

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: P557064

Luminaire Tested: **FUSL-12-4-LD4-2HI-40-UNV-81-88-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: P557064
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-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

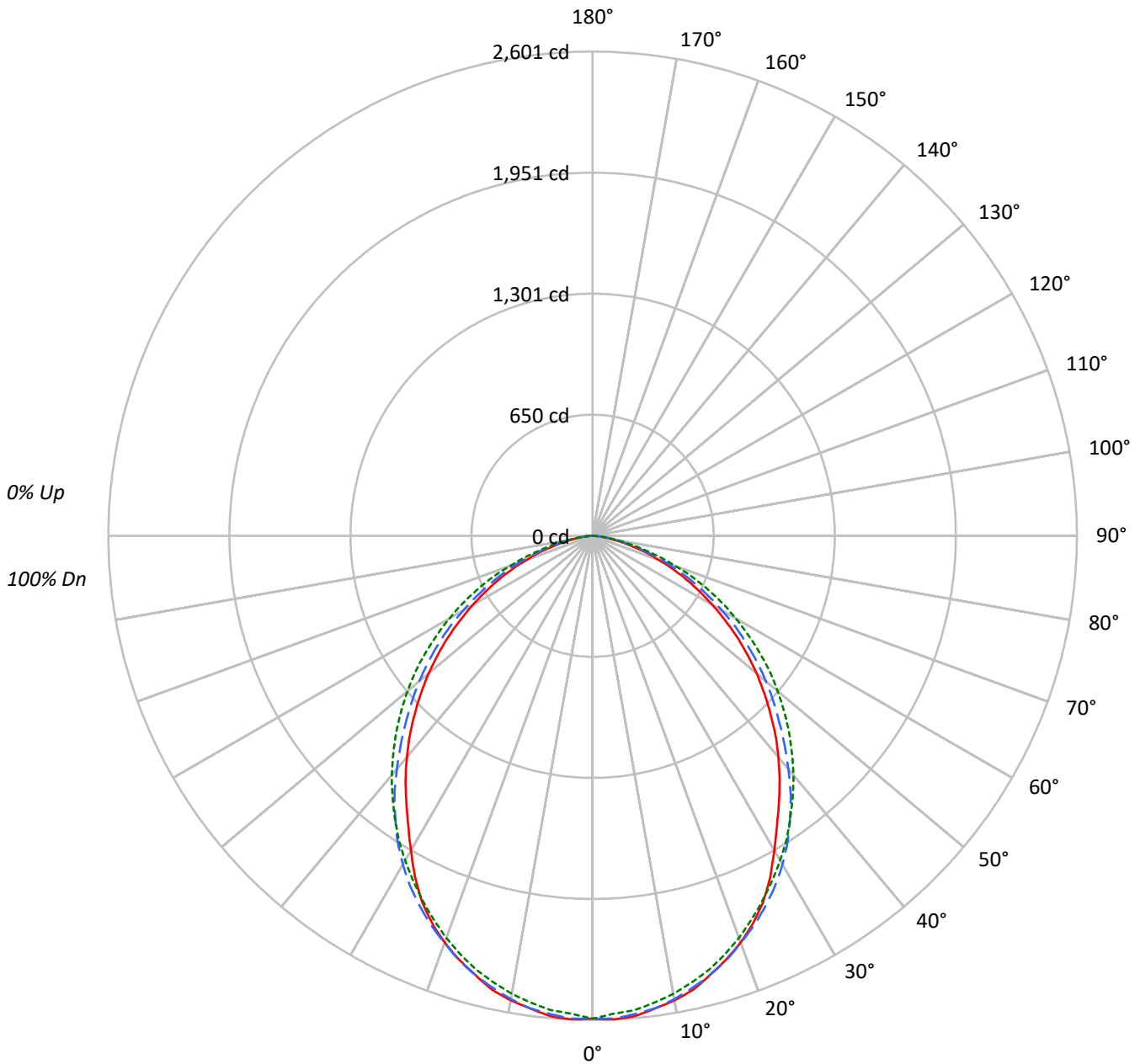
Lumens per Lamp: N/A
Luminaire Lumens: 5998.0 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	6980	6980	6980
5°	6999	6969	6910
10°	6925	6906	6827
15°	6802	6802	6724
20°	6658	6666	6581
25°	6439	6519	6415
30°	6063	6335	6258
35°	5729	6073	6083
40°	5450	5745	5895
45°	5139	5397	5673
50°	4810	5086	5432
55°	4437	4731	5138
60°	3996	4317	4779
65°	3528	3839	4346
70°	2940	3270	3693
75°	2310	2611	2890
80°	1652	1838	2038
85°	1078	1078	1016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.2	4.1
10°-20°	686.1	11.4
20°-30°	1002.6	16.7
30°-40°	1138.1	19.0
40°-50°	1098.7	18.3
50°-60°	906.3	15.1
60°-70°	603.5	10.1
70°-80°	270.1	4.5
80°-90°	48.3	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°	1933.0	32.2
0°-40°	3071.1	51.2
0°-60°	5076.1	84.6
0°-90°	5998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2594	2594	2594	2594	2594	
5°	2591	2590	2580	2566	2558	245
15°	2442	2448	2442	2430	2414	688
25°	2168	2185	2195	2179	2160	993
35°	1744	1768	1849	1858	1852	1093
45°	1350	1373	1418	1483	1491	1042
55°	946	962	1008	1064	1095	844
65°	554	569	603	646	683	549
75°	222	234	251	263	278	243
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2594.0	2594.0	2594.0	2594.0	2594.0
2.5°	2601.0	2602.0	2596.0	2580.0	2570.1
5°	2591.0	2590.0	2580.0	2566.1	2558.1
7.5°	2562.1	2564.1	2561.1	2541.2	2530.2
10°	2534.2	2535.2	2527.2	2511.3	2498.3
12.5°	2498.3	2497.3	2486.4	2478.4	2457.5
15°	2441.5	2447.5	2441.5	2430.5	2413.6
17.5°	2386.7	2386.7	2390.7	2371.8	2358.8
20°	2324.9	2327.9	2327.9	2313.0	2298.0
22.5°	2253.2	2262.1	2265.1	2249.2	2231.2
25°	2168.5	2185.4	2195.4	2179.4	2160.5
27.5°	2065.8	2091.7	2121.6	2109.7	2088.7
30°	1951.2	1989.1	2038.9	2028.9	2014.0
32.5°	1842.6	1880.5	1949.2	1945.2	1937.3
35°	1743.9	1767.9	1848.6	1858.5	1851.6
37.5°	1650.3	1672.2	1747.9	1770.8	1764.9
40°	1551.6	1575.5	1635.3	1676.2	1678.2
42.5°	1453.9	1476.9	1525.7	1584.5	1584.5
45°	1350.3	1373.2	1418.1	1482.8	1490.8
47.5°	1248.7	1272.6	1316.4	1381.2	1394.2
50°	1149.0	1170.9	1214.8	1277.6	1297.5
52.5°	1045.4	1069.3	1112.1	1169.9	1198.8
55°	945.7	961.7	1008.5	1064.3	1095.2
57.5°	842.1	857.0	909.8	957.7	989.6
60°	742.4	761.4	802.2	851.0	887.9
62.5°	646.8	666.7	701.6	744.4	786.3
65°	554.1	569.0	602.9	645.8	682.6
67.5°	464.4	477.3	511.2	541.1	580.0
70°	373.7	390.6	415.6	444.5	469.4
72.5°	301.0	307.9	328.9	349.8	375.7
75°	222.2	234.2	251.1	263.1	278.0
77.5°	159.4	166.4	176.4	186.4	200.3
80°	106.6	109.6	118.6	120.6	131.5
82.5°	64.8	66.8	68.8	69.8	73.7
85°	34.9	34.9	34.9	32.9	32.9
87.5°	19.9	19.9	16.9	14.0	10.0
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)