

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: P557276

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-82-96-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: P557276  
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-35-UNV-82-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

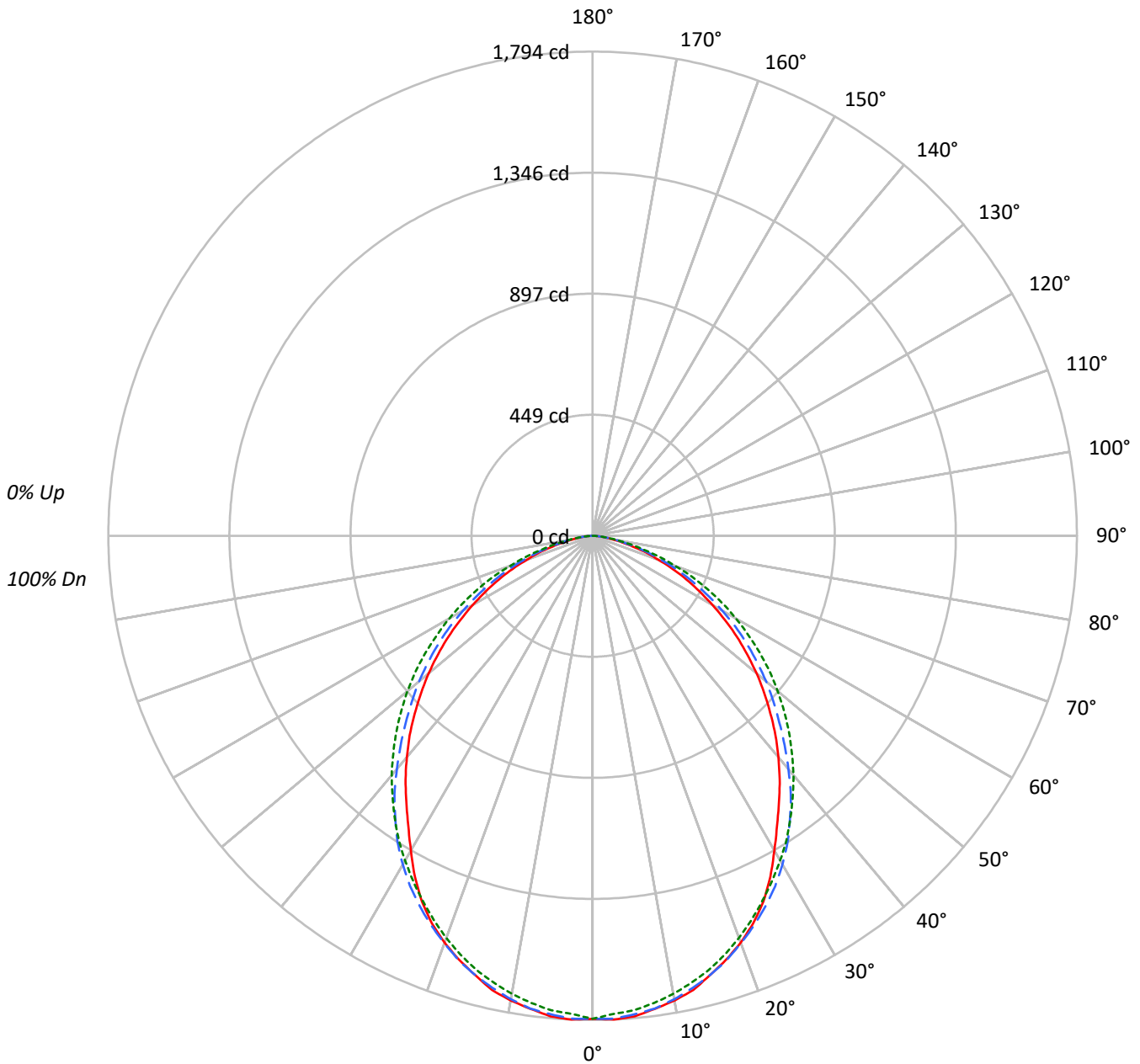
Lumens per Lamp: N/A  
Luminaire Lumens: 4138.0 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (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°	4816	4816	4816
5°	4828	4808	4767
10°	4777	4764	4710
15°	4693	4693	4639
20°	4593	4599	4540
25°	4442	4497	4426
30°	4183	4371	4317
35°	3952	4189	4196
40°	3760	3963	4067
45°	3545	3723	3914
50°	3319	3509	3747
55°	3061	3264	3545
60°	2757	2978	3297
65°	2434	2648	2998
70°	2028	2256	2548
75°	1594	1802	1994
80°	1141	1268	1407
85°	744	744	701



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.5	4.1
10°-20°	473.3	11.4
20°-30°	691.7	16.7
30°-40°	785.2	19.0
40°-50°	758.0	18.3
50°-60°	625.3	15.1
60°-70°	416.4	10.1
70°-80°	186.3	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°	1333.6	32.2
0°-40°	2118.7	51.2
0°-60°	3502.0	84.6
0°-90°	4138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4138.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1790	1790	1790	1790	1790	
5°	1788	1787	1780	1770	1765	169
15°	1684	1688	1684	1677	1665	475
25°	1496	1508	1515	1504	1490	685
35°	1203	1220	1275	1282	1277	754
45°	932	947	978	1023	1028	719
55°	652	663	696	734	756	582
65°	382	393	416	446	471	379
75°	153	162	173	182	192	168
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°	1789.6	1789.6	1789.6	1789.6	1789.6
2.5°	1794.4	1795.1	1791.0	1780.0	1773.1
5°	1787.5	1786.8	1780.0	1770.3	1764.8
7.5°	1767.6	1769.0	1766.9	1753.1	1745.6
10°	1748.3	1749.0	1743.5	1732.5	1723.6
12.5°	1723.6	1722.9	1715.3	1709.8	1695.4
15°	1684.4	1688.5	1684.4	1676.8	1665.1
17.5°	1646.6	1646.6	1649.3	1636.3	1627.3
20°	1604.0	1606.0	1606.0	1595.7	1585.4
22.5°	1554.5	1560.6	1562.7	1551.7	1539.3
25°	1496.0	1507.7	1514.6	1503.6	1490.5
27.5°	1425.2	1443.1	1463.7	1455.5	1441.0
30°	1346.1	1372.3	1406.6	1399.8	1389.4
32.5°	1271.2	1297.3	1344.8	1342.0	1336.5
35°	1203.1	1219.6	1275.3	1282.2	1277.4
37.5°	1138.5	1153.6	1205.9	1221.7	1217.6
40°	1070.4	1086.9	1128.2	1156.4	1157.8
42.5°	1003.1	1018.9	1052.6	1093.1	1093.1
45°	931.6	947.4	978.3	1023.0	1028.5
47.5°	861.4	877.9	908.2	952.9	961.8
50°	792.7	807.8	838.1	881.4	895.1
52.5°	721.2	737.7	767.3	807.1	827.1
55°	652.4	663.4	695.8	734.3	755.6
57.5°	580.9	591.3	627.7	660.7	682.7
60°	512.2	525.3	553.4	587.1	612.6
62.5°	446.2	459.9	484.0	513.6	542.4
65°	382.3	392.6	415.9	445.5	470.9
67.5°	320.4	329.3	352.7	373.3	400.1
70°	257.8	269.5	286.7	306.6	323.8
72.5°	207.6	212.4	226.9	241.3	259.2
75°	153.3	161.6	173.3	181.5	191.8
77.5°	110.0	114.8	121.7	128.6	138.2
80°	73.6	75.6	81.8	83.2	90.8
82.5°	44.7	46.1	47.4	48.1	50.9
85°	24.1	24.1	24.1	22.7	22.7
87.5°	13.8	13.8	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)