

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: P557196

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-96-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: P557196
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-LD4-2LO-30-UNV-81-96-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

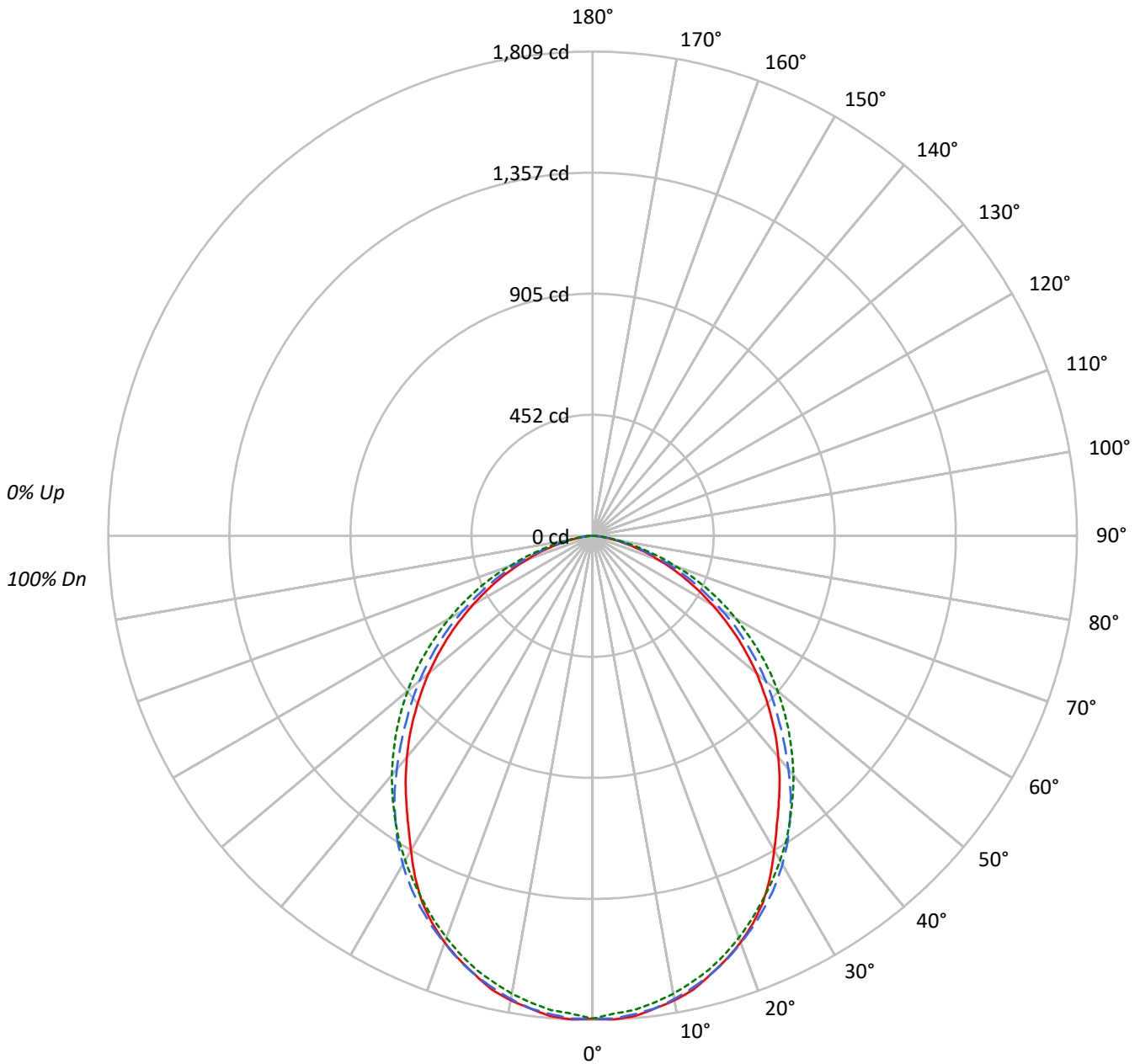
Lumens per Lamp: N/A
Luminaire Lumens: 4171.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (A_{in}): 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°	4854	4854	4854
5°	4867	4846	4805
10°	4815	4802	4747
15°	4730	4730	4676
20°	4630	4636	4576
25°	4477	4533	4461
30°	4216	4406	4352
35°	3984	4223	4230
40°	3790	3995	4099
45°	3573	3753	3945
50°	3345	3537	3777
55°	3085	3290	3573
60°	2779	3003	3323
65°	2453	2670	3023
70°	2045	2274	2568
75°	1606	1815	2010
80°	1148	1278	1418
85°	750	750	707



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.8	4.1
10°-20°	477.1	11.4
20°-30°	697.2	16.7
30°-40°	791.4	19.0
40°-50°	764.0	18.3
50°-60°	630.3	15.1
60°-70°	419.7	10.1
70°-80°	187.8	4.5
80°-90°	33.6	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°	1344.2	32.2
0°-40°	2135.6	51.2
0°-60°	3529.9	84.6
0°-90°	4171.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4171.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1804	1804	1804	1804	1804	
5°	1802	1801	1794	1784	1779	171
15°	1698	1702	1698	1690	1678	479
25°	1508	1520	1527	1516	1502	691
35°	1213	1229	1286	1292	1288	760
45°	939	955	986	1031	1037	724
55°	658	669	701	740	762	587
65°	385	396	419	449	475	382
75°	154	163	175	183	193	169
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1803.8	1803.8	1803.8	1803.8	1803.8
2.5°	1808.7	1809.4	1805.2	1794.1	1787.2
5°	1801.8	1801.1	1794.1	1784.4	1778.9
7.5°	1781.7	1783.1	1781.0	1767.1	1759.5
10°	1762.3	1763.0	1757.4	1746.3	1737.3
12.5°	1737.3	1736.6	1729.0	1723.5	1708.9
15°	1697.8	1702.0	1697.8	1690.2	1678.4
17.5°	1659.7	1659.7	1662.5	1649.3	1640.3
20°	1616.7	1618.8	1618.8	1608.4	1598.0
22.5°	1566.8	1573.1	1575.2	1564.1	1551.6
25°	1507.9	1519.7	1526.7	1515.6	1502.4
27.5°	1436.6	1454.6	1475.4	1467.1	1452.5
30°	1356.9	1383.2	1417.9	1410.9	1400.5
32.5°	1281.3	1307.7	1355.5	1352.7	1347.2
35°	1212.7	1229.4	1285.5	1292.4	1287.6
37.5°	1147.6	1162.8	1215.5	1231.4	1227.3
40°	1079.0	1095.6	1137.2	1165.6	1167.0
42.5°	1011.1	1027.0	1061.0	1101.9	1101.9
45°	939.0	954.9	986.1	1031.2	1036.7
47.5°	868.3	884.9	915.4	960.5	969.5
50°	799.0	814.3	844.8	888.4	902.3
52.5°	726.9	743.6	773.4	813.6	833.7
55°	657.6	668.7	701.3	740.1	761.6
57.5°	585.6	596.0	632.7	666.0	688.1
60°	516.3	529.4	557.9	591.8	617.5
62.5°	449.7	463.6	487.9	517.7	546.8
65°	385.3	395.7	419.3	449.1	474.7
67.5°	322.9	331.9	355.5	376.3	403.3
70°	259.9	271.7	289.0	309.1	326.4
72.5°	209.3	214.1	228.7	243.2	261.3
75°	154.5	162.9	174.6	182.9	193.3
77.5°	110.9	115.7	122.7	129.6	139.3
80°	74.1	76.2	82.5	83.9	91.5
82.5°	45.0	46.4	47.8	48.5	51.3
85°	24.3	24.3	24.3	22.9	22.9
87.5°	13.9	13.9	11.8	9.7	6.9
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)