

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: P556609

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-84-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: P556609
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-LD4-1LO-50-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

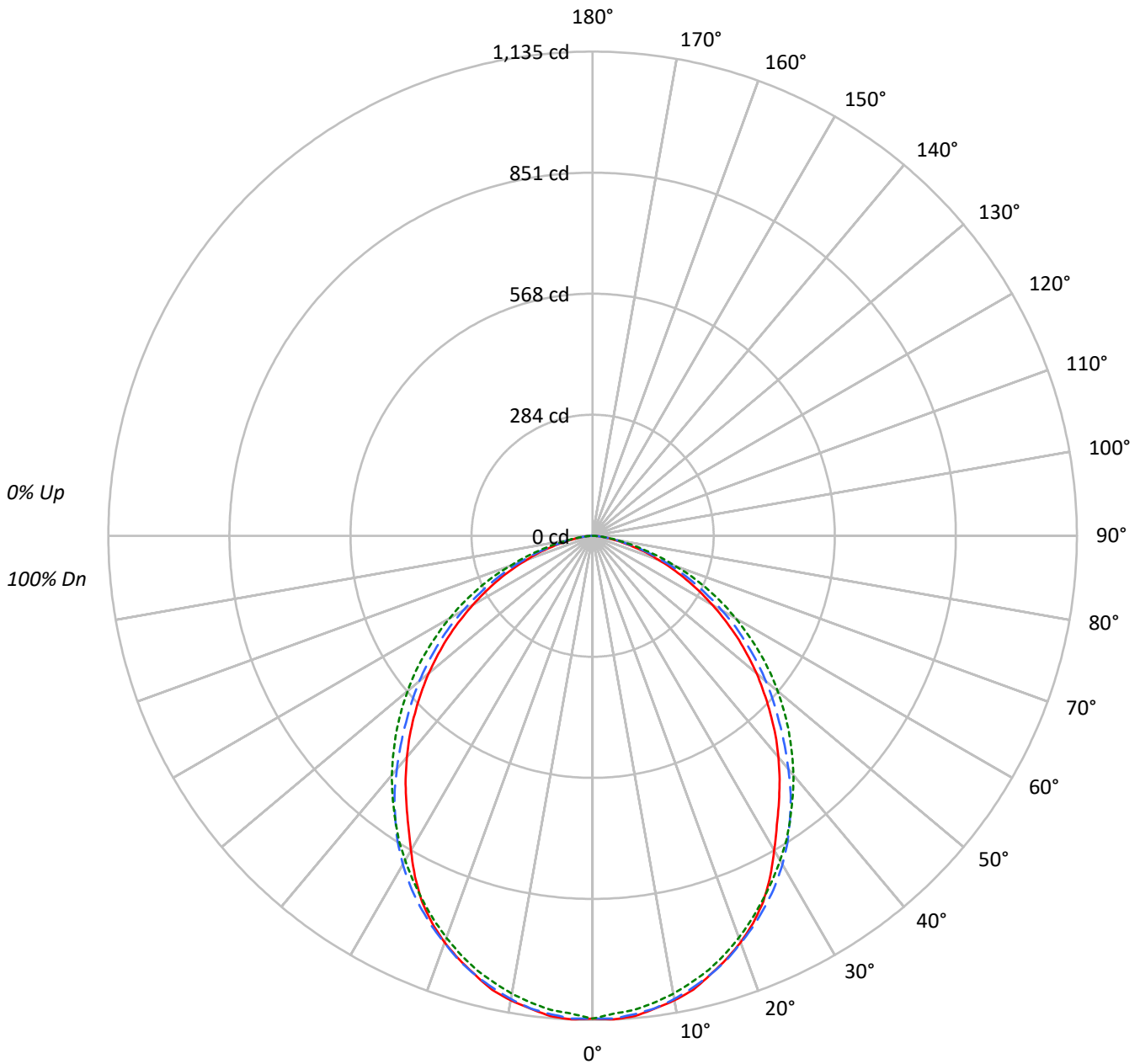
Lumens per Lamp: N/A
Luminaire Lumens: 2617.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

TEST NUMBER: P556609

CATALOG NUMBER: FUSL-12-4-LD4-1LO-50-UNV-81-84-EDD

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°	3046	3046	3046
5°	3054	3041	3015
10°	3021	3013	2978
15°	2968	2968	2934
20°	2905	2909	2871
25°	2809	2844	2799
30°	2645	2764	2730
35°	2500	2650	2654
40°	2378	2506	2572
45°	2242	2355	2476
50°	2099	2219	2370
55°	1936	2064	2242
60°	1743	1884	2085
65°	1539	1675	1896
70°	1283	1426	1611
75°	1009	1140	1261
80°	721	801	890
85°	469	469	442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	4.1
10°-20°	299.4	11.4
20°-30°	437.5	16.7
30°-40°	496.6	19.0
40°-50°	479.4	18.3
50°-60°	395.4	15.1
60°-70°	263.3	10.1
70°-80°	117.8	4.5
80°-90°	21.1	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°	843.4	32.2
0°-40°	1339.9	51.2
0°-60°	2214.7	84.6
0°-90°	2617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2617.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1130	1130	1126	1120	1116	107
15°	1065	1068	1065	1060	1053	300
25°	946	954	958	951	943	433
35°	761	771	807	811	808	477
45°	589	599	619	647	650	455
55°	413	420	440	464	478	368
65°	242	248	263	282	298	240
75°	97	102	110	115	121	106
85°	15	15	15	14	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1131.8	<i>1131.8</i>	1131.8	1131.8	1131.8
2.5°	<i>1134.8</i>	<i>1135.3</i>	<i>1132.7</i>	<i>1125.7</i>	<i>1121.3</i>
5°	1130.5	<i>1130.0</i>	1125.7	1119.6	1116.1
7.5°	1117.9	<i>1118.7</i>	1117.4	1108.7	1104.0
10°	1105.7	<i>1106.1</i>	1102.7	1095.7	1090.0
12.5°	1090.0	<i>1089.6</i>	1084.8	1081.3	1072.2
15°	1065.3	<i>1067.9</i>	1065.3	1060.5	1053.1
17.5°	1041.3	<i>1041.3</i>	1043.1	1034.8	1029.2
20°	1014.4	<i>1015.7</i>	1015.7	1009.2	1002.6
22.5°	983.1	<i>987.0</i>	988.3	981.3	973.5
25°	946.1	<i>953.5</i>	957.9	950.9	942.6
27.5°	901.3	<i>912.6</i>	925.7	920.5	911.3
30°	851.3	<i>867.9</i>	889.6	885.3	878.7
32.5°	803.9	<i>820.5</i>	850.5	848.7	845.3
35°	760.9	<i>771.3</i>	806.6	810.9	807.9
37.5°	720.0	<i>729.6</i>	762.6	772.6	770.0
40°	677.0	<i>687.4</i>	713.5	731.3	732.2
42.5°	634.4	<i>644.4</i>	665.7	691.3	691.3
45°	589.2	<i>599.2</i>	618.7	647.0	650.5
47.5°	544.8	<i>555.2</i>	574.4	602.6	608.3
50°	501.3	<i>510.9</i>	530.0	557.4	566.1
52.5°	456.1	<i>466.5</i>	485.2	510.5	523.1
55°	412.6	<i>419.6</i>	440.0	464.4	477.8
57.5°	367.4	<i>373.9</i>	397.0	417.8	431.8
60°	323.9	<i>332.2</i>	350.0	371.3	387.4
62.5°	282.2	<i>290.9</i>	306.1	324.8	343.1
65°	241.7	<i>248.3</i>	263.1	281.8	297.8
67.5°	202.6	<i>208.3</i>	223.1	236.1	253.1
70°	163.1	<i>170.4</i>	181.3	193.9	204.8
72.5°	131.3	<i>134.4</i>	143.5	152.6	163.9
75°	97.0	<i>102.2</i>	109.6	114.8	121.3
77.5°	69.6	<i>72.6</i>	77.0	81.3	87.4
80°	46.5	<i>47.8</i>	51.7	52.6	57.4
82.5°	28.3	<i>29.1</i>	30.0	30.4	32.2
85°	15.2	<i>15.2</i>	15.2	14.3	14.3
87.5°	8.7	<i>8.7</i>	7.4	6.1	4.3
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)