

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: P556940

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-81-96-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: P556940
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-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

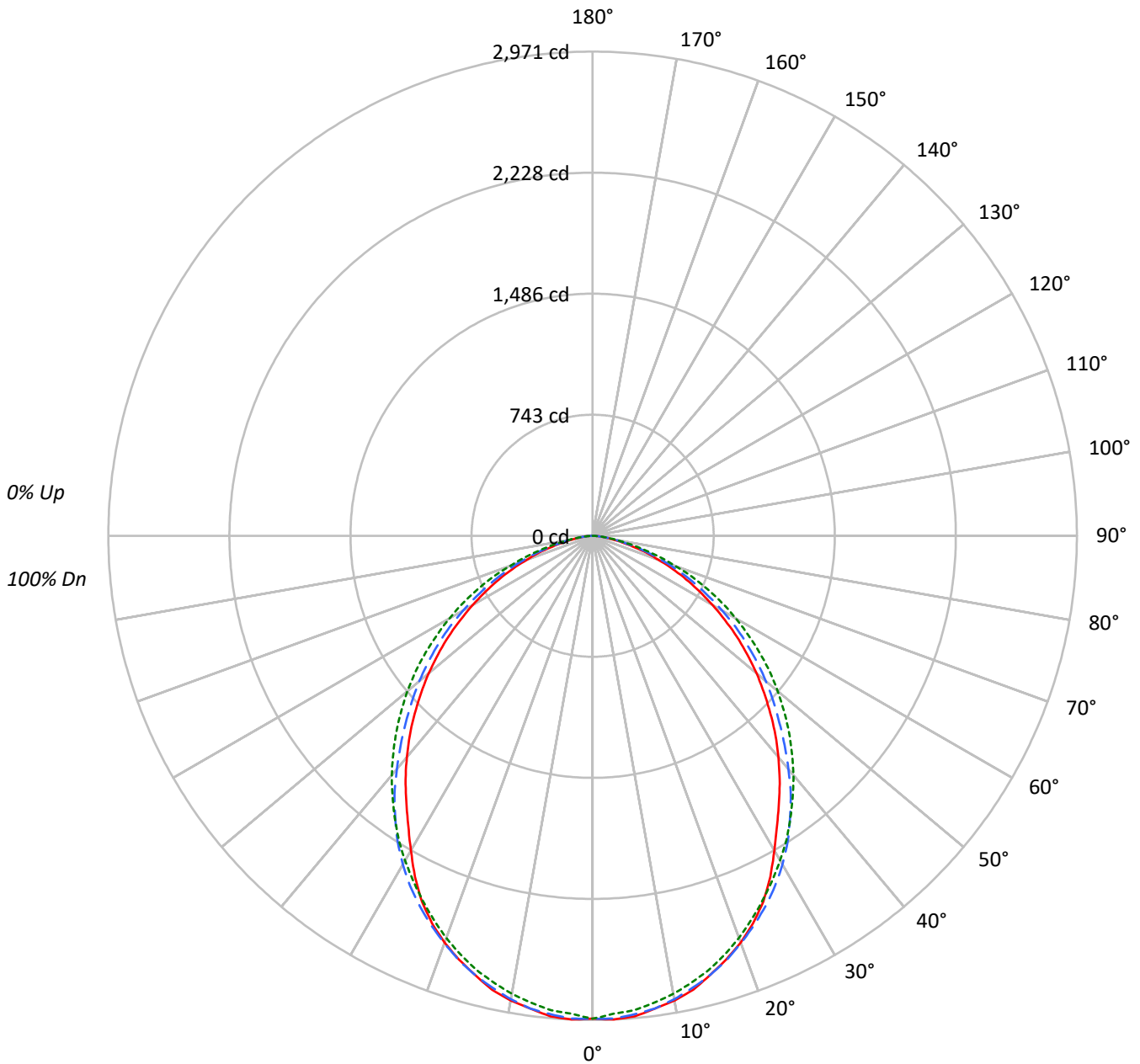
Lumens per Lamp: N/A
Luminaire Lumens: 6852.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	7974	7974	7974
5°	7995	7962	7894
10°	7911	7889	7799
15°	7770	7770	7682
20°	7606	7616	7518
25°	7355	7446	7328
30°	6926	7237	7149
35°	6545	6937	6949
40°	6226	6563	6734
45°	5871	6165	6481
50°	5495	5809	6205
55°	5069	5405	5870
60°	4564	4932	5459
65°	4031	4385	4965
70°	3359	3735	4219
75°	2640	2983	3302
80°	1888	2100	2329
85°	1229	1229	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.0	4.1
10°-20°	783.8	11.4
20°-30°	1145.4	16.7
30°-40°	1300.2	19.0
40°-50°	1255.1	18.3
50°-60°	1035.4	15.1
60°-70°	689.5	10.1
70°-80°	308.5	4.5
80°-90°	55.2	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°	2208.2	32.2
0°-40°	3508.3	51.2
0°-60°	5798.8	84.6
0°-90°	6852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2963	2963	2963	2963	2963	
5°	2960	2959	2947	2931	2922	280
15°	2789	2796	2789	2777	2757	786
25°	2477	2497	2508	2490	2468	1134
35°	1992	2020	2112	2123	2115	1248
45°	1543	1569	1620	1694	1703	1190
55°	1080	1099	1152	1216	1251	964
65°	633	650	689	738	780	628
75°	254	268	287	300	318	278
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2963.3	2963.3	2963.3	2963.3	2963.3
2.5°	2971.3	2972.4	2965.6	2947.4	2936.0
5°	2959.9	2958.8	2947.4	2931.4	2922.3
7.5°	2926.9	2929.2	2925.7	2903.0	2890.5
10°	2895.0	2896.1	2887.0	2868.8	2854.0
12.5°	2854.0	2852.9	2840.4	2831.3	2807.3
15°	2789.1	2796.0	2789.1	2776.6	2757.3
17.5°	2726.5	2726.5	2731.1	2709.4	2694.6
20°	2655.9	2659.4	2659.4	2642.3	2625.2
22.5°	2574.0	2584.2	2587.6	2569.4	2548.9
25°	2477.2	2496.6	2507.9	2489.7	2468.1
27.5°	2359.9	2389.5	2423.7	2410.0	2386.1
30°	2229.0	2272.3	2329.2	2317.8	2300.8
32.5°	2104.9	2148.2	2226.8	2222.2	2213.1
35°	1992.2	2019.6	2111.8	2123.2	2115.2
37.5°	1885.2	1910.3	1996.8	2023.0	2016.1
40°	1772.5	1799.8	1868.2	1914.8	1917.1
42.5°	1661.0	1687.1	1742.9	1810.1	1810.1
45°	1542.6	1568.7	1620.0	1694.0	1703.1
47.5°	1426.4	1453.8	1503.9	1577.9	1592.7
50°	1312.6	1337.6	1387.7	1459.5	1482.2
52.5°	1194.2	1221.5	1270.5	1336.5	1369.5
55°	1080.4	1098.6	1152.1	1215.8	1251.1
57.5°	962.0	979.0	1039.4	1094.0	1130.5
60°	848.1	869.8	916.4	972.2	1014.3
62.5°	738.8	761.6	801.4	850.4	898.2
65°	633.0	650.0	688.7	737.7	779.8
67.5°	530.5	545.3	584.0	618.2	662.6
70°	426.9	446.3	474.7	507.7	536.2
72.5°	343.8	351.8	375.7	399.6	429.2
75°	253.9	267.5	286.9	300.5	317.6
77.5°	182.1	190.1	201.5	212.9	228.8
80°	121.8	125.2	135.5	137.7	150.3
82.5°	74.0	76.3	78.6	79.7	84.2
85°	39.8	39.8	39.8	37.6	37.6
87.5°	22.8	22.8	19.4	15.9	11.4
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)