

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: P558102

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-82-87-EDD-90**

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: P558102
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-40-UNV-82-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

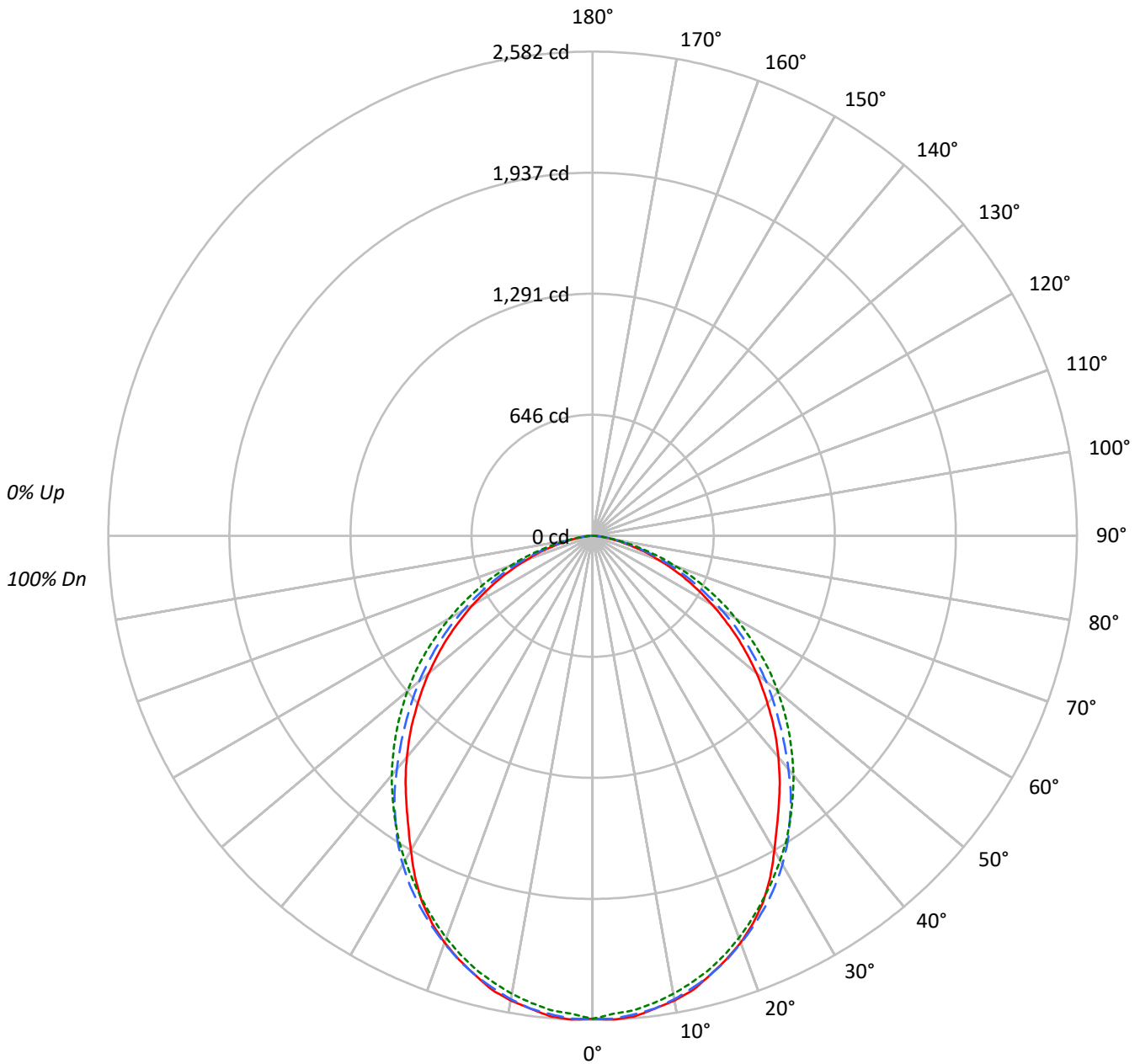
Lumens per Lamp: N/A
Luminaire Lumens: 5955.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	6930	6930	6930
5°	6949	6919	6861
10°	6875	6856	6778
15°	6753	6753	6676
20°	6610	6619	6533
25°	6392	6472	6369
30°	6019	6290	6213
35°	5688	6029	6039
40°	5412	5703	5853
45°	5102	5358	5633
50°	4776	5049	5393
55°	4405	4698	5101
60°	3967	4287	4744
65°	3503	3812	4315
70°	2919	3246	3666
75°	2294	2592	2870
80°	1641	1824	2024
85°	1068	1068	1007



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.5	4.1
10°-20°	681.2	11.4
20°-30°	995.4	16.7
30°-40°	1129.9	19.0
40°-50°	1090.8	18.3
50°-60°	899.8	15.1
60°-70°	599.2	10.1
70°-80°	268.1	4.5
80°-90°	48.0	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°	1919.1	32.2
0°-40°	3049.1	51.2
0°-60°	5039.7	84.6
0°-90°	5955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2575	2575	2575	2575	2575	
5°	2572	2571	2562	2548	2540	243
15°	2424	2430	2424	2413	2396	683
25°	2153	2170	2180	2164	2145	986
35°	1731	1755	1835	1845	1838	1085
45°	1341	1363	1408	1472	1480	1034
55°	939	955	1001	1057	1087	838
65°	550	565	599	641	678	545
75°	221	232	249	261	276	241
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2575.4	2575.4	2575.4	2575.4	2575.4
2.5°	2582.3	2583.3	2577.4	2561.5	2551.6
5°	2572.4	2571.4	2561.5	2547.7	2539.8
7.5°	2543.7	2545.7	2542.7	2522.9	2512.1
10°	2516.0	2517.0	2509.1	2493.3	2480.4
12.5°	2480.4	2479.4	2468.5	2460.6	2439.8
15°	2424.0	2429.9	2424.0	2413.1	2396.3
17.5°	2369.6	2369.6	2373.5	2354.7	2341.9
20°	2308.2	2311.2	2311.2	2296.4	2281.5
22.5°	2237.0	2245.9	2248.9	2233.1	2215.2
25°	2152.9	2169.7	2179.6	2163.8	2145.0
27.5°	2051.0	2076.7	2106.4	2094.5	2073.8
30°	1937.2	1974.8	2024.3	2014.4	1999.6
32.5°	1829.4	1867.0	1935.2	1931.3	1923.4
35°	1731.4	1755.2	1835.3	1845.2	1838.3
37.5°	1638.4	1660.2	1735.4	1758.1	1752.2
40°	1540.5	1564.2	1623.6	1664.2	1666.1
42.5°	1443.5	1466.3	1514.8	1573.1	1573.1
45°	1340.6	1363.4	1407.9	1472.2	1480.1
47.5°	1239.7	1263.5	1307.0	1371.3	1384.2
50°	1140.8	1162.5	1206.1	1268.4	1288.2
52.5°	1037.9	1061.6	1104.2	1161.5	1190.2
55°	938.9	954.8	1001.3	1056.7	1087.3
57.5°	836.0	850.9	903.3	950.8	982.5
60°	737.1	755.9	796.5	844.9	881.5
62.5°	642.1	661.9	696.5	739.1	780.6
65°	550.1	564.9	598.6	641.1	677.7
67.5°	461.1	473.9	507.6	537.2	575.8
70°	371.0	387.8	412.6	441.3	466.0
72.5°	298.8	305.7	326.5	347.3	373.0
75°	220.6	232.5	249.3	261.2	276.0
77.5°	158.3	165.2	175.1	185.0	198.9
80°	105.9	108.8	117.7	119.7	130.6
82.5°	64.3	66.3	68.3	69.3	73.2
85°	34.6	34.6	34.6	32.6	32.6
87.5°	19.8	19.8	16.8	13.9	9.9
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)