

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: P554755

Luminaire Tested: **FUSL-12-2-LD4-2HI-40-UNV-81-85-EDD**

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: P554755  
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-40-UNV-81-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187  
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

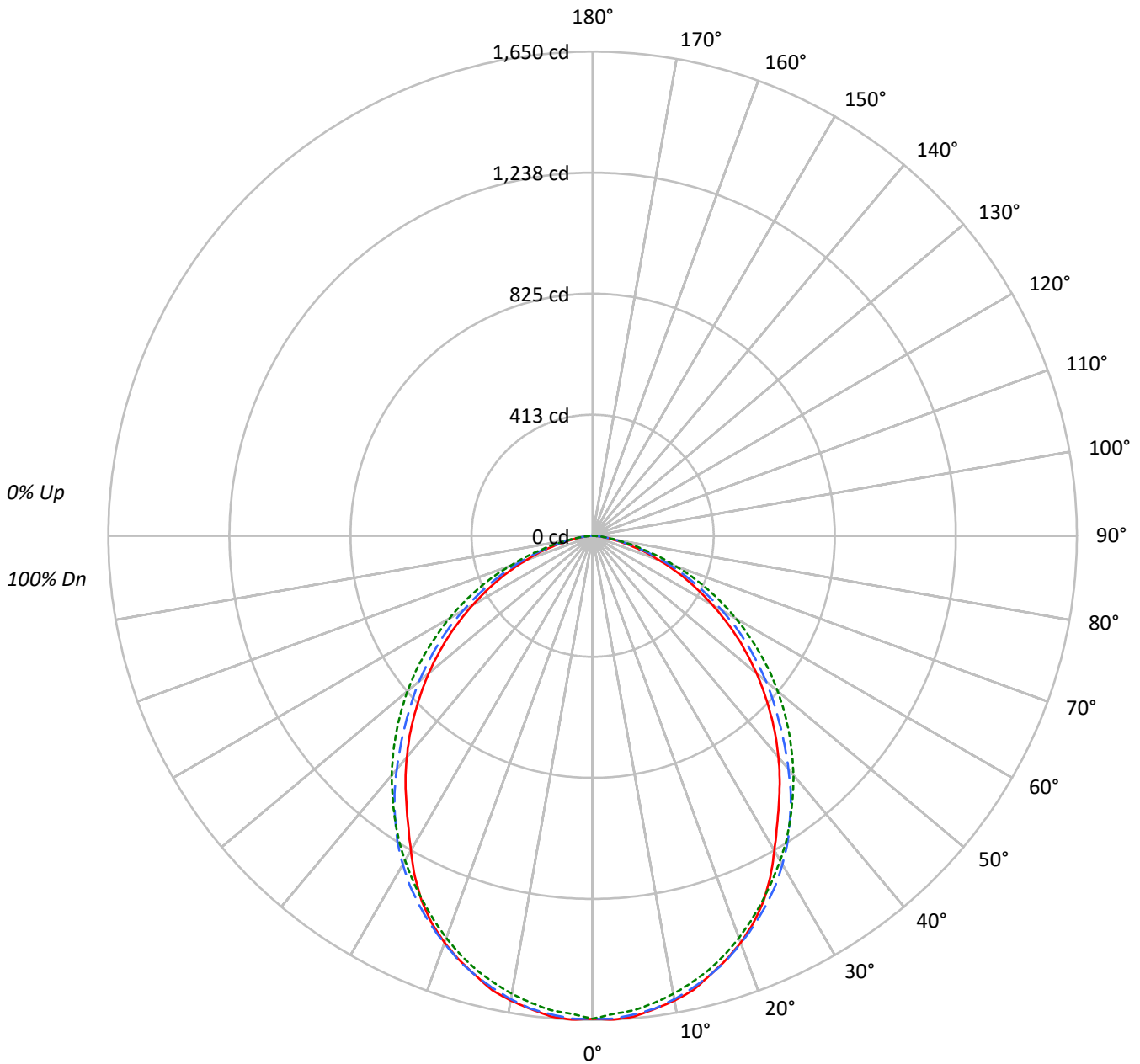
Lumens per Lamp: N/A  
Luminaire Lumens: 3806.0 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (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°	8859	8859	8859
5°	8882	8844	8769
10°	8788	8764	8664
15°	8632	8632	8533
20°	8450	8460	8352
25°	8171	8273	8141
30°	7694	8040	7942
35°	7271	7707	7719
40°	6917	7291	7482
45°	6521	6849	7200
50°	6105	6454	6893
55°	5631	6004	6520
60°	5071	5479	6064
65°	4478	4872	5517
70°	3731	4150	4686
75°	2932	3315	3668
80°	2098	2331	2588
85°	1365	1365	1291



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.0	4.1
10°-20°	435.4	11.4
20°-30°	636.2	16.7
30°-40°	722.2	19.0
40°-50°	697.1	18.3
50°-60°	575.1	15.1
60°-70°	383.0	10.1
70°-80°	171.4	4.5
80°-90°	30.7	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°	1226.6	32.2
0°-40°	1948.7	51.2
0°-60°	3221.0	84.6
0°-90°	3806.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3806.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1646	1646	1646	1646	1646	
5°	1644	1644	1637	1628	1623	156
15°	1549	1553	1549	1542	1532	437
25°	1376	1387	1393	1383	1371	630
35°	1107	1122	1173	1179	1175	693
45°	857	871	900	941	946	661
55°	600	610	640	675	695	536
65°	352	361	383	410	433	349
75°	141	149	159	167	176	154
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1646.0	1646.0	1646.0	1646.0	1646.0
2.5°	1650.4	1651.1	1647.3	1637.1	1630.8
5°	1644.1	1643.5	1637.1	1628.3	1623.2
7.5°	1625.8	1627.0	1625.1	1612.5	1605.5
10°	1608.1	1608.7	1603.6	1593.5	1585.3
12.5°	1585.3	1584.7	1577.7	1572.6	1559.4
15°	1549.2	1553.0	1549.2	1542.3	1531.5
17.5°	1514.5	1514.5	1517.0	1505.0	1496.8
20°	1475.3	1477.2	1477.2	1467.7	1458.2
22.5°	1429.7	1435.4	1437.3	1427.2	1415.8
25°	1376.0	1386.7	1393.1	1382.9	1370.9
27.5°	1310.9	1327.3	1346.3	1338.7	1325.4
30°	1238.1	1262.2	1293.8	1287.5	1278.0
32.5°	1169.2	1193.2	1236.9	1234.3	1229.3
35°	1106.6	1121.8	1173.0	1179.3	1174.9
37.5°	1047.2	1061.1	1109.1	1123.7	1119.9
40°	984.6	999.7	1037.7	1063.6	1064.9
42.5°	922.6	937.1	968.1	1005.4	1005.4
45°	856.8	871.4	899.8	940.9	946.0
47.5°	792.3	807.5	835.3	876.4	884.7
50°	729.1	743.0	770.8	810.7	823.3
52.5°	663.3	678.5	705.7	742.4	760.7
55°	600.1	610.2	639.9	675.3	694.9
57.5°	534.3	543.8	577.3	607.7	627.9
60°	471.1	483.1	509.0	540.0	563.4
62.5°	410.4	423.0	445.2	472.4	498.9
65°	351.6	361.1	382.6	409.8	433.2
67.5°	294.7	302.9	324.4	343.4	368.0
70°	237.1	247.9	263.7	282.0	297.8
72.5°	191.0	195.4	208.7	222.0	238.4
75°	141.0	148.6	159.4	166.9	176.4
77.5°	101.2	105.6	111.9	118.2	127.1
80°	67.7	69.6	75.2	76.5	83.5
82.5°	41.1	42.4	43.6	44.3	46.8
85°	22.1	22.1	22.1	20.9	20.9
87.5°	12.6	12.6	10.7	8.9	6.3
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)