

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: P554842

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-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: P554842  
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-12-2-LD4-2HI-50-UNV-82-94-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

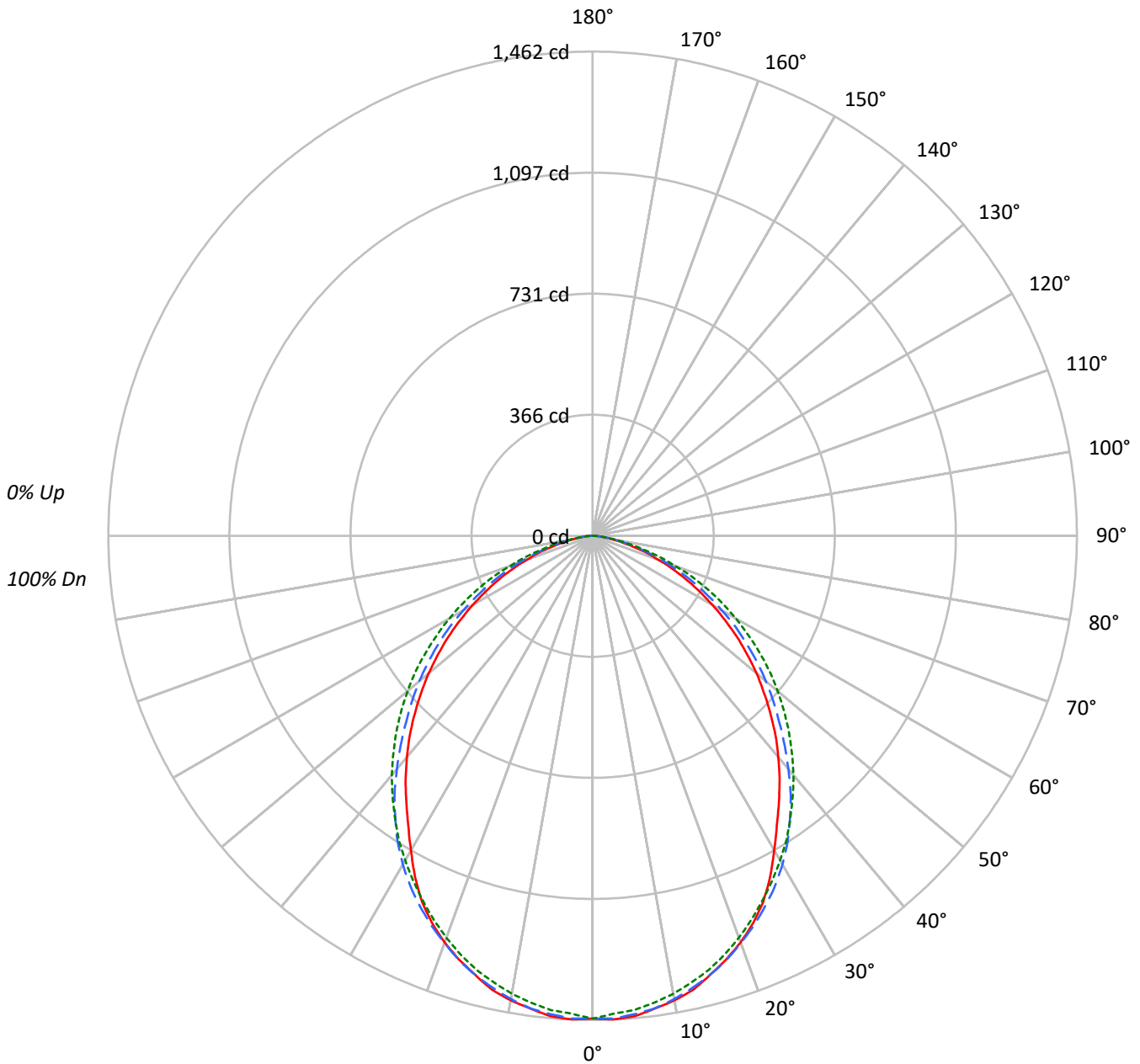
Lumens per Lamp: N/A  
Luminaire Lumens: 3371.0 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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°	7846	7846	7846
5°	7867	7834	7767
10°	7784	7762	7673
15°	7646	7646	7558
20°	7484	7493	7397
25°	7237	7327	7210
30°	6815	7121	7034
35°	6439	6826	6837
40°	6126	6457	6627
45°	5776	6066	6377
50°	5407	5716	6105
55°	4987	5318	5775
60°	4492	4853	5371
65°	3966	4315	4886
70°	3305	3676	4151
75°	2597	2934	3250
80°	1857	2064	2290
85°	1210	1210	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.3	4.1
10°-20°	385.6	11.4
20°-30°	563.5	16.7
30°-40°	639.6	19.0
40°-50°	617.5	18.3
50°-60°	509.4	15.1
60°-70°	339.2	10.1
70°-80°	151.8	4.5
80°-90°	27.1	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°	1086.4	32.2
0°-40°	1726.0	51.2
0°-60°	2852.9	84.6
0°-90°	3371.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3371.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1456	1456	1450	1442	1438	138
15°	1372	1376	1372	1366	1356	387
25°	1219	1228	1234	1225	1214	558
35°	980	994	1039	1044	1041	614
45°	759	772	797	833	838	586
55°	532	540	567	598	616	474
65°	311	320	339	363	384	309
75°	125	132	141	148	156	137
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1457.9	1457.9	1457.9	1457.9	1457.9
2.5°	1461.8	1462.4	1459.0	1450.0	1444.4
5°	1456.2	1455.6	1450.0	1442.2	1437.7
7.5°	1439.9	1441.1	1439.4	1428.2	1422.0
10°	1424.3	1424.8	1420.3	1411.4	1404.1
12.5°	1404.1	1403.5	1397.4	1392.9	1381.1
15°	1372.2	1375.5	1372.2	1366.0	1356.5
17.5°	1341.4	1341.4	1343.6	1333.0	1325.7
20°	1306.7	1308.3	1308.3	1299.9	1291.5
22.5°	1266.3	1271.4	1273.0	1264.1	1254.0
25°	1218.7	1228.2	1233.8	1224.9	1214.2
27.5°	1161.0	1175.6	1192.4	1185.7	1173.9
30°	1096.6	1117.9	1145.9	1140.3	1131.9
32.5°	1035.6	1056.9	1095.5	1093.3	1088.8
35°	980.1	993.6	1038.9	1044.5	1040.6
37.5°	927.5	939.8	982.4	995.3	991.9
40°	872.0	885.5	919.1	942.0	943.2
42.5°	817.1	830.0	857.5	890.5	890.5
45°	758.9	771.8	797.0	833.4	837.9
47.5°	701.8	715.2	739.9	776.3	783.5
50°	645.8	658.1	682.7	718.0	729.2
52.5°	587.5	601.0	625.0	657.5	673.8
55°	531.5	540.5	566.8	598.2	615.5
57.5°	473.3	481.7	511.3	538.2	556.2
60°	417.3	427.9	450.9	478.3	499.0
62.5°	363.5	374.7	394.3	418.4	441.9
65°	311.4	319.8	338.8	362.9	383.7
67.5°	261.0	268.3	287.3	304.1	326.0
70°	210.0	219.5	233.6	249.8	263.8
72.5°	169.1	173.1	184.8	196.6	211.1
75°	124.9	131.6	141.1	147.9	156.3
77.5°	89.6	93.5	99.1	104.7	112.6
80°	59.9	61.6	66.6	67.8	73.9
82.5°	36.4	37.5	38.6	39.2	41.4
85°	19.6	19.6	19.6	18.5	18.5
87.5°	11.2	11.2	9.5	7.8	5.6
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)