

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: P558165

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-82-86-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: P558165
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-50-UNV-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

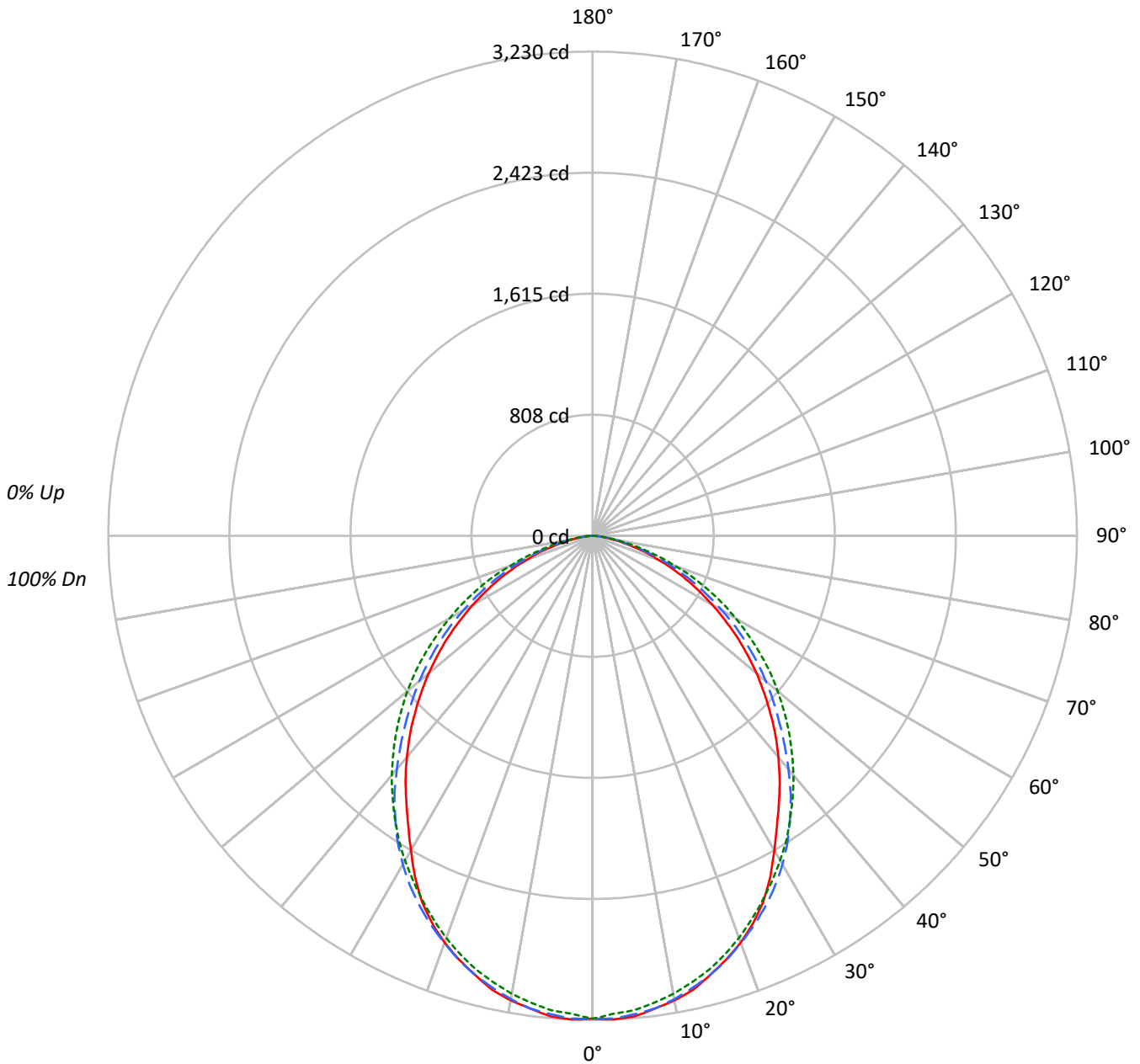
Lumens per Lamp: N/A
Luminaire Lumens: 7449.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P558165

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-82-86-EDD

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°	8669	8669	8669
5°	8692	8655	8582
10°	8600	8576	8478
15°	8447	8447	8351
20°	8268	8279	8173
25°	7996	8095	7967
30°	7530	7868	7772
35°	7115	7542	7554
40°	6769	7134	7321
45°	6382	6702	7046
50°	5974	6316	6746
55°	5510	5876	6381
60°	4962	5362	5935
65°	4381	4768	5398
70°	3651	4061	4586
75°	2870	3243	3590
80°	2052	2283	2532
85°	1337	1337	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.3	4.1
10°-20°	852.1	11.4
20°-30°	1245.2	16.7
30°-40°	1413.4	19.0
40°-50°	1364.4	18.3
50°-60°	1125.6	15.1
60°-70°	749.5	10.1
70°-80°	335.4	4.5
80°-90°	60.0	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°	2400.6	32.2
0°-40°	3814.0	51.2
0°-60°	6304.0	84.6
0°-90°	7449.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3222	3222	3222	3222	3222	
5°	3218	3216	3204	3187	3177	305
15°	3032	3040	3032	3018	2998	855
25°	2693	2714	2726	2707	2683	1233
35°	2166	2196	2296	2308	2300	1357
45°	1677	1705	1761	1842	1852	1294
55°	1174	1194	1252	1322	1360	1048
65°	688	707	749	802	848	682
75°	276	291	312	327	345	302
85°	43	43	43	41	41	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3221.5	3221.5	3221.5	3221.5	3221.5
2.5°	3230.2	3231.4	3224.0	3204.2	3191.8
5°	3217.8	3216.5	3204.2	3186.8	3176.9
7.5°	3181.9	3184.4	3180.7	3155.9	3142.3
10°	3147.2	3148.5	3138.6	3118.8	3102.7
12.5°	3102.7	3101.5	3087.8	3077.9	3051.9
15°	3032.1	3039.6	3032.1	3018.5	2997.5
17.5°	2964.1	2964.1	2969.0	2945.5	2929.4
20°	2887.3	2891.1	2891.1	2872.5	2853.9
22.5°	2798.2	2809.4	2813.1	2793.3	2771.0
25°	2693.0	2714.1	2726.5	2706.7	2683.1
27.5°	2565.6	2597.7	2634.9	2620.0	2594.0
30°	2423.2	2470.3	2532.2	2519.8	2501.2
32.5°	2288.3	2335.4	2420.8	2415.8	2405.9
35°	2165.8	2195.5	2295.8	2308.1	2299.5
37.5°	2049.5	2076.7	2170.8	2199.2	2191.8
40°	1927.0	1956.7	2030.9	2081.7	2084.1
42.5°	1805.7	1834.1	1894.8	1967.8	1967.8
45°	1677.0	1705.4	1761.1	1841.6	1851.5
47.5°	1550.7	1580.4	1634.9	1715.3	1731.4
50°	1427.0	1454.2	1508.6	1586.6	1611.4
52.5°	1298.3	1328.0	1381.2	1453.0	1488.8
55°	1174.5	1194.3	1252.5	1321.8	1360.1
57.5°	1045.8	1064.3	1129.9	1189.3	1228.9
60°	922.0	945.5	996.3	1056.9	1102.7
62.5°	803.2	828.0	871.3	924.5	976.5
65°	688.1	706.7	748.8	802.0	847.8
67.5°	576.7	592.8	634.9	672.0	720.3
70°	464.1	485.1	516.1	552.0	582.9
72.5°	373.8	382.4	408.4	434.4	466.6
75°	276.0	290.8	311.9	326.7	345.3
77.5°	198.0	206.7	219.1	231.4	248.8
80°	132.4	136.1	147.3	149.8	163.4
82.5°	80.4	82.9	85.4	86.6	91.6
85°	43.3	43.3	43.3	40.8	40.8
87.5°	24.8	24.8	21.0	17.3	12.4
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)