

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: P558426

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-82-94-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: P558426  
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-50-UNV-82-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

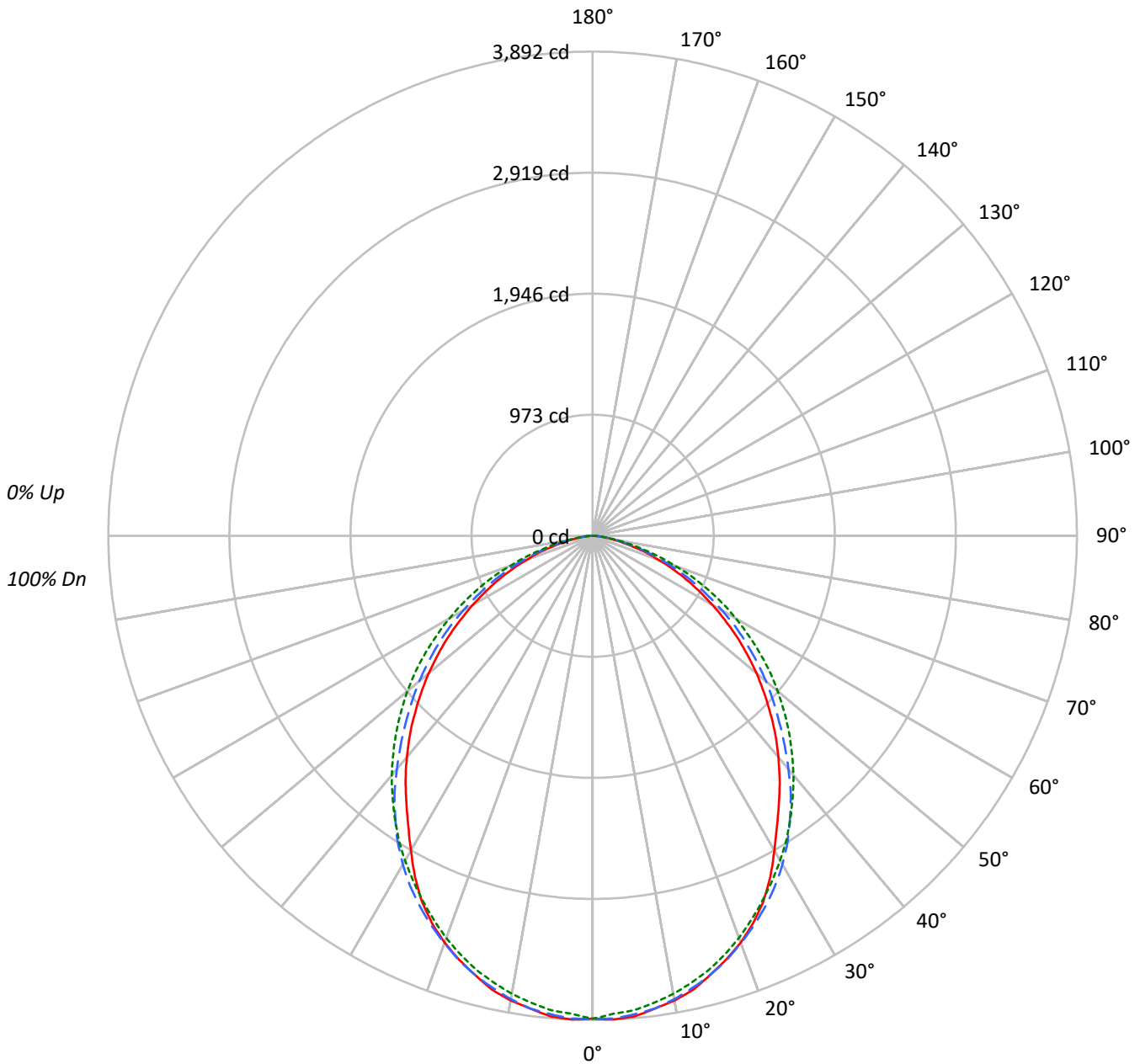
Lumens per Lamp: N/A  
Luminaire Lumens: 8976.0 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
Input Voltage (V): NR  
Input Current (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°	10446	10446	10446
5°	10474	10430	10341
10°	10363	10334	10216
15°	10179	10179	10063
20°	9963	9976	9848
25°	9635	9755	9600
30°	9073	9481	9365
35°	8573	9088	9103
40°	8157	8597	8822
45°	7690	8076	8490
50°	7199	7610	8129
55°	6640	7081	7689
60°	5979	6461	7152
65°	5280	5745	6504
70°	4400	4893	5526
75°	3458	3907	4326
80°	2473	2751	3051
85°	1612	1612	1519



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	365.5	4.1
10°-20°	1026.8	11.4
20°-30°	1500.5	16.7
30°-40°	1703.2	19.0
40°-50°	1644.1	18.3
50°-60°	1356.3	15.1
60°-70°	903.2	10.1
70°-80°	404.2	4.5
80°-90°	72.3	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°	2892.7	32.2
0°-40°	4595.9	51.2
0°-60°	7596.3	84.6
0°-90°	8976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8976.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3882	3882	3882	3882	3882	
5°	3877	3876	3861	3840	3828	367
15°	3654	3663	3654	3637	3612	1030
25°	3245	3270	3285	3262	3233	1486
35°	2610	2646	2766	2781	2771	1635
45°	2021	2055	2122	2219	2231	1559
55°	1415	1439	1509	1593	1639	1263
65°	829	852	902	966	1022	822
75°	333	350	376	394	416	364
85°	52	52	52	49	49	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3881.9	3881.9	3881.9	3881.9	3881.9
2.5°	3892.3	3893.8	3884.9	3861.0	3846.1
5°	3877.4	3875.9	3861.0	3840.1	3828.2
7.5°	3834.2	3837.1	3832.7	3802.8	3786.4
10°	3792.4	3793.9	3782.0	3758.1	3738.7
12.5°	3738.7	3737.2	3720.8	3708.9	3677.6
15°	3653.7	3662.7	3653.7	3637.3	3612.0
17.5°	3571.7	3571.7	3577.7	3549.3	3529.9
20°	3479.2	3483.7	3483.7	3461.3	3439.0
22.5°	3371.9	3385.3	3389.8	3365.9	3339.1
25°	3245.1	3270.4	3285.4	3261.5	3233.2
27.5°	3091.5	3130.3	3175.0	3157.1	3125.8
30°	2920.0	2976.7	3051.2	3036.3	3013.9
32.5°	2757.4	2814.1	2917.0	2911.0	2899.1
35°	2609.8	2645.6	2766.4	2781.3	2770.9
37.5°	2469.6	2502.4	2615.8	2650.1	2641.1
40°	2322.0	2357.8	2447.2	2508.4	2511.4
42.5°	2175.8	2210.1	2283.2	2371.2	2371.2
45°	2020.7	2055.0	2122.1	2219.1	2231.0
47.5°	1868.6	1904.4	1970.0	2067.0	2086.3
50°	1719.5	1752.3	1817.9	1911.9	1941.7
52.5°	1564.4	1600.2	1664.3	1750.8	1794.0
55°	1415.3	1439.1	1509.2	1592.7	1639.0
57.5°	1260.2	1282.5	1361.6	1433.2	1480.9
60°	1111.0	1139.4	1200.5	1273.6	1328.8
62.5°	967.9	997.7	1049.9	1114.0	1176.6
65°	829.2	851.5	902.2	966.4	1021.5
67.5°	695.0	714.3	765.0	809.8	867.9
70°	559.2	584.6	621.9	665.1	702.4
72.5°	450.4	460.8	492.1	523.5	562.2
75°	332.6	350.5	375.8	393.7	416.1
77.5°	238.6	249.0	264.0	278.9	299.8
80°	159.6	164.0	177.5	180.4	196.9
82.5°	96.9	99.9	102.9	104.4	110.4
85°	52.2	52.2	52.2	49.2	49.2
87.5°	29.8	29.8	25.4	20.9	14.9
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)