

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: P558026

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-94-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: P558026  
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-81-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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**

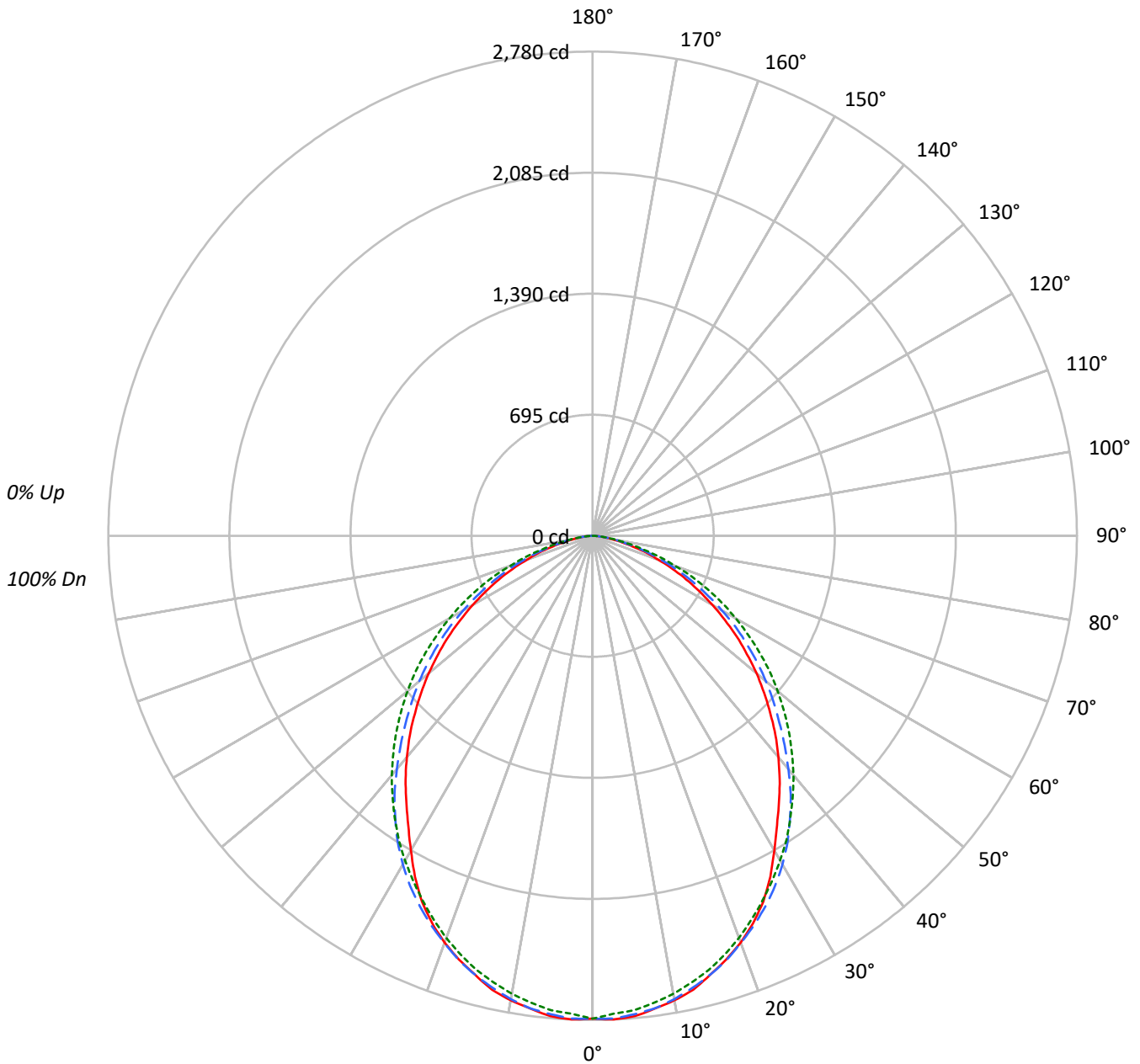
Lumens per Lamp: N/A  
Luminaire Lumens: 6411.0 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7461	7461	7461
5°	7481	7449	7386
10°	7401	7381	7297
15°	7270	7270	7187
20°	7116	7125	7034
25°	6882	6967	6857
30°	6481	6772	6689
35°	6123	6491	6501
40°	5826	6140	6301
45°	5493	5768	6064
50°	5141	5436	5806
55°	4742	5057	5492
60°	4271	4614	5108
65°	3771	4103	4646
70°	3142	3495	3947
75°	2469	2791	3090
80°	1767	1965	2179
85°	1152	1152	1087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.0	4.1
10°-20°	733.4	11.4
20°-30°	1071.7	16.7
30°-40°	1216.5	19.0
40°-50°	1174.3	18.3
50°-60°	968.7	15.1
60°-70°	645.1	10.1
70°-80°	288.7	4.5
80°-90°	51.7	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°	2066.1	32.2
0°-40°	3282.6	51.2
0°-60°	5425.6	84.6
0°-90°	6411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6411.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2773	2773	2773	2773	2773	
5°	2769	2768	2758	2743	2734	262
15°	2610	2616	2610	2598	2580	736
25°	2318	2336	2346	2330	2309	1061
35°	1864	1890	1976	1986	1979	1168
45°	1443	1468	1516	1585	1594	1114
55°	1011	1028	1078	1138	1171	902
65°	592	608	644	690	730	587
75°	238	250	268	281	297	260
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2772.6	2772.6	2772.6	2772.6	2772.6
2.5°	2780.0	2781.1	2774.7	2757.7	2747.0
5°	2769.4	2768.3	2757.7	2742.8	2734.2
7.5°	2738.5	2740.6	2737.4	2716.1	2704.4
10°	2708.7	2709.7	2701.2	2684.2	2670.3
12.5°	2670.3	2669.3	2657.6	2649.0	2626.7
15°	2609.6	2616.0	2609.6	2597.9	2579.8
17.5°	2551.0	2551.0	2555.3	2535.1	2521.2
20°	2485.0	2488.2	2488.2	2472.2	2456.2
22.5°	2408.3	2417.9	2421.1	2404.0	2384.9
25°	2317.8	2335.9	2346.5	2329.5	2309.3
27.5°	2208.1	2235.8	2267.7	2254.9	2232.6
30°	2085.6	2126.0	2179.3	2168.7	2152.7
32.5°	1969.5	2009.9	2083.4	2079.2	2070.7
35°	1864.0	1889.6	1975.9	1986.5	1979.1
37.5°	1763.9	1787.3	1868.3	1892.8	1886.4
40°	1658.4	1684.0	1747.9	1791.6	1793.7
42.5°	1554.1	1578.6	1630.7	1693.6	1693.6
45°	1443.3	1467.8	1515.7	1584.9	1593.5
47.5°	1334.6	1360.2	1407.1	1476.3	1490.1
50°	1228.1	1251.6	1298.4	1365.5	1386.8
52.5°	1117.3	1142.9	1188.7	1250.5	1281.4
55°	1010.8	1027.9	1077.9	1137.6	1170.6
57.5°	900.1	916.0	972.5	1023.6	1057.7
60°	793.5	813.8	857.4	909.6	949.1
62.5°	691.3	712.6	749.9	795.7	840.4
65°	592.2	608.2	644.4	690.2	729.6
67.5°	496.4	510.2	546.4	578.4	619.9
70°	399.4	417.5	444.2	475.1	501.7
72.5°	321.7	329.1	351.5	373.9	401.6
75°	237.5	250.3	268.4	281.2	297.2
77.5°	170.4	177.9	188.5	199.2	214.1
80°	114.0	117.2	126.8	128.9	140.6
82.5°	69.2	71.4	73.5	74.6	78.8
85°	37.3	37.3	37.3	35.2	35.2
87.5°	21.3	21.3	18.1	14.9	10.7
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)