

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: P557125

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-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: P557125
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-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

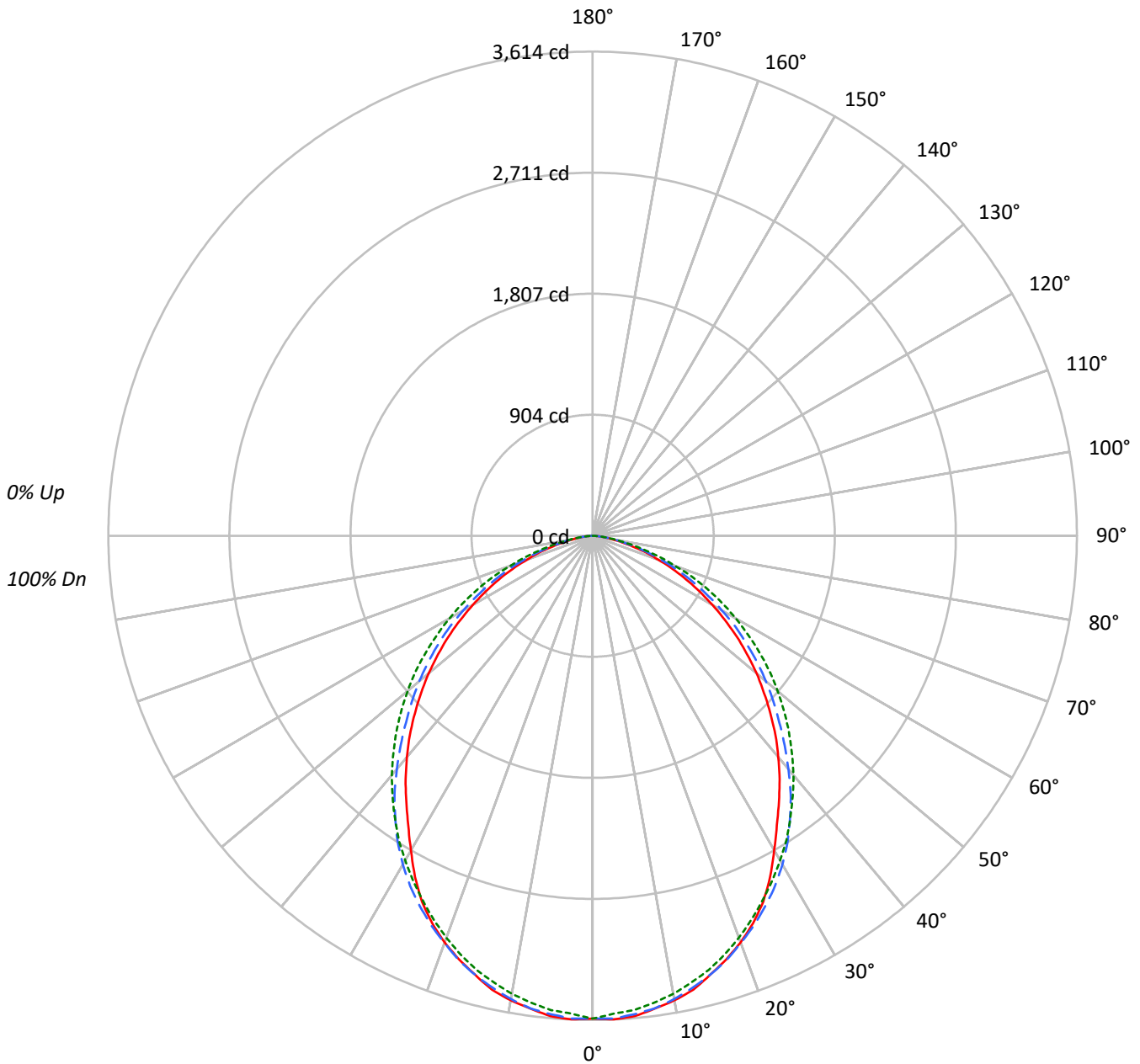
Lumens per Lamp: N/A
Luminaire Lumens: 8333.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9698	9698	9698
5°	9724	9682	9600
10°	9620	9594	9484
15°	9450	9450	9342
20°	9250	9262	9143
25°	8945	9056	8912
30°	8423	8802	8694
35°	7959	8437	8451
40°	7572	7981	8190
45°	7139	7497	7882
50°	6683	7065	7546
55°	6164	6573	7138
60°	5551	5998	6639
65°	4902	5333	6039
70°	4085	4542	5131
75°	3210	3628	4016
80°	2295	2554	2833
85°	1497	1497	1411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.3	4.1
10°-20°	953.2	11.4
20°-30°	1393.0	16.7
30°-40°	1581.2	19.0
40°-50°	1526.4	18.3
50°-60°	1259.1	15.1
60°-70°	838.5	10.1
70°-80°	375.2	4.5
80°-90°	67.1	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°	2685.5	32.2
0°-40°	4266.7	51.2
0°-60°	7052.2	84.6
0°-90°	8333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8333.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3604	3604	3604	3604	3604	
5°	3600	3598	3584	3565	3554	341
15°	3392	3400	3392	3377	3353	956
25°	3013	3036	3050	3028	3002	1380
35°	2423	2456	2568	2582	2572	1518
45°	1876	1908	1970	2060	2071	1447
55°	1314	1336	1401	1479	1522	1173
65°	770	790	838	897	948	763
75°	309	325	349	366	386	338
85°	48	48	48	46	46	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3603.8	<i>3603.8</i>	3603.8	3603.8	3603.8
2.5°	<i>3613.5</i>	<i>3614.9</i>	<i>3606.6</i>	<i>3584.4</i>	<i>3570.6</i>
5°	3599.7	<i>3598.3</i>	3584.4	3565.0	3554.0
7.5°	3559.5	<i>3562.3</i>	3558.1	3530.4	3515.2
10°	3520.7	<i>3522.1</i>	3511.0	3488.9	3470.9
12.5°	3470.9	<i>3469.5</i>	3454.3	3443.2	3414.1
15°	3392.0	<i>3400.3</i>	3392.0	3376.8	3353.2
17.5°	3315.8	<i>3315.8</i>	3321.4	3295.1	3277.1
20°	3230.0	<i>3234.2</i>	3234.2	3213.4	3192.6
22.5°	3130.3	<i>3142.8</i>	3146.9	3124.8	3099.9
25°	3012.6	<i>3036.2</i>	3050.0	3027.9	3001.6
27.5°	2870.0	<i>2906.0</i>	2947.6	2930.9	2901.9
30°	2710.8	<i>2763.4</i>	2832.7	2818.8	2798.0
32.5°	2559.9	<i>2612.5</i>	2708.0	2702.5	2691.4
35°	2422.8	<i>2456.1</i>	2568.2	2582.1	2572.4
37.5°	2292.7	<i>2323.2</i>	2428.4	2460.2	2451.9
40°	2155.6	<i>2188.9</i>	2271.9	2328.7	2331.5
42.5°	2020.0	<i>2051.8</i>	2119.6	2201.3	2201.3
45°	1876.0	<i>1907.8</i>	1970.1	2060.1	2071.2
47.5°	1734.8	<i>1768.0</i>	1828.9	1918.9	1936.9
50°	1596.3	<i>1626.8</i>	1687.7	1774.9	1802.6
52.5°	1452.3	<i>1485.5</i>	1545.1	1625.4	1665.5
55°	1313.9	<i>1336.0</i>	1401.1	1478.6	1521.5
57.5°	1169.9	<i>1190.7</i>	1264.0	1330.5	1374.8
60°	1031.4	<i>1057.7</i>	1114.5	1182.3	1233.6
62.5°	898.5	<i>926.2</i>	974.7	1034.2	1092.4
65°	769.8	<i>790.5</i>	837.6	897.1	948.4
67.5°	645.2	<i>663.2</i>	710.2	751.8	805.8
70°	519.2	<i>542.7</i>	577.3	617.5	652.1
72.5°	418.1	<i>427.8</i>	456.9	486.0	521.9
75°	308.7	<i>325.4</i>	348.9	365.5	386.3
77.5°	221.5	<i>231.2</i>	245.1	258.9	278.3
80°	148.1	<i>152.3</i>	164.8	167.5	182.8
82.5°	90.0	<i>92.8</i>	95.5	96.9	102.5
85°	48.5	<i>48.5</i>	48.5	45.7	45.7
87.5°	27.7	<i>27.7</i>	23.5	19.4	13.8
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)