

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: P557974

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-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: P557974
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-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

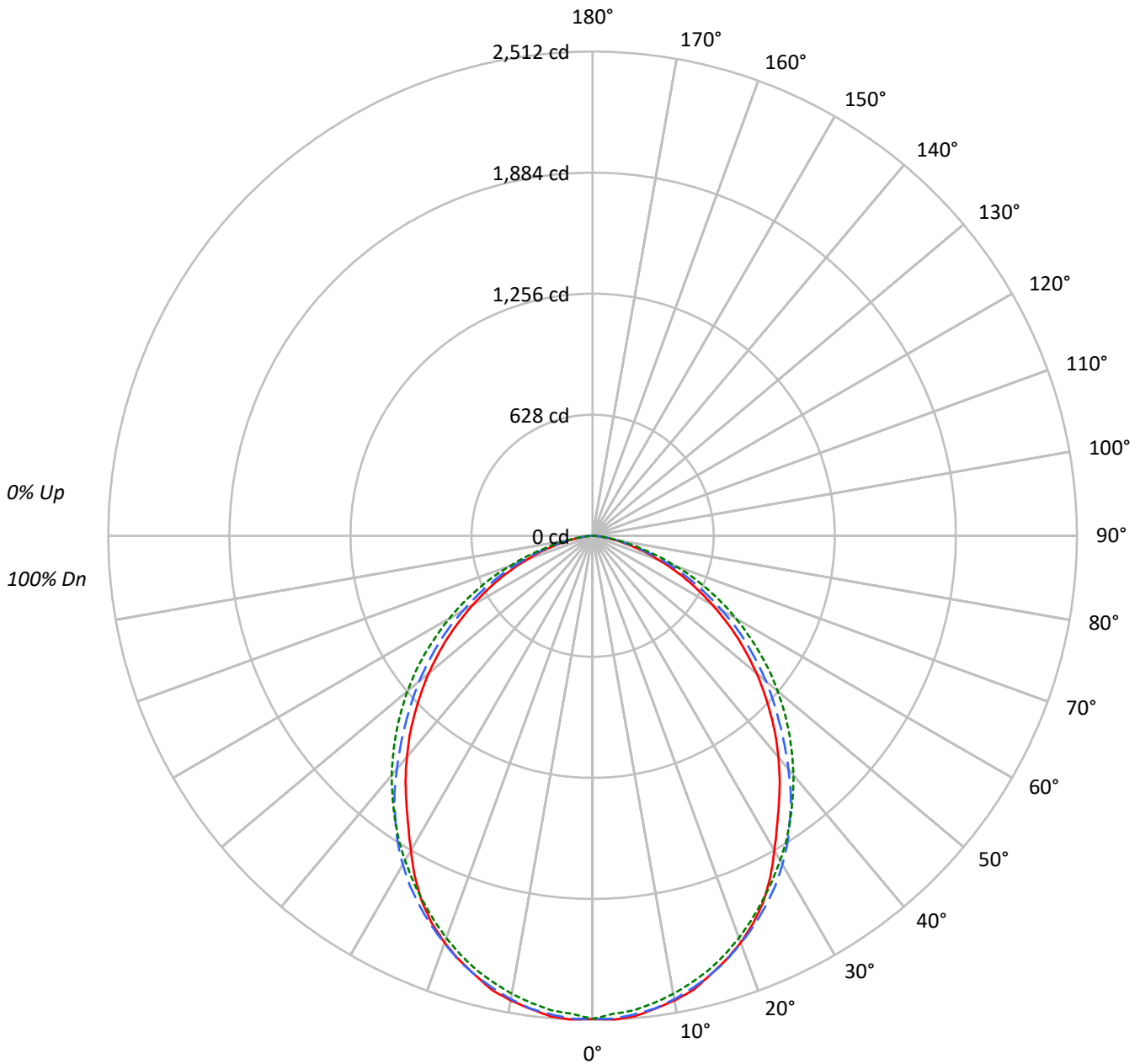
Lumens per Lamp: N/A
Luminaire Lumens: 5794.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6743	6743	6743
5°	6761	6732	6675
10°	6689	6671	6594
15°	6571	6571	6495
20°	6431	6440	6357
25°	6220	6297	6197
30°	5857	6120	6045
35°	5534	5866	5876
40°	5265	5549	5695
45°	4964	5213	5480
50°	4647	4913	5247
55°	4286	4571	4963
60°	3860	4170	4616
65°	3408	3708	4199
70°	2840	3158	3567
75°	2232	2522	2793
80°	1596	1776	1970
85°	1041	1041	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.9	4.1
10°-20°	662.8	11.4
20°-30°	968.5	16.7
30°-40°	1099.4	19.0
40°-50°	1061.3	18.3
50°-60°	875.5	15.1
60°-70°	583.0	10.1
70°-80°	260.9	4.5
80°-90°	46.7	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°	1867.2	32.2
0°-40°	2966.6	51.2
0°-60°	4903.4	84.6
0°-90°	5794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2506	2506	2506	2506	2506	
5°	2503	2502	2492	2479	2471	237
15°	2358	2364	2358	2348	2332	665
25°	2095	2111	2121	2105	2087	959
35°	1685	1708	1786	1795	1789	1056
45°	1304	1326	1370	1432	1440	1006
55°	914	929	974	1028	1058	815
65°	535	550	582	624	659	531
75°	215	226	243	254	269	235
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2505.8	2505.8	2505.8	2505.8	2505.8
2.5°	2512.5	2513.5	2507.7	2492.3	2482.7
5°	2502.9	2501.9	2492.3	2478.8	2471.1
7.5°	2475.0	2476.9	2474.0	2454.7	2444.1
10°	2448.0	2449.0	2441.3	2425.9	2413.3
12.5°	2413.3	2412.4	2401.8	2394.1	2373.9
15°	2358.5	2364.2	2358.5	2347.9	2331.5
17.5°	2305.5	2305.5	2309.4	2291.1	2278.6
20°	2245.8	2248.7	2248.7	2234.3	2219.9
22.5°	2176.5	2185.2	2188.1	2172.7	2155.4
25°	2094.7	2111.1	2120.7	2105.3	2087.0
27.5°	1995.6	2020.6	2049.5	2037.9	2017.7
30°	1884.9	1921.4	1969.6	1959.9	1945.5
32.5°	1779.9	1816.5	1882.9	1879.1	1871.4
35°	1684.6	1707.7	1785.7	1795.3	1788.6
37.5°	1594.1	1615.3	1688.5	1710.6	1704.8
40°	1498.8	1521.9	1579.7	1619.2	1621.1
42.5°	1404.5	1426.6	1473.8	1530.6	1530.6
45°	1304.4	1326.5	1369.8	1432.4	1440.1
47.5°	1206.2	1229.3	1271.6	1334.2	1346.7
50°	1109.9	1131.1	1173.5	1234.1	1253.4
52.5°	1009.8	1032.9	1074.3	1130.1	1158.1
55°	913.5	928.9	974.2	1028.1	1057.9
57.5°	813.4	827.9	878.9	925.1	955.9
60°	717.2	735.5	774.9	822.1	857.7
62.5°	624.8	644.0	677.7	719.1	759.5
65°	535.2	549.7	582.4	623.8	659.4
67.5°	448.6	461.1	493.8	522.7	560.3
70°	361.0	377.4	401.4	429.3	453.4
72.5°	290.7	297.5	317.7	337.9	362.9
75°	214.7	226.2	242.6	254.1	268.6
77.5°	154.0	160.8	170.4	180.0	193.5
80°	103.0	105.9	114.6	116.5	127.1
82.5°	62.6	64.5	66.4	67.4	71.2
85°	33.7	33.7	33.7	31.8	31.8
87.5°	19.3	19.3	16.4	13.5	9.6
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)