

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: P557140

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-86-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: P557140
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-50-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

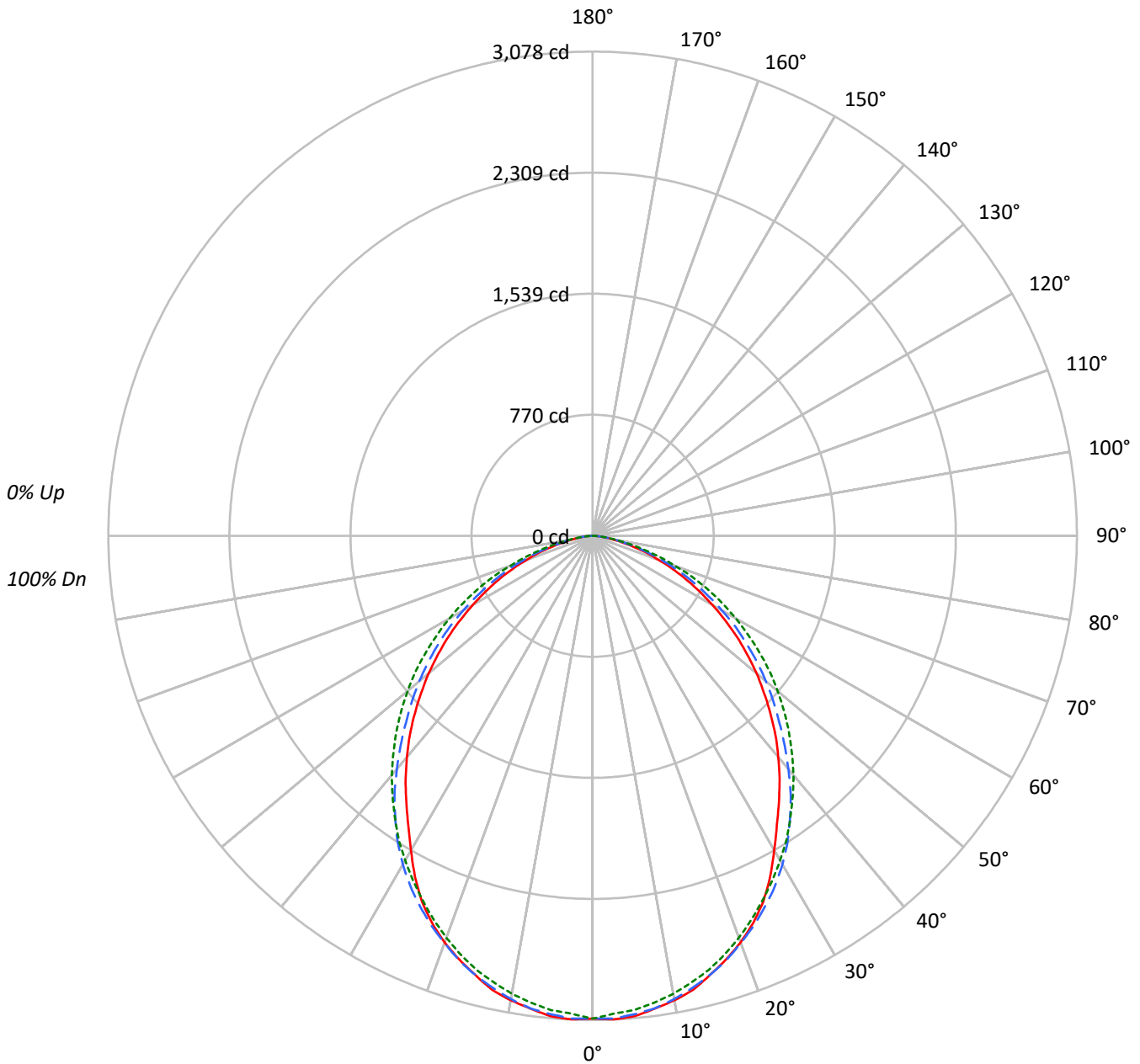
Lumens per Lamp: N/A
Luminaire Lumens: 7097.0 lumens
Efficiency: N/A
Efficacy: 82.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8259	8259	8259
5°	8281	8246	8176
10°	8193	8171	8078
15°	8048	8048	7956
20°	7878	7888	7787
25°	7618	7713	7590
30°	7174	7496	7405
35°	6779	7185	7197
40°	6449	6797	6975
45°	6080	6385	6713
50°	5691	6018	6427
55°	5250	5598	6080
60°	4728	5109	5654
65°	4174	4543	5143
70°	3479	3869	4370
75°	2733	3089	3421
80°	1956	2174	2411
85°	1275	1275	1201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.0	4.1
10°-20°	811.8	11.4
20°-30°	1186.4	16.7
30°-40°	1346.6	19.0
40°-50°	1300.0	18.3
50°-60°	1072.4	15.1
60°-70°	714.1	10.1
70°-80°	319.6	4.5
80°-90°	57.2	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°	2287.2	32.2
0°-40°	3633.8	51.2
0°-60°	6006.1	84.6
0°-90°	7097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7097.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3069	3069	3069	3069	3069	
5°	3066	3065	3053	3036	3027	290
15°	2889	2896	2889	2876	2856	814
25°	2566	2586	2598	2579	2556	1175
35°	2064	2092	2187	2199	2191	1293
45°	1598	1625	1678	1754	1764	1233
55°	1119	1138	1193	1259	1296	999
65°	656	673	713	764	808	650
75°	263	277	297	311	329	288
85°	41	41	41	39	39	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3069.3	3069.3	3069.3	3069.3	3069.3
2.5°	3077.5	3078.7	3071.6	3052.8	3041.0
5°	3065.7	3064.6	3052.8	3036.3	3026.8
7.5°	3031.5	3033.9	3030.4	3006.8	2993.8
10°	2998.5	2999.7	2990.3	2971.4	2956.1
12.5°	2956.1	2954.9	2941.9	2932.5	2907.7
15°	2888.9	2895.9	2888.9	2875.9	2855.8
17.5°	2824.0	2824.0	2828.7	2806.3	2791.0
20°	2750.9	2754.4	2754.4	2736.8	2719.1
22.5°	2666.0	2676.6	2680.2	2661.3	2640.1
25°	2565.8	2585.8	2597.6	2578.8	2556.3
27.5°	2444.3	2475.0	2510.4	2496.2	2471.5
30°	2308.7	2353.5	2412.5	2400.7	2383.0
32.5°	2180.2	2225.0	2306.4	2301.7	2292.2
35°	2063.5	2091.8	2187.3	2199.1	2190.8
37.5°	1952.6	1978.6	2068.2	2095.3	2088.2
40°	1835.9	1864.2	1934.9	1983.3	1985.7
42.5°	1720.3	1747.5	1805.2	1874.8	1874.8
45°	1597.7	1624.8	1677.9	1754.5	1764.0
47.5°	1477.4	1505.7	1557.6	1634.3	1649.6
50°	1359.5	1385.5	1437.4	1511.6	1535.2
52.5°	1236.9	1265.2	1315.9	1384.3	1418.5
55°	1119.0	1137.9	1193.3	1259.3	1295.9
57.5°	996.4	1014.0	1076.5	1133.1	1170.9
60°	878.5	900.9	949.2	1007.0	1050.6
62.5°	765.3	788.8	830.1	880.8	930.3
65°	655.6	673.3	713.4	764.1	807.7
67.5°	549.5	564.8	604.9	640.3	686.3
70°	442.2	462.2	491.7	525.9	555.4
72.5°	356.1	364.4	389.1	413.9	444.5
75°	262.9	277.1	297.1	311.3	329.0
77.5°	188.7	196.9	208.7	220.5	237.0
80°	126.2	129.7	140.3	142.7	155.6
82.5°	76.6	79.0	81.4	82.5	87.3
85°	41.3	41.3	41.3	38.9	38.9
87.5°	23.6	23.6	20.0	16.5	11.8
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)