

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: P557959

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-81-87-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: P557959
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-30-UNV-81-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

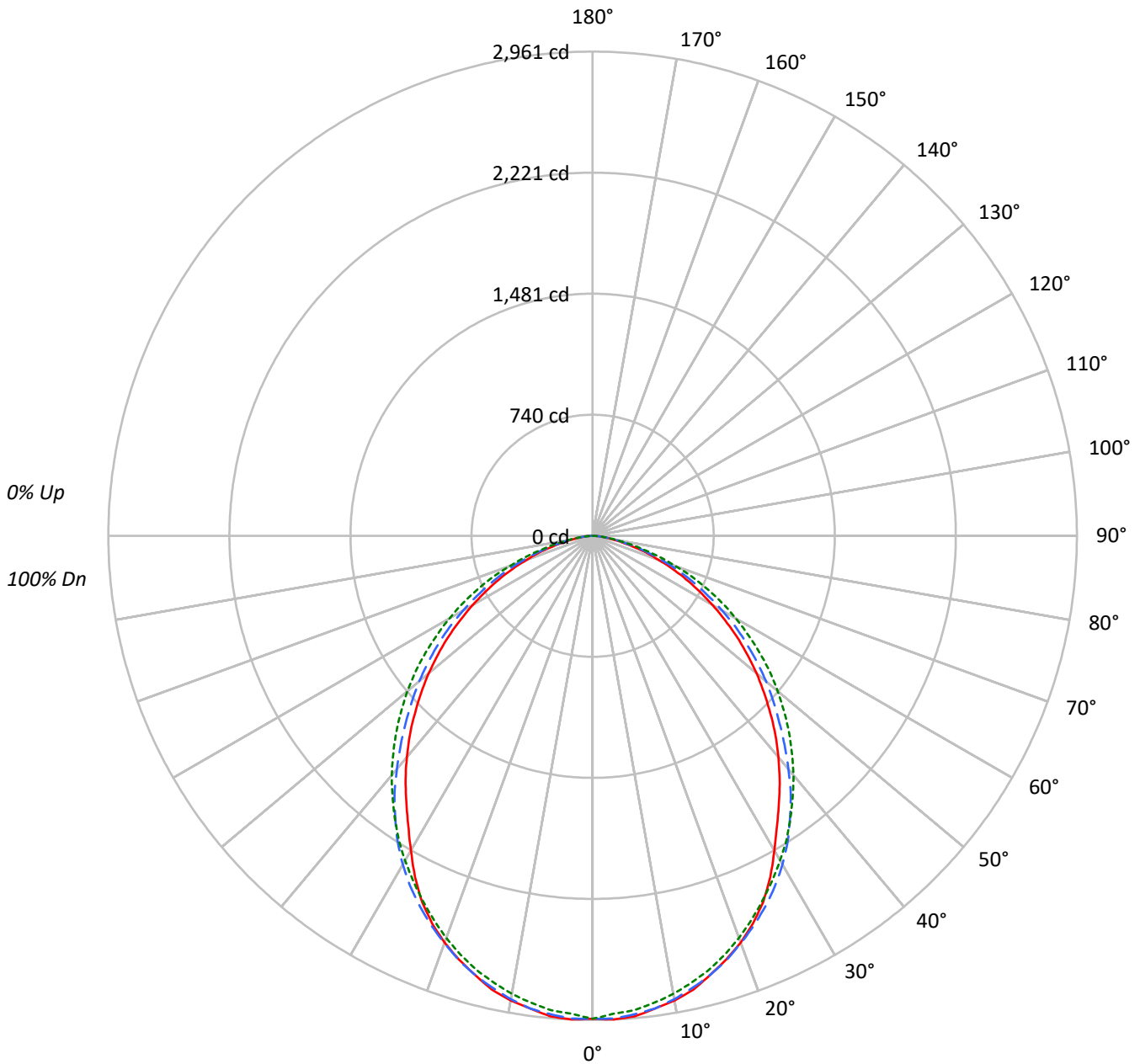
Lumens per Lamp: N/A
Luminaire Lumens: 6829.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	7948	7948	7948
5°	7969	7935	7867
10°	7884	7862	7772
15°	7744	7744	7656
20°	7580	7590	7493
25°	7331	7421	7304
30°	6903	7213	7125
35°	6523	6914	6925
40°	6206	6541	6712
45°	5851	6144	6460
50°	5477	5790	6185
55°	5051	5387	5850
60°	4549	4916	5441
65°	4017	4371	4949
70°	3348	3722	4205
75°	2630	2973	3292
80°	1881	2092	2321
85°	1226	1226	1155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.1	4.1
10°-20°	781.2	11.4
20°-30°	1141.5	16.7
30°-40°	1295.8	19.0
40°-50°	1250.9	18.3
50°-60°	1031.9	15.1
60°-70°	687.2	10.1
70°-80°	307.5	4.5
80°-90°	55.0	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°	2200.8	32.2
0°-40°	3496.6	51.2
0°-60°	5779.4	84.6
0°-90°	6829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6829.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2953	2953	2953	2953	2953	
5°	2950	2949	2938	2922	2912	279
15°	2780	2787	2780	2767	2748	784
25°	2469	2488	2500	2481	2460	1131
35°	1986	2013	2105	2116	2108	1244
45°	1537	1564	1614	1688	1697	1186
55°	1077	1095	1148	1212	1247	961
65°	631	648	686	735	777	626
75°	253	267	286	300	317	277
85°	40	40	40	37	37	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2953.4	2953.4	2953.4	2953.4	2953.4
2.5°	2961.3	2962.4	2955.6	2937.5	2926.1
5°	2950.0	2948.8	2937.5	2921.6	2912.5
7.5°	2917.1	2919.3	2915.9	2893.2	2880.8
10°	2885.3	2886.4	2877.3	2859.2	2844.4
12.5°	2844.4	2843.3	2830.8	2821.8	2797.9
15°	2779.8	2786.6	2779.8	2767.3	2748.0
17.5°	2717.4	2717.4	2721.9	2700.4	2685.6
20°	2647.0	2650.4	2650.4	2633.4	2616.4
22.5°	2565.3	2575.5	2578.9	2560.8	2540.4
25°	2468.9	2488.2	2499.5	2481.4	2459.8
27.5°	2352.0	2381.5	2415.6	2402.0	2378.1
30°	2221.5	2264.7	2321.4	2310.0	2293.0
32.5°	2097.9	2141.0	2219.3	2214.7	2205.7
35°	1985.6	2012.8	2104.7	2116.0	2108.1
37.5°	1878.9	1903.9	1990.1	2016.2	2009.4
40°	1766.6	1793.8	1861.9	1908.4	1910.7
42.5°	1655.4	1681.5	1737.1	1804.0	1804.0
45°	1537.4	1563.5	1614.5	1688.3	1697.4
47.5°	1421.7	1448.9	1498.8	1572.6	1587.3
50°	1308.2	1333.2	1383.1	1454.6	1477.3
52.5°	1190.2	1217.4	1266.2	1332.0	1364.9
55°	1076.7	1094.9	1148.2	1211.8	1246.9
57.5°	958.7	975.8	1035.9	1090.4	1126.7
60°	845.3	866.8	913.4	968.9	1010.9
62.5°	736.4	759.0	798.8	847.5	895.2
65°	630.8	647.9	686.4	735.2	777.2
67.5°	528.7	543.5	582.1	616.1	660.3
70°	425.5	444.8	473.1	506.0	534.4
72.5°	342.6	350.6	374.4	398.2	427.7
75°	253.0	266.6	285.9	299.5	316.6
77.5°	181.5	189.5	200.8	212.2	228.1
80°	121.4	124.8	135.0	137.3	149.8
82.5°	73.7	76.0	78.3	79.4	84.0
85°	39.7	39.7	39.7	37.4	37.4
87.5°	22.7	22.7	19.3	15.9	11.3
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)