

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: P558135

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-87-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: P558135  
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-50-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

**Summary**

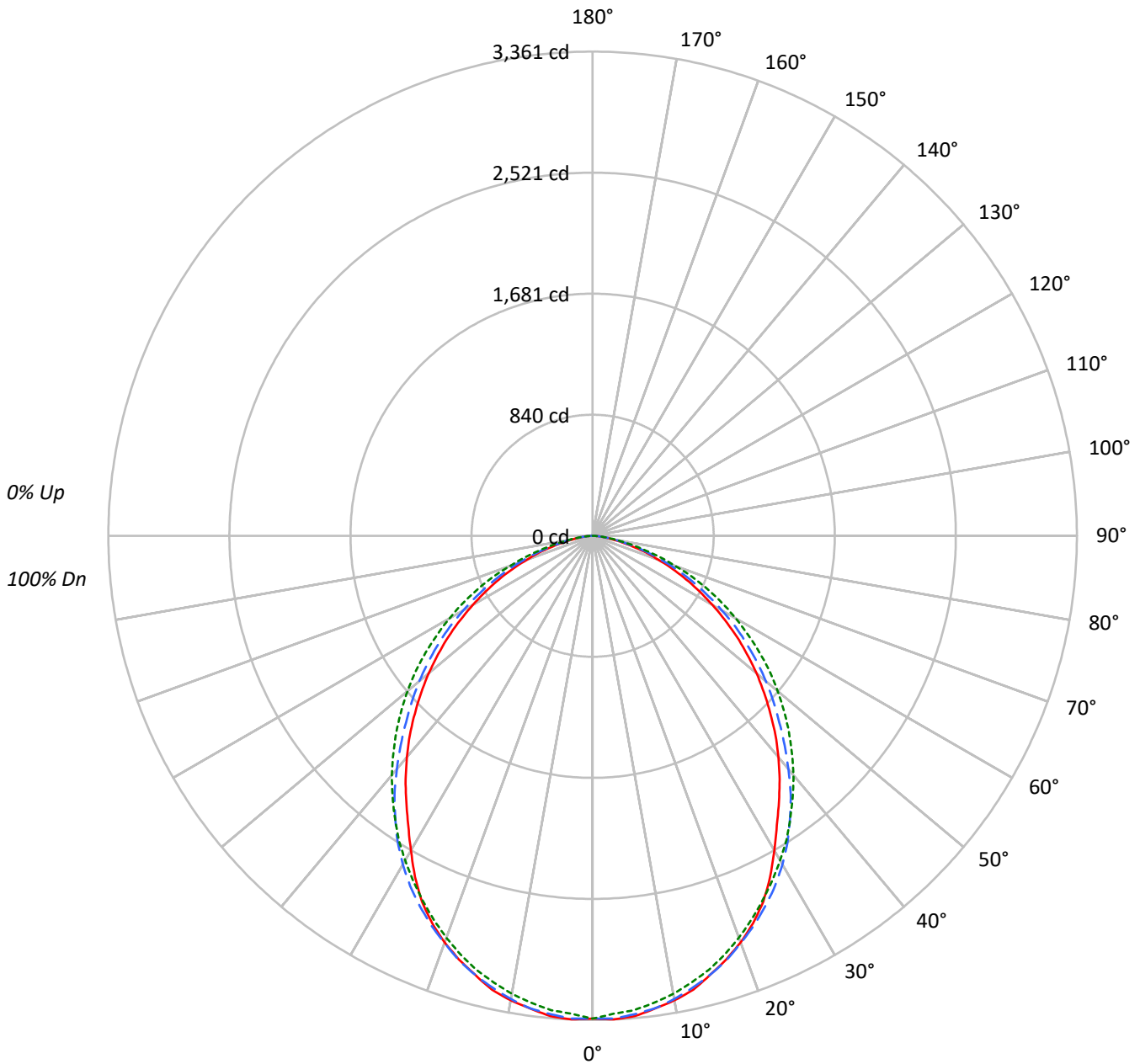
Lumens per Lamp: N/A  
Luminaire Lumens: 7750.0 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	9019	9019	9019
5°	9043	9005	8928
10°	8947	8923	8821
15°	8789	8789	8688
20°	8602	8614	8503
25°	8319	8422	8289
30°	7834	8186	8086
35°	7402	7846	7859
40°	7043	7423	7617
45°	6640	6973	7331
50°	6215	6571	7019
55°	5733	6114	6639
60°	5163	5578	6175
65°	4558	4960	5616
70°	3799	4224	4772
75°	2985	3374	3735
80°	2135	2374	2634
85°	1392	1392	1312



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.6	4.1
10°-20°	886.5	11.4
20°-30°	1295.5	16.7
30°-40°	1470.5	19.0
40°-50°	1419.6	18.3
50°-60°	1171.1	15.1
60°-70°	779.8	10.1
70°-80°	349.0	4.5
80°-90°	62.4	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°	2497.6	32.2
0°-40°	3968.1	51.2
0°-60°	6558.8	84.6
0°-90°	7750.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7750.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3352	3352	3352	3352	3352	
5°	3348	3346	3334	3316	3305	317
15°	3155	3162	3155	3140	3119	889
25°	2802	2824	2837	2816	2792	1283
35°	2253	2284	2388	2401	2392	1412
45°	1745	1774	1832	1916	1926	1346
55°	1222	1243	1303	1375	1415	1091
65°	716	735	779	834	882	710
75°	287	303	324	340	359	314
85°	45	45	45	42	42	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3351.7	3351.7	3351.7	3351.7	3351.7
2.5°	3360.7	3362.0	3354.3	3333.6	3320.8
5°	3347.8	3346.5	3333.6	3315.6	3305.3
7.5°	3310.5	3313.0	3309.2	3283.4	3269.3
10°	3274.4	3275.7	3265.4	3244.8	3228.1
12.5°	3228.1	3226.8	3212.6	3202.3	3175.3
15°	3154.7	3162.4	3154.7	3140.5	3118.6
17.5°	3083.8	3083.8	3089.0	3064.5	3047.8
20°	3004.0	3007.9	3007.9	2988.6	2969.3
22.5°	2911.3	2922.9	2926.8	2906.2	2883.0
25°	2801.9	2823.8	2836.6	2816.0	2791.6
27.5°	2669.2	2702.7	2741.3	2725.9	2698.9
30°	2521.2	2570.1	2634.5	2621.6	2602.3
32.5°	2380.8	2429.7	2518.6	2513.4	2503.1
35°	2253.3	2284.2	2388.5	2401.4	2392.4
37.5°	2132.3	2160.6	2258.5	2288.1	2280.4
40°	2004.8	2035.7	2113.0	2165.8	2168.4
42.5°	1878.6	1908.3	1971.3	2047.3	2047.3
45°	1744.7	1774.3	1832.3	1916.0	1926.3
47.5°	1613.4	1644.3	1700.9	1784.6	1801.4
50°	1484.6	1513.0	1569.6	1650.7	1676.5
52.5°	1350.7	1381.6	1437.0	1511.7	1549.0
55°	1222.0	1242.6	1303.1	1375.2	1415.1
57.5°	1088.0	1107.4	1175.6	1237.4	1278.6
60°	959.3	983.7	1036.5	1099.6	1147.3
62.5°	835.7	861.4	906.5	961.9	1015.9
65°	715.9	735.2	779.0	834.4	882.0
67.5°	600.0	616.8	660.5	699.2	749.4
70°	482.9	504.7	536.9	574.3	606.5
72.5°	388.9	397.9	424.9	452.0	485.4
75°	287.1	302.6	324.5	339.9	359.2
77.5°	206.0	215.0	227.9	240.8	258.8
80°	137.8	141.6	153.2	155.8	170.0
82.5°	83.7	86.3	88.8	90.1	95.3
85°	45.1	45.1	45.1	42.5	42.5
87.5°	25.8	25.8	21.9	18.0	12.9
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)