

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: P557189

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-81-86-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: P557189
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-81-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

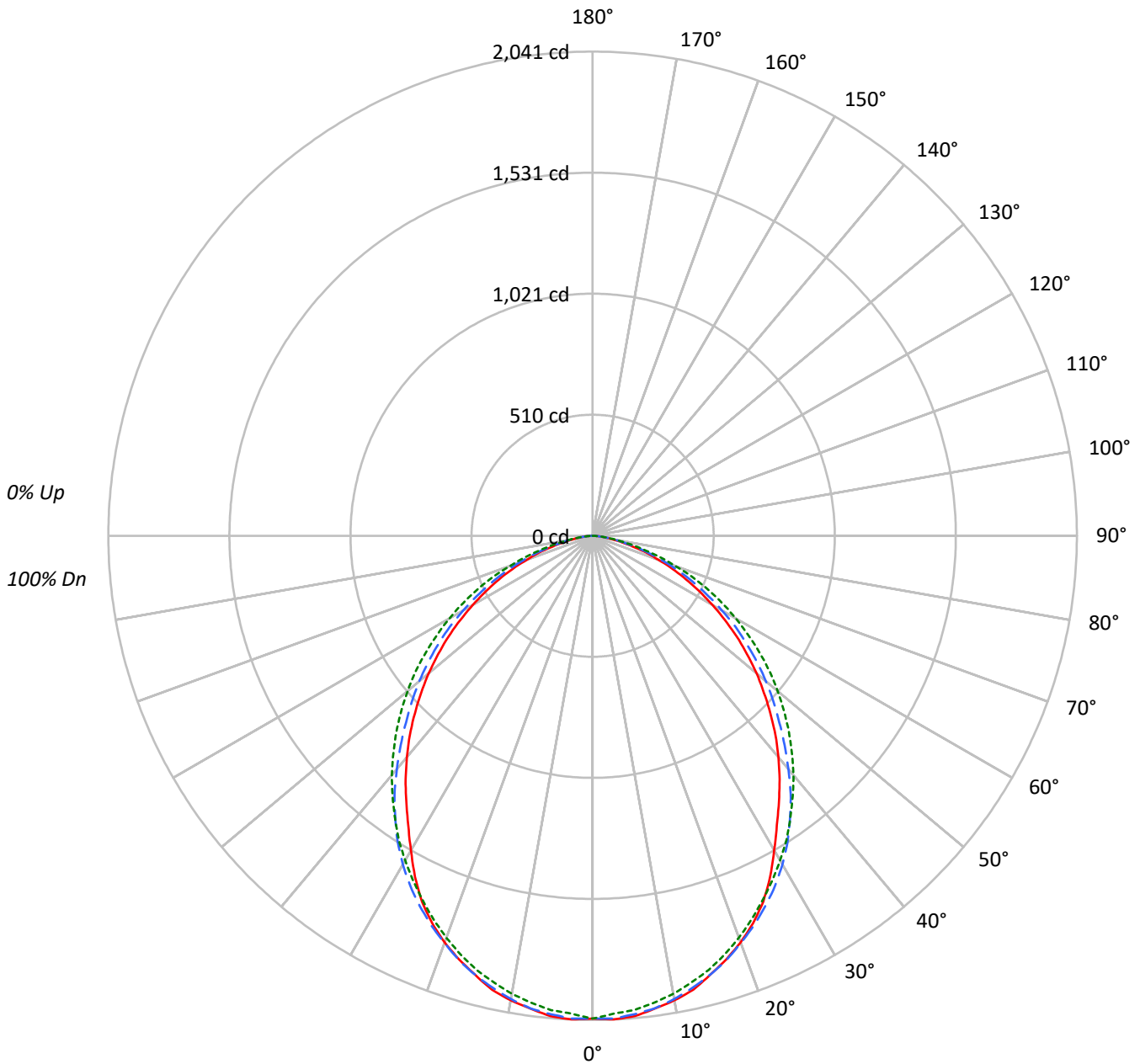
Lumens per Lamp: N/A
Luminaire Lumens: 4706.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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°	5477	5477	5477
5°	5491	5468	5422
10°	5433	5418	5356
15°	5337	5337	5276
20°	5224	5231	5163
25°	5052	5114	5033
30°	4757	4971	4910
35°	4495	4765	4772
40°	4277	4507	4625
45°	4032	4234	4451
50°	3774	3990	4262
55°	3481	3712	4031
60°	3135	3387	3750
65°	2768	3012	3410
70°	2307	2565	2898
75°	1813	2048	2268
80°	1297	1441	1599
85°	846	846	797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.6	4.1
10°-20°	538.3	11.4
20°-30°	786.7	16.7
30°-40°	892.9	19.0
40°-50°	862.0	18.3
50°-60°	711.1	15.1
60°-70°	473.5	10.1
70°-80°	211.9	4.5
80°-90°	37.9	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°	1516.6	32.2
0°-40°	2409.6	51.2
0°-60°	3982.7	84.6
0°-90°	4706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2035	2035	2035	2035	2035	
5°	2033	2032	2024	2013	2007	192
15°	1916	1920	1916	1907	1894	540
25°	1701	1715	1722	1710	1695	779
35°	1368	1387	1450	1458	1453	857
45°	1059	1077	1113	1163	1170	817
55°	742	754	791	835	859	662
65°	435	446	473	507	536	431
75°	174	184	197	206	218	191
85°	27	27	27	26	26	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2035.2	2035.2	2035.2	2035.2	2035.2
2.5°	2040.7	2041.5	2036.8	2024.3	2016.5
5°	2032.9	2032.1	2024.3	2013.3	2007.1
7.5°	2010.2	2011.8	2009.4	1993.8	1985.2
10°	1988.3	1989.1	1982.8	1970.3	1960.2
12.5°	1960.2	1959.4	1950.8	1944.5	1928.1
15°	1915.6	1920.3	1915.6	1907.0	1893.7
17.5°	1872.6	1872.6	1875.7	1860.9	1850.7
20°	1824.1	1826.5	1826.5	1814.7	1803.0
22.5°	1767.8	1774.9	1777.2	1764.7	1750.6
25°	1701.4	1714.7	1722.5	1710.0	1695.1
27.5°	1620.8	1641.2	1664.6	1655.2	1638.8
30°	1530.9	1560.6	1599.7	1591.9	1580.2
32.5°	1445.7	1475.4	1529.3	1526.2	1520.0
35°	1368.3	1387.0	1450.4	1458.2	1452.7
37.5°	1294.8	1312.0	1371.4	1389.4	1384.7
40°	1217.4	1236.1	1283.1	1315.1	1316.7
42.5°	1140.8	1158.7	1197.1	1243.2	1243.2
45°	1059.4	1077.4	1112.6	1163.4	1169.7
47.5°	979.7	998.5	1032.9	1083.7	1093.8
50°	901.5	918.7	953.1	1002.4	1018.0
52.5°	820.2	839.0	872.6	917.9	940.6
55°	742.0	754.5	791.3	835.0	859.3
57.5°	660.7	672.4	713.9	751.4	776.4
60°	582.5	597.4	629.4	667.7	696.7
62.5°	507.4	523.1	550.4	584.1	616.9
65°	434.7	446.5	473.0	506.7	535.6
67.5°	364.4	374.5	401.1	424.6	455.1
70°	293.2	306.5	326.0	348.7	368.3
72.5°	236.1	241.6	258.0	274.4	294.8
75°	174.4	183.7	197.0	206.4	218.1
77.5°	125.1	130.6	138.4	146.2	157.2
80°	83.7	86.0	93.0	94.6	103.2
82.5°	50.8	52.4	53.9	54.7	57.9
85°	27.4	27.4	27.4	25.8	25.8
87.5°	15.6	15.6	13.3	10.9	7.8
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)