

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: P556408

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-88-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: P556408  
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-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

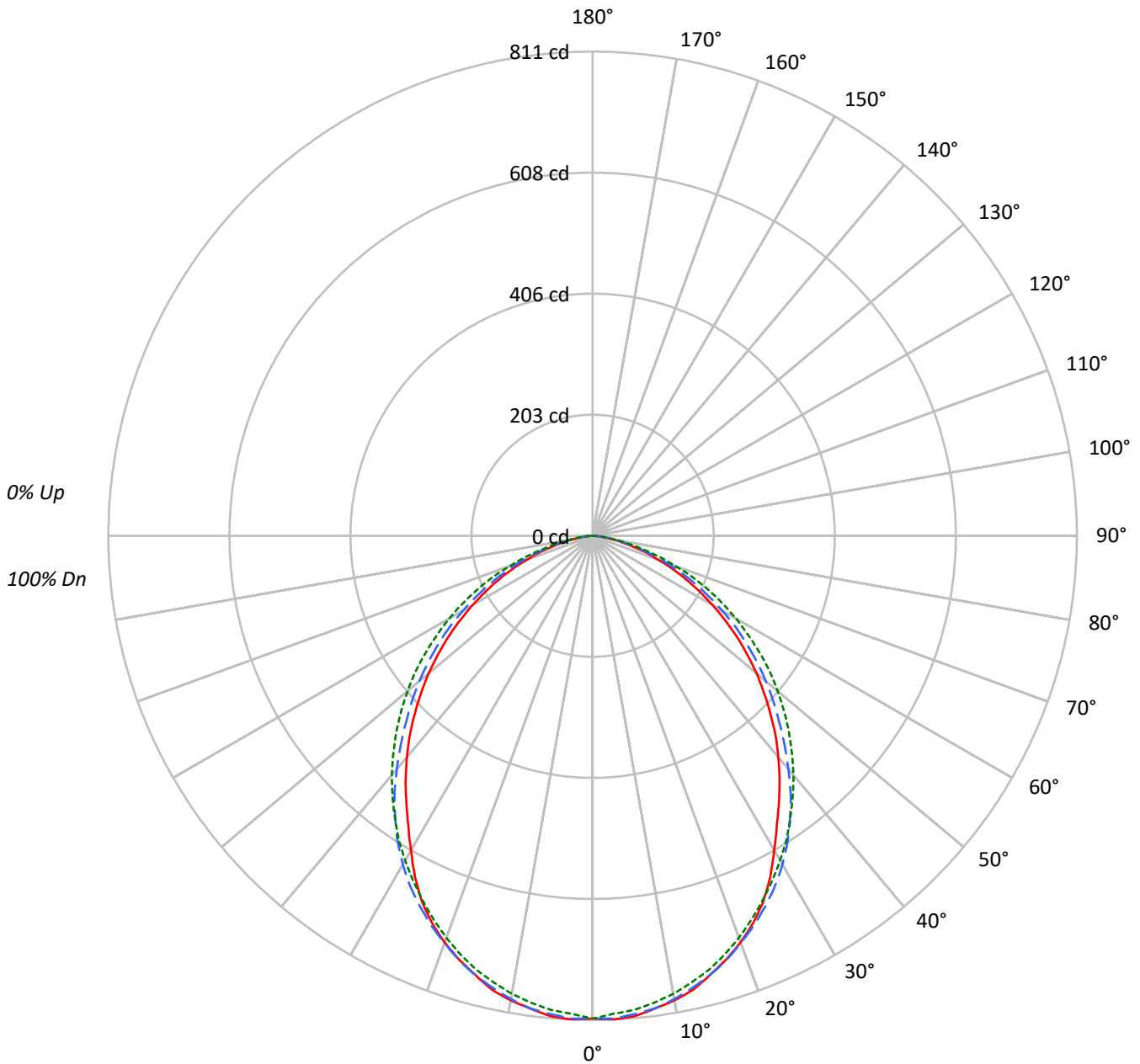
Lumens per Lamp: N/A  
Luminaire Lumens: 1870.0 lumens  
Efficiency: N/A  
Efficacy: 79.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (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°	2176	2176	2176
5°	2182	2173	2154
10°	2159	2153	2128
15°	2121	2121	2096
20°	2076	2078	2052
25°	2007	2032	2000
30°	1890	1975	1951
35°	1786	1893	1896
40°	1699	1791	1838
45°	1602	1682	1769
50°	1500	1585	1693
55°	1383	1475	1602
60°	1246	1346	1490
65°	1100	1197	1355
70°	917	1020	1151
75°	721	814	901
80°	514	573	635
85°	337	337	318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	4.1
10°-20°	213.9	11.4
20°-30°	312.6	16.7
30°-40°	354.8	19.0
40°-50°	342.5	18.3
50°-60°	282.6	15.1
60°-70°	188.2	10.1
70°-80°	84.2	4.5
80°-90°	15.1	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°	602.7	32.2
0°-40°	957.5	51.2
0°-60°	1582.6	84.6
0°-90°	1870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1870.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	808	808	804	800	798	76
15°	761	763	761	758	752	215
25°	676	681	684	680	674	310
35°	544	551	576	579	577	341
45°	421	428	442	462	465	325
55°	295	300	314	332	341	263
65°	173	177	188	201	213	171
75°	69	73	78	82	87	76
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	808.7	808.7	808.7	808.7	808.7
2.5°	810.9	811.2	809.3	804.4	801.3
5°	807.8	807.5	804.4	800.0	797.5
7.5°	798.8	799.4	798.5	792.3	788.8
10°	790.1	790.4	787.9	782.9	778.9
12.5°	778.9	778.6	775.2	772.7	766.2
15°	761.2	763.1	761.2	757.8	752.5
17.5°	744.1	744.1	745.3	739.4	735.4
20°	724.8	725.8	725.8	721.1	716.5
22.5°	702.5	705.3	706.2	701.2	695.6
25°	676.1	681.3	684.5	679.5	673.6
27.5°	644.1	652.1	661.5	657.7	651.2
30°	608.3	620.1	635.7	632.6	627.9
32.5°	574.5	586.3	607.7	606.5	604.0
35°	543.7	551.2	576.3	579.4	577.3
37.5°	514.5	521.3	545.0	552.1	550.2
40°	483.7	491.2	509.8	522.6	523.2
42.5°	453.3	460.4	475.7	494.0	494.0
45°	421.0	428.1	442.1	462.3	464.8
47.5°	389.3	396.8	410.4	430.6	434.7
50°	358.2	365.1	378.7	398.3	404.5
52.5°	325.9	333.4	346.7	364.8	373.8
55°	294.8	299.8	314.4	331.8	341.4
57.5°	262.5	267.2	283.7	298.6	308.5
60°	231.5	237.4	250.1	265.3	276.8
62.5°	201.6	207.9	218.7	232.1	245.1
65°	172.7	177.4	188.0	201.3	212.8
67.5°	144.8	148.8	159.4	168.7	180.8
70°	116.5	121.8	129.6	138.6	146.3
72.5°	93.8	96.0	102.5	109.1	117.1
75°	69.3	73.0	78.3	82.0	86.7
77.5°	49.7	51.9	55.0	58.1	62.4
80°	33.2	34.2	37.0	37.6	41.0
82.5°	20.2	20.8	21.4	21.7	23.0
85°	10.9	10.9	10.9	10.3	10.3
87.5°	6.2	6.2	5.3	4.3	3.1
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)