

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: P557210

Luminaire Tested: **FUSL-12-4-LD4-2LO-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: P557210  
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-LD4-2LO-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 LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

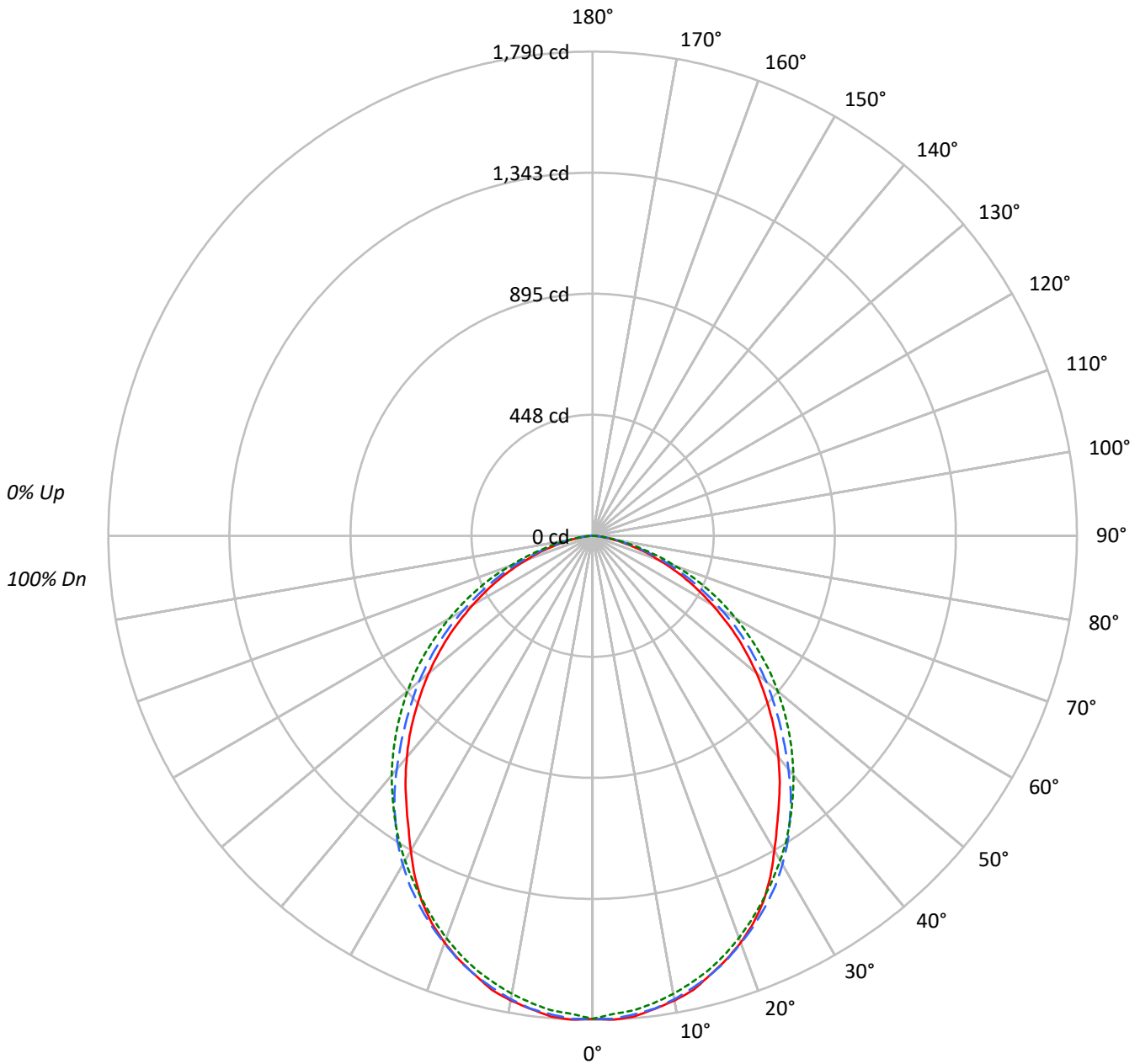
Lumens per Lamp: N/A  
Luminaire Lumens: 4129.0 lumens  
Efficiency: N/A  
Efficacy: 88.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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°	4805	4805	4805
5°	4818	4798	4757
10°	4767	4754	4699
15°	4682	4682	4629
20°	4583	4589	4530
25°	4432	4487	4416
30°	4174	4361	4308
35°	3944	4180	4187
40°	3752	3954	4058
45°	3537	3715	3906
50°	3311	3501	3739
55°	3054	3257	3537
60°	2751	2972	3289
65°	2429	2642	2992
70°	2024	2251	2542
75°	1591	1798	1990
80°	1137	1265	1404
85°	741	741	698



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.1	4.1
10°-20°	472.3	11.4
20°-30°	690.2	16.7
30°-40°	783.5	19.0
40°-50°	756.3	18.3
50°-60°	623.9	15.1
60°-70°	415.5	10.1
70°-80°	185.9	4.5
80°-90°	33.3	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°	1330.7	32.2
0°-40°	2114.1	51.2
0°-60°	3494.3	84.6
0°-90°	4129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4129.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1786	1786	1786	1786	1786	
5°	1784	1783	1776	1766	1761	169
15°	1681	1685	1681	1673	1662	474
25°	1493	1504	1511	1500	1487	684
35°	1200	1217	1272	1279	1275	752
45°	930	945	976	1021	1026	717
55°	651	662	694	733	754	581
65°	381	392	415	444	470	378
75°	153	161	173	181	191	167
85°	24	24	24	23	23	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1785.7	1785.7	1785.7	1785.7	1785.7
2.5°	1790.5	1791.2	1787.1	1776.1	1769.2
5°	1783.6	1782.9	1776.1	1766.5	1761.0
7.5°	1763.7	1765.1	1763.0	1749.3	1741.8
10°	1744.5	1745.2	1739.7	1728.7	1719.8
12.5°	1719.8	1719.1	1711.6	1706.1	1691.7
15°	1680.7	1684.8	1680.7	1673.2	1661.5
17.5°	1643.0	1643.0	1645.7	1632.7	1623.8
20°	1600.5	1602.5	1602.5	1592.2	1581.9
22.5°	1551.1	1557.2	1559.3	1548.3	1536.0
25°	1492.8	1504.4	1511.3	1500.3	1487.3
27.5°	1422.1	1439.9	1460.5	1452.3	1437.9
30°	1343.2	1369.3	1403.6	1396.7	1386.4
32.5°	1268.4	1294.5	1341.8	1339.1	1333.6
35°	1200.5	1217.0	1272.5	1279.4	1274.6
37.5°	1136.0	1151.1	1203.3	1219.0	1214.9
40°	1068.1	1084.6	1125.7	1153.9	1155.2
42.5°	1000.9	1016.7	1050.3	1090.8	1090.8
45°	929.5	945.3	976.2	1020.8	1026.3
47.5°	859.6	876.0	906.2	950.8	959.7
50°	791.0	806.1	836.2	879.5	893.2
52.5°	719.6	736.1	765.6	805.4	825.3
55°	651.0	662.0	694.2	732.7	753.9
57.5°	579.7	590.0	626.3	659.3	681.2
60°	511.1	524.1	552.2	585.9	611.2
62.5°	445.2	458.9	483.0	512.4	541.3
65°	381.4	391.7	415.0	444.5	469.9
67.5°	319.7	328.6	351.9	372.5	399.3
70°	257.3	268.9	286.1	306.0	323.1
72.5°	207.2	212.0	226.4	240.8	258.6
75°	153.0	161.2	172.9	181.1	191.4
77.5°	109.8	114.6	121.4	128.3	137.9
80°	73.4	75.5	81.6	83.0	90.6
82.5°	44.6	46.0	47.3	48.0	50.8
85°	24.0	24.0	24.0	22.6	22.6
87.5°	13.7	13.7	11.7	9.6	6.9
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)