

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: P558168

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-82-88-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: P558168
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-50-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

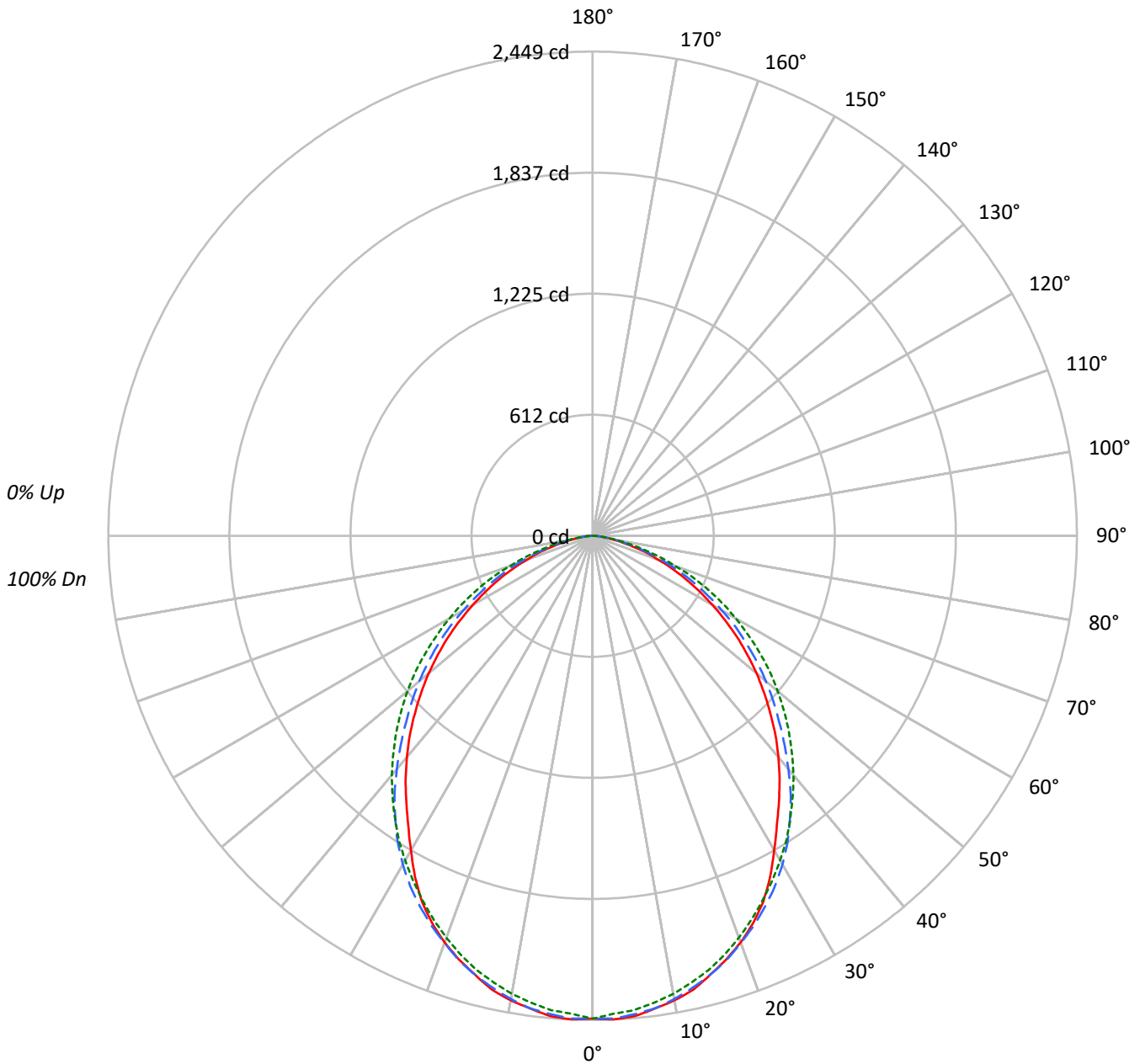
Lumens per Lamp: N/A
Luminaire Lumens: 5647.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6572	6572	6572
5°	6589	6561	6506
10°	6519	6501	6427
15°	6404	6404	6331
20°	6268	6276	6196
25°	6062	6137	6040
30°	5708	5965	5892
35°	5394	5717	5727
40°	5132	5408	5550
45°	4838	5081	5342
50°	4529	4788	5114
55°	4177	4455	4837
60°	3762	4065	4499
65°	3321	3614	4092
70°	2768	3078	3477
75°	2175	2458	2722
80°	1556	1729	1918
85°	1013	1013	957



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.9	4.1
10°-20°	646.0	11.4
20°-30°	944.0	16.7
30°-40°	1071.5	19.0
40°-50°	1034.4	18.3
50°-60°	853.3	15.1
60°-70°	568.2	10.1
70°-80°	254.3	4.5
80°-90°	45.5	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°	1819.9	32.2
0°-40°	2891.4	51.2
0°-60°	4779.0	84.6
0°-90°	5647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2442	2442	2442	2442	2442	
5°	2439	2438	2429	2416	2408	231
15°	2299	2304	2299	2288	2272	648
25°	2042	2058	2067	2052	2034	935
35°	1642	1664	1740	1750	1743	1029
45°	1271	1293	1335	1396	1404	981
55°	890	905	950	1002	1031	795
65°	522	536	568	608	643	517
75°	209	220	236	248	262	229
85°	33	33	33	31	31	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2442.2	2442.2	2442.2	2442.2	2442.2
2.5°	2448.7	2449.7	2444.1	2429.0	2419.7
5°	2439.4	2438.4	2429.0	2415.9	2408.4
7.5°	2412.2	2414.0	2411.2	2392.5	2382.1
10°	2385.9	2386.8	2379.3	2364.3	2352.1
12.5°	2352.1	2351.2	2340.9	2333.3	2313.6
15°	2298.6	2304.3	2298.6	2288.3	2272.4
17.5°	2247.0	2247.0	2250.8	2233.0	2220.8
20°	2188.9	2191.7	2191.7	2177.6	2163.5
22.5°	2121.3	2129.8	2132.6	2117.6	2100.7
25°	2041.6	2057.5	2066.9	2051.9	2034.1
27.5°	1944.9	1969.3	1997.5	1986.2	1966.5
30°	1837.0	1872.7	1919.6	1910.2	1896.1
32.5°	1734.8	1770.4	1835.2	1831.4	1823.9
35°	1641.9	1664.4	1740.4	1749.8	1743.2
37.5°	1553.7	1574.3	1645.6	1667.2	1661.6
40°	1460.8	1483.3	1539.6	1578.1	1580.0
42.5°	1368.9	1390.4	1436.4	1491.8	1491.8
45°	1271.3	1292.9	1335.1	1396.1	1403.6
47.5°	1175.6	1198.1	1239.4	1300.4	1312.6
50°	1081.8	1102.4	1143.7	1202.8	1221.6
52.5°	984.2	1006.7	1047.1	1101.5	1128.7
55°	890.4	905.4	949.5	1002.0	1031.1
57.5°	792.8	806.9	856.6	901.6	931.7
60°	699.0	716.8	755.3	801.2	836.0
62.5°	608.9	627.7	660.5	700.8	740.3
65°	521.6	535.7	567.6	608.0	642.7
67.5°	437.2	449.4	481.3	509.5	546.0
70°	351.8	367.8	391.2	418.4	441.9
72.5°	283.3	289.9	309.6	329.3	353.7
75°	209.2	220.5	236.4	247.7	261.8
77.5°	150.1	156.7	166.1	175.4	188.6
80°	100.4	103.2	111.6	113.5	123.8
82.5°	61.0	62.9	64.7	65.7	69.4
85°	32.8	32.8	32.8	31.0	31.0
87.5°	18.8	18.8	15.9	13.1	9.4
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)