

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: P557491

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-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: P557491  
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-LD4-2STD-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

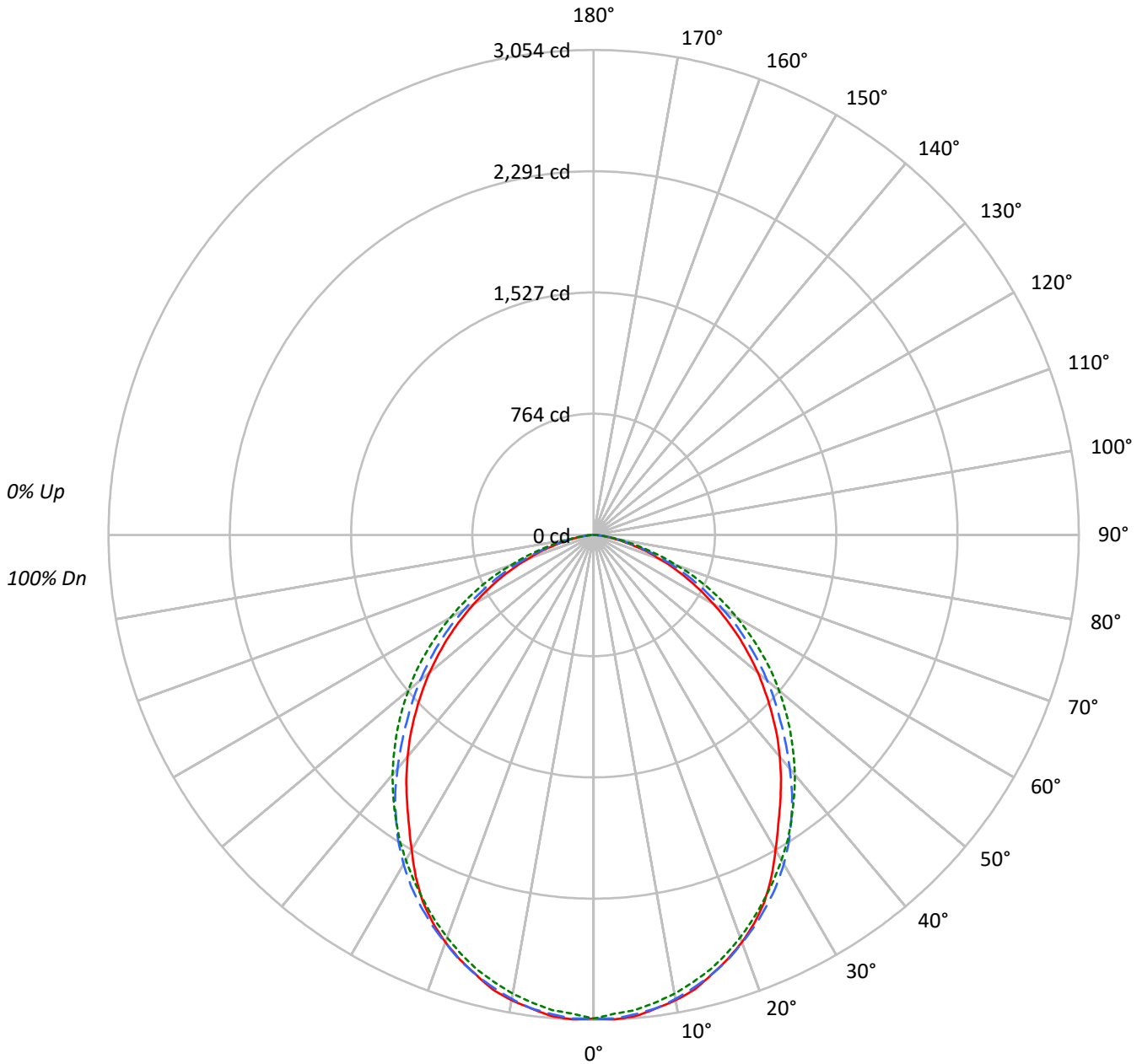
Lumens per Lamp: N/A  
Luminaire Lumens: 7042.0 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	8195	8195	8195
5°	8217	8182	8113
10°	8130	8108	8015
15°	7986	7986	7894
20°	7817	7827	7726
25°	7559	7653	7531
30°	7118	7438	7347
35°	6726	7130	7141
40°	6399	6745	6921
45°	6033	6336	6661
50°	5647	5971	6377
55°	5209	5555	6032
60°	4691	5069	5611
65°	4142	4507	5103
70°	3452	3839	4336
75°	2713	3065	3394
80°	1940	2157	2393
85°	1263	1263	1192



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	286.7	4.1
10°-20°	805.5	11.4
20°-30°	1177.2	16.7
30°-40°	1336.2	19.0
40°-50°	1289.9	18.3
50°-60°	1064.1	15.1
60°-70°	708.6	10.1
70°-80°	317.1	4.5
80°-90°	56.7	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°	2269.4	32.2
0°-40°	3605.6	51.2
0°-60°	5959.6	84.6
0°-90°	7042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7042.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3046	3046	3046	3046	3046	
5°	3042	3041	3029	3013	3003	288
15°	2866	2874	2866	2854	2834	808
25°	2546	2566	2578	2559	2536	1166
35°	2048	2076	2170	2182	2174	1283
45°	1585	1612	1665	1741	1750	1223
55°	1110	1129	1184	1250	1286	991
65°	650	668	708	758	801	645
75°	261	275	295	309	326	285
85°	41	41	41	39	39	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3045.5	3045.5	3045.5	3045.5	3045.5
2.5°	3053.7	3054.8	3047.8	3029.1	3017.4
5°	3042.0	3040.8	3029.1	3012.7	3003.4
7.5°	3008.0	3010.4	3006.9	2983.5	2970.6
10°	2975.3	2976.5	2967.1	2948.4	2933.2
12.5°	2933.2	2932.0	2919.1	2909.8	2885.2
15°	2866.5	2873.5	2866.5	2853.6	2833.7
17.5°	2802.1	2802.1	2806.8	2784.6	2769.4
20°	2729.6	2733.1	2733.1	2715.5	2698.0
22.5°	2645.3	2655.9	2659.4	2640.7	2619.6
25°	2545.9	2565.8	2577.5	2558.8	2536.5
27.5°	2425.4	2455.8	2490.9	2476.9	2452.3
30°	2290.8	2335.3	2393.8	2382.1	2364.5
32.5°	2163.3	2207.8	2288.5	2283.8	2274.5
35°	2047.5	2075.6	2170.3	2182.0	2173.8
37.5°	1937.5	1963.2	2052.2	2079.1	2072.1
40°	1821.7	1849.8	1920.0	1967.9	1970.3
42.5°	1707.0	1733.9	1791.3	1860.3	1860.3
45°	1585.3	1612.2	1664.9	1740.9	1750.3
47.5°	1466.0	1494.1	1545.6	1621.6	1636.8
50°	1349.0	1374.7	1426.2	1499.9	1523.3
52.5°	1227.3	1255.4	1305.7	1373.6	1407.5
55°	1110.3	1129.0	1184.0	1249.5	1285.8
57.5°	988.6	1006.2	1068.2	1124.4	1161.8
60°	871.6	893.9	941.8	999.2	1042.5
62.5°	759.3	782.7	823.7	874.0	923.1
65°	650.5	668.1	707.8	758.2	801.4
67.5°	545.2	560.4	600.2	635.3	680.9
70°	438.7	458.6	487.9	521.8	551.1
72.5°	353.3	361.5	386.1	410.7	441.1
75°	260.9	274.9	294.8	308.9	326.4
77.5°	187.2	195.4	207.1	218.8	235.2
80°	125.2	128.7	139.2	141.6	154.4
82.5°	76.0	78.4	80.7	81.9	86.6
85°	40.9	40.9	40.9	38.6	38.6
87.5°	23.4	23.4	19.9	16.4	11.7
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)