

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: P556953

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-88-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: P556953
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-82-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC 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

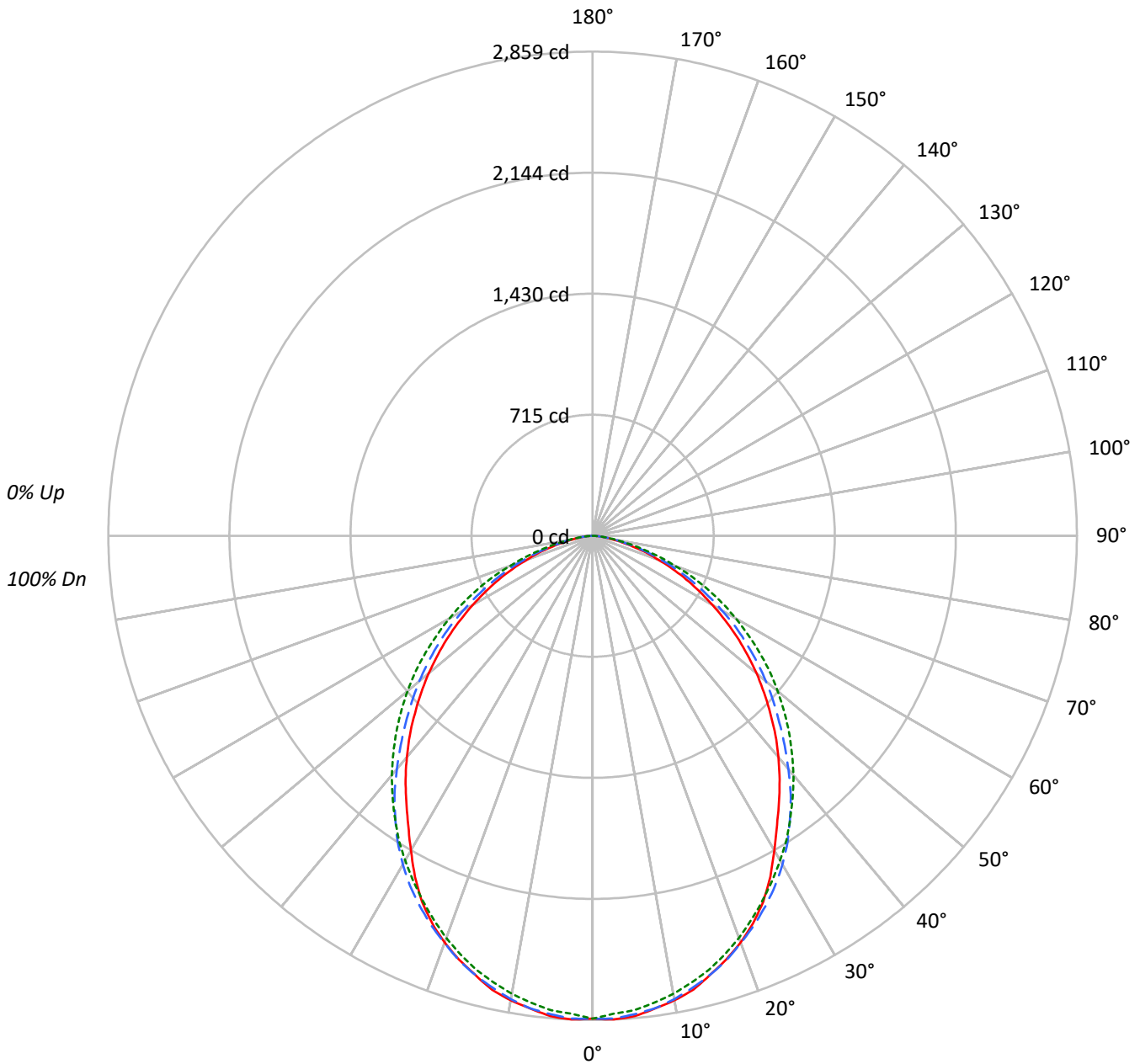
Lumens per Lamp: N/A
Luminaire Lumens: 6593.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	7673	7673	7673
5°	7693	7661	7596
10°	7612	7591	7504
15°	7477	7477	7391
20°	7318	7328	7234
25°	7077	7165	7051
30°	6664	6964	6879
35°	6297	6675	6686
40°	5991	6314	6480
45°	5649	5932	6236
50°	5287	5590	5971
55°	4877	5201	5648
60°	4392	4746	5253
65°	3878	4220	4777
70°	3232	3594	4059
75°	2540	2870	3177
80°	1816	2021	2241
85°	1183	1183	1115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.5	4.1
10°-20°	754.2	11.4
20°-30°	1102.1	16.7
30°-40°	1251.0	19.0
40°-50°	1207.6	18.3
50°-60°	996.2	15.1
60°-70°	663.4	10.1
70°-80°	296.9	4.5
80°-90°	53.1	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°	2124.7	32.2
0°-40°	3375.7	51.2
0°-60°	5579.6	84.6
0°-90°	6593.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6593.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2851	2851	2851	2851	2851	
5°	2848	2847	2836	2821	2812	270
15°	2684	2690	2684	2672	2653	757
25°	2384	2402	2413	2396	2375	1092
35°	1917	1943	2032	2043	2035	1201
45°	1484	1509	1559	1630	1639	1145
55°	1040	1057	1108	1170	1204	928
65°	609	626	663	710	750	604
75°	244	257	276	289	306	267
85°	38	38	38	36	36	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2851.3	2851.3	2851.3	2851.3	2851.3
2.5°	2859.0	2860.1	2853.5	2836.0	2825.0
5°	2848.0	2846.9	2836.0	2820.6	2811.9
7.5°	2816.2	2818.4	2815.2	2793.2	2781.2
10°	2785.6	2786.7	2777.9	2760.4	2746.1
12.5°	2746.1	2745.0	2733.0	2724.2	2701.2
15°	2683.7	2690.3	2683.7	2671.7	2653.0
17.5°	2623.5	2623.5	2627.8	2607.0	2592.8
20°	2555.5	2558.8	2558.8	2542.4	2526.0
22.5°	2476.7	2486.5	2489.8	2472.3	2452.6
25°	2383.6	2402.2	2413.1	2395.6	2374.8
27.5°	2270.7	2299.2	2332.1	2318.9	2295.9
30°	2144.8	2186.4	2241.2	2230.2	2213.8
32.5°	2025.4	2067.0	2142.6	2138.2	2129.4
35°	1916.9	1943.2	2031.9	2042.9	2035.2
37.5°	1814.0	1838.1	1921.3	1946.5	1939.9
40°	1705.5	1731.8	1797.5	1842.4	1844.6
42.5°	1598.2	1623.4	1677.0	1741.7	1741.7
45°	1484.3	1509.4	1558.7	1629.9	1638.7
47.5°	1372.5	1398.8	1447.0	1518.2	1532.5
50°	1263.0	1287.1	1335.3	1404.3	1426.2
52.5°	1149.1	1175.4	1222.5	1286.0	1317.8
55°	1039.5	1057.1	1108.5	1169.9	1203.8
57.5°	925.6	942.0	1000.1	1052.7	1087.7
60°	816.1	836.9	881.8	935.5	976.0
62.5°	710.9	732.8	771.2	818.3	864.3
65°	609.0	625.5	662.7	709.8	750.3
67.5°	510.5	524.7	561.9	594.8	637.5
70°	410.8	429.4	456.8	488.5	515.9
72.5°	330.8	338.5	361.5	384.5	413.0
75°	244.3	257.4	276.0	289.2	305.6
77.5°	175.3	182.9	193.9	204.8	220.2
80°	117.2	120.5	130.4	132.5	144.6
82.5°	71.2	73.4	75.6	76.7	81.1
85°	38.3	38.3	38.3	36.1	36.1
87.5°	21.9	21.9	18.6	15.3	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)