

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: P556913

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-80-84-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: P556913  
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-80-84-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

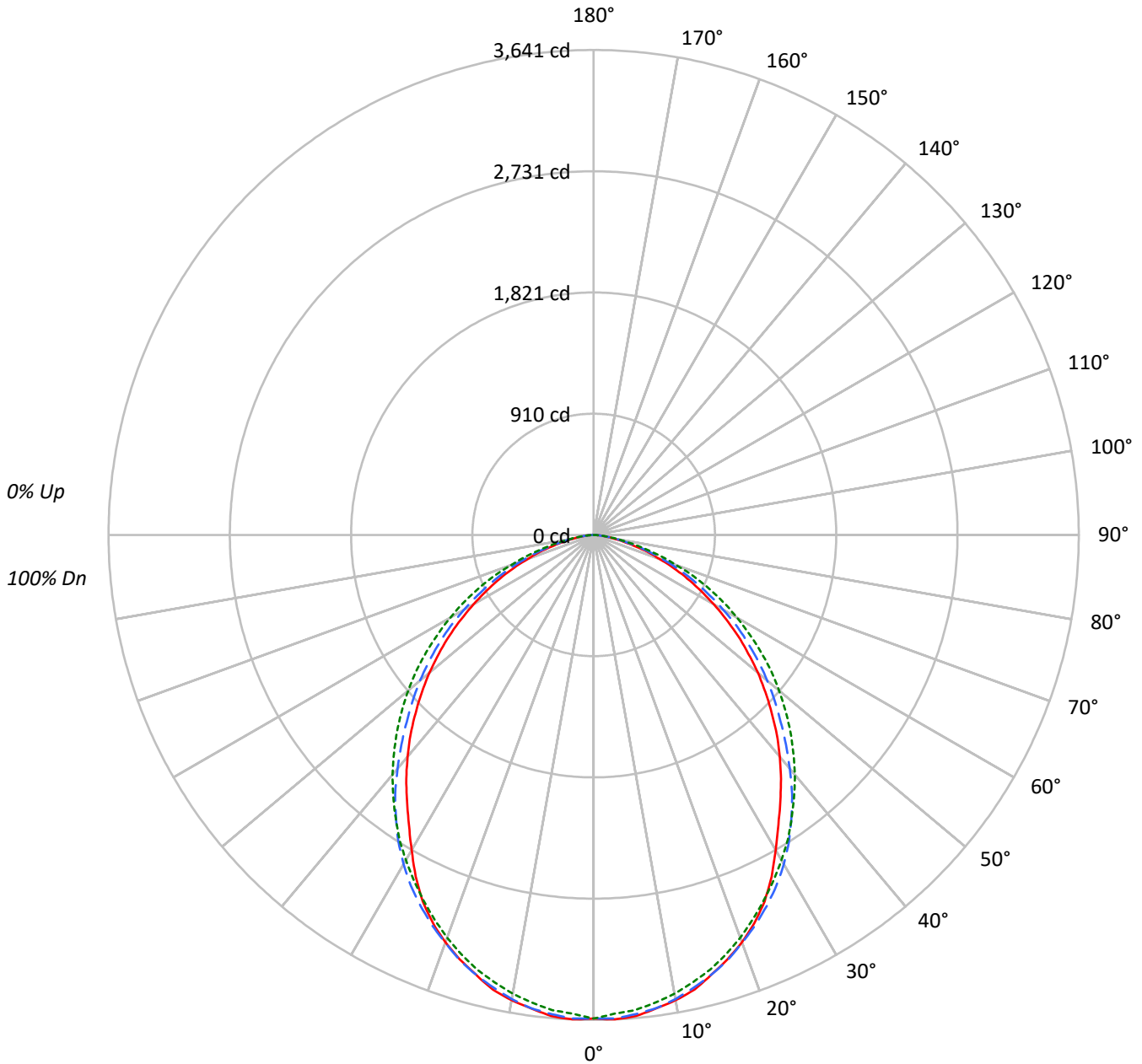
Lumens per Lamp: N/A  
Luminaire Lumens: 8396.0 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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					20					
RC	80					70					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°	9771	9771	9771
5°	9797	9756	9673
10°	9693	9666	9556
15°	9521	9521	9412
20°	9320	9332	9212
25°	9013	9125	8980
30°	8487	8868	8760
35°	8020	8500	8514
40°	7630	8041	8252
45°	7193	7554	7942
50°	6733	7119	7603
55°	6211	6623	7192
60°	5593	6043	6689
65°	4939	5373	6084
70°	4116	4577	5169
75°	3235	3655	4047
80°	2314	2572	2853
85°	1507	1507	1420



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.9	4.1
10°-20°	960.4	11.4
20°-30°	1403.5	16.7
30°-40°	1593.1	19.0
40°-50°	1537.9	18.3
50°-60°	1268.7	15.1
60°-70°	844.8	10.1
70°-80°	378.0	4.5
80°-90°	67.6	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°	2705.8	32.2
0°-40°	4298.9	51.2
0°-60°	7105.5	84.6
0°-90°	8396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8396.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3631	3631	3631	3631	3631	
5°	3627	3626	3612	3592	3581	343
15°	3418	3426	3418	3402	3379	963
25°	3035	3059	3073	3051	3024	1390
35°	2441	2475	2588	2602	2592	1530
45°	1890	1922	1985	2076	2087	1458
55°	1324	1346	1412	1490	1533	1182
65°	776	796	844	904	956	769
75°	311	328	352	368	389	340
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3631.1	3631.1	3631.1	3631.1	3631.1
2.5°	3640.8	3642.2	3633.8	3611.5	3597.6
5°	3626.9	3625.5	3611.5	3592.0	3580.8
7.5°	3586.4	3589.2	3585.0	3557.1	3541.8
10°	3547.4	3548.8	3537.6	3515.3	3497.1
12.5°	3497.1	3495.7	3480.4	3469.2	3439.9
15°	3417.6	3426.0	3417.6	3402.3	3378.6
17.5°	3340.9	3340.9	3346.5	3320.0	3301.8
20°	3254.4	3258.6	3258.6	3237.7	3216.8
22.5°	3154.0	3166.5	3170.7	3148.4	3123.3
25°	3035.4	3059.1	3073.1	3050.8	3024.3
27.5°	2891.7	2928.0	2969.8	2953.1	2923.8
30°	2731.3	2784.3	2854.1	2840.1	2819.2
32.5°	2579.3	2632.3	2728.5	2722.9	2711.8
35°	2441.2	2474.6	2587.6	2601.6	2591.8
37.5°	2310.0	2340.7	2446.7	2478.8	2470.5
40°	2171.9	2205.4	2289.1	2346.3	2349.1
42.5°	2035.2	2067.3	2135.7	2218.0	2218.0
45°	1890.2	1922.2	1985.0	2075.7	2086.8
47.5°	1747.9	1781.4	1842.7	1933.4	1951.5
50°	1608.4	1639.1	1700.4	1788.3	1816.2
52.5°	1463.3	1496.8	1556.8	1637.7	1678.1
55°	1323.8	1346.1	1411.7	1489.8	1533.0
57.5°	1178.7	1199.7	1273.6	1340.5	1385.2
60°	1039.2	1065.7	1122.9	1191.3	1242.9
62.5°	905.3	933.2	982.0	1042.0	1100.6
65°	775.6	796.5	843.9	903.9	955.5
67.5°	650.0	668.2	715.6	757.5	811.9
70°	523.1	546.8	581.7	622.1	657.0
72.5°	421.3	431.0	460.3	489.6	525.9
75°	311.1	327.8	351.5	368.3	389.2
77.5°	223.2	233.0	246.9	260.9	280.4
80°	149.3	153.4	166.0	168.8	184.1
82.5°	90.7	93.5	96.3	97.6	103.2
85°	48.8	48.8	48.8	46.0	46.0
87.5°	27.9	27.9	23.7	19.5	13.9
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)