

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: P557117

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-96-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: P557117
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-LD4-2HI-50-UNV-80-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

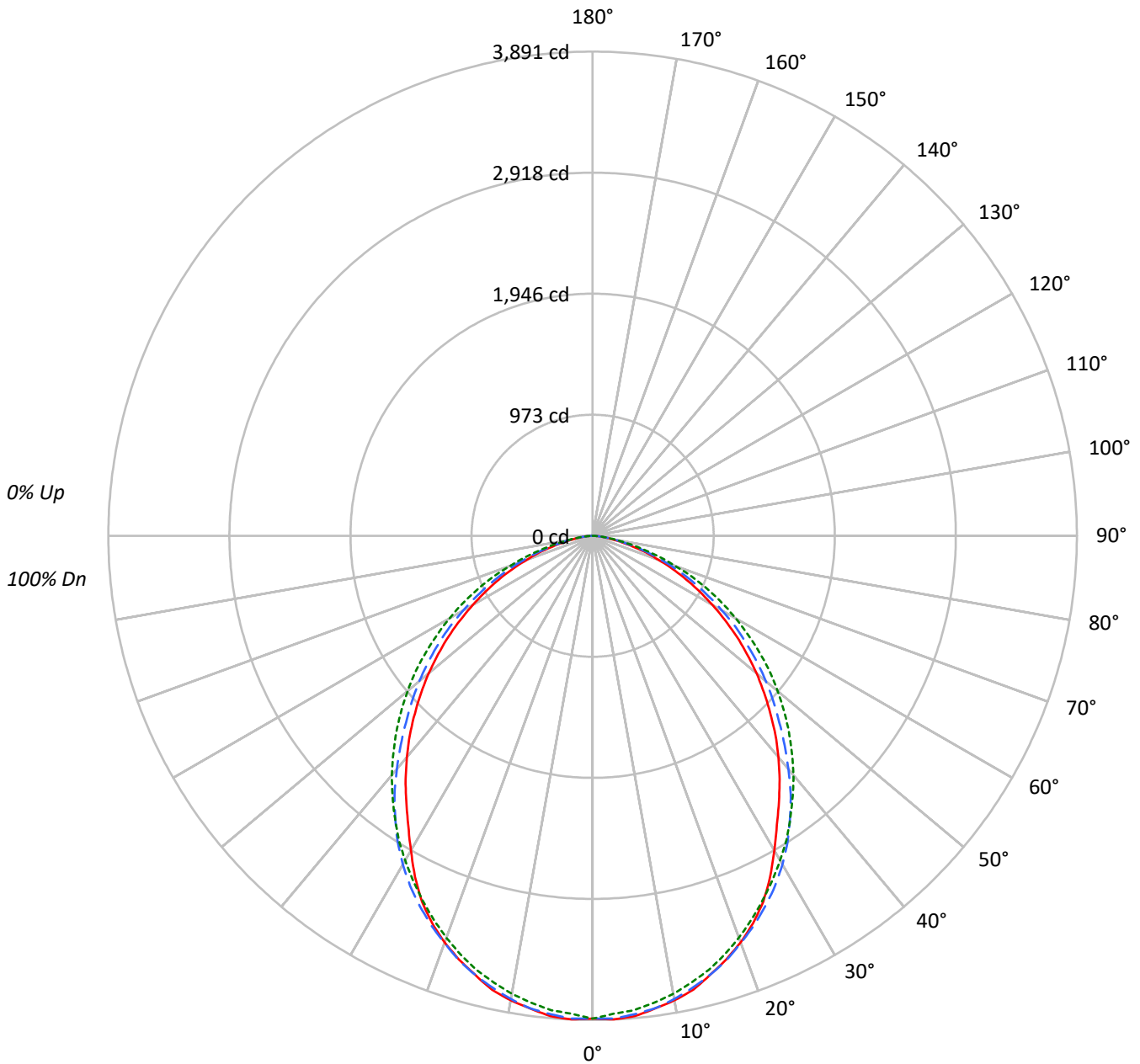
Lumens per Lamp: N/A
Luminaire Lumens: 8972.0 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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

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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°	10442	10442	10442
5°	10469	10425	10336
10°	10358	10330	10212
15°	10174	10174	10058
20°	9959	9972	9844
25°	9631	9750	9595
30°	9069	9477	9361
35°	8569	9084	9098
40°	8153	8593	8818
45°	7687	8072	8487
50°	7195	7607	8125
55°	6637	7077	7686
60°	5977	6458	7148
65°	5277	5742	6502
70°	4398	4891	5524
75°	3456	3905	4324
80°	2472	2749	3050
85°	1612	1612	1519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.3	4.1
10°-20°	1026.3	11.4
20°-30°	1499.8	16.7
30°-40°	1702.4	19.0
40°-50°	1643.4	18.3
50°-60°	1355.7	15.1
60°-70°	902.8	10.1
70°-80°	404.0	4.5
80°-90°	72.3	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°	2891.4	32.2
0°-40°	4593.8	51.2
0°-60°	7593.0	84.6
0°-90°	8972.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8972.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3880	3880	3880	3880	3880	
5°	3876	3874	3859	3838	3826	367
15°	3652	3661	3652	3636	3610	1030
25°	3244	3269	3284	3260	3232	1485
35°	2609	2644	2765	2780	2770	1634
45°	2020	2054	2121	2218	2230	1558
55°	1415	1438	1508	1592	1638	1263
65°	829	851	902	966	1021	822
75°	332	350	376	394	416	363
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3880.2	<i>3880.2</i>	3880.2	3880.2	3880.2
2.5°	<i>3890.6</i>	<i>3892.1</i>	<i>3883.1</i>	<i>3859.3</i>	<i>3844.4</i>
5°	3875.7	<i>3874.2</i>	3859.3	3838.4	3826.5
7.5°	3832.5	<i>3835.4</i>	3831.0	3801.2	3784.8
10°	3790.7	<i>3792.2</i>	3780.3	3756.4	3737.1
12.5°	3737.1	<i>3735.6</i>	3719.2	3707.2	3675.9
15°	3652.1	<i>3661.0</i>	3652.1	3635.7	3610.4
17.5°	3570.1	<i>3570.1</i>	3576.1	3547.7	3528.4
20°	3477.7	<i>3482.2</i>	3482.2	3459.8	3437.4
22.5°	3370.4	<i>3383.8</i>	3388.2	3364.4	3337.6
25°	3243.7	<i>3269.0</i>	3283.9	3260.0	3231.7
27.5°	3090.1	<i>3128.9</i>	3173.6	3155.7	3124.4
30°	2918.7	<i>2975.3</i>	3049.9	3035.0	3012.6
32.5°	2756.2	<i>2812.9</i>	2915.7	2909.7	2897.8
35°	2608.6	<i>2644.4</i>	2765.2	2780.1	2769.6
37.5°	2468.5	<i>2501.3</i>	2614.6	2648.9	2639.9
40°	2320.9	<i>2356.7</i>	2446.2	2507.3	2510.3
42.5°	2174.9	<i>2209.1</i>	2282.2	2370.1	2370.1
45°	2019.8	<i>2054.1</i>	2121.2	2218.1	2230.0
47.5°	1867.8	<i>1903.6</i>	1969.1	2066.0	2085.4
50°	1718.7	<i>1751.5</i>	1817.1	1911.0	1940.8
52.5°	1563.7	<i>1599.5</i>	1663.6	1750.0	1793.3
55°	1414.6	<i>1438.5</i>	1508.5	1592.0	1638.2
57.5°	1259.6	<i>1282.0</i>	1361.0	1432.5	1480.2
60°	1110.5	<i>1138.9</i>	1200.0	1273.0	1328.2
62.5°	967.4	<i>997.2</i>	1049.4	1113.5	1176.1
65°	828.8	<i>851.2</i>	901.8	965.9	1021.1
67.5°	694.6	<i>714.0</i>	764.7	809.4	867.6
70°	559.0	<i>584.3</i>	621.6	664.8	702.1
72.5°	450.2	<i>460.6</i>	491.9	523.2	562.0
75°	332.4	<i>350.3</i>	375.6	393.5	415.9
77.5°	238.5	<i>248.9</i>	263.8	278.8	299.6
80°	159.5	<i>164.0</i>	177.4	180.4	196.8
82.5°	96.9	<i>99.9</i>	102.9	104.3	110.3
85°	52.2	<i>52.2</i>	52.2	49.2	49.2
87.5°	29.8	<i>29.8</i>	25.3	20.9	14.9
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)