

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: P557274

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-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: P557274  
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-82-94-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 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

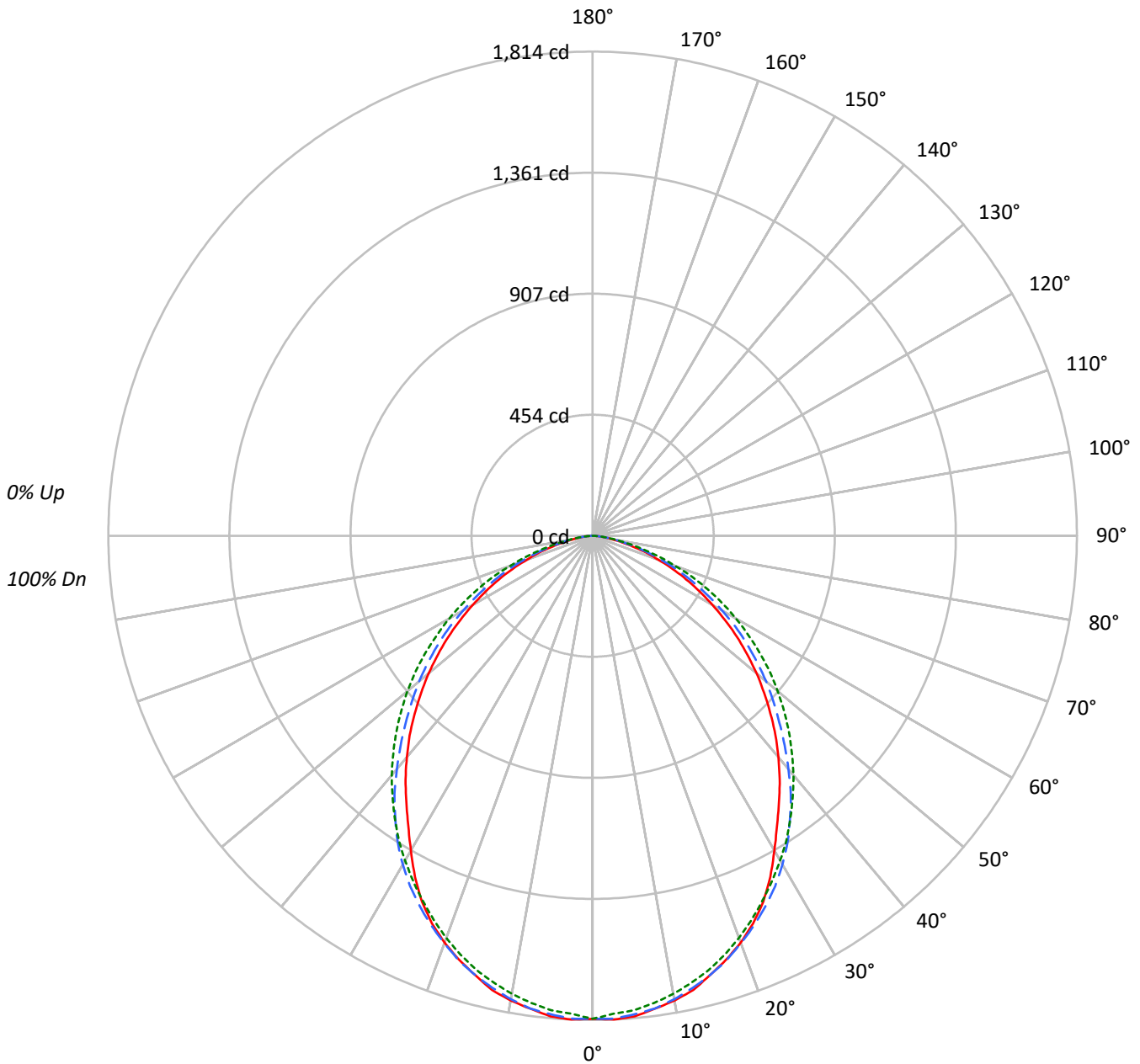
Lumens per Lamp: N/A  
Luminaire Lumens: 4184.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	4869	4869	4869
5°	4882	4861	4820
10°	4830	4817	4762
15°	4745	4745	4691
20°	4644	4650	4590
25°	4491	4547	4475
30°	4229	4419	4365
35°	3996	4236	4243
40°	3802	4007	4112
45°	3585	3765	3957
50°	3355	3548	3789
55°	3095	3301	3584
60°	2787	3012	3334
65°	2461	2678	3032
70°	2051	2281	2576
75°	1612	1822	2016
80°	1153	1282	1423
85°	750	750	707



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.4	4.1
10°-20°	478.6	11.4
20°-30°	699.4	16.7
30°-40°	793.9	19.0
40°-50°	766.4	18.3
50°-60°	632.2	15.1
60°-70°	421.0	10.1
70°-80°	188.4	4.5
80°-90°	33.7	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°	1348.4	32.2
0°-40°	2142.3	51.2
0°-60°	3540.9	84.6
0°-90°	4184.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4184.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1810	1810	1810	1810	1810	
5°	1807	1807	1800	1790	1784	171
15°	1703	1707	1703	1696	1684	480
25°	1513	1524	1531	1520	1507	693
35°	1216	1233	1290	1296	1292	762
45°	942	958	989	1034	1040	727
55°	660	671	704	742	764	589
65°	386	397	421	450	476	383
75°	155	163	175	184	194	169
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1809.5	1809.5	1809.5	1809.5	1809.5
2.5°	1814.3	1815.0	1810.9	1799.7	1792.8
5°	1807.4	1806.7	1799.7	1790.0	1784.4
7.5°	1787.2	1788.6	1786.5	1772.6	1765.0
10°	1767.8	1768.5	1762.9	1751.8	1742.7
12.5°	1742.7	1742.0	1734.4	1728.8	1714.2
15°	1703.1	1707.3	1703.1	1695.5	1683.7
17.5°	1664.9	1664.9	1667.7	1654.5	1645.4
20°	1621.8	1623.9	1623.9	1613.4	1603.0
22.5°	1571.7	1578.0	1580.1	1569.0	1556.4
25°	1512.6	1524.5	1531.4	1520.3	1507.1
27.5°	1441.0	1459.1	1480.0	1471.6	1457.0
30°	1361.1	1387.5	1422.3	1415.3	1404.9
32.5°	1285.3	1311.7	1359.7	1356.9	1351.4
35°	1216.5	1233.2	1289.5	1296.5	1291.6
37.5°	1151.2	1166.5	1219.3	1235.3	1231.1
40°	1082.3	1099.0	1140.7	1169.2	1170.6
42.5°	1014.2	1030.2	1064.3	1105.3	1105.3
45°	941.9	957.9	989.2	1034.4	1039.9
47.5°	871.0	887.7	918.3	963.5	972.5
50°	801.5	816.8	847.4	891.2	905.1
52.5°	729.2	745.9	775.8	816.1	836.3
55°	659.7	670.8	703.5	742.4	764.0
57.5°	587.4	597.8	634.7	668.0	690.3
60°	517.9	531.1	559.6	593.7	619.4
62.5°	451.2	465.1	489.4	519.3	548.5
65°	386.5	396.9	420.6	450.5	476.2
67.5°	323.9	333.0	356.6	377.5	404.6
70°	260.7	272.5	289.9	310.0	327.4
72.5°	209.9	214.8	229.4	244.0	262.1
75°	155.0	163.4	175.2	183.5	193.9
77.5°	111.2	116.1	123.0	130.0	139.7
80°	74.4	76.5	82.7	84.1	91.8
82.5°	45.2	46.6	48.0	48.7	51.4
85°	24.3	24.3	24.3	22.9	22.9
87.5°	13.9	13.9	11.8	9.7	7.0
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)