

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: P557654

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-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: P557654
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-LD4-2STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

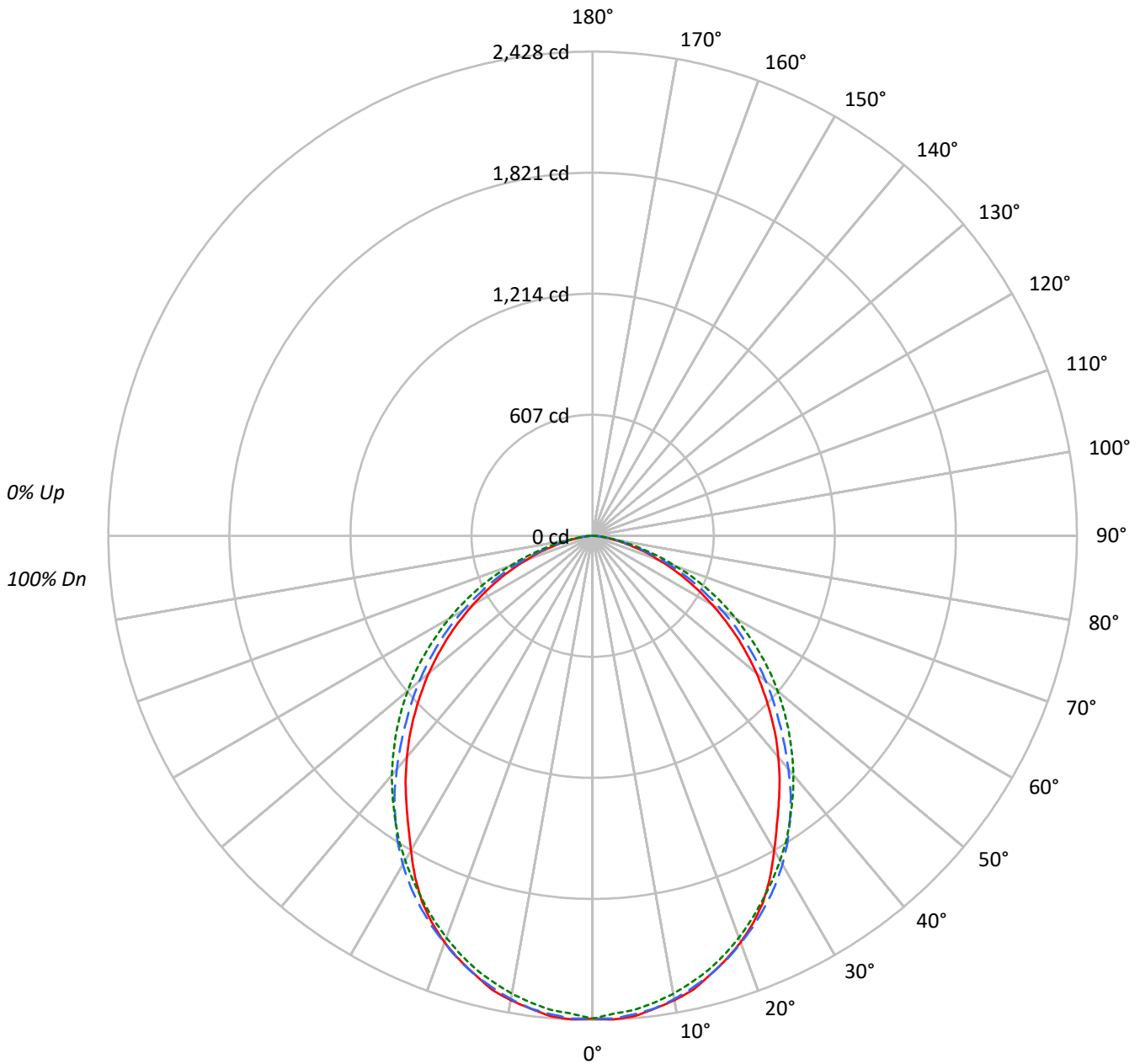
Lumens per Lamp: N/A
Luminaire Lumens: 5598.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6515	6515	6515
5°	6532	6505	6449
10°	6463	6445	6371
15°	6348	6348	6276
20°	6214	6222	6142
25°	6009	6084	5987
30°	5659	5913	5841
35°	5347	5668	5677
40°	5087	5362	5502
45°	4796	5037	5295
50°	4490	4747	5070
55°	4141	4416	4796
60°	3729	4029	4460
65°	3293	3583	4057
70°	2744	3051	3447
75°	2156	2437	2698
80°	1542	1715	1903
85°	1007	1007	948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.9	4.1
10°-20°	640.4	11.4
20°-30°	935.8	16.7
30°-40°	1062.2	19.0
40°-50°	1025.4	18.3
50°-60°	845.9	15.1
60°-70°	563.3	10.1
70°-80°	252.1	4.5
80°-90°	45.1	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°	1804.1	32.2
0°-40°	2866.3	51.2
0°-60°	4737.6	84.6
0°-90°	5598.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5598.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2421	2421	2421	2421	2421	
5°	2418	2417	2408	2395	2388	229
15°	2279	2284	2279	2268	2253	642
25°	2024	2040	2049	2034	2016	927
35°	1628	1650	1725	1735	1728	1020
45°	1260	1282	1324	1384	1391	972
55°	883	898	941	993	1022	788
65°	517	531	563	603	637	513
75°	207	219	234	246	260	227
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°	2421.0	2421.0	2421.0	2421.0	2421.0
2.5°	2427.5	2428.4	2422.9	2408.0	2398.7
5°	2418.2	2417.3	2408.0	2394.9	2387.5
7.5°	2391.2	2393.1	2390.3	2371.7	2361.5
10°	2365.2	2366.1	2358.7	2343.8	2331.7
12.5°	2331.7	2330.8	2320.5	2313.1	2293.6
15°	2278.7	2284.3	2278.7	2268.5	2252.6
17.5°	2227.5	2227.5	2231.3	2213.6	2201.5
20°	2169.9	2172.7	2172.7	2158.7	2144.8
22.5°	2102.9	2111.3	2114.1	2099.2	2082.4
25°	2023.8	2039.7	2049.0	2034.1	2016.4
27.5°	1928.0	1952.2	1980.1	1969.0	1949.4
30°	1821.1	1856.4	1902.9	1893.6	1879.7
32.5°	1719.7	1755.1	1819.2	1815.5	1808.1
35°	1627.6	1650.0	1725.3	1734.6	1728.1
37.5°	1540.2	1560.7	1631.4	1652.7	1647.2
40°	1448.1	1470.5	1526.3	1564.4	1566.2
42.5°	1357.0	1378.4	1423.9	1478.8	1478.8
45°	1260.3	1281.6	1323.5	1384.0	1391.4
47.5°	1165.4	1187.7	1228.6	1289.1	1301.2
50°	1072.4	1092.8	1133.8	1192.4	1211.0
52.5°	975.7	998.0	1038.0	1091.9	1118.9
55°	882.6	897.5	941.2	993.3	1022.2
57.5°	785.9	799.9	849.2	893.8	923.6
60°	692.9	710.6	748.7	794.3	828.7
62.5°	603.6	622.2	654.8	694.8	733.8
65°	517.1	531.1	562.7	602.7	637.1
67.5°	433.4	445.5	477.1	505.0	541.3
70°	348.8	364.6	387.8	414.8	438.1
72.5°	280.9	287.4	306.9	326.5	350.6
75°	207.4	218.6	234.4	245.5	259.5
77.5°	148.8	155.3	164.6	173.9	186.9
80°	99.5	102.3	110.7	112.5	122.8
82.5°	60.5	62.3	64.2	65.1	68.8
85°	32.6	32.6	32.6	30.7	30.7
87.5°	18.6	18.6	15.8	13.0	9.3
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)