

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: P556412

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-96-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: P556412  
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-LD4-1LO-30-UNV-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

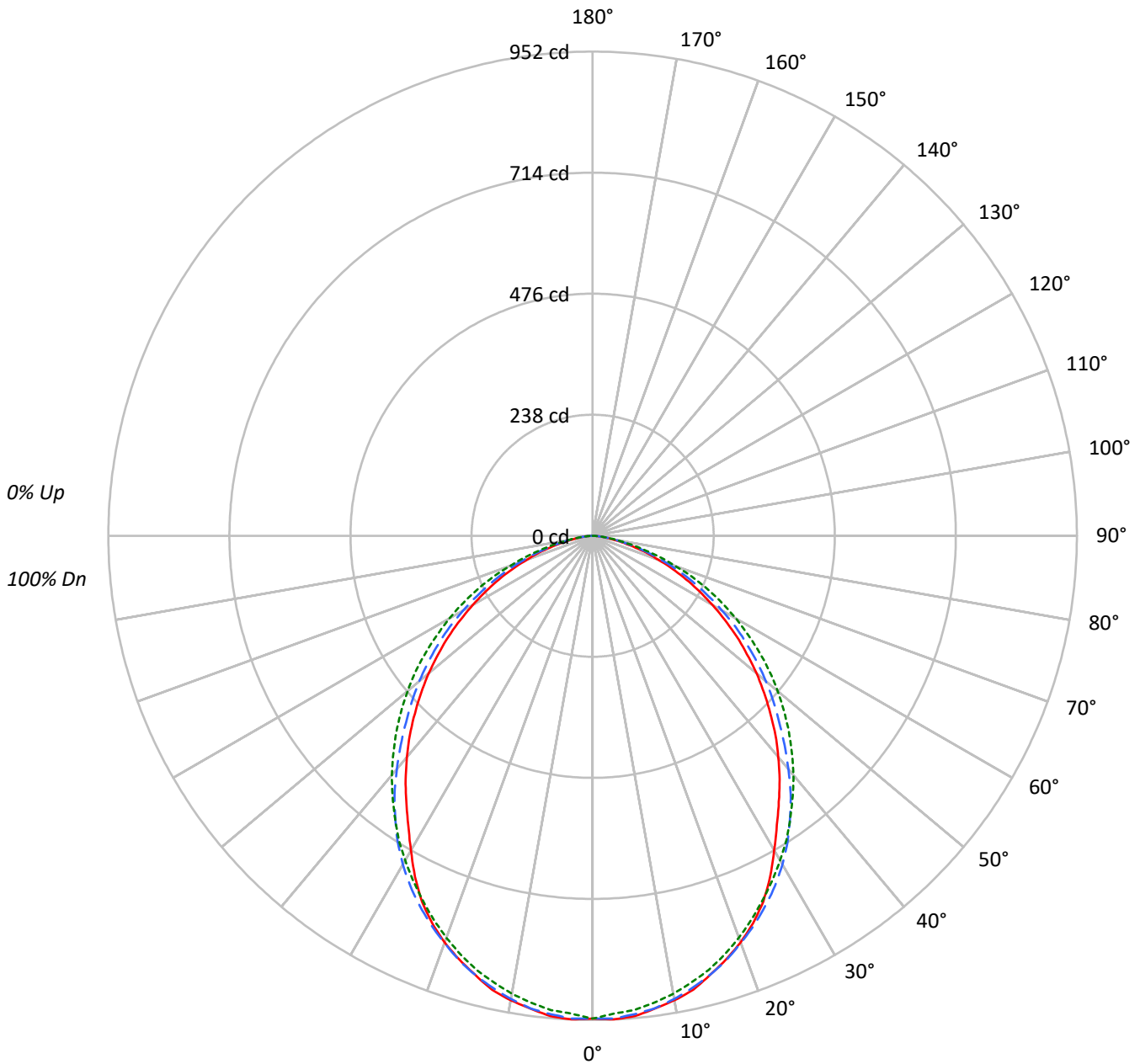
Lumens per Lamp: N/A  
Luminaire Lumens: 2195.0 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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				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				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°	2555	2555	2555
5°	2561	2551	2529
10°	2534	2527	2498
15°	2489	2489	2461
20°	2436	2440	2408
25°	2356	2385	2347
30°	2219	2319	2290
35°	2097	2222	2226
40°	1995	2102	2157
45°	1881	1975	2076
50°	1760	1861	1988
55°	1624	1732	1880
60°	1462	1580	1749
65°	1291	1405	1591
70°	1076	1197	1352
75°	845	955	1057
80°	604	673	745
85°	395	395	371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.4	4.1
10°-20°	251.1	11.4
20°-30°	366.9	16.7
30°-40°	416.5	19.0
40°-50°	402.1	18.3
50°-60°	331.7	15.1
60°-70°	220.9	10.1
70°-80°	98.8	4.5
80°-90°	17.7	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°	707.4	32.2
0°-40°	1123.9	51.2
0°-60°	1857.6	84.6
0°-90°	2195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2195.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	949	949	949	949	949	
5°	948	948	944	939	936	90
15°	894	896	894	890	883	252
25°	794	800	803	798	791	363
35°	638	647	676	680	678	400
45°	494	502	519	543	546	381
55°	346	352	369	390	401	309
65°	203	208	221	236	250	201
75°	81	86	92	96	102	89
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	949.3	949.3	949.3	949.3	949.3
2.5°	951.8	952.2	950.0	944.2	940.5
5°	948.2	947.8	944.2	939.1	936.2
7.5°	937.6	938.3	937.2	930.0	925.9
10°	927.4	927.8	924.8	919.0	914.3
12.5°	914.3	913.9	909.9	907.0	899.3
15°	893.5	895.7	893.5	889.5	883.3
17.5°	873.4	873.4	874.9	868.0	863.2
20°	850.8	851.9	851.9	846.4	841.0
22.5°	824.6	827.8	828.9	823.1	816.5
25°	793.6	799.8	803.4	797.6	790.6
27.5°	756.0	765.5	776.4	772.0	764.4
30°	714.1	727.9	746.2	742.5	737.0
32.5°	674.3	688.2	713.3	711.9	709.0
35°	638.2	647.0	676.5	680.1	677.6
37.5°	603.9	611.9	639.7	648.0	645.9
40°	567.8	576.6	598.5	613.4	614.1
42.5°	532.1	540.5	558.3	579.9	579.9
45°	494.2	502.5	518.9	542.7	545.6
47.5°	457.0	465.7	481.8	505.5	510.2
50°	420.5	428.5	444.6	467.5	474.8
52.5°	382.6	391.3	407.0	428.1	438.7
55°	346.1	351.9	369.1	389.5	400.8
57.5°	308.2	313.6	333.0	350.5	362.1
60°	271.7	278.6	293.6	311.4	324.9
62.5°	236.7	244.0	256.7	272.4	287.7
65°	202.8	208.2	220.6	236.3	249.8
67.5°	169.9	174.7	187.1	198.0	212.2
70°	136.8	143.0	152.1	162.7	171.8
72.5°	110.1	112.7	120.3	128.0	137.5
75°	81.3	85.7	91.9	96.3	101.7
77.5°	58.3	60.9	64.5	68.2	73.3
80°	39.0	40.1	43.4	44.1	48.1
82.5°	23.7	24.4	25.2	25.5	27.0
85°	12.8	12.8	12.8	12.0	12.0
87.5°	7.3	7.3	6.2	5.1	3.6
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)