

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: P556921

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-80-88-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: P556921  
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-LD4-2HI-30-UNV-80-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

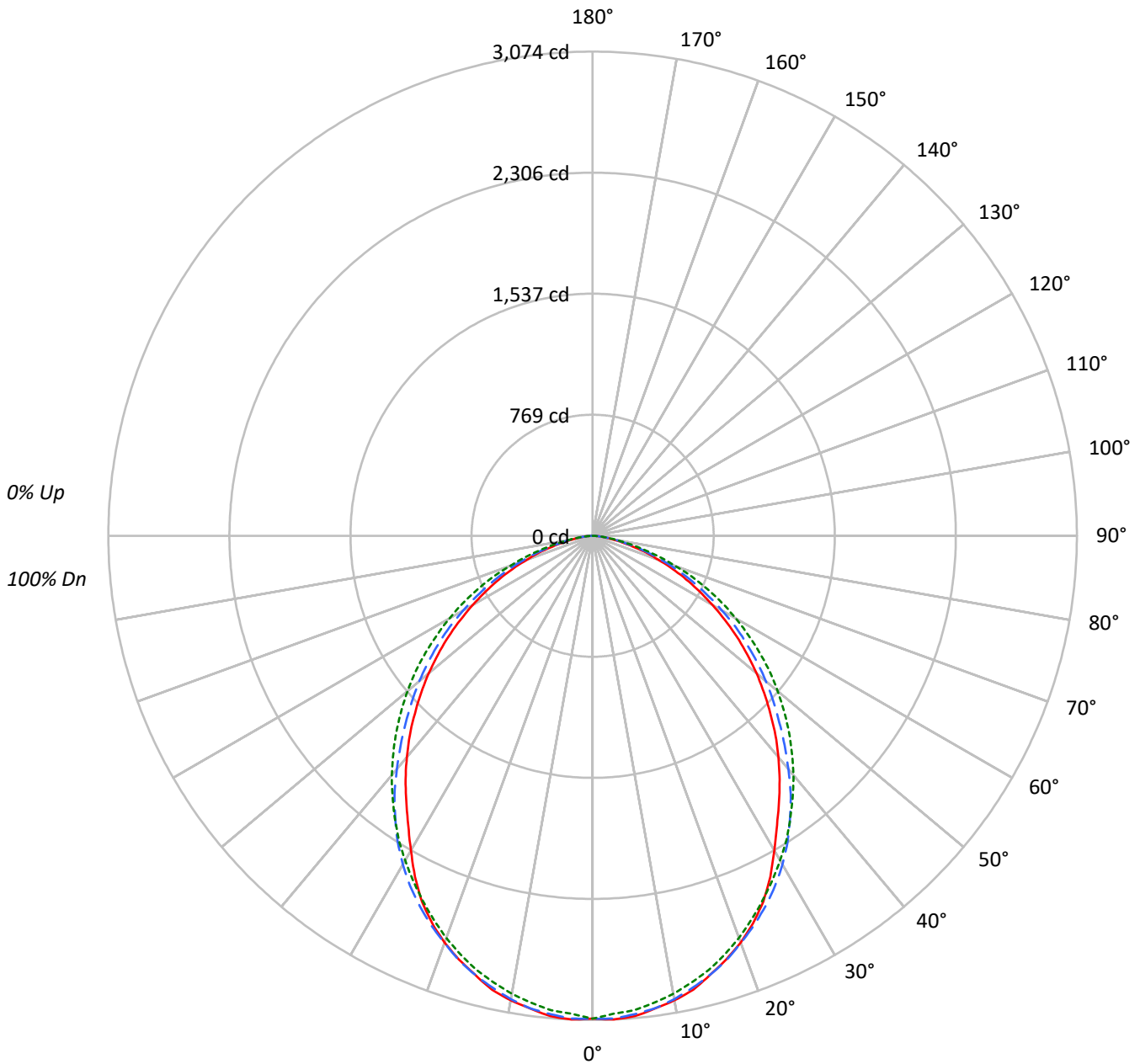
Lumens per Lamp: N/A  
Luminaire Lumens: 7089.0 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8250	8250	8250
5°	8272	8237	8167
10°	8184	8162	8068
15°	8039	8039	7947
20°	7869	7879	7778
25°	7610	7704	7582
30°	7166	7488	7396
35°	6771	7177	7189
40°	6442	6790	6967
45°	6073	6378	6706
50°	5685	6010	6420
55°	5244	5592	6073
60°	4723	5103	5648
65°	4170	4537	5137
70°	3475	3864	4364
75°	2730	3086	3417
80°	1953	2173	2410
85°	1272	1272	1201



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.7	4.1
10°-20°	810.9	11.4
20°-30°	1185.0	16.7
30°-40°	1345.1	19.0
40°-50°	1298.5	18.3
50°-60°	1071.2	15.1
60°-70°	713.3	10.1
70°-80°	319.2	4.5
80°-90°	57.1	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°	2284.6	32.2
0°-40°	3629.7	51.2
0°-60°	5999.4	84.6
0°-90°	7089.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7089.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3066	3066	3066	3066	3066	
5°	3062	3061	3049	3033	3023	290
15°	2886	2893	2886	2873	2853	813
25°	2563	2583	2595	2576	2554	1174
35°	2061	2089	2185	2197	2188	1291
45°	1596	1623	1676	1753	1762	1231
55°	1118	1137	1192	1258	1294	998
65°	655	672	713	763	807	649
75°	263	277	297	311	329	287
85°	41	41	41	39	39	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3065.8	3065.8	3065.8	3065.8	3065.8
2.5°	3074.1	3075.2	3068.2	3049.3	3037.5
5°	3062.3	3061.1	3049.3	3032.8	3023.4
7.5°	3028.1	3030.5	3026.9	3003.4	2990.4
10°	2995.1	2996.3	2986.9	2968.1	2952.7
12.5°	2952.7	2951.6	2938.6	2929.2	2904.5
15°	2885.6	2892.7	2885.6	2872.7	2852.6
17.5°	2820.8	2820.8	2825.5	2803.2	2787.8
20°	2747.8	2751.3	2751.3	2733.7	2716.0
22.5°	2663.0	2673.6	2677.1	2658.3	2637.1
25°	2562.9	2582.9	2594.7	2575.8	2553.5
27.5°	2441.6	2472.2	2507.5	2493.4	2468.7
30°	2306.1	2350.9	2409.8	2398.0	2380.3
32.5°	2177.7	2222.5	2303.8	2299.1	2289.6
35°	2061.1	2089.4	2184.8	2196.6	2188.3
37.5°	1950.4	1976.3	2065.9	2092.9	2085.9
40°	1833.8	1862.1	1932.8	1981.1	1983.4
42.5°	1718.4	1745.5	1803.2	1872.7	1872.7
45°	1595.9	1623.0	1676.0	1752.6	1762.0
47.5°	1475.8	1504.0	1555.9	1632.4	1647.7
50°	1358.0	1383.9	1435.7	1509.9	1533.5
52.5°	1235.5	1263.8	1314.4	1382.7	1416.9
55°	1117.7	1136.6	1191.9	1257.9	1294.4
57.5°	995.2	1012.9	1075.3	1131.9	1169.6
60°	877.5	899.8	948.1	1005.8	1049.4
62.5°	764.4	787.9	829.2	879.8	929.3
65°	654.9	672.5	712.6	763.2	806.8
67.5°	548.9	564.2	604.2	639.5	685.5
70°	441.7	461.7	491.1	525.3	554.7
72.5°	355.7	363.9	388.7	413.4	444.0
75°	262.6	276.8	296.8	310.9	328.6
77.5°	188.4	196.7	208.5	220.2	236.7
80°	126.0	129.6	140.2	142.5	155.5
82.5°	76.6	78.9	81.3	82.4	87.2
85°	41.2	41.2	41.2	38.9	38.9
87.5°	23.6	23.6	20.0	16.5	11.8
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)