

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: P556924

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-80-96-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: P556924  
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-LD4-2HI-30-UNV-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

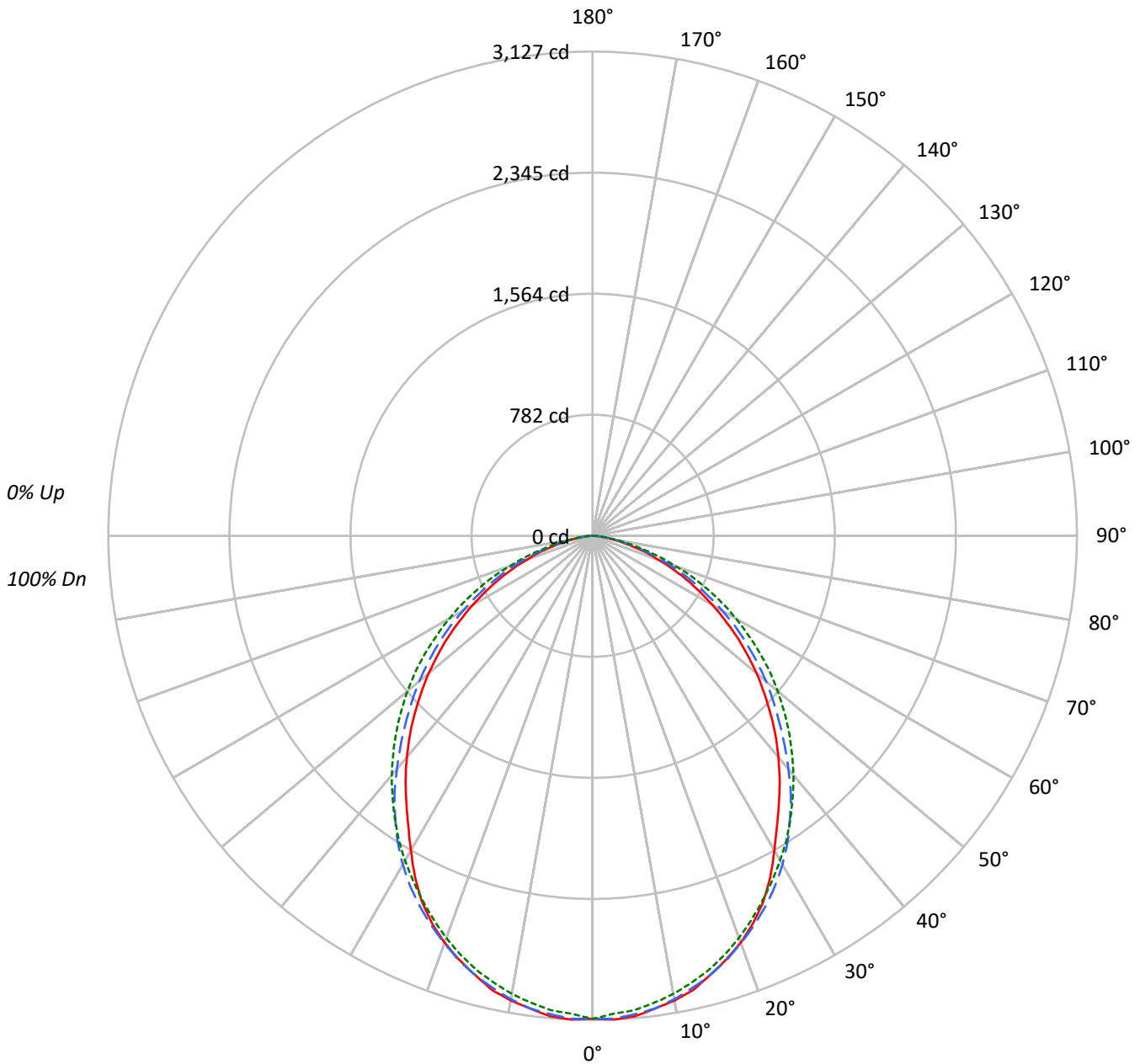
Lumens per Lamp: N/A  
Luminaire Lumens: 7212.0 lumens  
Efficiency: N/A  
Efficacy: 83.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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°	8393	8393	8393
5°	8415	8380	8309
10°	8326	8303	8208
15°	8179	8179	8085
20°	8005	8016	7913
25°	7742	7838	7713
30°	7290	7618	7525
35°	6888	7302	7314
40°	6554	6907	7088
45°	6179	6489	6822
50°	5784	6115	6531
55°	5335	5689	6178
60°	4804	5191	5746
65°	4242	4616	5226
70°	3535	3932	4441
75°	2778	3140	3476
80°	1987	2210	2452
85°	1294	1294	1220



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.7	4.1
10°-20°	825.0	11.4
20°-30°	1205.6	16.7
30°-40°	1368.5	19.0
40°-50°	1321.0	18.3
50°-60°	1089.8	15.1
60°-70°	725.7	10.1
70°-80°	324.7	4.5
80°-90°	58.1	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°	2324.2	32.2
0°-40°	3692.7	51.2
0°-60°	6103.5	84.6
0°-90°	7212.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7212.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3119	3119	3119	3119	3119	
5°	3115	3114	3102	3086	3076	295
15°	2936	2943	2936	2922	2902	828
25°	2607	2628	2640	2620	2598	1194
35°	2097	2126	2223	2235	2226	1314
45°	1624	1651	1705	1783	1793	1253
55°	1137	1156	1213	1280	1317	1015
65°	666	684	725	776	821	661
75°	267	282	302	316	334	292
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3119.0	3119.0	3119.0	3119.0	3119.0
2.5°	3127.4	3128.6	3121.4	3102.2	3090.2
5°	3115.4	3114.2	3102.2	3085.5	3075.9
7.5°	3080.7	3083.1	3079.5	3055.5	3042.3
10°	3047.1	3048.3	3038.7	3019.6	3004.0
12.5°	3004.0	3002.8	2989.6	2980.0	2954.8
15°	2935.7	2942.9	2935.7	2922.5	2902.1
17.5°	2869.8	2869.8	2874.6	2851.8	2836.2
20°	2795.5	2799.1	2799.1	2781.1	2763.1
22.5°	2709.2	2720.0	2723.6	2704.4	2682.8
25°	2607.4	2627.7	2639.7	2620.5	2597.8
27.5°	2483.9	2515.1	2551.0	2536.7	2511.5
30°	2346.1	2391.7	2451.6	2439.6	2421.6
32.5°	2215.5	2261.1	2343.7	2339.0	2329.4
35°	2096.9	2125.7	2222.7	2234.7	2226.3
37.5°	1984.3	2010.6	2101.7	2129.3	2122.1
40°	1865.7	1894.4	1966.3	2015.4	2017.8
42.5°	1748.2	1775.8	1834.5	1905.2	1905.2
45°	1623.6	1651.2	1705.1	1783.0	1792.6
47.5°	1501.4	1530.1	1582.9	1660.8	1676.3
50°	1381.6	1407.9	1460.6	1536.1	1560.1
52.5°	1256.9	1285.7	1337.2	1406.7	1441.5
55°	1137.1	1156.3	1212.6	1279.7	1316.9
57.5°	1012.5	1030.5	1094.0	1151.5	1189.8
60°	892.7	915.5	964.6	1023.3	1067.6
62.5°	777.7	801.6	843.6	895.1	945.4
65°	666.2	684.2	724.9	776.5	820.8
67.5°	558.4	574.0	614.7	650.6	697.4
70°	449.3	469.7	499.7	534.4	564.4
72.5°	361.9	370.3	395.4	420.6	451.7
75°	267.2	281.6	302.0	316.3	334.3
77.5°	191.7	200.1	212.1	224.1	240.8
80°	128.2	131.8	142.6	145.0	158.2
82.5°	77.9	80.3	82.7	83.9	88.7
85°	41.9	41.9	41.9	39.5	39.5
87.5°	24.0	24.0	20.4	16.8	12.0
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)