

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: P557748

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-80-86-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: P557748  
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-LD4-3HI-35-UNV-80-86-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

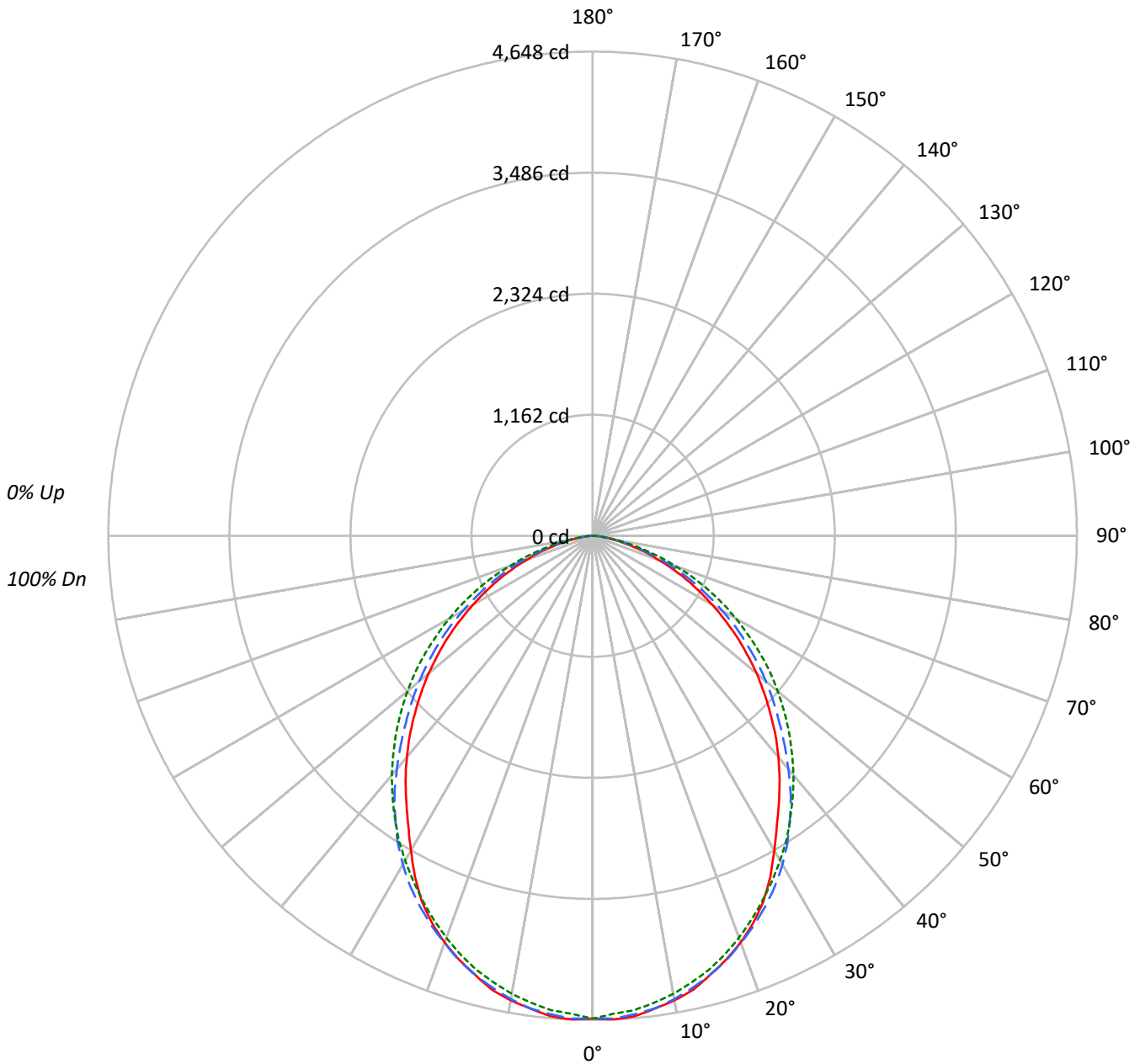
Lumens per Lamp: N/A  
Luminaire Lumens: 10718.0 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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°	12473	12473	12473
5°	12507	12454	12348
10°	12374	12340	12199
15°	12154	12154	12015
20°	11897	11912	11759
25°	11505	11648	11463
30°	10834	11321	11183
35°	10237	10852	10869
40°	9740	10265	10534
45°	9183	9643	10138
50°	8596	9087	9706
55°	7928	8455	9181
60°	7140	7715	8539
65°	6304	6860	7767
70°	5254	5843	6599
75°	4129	4665	5165
80°	2952	3284	3643
85°	1924	1924	1815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	436.4	4.1
10°-20°	1226.0	11.4
20°-30°	1791.6	16.7
30°-40°	2033.7	19.0
40°-50°	1963.2	18.3
50°-60°	1619.5	15.1
60°-70°	1078.5	10.1
70°-80°	482.6	4.5
80°-90°	86.3	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°	3454.1	32.2
0°-40°	5487.8	51.2
0°-60°	9070.6	84.6
0°-90°	10718.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10718.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4635	4635	4635	4635	4635	
5°	4630	4628	4610	4585	4571	438
15°	4363	4374	4363	4343	4313	1230
25°	3875	3905	3923	3894	3861	1775
35°	3116	3159	3303	3321	3309	1953
45°	2413	2454	2534	2650	2664	1862
55°	1690	1718	1802	1902	1957	1508
65°	990	1017	1077	1154	1220	982
75°	397	418	449	470	497	434
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4635.3	4635.3	4635.3	4635.3	4635.3
2.5°	4647.7	4649.5	4638.8	4610.3	4592.5
5°	4629.9	4628.1	4610.3	4585.4	4571.2
7.5°	4578.3	4581.8	4576.5	4540.9	4521.3
10°	4528.4	4530.2	4515.9	4487.5	4464.3
12.5°	4464.3	4462.5	4442.9	4428.7	4391.3
15°	4362.8	4373.5	4362.8	4343.2	4312.9
17.5°	4264.9	4264.9	4272.0	4238.2	4215.0
20°	4154.5	4159.8	4159.8	4133.1	4106.4
22.5°	4026.2	4042.3	4047.6	4019.1	3987.1
25°	3874.9	3905.2	3923.0	3894.5	3860.6
27.5°	3691.5	3737.8	3791.2	3769.8	3732.4
30°	3486.7	3554.4	3643.4	3625.6	3598.9
32.5°	3292.6	3360.3	3483.1	3476.0	3461.8
35°	3116.3	3159.0	3303.3	3321.1	3308.6
37.5°	2948.9	2988.1	3123.4	3164.4	3153.7
40°	2772.6	2815.3	2922.2	2995.2	2998.8
42.5°	2598.1	2639.1	2726.3	2831.4	2831.4
45°	2412.9	2453.9	2534.0	2649.7	2664.0
47.5°	2231.3	2274.0	2352.4	2468.1	2491.3
50°	2053.2	2092.4	2170.7	2282.9	2318.5
52.5°	1868.0	1910.7	1987.3	2090.6	2142.2
55°	1689.9	1718.4	1802.1	1901.8	1957.0
57.5°	1504.7	1531.4	1625.8	1711.3	1768.3
60°	1326.6	1360.5	1433.5	1520.7	1586.6
62.5°	1155.7	1191.3	1253.6	1330.2	1405.0
65°	990.1	1016.8	1077.3	1153.9	1219.8
67.5°	829.8	853.0	913.5	966.9	1036.4
70°	667.8	698.0	742.6	794.2	838.7
72.5°	537.8	550.2	587.6	625.0	671.3
75°	397.1	418.5	448.7	470.1	496.8
77.5°	284.9	297.4	315.2	333.0	357.9
80°	190.5	195.9	211.9	215.5	235.1
82.5°	115.7	119.3	122.9	124.7	131.8
85°	62.3	62.3	62.3	58.8	58.8
87.5°	35.6	35.6	30.3	24.9	17.8
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)