

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: P557642

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-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: P557642  
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-LD4-2STD-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

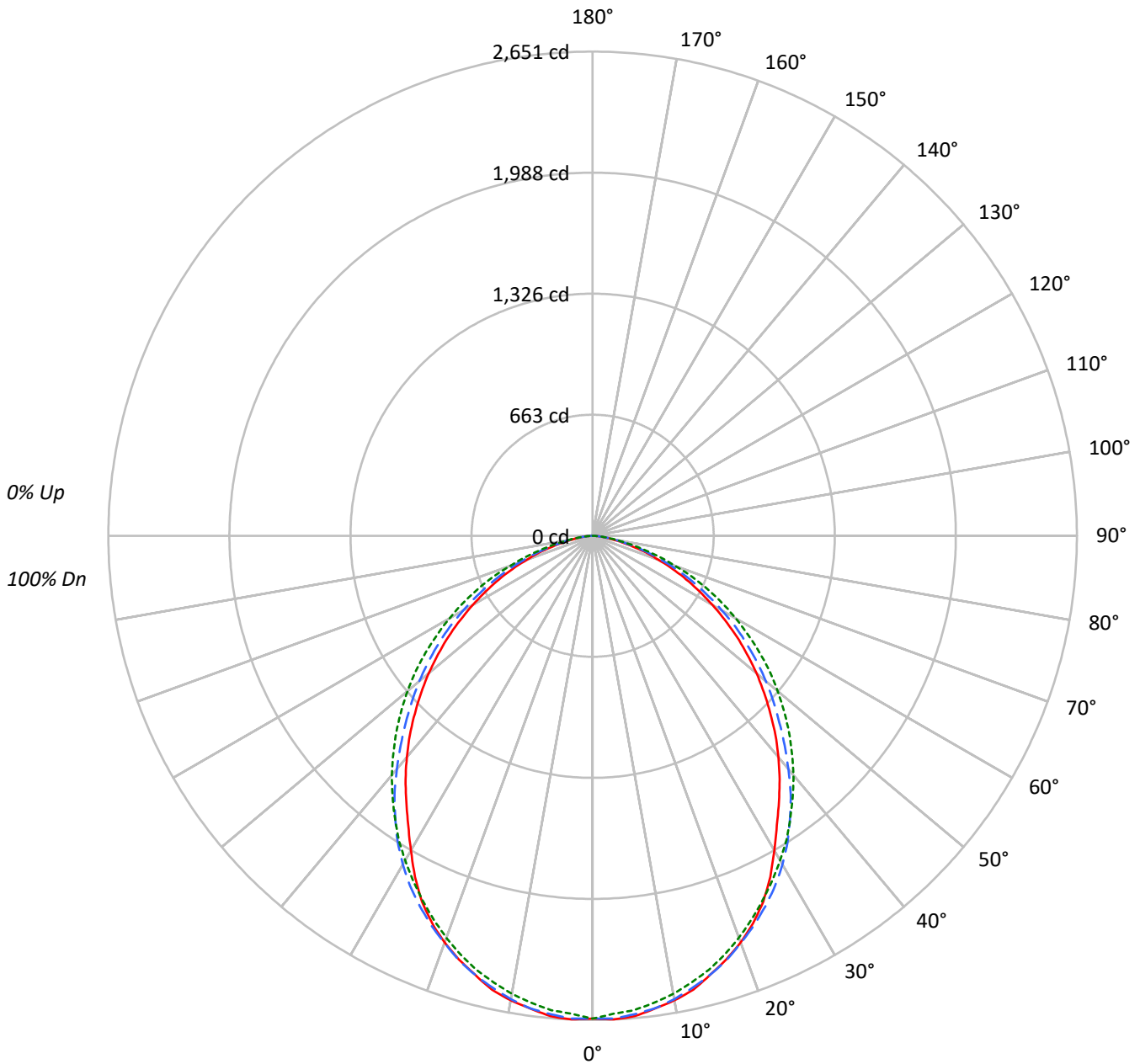
Lumens per Lamp: N/A  
Luminaire Lumens: 6113.0 lumens  
Efficiency: N/A  
Efficacy: 91.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	7114	7114	7114
5°	7133	7103	7043
10°	7057	7038	6957
15°	6932	6932	6853
20°	6785	6794	6707
25°	6562	6644	6538
30°	6179	6457	6378
35°	5839	6189	6199
40°	5555	5855	6008
45°	5237	5500	5782
50°	4902	5183	5536
55°	4522	4822	5237
60°	4073	4400	4870
65°	3596	3913	4430
70°	2997	3332	3764
75°	2355	2661	2947
80°	1684	1874	2078
85°	1096	1096	1034



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.9	4.1
10°-20°	699.3	11.4
20°-30°	1021.9	16.7
30°-40°	1159.9	19.0
40°-50°	1119.7	18.3
50°-60°	923.7	15.1
60°-70°	615.1	10.1
70°-80°	275.3	4.5
80°-90°	49.2	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°	1970.0	32.2
0°-40°	3130.0	51.2
0°-60°	5173.4	84.6
0°-90°	6113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6113.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2644	2644	2644	2644	2644	
5°	2641	2640	2630	2615	2607	250
15°	2488	2494	2488	2477	2460	701
25°	2210	2227	2238	2221	2202	1012
35°	1777	1802	1884	1894	1887	1114
45°	1376	1400	1445	1511	1519	1062
55°	964	980	1028	1085	1116	860
65°	565	580	614	658	696	560
75°	226	239	256	268	283	248
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°	2643.7	2643.7	2643.7	2643.7	2643.7
2.5°	2650.8	2651.8	2645.7	2629.5	2619.3
5°	2640.7	2639.7	2629.5	2615.3	2607.2
7.5°	2611.2	2613.2	2610.2	2589.9	2578.7
10°	2582.8	2583.8	2575.7	2559.4	2546.2
12.5°	2546.2	2545.2	2534.0	2525.9	2504.6
15°	2488.3	2494.4	2488.3	2477.1	2459.9
17.5°	2432.5	2432.5	2436.5	2417.2	2404.0
20°	2369.5	2372.5	2372.5	2357.3	2342.1
22.5°	2296.4	2305.5	2308.6	2292.3	2274.0
25°	2210.0	2227.3	2237.5	2221.2	2201.9
27.5°	2105.4	2131.8	2162.3	2150.1	2128.8
30°	1988.6	2027.2	2078.0	2067.8	2052.6
32.5°	1877.9	1916.5	1986.6	1982.5	1974.4
35°	1777.4	1801.7	1884.0	1894.2	1887.1
37.5°	1681.9	1704.2	1781.4	1804.8	1798.7
40°	1581.4	1605.7	1666.7	1708.3	1710.3
42.5°	1481.8	1505.2	1554.9	1614.9	1614.9
45°	1376.2	1399.6	1445.3	1511.3	1519.4
47.5°	1272.6	1297.0	1341.7	1407.7	1420.9
50°	1171.0	1193.4	1238.1	1302.1	1322.4
52.5°	1065.4	1089.8	1133.5	1192.4	1221.8
55°	963.8	980.1	1027.8	1084.7	1116.2
57.5°	858.2	873.5	927.3	976.0	1008.5
60°	756.7	776.0	817.6	867.4	904.9
62.5°	659.2	679.5	715.0	758.7	801.3
65°	564.7	579.9	614.5	658.1	695.7
67.5°	473.3	486.5	521.0	551.5	591.1
70°	380.9	398.1	423.5	453.0	478.4
72.5°	306.7	313.8	335.2	356.5	382.9
75°	226.5	238.7	255.9	268.1	283.4
77.5°	162.5	169.6	179.8	189.9	204.1
80°	108.7	111.7	120.9	122.9	134.1
82.5°	66.0	68.0	70.1	71.1	75.2
85°	35.5	35.5	35.5	33.5	33.5
87.5°	20.3	20.3	17.3	14.2	10.2
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)