

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: P556549

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-81-86-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: P556549
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-40-UNV-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

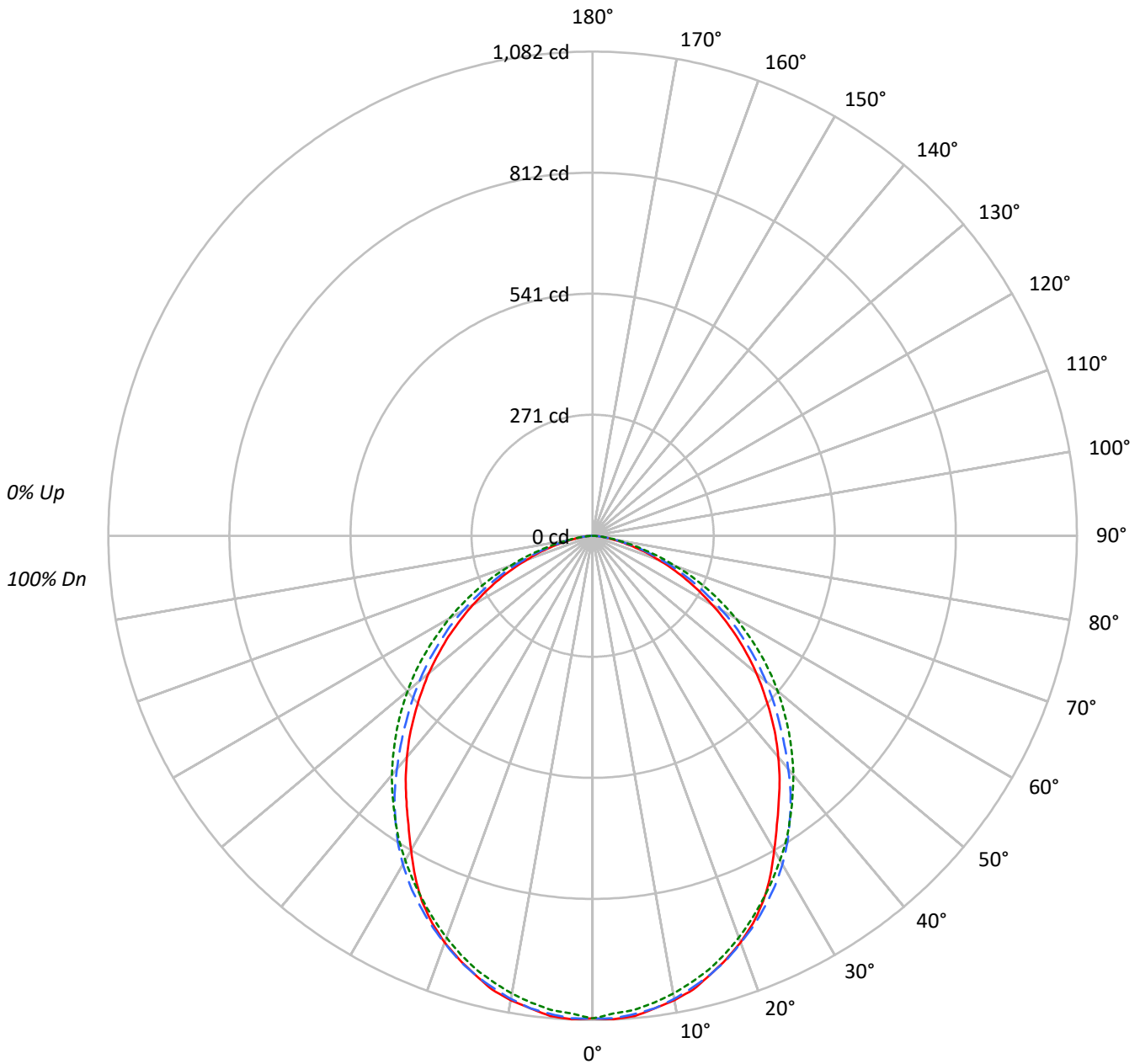
Lumens per Lamp: N/A
Luminaire Lumens: 2494.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	2902	2902	2902
5°	2910	2898	2873
10°	2879	2871	2839
15°	2828	2828	2796
20°	2768	2772	2736
25°	2677	2710	2667
30°	2521	2634	2602
35°	2382	2525	2529
40°	2266	2389	2451
45°	2137	2244	2359
50°	2000	2115	2259
55°	1845	1967	2137
60°	1661	1795	1987
65°	1467	1596	1807
70°	1223	1360	1536
75°	961	1085	1202
80°	687	764	848
85°	448	448	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	4.1
10°-20°	285.3	11.4
20°-30°	416.9	16.7
30°-40°	473.2	19.0
40°-50°	456.8	18.3
50°-60°	376.9	15.1
60°-70°	251.0	10.1
70°-80°	112.3	4.5
80°-90°	20.1	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°	803.7	32.2
0°-40°	1277.0	51.2
0°-60°	2110.7	84.6
0°-90°	2494.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1077	1077	1073	1067	1064	102
15°	1015	1018	1015	1011	1004	286
25°	902	909	913	906	898	413
35°	725	735	769	773	770	454
45°	562	571	590	617	620	433
55°	393	400	419	442	455	351
65°	230	237	251	268	284	228
75°	92	97	104	109	116	101
85°	14	14	14	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1078.6	1078.6	1078.6	1078.6	1078.6
2.5°	1081.5	1081.9	1079.4	1072.8	1068.6
5°	1077.3	1076.9	1072.8	1067.0	1063.7
7.5°	1065.3	1066.2	1064.9	1056.6	1052.1
10°	1053.7	1054.1	1050.8	1044.2	1038.8
12.5°	1038.8	1038.4	1033.8	1030.5	1021.8
15°	1015.2	1017.7	1015.2	1010.6	1003.6
17.5°	992.4	992.4	994.1	986.2	980.8
20°	966.7	968.0	968.0	961.7	955.5
22.5°	936.9	940.6	941.9	935.2	927.8
25°	901.7	908.7	912.8	906.2	898.3
27.5°	859.0	869.8	882.2	877.2	868.5
30°	811.3	827.1	847.8	843.6	837.4
32.5°	766.2	781.9	810.5	808.8	805.5
35°	725.1	735.1	768.6	772.8	769.9
37.5°	686.2	695.3	726.8	736.3	733.8
40°	645.2	655.1	680.0	697.0	697.8
42.5°	604.6	614.1	634.4	658.8	658.8
45°	561.5	571.0	589.6	616.6	619.9
47.5°	519.2	529.1	547.4	574.3	579.7
50°	477.8	486.9	505.1	531.2	539.5
52.5°	434.7	444.6	462.4	486.5	498.5
55°	393.2	399.9	419.3	442.5	455.4
57.5°	350.1	356.4	378.3	398.2	411.5
60°	308.7	316.6	333.6	353.9	369.2
62.5°	268.9	277.2	291.7	309.5	326.9
65°	230.4	236.6	250.7	268.5	283.8
67.5°	193.1	198.5	212.6	225.0	241.2
70°	155.4	162.4	172.8	184.8	195.2
72.5°	125.1	128.0	136.7	145.4	156.2
75°	92.4	97.4	104.4	109.4	115.6
77.5°	66.3	69.2	73.3	77.5	83.3
80°	44.3	45.6	49.3	50.1	54.7
82.5°	26.9	27.8	28.6	29.0	30.7
85°	14.5	14.5	14.5	13.7	13.7
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)