

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: P557373

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-96-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: P557373  
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-LD4-2LO-50-UNV-80-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

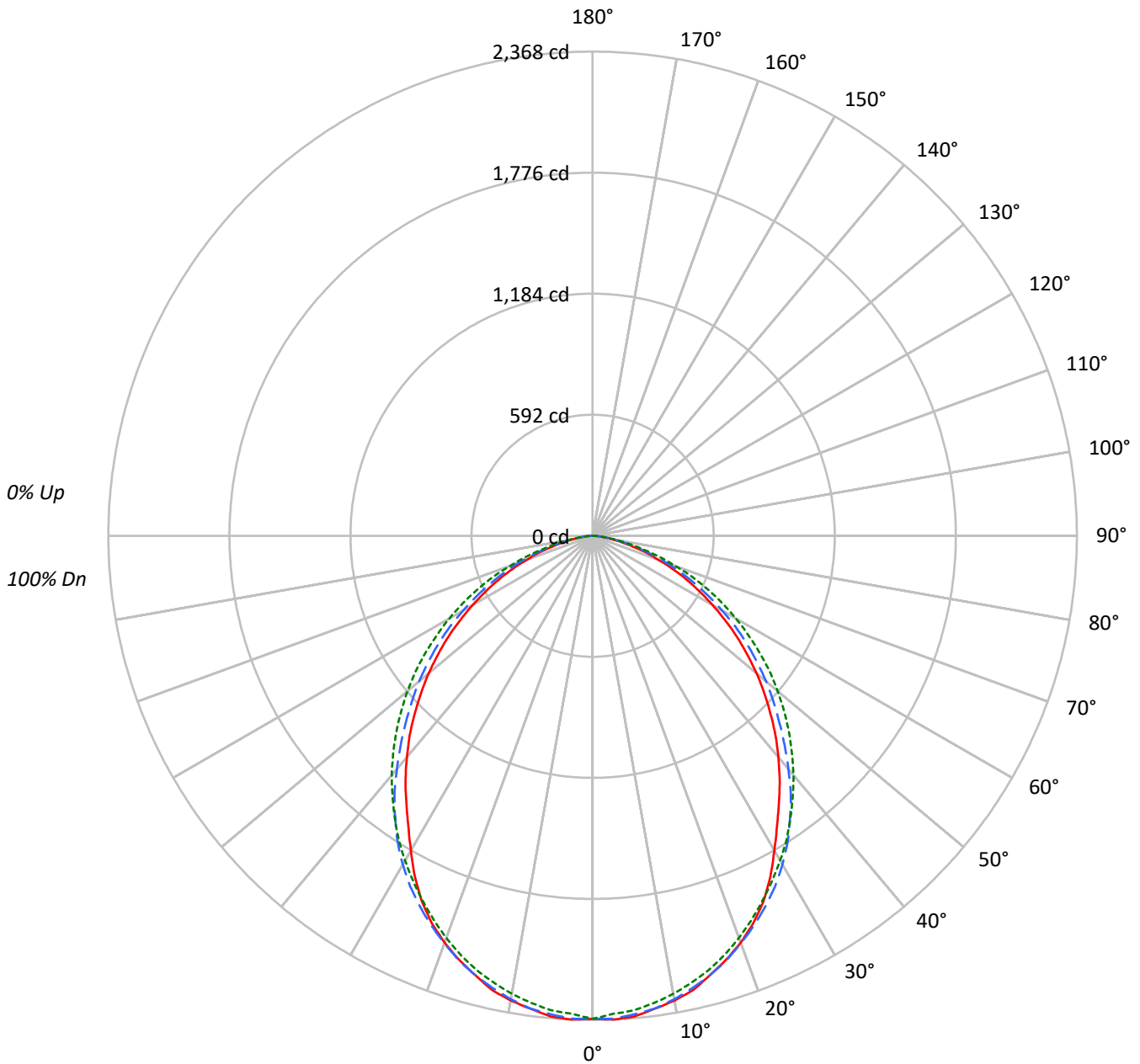
Lumens per Lamp: N/A  
Luminaire Lumens: 5462.0 lumens  
Efficiency: N/A  
Efficacy: 116.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	6357	6357	6357
5°	6374	6347	6293
10°	6306	6289	6217
15°	6194	6194	6123
20°	6063	6071	5993
25°	5863	5936	5842
30°	5521	5769	5699
35°	5217	5530	5539
40°	4963	5231	5368
45°	4679	4914	5167
50°	4380	4631	4946
55°	4040	4309	4679
60°	3639	3932	4352
65°	3213	3496	3958
70°	2677	2977	3363
75°	2104	2378	2633
80°	1505	1674	1857
85°	982	982	923



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.4	4.1
10°-20°	624.8	11.4
20°-30°	913.0	16.7
30°-40°	1036.4	19.0
40°-50°	1000.5	18.3
50°-60°	825.3	15.1
60°-70°	549.6	10.1
70°-80°	245.9	4.5
80°-90°	44.0	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°	1760.2	32.2
0°-40°	2796.6	51.2
0°-60°	4622.4	84.6
0°-90°	5462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2362	2362	2362	2362	2362	
5°	2360	2358	2350	2337	2330	223
15°	2223	2229	2223	2213	2198	627
25°	1975	1990	1999	1985	1967	904
35°	1588	1610	1683	1692	1686	995
45°	1230	1250	1291	1350	1358	949
55°	861	876	918	969	997	769
65°	505	518	549	588	622	500
75°	202	213	229	240	253	221
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2362.2	2362.2	2362.2	2362.2	2362.2
2.5°	2368.5	2369.4	2364.0	2349.5	2340.4
5°	2359.5	2358.5	2349.5	2336.8	2329.5
7.5°	2333.1	2334.9	2332.2	2314.1	2304.1
10°	2307.7	2308.6	2301.4	2286.9	2275.1
12.5°	2275.1	2274.1	2264.2	2256.9	2237.8
15°	2223.3	2228.8	2223.3	2213.3	2197.9
17.5°	2173.4	2173.4	2177.0	2159.8	2148.0
20°	2117.2	2119.9	2119.9	2106.3	2092.7
22.5°	2051.8	2060.0	2062.7	2048.2	2031.9
25°	1974.7	1990.1	1999.2	1984.7	1967.4
27.5°	1881.2	1904.8	1932.0	1921.1	1902.1
30°	1776.8	1811.3	1856.7	1847.6	1834.0
32.5°	1677.9	1712.4	1775.0	1771.4	1764.1
35°	1588.1	1609.9	1683.4	1692.5	1686.1
37.5°	1502.8	1522.8	1591.7	1612.6	1607.1
40°	1412.9	1434.7	1489.2	1526.4	1528.2
42.5°	1324.0	1344.9	1389.4	1442.9	1442.9
45°	1229.6	1250.5	1291.3	1350.3	1357.6
47.5°	1137.1	1158.9	1198.8	1257.8	1269.6
50°	1046.3	1066.3	1106.2	1163.4	1181.5
52.5°	951.9	973.7	1012.7	1065.4	1091.7
55°	861.2	875.7	918.4	969.2	997.3
57.5°	766.8	780.4	828.5	872.1	901.1
60°	676.1	693.3	730.5	775.0	808.6
62.5°	589.0	607.1	638.9	677.9	716.0
65°	504.6	518.2	549.0	588.0	621.6
67.5°	422.9	434.7	465.5	492.8	528.2
70°	340.3	355.7	378.4	404.7	427.4
72.5°	274.1	280.4	299.5	318.5	342.1
75°	202.4	213.3	228.7	239.6	253.2
77.5°	145.2	151.5	160.6	169.7	182.4
80°	97.1	99.8	108.0	109.8	119.8
82.5°	59.0	60.8	62.6	63.5	67.2
85°	31.8	31.8	31.8	29.9	29.9
87.5°	18.1	18.1	15.4	12.7	9.1
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)