

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: P557709

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-81-96-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: P557709
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-LD4-3HI-30-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

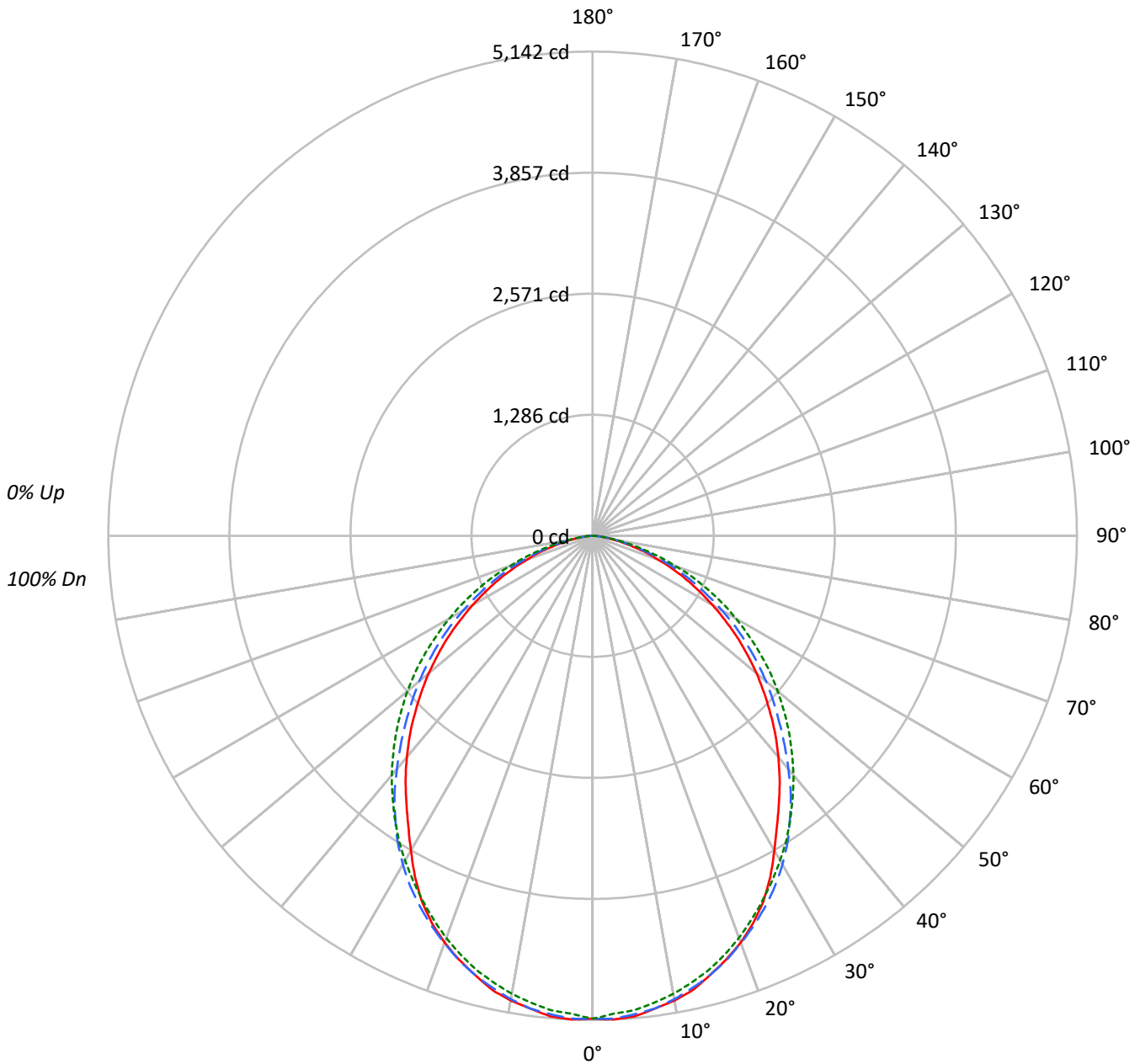
Lumens per Lamp: N/A
Luminaire Lumens: 11859.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	13801	13801	13801
5°	13838	13779	13662
10°	13691	13653	13497
15°	13448	13448	13295
20°	13163	13180	13011
25°	12730	12888	12683
30°	11988	12526	12373
35°	11327	12007	12026
40°	10777	11358	11656
45°	10160	10670	11217
50°	9511	10055	10739
55°	8772	9355	10159
60°	7900	8536	9448
65°	6975	7590	8594
70°	5814	6464	7301
75°	4569	5162	5715
80°	3267	3634	4031
85°	2130	2130	2007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.9	4.1
10°-20°	1356.6	11.4
20°-30°	1982.4	16.7
30°-40°	2250.2	19.0
40°-50°	2172.2	18.3
50°-60°	1791.9	15.1
60°-70°	1193.3	10.1
70°-80°	534.0	4.5
80°-90°	95.5	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°	3821.8	32.2
0°-40°	6072.0	51.2
0°-60°	10036.2	84.6
0°-90°	11859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5129	5129	5129	5129	5129	
5°	5123	5121	5101	5074	5058	485
15°	4827	4839	4827	4806	4772	1361
25°	4287	4321	4341	4309	4272	1963
35°	3448	3495	3655	3675	3661	2160
45°	2670	2715	2804	2932	2948	2060
55°	1870	1901	1994	2104	2165	1669
65°	1096	1125	1192	1277	1350	1086
75°	439	463	496	520	550	480
85°	69	69	69	65	65	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5128.7	5128.7	5128.7	5128.7	5128.7
2.5°	5142.5	5144.5	5132.7	5101.1	5081.4
5°	5122.8	5120.8	5101.1	5073.5	5057.8
7.5°	5065.7	5069.6	5063.7	5024.3	5002.6
10°	5010.5	5012.5	4996.7	4965.2	4939.6
12.5°	4939.6	4937.6	4915.9	4900.2	4858.8
15°	4827.3	4839.1	4827.3	4805.6	4772.1
17.5°	4718.9	4718.9	4726.8	4689.3	4663.7
20°	4596.7	4602.6	4602.6	4573.1	4543.5
22.5°	4454.9	4472.6	4478.5	4447.0	4411.5
25°	4287.4	4320.9	4340.6	4309.1	4271.6
27.5°	4084.4	4135.7	4194.8	4171.1	4129.8
30°	3857.9	3932.7	4031.2	4011.5	3982.0
32.5°	3643.1	3718.0	3853.9	3846.0	3830.3
35°	3448.0	3495.3	3654.9	3674.6	3660.8
37.5°	3262.8	3306.2	3455.9	3501.2	3489.4
40°	3067.8	3115.1	3233.3	3314.1	3318.0
42.5°	2874.7	2920.0	3016.5	3132.8	3132.8
45°	2669.8	2715.1	2803.7	2931.8	2947.6
47.5°	2468.8	2516.1	2602.8	2730.8	2756.5
50°	2271.8	2315.1	2401.8	2525.9	2565.3
52.5°	2066.9	2114.1	2198.9	2313.1	2370.3
55°	1869.8	1901.3	1994.0	2104.3	2165.4
57.5°	1664.9	1694.5	1798.9	1893.5	1956.5
60°	1467.9	1505.3	1586.1	1682.6	1755.5
62.5°	1278.7	1318.1	1387.1	1471.8	1554.6
65°	1095.5	1125.0	1192.0	1276.8	1349.7
67.5°	918.2	943.8	1010.8	1069.9	1146.7
70°	738.9	772.4	821.6	878.8	928.0
72.5°	595.0	608.8	650.2	691.6	742.8
75°	439.4	463.0	496.5	520.2	549.7
77.5°	315.2	329.0	348.7	368.4	396.0
80°	210.8	216.7	234.5	238.4	260.1
82.5°	128.1	132.0	136.0	137.9	145.8
85°	69.0	69.0	69.0	65.0	65.0
87.5°	39.4	39.4	33.5	27.6	19.7
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)