

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: P557126

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-87-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: P557126
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-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

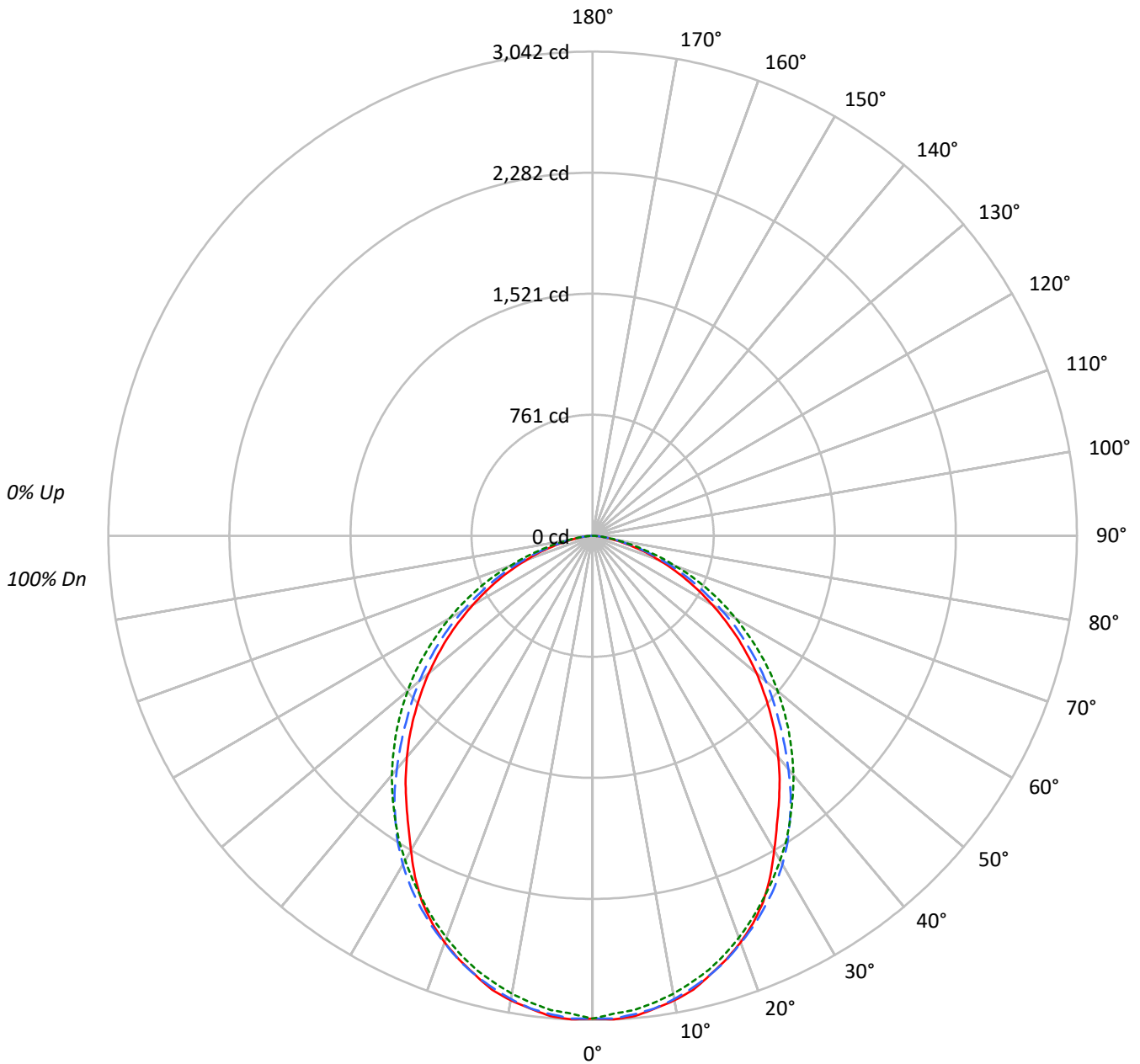
Lumens per Lamp: N/A
Luminaire Lumens: 7014.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	8163	8163	8163
5°	8185	8150	8081
10°	8098	8075	7983
15°	7954	7954	7863
20°	7785	7796	7696
25°	7529	7622	7502
30°	7090	7409	7318
35°	6699	7101	7113
40°	6374	6718	6894
45°	6009	6311	6634
50°	5625	5947	6352
55°	5188	5533	6009
60°	4673	5049	5588
65°	4125	4489	5083
70°	3438	3823	4319
75°	2702	3054	3380
80°	1932	2149	2383
85°	1260	1260	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.6	4.1
10°-20°	802.3	11.4
20°-30°	1172.5	16.7
30°-40°	1330.9	19.0
40°-50°	1284.8	18.3
50°-60°	1059.8	15.1
60°-70°	705.8	10.1
70°-80°	315.8	4.5
80°-90°	56.5	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°	2260.4	32.2
0°-40°	3591.3	51.2
0°-60°	5935.9	84.6
0°-90°	7014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7014.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3033	3033	3033	3033	3033	
5°	3030	3029	3017	3001	2991	287
15°	2855	2862	2855	2842	2822	805
25°	2536	2556	2567	2549	2526	1161
35°	2039	2067	2162	2173	2165	1278
45°	1579	1606	1658	1734	1743	1218
55°	1106	1125	1179	1245	1281	987
65°	648	665	705	755	798	642
75°	260	274	294	308	325	284
85°	41	41	41	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3033.4	3033.4	3033.4	3033.4	3033.4
2.5°	3041.5	3042.7	3035.7	3017.1	3005.4
5°	3029.9	3028.7	3017.1	3000.7	2991.4
7.5°	2996.1	2998.4	2994.9	2971.6	2958.8
10°	2963.5	2964.6	2955.3	2936.7	2921.5
12.5°	2921.5	2920.3	2907.5	2898.2	2873.7
15°	2855.1	2862.1	2855.1	2842.3	2822.4
17.5°	2791.0	2791.0	2795.6	2773.5	2758.4
20°	2718.7	2722.2	2722.2	2704.7	2687.3
22.5°	2634.8	2645.3	2648.8	2630.2	2609.2
25°	2535.8	2555.6	2567.2	2548.6	2526.5
27.5°	2415.7	2446.0	2481.0	2467.0	2442.5
30°	2281.7	2326.0	2384.3	2372.6	2355.1
32.5°	2154.7	2199.0	2279.4	2274.7	2265.4
35°	2039.3	2067.3	2161.7	2173.4	2165.2
37.5°	1929.8	1955.4	2044.0	2070.8	2063.8
40°	1814.4	1842.4	1912.3	1960.1	1962.4
42.5°	1700.2	1727.0	1784.1	1852.9	1852.9
45°	1579.0	1605.8	1658.3	1734.0	1743.3
47.5°	1460.2	1488.1	1539.4	1615.2	1630.3
50°	1343.6	1369.3	1420.5	1494.0	1517.3
52.5°	1222.4	1250.4	1300.5	1368.1	1401.9
55°	1105.9	1124.6	1179.3	1244.6	1280.7
57.5°	984.7	1002.2	1064.0	1119.9	1157.2
60°	868.2	890.3	938.1	995.2	1038.3
62.5°	756.3	779.6	820.4	870.5	919.5
65°	647.9	665.4	705.0	755.1	798.3
67.5°	543.0	558.2	597.8	632.8	678.2
70°	437.0	456.8	485.9	519.7	548.9
72.5°	351.9	360.1	384.6	409.0	439.3
75°	259.9	273.9	293.7	307.6	325.1
77.5°	186.5	194.6	206.3	217.9	234.2
80°	124.7	128.2	138.7	141.0	153.8
82.5°	75.7	78.1	80.4	81.6	86.2
85°	40.8	40.8	40.8	38.5	38.5
87.5°	23.3	23.3	19.8	16.3	11.7
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)