

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: P556533

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-80-86-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: P556533  
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-LD4-1LO-40-UNV-80-86-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

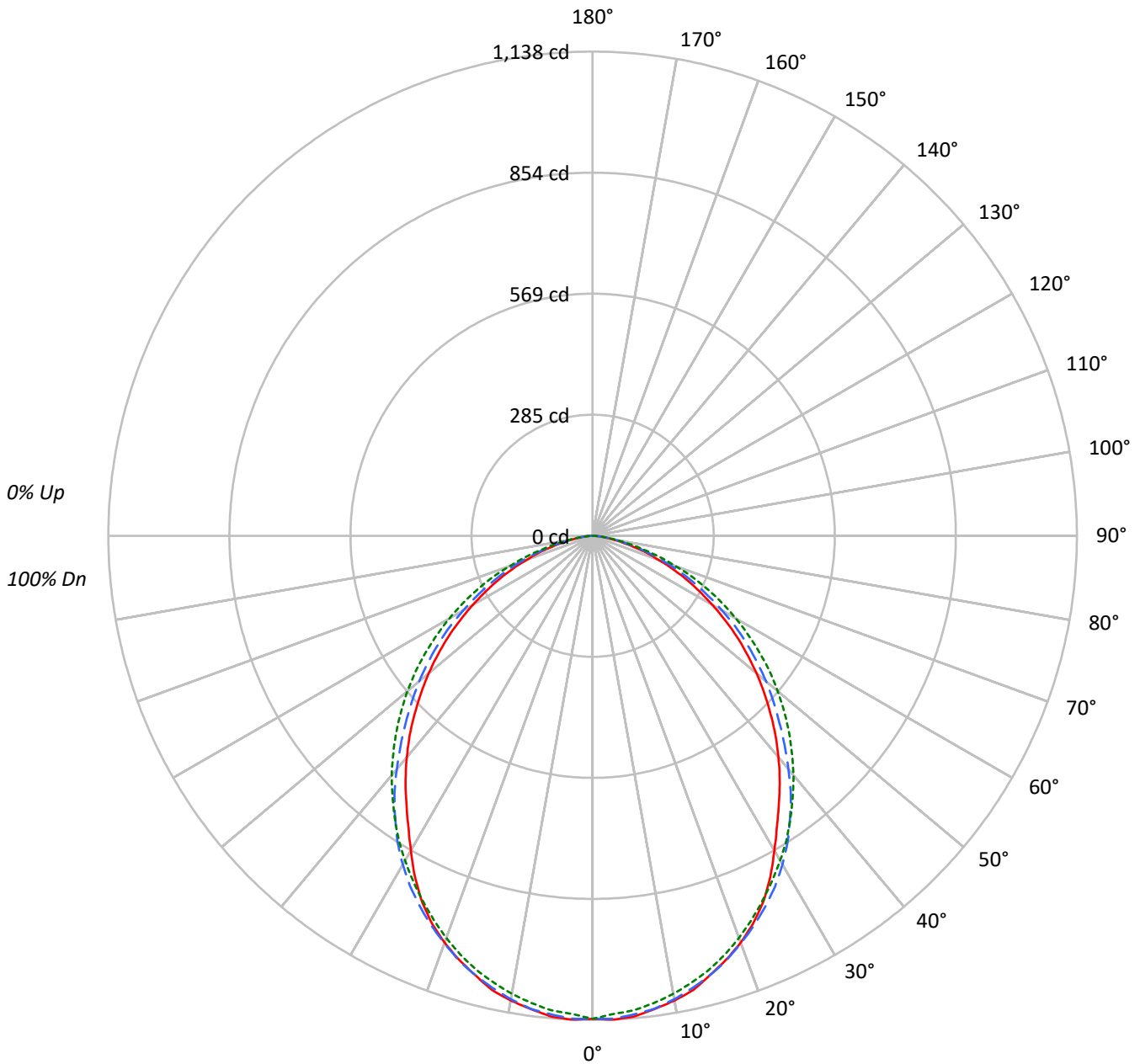
Lumens per Lamp: N/A  
Luminaire Lumens: 2625.0 lumens  
Efficiency: N/A  
Efficacy: 112.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	3055	3055	3055
5°	3063	3050	3024
10°	3031	3022	2988
15°	2977	2977	2943
20°	2914	2918	2880
25°	2818	2853	2807
30°	2653	2773	2739
35°	2507	2658	2662
40°	2386	2514	2580
45°	2249	2362	2483
50°	2105	2226	2377
55°	1942	2071	2249
60°	1749	1890	2091
65°	1544	1680	1902
70°	1286	1431	1616
75°	1012	1143	1265
80°	724	804	893
85°	472	472	445



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.9	4.1
10°-20°	300.3	11.4
20°-30°	438.8	16.7
30°-40°	498.1	19.0
40°-50°	480.8	18.3
50°-60°	396.7	15.1
60°-70°	264.1	10.1
70°-80°	118.2	4.5
80°-90°	21.1	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°	846.0	32.2
0°-40°	1344.0	51.2
0°-60°	2221.5	84.6
0°-90°	2625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2625.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1134	1134	1129	1123	1120	107
15°	1068	1071	1068	1064	1056	301
25°	949	956	961	954	946	435
35°	763	774	809	813	810	478
45°	591	601	621	649	652	456
55°	414	421	441	466	479	369
65°	242	249	264	283	299	240
75°	97	102	110	115	122	106
85°	15	15	15	14	14	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1135.2	1135.2	1135.2	1135.2	1135.2
2.5°	1138.3	1138.7	1136.1	1129.1	1124.8
5°	1133.9	1133.5	1129.1	1123.0	1119.5
7.5°	1121.3	1122.2	1120.9	1112.1	1107.3
10°	1109.1	1109.5	1106.0	1099.0	1093.4
12.5°	1093.4	1092.9	1088.1	1084.7	1075.5
15°	1068.5	1071.1	1068.5	1063.7	1056.3
17.5°	1044.5	1044.5	1046.3	1038.0	1032.3
20°	1017.5	1018.8	1018.8	1012.3	1005.7
22.5°	986.1	990.0	991.3	984.3	976.5
25°	949.0	956.4	960.8	953.8	945.5
27.5°	904.1	915.4	928.5	923.3	914.1
30°	853.9	870.5	892.3	888.0	881.4
32.5°	806.4	823.0	853.1	851.3	847.8
35°	763.2	773.7	809.0	813.4	810.3
37.5°	722.2	731.8	765.0	775.0	772.4
40°	679.1	689.5	715.7	733.6	734.4
42.5°	636.3	646.3	667.7	693.4	693.4
45°	591.0	601.0	620.6	649.0	652.4
47.5°	546.5	556.9	576.1	604.5	610.1
50°	502.9	512.5	531.6	559.1	567.8
52.5°	457.5	468.0	486.7	512.0	524.7
55°	413.9	420.9	441.4	465.8	479.3
57.5°	368.5	375.1	398.2	419.1	433.1
60°	324.9	333.2	351.1	372.5	388.6
62.5°	283.0	291.8	307.0	325.8	344.1
65°	242.5	249.0	263.9	282.6	298.7
67.5°	203.2	208.9	223.7	236.8	253.8
70°	163.5	171.0	181.9	194.5	205.4
72.5°	131.7	134.8	143.9	153.1	164.4
75°	97.3	102.5	109.9	115.1	121.7
77.5°	69.8	72.8	77.2	81.6	87.7
80°	46.7	48.0	51.9	52.8	57.6
82.5°	28.3	29.2	30.1	30.5	32.3
85°	15.3	15.3	15.3	14.4	14.4
87.5°	8.7	8.7	7.4	6.1	4.4
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)