

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: P558085

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-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: P558085
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

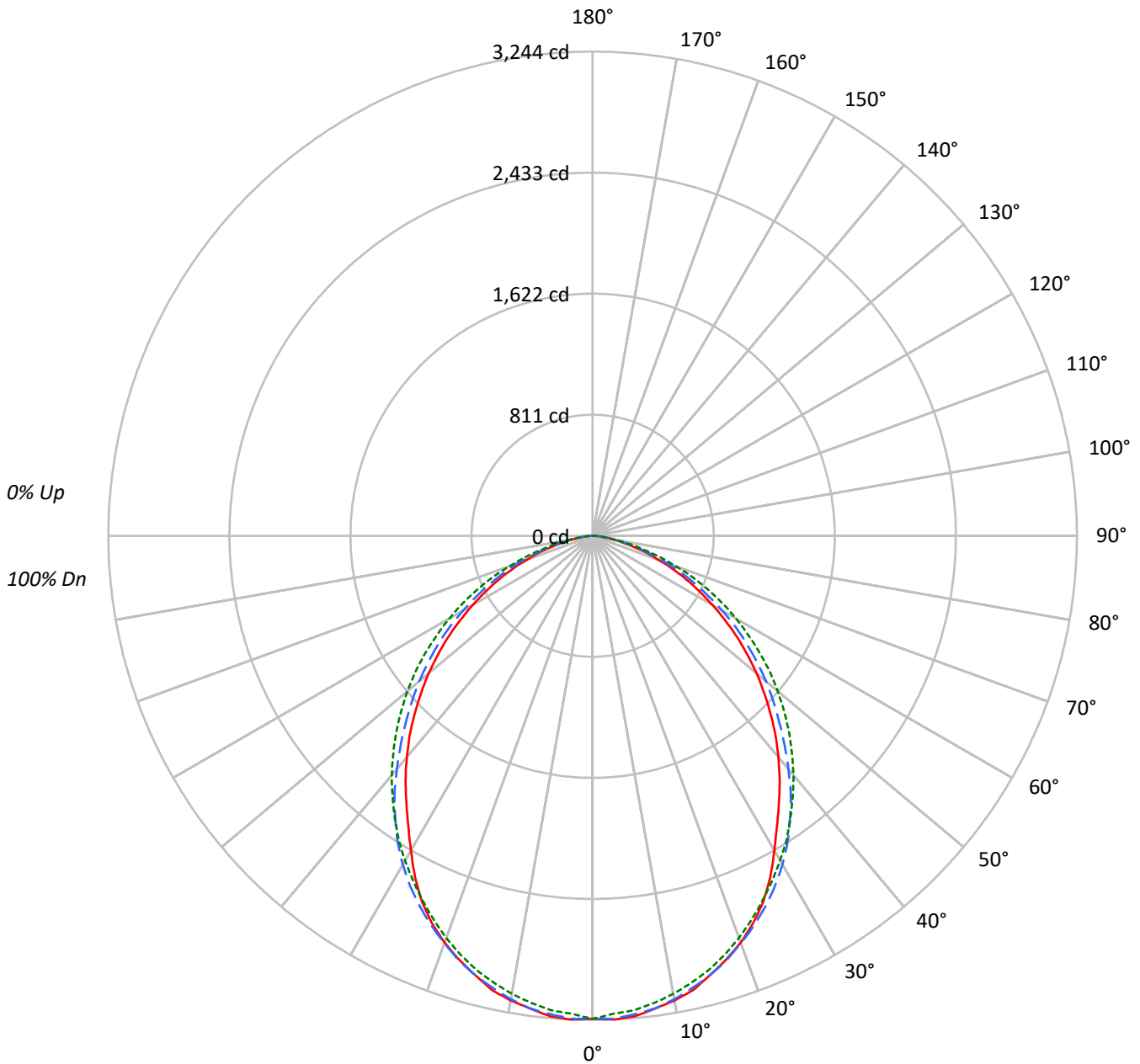
Lumens per Lamp: N/A
Luminaire Lumens: 7482.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	8707	8707	8707
5°	8730	8694	8620
10°	8638	8614	8516
15°	8485	8485	8388
20°	8305	8316	8209
25°	8032	8131	8002
30°	7563	7903	7806
35°	7146	7575	7588
40°	6799	7166	7354
45°	6410	6732	7077
50°	6000	6344	6776
55°	5535	5902	6410
60°	4984	5386	5961
65°	4401	4789	5422
70°	3668	4079	4607
75°	2882	3257	3606
80°	2061	2292	2543
85°	1343	1343	1266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.7	4.1
10°-20°	855.9	11.4
20°-30°	1250.7	16.7
30°-40°	1419.7	19.0
40°-50°	1370.5	18.3
50°-60°	1130.6	15.1
60°-70°	752.9	10.1
70°-80°	336.9	4.5
80°-90°	60.3	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°	2411.2	32.2
0°-40°	3830.9	51.2
0°-60°	6332.0	84.6
0°-90°	7482.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7482.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3236	3236	3236	3236	3236	
5°	3232	3231	3218	3201	3191	306
15°	3046	3053	3046	3032	3011	859
25°	2705	2726	2738	2719	2695	1239
35°	2175	2205	2306	2318	2310	1363
45°	1684	1713	1769	1850	1860	1300
55°	1180	1200	1258	1328	1366	1053
65°	691	710	752	806	852	685
75°	277	292	313	328	347	303
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3235.8	3235.8	3235.8	3235.8	3235.8
2.5°	3244.5	3245.7	3238.3	3218.4	3205.9
5°	3232.0	3230.8	3218.4	3201.0	3191.0
7.5°	3196.0	3198.5	3194.7	3169.9	3156.2
10°	3161.2	3162.4	3152.5	3132.6	3116.4
12.5°	3116.4	3115.2	3101.5	3091.6	3065.5
15°	3045.6	3053.0	3045.6	3031.9	3010.8
17.5°	2977.2	2977.2	2982.2	2958.6	2942.4
20°	2900.1	2903.9	2903.9	2885.2	2866.6
22.5°	2810.6	2821.8	2825.6	2805.7	2783.3
25°	2705.0	2726.1	2738.5	2718.6	2695.0
27.5°	2576.9	2609.3	2646.5	2631.6	2605.5
30°	2434.0	2481.2	2543.4	2530.9	2512.3
32.5°	2298.5	2345.7	2431.5	2426.5	2416.6
35°	2175.4	2205.2	2305.9	2318.4	2309.7
37.5°	2058.6	2085.9	2180.4	2209.0	2201.5
40°	1935.5	1965.3	2039.9	2090.9	2093.4
42.5°	1813.7	1842.3	1903.2	1976.5	1976.5
45°	1684.4	1713.0	1768.9	1849.7	1859.7
47.5°	1557.6	1587.4	1642.1	1722.9	1739.1
50°	1433.3	1460.6	1515.3	1593.6	1618.5
52.5°	1304.0	1333.8	1387.3	1459.4	1495.4
55°	1179.7	1199.6	1258.0	1327.6	1366.2
57.5°	1050.4	1069.1	1134.9	1194.6	1234.4
60°	926.1	949.7	1000.7	1061.6	1107.6
62.5°	806.8	831.6	875.1	928.6	980.8
65°	691.2	709.8	752.1	805.5	851.5
67.5°	579.3	595.4	637.7	675.0	723.5
70°	466.2	487.3	518.4	554.4	585.5
72.5°	375.4	384.1	410.2	436.3	468.6
75°	277.2	292.1	313.3	328.2	346.8
77.5°	198.9	207.6	220.0	232.5	249.9
80°	133.0	136.7	147.9	150.4	164.1
82.5°	80.8	83.3	85.8	87.0	92.0
85°	43.5	43.5	43.5	41.0	41.0
87.5°	24.9	24.9	21.1	17.4	12.4
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)