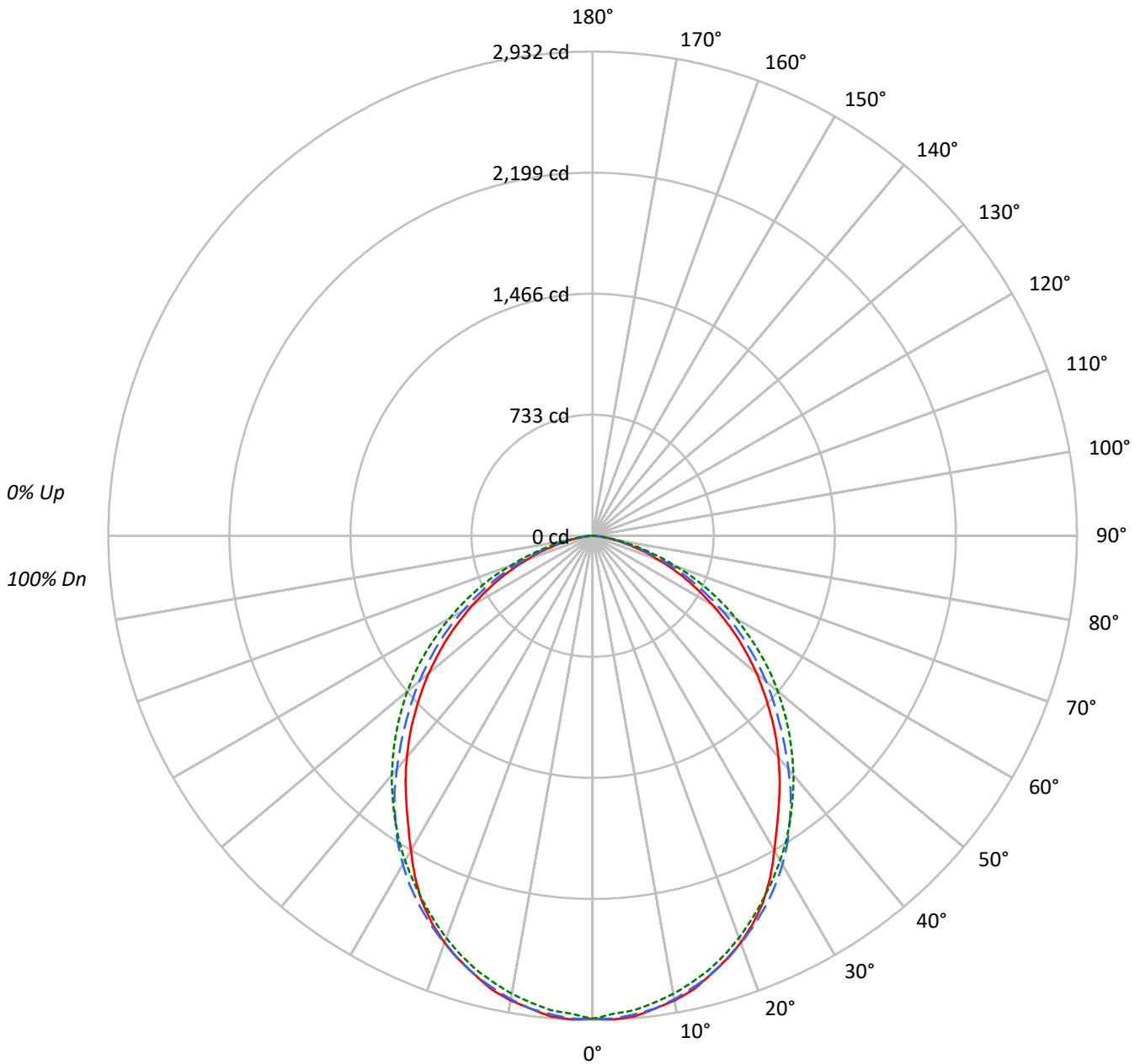
Lumens per Lamp: N/A  
Luminaire Lumens: 6762.0 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7869	7869	7869
5°	7890	7857	7790
10°	7807	7785	7696
15°	7668	7668	7580
20°	7506	7515	7419
25°	7259	7349	7232
30°	6835	7142	7055
35°	6459	6846	6857
40°	6145	6476	6646
45°	5793	6084	6396
50°	5423	5733	6124
55°	5002	5334	5793
60°	4505	4867	5387
65°	3977	4328	4900
70°	3315	3686	4164
75°	2604	2943	3258
80°	1863	2072	2298
85°	1213	1213	1145



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.3	4.1
10°-20°	773.5	11.4
20°-30°	1130.4	16.7
30°-40°	1283.1	19.0
40°-50°	1238.6	18.3
50°-60°	1021.8	15.1
60°-70°	680.4	10.1
70°-80°	304.5	4.5
80°-90°	54.5	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°	2179.2	32.2
0°-40°	3462.3	51.2
0°-60°	5722.6	84.6
0°-90°	6762.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6762.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2924	2924	2924	2924	2924	
5°	2921	2920	2909	2893	2884	276
15°	2752	2759	2752	2740	2721	776
25°	2445	2464	2475	2457	2436	1120
35°	1966	1993	2084	2095	2087	1232
45°	1522	1548	1599	1672	1681	1175
55°	1066	1084	1137	1200	1235	952
65°	625	642	680	728	770	619
75°	250	264	283	297	313	274
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2924.4	2924.4	2924.4	2924.4	2924.4
2.5°	2932.3	2933.4	2926.6	2908.7	2897.4
5°	2921.0	2919.9	2908.7	2892.9	2883.9
7.5°	2888.4	2890.7	2887.3	2864.8	2852.5
10°	2857.0	2858.1	2849.1	2831.1	2816.5
12.5°	2816.5	2815.4	2803.1	2794.1	2770.5
15°	2752.5	2759.2	2752.5	2740.1	2721.0
17.5°	2690.7	2690.7	2695.2	2673.9	2659.3
20°	2621.1	2624.4	2624.4	2607.6	2590.7
22.5°	2540.2	2550.3	2553.6	2535.7	2515.4
25°	2444.7	2463.8	2475.0	2457.0	2435.7
27.5°	2329.0	2358.2	2391.9	2378.4	2354.8
30°	2199.8	2242.4	2298.6	2287.4	2270.5
32.5°	2077.3	2120.0	2197.5	2193.0	2184.0
35°	1966.1	1993.0	2084.0	2095.3	2087.4
37.5°	1860.5	1885.2	1970.6	1996.4	1989.7
40°	1749.2	1776.2	1843.6	1889.7	1891.9
42.5°	1639.1	1665.0	1720.0	1786.3	1786.3
45°	1522.3	1548.1	1598.7	1671.7	1680.7
47.5°	1407.7	1434.7	1484.1	1557.1	1571.7
50°	1295.4	1320.1	1369.5	1440.3	1462.8
52.5°	1178.5	1205.5	1253.8	1319.0	1351.5
55°	1066.2	1084.1	1137.0	1199.9	1234.7
57.5°	949.3	966.2	1025.7	1079.7	1115.6
60°	837.0	858.3	904.4	959.4	1001.0
62.5°	729.1	751.6	790.9	839.2	886.4
65°	624.6	641.5	679.7	728.0	769.6
67.5°	523.5	538.1	576.3	610.0	653.9
70°	421.3	440.4	468.5	501.1	529.2
72.5°	339.3	347.2	370.7	394.3	423.5
75°	250.5	264.0	283.1	296.6	313.4
77.5°	179.8	187.6	198.9	210.1	225.8
80°	120.2	123.6	133.7	135.9	148.3
82.5°	73.0	75.3	77.5	78.6	83.1
85°	39.3	39.3	39.3	37.1	37.1
87.5°	22.5	22.5	19.1	15.7	11.2
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)