

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: P557080

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-82-88-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: P557080
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-40-UNV-82-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

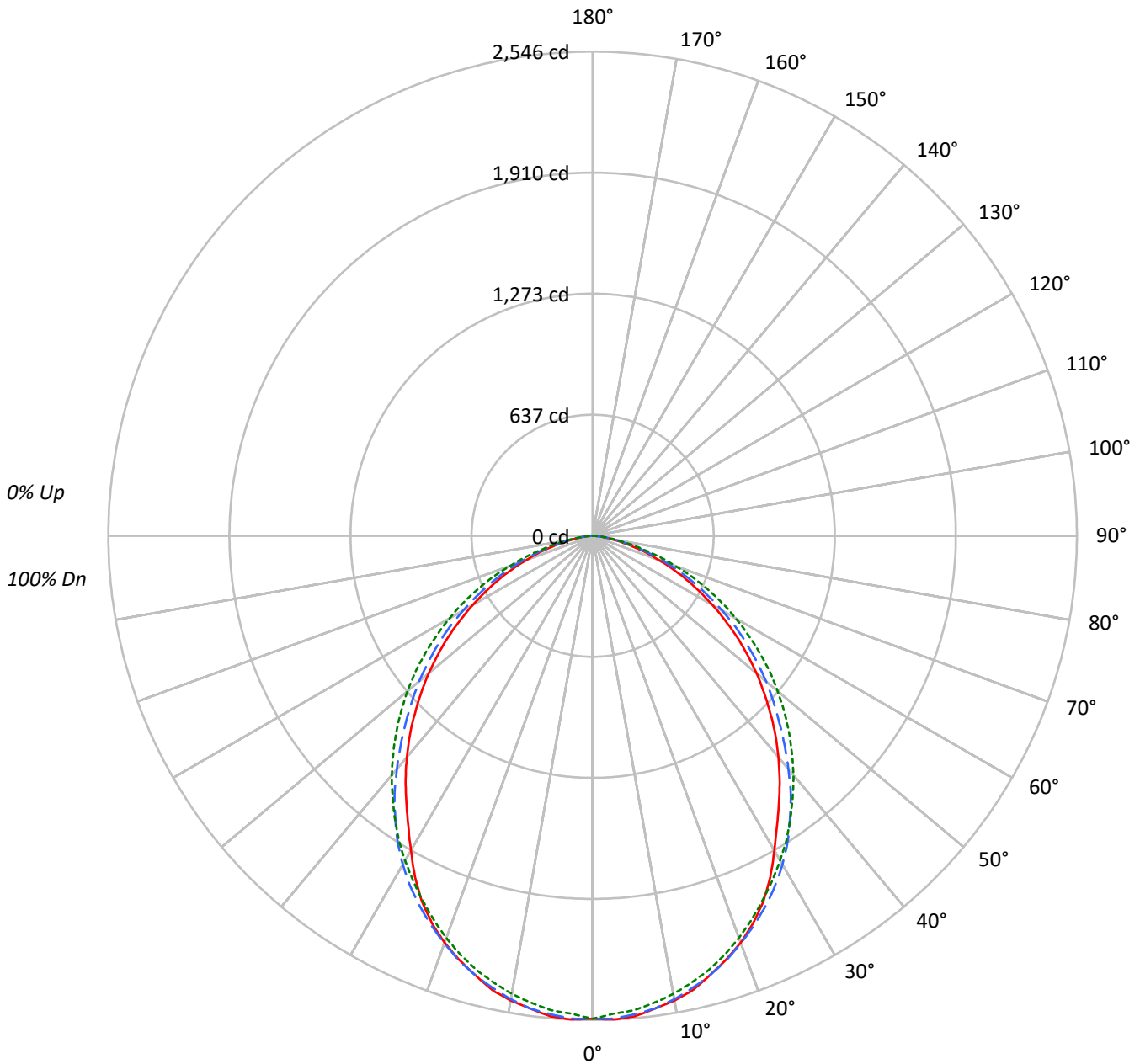
Lumens per Lamp: N/A
Luminaire Lumens: 5872.0 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6834	6834	6834
5°	6852	6823	6765
10°	6779	6760	6683
15°	6659	6659	6583
20°	6518	6526	6442
25°	6303	6381	6280
30°	5936	6202	6127
35°	5609	5945	5955
40°	5336	5624	5771
45°	5031	5283	5554
50°	4709	4979	5318
55°	4343	4632	5030
60°	3912	4227	4679
65°	3454	3758	4255
70°	2879	3201	3615
75°	2262	2557	2830
80°	1618	1799	1996
85°	1053	1053	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.1	4.1
10°-20°	671.7	11.4
20°-30°	981.6	16.7
30°-40°	1114.2	19.0
40°-50°	1075.6	18.3
50°-60°	887.3	15.1
60°-70°	590.9	10.1
70°-80°	264.4	4.5
80°-90°	47.3	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°	1892.4	32.2
0°-40°	3006.6	51.2
0°-60°	4969.4	84.6
0°-90°	5872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2540	2540	2540	2540	2540	
5°	2537	2536	2526	2512	2504	240
15°	2390	2396	2390	2380	2363	674
25°	2123	2140	2149	2134	2115	972
35°	1707	1731	1810	1820	1813	1070
45°	1322	1344	1388	1452	1460	1020
55°	926	942	987	1042	1072	826
65°	542	557	590	632	668	538
75°	218	229	246	258	272	238
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2539.5	2539.5	2539.5	2539.5	2539.5
2.5°	2546.3	2547.3	2541.4	2525.8	2516.1
5°	2536.6	2535.6	2525.8	2512.2	2504.4
7.5°	2508.3	2510.2	2507.3	2487.8	2477.0
10°	2481.0	2481.9	2474.1	2458.5	2445.8
12.5°	2445.8	2444.9	2434.1	2426.3	2405.8
15°	2390.2	2396.1	2390.2	2379.5	2362.9
17.5°	2336.6	2336.6	2340.5	2321.9	2309.2
20°	2276.1	2279.0	2279.0	2264.4	2249.7
22.5°	2205.8	2214.6	2217.5	2201.9	2184.4
25°	2122.9	2139.5	2149.2	2133.6	2115.1
27.5°	2022.4	2047.8	2077.1	2065.3	2044.9
30°	1910.2	1947.3	1996.1	1986.3	1971.7
32.5°	1803.9	1841.0	1908.3	1904.4	1896.6
35°	1707.3	1730.7	1809.7	1819.5	1812.7
37.5°	1615.6	1637.1	1711.2	1733.6	1727.8
40°	1519.0	1542.4	1601.0	1641.0	1642.9
42.5°	1423.4	1445.8	1493.6	1551.2	1551.2
45°	1321.9	1344.4	1388.3	1451.7	1459.5
47.5°	1222.4	1245.8	1288.8	1352.2	1364.9
50°	1124.9	1146.3	1189.3	1250.7	1270.2
52.5°	1023.4	1046.8	1088.8	1145.4	1173.6
55°	925.8	941.5	987.3	1041.9	1072.2
57.5°	824.4	839.0	890.7	937.6	968.8
60°	726.8	745.4	785.4	833.2	869.3
62.5°	633.2	652.7	686.8	728.8	769.7
65°	542.4	557.1	590.2	632.2	668.3
67.5°	454.6	467.3	500.5	529.8	567.8
70°	365.9	382.4	406.8	435.1	459.5
72.5°	294.6	301.5	321.9	342.4	367.8
75°	217.6	229.3	245.9	257.6	272.2
77.5°	156.1	162.9	172.7	182.4	196.1
80°	104.4	107.3	116.1	118.0	128.8
82.5°	63.4	65.4	67.3	68.3	72.2
85°	34.1	34.1	34.1	32.2	32.2
87.5°	19.5	19.5	16.6	13.7	9.8
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)