

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: P557911

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-82-87-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: P557911
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-50-UNV-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

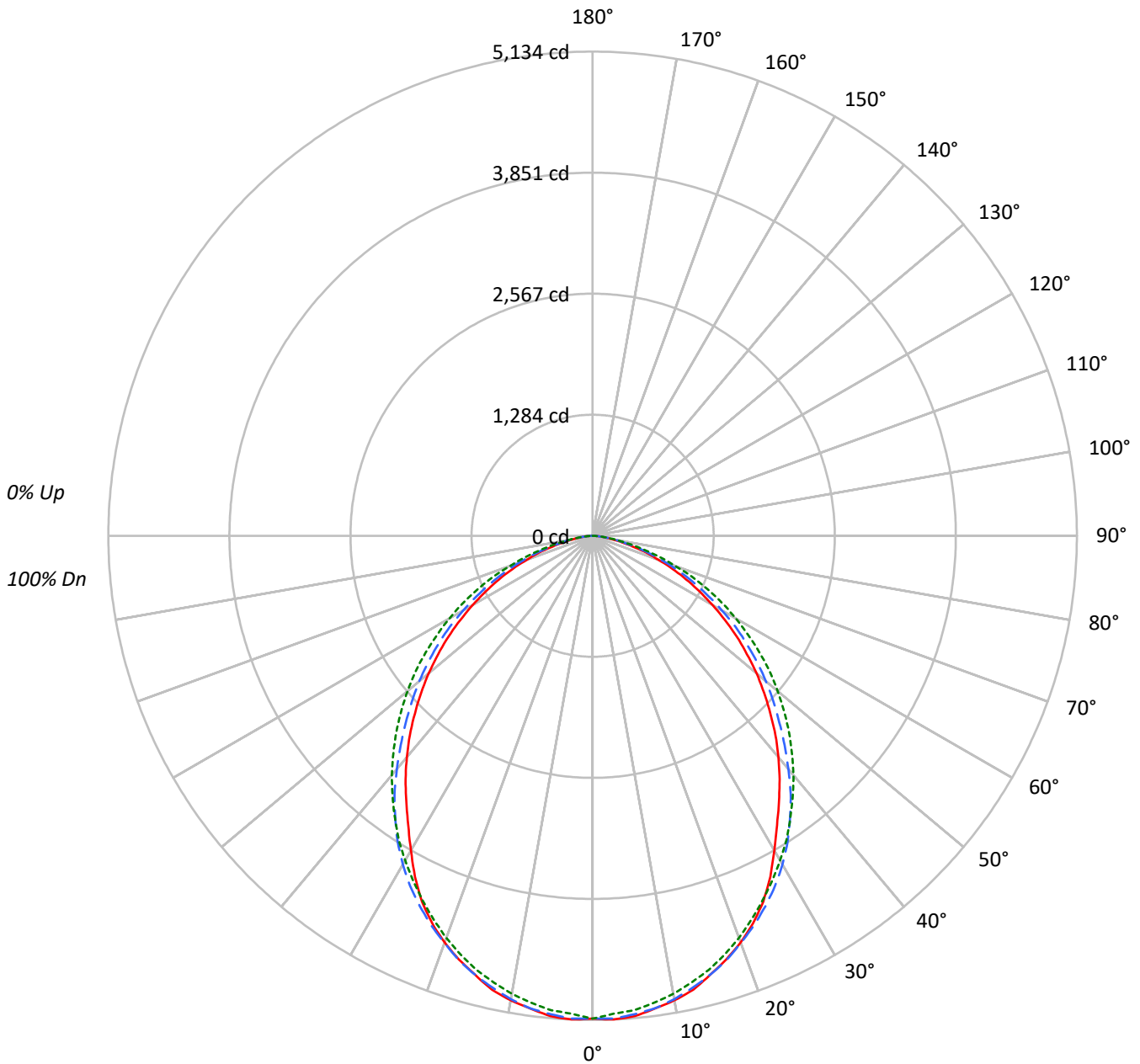
Lumens per Lamp: N/A
Luminaire Lumens: 11839.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (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°	13778	13778	13778
5°	13815	13756	13639
10°	13668	13630	13474
15°	13426	13426	13272
20°	13141	13158	12989
25°	12709	12866	12662
30°	11967	12505	12352
35°	11308	11987	12006
40°	10758	11339	11636
45°	10143	10652	11198
50°	9494	10038	10721
55°	8758	9339	10142
60°	7887	8522	9432
65°	6963	7577	8579
70°	5803	6453	7289
75°	4560	5154	5706
80°	3262	3628	4023
85°	2124	2124	2004



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	482.1	4.1
10°-20°	1354.3	11.4
20°-30°	1979.0	16.7
30°-40°	2246.4	19.0
40°-50°	2168.6	18.3
50°-60°	1788.9	15.1
60°-70°	1191.3	10.1
70°-80°	533.1	4.5
80°-90°	95.4	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°	3815.4	32.2
0°-40°	6061.8	51.2
0°-60°	10019.3	84.6
0°-90°	11839.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11839.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5120	5120	5120	5120	5120	
5°	5114	5112	5092	5065	5049	484
15°	4819	4831	4819	4798	4764	1359
25°	4280	4314	4333	4302	4264	1960
35°	3442	3489	3649	3668	3655	2157
45°	2665	2710	2799	2927	2943	2056
55°	1867	1898	1991	2101	2162	1666
65°	1094	1123	1190	1275	1347	1084
75°	439	462	496	519	549	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°	5120.1	5120.1	5120.1	5120.1	5120.1
2.5°	5133.8	5135.8	5124.0	5092.5	5072.9
5°	5114.2	5112.2	5092.5	5065.0	5049.3
7.5°	5057.1	5061.1	5055.2	5015.8	4994.2
10°	5002.0	5004.0	4988.3	4956.8	4931.2
12.5°	4931.2	4929.3	4907.6	4891.9	4850.6
15°	4819.1	4830.9	4819.1	4797.5	4764.0
17.5°	4710.9	4710.9	4718.8	4681.4	4655.9
20°	4589.0	4594.9	4594.9	4565.4	4535.9
22.5°	4447.4	4465.1	4471.0	4439.5	4404.1
25°	4280.2	4313.6	4333.3	4301.8	4264.4
27.5°	4077.6	4128.7	4187.7	4164.1	4122.8
30°	3851.4	3926.1	4024.5	4004.8	3975.3
32.5°	3637.0	3711.7	3847.4	3839.6	3823.8
35°	3442.2	3489.4	3648.8	3668.4	3654.7
37.5°	3257.3	3300.6	3450.1	3495.3	3483.5
40°	3062.6	3109.8	3227.8	3308.5	3312.4
42.5°	2869.8	2915.1	3011.5	3127.5	3127.5
45°	2665.3	2710.5	2799.0	2926.9	2942.6
47.5°	2464.6	2511.8	2598.4	2726.2	2751.8
50°	2267.9	2311.2	2397.8	2521.7	2561.0
52.5°	2063.4	2110.6	2195.2	2309.2	2366.3
55°	1866.7	1898.1	1990.6	2100.7	2161.7
57.5°	1662.1	1691.6	1795.9	1890.3	1953.2
60°	1465.4	1502.8	1583.4	1679.8	1752.6
62.5°	1276.6	1315.9	1384.8	1469.3	1552.0
65°	1093.6	1123.1	1190.0	1274.6	1347.4
67.5°	916.6	942.2	1009.1	1068.1	1144.8
70°	737.6	771.1	820.2	877.3	926.4
72.5°	594.0	607.8	649.1	690.4	741.6
75°	438.6	462.2	495.7	519.3	548.8
77.5°	314.7	328.5	348.2	367.8	395.4
80°	210.5	216.4	234.1	238.0	259.6
82.5°	127.9	131.8	135.7	137.7	145.6
85°	68.8	68.8	68.8	64.9	64.9
87.5°	39.3	39.3	33.4	27.5	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)