

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: P554757

Luminaire Tested: **FUSL-12-2-LD4-2HI-40-UNV-81-86-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: P554757  
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-81-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

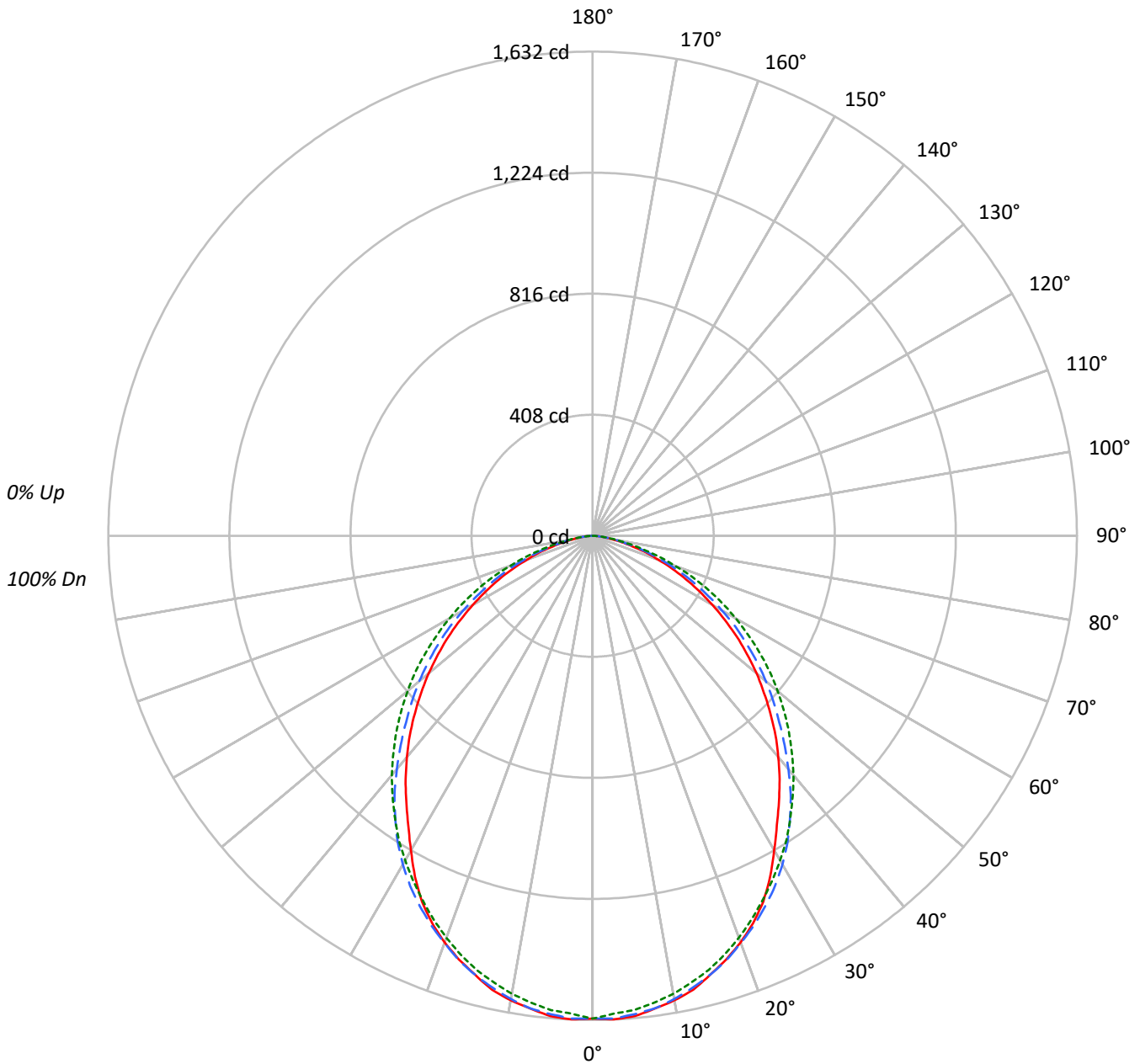
Lumens per Lamp: N/A  
Luminaire Lumens: 3763.0 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	8759	8759	8759
5°	8782	8745	8670
10°	8689	8665	8566
15°	8534	8534	8437
20°	8354	8365	8257
25°	8079	8179	8049
30°	7607	7950	7852
35°	7188	7619	7632
40°	6839	7208	7397
45°	6447	6772	7119
50°	6036	6381	6815
55°	5567	5937	6447
60°	5014	5417	5997
65°	4427	4816	5454
70°	3690	4102	4634
75°	2899	3277	3627
80°	2073	2306	2557
85°	1352	1352	1272



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.2	4.1
10°-20°	430.5	11.4
20°-30°	629.0	16.7
30°-40°	714.0	19.0
40°-50°	689.3	18.3
50°-60°	568.6	15.1
60°-70°	378.6	10.1
70°-80°	169.4	4.5
80°-90°	30.3	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°	1212.7	32.2
0°-40°	1926.7	51.2
0°-60°	3184.6	84.6
0°-90°	3763.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3763.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1627	1627	1627	1627	1627	
5°	1626	1625	1619	1610	1605	154
15°	1532	1536	1532	1525	1514	432
25°	1360	1371	1377	1367	1355	623
35°	1094	1109	1160	1166	1162	686
45°	847	862	890	930	935	654
55°	593	603	633	668	687	530
65°	348	357	378	405	428	345
75°	139	147	158	165	174	152
85°	22	22	22	21	21	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1627.4	1627.4	1627.4	1627.4	1627.4
2.5°	1631.8	1632.4	1628.7	1618.6	1612.4
5°	1625.5	1624.9	1618.6	1609.9	1604.9
7.5°	1607.4	1608.6	1606.8	1594.3	1587.4
10°	1589.9	1590.5	1585.5	1575.5	1567.4
12.5°	1567.4	1566.8	1559.9	1554.9	1541.7
15°	1531.7	1535.5	1531.7	1524.9	1514.2
17.5°	1497.4	1497.4	1499.9	1488.0	1479.9
20°	1458.6	1460.5	1460.5	1451.1	1441.7
22.5°	1413.6	1419.2	1421.1	1411.1	1399.8
25°	1360.4	1371.1	1377.3	1367.3	1355.4
27.5°	1296.0	1312.3	1331.1	1323.6	1310.4
30°	1224.1	1247.9	1279.2	1272.9	1263.5
32.5°	1156.0	1179.8	1222.9	1220.4	1215.4
35°	1094.1	1109.1	1159.7	1166.0	1161.6
37.5°	1035.3	1049.1	1096.6	1111.0	1107.2
40°	973.4	988.4	1026.0	1051.6	1052.8
42.5°	912.2	926.5	957.2	994.1	994.1
45°	847.1	861.5	889.7	930.3	935.3
47.5°	783.4	798.4	825.9	866.5	874.7
50°	720.9	734.6	762.1	801.5	814.0
52.5°	655.8	670.8	697.7	734.0	752.1
55°	593.3	603.3	632.7	667.7	687.1
57.5°	528.3	537.7	570.8	600.8	620.8
60°	465.8	477.7	503.3	533.9	557.1
62.5°	405.8	418.3	440.1	467.0	493.3
65°	347.6	357.0	378.2	405.1	428.3
67.5°	291.3	299.5	320.7	339.5	363.9
70°	234.5	245.1	260.7	278.8	294.5
72.5°	188.8	193.2	206.3	219.4	235.7
75°	139.4	146.9	157.6	165.1	174.4
77.5°	100.0	104.4	110.7	116.9	125.7
80°	66.9	68.8	74.4	75.6	82.5
82.5°	40.6	41.9	43.1	43.8	46.3
85°	21.9	21.9	21.9	20.6	20.6
87.5°	12.5	12.5	10.6	8.8	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)