

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: P556595

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-80-85-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: P556595  
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-50-UNV-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

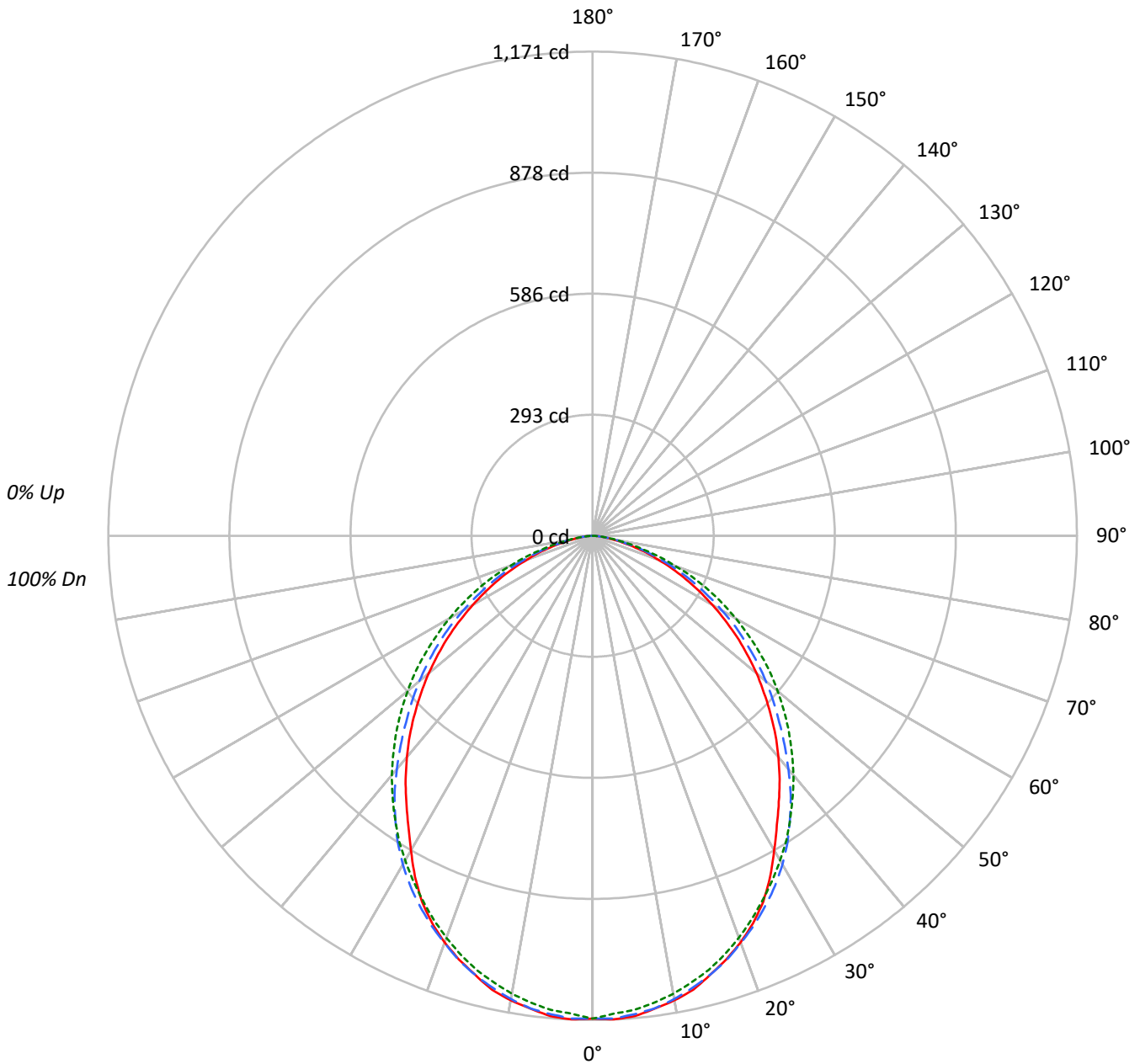
Lumens per Lamp: N/A  
Luminaire Lumens: 2700.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	3142	3142	3142
5°	3150	3137	3110
10°	3117	3108	3073
15°	3062	3062	3027
20°	2997	3001	2962
25°	2898	2934	2888
30°	2729	2852	2817
35°	2579	2734	2738
40°	2454	2586	2654
45°	2313	2429	2554
50°	2165	2289	2445
55°	1997	2130	2313
60°	1799	1943	2151
65°	1588	1728	1957
70°	1323	1472	1662
75°	1040	1175	1302
80°	744	828	917
85°	485	485	457



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.9	4.1
10°-20°	308.9	11.4
20°-30°	451.3	16.7
30°-40°	512.3	19.0
40°-50°	494.6	18.3
50°-60°	408.0	15.1
60°-70°	271.7	10.1
70°-80°	121.6	4.5
80°-90°	21.8	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°	870.1	32.2
0°-40°	1382.4	51.2
0°-60°	2285.0	84.6
0°-90°	2700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2700.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1166	1166	1161	1155	1152	110
15°	1099	1102	1099	1094	1086	310
25°	976	984	988	981	972	447
35°	785	796	832	837	834	492
45°	608	618	638	668	671	469
55°	426	433	454	479	493	380
65°	249	256	271	291	307	247
75°	100	105	113	118	125	109
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1167.7	1167.7	1167.7	1167.7	1167.7
2.5°	1170.8	1171.3	1168.6	1161.4	1156.9
5°	1166.3	1165.9	1161.4	1155.1	1151.5
7.5°	1153.3	1154.2	1152.9	1143.9	1139.0
10°	1140.8	1141.2	1137.6	1130.4	1124.6
12.5°	1124.6	1124.2	1119.2	1115.6	1106.2
15°	1099.0	1101.7	1099.0	1094.1	1086.5
17.5°	1074.4	1074.4	1076.2	1067.6	1061.8
20°	1046.6	1047.9	1047.9	1041.2	1034.4
22.5°	1014.3	1018.3	1019.6	1012.5	1004.4
25°	976.1	983.8	988.2	981.1	972.5
27.5°	929.9	941.6	955.0	949.7	940.2
30°	878.3	895.4	917.8	913.3	906.6
32.5°	829.4	846.5	877.4	875.6	872.1
35°	785.0	795.8	832.1	836.6	833.5
37.5°	742.9	752.7	786.8	797.1	794.5
40°	698.5	709.2	736.1	754.5	755.4
42.5°	654.5	664.8	686.8	713.3	713.3
45°	607.8	618.2	638.3	667.5	671.1
47.5°	562.1	572.8	592.6	621.7	627.6
50°	517.2	527.1	546.8	575.1	584.1
52.5°	470.6	481.3	500.6	526.6	539.7
55°	425.7	432.9	454.0	479.1	493.0
57.5°	379.1	385.8	409.6	431.1	445.5
60°	334.2	342.7	361.1	383.1	399.7
62.5°	291.1	300.1	315.8	335.1	353.9
65°	249.4	256.1	271.4	290.7	307.3
67.5°	209.0	214.9	230.1	243.6	261.1
70°	168.2	175.8	187.1	200.1	211.3
72.5°	135.5	138.6	148.0	157.5	169.1
75°	100.0	105.4	113.0	118.4	125.2
77.5°	71.8	74.9	79.4	83.9	90.2
80°	48.0	49.3	53.4	54.3	59.2
82.5°	29.2	30.1	31.0	31.4	33.2
85°	15.7	15.7	15.7	14.8	14.8
87.5°	9.0	9.0	7.6	6.3	4.5
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)