

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: P558147

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-81-85-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: P558147
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-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

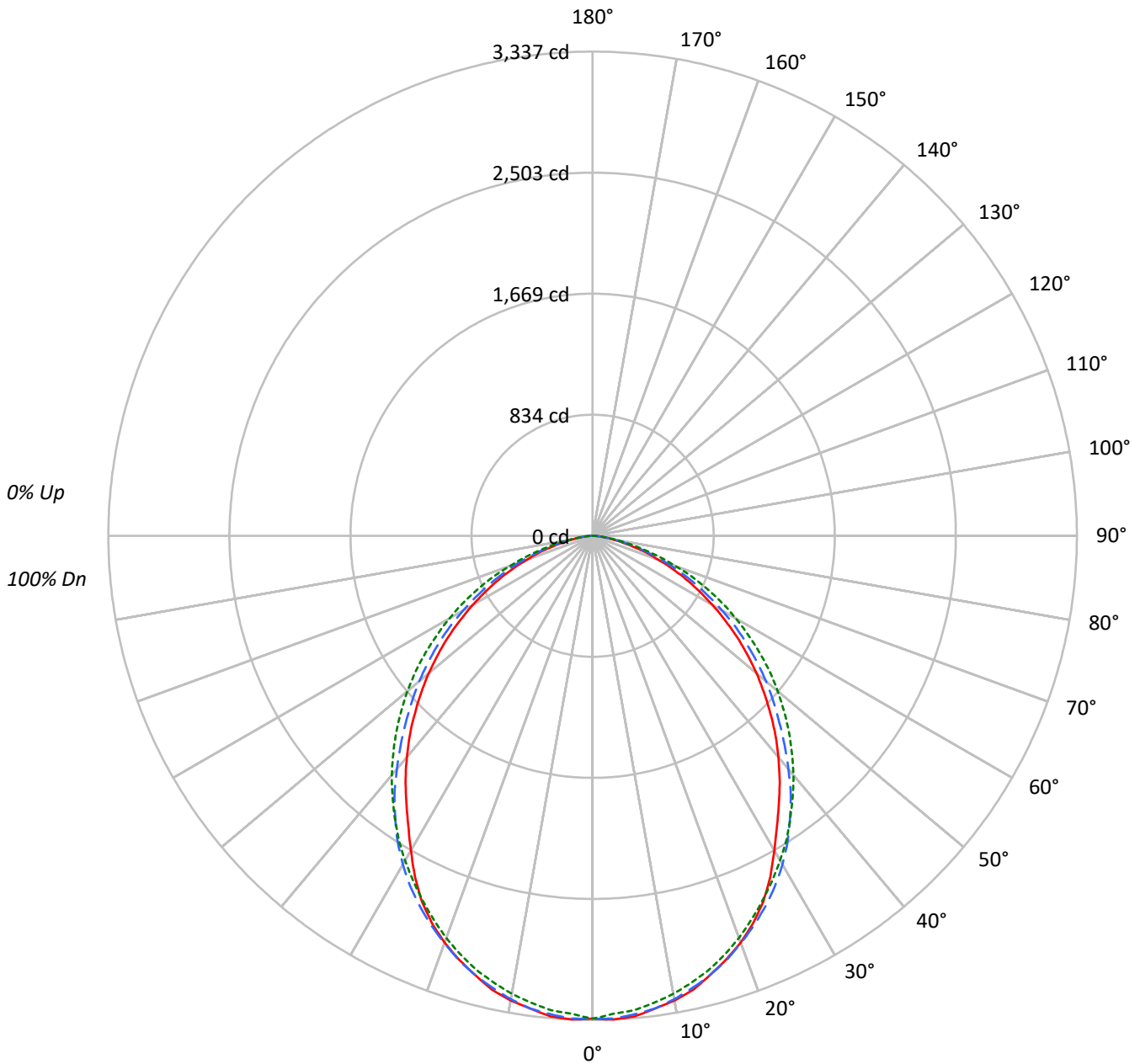
Lumens per Lamp: N/A
Luminaire Lumens: 7696.0 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	8956	8956	8956
5°	8980	8942	8866
10°	8885	8861	8759
15°	8727	8727	8628
20°	8543	8554	8444
25°	8261	8364	8231
30°	7779	8129	8030
35°	7351	7792	7804
40°	6994	7371	7564
45°	6594	6924	7280
50°	6172	6525	6970
55°	5693	6071	6593
60°	5127	5540	6132
65°	4527	4926	5577
70°	3773	4195	4738
75°	2964	3350	3709
80°	2120	2359	2616
85°	1383	1383	1303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.4	4.1
10°-20°	880.4	11.4
20°-30°	1286.5	16.7
30°-40°	1460.3	19.0
40°-50°	1409.7	18.3
50°-60°	1162.9	15.1
60°-70°	774.4	10.1
70°-80°	346.5	4.5
80°-90°	62.0	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°	2480.2	32.2
0°-40°	3940.5	51.2
0°-60°	6513.1	84.6
0°-90°	7696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7696.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3328	3328	3328	3328	3328	
5°	3324	3323	3310	3292	3282	315
15°	3133	3140	3133	3119	3097	883
25°	2782	2804	2817	2796	2772	1274
35°	2238	2268	2372	2385	2376	1402
45°	1733	1762	1820	1903	1913	1337
55°	1213	1234	1294	1366	1405	1083
65°	711	730	774	829	876	705
75°	285	300	322	338	357	312
85°	45	45	45	42	42	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3328.3	<i>3328.3</i>	3328.3	3328.3	3328.3
2.5°	<i>3337.3</i>	<i>3338.6</i>	<i>3330.9</i>	<i>3310.4</i>	<i>3297.6</i>
5°	3324.5	<i>3323.2</i>	3310.4	3292.5	3282.3
7.5°	3287.4	<i>3290.0</i>	3286.1	3260.6	3246.5
10°	3251.6	<i>3252.9</i>	3242.7	3222.2	3205.6
12.5°	3205.6	<i>3204.3</i>	3190.2	3180.0	3153.1
15°	3132.7	<i>3140.4</i>	3132.7	3118.6	3096.9
17.5°	3062.4	<i>3062.4</i>	3067.5	3043.2	3026.6
20°	2983.1	<i>2986.9</i>	2986.9	2967.7	2948.6
22.5°	2891.0	<i>2902.5</i>	2906.4	2885.9	2862.9
25°	2782.3	<i>2804.1</i>	2816.9	2796.4	2772.1
27.5°	2650.6	<i>2683.9</i>	2722.2	2706.9	2680.0
30°	2503.6	<i>2552.2</i>	2616.1	2603.3	2584.1
32.5°	2364.2	<i>2412.8</i>	2501.0	2495.9	2485.7
35°	2237.6	<i>2268.3</i>	2371.9	2384.7	2375.7
37.5°	2117.4	<i>2145.6</i>	2242.7	2272.2	2264.5
40°	1990.9	<i>2021.5</i>	2098.3	2150.7	2153.2
42.5°	1865.5	<i>1895.0</i>	1957.6	2033.1	2033.1
45°	1732.6	<i>1762.0</i>	1819.5	1902.6	1912.9
47.5°	1602.1	<i>1632.8</i>	1689.1	1772.2	1788.8
50°	1474.3	<i>1502.4</i>	1558.7	1639.2	1664.8
52.5°	1341.3	<i>1372.0</i>	1427.0	1501.1	1538.2
55°	1213.4	<i>1233.9</i>	1294.0	1365.6	1405.2
57.5°	1080.5	<i>1099.6</i>	1167.4	1228.8	1269.7
60°	952.6	<i>976.9</i>	1029.3	1092.0	1139.3
62.5°	829.8	<i>855.4</i>	900.2	955.2	1008.9
65°	710.9	<i>730.1</i>	773.6	828.6	875.9
67.5°	595.9	<i>612.5</i>	655.9	694.3	744.2
70°	479.5	<i>501.2</i>	533.2	570.3	602.2
72.5°	386.2	<i>395.1</i>	422.0	448.8	482.1
75°	285.1	<i>300.5</i>	322.2	337.6	356.7
77.5°	204.6	<i>213.5</i>	226.3	239.1	257.0
80°	136.8	<i>140.7</i>	152.2	154.7	168.8
82.5°	83.1	<i>85.7</i>	88.2	89.5	94.6
85°	44.8	<i>44.8</i>	44.8	42.2	42.2
87.5°	25.6	<i>25.6</i>	21.7	17.9	12.8
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)