

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: P558284

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-81-96-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: P558284  
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-LD4-3STD-35-UNV-81-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

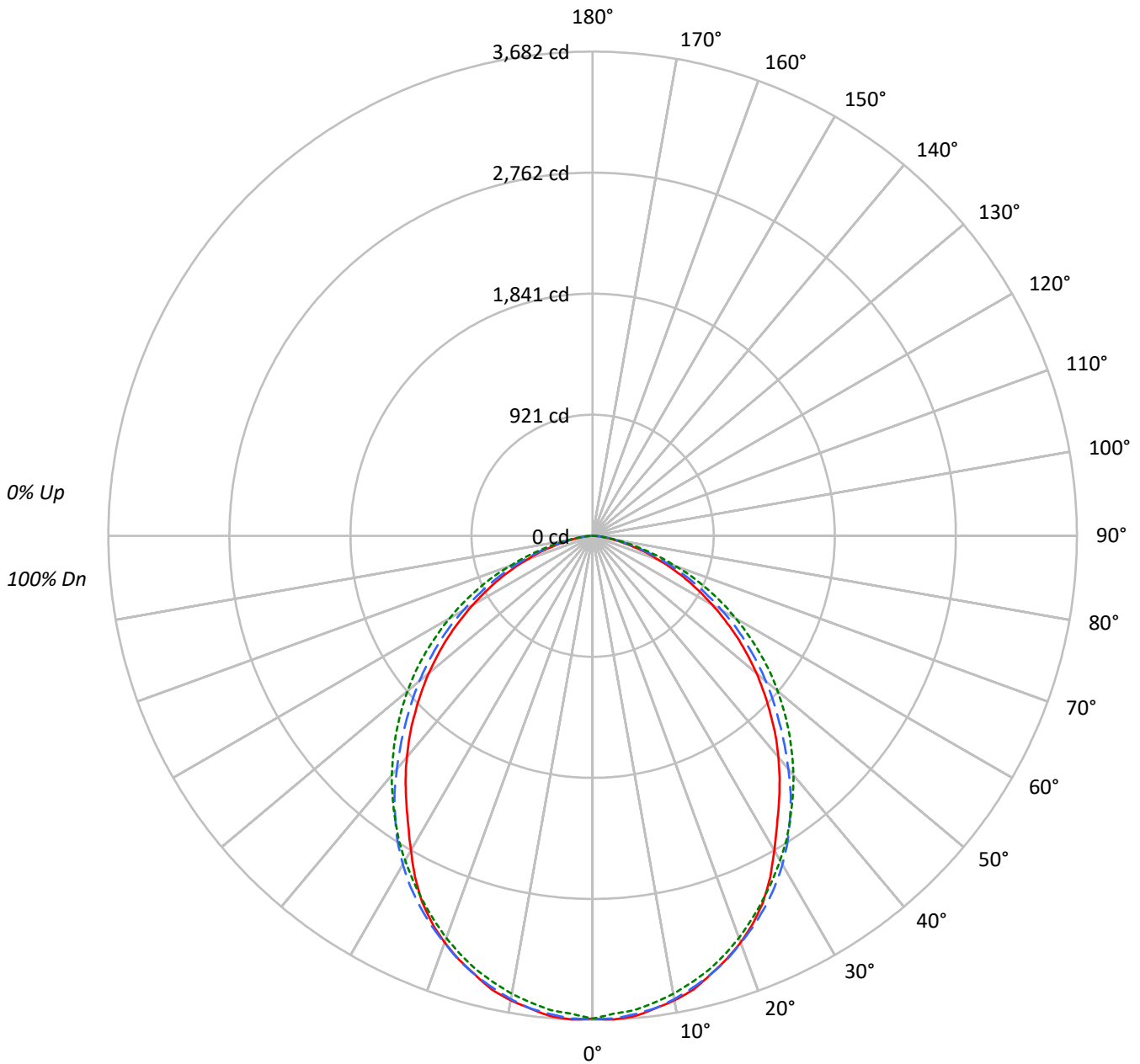
Lumens per Lamp: N/A  
Luminaire Lumens: 8491.0 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9882	9882	9882
5°	9908	9866	9782
10°	9803	9776	9664
15°	9629	9629	9519
20°	9425	9437	9316
25°	9115	9228	9081
30°	8583	8969	8859
35°	8110	8597	8611
40°	7716	8132	8345
45°	7274	7640	8032
50°	6810	7199	7690
55°	6281	6698	7274
60°	5656	6112	6765
65°	4995	5435	6153
70°	4162	4629	5228
75°	3271	3696	4092
80°	2338	2602	2885
85°	1525	1525	1439



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	345.7	4.1
10°-20°	971.3	11.4
20°-30°	1419.4	16.7
30°-40°	1611.1	19.0
40°-50°	1555.3	18.3
50°-60°	1283.0	15.1
60°-70°	854.4	10.1
70°-80°	382.3	4.5
80°-90°	68.4	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°	2736.4	32.2
0°-40°	4347.6	51.2
0°-60°	7185.9	84.6
0°-90°	8491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8491.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3672	3672	3672	3672	3672	
5°	3668	3666	3652	3633	3621	347
15°	3456	3465	3456	3441	3417	974
25°	3070	3094	3108	3085	3058	1406
35°	2469	2503	2617	2631	2621	1547
45°	1912	1944	2008	2099	2110	1475
55°	1339	1361	1428	1507	1550	1195
65°	784	806	854	914	966	778
75°	315	332	356	372	394	344
85°	49	49	49	47	47	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3672.1	3672.1	3672.1	3672.1	3672.1
2.5°	3682.0	3683.4	3675.0	3652.4	3638.3
5°	3667.9	3666.5	3652.4	3632.6	3621.4
7.5°	3627.0	3629.8	3625.6	3597.4	3581.9
10°	3587.5	3588.9	3577.6	3555.0	3536.7
12.5°	3536.7	3535.3	3519.8	3508.5	3478.9
15°	3456.3	3464.8	3456.3	3440.8	3416.8
17.5°	3378.7	3378.7	3384.3	3357.5	3339.2
20°	3291.2	3295.5	3295.5	3274.3	3253.2
22.5°	3189.7	3202.4	3206.6	3184.0	3158.6
25°	3069.8	3093.7	3107.8	3085.3	3058.5
27.5°	2924.4	2961.1	3003.5	2986.5	2956.9
30°	2762.2	2815.8	2886.4	2872.3	2851.1
32.5°	2608.4	2662.1	2759.4	2753.8	2742.5
35°	2468.8	2502.6	2616.9	2631.0	2621.1
37.5°	2336.2	2367.2	2474.4	2506.9	2498.4
40°	2196.5	2230.4	2315.0	2372.9	2375.7
42.5°	2058.3	2090.7	2159.8	2243.1	2243.1
45°	1911.5	1944.0	2007.5	2099.2	2110.5
47.5°	1767.6	1801.5	1863.6	1955.3	1973.6
50°	1626.6	1657.6	1719.7	1808.6	1836.8
52.5°	1479.9	1513.7	1574.4	1656.2	1697.1
55°	1338.8	1361.4	1427.7	1506.7	1550.4
57.5°	1192.1	1213.2	1288.0	1355.7	1400.9
60°	1051.0	1077.8	1135.6	1204.8	1257.0
62.5°	915.6	943.8	993.2	1053.8	1113.1
65°	784.4	805.5	853.5	914.2	966.4
67.5°	657.4	675.7	723.7	766.0	821.0
70°	529.0	553.0	588.3	629.2	664.5
72.5°	426.0	435.9	465.5	495.2	531.8
75°	314.6	331.5	355.5	372.4	393.6
77.5°	225.7	235.6	249.7	263.8	283.6
80°	150.9	155.2	167.9	170.7	186.2
82.5°	91.7	94.5	97.3	98.8	104.4
85°	49.4	49.4	49.4	46.6	46.6
87.5°	28.2	28.2	24.0	19.8	14.1
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)