

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: P558114

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-85-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: P558114
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-LD4-3LO-40-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

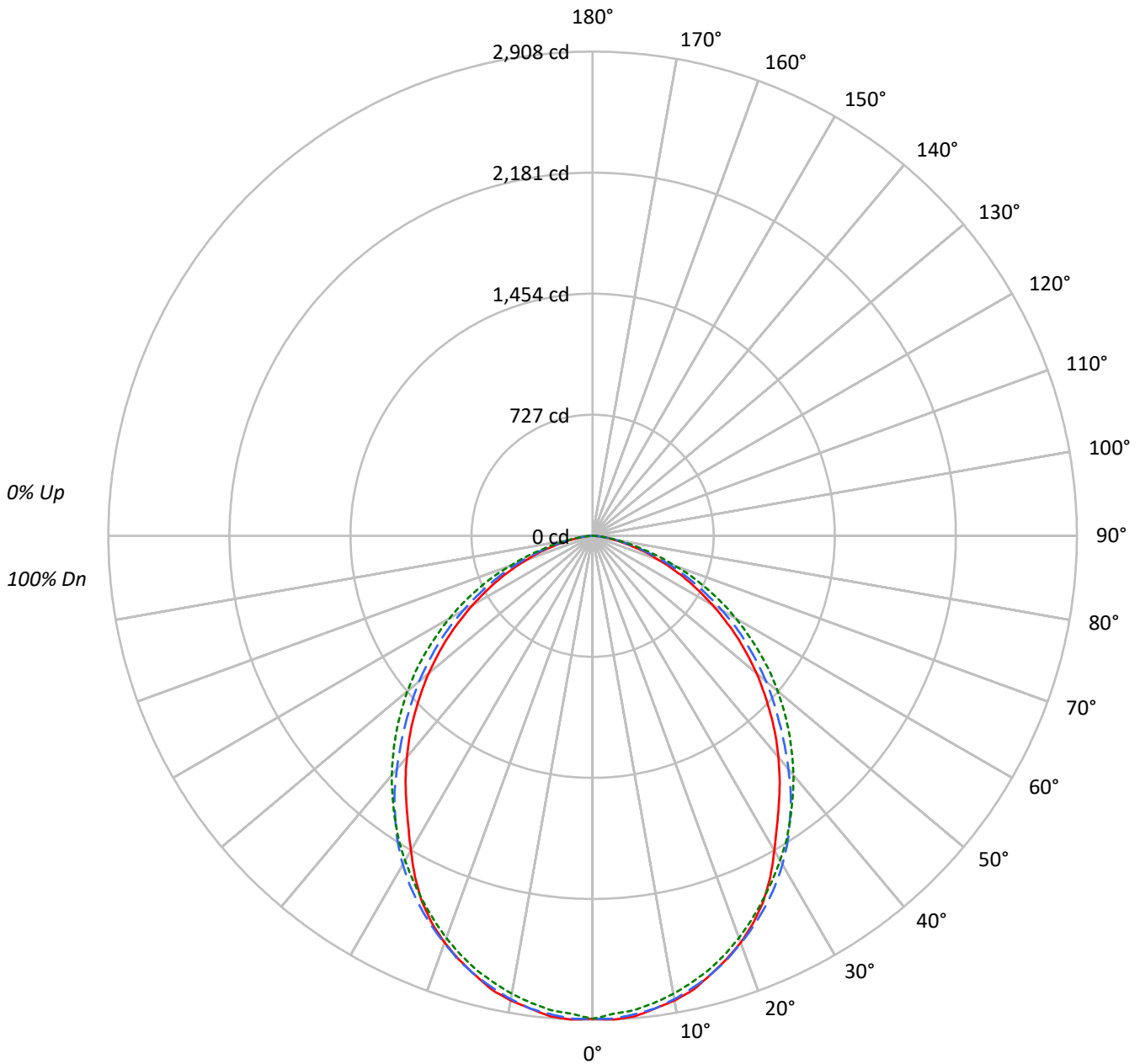
Lumens per Lamp: N/A
Luminaire Lumens: 6707.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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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CATALOG NUMBER: FUSL-12-4-LD4-3LO-40-UNV-93-85-EDD-90

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°	7805	7805	7805
5°	7826	7793	7727
10°	7743	7722	7633
15°	7606	7606	7519
20°	7445	7454	7359
25°	7200	7289	7173
30°	6780	7084	6998
35°	6406	6791	6801
40°	6095	6424	6592
45°	5746	6035	6344
50°	5379	5687	6074
55°	4961	5291	5746
60°	4468	4828	5344
65°	3945	4293	4860
70°	3288	3656	4130
75°	2584	2920	3232
80°	1847	2055	2280
85°	1204	1204	1136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.1	4.1
10°-20°	767.2	11.4
20°-30°	1121.2	16.7
30°-40°	1272.6	19.0
40°-50°	1228.5	18.3
50°-60°	1013.4	15.1
60°-70°	674.9	10.1
70°-80°	302.0	4.5
80°-90°	54.0	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°	2161.5	32.2
0°-40°	3434.1	51.2
0°-60°	5676.1	84.6
0°-90°	6707.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6707.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2901	2901	2901	2901	2901	
5°	2897	2896	2885	2869	2860	274
15°	2730	2737	2730	2718	2699	770
25°	2425	2444	2455	2437	2416	1110
35°	1950	1977	2067	2078	2070	1222
45°	1510	1536	1586	1658	1667	1165
55°	1058	1075	1128	1190	1225	944
65°	620	636	674	722	763	614
75°	248	262	281	294	311	272
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2900.6	2900.6	2900.6	2900.6	2900.6
2.5°	2908.4	2909.5	2902.8	2885.0	2873.9
5°	2897.3	2896.1	2885.0	2869.4	2860.5
7.5°	2864.9	2867.2	2863.8	2841.5	2829.3
10°	2833.7	2834.9	2825.9	2808.1	2793.6
12.5°	2793.6	2792.5	2780.3	2771.3	2747.9
15°	2730.1	2736.8	2730.1	2717.9	2698.9
17.5°	2668.8	2668.8	2673.3	2652.1	2637.6
20°	2599.7	2603.1	2603.1	2586.4	2569.6
22.5°	2519.5	2529.5	2532.9	2515.0	2495.0
25°	2424.8	2443.7	2454.9	2437.0	2415.9
27.5°	2310.0	2339.0	2372.4	2359.0	2335.6
30°	2181.9	2224.2	2279.9	2268.8	2252.1
32.5°	2060.4	2102.7	2179.6	2175.2	2166.3
35°	1950.1	1976.8	2067.1	2078.2	2070.4
37.5°	1845.3	1869.8	1954.5	1980.2	1973.5
40°	1735.0	1761.8	1828.6	1874.3	1876.5
42.5°	1625.8	1651.4	1706.0	1771.8	1771.8
45°	1509.9	1535.5	1585.7	1658.1	1667.0
47.5°	1396.3	1423.0	1472.0	1544.5	1558.9
50°	1284.8	1309.3	1358.4	1428.6	1450.9
52.5°	1168.9	1195.7	1243.6	1308.2	1340.5
55°	1057.5	1075.3	1127.7	1190.1	1224.7
57.5°	941.6	958.3	1017.4	1070.9	1106.5
60°	830.2	851.3	897.0	951.6	992.9
62.5°	723.2	745.5	784.5	832.4	879.2
65°	619.6	636.3	674.2	722.1	763.3
67.5°	519.3	533.8	571.7	605.1	648.5
70°	417.9	436.8	464.7	497.0	524.9
72.5°	336.5	344.3	367.7	391.1	420.1
75°	248.5	261.9	280.8	294.2	310.9
77.5°	178.3	186.1	197.2	208.4	224.0
80°	119.2	122.6	132.6	134.8	147.1
82.5°	72.4	74.7	76.9	78.0	82.5
85°	39.0	39.0	39.0	36.8	36.8
87.5°	22.3	22.3	18.9	15.6	11.1
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)