

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: P557897

Luminaire Tested: **FUSL-12-4-LD4-3HI-50-UNV-81-88-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: P557897
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-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

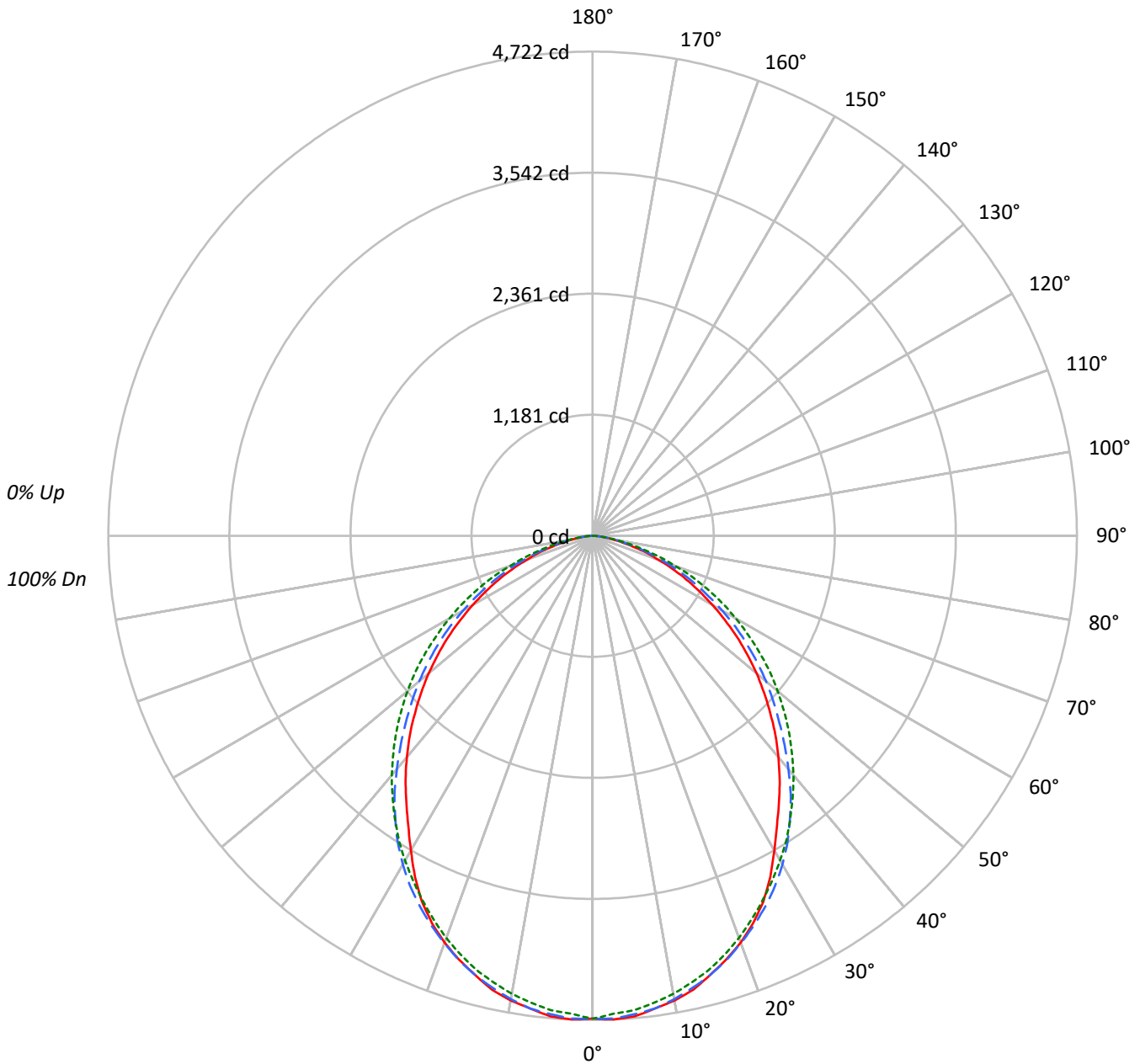
Lumens per Lamp: N/A
Luminaire Lumens: 10890.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	12673	12673	12673
5°	12707	12654	12546
10°	12572	12538	12394
15°	12349	12349	12208
20°	12088	12104	11948
25°	11690	11835	11647
30°	11008	11503	11362
35°	10402	11026	11043
40°	9896	10430	10703
45°	9330	9798	10301
50°	8733	9234	9862
55°	8055	8590	9329
60°	7254	7839	8676
65°	6406	6970	7892
70°	5338	5936	6705
75°	4195	4740	5248
80°	3000	3336	3701
85°	1954	1954	1843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.4	4.1
10°-20°	1245.7	11.4
20°-30°	1820.4	16.7
30°-40°	2066.4	19.0
40°-50°	1994.7	18.3
50°-60°	1645.5	15.1
60°-70°	1095.8	10.1
70°-80°	490.4	4.5
80°-90°	87.7	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°	3509.5	32.2
0°-40°	5575.9	51.2
0°-60°	9216.1	84.6
0°-90°	10890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4710	4710	4710	4710	4710	
5°	4704	4702	4684	4659	4644	445
15°	4433	4444	4433	4413	4382	1250
25°	3937	3968	3986	3957	3923	1803
35°	3166	3210	3356	3374	3362	1984
45°	2452	2493	2575	2692	2707	1892
55°	1717	1746	1831	1932	1988	1533
65°	1006	1033	1095	1172	1239	997
75°	404	425	456	478	505	441
85°	63	63	63	60	60	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4709.6	4709.6	4709.6	4709.6	4709.6
2.5°	4722.3	4724.1	4713.3	4684.3	4666.2
5°	4704.2	4702.4	4684.3	4659.0	4644.5
7.5°	4651.7	4655.4	4649.9	4613.8	4593.8
10°	4601.1	4602.9	4588.4	4559.5	4535.9
12.5°	4535.9	4534.1	4514.2	4499.8	4461.8
15°	4432.8	4443.7	4432.8	4412.9	4382.2
17.5°	4333.3	4333.3	4340.5	4306.2	4282.6
20°	4221.1	4226.6	4226.6	4199.4	4172.3
22.5°	4090.9	4107.1	4112.6	4083.6	4051.1
25°	3937.1	3967.8	3985.9	3957.0	3922.6
27.5°	3750.7	3797.7	3852.0	3830.3	3792.3
30°	3542.6	3611.4	3701.9	3683.8	3656.6
32.5°	3345.4	3414.2	3539.0	3531.8	3517.3
35°	3166.3	3209.7	3356.3	3374.4	3361.7
37.5°	2996.2	3036.0	3173.5	3215.2	3204.3
40°	2817.1	2860.5	2969.1	3043.3	3046.9
42.5°	2639.8	2681.4	2770.1	2876.8	2876.8
45°	2451.6	2493.2	2574.7	2692.3	2706.7
47.5°	2267.1	2310.5	2390.1	2507.7	2531.2
50°	2086.1	2125.9	2205.6	2319.5	2355.7
52.5°	1898.0	1941.4	2019.2	2124.1	2176.6
55°	1717.0	1746.0	1831.0	1932.3	1988.4
57.5°	1528.9	1556.0	1651.9	1738.8	1796.6
60°	1347.9	1382.3	1456.5	1545.2	1612.1
62.5°	1174.2	1210.4	1273.8	1351.6	1427.5
65°	1006.0	1033.1	1094.6	1172.4	1239.4
67.5°	843.1	866.7	928.2	982.5	1053.0
70°	678.5	709.3	754.5	807.0	852.2
72.5°	546.4	559.1	597.1	635.1	682.1
75°	403.5	425.2	455.9	477.7	504.8
77.5°	289.5	302.2	320.2	338.3	363.7
80°	193.6	199.0	215.3	218.9	238.8
82.5°	117.6	121.2	124.8	126.7	133.9
85°	63.3	63.3	63.3	59.7	59.7
87.5°	36.2	36.2	30.8	25.3	18.1
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)