

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: P557197

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-96-EDD**

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: P557197
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
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

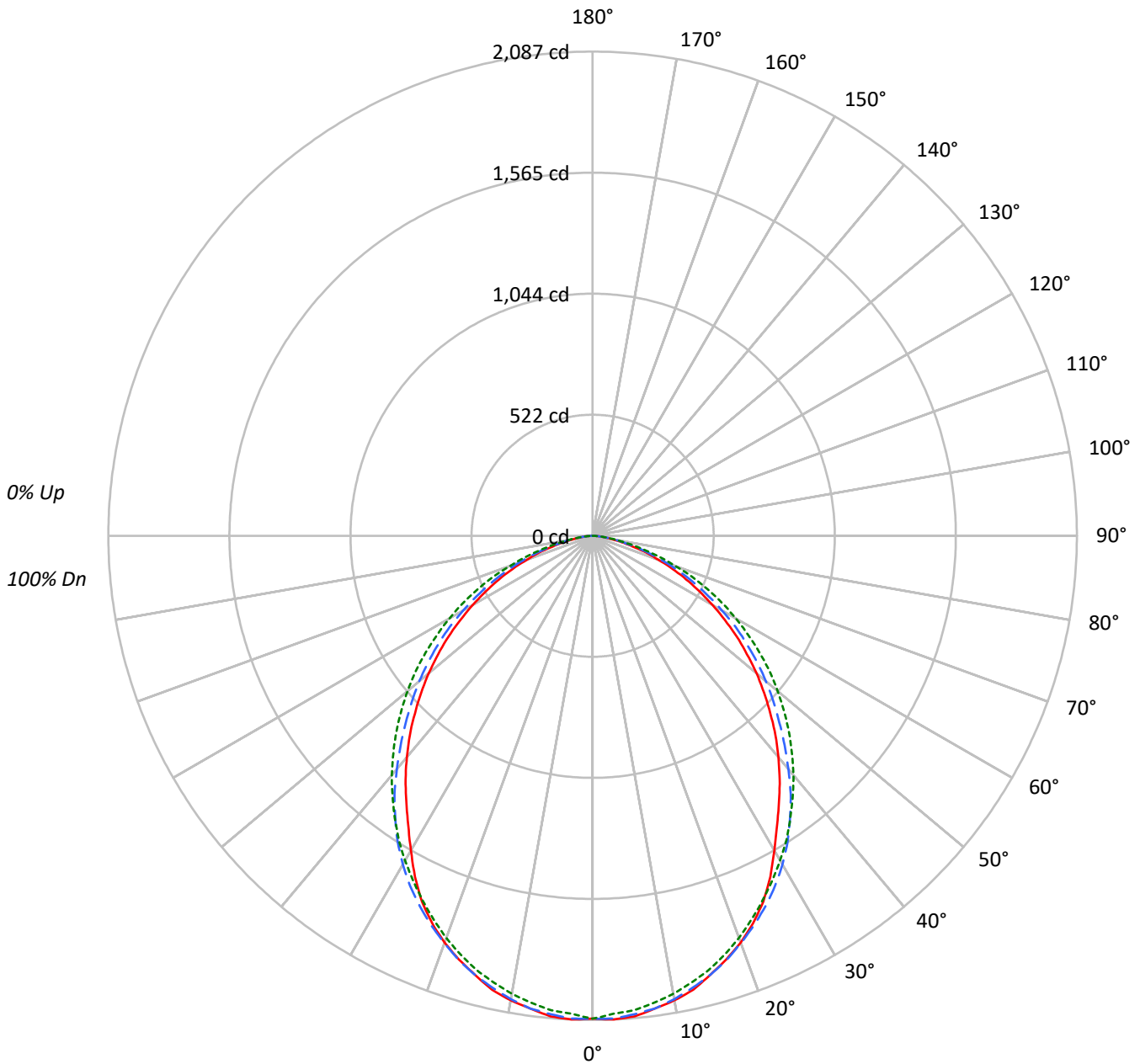
Lumens per Lamp: N/A
Luminaire Lumens: 4813.0 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5601	5601	5601
5°	5616	5592	5545
10°	5557	5541	5478
15°	5458	5458	5396
20°	5342	5349	5281
25°	5166	5230	5147
30°	4865	5084	5022
35°	4597	4873	4881
40°	4374	4610	4730
45°	4123	4330	4553
50°	3860	4081	4358
55°	3560	3796	4123
60°	3206	3464	3835
65°	2831	3081	3488
70°	2360	2624	2963
75°	1854	2095	2320
80°	1327	1475	1636
85°	865	865	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	4.1
10°-20°	550.6	11.4
20°-30°	804.5	16.7
30°-40°	913.3	19.0
40°-50°	881.6	18.3
50°-60°	727.3	15.1
60°-70°	484.3	10.1
70°-80°	216.7	4.5
80°-90°	38.8	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°	1551.1	32.2
0°-40°	2464.3	51.2
0°-60°	4073.2	84.6
0°-90°	4813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4813.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2082	2082	2082	2082	2082	
5°	2079	2078	2070	2059	2053	197
15°	1959	1964	1959	1950	1937	552
25°	1740	1754	1762	1749	1734	797
35°	1399	1419	1483	1491	1486	877
45°	1084	1102	1138	1190	1196	836
55°	759	772	809	854	879	677
65°	445	457	484	518	548	441
75°	178	188	202	211	223	195
85°	28	28	28	26	26	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2081.5	2081.5	2081.5	2081.5	2081.5
2.5°	2087.1	2087.9	2083.1	2070.3	2062.3
5°	2079.1	2078.3	2070.3	2059.1	2052.7
7.5°	2055.9	2057.5	2055.1	2039.1	2030.3
10°	2033.5	2034.3	2027.9	2015.1	2004.7
12.5°	2004.7	2003.9	1995.1	1988.7	1971.9
15°	1959.2	1963.9	1959.2	1950.4	1936.8
17.5°	1915.2	1915.2	1918.4	1903.2	1892.8
20°	1865.6	1868.0	1868.0	1856.0	1844.0
22.5°	1808.0	1815.2	1817.6	1804.8	1790.4
25°	1740.0	1753.6	1761.6	1748.8	1733.6
27.5°	1657.7	1678.5	1702.5	1692.9	1676.1
30°	1565.7	1596.1	1636.1	1628.1	1616.1
32.5°	1478.6	1508.9	1564.1	1560.9	1554.5
35°	1399.4	1418.6	1483.4	1491.4	1485.8
37.5°	1324.2	1341.8	1402.6	1421.0	1416.2
40°	1245.1	1264.3	1312.2	1345.0	1346.6
42.5°	1166.7	1185.1	1224.3	1271.4	1271.4
45°	1083.5	1101.9	1137.9	1189.9	1196.3
47.5°	1002.0	1021.2	1056.3	1108.3	1118.7
50°	922.0	939.6	974.8	1025.2	1041.1
52.5°	838.8	858.0	892.4	938.8	962.0
55°	758.9	771.7	809.2	854.0	878.8
57.5°	675.7	687.7	730.1	768.5	794.1
60°	595.7	610.9	643.7	682.9	712.5
62.5°	519.0	535.0	563.0	597.3	630.9
65°	444.6	456.6	483.8	518.2	547.8
67.5°	372.6	383.0	410.2	434.2	465.4
70°	299.9	313.5	333.5	356.6	376.6
72.5°	241.5	247.1	263.9	280.7	301.5
75°	178.3	187.9	201.5	211.1	223.1
77.5°	127.9	133.5	141.5	149.5	160.7
80°	85.6	88.0	95.2	96.8	105.6
82.5°	52.0	53.6	55.2	56.0	59.2
85°	28.0	28.0	28.0	26.4	26.4
87.5°	16.0	16.0	13.6	11.2	8.0
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)