

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: P558112

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-93-84-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: P558112
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-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

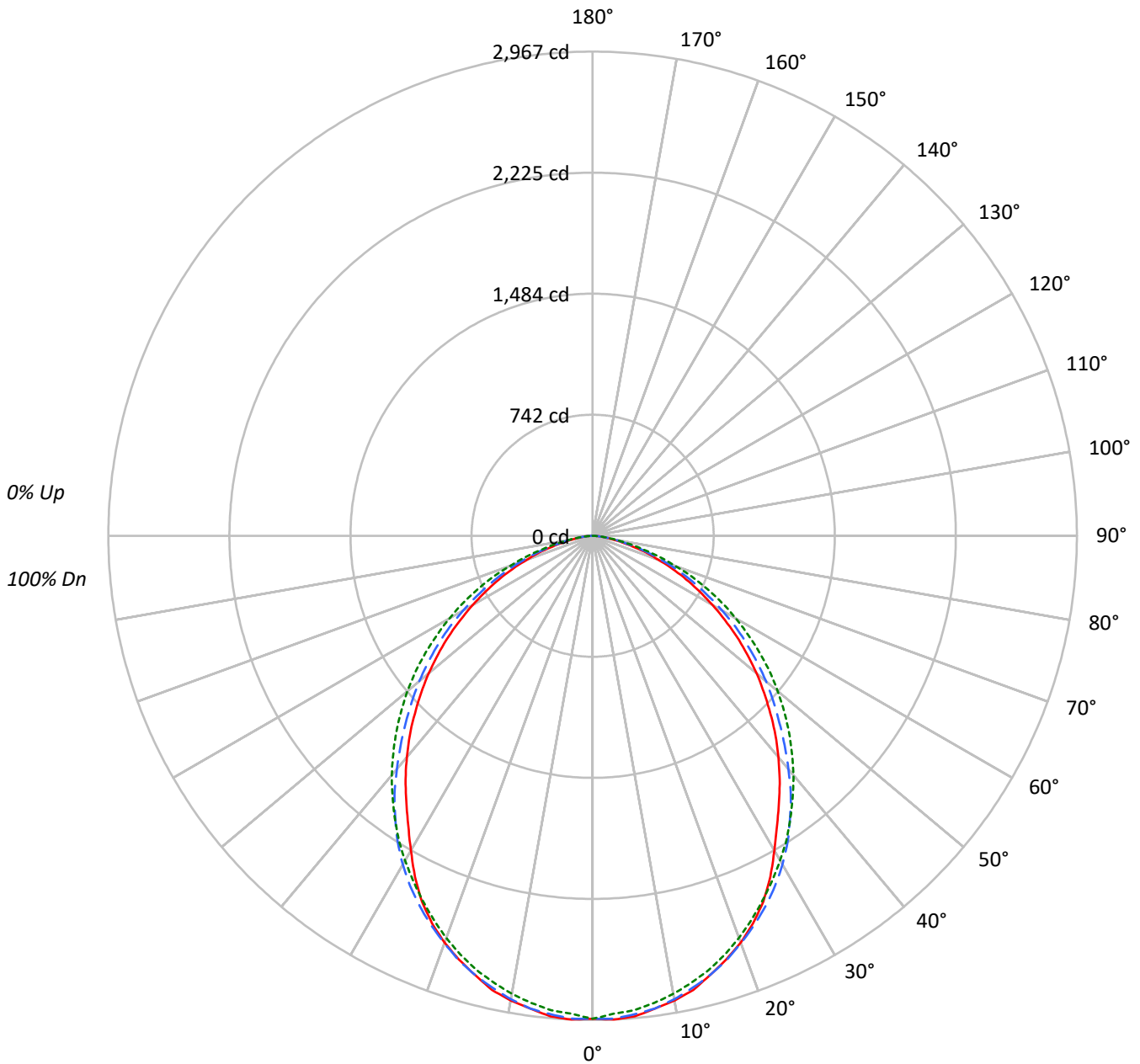
Lumens per Lamp: N/A
Luminaire Lumens: 6843.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	7964	7964	7964
5°	7985	7951	7884
10°	7900	7878	7788
15°	7760	7760	7671
20°	7596	7606	7508
25°	7346	7437	7319
30°	6917	7228	7140
35°	6536	6928	6939
40°	6218	6554	6726
45°	5863	6157	6473
50°	5488	5802	6197
55°	5062	5398	5862
60°	4559	4926	5452
65°	4025	4379	4959
70°	3354	3730	4213
75°	2636	2979	3298
80°	1886	2097	2326
85°	1229	1229	1158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.6	4.1
10°-20°	782.8	11.4
20°-30°	1143.9	16.7
30°-40°	1298.4	19.0
40°-50°	1253.4	18.3
50°-60°	1034.0	15.1
60°-70°	688.6	10.1
70°-80°	308.1	4.5
80°-90°	55.1	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°	2205.3	32.2
0°-40°	3503.8	51.2
0°-60°	5791.2	84.6
0°-90°	6843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2959	2959	2959	2959	2959	
5°	2956	2955	2944	2928	2918	280
15°	2786	2792	2786	2773	2754	785
25°	2474	2493	2505	2486	2465	1133
35°	1990	2017	2109	2120	2112	1247
45°	1540	1567	1618	1692	1701	1189
55°	1079	1097	1151	1214	1250	963
65°	632	649	688	737	779	627
75°	254	267	286	300	317	277
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2959.4	2959.4	2959.4	2959.4	2959.4
2.5°	2967.4	2968.5	2961.7	2943.5	2932.1
5°	2956.0	2954.9	2943.5	2927.6	2918.5
7.5°	2923.0	2925.3	2921.9	2899.2	2886.7
10°	2891.2	2892.3	2883.2	2865.1	2850.3
12.5°	2850.3	2849.1	2836.6	2827.5	2803.7
15°	2785.5	2792.3	2785.5	2773.0	2753.6
17.5°	2722.9	2722.9	2727.5	2705.9	2691.1
20°	2652.5	2655.9	2655.9	2638.8	2621.8
22.5°	2570.6	2580.8	2584.2	2566.0	2545.6
25°	2474.0	2493.3	2504.7	2486.5	2464.9
27.5°	2356.8	2386.4	2420.5	2406.9	2383.0
30°	2226.1	2269.3	2326.2	2314.8	2297.7
32.5°	2102.2	2145.4	2223.8	2219.3	2210.2
35°	1989.6	2016.9	2109.0	2120.4	2112.4
37.5°	1882.8	1907.8	1994.2	2020.3	2013.5
40°	1770.2	1797.5	1865.7	1912.3	1914.6
42.5°	1658.8	1684.9	1740.6	1807.7	1807.7
45°	1540.5	1566.7	1617.8	1691.7	1700.8
47.5°	1424.6	1451.9	1501.9	1575.8	1590.6
50°	1310.9	1335.9	1385.9	1457.5	1480.3
52.5°	1192.6	1219.9	1268.8	1334.8	1367.7
55°	1078.9	1097.1	1150.6	1214.2	1249.5
57.5°	960.7	977.8	1038.0	1092.6	1129.0
60°	847.0	868.6	915.2	970.9	1013.0
62.5°	737.9	760.6	800.4	849.3	897.0
65°	632.1	649.2	687.8	736.7	778.8
67.5°	529.8	544.6	583.2	617.4	661.7
70°	426.3	445.7	474.1	507.1	535.5
72.5°	343.4	351.3	375.2	399.1	428.6
75°	253.5	267.2	286.5	300.1	317.2
77.5°	181.9	189.9	201.2	212.6	228.5
80°	121.7	125.1	135.3	137.6	150.1
82.5°	73.9	76.2	78.4	79.6	84.1
85°	39.8	39.8	39.8	37.5	37.5
87.5°	22.7	22.7	19.3	15.9	11.4
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)