

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: P557444

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-86-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: P557444
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-30-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

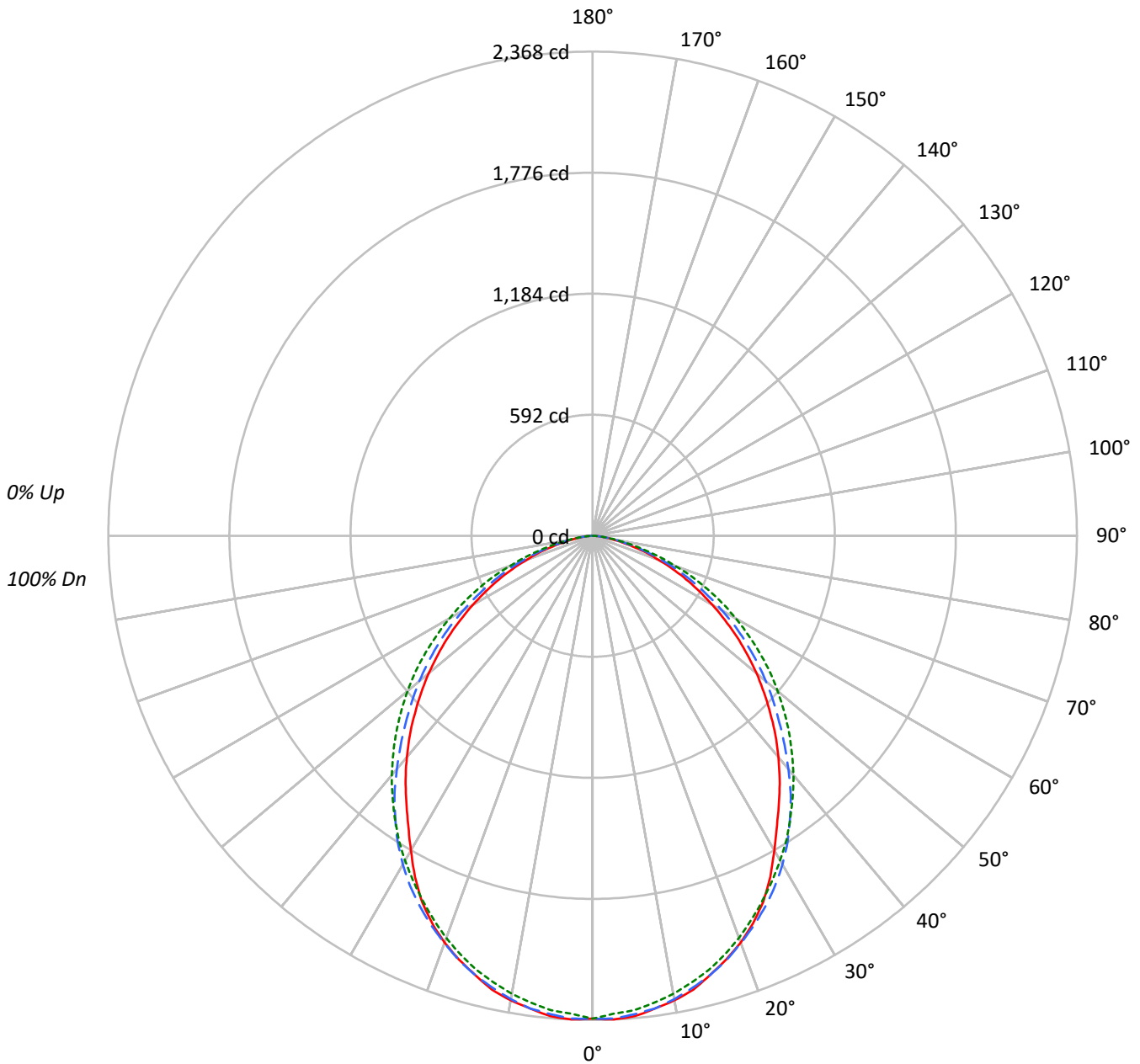
Lumens per Lamp: N/A
Luminaire Lumens: 5461.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6355	6355	6355
5°	6372	6345	6291
10°	6305	6287	6215
15°	6193	6193	6122
20°	6062	6070	5992
25°	5862	5935	5841
30°	5520	5768	5698
35°	5216	5529	5538
40°	4963	5230	5367
45°	4679	4913	5165
50°	4379	4630	4945
55°	4039	4308	4678
60°	3638	3931	4351
65°	3212	3495	3957
70°	2677	2977	3362
75°	2103	2377	2632
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°	624.7	11.4
20°-30°	912.9	16.7
30°-40°	1036.2	19.0
40°-50°	1000.3	18.3
50°-60°	825.2	15.1
60°-70°	549.5	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°	1759.9	32.2
0°-40°	2796.1	51.2
0°-60°	4621.6	84.6
0°-90°	5461.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2362	2362	2362	2362	2362	
5°	2359	2358	2349	2336	2329	223
15°	2223	2228	2223	2213	2198	627
25°	1974	1990	1999	1984	1967	904
35°	1588	1610	1683	1692	1686	995
45°	1229	1250	1291	1350	1357	949
55°	861	876	918	969	997	768
65°	504	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°	2361.7	2361.7	2361.7	2361.7	2361.7
2.5°	2368.1	2369.0	2363.6	2349.0	2340.0
5°	2359.0	2358.1	2349.0	2336.3	2329.1
7.5°	2332.7	2334.5	2331.8	2313.7	2303.7
10°	2307.3	2308.2	2301.0	2286.4	2274.6
12.5°	2274.6	2273.7	2263.8	2256.5	2237.4
15°	2222.9	2228.4	2222.9	2212.9	2197.5
17.5°	2173.0	2173.0	2176.6	2159.4	2147.6
20°	2116.8	2119.5	2119.5	2105.9	2092.3
22.5°	2051.4	2059.6	2062.3	2047.8	2031.5
25°	1974.3	1989.7	1998.8	1984.3	1967.1
27.5°	1880.9	1904.5	1931.7	1920.8	1901.7
30°	1776.5	1811.0	1856.4	1847.3	1833.7
32.5°	1677.6	1712.1	1774.7	1771.1	1763.8
35°	1587.8	1609.6	1683.1	1692.1	1685.8
37.5°	1502.5	1522.5	1591.4	1612.3	1606.9
40°	1412.7	1434.5	1488.9	1526.1	1527.9
42.5°	1323.8	1344.6	1389.1	1442.6	1442.6
45°	1229.4	1250.3	1291.1	1350.1	1357.3
47.5°	1136.9	1158.6	1198.6	1257.5	1269.3
50°	1046.1	1066.1	1106.0	1163.2	1181.3
52.5°	951.8	973.5	1012.6	1065.2	1091.5
55°	861.0	875.6	918.2	969.0	997.1
57.5°	766.7	780.3	828.4	871.9	901.0
60°	675.9	693.2	730.4	774.8	808.4
62.5°	588.8	607.0	638.7	677.8	715.9
65°	504.5	518.1	548.9	587.9	621.5
67.5°	422.8	434.6	465.5	492.7	528.1
70°	340.2	355.7	378.4	404.7	427.3
72.5°	274.0	280.4	299.4	318.5	342.1
75°	202.3	213.2	228.6	239.5	253.1
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	67.1
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)