

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: P557195

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-94-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: P557195
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-81-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

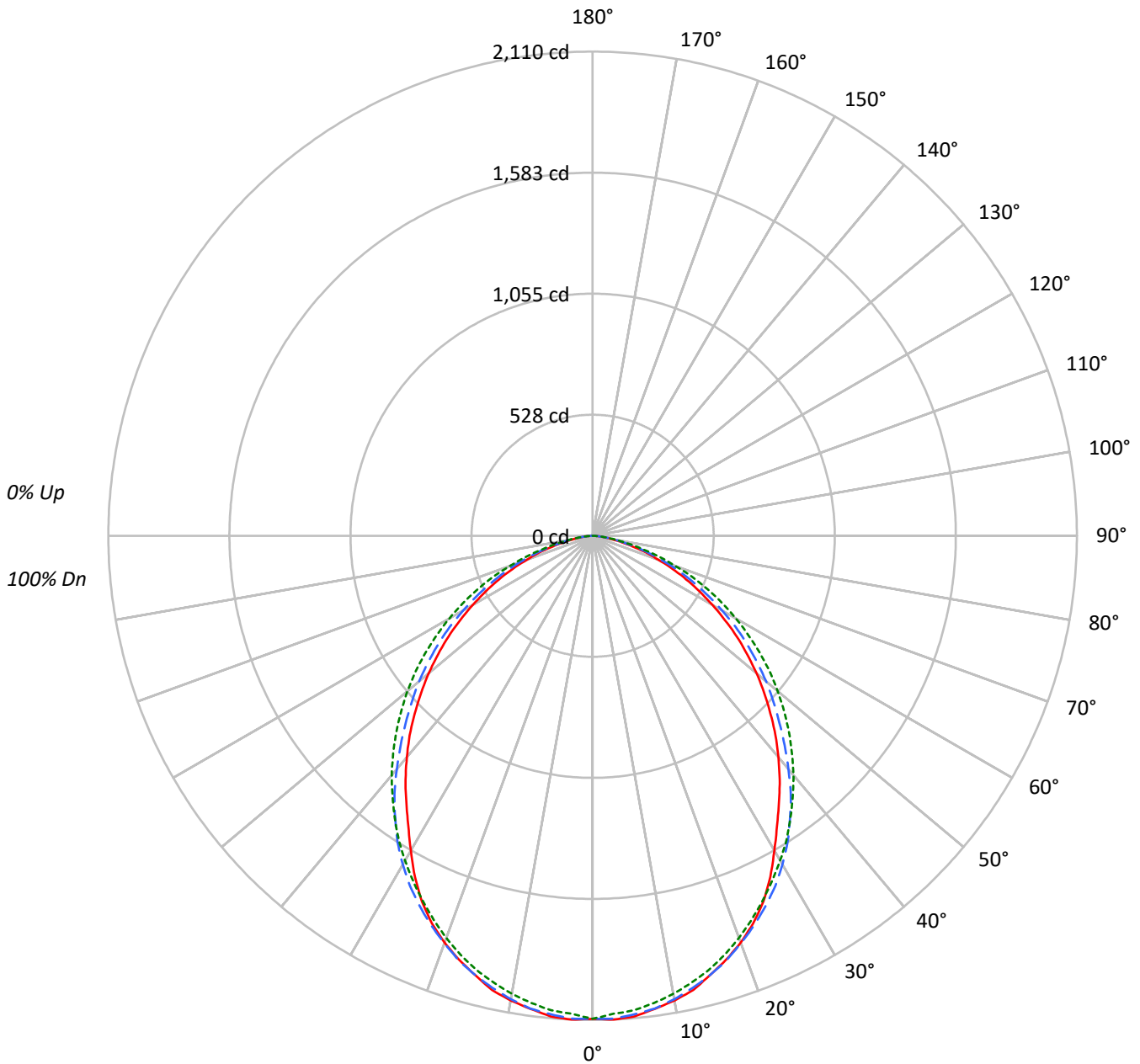
Lumens per Lamp: N/A
Luminaire Lumens: 4867.0 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5664	5664	5664
5°	5679	5655	5607
10°	5619	5604	5539
15°	5519	5519	5456
20°	5402	5409	5340
25°	5225	5289	5205
30°	4920	5141	5078
35°	4649	4928	4936
40°	4423	4662	4783
45°	4170	4379	4604
50°	3903	4127	4407
55°	3600	3839	4169
60°	3242	3503	3878
65°	2863	3115	3527
70°	2386	2653	2997
75°	1875	2119	2346
80°	1340	1491	1654
85°	874	874	824



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.2	4.1
10°-20°	556.7	11.4
20°-30°	813.6	16.7
30°-40°	923.5	19.0
40°-50°	891.5	18.3
50°-60°	735.4	15.1
60°-70°	489.7	10.1
70°-80°	219.1	4.5
80°-90°	39.2	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°	1568.5	32.2
0°-40°	2492.0	51.2
0°-60°	4118.9	84.6
0°-90°	4867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2102	2102	2094	2082	2076	199
15°	1981	1986	1981	1972	1958	558
25°	1760	1773	1781	1768	1753	806
35°	1415	1434	1500	1508	1502	887
45°	1096	1114	1151	1203	1210	845
55°	767	780	818	864	889	685
65°	450	462	489	524	554	446
75°	180	190	204	214	226	197
85°	28	28	28	27	27	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2104.9	2104.9	2104.9	2104.9	2104.9
2.5°	2110.5	2111.3	2106.5	2093.5	2085.4
5°	2102.4	2101.6	2093.5	2082.2	2075.7
7.5°	2079.0	2080.6	2078.2	2062.0	2053.1
10°	2056.3	2057.1	2050.7	2037.7	2027.2
12.5°	2027.2	2026.4	2017.5	2011.1	1994.1
15°	1981.1	1986.0	1981.1	1972.2	1958.5
17.5°	1936.7	1936.7	1939.9	1924.5	1914.0
20°	1886.5	1888.9	1888.9	1876.8	1864.7
22.5°	1828.3	1835.6	1838.0	1825.1	1810.5
25°	1759.6	1773.3	1781.4	1768.5	1753.1
27.5°	1676.3	1697.3	1721.6	1711.9	1694.9
30°	1583.3	1614.0	1654.4	1646.4	1634.2
32.5°	1495.1	1525.9	1581.7	1578.4	1572.0
35°	1415.1	1434.5	1500.0	1508.1	1502.4
37.5°	1339.1	1356.9	1418.3	1436.9	1432.1
40°	1259.0	1278.4	1327.0	1360.1	1361.7
42.5°	1179.8	1198.4	1238.0	1285.7	1285.7
45°	1095.7	1114.3	1150.7	1203.2	1209.7
47.5°	1013.2	1032.6	1068.2	1120.8	1131.3
50°	932.3	950.1	985.7	1036.7	1052.8
52.5°	848.2	867.7	902.4	949.3	972.8
55°	767.4	780.3	818.3	863.6	888.7
57.5°	683.3	695.4	738.3	777.1	803.0
60°	602.4	617.8	650.9	690.6	720.5
62.5°	524.8	541.0	569.3	604.0	638.0
65°	449.6	461.7	489.2	524.0	553.9
67.5°	376.8	387.3	414.8	439.1	470.6
70°	303.2	317.0	337.2	360.6	380.9
72.5°	244.2	249.9	266.8	283.8	304.9
75°	180.3	190.0	203.8	213.5	225.6
77.5°	129.4	135.0	143.1	151.2	162.5
80°	86.5	88.9	96.2	97.8	106.7
82.5°	52.6	54.2	55.8	56.6	59.8
85°	28.3	28.3	28.3	26.7	26.7
87.5°	16.2	16.2	13.7	11.3	8.1
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)