

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: P558024

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-81-88-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: P558024
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-35-UNV-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

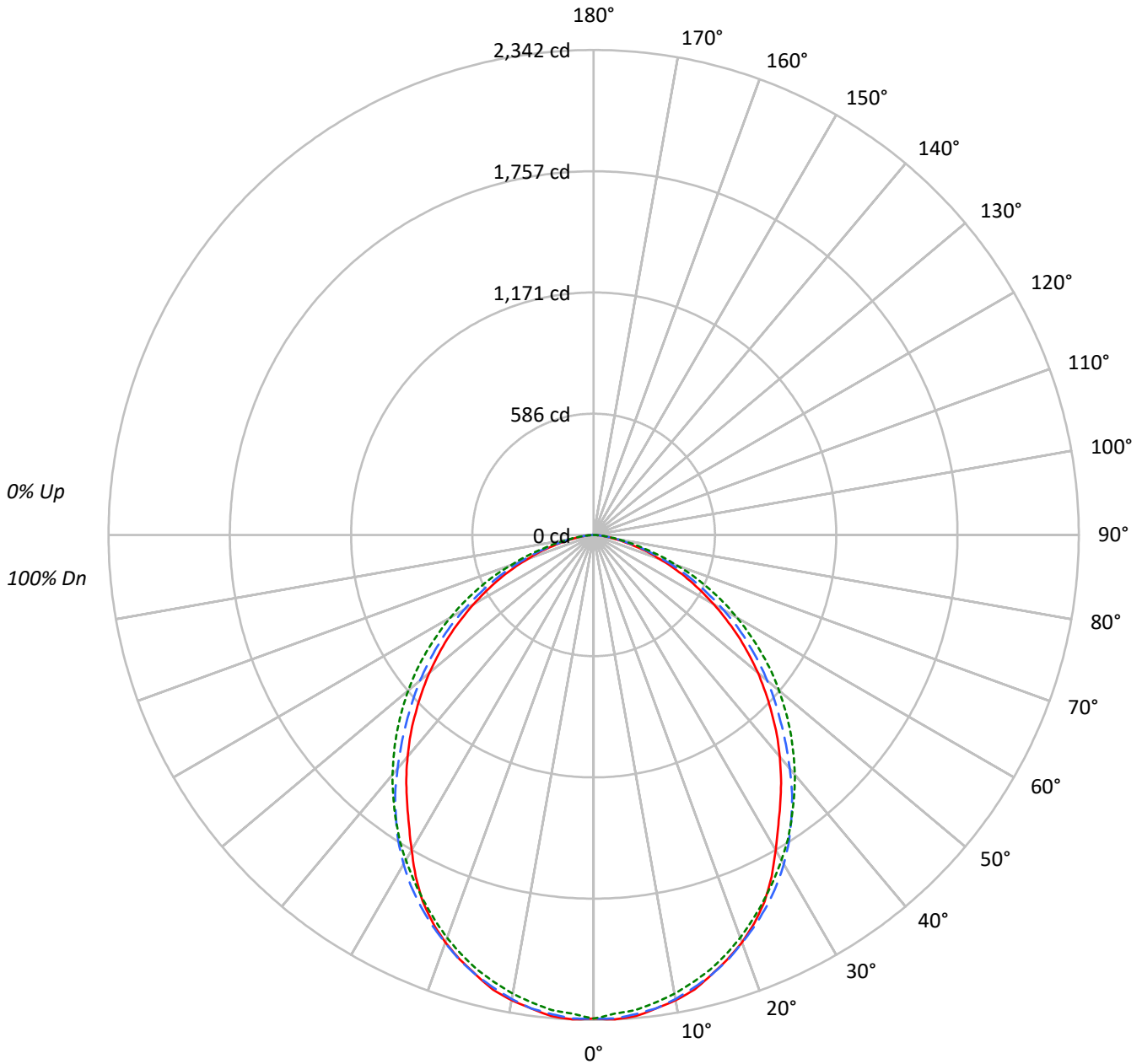
Lumens per Lamp: N/A
Luminaire Lumens: 5401.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6286	6286	6286
5°	6302	6276	6222
10°	6236	6218	6147
15°	6125	6125	6055
20°	5995	6003	5926
25°	5798	5870	5776
30°	5459	5705	5635
35°	5159	5468	5477
40°	4908	5173	5308
45°	4627	4859	5109
50°	4331	4580	4891
55°	3995	4260	4627
60°	3598	3888	4303
65°	3177	3457	3914
70°	2648	2944	3326
75°	2080	2351	2603
80°	1488	1655	1835
85°	969	969	914



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.9	4.1
10°-20°	617.8	11.4
20°-30°	902.8	16.7
30°-40°	1024.8	19.0
40°-50°	989.3	18.3
50°-60°	816.1	15.1
60°-70°	543.5	10.1
70°-80°	243.2	4.5
80°-90°	43.5	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°	1740.6	32.2
0°-40°	2765.4	51.2
0°-60°	4570.8	84.6
0°-90°	5401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2336	2336	2336	2336	2336	
5°	2333	2332	2323	2311	2304	221
15°	2198	2204	2198	2189	2173	620
25°	1953	1968	1977	1962	1945	894
35°	1570	1592	1665	1674	1667	984
45°	1216	1236	1277	1335	1342	938
55°	852	866	908	958	986	760
65°	499	512	543	582	615	495
75°	200	211	226	237	250	219
85°	31	31	31	30	30	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2335.8	2335.8	2335.8	2335.8	2335.8
2.5°	2342.1	2343.0	2337.6	2323.2	2314.3
5°	2333.1	2332.2	2323.2	2310.7	2303.5
7.5°	2307.1	2308.9	2306.2	2288.2	2278.4
10°	2282.0	2282.8	2275.7	2261.3	2249.6
12.5°	2249.6	2248.8	2238.9	2231.7	2212.9
15°	2198.5	2203.9	2198.5	2188.6	2173.4
17.5°	2149.1	2149.1	2152.7	2135.7	2124.0
20°	2093.5	2096.2	2096.2	2082.7	2069.3
22.5°	2028.9	2037.0	2039.7	2025.3	2009.2
25°	1952.6	1967.9	1976.9	1962.5	1945.4
27.5°	1860.2	1883.5	1910.5	1899.7	1880.8
30°	1757.0	1791.1	1836.0	1827.0	1813.5
32.5°	1659.2	1693.3	1755.2	1751.6	1744.4
35°	1570.4	1591.9	1664.6	1673.6	1667.3
37.5°	1486.0	1505.7	1573.9	1594.6	1589.2
40°	1397.2	1418.7	1472.5	1509.3	1511.1
42.5°	1309.2	1329.9	1373.8	1426.8	1426.8
45°	1215.9	1236.5	1276.9	1335.3	1342.4
47.5°	1124.4	1145.9	1185.4	1243.7	1255.4
50°	1034.6	1054.4	1093.9	1150.4	1168.3
52.5°	941.3	962.9	1001.4	1053.5	1079.5
55°	851.6	865.9	908.1	958.4	986.2
57.5°	758.3	771.7	819.3	862.4	891.1
60°	668.5	685.6	722.4	766.3	799.5
62.5°	582.4	600.3	631.7	670.3	708.0
65°	498.9	512.4	542.9	581.5	614.7
67.5°	418.2	429.8	460.3	487.3	522.3
70°	336.5	351.8	374.2	400.2	422.7
72.5°	271.0	277.3	296.1	315.0	338.3
75°	200.1	210.9	226.1	236.9	250.4
77.5°	143.6	149.9	158.8	167.8	180.4
80°	96.0	98.7	106.8	108.6	118.4
82.5°	58.3	60.1	61.9	62.8	66.4
85°	31.4	31.4	31.4	29.6	29.6
87.5°	17.9	17.9	15.3	12.6	9.0
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)