

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: P557466

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-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: P557466  
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-LD4-2STD-30-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 3000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

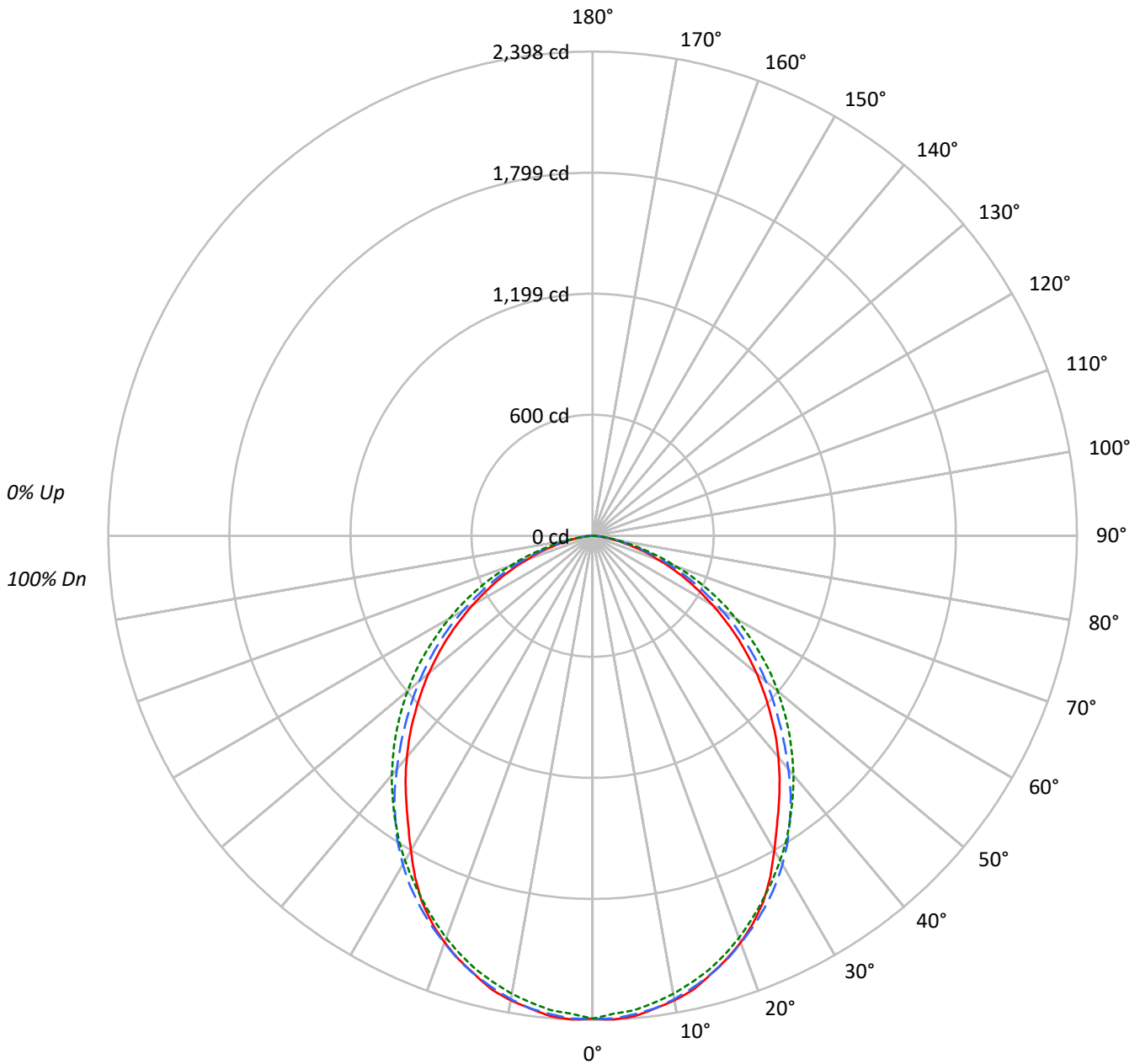
Lumens per Lamp: N/A  
Luminaire Lumens: 5530.0 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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									
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°	6436	6436	6436
5°	6453	6425	6371
10°	6384	6367	6294
15°	6271	6271	6199
20°	6138	6146	6067
25°	5936	6010	5914
30°	5590	5841	5770
35°	5282	5599	5608
40°	5025	5296	5435
45°	4738	4975	5231
50°	4435	4689	5008
55°	4091	4362	4737
60°	3684	3980	4406
65°	3252	3540	4008
70°	2710	3014	3404
75°	2130	2407	2665
80°	1523	1694	1880
85°	994	994	936



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.2	4.1
10°-20°	632.6	11.4
20°-30°	924.4	16.7
30°-40°	1049.3	19.0
40°-50°	1012.9	18.3
50°-60°	835.6	15.1
60°-70°	556.4	10.1
70°-80°	249.0	4.5
80°-90°	44.6	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°	1782.2	32.2
0°-40°	2831.5	51.2
0°-60°	4680.0	84.6
0°-90°	5530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5530.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2392	2392	2392	2392	2392	
5°	2389	2388	2379	2366	2358	226
15°	2251	2256	2251	2241	2225	635
25°	1999	2015	2024	2009	1992	916
35°	1608	1630	1704	1714	1707	1007
45°	1245	1266	1307	1367	1374	961
55°	872	887	930	981	1010	778
65°	511	525	556	595	629	507
75°	205	216	232	243	256	224
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2391.6	2391.6	2391.6	2391.6	2391.6
2.5°	2398.0	2398.9	2393.4	2378.7	2369.5
5°	2388.8	2387.9	2378.7	2365.9	2358.5
7.5°	2362.2	2364.0	2361.3	2342.9	2332.8
10°	2336.5	2337.4	2330.0	2315.3	2303.4
12.5°	2303.4	2302.5	2292.4	2285.0	2265.7
15°	2251.0	2256.5	2251.0	2240.9	2225.3
17.5°	2200.5	2200.5	2204.2	2186.7	2174.8
20°	2143.5	2146.3	2146.3	2132.5	2118.7
22.5°	2077.4	2085.6	2088.4	2073.7	2057.1
25°	1999.3	2014.9	2024.1	2009.4	1991.9
27.5°	1904.6	1928.5	1956.1	1945.1	1925.8
30°	1799.0	1833.9	1879.8	1870.6	1856.9
32.5°	1698.8	1733.7	1797.1	1793.5	1786.1
35°	1607.9	1629.9	1704.3	1713.5	1707.1
37.5°	1521.5	1541.7	1611.5	1632.7	1627.2
40°	1430.5	1452.6	1507.7	1545.4	1547.2
42.5°	1340.5	1361.6	1406.7	1460.9	1460.9
45°	1244.9	1266.1	1307.4	1367.1	1374.5
47.5°	1151.2	1173.3	1213.7	1273.4	1285.4
50°	1059.4	1079.6	1120.0	1177.9	1196.3
52.5°	963.8	985.9	1025.4	1078.6	1105.3
55°	871.9	886.6	929.8	981.3	1009.7
57.5°	776.4	790.2	838.8	882.9	912.3
60°	684.5	701.9	739.6	784.6	818.6
62.5°	596.3	614.7	646.8	686.3	724.9
65°	510.8	524.6	555.9	595.4	629.4
67.5°	428.2	440.1	471.3	498.9	534.7
70°	344.5	360.2	383.1	409.8	432.7
72.5°	277.5	283.9	303.2	322.5	346.4
75°	204.9	215.9	231.5	242.6	256.3
77.5°	147.0	153.4	162.6	171.8	184.7
80°	98.3	101.1	109.3	111.2	121.3
82.5°	59.7	61.6	63.4	64.3	68.0
85°	32.2	32.2	32.2	30.3	30.3
87.5°	18.4	18.4	15.6	12.9	9.2
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)