

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: P558354

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-82-85-EDD-90**

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: P558354
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-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

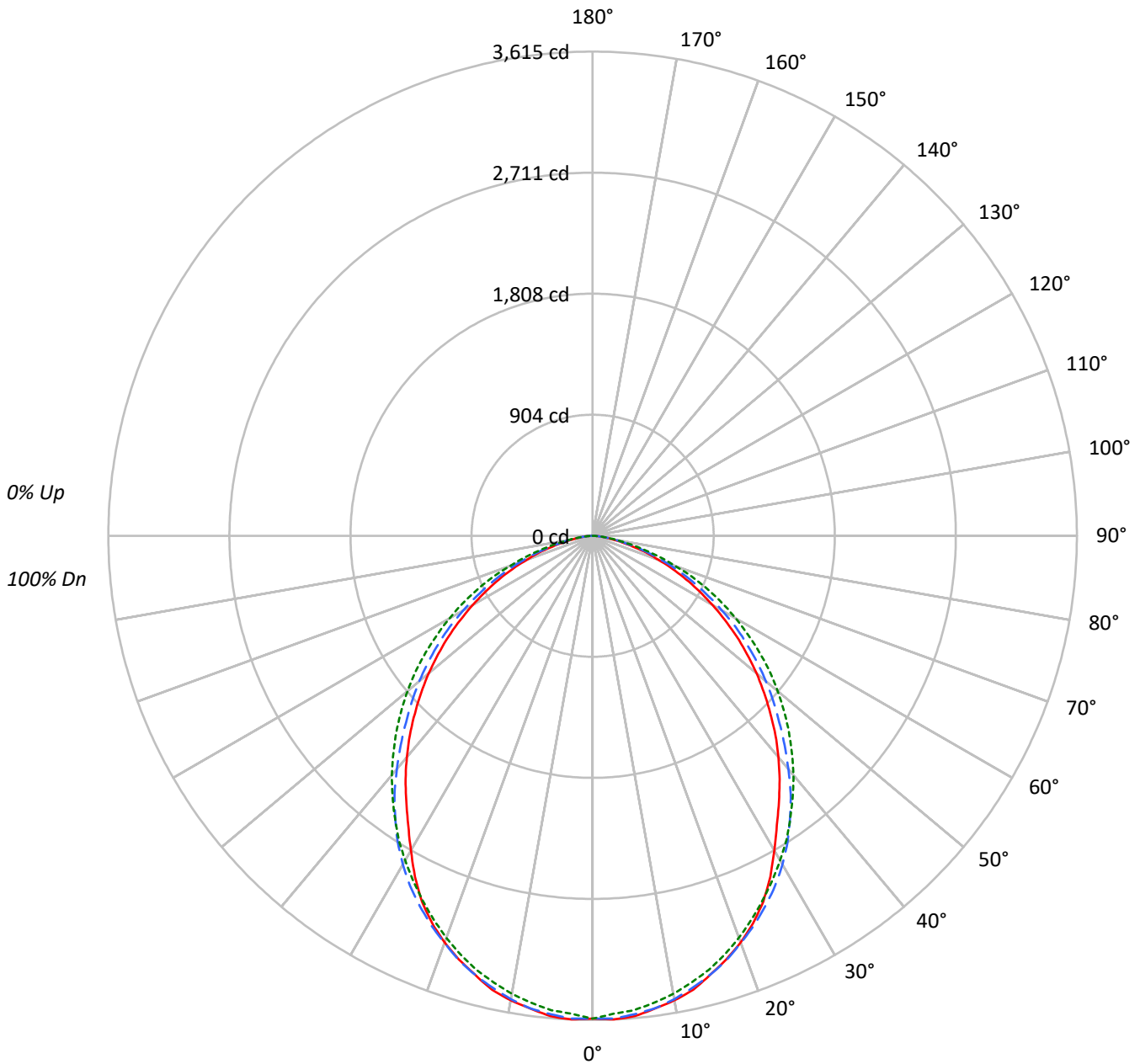
Lumens per Lamp: N/A
Luminaire Lumens: 8336.0 lumens
Efficiency: N/A
Efficacy: 83.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	9701	9701	9701
5°	9727	9686	9604
10°	9624	9597	9487
15°	9453	9453	9345
20°	9253	9265	9146
25°	8948	9059	8915
30°	8426	8805	8697
35°	7962	8440	8453
40°	7575	7984	8193
45°	7142	7500	7885
50°	6685	7068	7549
55°	6166	6576	7141
60°	5553	6000	6641
65°	4903	5335	6041
70°	4087	4544	5132
75°	3212	3629	4017
80°	2297	2554	2833
85°	1497	1497	1411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.4	4.1
10°-20°	953.6	11.4
20°-30°	1393.5	16.7
30°-40°	1581.7	19.0
40°-50°	1526.9	18.3
50°-60°	1259.6	15.1
60°-70°	838.8	10.1
70°-80°	375.3	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°	2686.5	32.2
0°-40°	4268.2	51.2
0°-60°	7054.7	84.6
0°-90°	8336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8336.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3605	3605	3605	3605	3605	
5°	3601	3600	3586	3566	3555	341
15°	3393	3402	3393	3378	3354	957
25°	3014	3037	3051	3029	3003	1380
35°	2424	2457	2569	2583	2573	1519
45°	1877	1908	1971	2061	2072	1448
55°	1314	1336	1402	1479	1522	1173
65°	770	791	838	898	949	764
75°	309	326	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°	3605.1	3605.1	3605.1	3605.1	3605.1
2.5°	3614.8	3616.2	3607.9	3585.7	3571.9
5°	3600.9	3599.6	3585.7	3566.3	3555.2
7.5°	3560.8	3563.6	3559.4	3531.7	3516.5
10°	3522.0	3523.4	3512.3	3490.2	3472.1
12.5°	3472.1	3470.8	3455.5	3444.4	3415.4
15°	3393.2	3401.5	3393.2	3378.0	3354.4
17.5°	3317.0	3317.0	3322.6	3296.3	3278.2
20°	3231.2	3235.3	3235.3	3214.5	3193.8
22.5°	3131.4	3143.9	3148.1	3125.9	3101.0
25°	3013.7	3037.3	3051.1	3029.0	3002.6
27.5°	2871.1	2907.1	2948.6	2932.0	2902.9
30°	2711.8	2764.4	2833.7	2819.8	2799.0
32.5°	2560.8	2613.5	2709.0	2703.5	2692.4
35°	2423.7	2457.0	2569.1	2583.0	2573.3
37.5°	2293.5	2324.0	2429.3	2461.1	2452.8
40°	2156.4	2189.7	2272.8	2329.5	2332.3
42.5°	2020.7	2052.5	2120.4	2202.1	2202.1
45°	1876.6	1908.5	1970.8	2060.9	2071.9
47.5°	1735.4	1768.6	1829.6	1919.6	1937.6
50°	1596.9	1627.4	1688.3	1775.5	1803.2
52.5°	1452.8	1486.1	1545.6	1626.0	1666.1
55°	1314.3	1336.5	1401.6	1479.2	1522.1
57.5°	1170.3	1191.1	1264.5	1331.0	1375.3
60°	1031.8	1058.1	1114.9	1182.8	1234.0
62.5°	898.9	926.6	975.0	1034.6	1092.7
65°	770.0	790.8	837.9	897.5	948.7
67.5°	645.4	663.4	710.5	752.0	806.1
70°	519.4	542.9	577.5	617.7	652.3
72.5°	418.3	428.0	457.0	486.1	522.1
75°	308.9	325.5	349.0	365.6	386.4
77.5°	221.6	231.3	245.1	259.0	278.4
80°	148.2	152.3	164.8	167.6	182.8
82.5°	90.0	92.8	95.6	96.9	102.5
85°	48.5	48.5	48.5	45.7	45.7
87.5°	27.7	27.7	23.5	19.4	13.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







(END OF REPORT)