

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: P558296

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-88-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: P558296  
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-LD4-3STD-35-UNV-82-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

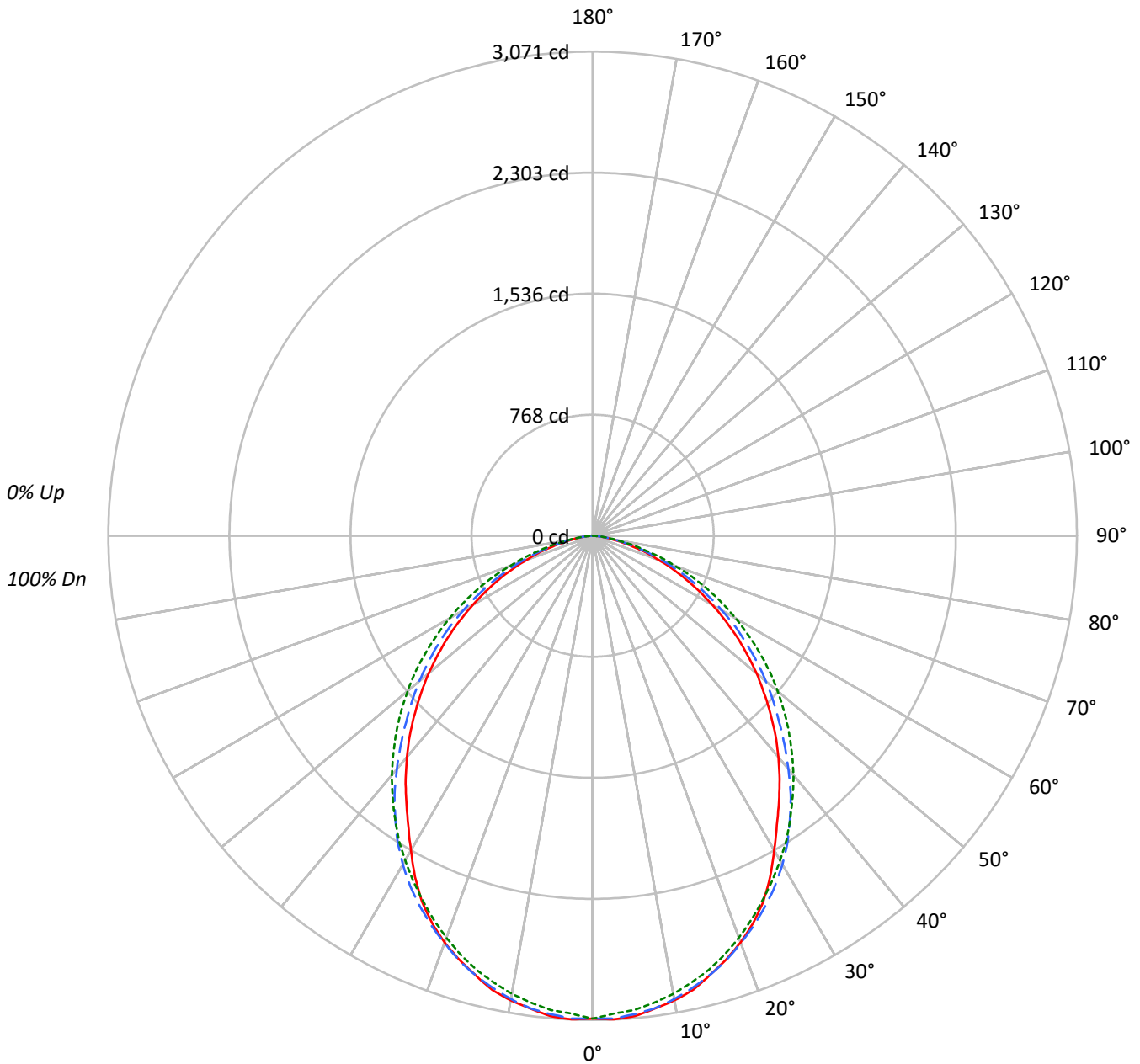
Lumens per Lamp: N/A  
Luminaire Lumens: 7081.0 lumens  
Efficiency: N/A  
Efficacy: 70.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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°	8241	8241	8241
5°	8263	8228	8158
10°	8175	8152	8059
15°	8030	8030	7938
20°	7860	7870	7769
25°	7601	7695	7573
30°	7158	7480	7388
35°	6763	7169	7181
40°	6435	6782	6960
45°	6067	6371	6698
50°	5679	6004	6413
55°	5238	5586	6066
60°	4717	5097	5641
65°	4165	4532	5131
70°	3471	3860	4360
75°	2728	3083	3412
80°	1951	2170	2407
85°	1272	1272	1198



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.3	4.1
10°-20°	810.0	11.4
20°-30°	1183.7	16.7
30°-40°	1343.6	19.0
40°-50°	1297.0	18.3
50°-60°	1070.0	15.1
60°-70°	712.5	10.1
70°-80°	318.8	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°	2282.0	32.2
0°-40°	3625.6	51.2
0°-60°	5992.6	84.6
0°-90°	7081.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7081.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3062	3062	3062	3062	3062	
5°	3059	3058	3046	3029	3020	290
15°	2882	2889	2882	2869	2849	813
25°	2560	2580	2592	2573	2551	1172
35°	2059	2087	2182	2194	2186	1290
45°	1594	1621	1674	1751	1760	1230
55°	1116	1135	1191	1256	1293	996
65°	654	672	712	762	806	649
75°	262	276	296	311	328	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°	3062.3	3062.3	3062.3	3062.3	3062.3
2.5°	3070.6	3071.8	3064.7	3045.9	3034.1
5°	3058.8	3057.6	3045.9	3029.4	3020.0
7.5°	3024.7	3027.1	3023.5	3000.0	2987.1
10°	2991.8	2992.9	2983.5	2964.7	2949.4
12.5°	2949.4	2948.2	2935.3	2925.9	2901.2
15°	2882.3	2889.4	2882.3	2869.4	2849.4
17.5°	2817.6	2817.6	2822.3	2800.0	2784.7
20°	2744.7	2748.2	2748.2	2730.6	2712.9
22.5°	2660.0	2670.6	2674.1	2655.3	2634.1
25°	2560.0	2580.0	2591.8	2572.9	2550.6
27.5°	2438.8	2469.4	2504.7	2490.6	2465.9
30°	2303.5	2348.2	2407.1	2395.3	2377.6
32.5°	2175.3	2220.0	2301.2	2296.5	2287.1
35°	2058.8	2087.1	2182.4	2194.1	2185.9
37.5°	1948.2	1974.1	2063.5	2090.6	2083.5
40°	1831.8	1860.0	1930.6	1978.8	1981.2
42.5°	1716.5	1743.5	1801.2	1870.6	1870.6
45°	1594.1	1621.2	1674.1	1750.6	1760.0
47.5°	1474.1	1502.4	1554.1	1630.6	1645.9
50°	1356.5	1382.4	1434.1	1508.2	1531.8
52.5°	1234.1	1262.4	1312.9	1381.2	1415.3
55°	1116.5	1135.3	1190.6	1256.5	1292.9
57.5°	994.1	1011.8	1074.1	1130.6	1168.2
60°	876.5	898.8	947.1	1004.7	1048.2
62.5°	763.5	787.1	828.2	878.8	928.2
65°	654.1	671.8	711.8	762.4	805.9
67.5°	548.2	563.5	603.5	638.8	684.7
70°	441.2	461.2	490.6	524.7	554.1
72.5°	355.3	363.5	388.2	412.9	443.5
75°	262.4	276.5	296.5	310.6	328.2
77.5°	188.2	196.5	208.2	220.0	236.5
80°	125.9	129.4	140.0	142.4	155.3
82.5°	76.5	78.8	81.2	82.4	87.1
85°	41.2	41.2	41.2	38.8	38.8
87.5°	23.5	23.5	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)