

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: P558124

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-96-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: P558124
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-93-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

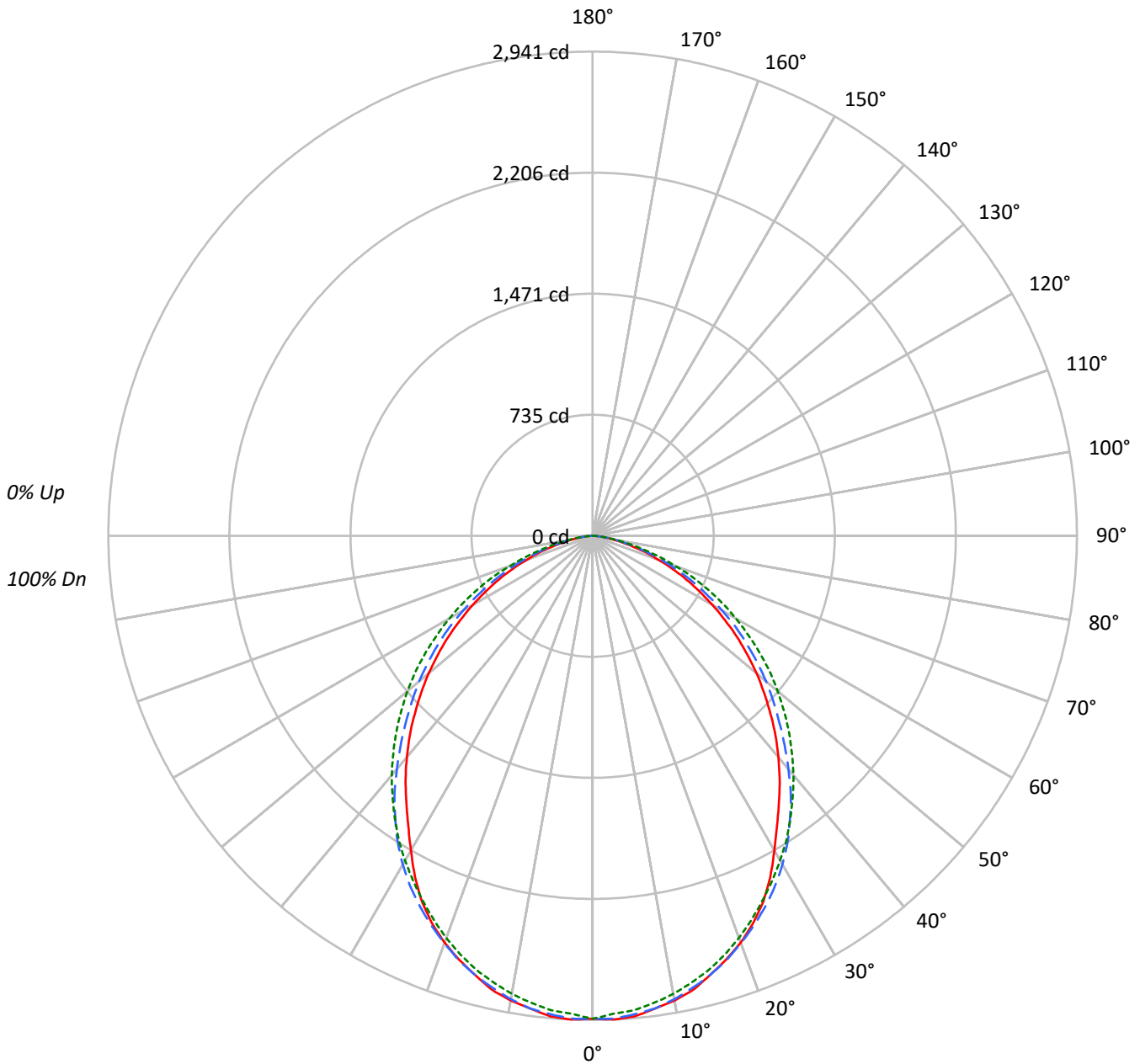
Lumens per Lamp: N/A
Luminaire Lumens: 6783.0 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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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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°	7894	7894	7894
5°	7915	7881	7814
10°	7831	7809	7720
15°	7692	7692	7604
20°	7529	7539	7442
25°	7281	7372	7254
30°	6857	7165	7077
35°	6479	6867	6879
40°	6164	6496	6667
45°	5811	6103	6416
50°	5440	5751	6143
55°	5018	5351	5811
60°	4519	4883	5404
65°	3990	4341	4916
70°	3325	3697	4176
75°	2613	2953	3269
80°	1869	2078	2306
85°	1216	1216	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.2	4.1
10°-20°	775.9	11.4
20°-30°	1133.9	16.7
30°-40°	1287.1	19.0
40°-50°	1242.5	18.3
50°-60°	1024.9	15.1
60°-70°	682.5	10.1
70°-80°	305.4	4.5
80°-90°	54.6	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°	2186.0	32.2
0°-40°	3473.0	51.2
0°-60°	5740.4	84.6
0°-90°	6783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2934	2934	2934	2934	2934	
5°	2930	2929	2918	2902	2893	277
15°	2761	2768	2761	2749	2730	778
25°	2452	2471	2483	2465	2443	1123
35°	1972	1999	2090	2102	2094	1236
45°	1527	1553	1604	1677	1686	1178
55°	1070	1088	1140	1204	1238	955
65°	627	644	682	730	772	621
75°	251	265	284	298	314	275
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°	2933.5	2933.5	2933.5	2933.5	2933.5
2.5°	2941.4	2942.5	2935.7	2917.7	2906.4
5°	2930.1	2929.0	2917.7	2901.9	2892.9
7.5°	2897.4	2899.7	2896.3	2873.7	2861.3
10°	2865.9	2867.0	2858.0	2839.9	2825.3
12.5°	2825.3	2824.2	2811.8	2802.7	2779.1
15°	2761.0	2767.8	2761.0	2748.7	2729.5
17.5°	2699.1	2699.1	2703.6	2682.2	2667.5
20°	2629.2	2632.6	2632.6	2615.7	2598.8
22.5°	2548.1	2558.2	2561.6	2543.5	2523.3
25°	2452.3	2471.4	2482.7	2464.7	2443.2
27.5°	2336.2	2365.5	2399.3	2385.8	2362.1
30°	2206.6	2249.4	2305.8	2294.5	2277.6
32.5°	2083.7	2126.6	2204.3	2199.8	2190.8
35°	1972.2	1999.2	2090.5	2101.8	2093.9
37.5°	1866.2	1891.0	1976.7	2002.6	1995.8
40°	1754.7	1781.7	1849.3	1895.5	1897.8
42.5°	1644.2	1670.2	1725.4	1791.9	1791.9
45°	1527.0	1552.9	1603.7	1676.9	1685.9
47.5°	1412.1	1439.1	1488.7	1562.0	1576.6
50°	1299.4	1324.2	1373.8	1444.8	1467.3
52.5°	1182.2	1209.2	1257.7	1323.0	1355.7
55°	1069.5	1087.5	1140.5	1203.6	1238.5
57.5°	952.3	969.2	1028.9	1083.0	1119.1
60°	839.6	861.0	907.2	962.4	1004.1
62.5°	731.4	753.9	793.4	841.8	889.2
65°	626.6	643.5	681.8	730.3	772.0
67.5°	525.2	539.8	578.1	611.9	655.9
70°	422.6	441.8	469.9	502.6	530.8
72.5°	340.3	348.2	371.9	395.6	424.9
75°	251.3	264.8	284.0	297.5	314.4
77.5°	180.3	188.2	199.5	210.7	226.5
80°	120.6	124.0	134.1	136.4	148.8
82.5°	73.3	75.5	77.8	78.9	83.4
85°	39.4	39.4	39.4	37.2	37.2
87.5°	22.5	22.5	19.2	15.8	11.3
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)