

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: P557968

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-82-84-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: P557968  
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-82-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

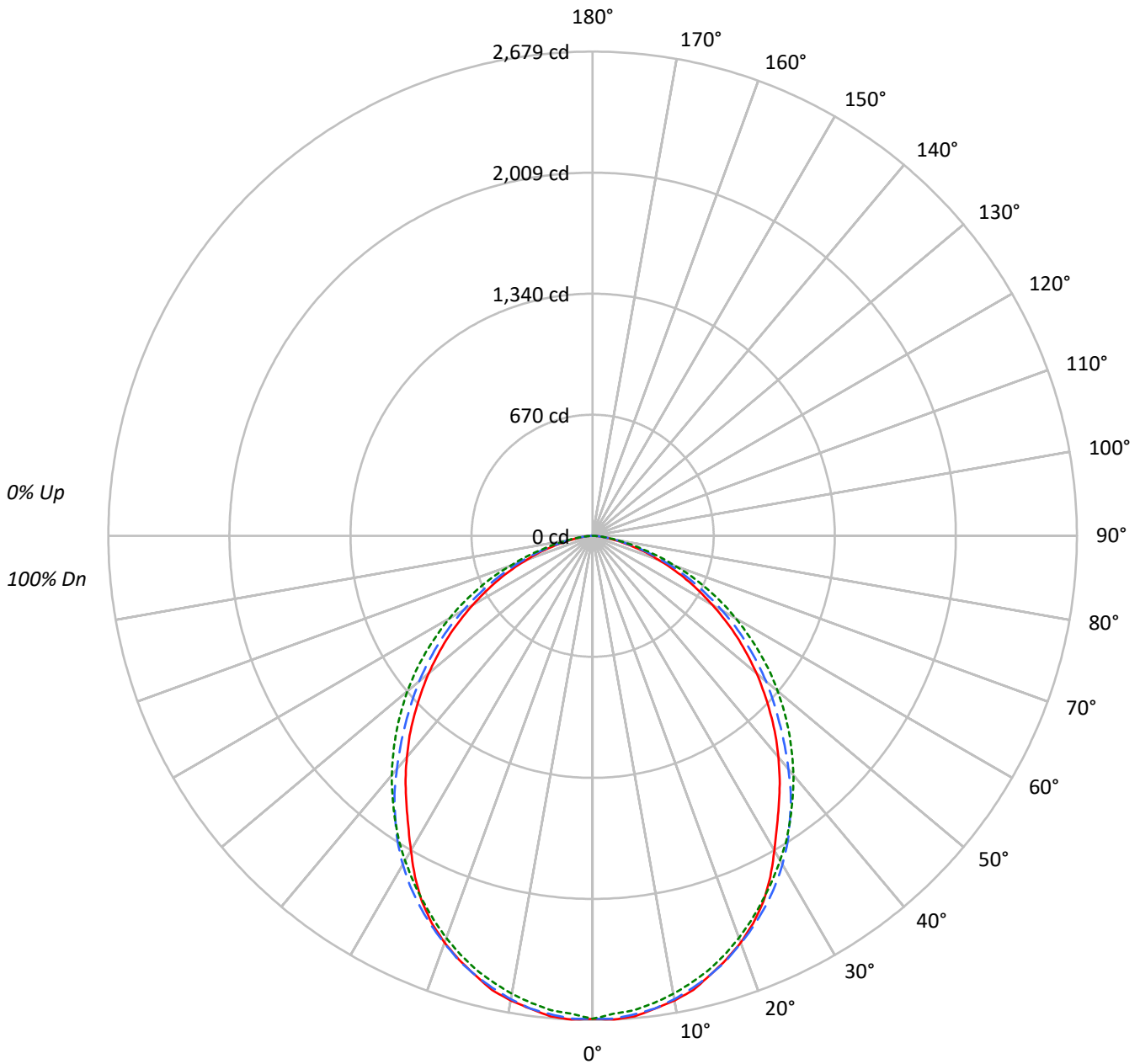
Lumens per Lamp: N/A  
Luminaire Lumens: 6179.0 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (Ain): 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°	7191	7191	7191
5°	7210	7180	7119
10°	7134	7114	7033
15°	7007	7007	6927
20°	6859	6868	6779
25°	6633	6715	6608
30°	6246	6527	6447
35°	5902	6256	6266
40°	5615	5918	6073
45°	5294	5560	5845
50°	4955	5239	5596
55°	4571	4874	5293
60°	4116	4448	4923
65°	3635	3955	4478
70°	3029	3368	3804
75°	2380	2690	2978
80°	1702	1894	2100
85°	1108	1108	1047



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.6	4.1
10°-20°	706.8	11.4
20°-30°	1032.9	16.7
30°-40°	1172.4	19.0
40°-50°	1131.8	18.3
50°-60°	933.7	15.1
60°-70°	621.7	10.1
70°-80°	278.2	4.5
80°-90°	49.8	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°	1991.3	32.2
0°-40°	3163.8	51.2
0°-60°	5229.2	84.6
0°-90°	6179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6179.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2672	2672	2672	2672	2672	
5°	2669	2668	2658	2644	2635	253
15°	2515	2521	2515	2504	2486	709
25°	2234	2251	2262	2245	2226	1023
35°	1797	1821	1904	1915	1907	1126
45°	1391	1415	1461	1528	1536	1073
55°	974	991	1039	1096	1128	870
65°	571	586	621	665	703	566
75°	229	241	259	271	286	250
85°	36	36	36	34	34	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2672.3	2672.3	2672.3	2672.3	2672.3
2.5°	2679.4	2680.5	2674.3	2657.9	2647.6
5°	2669.2	2668.2	2657.9	2643.5	2635.3
7.5°	2639.4	2641.5	2638.4	2617.8	2606.6
10°	2610.7	2611.7	2603.5	2587.0	2573.7
12.5°	2573.7	2572.7	2561.4	2553.2	2531.6
15°	2515.2	2521.3	2515.2	2503.9	2486.4
17.5°	2458.7	2458.7	2462.8	2443.3	2430.0
20°	2395.1	2398.2	2398.2	2382.8	2367.4
22.5°	2321.2	2330.4	2333.5	2317.1	2298.6
25°	2233.9	2251.3	2261.6	2245.2	2225.7
27.5°	2128.2	2154.8	2185.6	2173.3	2151.8
30°	2010.1	2049.1	2100.4	2090.2	2074.8
32.5°	1898.2	1937.2	2008.0	2003.9	1995.7
35°	1796.6	1821.2	1904.4	1914.6	1907.4
37.5°	1700.1	1722.6	1800.7	1824.3	1818.1
40°	1598.4	1623.1	1684.7	1726.8	1728.8
42.5°	1497.8	1521.4	1571.7	1632.3	1632.3
45°	1391.1	1414.7	1460.9	1527.6	1535.8
47.5°	1286.3	1311.0	1356.1	1422.9	1436.2
50°	1183.7	1206.3	1251.4	1316.1	1336.6
52.5°	1076.9	1101.5	1145.7	1205.2	1235.0
55°	974.3	990.7	1038.9	1096.4	1128.2
57.5°	867.5	882.9	937.3	986.6	1019.4
60°	764.8	784.3	826.4	876.7	914.7
62.5°	666.3	686.8	722.7	766.9	810.0
65°	570.8	586.2	621.1	665.2	703.2
67.5°	478.4	491.7	526.6	557.4	597.5
70°	385.0	402.4	428.1	457.9	483.5
72.5°	310.0	317.2	338.8	360.3	387.0
75°	228.9	241.3	258.7	271.0	286.4
77.5°	164.3	171.4	181.7	192.0	206.3
80°	109.8	112.9	122.2	124.2	135.5
82.5°	66.7	68.8	70.8	71.9	76.0
85°	35.9	35.9	35.9	33.9	33.9
87.5°	20.5	20.5	17.5	14.4	10.3
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)