

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: P557615

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-93-97-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: P557615
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-LD4-2STD-40-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

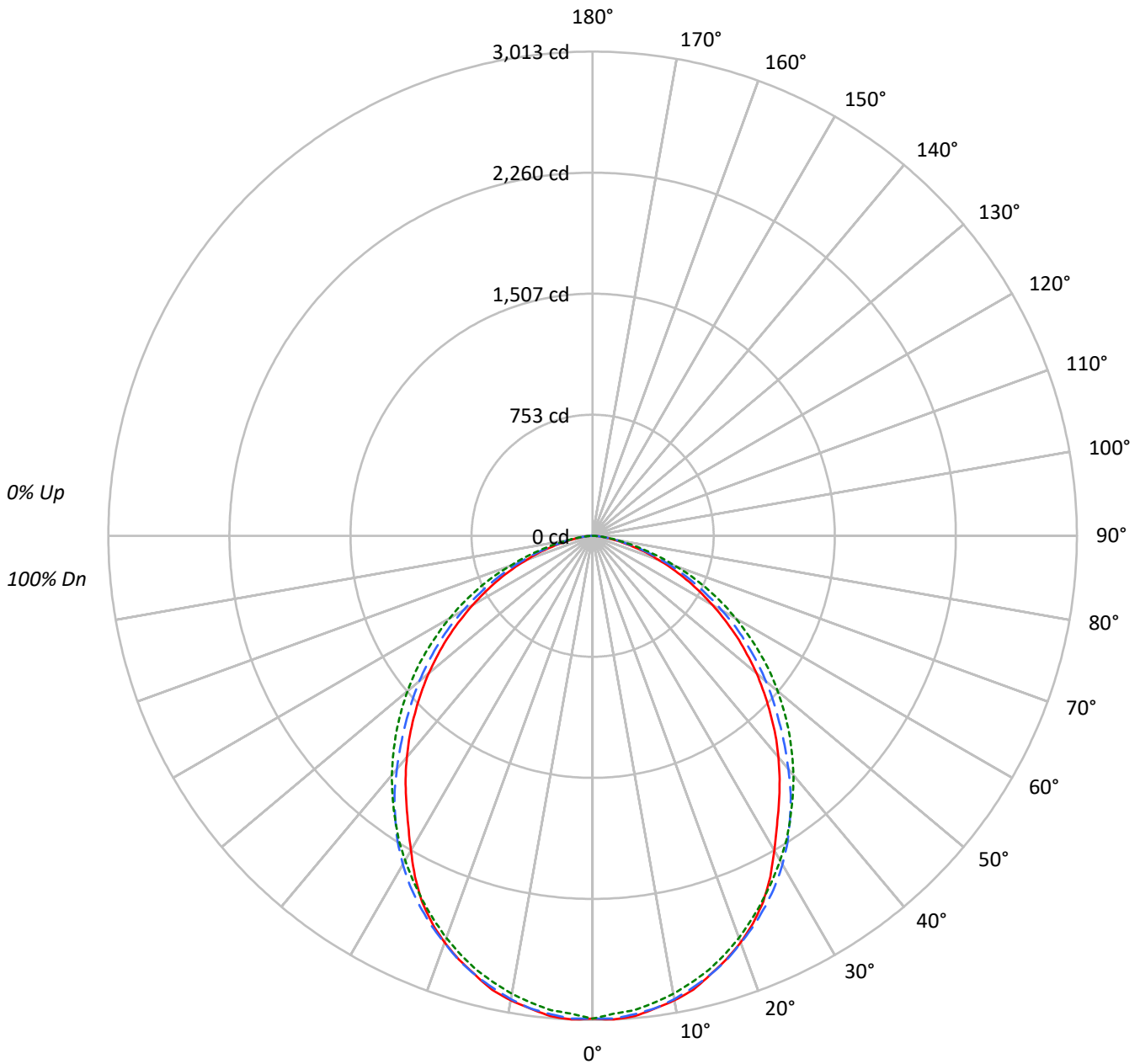
Lumens per Lamp: N/A
Luminaire Lumens: 6948.0 lumens
Efficiency: N/A
Efficacy: 104.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8086	8086	8086
5°	8108	8073	8005
10°	8022	7999	7908
15°	7879	7879	7789
20°	7712	7722	7623
25°	7458	7551	7431
30°	7023	7339	7249
35°	6637	7035	7046
40°	6314	6654	6829
45°	5953	6251	6572
50°	5572	5891	6292
55°	5140	5481	5952
60°	4628	5001	5535
65°	4087	4447	5035
70°	3406	3788	4278
75°	2676	3025	3349
80°	1914	2129	2362
85°	1247	1247	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.9	4.1
10°-20°	794.8	11.4
20°-30°	1161.4	16.7
30°-40°	1318.4	19.0
40°-50°	1272.7	18.3
50°-60°	1049.9	15.1
60°-70°	699.1	10.1
70°-80°	312.9	4.5
80°-90°	56.0	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°	2239.1	32.2
0°-40°	3557.5	51.2
0°-60°	5880.1	84.6
0°-90°	6948.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6948.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3005	3005	3005	3005	3005	
5°	3001	3000	2989	2972	2963	284
15°	2828	2835	2828	2816	2796	797
25°	2512	2532	2543	2525	2503	1150
35°	2020	2048	2141	2153	2145	1266
45°	1564	1591	1643	1718	1727	1207
55°	1096	1114	1168	1233	1269	978
65°	642	659	698	748	791	636
75°	257	271	291	305	322	281
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°	3004.8	3004.8	3004.8	3004.8	3004.8
2.5°	3012.9	3014.1	3007.1	2988.7	2977.1
5°	3001.4	3000.2	2988.7	2972.5	2963.3
7.5°	2967.9	2970.2	2966.7	2943.6	2931.0
10°	2935.6	2936.7	2927.5	2909.0	2894.0
12.5°	2894.0	2892.9	2880.2	2870.9	2846.7
15°	2828.2	2835.1	2828.2	2815.5	2795.9
17.5°	2764.7	2764.7	2769.3	2747.4	2732.4
20°	2693.2	2696.6	2696.6	2679.3	2662.0
22.5°	2610.0	2620.4	2623.9	2605.4	2584.6
25°	2511.9	2531.5	2543.1	2524.6	2502.7
27.5°	2393.0	2423.0	2457.7	2443.8	2419.6
30°	2260.3	2304.1	2361.8	2350.3	2333.0
32.5°	2134.4	2178.3	2258.0	2253.3	2244.1
35°	2020.2	2047.9	2141.4	2152.9	2144.8
37.5°	1911.6	1937.0	2024.8	2051.3	2044.4
40°	1797.4	1825.1	1894.3	1941.7	1944.0
42.5°	1684.2	1710.8	1767.3	1835.5	1835.5
45°	1564.2	1590.7	1642.7	1717.7	1726.9
47.5°	1446.4	1474.1	1524.9	1600.0	1615.0
50°	1331.0	1356.4	1407.2	1479.9	1503.0
52.5°	1210.9	1238.6	1288.3	1355.2	1388.7
55°	1095.5	1114.0	1168.2	1232.9	1268.7
57.5°	975.4	992.8	1053.9	1109.4	1146.3
60°	860.0	881.9	929.3	985.8	1028.5
62.5°	749.2	772.3	812.7	862.3	910.8
65°	641.8	659.1	698.4	748.0	790.7
67.5°	537.9	552.9	592.2	626.8	671.8
70°	432.9	452.5	481.4	514.8	543.7
72.5°	348.6	356.7	380.9	405.2	435.2
75°	257.4	271.3	290.9	304.8	322.1
77.5°	184.7	192.8	204.3	215.9	232.0
80°	123.5	127.0	137.4	139.7	152.4
82.5°	75.0	77.3	79.7	80.8	85.4
85°	40.4	40.4	40.4	38.1	38.1
87.5°	23.1	23.1	19.6	16.2	11.5
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)