

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: P558321

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-80-84-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: P558321
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-LD4-3STD-40-UNV-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

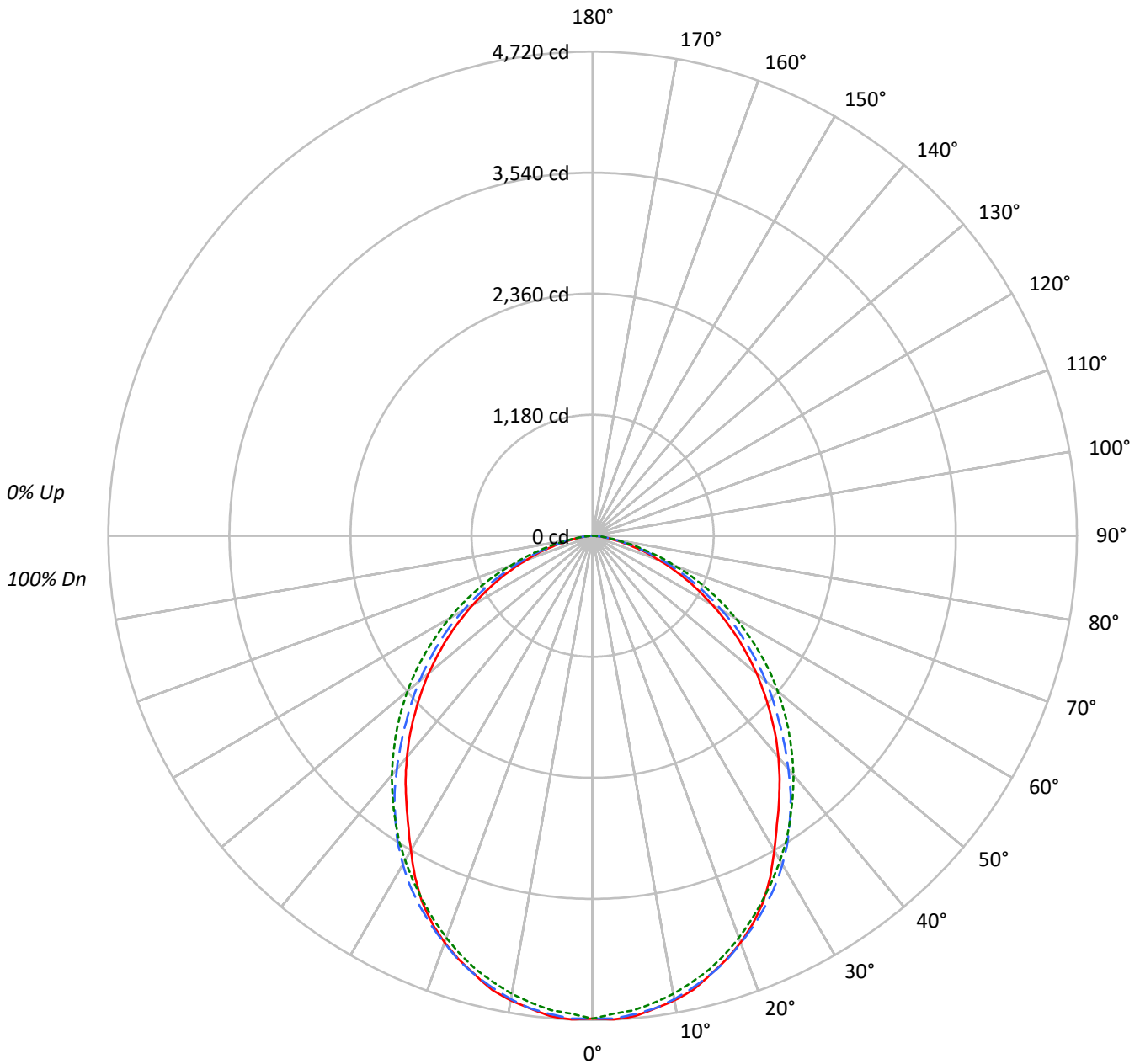
Lumens per Lamp: N/A
Luminaire Lumens: 10884.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	12666	12666	12666
5°	12700	12646	12539
10°	12565	12531	12388
15°	12343	12343	12201
20°	12081	12097	11942
25°	11683	11828	11640
30°	11002	11496	11356
35°	10396	11019	11038
40°	9890	10424	10697
45°	9325	9793	10295
50°	8729	9228	9857
55°	8051	8586	9324
60°	7251	7835	8671
65°	6402	6966	7887
70°	5335	5933	6701
75°	4193	4738	5245
80°	2999	3335	3699
85°	1954	1954	1843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.2	4.1
10°-20°	1245.0	11.4
20°-30°	1819.4	16.7
30°-40°	2065.2	19.0
40°-50°	1993.6	18.3
50°-60°	1644.6	15.1
60°-70°	1095.2	10.1
70°-80°	490.1	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°	3507.6	32.2
0°-40°	5572.8	51.2
0°-60°	9211.1	84.6
0°-90°	10884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10884.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4707	4707	4707	4707	4707	
5°	4702	4700	4682	4656	4642	445
15°	4430	4441	4430	4410	4380	1249
25°	3935	3966	3984	3955	3920	1802
35°	3165	3208	3354	3372	3360	1983
45°	2450	2492	2573	2691	2705	1891
55°	1716	1745	1830	1931	1987	1532
65°	1005	1032	1094	1172	1239	997
75°	403	425	456	477	504	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°	4707.0	4707.0	4707.0	4707.0	4707.0
2.5°	4719.7	4721.5	4710.7	4681.7	4663.6
5°	4701.6	4699.8	4681.7	4656.4	4641.9
7.5°	4649.2	4652.8	4647.4	4611.2	4591.3
10°	4598.5	4600.4	4585.9	4557.0	4533.5
12.5°	4533.5	4531.6	4511.8	4497.3	4459.3
15°	4430.4	4441.2	4430.4	4410.5	4379.7
17.5°	4330.9	4330.9	4338.2	4303.8	4280.3
20°	4218.8	4224.2	4224.2	4197.1	4170.0
22.5°	4088.6	4104.9	4110.3	4081.4	4048.8
25°	3934.9	3965.6	3983.7	3954.8	3920.4
27.5°	3748.6	3795.7	3849.9	3828.2	3790.2
30°	3540.7	3609.4	3699.8	3681.7	3654.6
32.5°	3343.6	3412.3	3537.1	3529.8	3515.4
35°	3164.6	3208.0	3354.4	3372.5	3359.9
37.5°	2994.6	3034.4	3171.8	3213.4	3202.5
40°	2815.5	2858.9	2967.4	3041.6	3045.2
42.5°	2638.3	2679.9	2768.5	2875.2	2875.2
45°	2450.3	2491.9	2573.2	2690.8	2705.2
47.5°	2265.8	2309.2	2388.8	2506.3	2529.8
50°	2085.0	2124.8	2204.3	2318.3	2354.4
52.5°	1896.9	1940.3	2018.1	2123.0	2175.4
55°	1716.1	1745.0	1830.0	1931.3	1987.3
57.5°	1528.0	1555.2	1651.0	1737.8	1795.7
60°	1347.2	1381.6	1455.7	1544.3	1611.2
62.5°	1173.6	1209.8	1273.1	1350.8	1426.8
65°	1005.4	1032.5	1094.0	1171.8	1238.7
67.5°	842.7	866.2	927.7	981.9	1052.4
70°	678.1	708.9	754.1	806.5	851.7
72.5°	546.1	558.8	596.7	634.7	681.7
75°	403.3	425.0	455.7	477.4	504.5
77.5°	289.3	302.0	320.1	338.2	363.5
80°	193.5	198.9	215.2	218.8	238.7
82.5°	117.5	121.2	124.8	126.6	133.8
85°	63.3	63.3	63.3	59.7	59.7
87.5°	36.2	36.2	30.7	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)