

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: P558128

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-UNV-80-84-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: P558128  
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-80-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

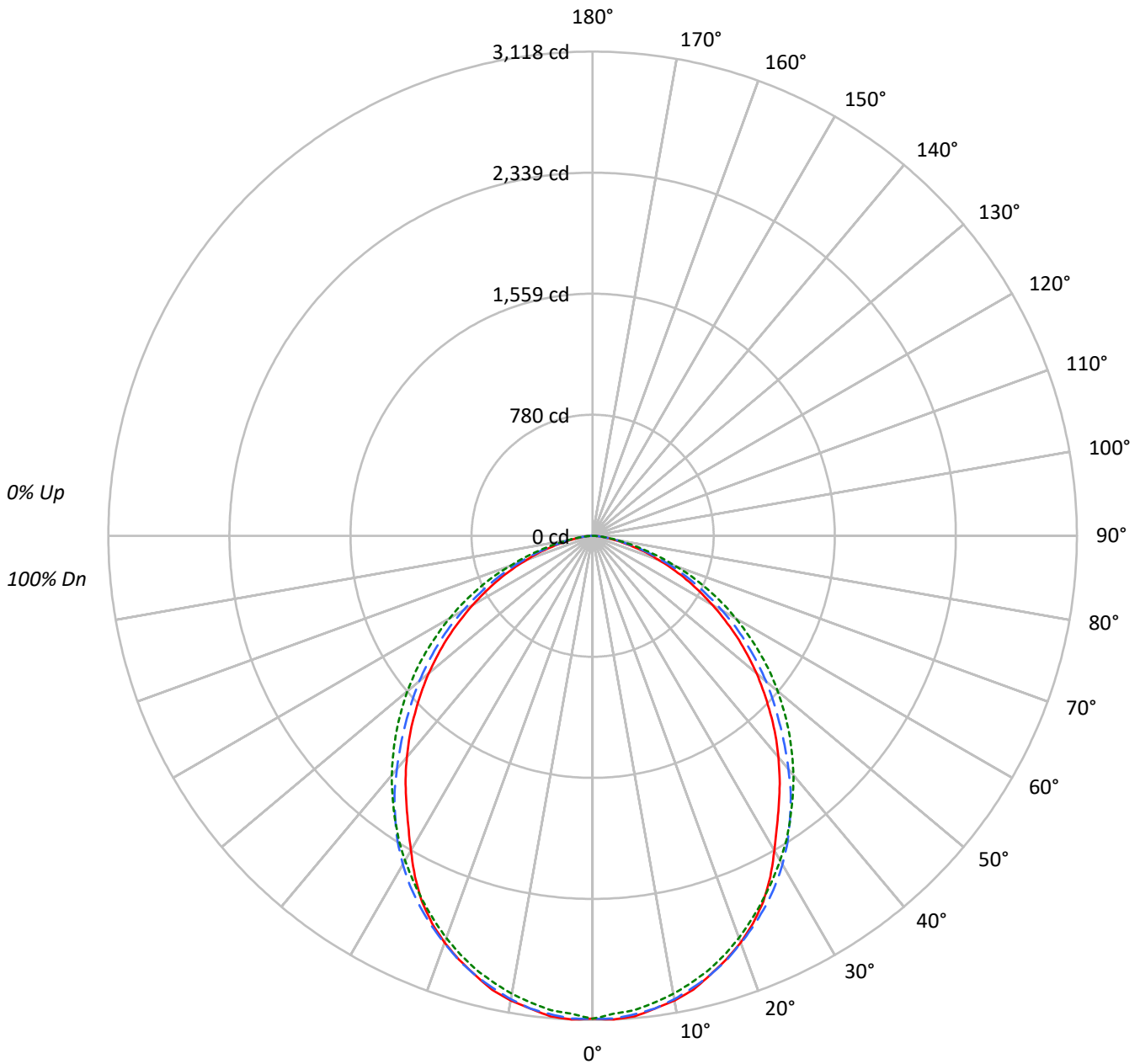
Lumens per Lamp: N/A  
Luminaire Lumens: 7191.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	8369	8369	8369
5°	8391	8356	8284
10°	8302	8279	8184
15°	8155	8155	8062
20°	7982	7992	7890
25°	7719	7815	7691
30°	7269	7595	7503
35°	6868	7281	7292
40°	6535	6887	7068
45°	6161	6470	6802
50°	5767	6097	6512
55°	5319	5673	6160
60°	4790	5176	5729
65°	4230	4602	5211
70°	3525	3920	4427
75°	2770	3131	3465
80°	1980	2204	2444
85°	1291	1291	1216



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	292.8	4.1
10°-20°	822.6	11.4
20°-30°	1202.1	16.7
30°-40°	1364.5	19.0
40°-50°	1317.2	18.3
50°-60°	1086.6	15.1
60°-70°	723.6	10.1
70°-80°	323.8	4.5
80°-90°	57.9	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°	2317.5	32.2
0°-40°	3681.9	51.2
0°-60°	6085.7	84.6
0°-90°	7191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7191.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3110	3110	3110	3110	3110	
5°	3106	3105	3093	3076	3067	294
15°	2927	2934	2927	2914	2894	825
25°	2600	2620	2632	2613	2590	1191
35°	2091	2120	2216	2228	2220	1310
45°	1619	1646	1700	1778	1787	1249
55°	1134	1153	1209	1276	1313	1012
65°	664	682	723	774	818	659
75°	266	281	301	315	333	291
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3109.9	3109.9	3109.9	3109.9	3109.9
2.5°	3118.3	3119.5	3112.3	3093.2	3081.2
5°	3106.3	3105.1	3093.2	3076.5	3066.9
7.5°	3071.7	3074.1	3070.5	3046.6	3033.5
10°	3038.2	3039.4	3029.9	3010.8	2995.2
12.5°	2995.2	2994.0	2980.9	2971.3	2946.2
15°	2927.1	2934.3	2927.1	2914.0	2893.7
17.5°	2861.4	2861.4	2866.2	2843.5	2828.0
20°	2787.3	2790.9	2790.9	2773.0	2755.1
22.5°	2701.3	2712.1	2715.7	2696.5	2675.0
25°	2599.8	2620.1	2632.0	2612.9	2590.2
27.5°	2476.7	2507.8	2543.6	2529.3	2504.2
30°	2339.3	2384.7	2444.4	2432.5	2414.6
32.5°	2209.1	2254.5	2336.9	2332.1	2322.6
35°	2090.8	2119.5	2216.3	2228.2	2219.8
37.5°	1978.5	2004.8	2095.6	2123.1	2115.9
40°	1860.2	1888.9	1960.6	2009.6	2012.0
42.5°	1743.1	1770.6	1829.2	1899.6	1899.6
45°	1618.9	1646.4	1700.1	1777.8	1787.3
47.5°	1497.0	1525.7	1578.3	1655.9	1671.4
50°	1377.5	1403.8	1456.4	1531.7	1555.6
52.5°	1253.3	1282.0	1333.3	1402.6	1437.3
55°	1133.8	1152.9	1209.1	1276.0	1313.0
57.5°	1009.6	1027.5	1090.8	1148.2	1186.4
60°	890.1	912.8	961.8	1020.3	1064.5
62.5°	775.4	799.3	841.1	892.5	942.7
65°	664.3	682.2	722.8	774.2	818.4
67.5°	556.8	572.3	612.9	648.7	695.3
70°	448.0	468.3	498.2	532.9	562.7
72.5°	360.8	369.2	394.3	419.4	450.4
75°	266.4	280.8	301.1	315.4	333.3
77.5°	191.2	199.5	211.5	223.4	240.1
80°	127.8	131.4	142.2	144.6	157.7
82.5°	77.7	80.0	82.4	83.6	88.4
85°	41.8	41.8	41.8	39.4	39.4
87.5°	23.9	23.9	20.3	16.7	11.9
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)