

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: P557531

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-82-94-EDD**

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: P557531  
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-35-UNV-82-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

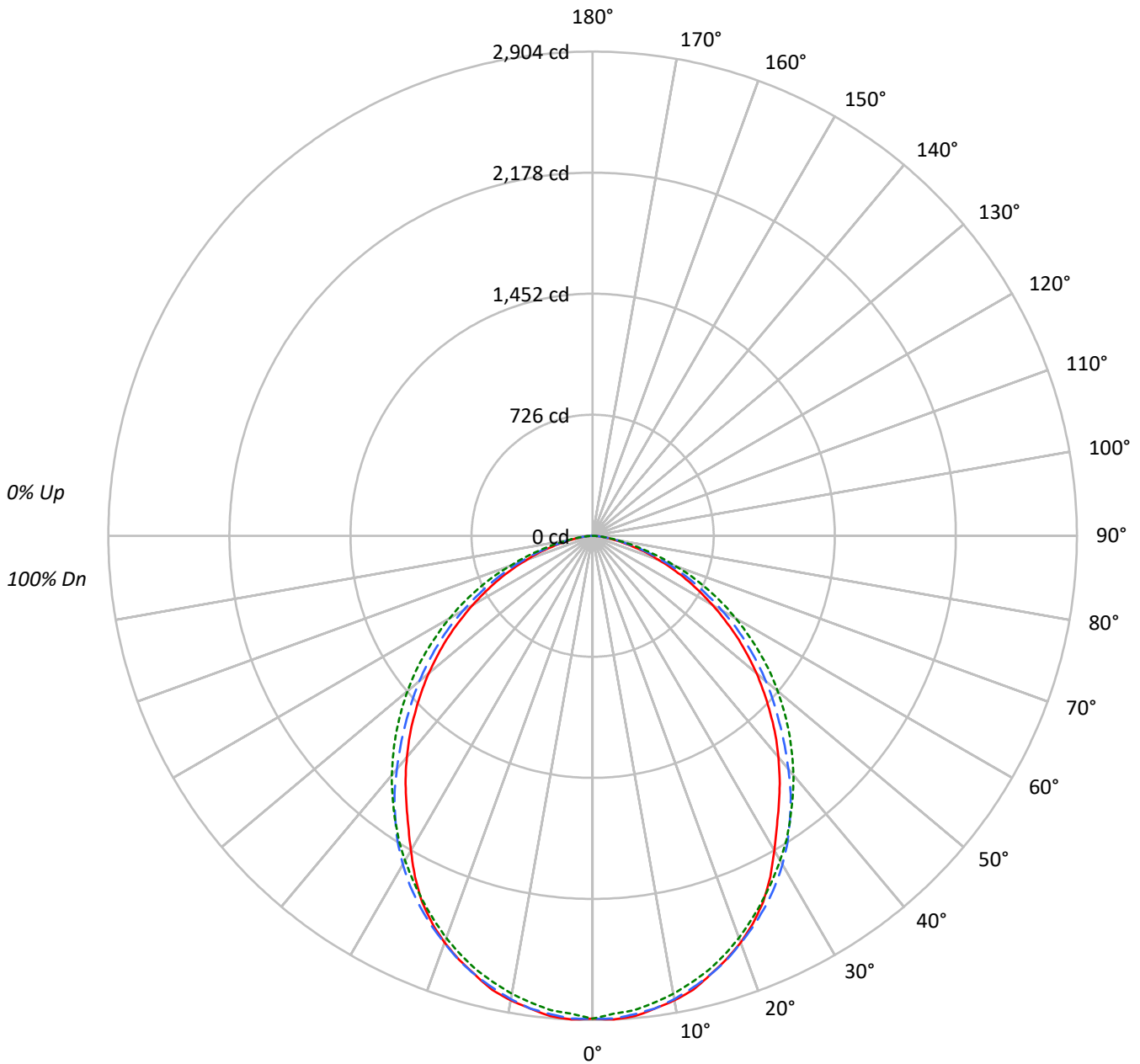
Lumens per Lamp: N/A  
Luminaire Lumens: 6697.0 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (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°	7794	7794	7794
5°	7814	7782	7715
10°	7732	7710	7622
15°	7594	7594	7508
20°	7434	7443	7348
25°	7189	7278	7163
30°	6770	7074	6987
35°	6397	6780	6791
40°	6086	6414	6582
45°	5738	6025	6335
50°	5371	5678	6065
55°	4954	5283	5737
60°	4461	4821	5336
65°	3939	4287	4853
70°	3283	3651	4124
75°	2580	2915	3227
80°	1846	2052	2276
85°	1201	1201	1133



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.7	4.1
10°-20°	766.1	11.4
20°-30°	1119.5	16.7
30°-40°	1270.7	19.0
40°-50°	1226.7	18.3
50°-60°	1011.9	15.1
60°-70°	673.9	10.1
70°-80°	301.5	4.5
80°-90°	53.9	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°	2158.3	32.2
0°-40°	3429.0	51.2
0°-60°	5667.6	84.6
0°-90°	6697.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6697.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2896	2896	2896	2896	2896	
5°	2893	2892	2881	2865	2856	274
15°	2726	2733	2726	2714	2695	768
25°	2421	2440	2451	2433	2412	1109
35°	1947	1974	2064	2075	2067	1220
45°	1508	1533	1583	1656	1665	1163
55°	1056	1074	1126	1188	1223	942
65°	619	635	673	721	762	613
75°	248	262	280	294	310	271
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°	2896.3	2896.3	2896.3	2896.3	2896.3
2.5°	2904.1	2905.2	2898.5	2880.7	2869.6
5°	2892.9	2891.8	2880.7	2865.1	2856.2
7.5°	2860.7	2862.9	2859.6	2837.3	2825.1
10°	2829.5	2830.6	2821.7	2803.9	2789.5
12.5°	2789.5	2788.4	2776.1	2767.2	2743.8
15°	2726.0	2732.7	2726.0	2713.8	2694.9
17.5°	2664.8	2664.8	2669.3	2648.2	2633.7
20°	2595.9	2599.2	2599.2	2582.5	2565.8
22.5°	2515.7	2525.8	2529.1	2511.3	2491.3
25°	2421.2	2440.1	2451.2	2433.4	2412.3
27.5°	2306.6	2335.5	2368.9	2355.5	2332.2
30°	2178.6	2220.9	2276.5	2265.4	2248.7
32.5°	2057.3	2099.6	2176.4	2171.9	2163.0
35°	1947.2	1973.9	2064.0	2075.1	2067.3
37.5°	1842.6	1867.1	1951.6	1977.2	1970.5
40°	1732.4	1759.1	1825.9	1871.5	1873.7
42.5°	1623.4	1649.0	1703.5	1769.1	1769.1
45°	1507.7	1533.3	1583.3	1655.7	1664.6
47.5°	1394.2	1420.9	1469.8	1542.2	1556.6
50°	1282.9	1307.4	1356.3	1426.4	1448.7
52.5°	1167.2	1193.9	1241.7	1306.3	1338.5
55°	1055.9	1073.7	1126.0	1188.3	1222.8
57.5°	940.2	956.9	1015.9	1069.3	1104.9
60°	828.9	850.1	895.7	950.2	991.4
62.5°	722.1	744.4	783.3	831.2	877.9
65°	618.6	635.3	673.2	721.0	762.2
67.5°	518.5	533.0	570.8	604.2	647.6
70°	417.3	436.2	464.0	496.3	524.1
72.5°	336.0	343.8	367.2	390.5	419.5
75°	248.1	261.5	280.4	293.7	310.4
77.5°	178.0	185.8	196.9	208.1	223.6
80°	119.1	122.4	132.4	134.6	146.9
82.5°	72.3	74.5	76.8	77.9	82.3
85°	38.9	38.9	38.9	36.7	36.7
87.5°	22.3	22.3	18.9	15.6	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)