

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: P557953

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-81-84-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: P557953
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-30-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

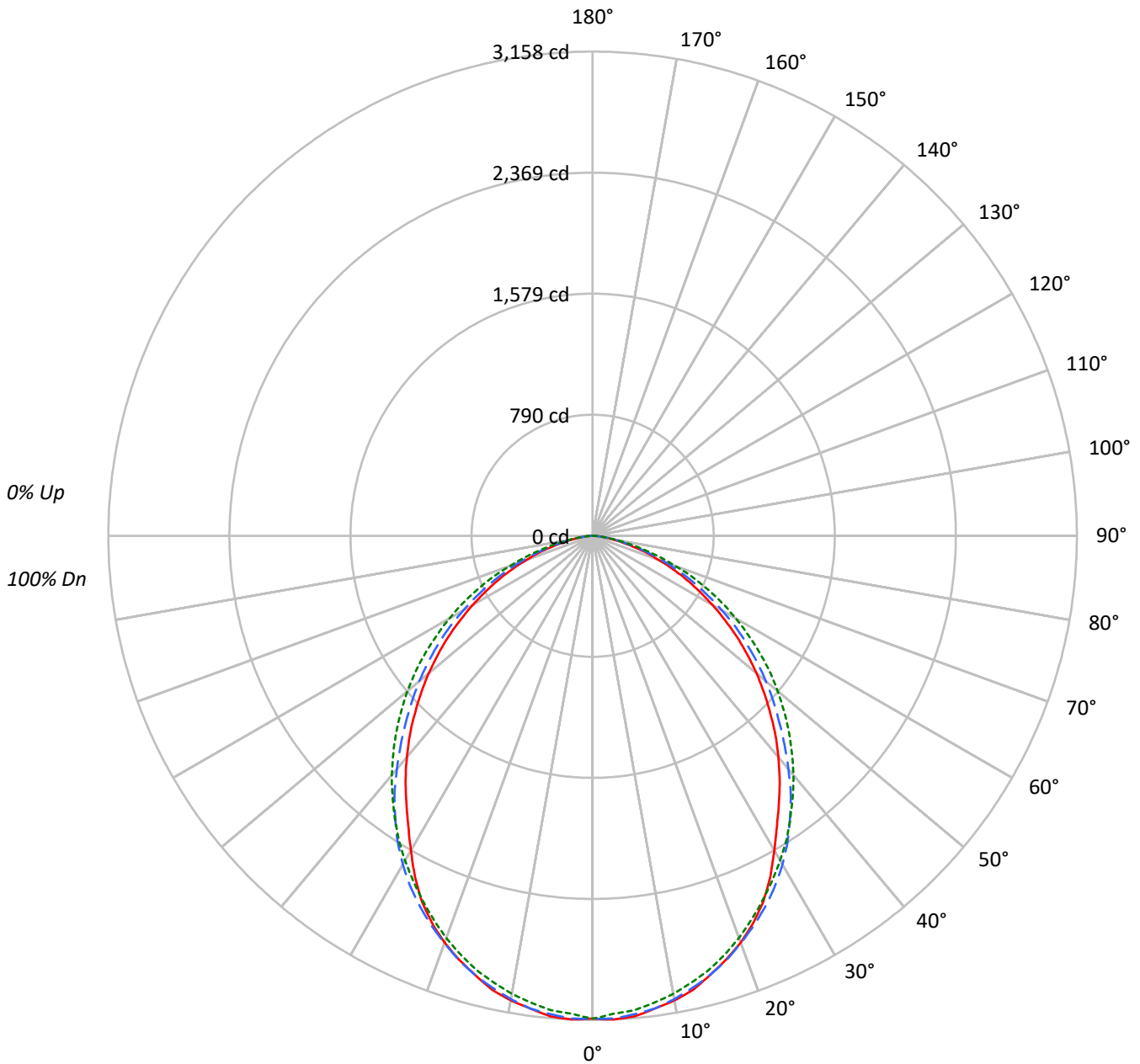
Lumens per Lamp: N/A
Luminaire Lumens: 7283.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557953

CATALOG NUMBER: FUSL-12-4-LD4-3LO-30-UNV-81-84-EDD

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°	8476	8476	8476
5°	8498	8463	8390
10°	8408	8385	8289
15°	8259	8259	8165
20°	8084	8094	7991
25°	7818	7915	7789
30°	7362	7693	7599
35°	6956	7374	7386
40°	6618	6975	7158
45°	6240	6553	6889
50°	5841	6175	6596
55°	5387	5745	6239
60°	4852	5243	5802
65°	4284	4662	5278
70°	3570	3970	4484
75°	2805	3170	3510
80°	2007	2232	2475
85°	1309	1309	1232



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.6	4.1
10°-20°	833.1	11.4
20°-30°	1217.4	16.7
30°-40°	1381.9	19.0
40°-50°	1334.0	18.3
50°-60°	1100.5	15.1
60°-70°	732.8	10.1
70°-80°	327.9	4.5
80°-90°	58.7	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°	2347.1	32.2
0°-40°	3729.0	51.2
0°-60°	6163.6	84.6
0°-90°	7283.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7283.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3150	3150	3150	3150	3150	
5°	3146	3145	3133	3116	3106	298
15°	2965	2972	2965	2951	2931	836
25°	2633	2654	2666	2646	2623	1206
35°	2118	2147	2245	2257	2248	1327
45°	1640	1667	1722	1800	1810	1265
55°	1148	1168	1225	1292	1330	1025
65°	673	691	732	784	829	667
75°	270	284	305	319	338	295
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3149.7	3149.7	3149.7	3149.7	3149.7
2.5°	3158.2	3159.4	3152.1	3132.8	3120.7
5°	3146.1	3144.9	3132.8	3115.8	3106.1
7.5°	3111.0	3113.4	3109.8	3085.6	3072.3
10°	3077.1	3078.3	3068.6	3049.3	3033.5
12.5°	3033.5	3032.3	3019.0	3009.3	2983.9
15°	2964.6	2971.8	2964.6	2951.3	2930.7
17.5°	2898.0	2898.0	2902.9	2879.9	2864.1
20°	2823.0	2826.6	2826.6	2808.5	2790.3
22.5°	2735.9	2746.8	2750.4	2731.0	2709.3
25°	2633.0	2653.6	2665.7	2646.3	2623.3
27.5°	2508.4	2539.9	2576.2	2561.6	2536.2
30°	2369.2	2415.2	2475.7	2463.6	2445.5
32.5°	2237.3	2283.3	2366.8	2362.0	2352.3
35°	2117.6	2146.6	2244.6	2256.7	2248.2
37.5°	2003.8	2030.4	2122.4	2150.2	2143.0
40°	1884.0	1913.1	1985.7	2035.3	2037.7
42.5°	1765.4	1793.3	1852.6	1923.9	1923.9
45°	1639.6	1667.4	1721.9	1800.5	1810.2
47.5°	1516.2	1545.2	1598.5	1677.1	1692.8
50°	1395.2	1421.8	1475.0	1551.3	1575.5
52.5°	1269.3	1298.4	1350.4	1420.6	1455.7
55°	1148.3	1167.7	1224.6	1292.3	1329.8
57.5°	1022.5	1040.6	1104.8	1162.8	1201.6
60°	901.5	924.5	974.1	1033.4	1078.1
62.5°	785.3	809.5	851.9	903.9	954.7
65°	672.8	690.9	732.1	784.1	828.9
67.5°	563.9	579.6	620.7	657.0	704.2
70°	453.8	474.3	504.6	539.7	569.9
72.5°	365.4	373.9	399.3	424.7	456.2
75°	269.8	284.4	304.9	319.4	337.6
77.5°	193.6	202.1	214.2	226.3	243.2
80°	129.5	133.1	144.0	146.4	159.7
82.5°	78.7	81.1	83.5	84.7	89.5
85°	42.4	42.4	42.4	39.9	39.9
87.5°	24.2	24.2	20.6	16.9	12.1
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)