

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: P556985

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-80-88-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: P556985  
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-35-UNV-80-88-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

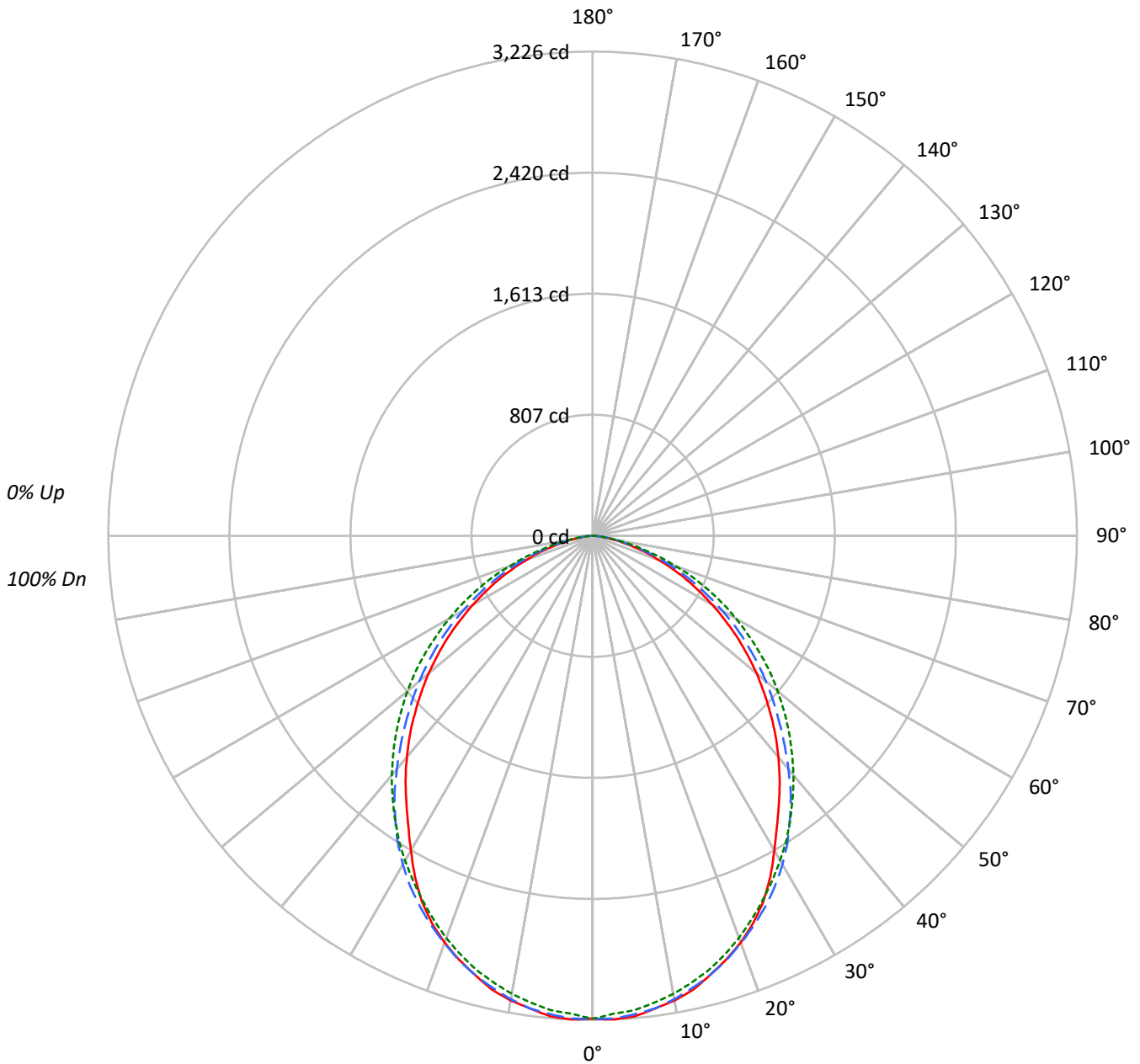
Lumens per Lamp: N/A  
Luminaire Lumens: 7440.0 lumens  
Efficiency: N/A  
Efficacy: 86.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
Input Voltage (V): NR  
Input Current (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°	8658	8658	8658
5°	8682	8645	8571
10°	8589	8566	8468
15°	8437	8437	8341
20°	8259	8269	8163
25°	7986	8086	7957
30°	7521	7859	7763
35°	7106	7533	7545
40°	6761	7126	7312
45°	6374	6694	7037
50°	5966	6308	6738
55°	5504	5869	6374
60°	4956	5356	5928
65°	4376	4762	5391
70°	3647	4056	4581
75°	2866	3239	3586
80°	2050	2280	2529
85°	1337	1337	1260



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	302.9	4.1
10°-20°	851.1	11.4
20°-30°	1243.7	16.7
30°-40°	1411.7	19.0
40°-50°	1362.8	18.3
50°-60°	1124.2	15.1
60°-70°	748.6	10.1
70°-80°	335.0	4.5
80°-90°	59.9	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°	2397.7	32.2
0°-40°	3809.4	51.2
0°-60°	6296.4	84.6
0°-90°	7440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7440.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3218	3218	3218	3218	3218	
5°	3214	3213	3200	3183	3173	304
15°	3028	3036	3028	3015	2994	854
25°	2690	2711	2723	2703	2680	1232
35°	2163	2193	2293	2305	2297	1355
45°	1675	1703	1759	1839	1849	1292
55°	1173	1193	1251	1320	1358	1047
65°	687	706	748	801	847	681
75°	276	290	312	326	345	301
85°	43	43	43	41	41	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3217.6	3217.6	3217.6	3217.6	3217.6
2.5°	3226.3	3227.5	3220.1	3200.3	3187.9
5°	3213.9	3212.7	3200.3	3183.0	3173.1
7.5°	3178.1	3180.5	3176.8	3152.1	3138.5
10°	3143.4	3144.7	3134.8	3115.0	3098.9
12.5°	3098.9	3097.7	3084.1	3074.2	3048.3
15°	3028.5	3035.9	3028.5	3014.9	2993.9
17.5°	2960.5	2960.5	2965.4	2942.0	2925.9
20°	2883.9	2887.6	2887.6	2869.0	2850.5
22.5°	2794.9	2806.0	2809.7	2789.9	2767.7
25°	2689.8	2710.8	2723.2	2703.4	2679.9
27.5°	2562.5	2594.6	2631.7	2616.9	2590.9
30°	2420.3	2467.3	2529.1	2516.7	2498.2
32.5°	2285.6	2332.5	2417.8	2412.9	2403.0
35°	2163.2	2192.9	2293.0	2305.4	2296.7
37.5°	2047.0	2074.2	2168.1	2196.6	2189.2
40°	1924.6	1954.3	2028.5	2079.1	2081.6
42.5°	1803.5	1831.9	1892.5	1965.4	1965.4
45°	1674.9	1703.4	1759.0	1839.3	1849.2
47.5°	1548.9	1578.5	1632.9	1713.3	1729.3
50°	1425.2	1452.4	1506.8	1584.7	1609.4
52.5°	1296.7	1326.4	1379.5	1451.2	1487.0
55°	1173.1	1192.9	1250.9	1320.2	1358.5
57.5°	1044.5	1063.1	1128.6	1187.9	1227.5
60°	920.9	944.4	995.1	1055.6	1101.4
62.5°	802.2	827.0	870.2	923.4	975.3
65°	687.3	705.8	747.8	801.0	846.7
67.5°	576.0	592.1	634.1	671.2	719.4
70°	463.5	484.6	515.5	551.3	582.2
72.5°	373.3	382.0	407.9	433.9	466.0
75°	275.7	290.5	311.5	326.3	344.9
77.5°	197.8	206.4	218.8	231.2	248.5
80°	132.3	136.0	147.1	149.6	163.2
82.5°	80.3	82.8	85.3	86.5	91.5
85°	43.3	43.3	43.3	40.8	40.8
87.5°	24.7	24.7	21.0	17.3	12.4
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)