

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: P557084

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-82-96-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: P557084
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-40-UNV-82-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

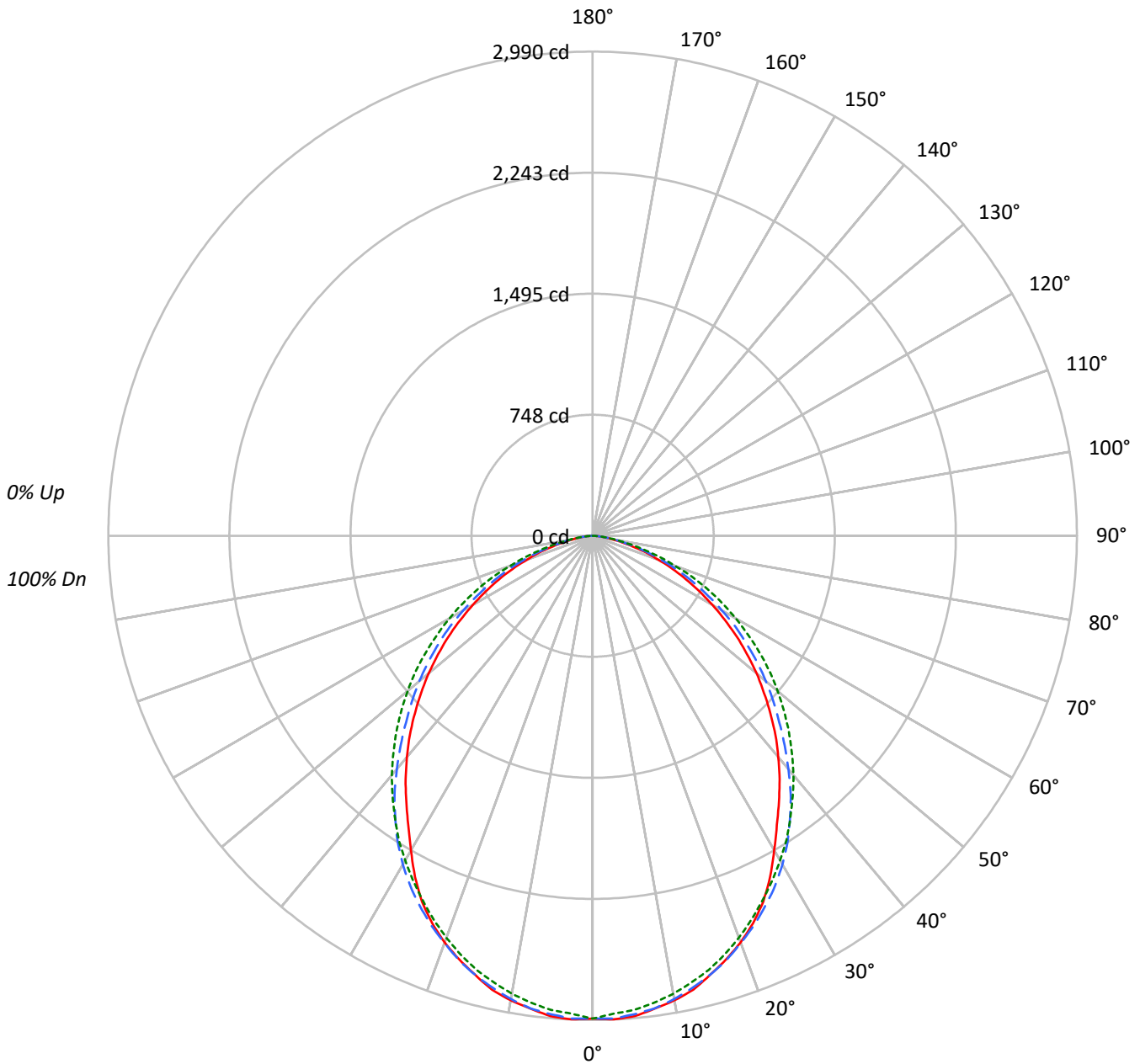
Lumens per Lamp: N/A
Luminaire Lumens: 6894.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8023	8023	8023
5°	8044	8010	7942
10°	7959	7937	7846
15°	7818	7818	7729
20°	7652	7662	7564
25°	7400	7492	7373
30°	6969	7282	7193
35°	6585	6980	6991
40°	6265	6603	6776
45°	5906	6203	6521
50°	5529	5845	6243
55°	5100	5438	5906
60°	4592	4962	5493
65°	4055	4413	4996
70°	3379	3758	4245
75°	2655	3001	3323
80°	1900	2112	2343
85°	1238	1238	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.7	4.1
10°-20°	788.6	11.4
20°-30°	1152.4	16.7
30°-40°	1308.1	19.0
40°-50°	1262.8	18.3
50°-60°	1041.7	15.1
60°-70°	693.7	10.1
70°-80°	310.4	4.5
80°-90°	55.5	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°	2221.7	32.2
0°-40°	3529.9	51.2
0°-60°	5834.4	84.6
0°-90°	6894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2982	2982	2982	2982	2982	
5°	2978	2977	2965	2949	2940	282
15°	2806	2813	2806	2794	2774	791
25°	2492	2512	2523	2505	2483	1141
35°	2004	2032	2125	2136	2128	1256
45°	1552	1578	1630	1704	1714	1197
55°	1087	1105	1159	1223	1259	970
65°	637	654	693	742	785	631
75°	255	269	289	302	320	279
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°	2981.5	2981.5	2981.5	2981.5	2981.5
2.5°	2989.5	2990.6	2983.8	2965.4	2954.0
5°	2978.0	2976.9	2965.4	2949.4	2940.2
7.5°	2944.8	2947.1	2943.7	2920.8	2908.2
10°	2912.8	2913.9	2904.7	2886.4	2871.5
12.5°	2871.5	2870.4	2857.8	2848.6	2824.6
15°	2806.2	2813.1	2806.2	2793.6	2774.2
17.5°	2743.2	2743.2	2747.8	2726.1	2711.2
20°	2672.2	2675.7	2675.7	2658.5	2641.3
22.5°	2589.8	2600.1	2603.5	2585.2	2564.6
25°	2492.4	2511.9	2523.3	2505.0	2483.2
27.5°	2374.4	2404.2	2438.6	2424.8	2400.8
30°	2242.7	2286.2	2343.5	2332.0	2314.9
32.5°	2117.8	2161.4	2240.4	2235.8	2226.7
35°	2004.5	2031.9	2124.7	2136.2	2128.2
37.5°	1896.8	1922.0	2009.0	2035.4	2028.5
40°	1783.4	1810.9	1879.6	1926.6	1928.9
42.5°	1671.1	1697.5	1753.6	1821.2	1821.2
45°	1552.0	1578.4	1629.9	1704.4	1713.5
47.5°	1435.2	1462.7	1513.1	1587.5	1602.4
50°	1320.6	1345.8	1396.2	1468.4	1491.3
52.5°	1201.5	1229.0	1278.3	1344.7	1377.9
55°	1087.0	1105.3	1159.1	1223.3	1258.8
57.5°	967.9	985.0	1045.8	1100.7	1137.4
60°	853.3	875.1	922.0	978.2	1020.6
62.5°	743.4	766.3	806.4	855.6	903.7
65°	636.8	654.0	693.0	742.2	784.6
67.5°	533.8	548.6	587.6	622.0	666.6
70°	429.5	449.0	477.6	510.8	539.5
72.5°	345.9	353.9	378.0	402.0	431.8
75°	255.4	269.2	288.6	302.4	319.6
77.5°	183.3	191.3	202.7	214.2	230.2
80°	122.6	126.0	136.3	138.6	151.2
82.5°	74.5	76.7	79.0	80.2	84.8
85°	40.1	40.1	40.1	37.8	37.8
87.5°	22.9	22.9	19.5	16.0	11.5
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)