

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: P554817

Luminaire Tested: **FUSL-12-2-LD4-2HI-50-UNV-81-84-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: P554817  
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-81-84-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

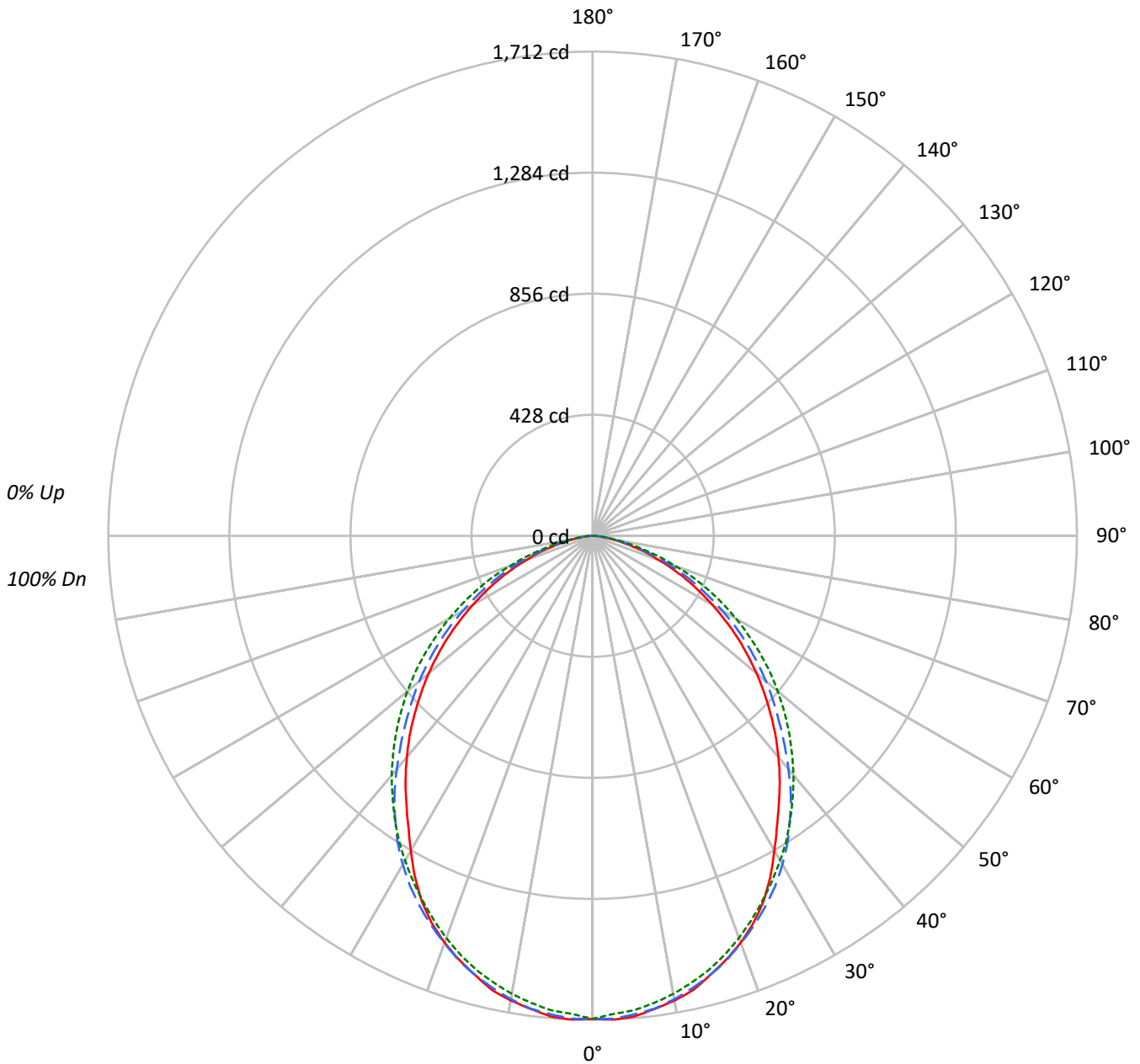
Lumens per Lamp: N/A  
Luminaire Lumens: 3949.0 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	9191	9191	9191
5°	9216	9177	9099
10°	9118	9093	8989
15°	8957	8957	8854
20°	8767	8778	8665
25°	8478	8583	8447
30°	7984	8342	8240
35°	7544	7997	8009
40°	7177	7565	7763
45°	6766	7106	7470
50°	6334	6697	7152
55°	5842	6230	6766
60°	5261	5685	6293
65°	4646	5054	5723
70°	3871	4305	4862
75°	3042	3437	3807
80°	2176	2421	2684
85°	1420	1420	1340



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.8	4.1
10°-20°	451.7	11.4
20°-30°	660.1	16.7
30°-40°	749.3	19.0
40°-50°	723.3	18.3
50°-60°	596.7	15.1
60°-70°	397.4	10.1
70°-80°	177.8	4.5
80°-90°	31.8	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°	1272.7	32.2
0°-40°	2022.0	51.2
0°-60°	3342.0	84.6
0°-90°	3949.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3949.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1708	1708	1708	1708	1708	
5°	1706	1705	1699	1690	1684	161
15°	1608	1611	1608	1600	1589	453
25°	1428	1439	1445	1435	1422	654
35°	1148	1164	1217	1224	1219	719
45°	889	904	934	976	982	686
55°	623	633	664	701	721	556
65°	365	375	397	425	449	362
75°	146	154	165	173	183	160
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1707.8	1707.8	1707.8	1707.8	1707.8
2.5°	1712.4	1713.1	1709.2	1698.7	1692.1
5°	1705.9	1705.2	1698.7	1689.5	1684.2
7.5°	1686.8	1688.2	1686.2	1673.1	1665.8
10°	1668.5	1669.1	1663.9	1653.4	1644.9
12.5°	1644.9	1644.2	1637.0	1631.7	1618.0
15°	1607.5	1611.4	1607.5	1600.2	1589.1
17.5°	1571.4	1571.4	1574.0	1561.5	1553.0
20°	1530.7	1532.7	1532.7	1522.8	1513.0
22.5°	1483.5	1489.4	1491.3	1480.8	1469.0
25°	1427.7	1438.8	1445.4	1434.9	1422.4
27.5°	1360.1	1377.2	1396.8	1389.0	1375.2
30°	1284.7	1309.6	1342.4	1335.8	1326.0
32.5°	1213.1	1238.1	1283.3	1280.7	1275.5
35°	1148.2	1163.9	1217.1	1223.6	1219.0
37.5°	1086.5	1100.9	1150.8	1165.9	1162.0
40°	1021.6	1037.3	1076.7	1103.6	1104.9
42.5°	957.3	972.3	1004.5	1043.2	1043.2
45°	889.0	904.1	933.6	976.3	981.5
47.5°	822.1	837.8	866.7	909.4	917.9
50°	756.5	770.9	799.8	841.1	854.2
52.5°	688.3	704.0	732.2	770.3	789.3
55°	622.6	633.1	664.0	700.7	721.1
57.5°	554.4	564.3	599.0	630.5	651.5
60°	488.8	501.3	528.2	560.3	584.6
62.5°	425.8	438.9	461.9	490.1	517.7
65°	364.8	374.6	396.9	425.2	449.4
67.5°	305.7	314.3	336.6	356.3	381.9
70°	246.0	257.2	273.6	292.6	309.0
72.5°	198.1	202.7	216.5	230.3	247.4
75°	146.3	154.2	165.3	173.2	183.1
77.5°	105.0	109.6	116.1	122.7	131.9
80°	70.2	72.2	78.1	79.4	86.6
82.5°	42.6	44.0	45.3	45.9	48.6
85°	23.0	23.0	23.0	21.7	21.7
87.5°	13.1	13.1	11.2	9.2	6.6
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)