

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: P556629

Luminaire Tested: **FUSL-12-4-LD4-1LO-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: P556629
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-LD4-1LO-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

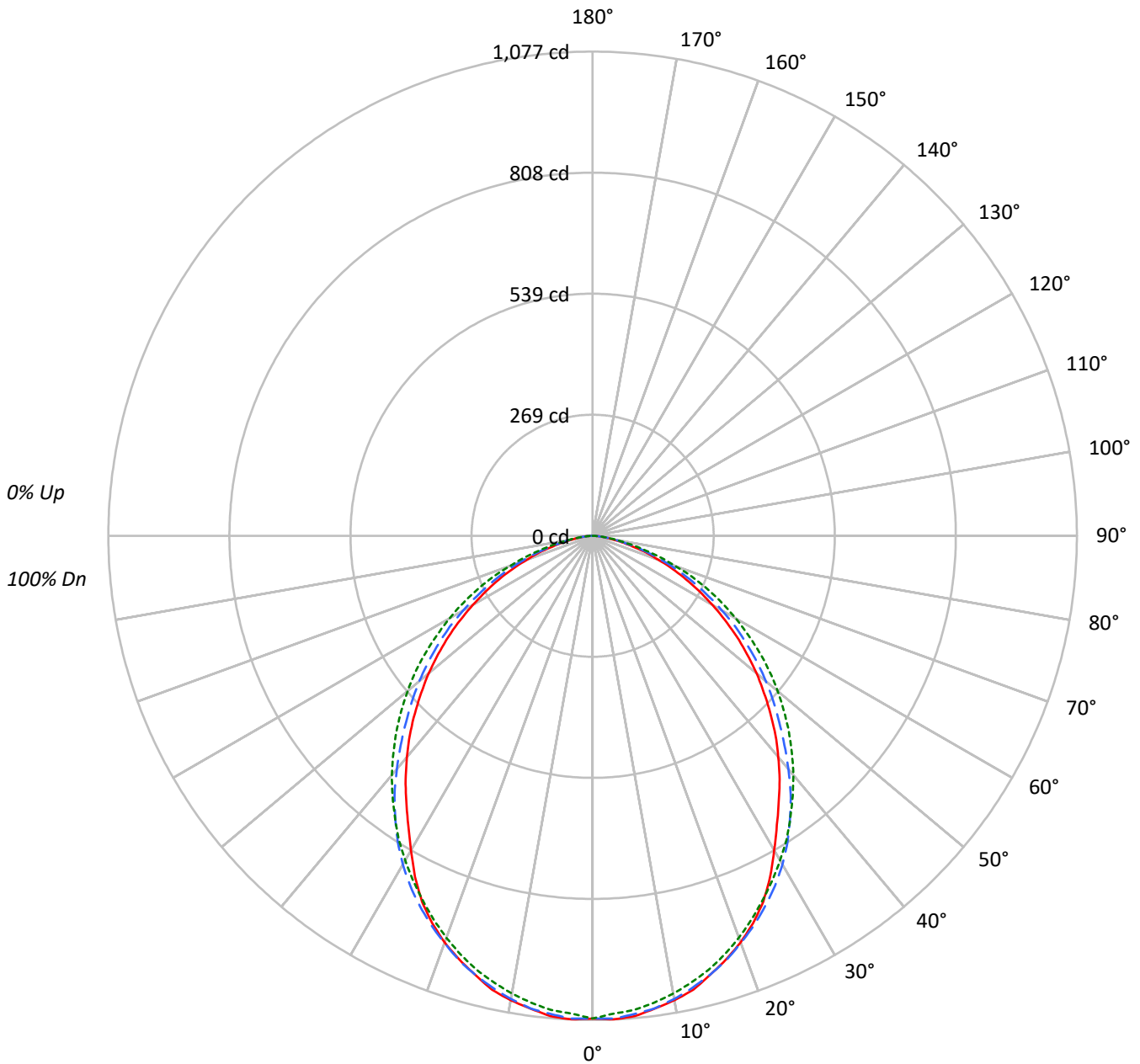
Lumens per Lamp: N/A
Luminaire Lumens: 2483.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2890	2890	2890
5°	2897	2885	2861
10°	2867	2859	2826
15°	2816	2816	2784
20°	2756	2760	2724
25°	2665	2698	2656
30°	2510	2623	2591
35°	2371	2514	2518
40°	2256	2378	2440
45°	2127	2234	2349
50°	1991	2105	2249
55°	1837	1959	2127
60°	1654	1787	1978
65°	1461	1589	1799
70°	1217	1353	1529
75°	957	1081	1197
80°	683	761	845
85°	445	445	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.1	4.1
10°-20°	284.0	11.4
20°-30°	415.1	16.7
30°-40°	471.1	19.0
40°-50°	454.8	18.3
50°-60°	375.2	15.1
60°-70°	249.8	10.1
70°-80°	111.8	4.5
80°-90°	20.0	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°	800.2	32.2
0°-40°	1271.3	51.2
0°-60°	2101.4	84.6
0°-90°	2483.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1074	1074	1074	1074	1074	
5°	1073	1072	1068	1062	1059	102
15°	1011	1013	1011	1006	999	285
25°	898	905	909	902	894	411
35°	722	732	765	769	766	452
45°	559	568	587	614	617	431
55°	392	398	418	441	453	349
65°	229	236	250	267	283	227
75°	92	97	104	109	115	101
85°	14	14	14	14	14	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1073.8	1073.8	1073.8	1073.8	1073.8
2.5°	1076.7	1077.1	1074.7	1068.1	1063.9
5°	1072.6	1072.2	1068.1	1062.3	1059.0
7.5°	1060.6	1061.5	1060.2	1052.0	1047.4
10°	1049.1	1049.5	1046.2	1039.6	1034.2
12.5°	1034.2	1033.8	1029.3	1026.0	1017.3
15°	1010.7	1013.2	1010.7	1006.2	999.2
17.5°	988.0	988.0	989.7	981.8	976.5
20°	962.4	963.7	963.7	957.5	951.3
22.5°	932.7	936.5	937.7	931.1	923.7
25°	897.7	904.7	908.8	902.2	894.4
27.5°	855.2	865.9	878.3	873.3	864.7
30°	807.7	823.4	844.1	839.9	833.7
32.5°	762.8	778.5	806.9	805.3	802.0
35°	721.9	731.8	765.3	769.4	766.5
37.5°	683.2	692.2	723.6	733.1	730.6
40°	642.3	652.2	677.0	693.9	694.7
42.5°	601.9	611.4	631.6	655.9	655.9
45°	559.0	568.5	587.0	613.9	617.2
47.5°	516.9	526.8	545.0	571.8	577.1
50°	475.7	484.7	502.9	528.9	537.1
52.5°	432.8	442.7	460.4	484.3	496.3
55°	391.5	398.1	417.5	440.6	453.4
57.5°	348.6	354.8	376.6	396.4	409.6
60°	307.3	315.2	332.1	352.3	367.6
62.5°	267.7	276.0	290.4	308.2	325.5
65°	229.4	235.6	249.6	267.3	282.6
67.5°	192.2	197.6	211.6	224.0	240.1
70°	154.7	161.7	172.0	184.0	194.3
72.5°	124.6	127.5	136.1	144.8	155.5
75°	92.0	96.9	104.0	108.9	115.1
77.5°	66.0	68.9	73.0	77.1	82.9
80°	44.1	45.4	49.1	49.9	54.5
82.5°	26.8	27.6	28.5	28.9	30.5
85°	14.4	14.4	14.4	13.6	13.6
87.5°	8.3	8.3	7.0	5.8	4.1
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)