

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: P554839

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-UNV-82-87-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: P554839  
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-82-87-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

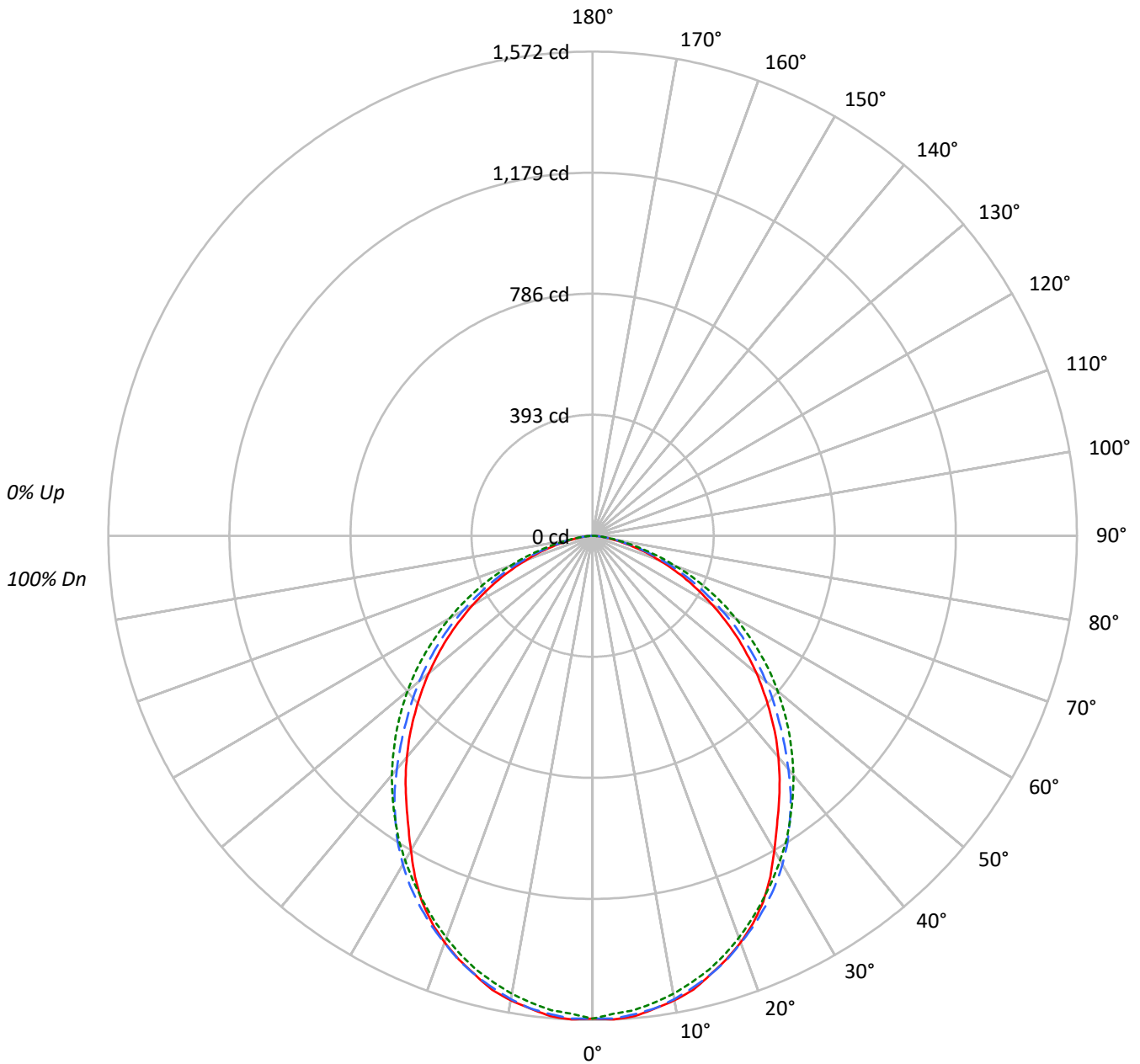
Lumens per Lamp: N/A  
Luminaire Lumens: 3625.0 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	8437	8437	8437
5°	8460	8424	8352
10°	8370	8347	8252
15°	8222	8222	8128
20°	8048	8058	7954
25°	7782	7879	7754
30°	7329	7658	7564
35°	6925	7340	7352
40°	6588	6943	7125
45°	6212	6523	6858
50°	5814	6147	6566
55°	5363	5719	6211
60°	4830	5218	5776
65°	4265	4641	5254
70°	3555	3951	4464
75°	2793	3157	3493
80°	1996	2222	2464
85°	1303	1303	1229



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.6	4.1
10°-20°	414.7	11.4
20°-30°	606.0	16.7
30°-40°	687.8	19.0
40°-50°	664.0	18.3
50°-60°	547.8	15.1
60°-70°	364.8	10.1
70°-80°	163.2	4.5
80°-90°	29.2	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°	1168.2	32.2
0°-40°	1856.1	51.2
0°-60°	3067.8	84.6
0°-90°	3625.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3625.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1568	1568	1568	1568	1568	
5°	1566	1565	1559	1551	1546	148
15°	1476	1479	1476	1469	1459	416
25°	1310	1321	1327	1317	1306	600
35°	1054	1068	1117	1123	1119	660
45°	816	830	857	896	901	630
55°	572	581	610	643	662	510
65°	335	344	364	390	413	332
75°	134	142	152	159	168	147
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1567.7	1567.7	1567.7	1567.7	1567.7
2.5°	1571.9	1572.5	1568.9	1559.3	1553.3
5°	1565.9	1565.3	1559.3	1550.9	1546.0
7.5°	1548.4	1549.7	1547.8	1535.8	1529.2
10°	1531.6	1532.2	1527.4	1517.7	1509.9
12.5°	1509.9	1509.3	1502.7	1497.9	1485.2
15°	1475.6	1479.2	1475.6	1468.9	1458.7
17.5°	1442.4	1442.4	1444.9	1433.4	1425.6
20°	1405.1	1406.9	1406.9	1397.9	1388.8
22.5°	1361.7	1367.2	1369.0	1359.3	1348.5
25°	1310.5	1320.8	1326.8	1317.2	1305.7
27.5°	1248.5	1264.2	1282.2	1275.0	1262.4
30°	1179.3	1202.1	1232.3	1226.2	1217.2
32.5°	1113.6	1136.5	1178.0	1175.6	1170.8
35°	1054.0	1068.4	1117.2	1123.2	1119.0
37.5°	997.4	1010.6	1056.4	1070.2	1066.6
40°	937.7	952.2	988.3	1013.0	1014.2
42.5°	878.7	892.6	922.1	957.6	957.6
45°	816.1	829.9	857.0	896.2	901.0
47.5°	754.6	769.1	795.6	834.8	842.6
50°	694.4	707.7	734.2	772.1	784.2
52.5°	631.8	646.2	672.1	707.1	724.5
55°	571.6	581.2	609.5	643.2	661.9
57.5°	508.9	518.0	549.9	578.8	598.1
60°	448.7	460.1	484.8	514.3	536.6
62.5°	390.9	402.9	424.0	449.9	475.2
65°	334.9	343.9	364.4	390.3	412.6
67.5°	280.7	288.5	309.0	327.0	350.5
70°	225.9	236.1	251.1	268.6	283.7
72.5°	181.9	186.1	198.8	211.4	227.1
75°	134.3	141.5	151.8	159.0	168.0
77.5°	96.4	100.6	106.6	112.6	121.1
80°	64.4	66.3	71.7	72.9	79.5
82.5°	39.1	40.4	41.6	42.2	44.6
85°	21.1	21.1	21.1	19.9	19.9
87.5°	12.0	12.0	10.2	8.4	6.0
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)