

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: P558133

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-86-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: P558133
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-LD4-3LO-50-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

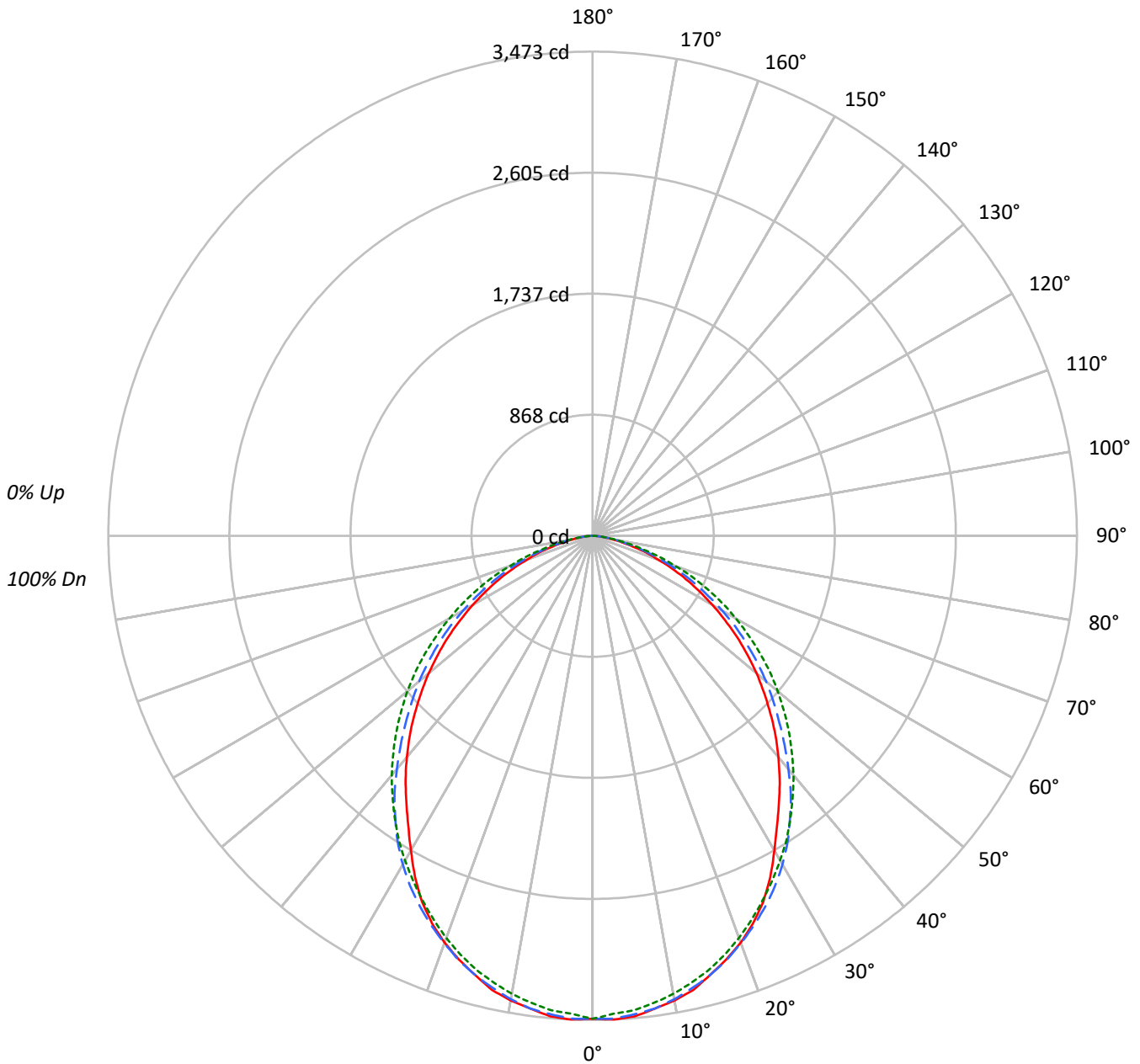
Lumens per Lamp: N/A
Luminaire Lumens: 8010.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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

TEST NUMBER: P558133

CATALOG NUMBER: FUSL-12-4-LD4-3LO-50-UNV-80-86-EDD

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°	9322	9322	9322
5°	9347	9307	9228
10°	9248	9222	9117
15°	9083	9083	8980
20°	8891	8903	8788
25°	8598	8705	8567
30°	8097	8461	8357
35°	7651	8110	8123
40°	7279	7672	7873
45°	6863	7207	7577
50°	6424	6792	7254
55°	5925	6319	6862
60°	5336	5766	6382
65°	4711	5126	5805
70°	3927	4367	4932
75°	3086	3487	3860
80°	2207	2455	2723
85°	1439	1439	1355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.2	4.1
10°-20°	916.3	11.4
20°-30°	1339.0	16.7
30°-40°	1519.9	19.0
40°-50°	1467.2	18.3
50°-60°	1210.3	15.1
60°-70°	806.0	10.1
70°-80°	360.7	4.5
80°-90°	64.5	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°	2581.4	32.2
0°-40°	4101.3	51.2
0°-60°	6778.8	84.6
0°-90°	8010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3464	3464	3464	3464	3464	
5°	3460	3459	3446	3427	3416	327
15°	3260	3268	3260	3246	3223	919
25°	2896	2918	2932	2910	2885	1326
35°	2329	2361	2469	2482	2473	1459
45°	1803	1834	1894	1980	1991	1391
55°	1263	1284	1347	1421	1463	1127
65°	740	760	805	862	912	734
75°	297	313	335	351	371	325
85°	47	47	47	44	44	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3464.1	<i>3464.1</i>	3464.1	3464.1	3464.1
2.5°	<i>3473.4</i>	<i>3474.8</i>	<i>3466.8</i>	<i>3445.5</i>	<i>3432.2</i>
5°	3460.1	<i>3458.8</i>	3445.5	3426.9	3416.2
7.5°	3421.5	<i>3424.2</i>	3420.2	3393.6	3378.9
10°	3384.3	<i>3385.6</i>	3375.0	3353.7	3336.4
12.5°	3336.4	<i>3335.0</i>	3320.4	3309.7	3281.8
15°	3260.5	<i>3268.5</i>	3260.5	3245.9	3223.2
17.5°	3187.3	<i>3187.3</i>	3192.6	3167.3	3150.0
20°	3104.8	<i>3108.8</i>	3108.8	3088.8	3068.9
22.5°	3009.0	<i>3021.0</i>	3024.9	3003.7	2979.7
25°	2895.9	<i>2918.5</i>	2931.8	2910.5	2885.2
27.5°	2758.8	<i>2793.4</i>	2833.3	2817.3	2789.4
30°	2605.7	<i>2656.3</i>	2722.9	2709.5	2689.6
32.5°	2460.7	<i>2511.3</i>	2603.1	2597.8	2587.1
35°	2328.9	<i>2360.9</i>	2468.7	2482.0	2472.7
37.5°	2203.8	<i>2233.1</i>	2334.3	2364.9	2356.9
40°	2072.1	<i>2104.0</i>	2183.9	2238.4	2241.1
42.5°	1941.7	<i>1972.3</i>	2037.5	2116.0	2116.0
45°	1803.3	<i>1833.9</i>	1893.8	1980.3	1990.9
47.5°	1667.5	<i>1699.5</i>	1758.0	1844.5	1861.8
50°	1534.4	<i>1563.7</i>	1622.3	1706.1	1732.7
52.5°	1396.0	<i>1428.0</i>	1485.2	1562.4	1601.0
55°	1262.9	<i>1284.2</i>	1346.8	1421.3	1462.6
57.5°	1124.5	<i>1144.5</i>	1215.0	1278.9	1321.5
60°	991.5	<i>1016.7</i>	1071.3	1136.5	1185.8
62.5°	863.7	<i>890.3</i>	936.9	994.1	1050.0
65°	739.9	<i>759.9</i>	805.1	862.4	911.6
67.5°	620.2	<i>637.5</i>	682.7	722.6	774.5
70°	499.1	<i>521.7</i>	555.0	593.5	626.8
72.5°	401.9	<i>411.2</i>	439.2	467.1	501.7
75°	296.8	<i>312.7</i>	335.4	351.3	371.3
77.5°	212.9	<i>222.2</i>	235.6	248.9	267.5
80°	142.4	<i>146.4</i>	158.4	161.0	175.7
82.5°	86.5	<i>89.2</i>	91.8	93.2	98.5
85°	46.6	<i>46.6</i>	46.6	43.9	43.9
87.5°	26.6	<i>26.6</i>	22.6	18.6	13.3
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)