

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: P557936

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-80-84-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: P557936  
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-80-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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**

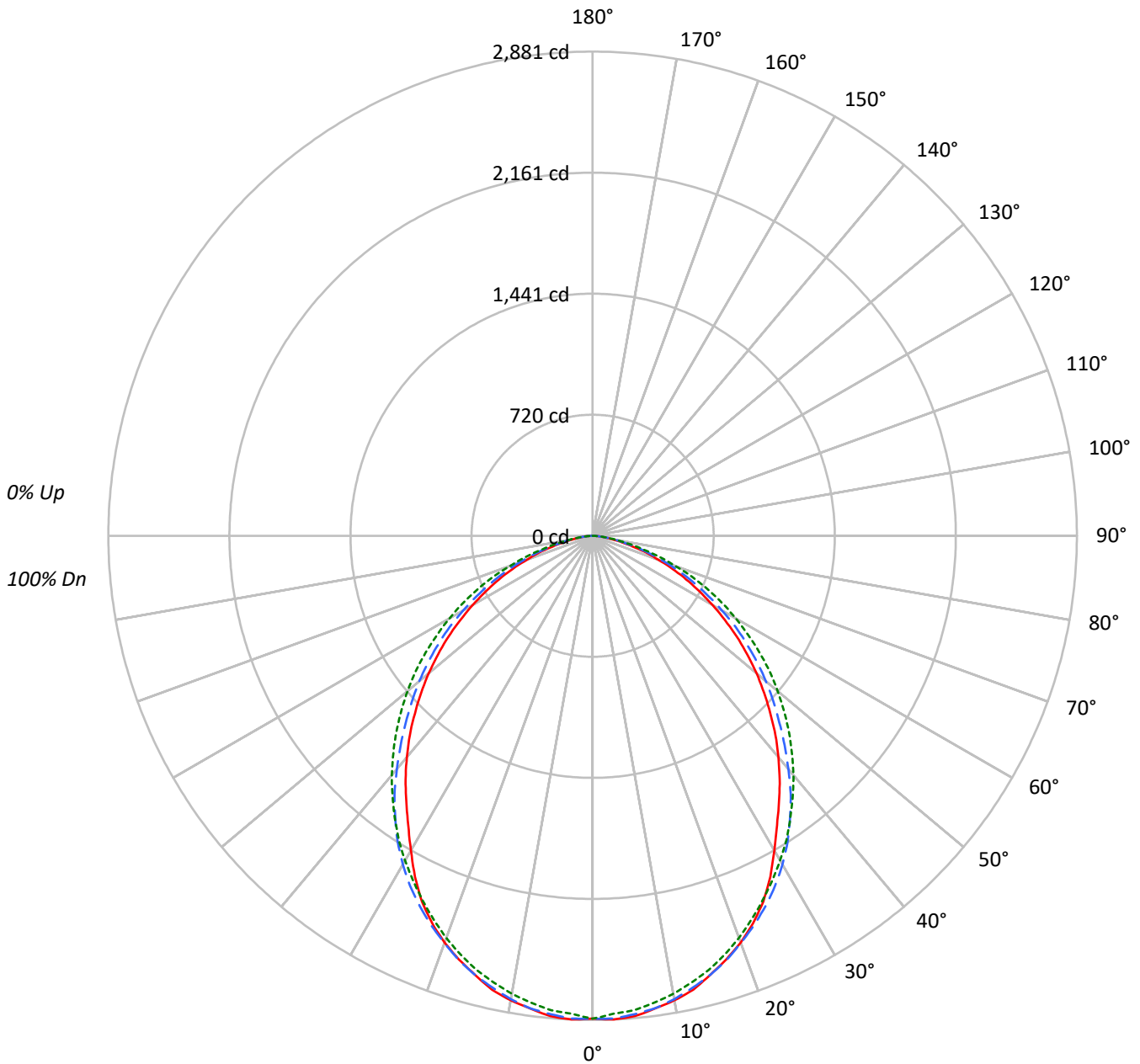
Lumens per Lamp: N/A  
Luminaire Lumens: 6644.0 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	7732	7732	7732
5°	7753	7720	7654
10°	7670	7649	7562
15°	7534	7534	7448
20°	7375	7384	7289
25°	7132	7220	7106
30°	6716	7018	6932
35°	6346	6727	6738
40°	6037	6363	6530
45°	5692	5978	6285
50°	5328	5633	6017
55°	4915	5241	5691
60°	4426	4782	5293
65°	3908	4252	4814
70°	3257	3622	4091
75°	2560	2892	3202
80°	1830	2036	2258
85°	1192	1192	1124



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.5	4.1
10°-20°	760.0	11.4
20°-30°	1110.6	16.7
30°-40°	1260.7	19.0
40°-50°	1217.0	18.3
50°-60°	1003.9	15.1
60°-70°	668.5	10.1
70°-80°	299.2	4.5
80°-90°	53.5	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°	2141.2	32.2
0°-40°	3401.9	51.2
0°-60°	5622.8	84.6
0°-90°	6644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6644.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2873	2873	2873	2873	2873	
5°	2870	2869	2858	2842	2834	272
15°	2704	2711	2704	2692	2674	762
25°	2402	2421	2432	2414	2393	1100
35°	1932	1958	2048	2059	2051	1210
45°	1496	1521	1571	1642	1651	1154
55°	1048	1065	1117	1179	1213	935
65°	614	630	668	715	756	609
75°	246	259	278	291	308	269
85°	39	39	39	36	36	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2873.4	2873.4	2873.4	2873.4	2873.4
2.5°	2881.1	2882.2	2875.6	2857.9	2846.9
5°	2870.0	2868.9	2857.9	2842.5	2833.6
7.5°	2838.0	2840.2	2836.9	2814.9	2802.7
10°	2807.1	2808.2	2799.4	2781.7	2767.4
12.5°	2767.4	2766.3	2754.1	2745.3	2722.1
15°	2704.5	2711.1	2704.5	2692.3	2673.6
17.5°	2643.8	2643.8	2648.2	2627.2	2612.8
20°	2575.3	2578.6	2578.6	2562.1	2545.5
22.5°	2495.8	2505.8	2509.1	2491.4	2471.6
25°	2402.0	2420.8	2431.8	2414.2	2393.2
27.5°	2288.3	2317.0	2350.1	2336.9	2313.7
30°	2161.4	2203.3	2258.5	2247.5	2230.9
32.5°	2041.0	2083.0	2159.2	2154.7	2145.9
35°	1931.8	1958.3	2047.7	2058.7	2051.0
37.5°	1828.0	1852.3	1936.2	1961.6	1954.9
40°	1718.7	1745.2	1811.4	1856.7	1858.9
42.5°	1610.5	1635.9	1690.0	1755.1	1755.1
45°	1495.7	1521.1	1570.8	1642.5	1651.4
47.5°	1383.1	1409.6	1458.2	1530.0	1544.3
50°	1272.8	1297.0	1345.6	1415.2	1437.2
52.5°	1158.0	1184.4	1231.9	1295.9	1327.9
55°	1047.6	1065.2	1117.1	1178.9	1213.1
57.5°	932.8	949.3	1007.8	1060.8	1096.1
60°	822.4	843.4	888.6	942.7	983.5
62.5°	716.4	738.5	777.1	824.6	870.9
65°	613.7	630.3	667.8	715.3	756.1
67.5°	514.4	528.8	566.3	599.4	642.4
70°	413.9	432.7	460.3	492.3	519.9
72.5°	333.4	341.1	364.3	387.5	416.2
75°	246.2	259.4	278.2	291.4	308.0
77.5°	176.6	184.3	195.4	206.4	221.9
80°	118.1	121.4	131.4	133.6	145.7
82.5°	71.8	74.0	76.2	77.3	81.7
85°	38.6	38.6	38.6	36.4	36.4
87.5°	22.1	22.1	18.8	15.5	11.0
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)