

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: P558339

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-85-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: P558339
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-LD4-3STD-40-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

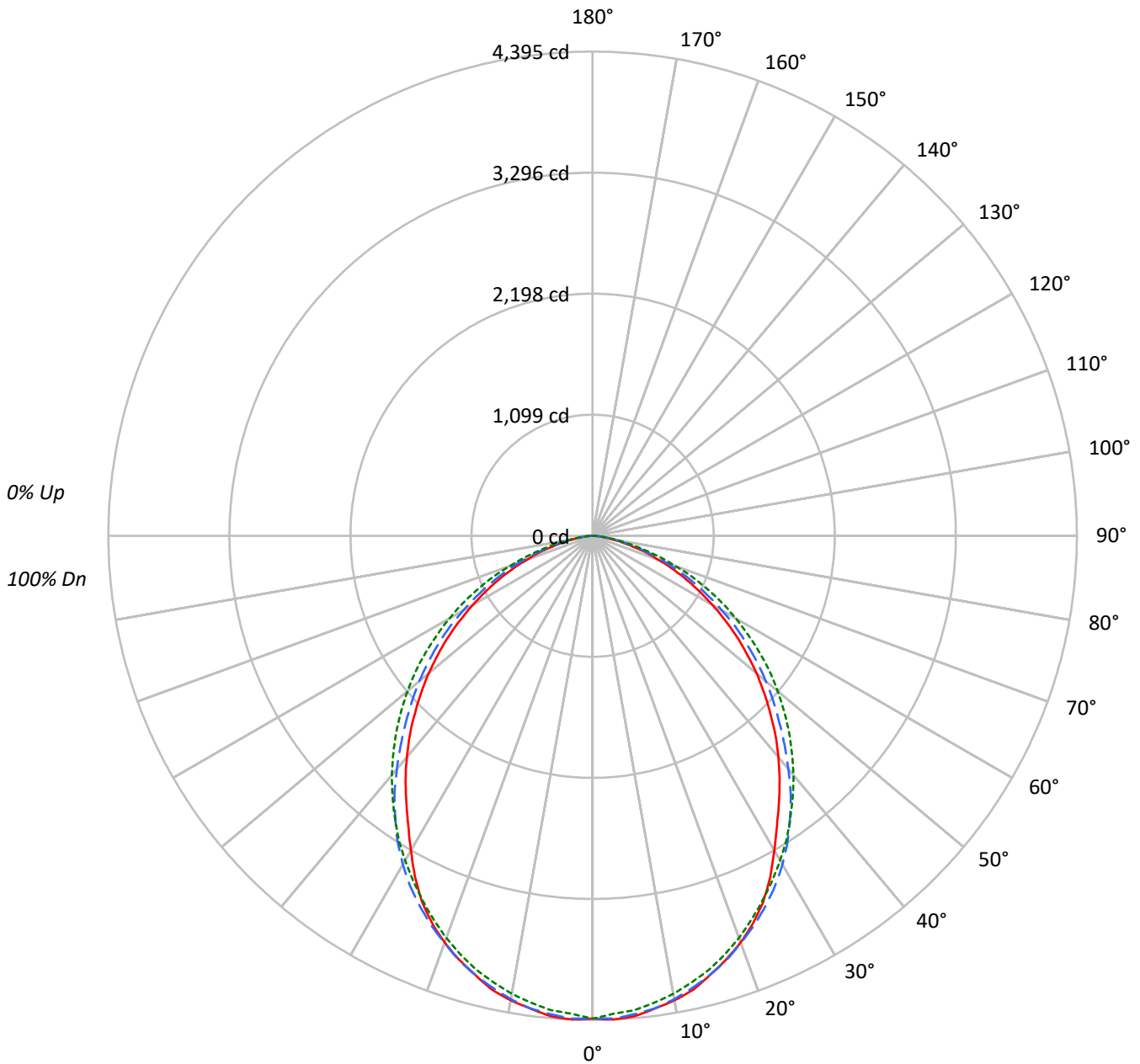
Lumens per Lamp: N/A
Luminaire Lumens: 10135.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558339

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P558339

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-85-EDD

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°	11795	11795	11795
5°	11826	11776	11676
10°	11701	11669	11535
15°	11493	11493	11362
20°	11250	11264	11120
25°	10879	11014	10839
30°	10245	10705	10574
35°	9680	10261	10278
40°	9210	9707	9961
45°	8683	9119	9587
50°	8128	8593	9178
55°	7497	7995	8682
60°	6752	7295	8075
65°	5961	6486	7345
70°	4969	5525	6240
75°	3904	4412	4885
80°	2793	3106	3445
85°	1819	1819	1717



TEST NUMBER: P558339

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	412.7	4.1
10°-20°	1159.3	11.4
20°-30°	1694.2	16.7
30°-40°	1923.1	19.0
40°-50°	1856.5	18.3
50°-60°	1531.4	15.1
60°-70°	1019.8	10.1
70°-80°	456.3	4.5
80°-90°	81.6	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°	3266.2	32.2
0°-40°	5189.3	51.2
0°-60°	8577.2	84.6
0°-90°	10135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10135.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4383	4383	4383	4383	4383	
5°	4378	4376	4360	4336	4322	414
15°	4126	4136	4126	4107	4078	1163
25°	3664	3693	3710	3683	3651	1678
35°	2947	2987	3124	3140	3129	1846
45°	2282	2320	2396	2506	2519	1760
55°	1598	1625	1704	1798	1851	1426
65°	936	962	1019	1091	1154	928
75°	376	396	424	444	470	411
85°	59	59	59	56	56	79
90°	0	0	0	0	0	



TEST NUMBER: P558339

CATALOG NUMBER: FUSL-12-4-LD4-3STD-40-UNV-81-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4383.1	<i>4383.1</i>	4383.1	4383.1	4383.1
2.5°	<i>4394.9</i>	<i>4396.6</i>	<i>4386.5</i>	<i>4359.6</i>	<i>4342.7</i>
5°	4378.1	<i>4376.4</i>	4359.6	4336.0	4322.5
7.5°	4329.2	<i>4332.6</i>	4327.6	4293.9	4275.4
10°	4282.1	<i>4283.8</i>	4270.3	4243.4	4221.5
12.5°	4221.5	<i>4219.8</i>	4201.3	4187.8	4152.4
15°	4125.5	<i>4135.6</i>	4125.5	4107.0	4078.3
17.5°	4032.9	<i>4032.9</i>	4039.6	4007.6	3985.7
20°	3928.5	<i>3933.5</i>	3933.5	3908.3	3883.0
22.5°	3807.2	<i>3822.4</i>	3827.4	3800.5	3770.2
25°	3664.1	<i>3692.7</i>	3709.6	3682.6	3650.6
27.5°	3490.7	<i>3534.5</i>	3585.0	3564.8	3529.4
30°	3297.0	<i>3361.0</i>	3445.2	3428.4	3403.1
32.5°	3113.5	<i>3177.5</i>	3293.7	3286.9	3273.5
35°	2946.8	<i>2987.2</i>	3123.6	3140.4	3128.6
37.5°	2788.5	<i>2825.5</i>	2953.5	2992.2	2982.1
40°	2621.8	<i>2662.2</i>	2763.2	2832.3	2835.6
42.5°	2456.8	<i>2495.5</i>	2578.0	2677.4	2677.4
45°	2281.7	<i>2320.4</i>	2396.2	2505.6	2519.1
47.5°	2109.9	<i>2150.3</i>	2224.4	2333.9	2355.7
50°	1941.5	<i>1978.6</i>	2052.6	2158.7	2192.4
52.5°	1766.4	<i>1806.8</i>	1879.2	1976.9	2025.7
55°	1598.0	<i>1624.9</i>	1704.1	1798.4	1850.6
57.5°	1422.9	<i>1448.1</i>	1537.4	1618.2	1672.1
60°	1254.5	<i>1286.5</i>	1355.5	1438.0	1500.3
62.5°	1092.8	<i>1126.5</i>	1185.4	1257.9	1328.6
65°	936.2	<i>961.5</i>	1018.7	1091.2	1153.5
67.5°	784.7	<i>806.6</i>	863.8	914.3	980.0
70°	631.5	<i>660.1</i>	702.2	751.0	793.1
72.5°	508.5	<i>520.3</i>	555.7	591.0	634.8
75°	375.5	<i>395.7</i>	424.3	444.5	469.8
77.5°	269.4	<i>281.2</i>	298.0	314.9	338.5
80°	180.2	<i>185.2</i>	200.4	203.7	222.3
82.5°	109.5	<i>112.8</i>	116.2	117.9	124.6
85°	58.9	<i>58.9</i>	58.9	55.6	55.6
87.5°	33.7	<i>33.7</i>	28.6	23.6	16.8
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)