

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: P556121

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-82-88-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: P556121  
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-LD4-3STD-50-UNV-82-88-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

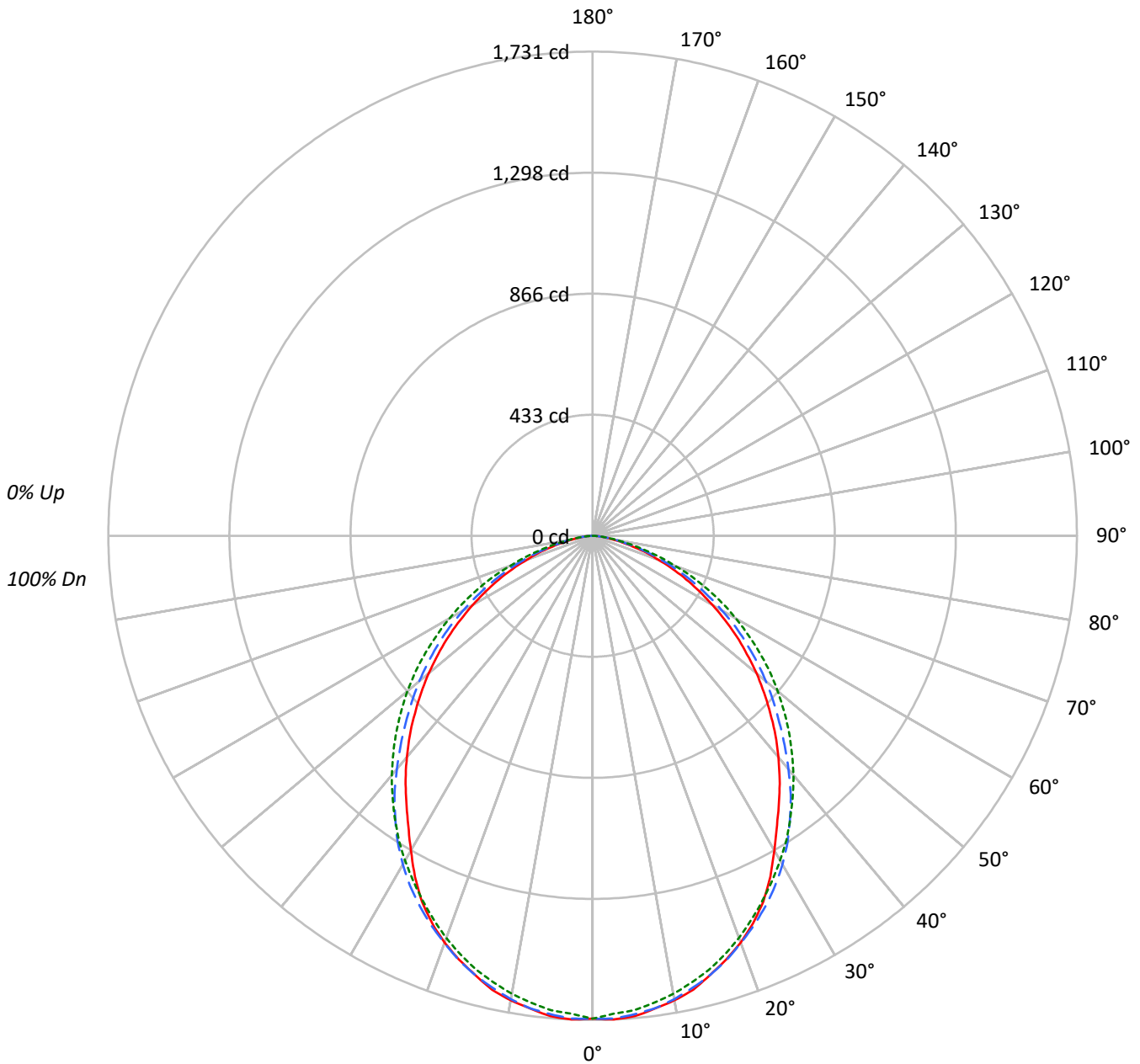
Lumens per Lamp: N/A  
Luminaire Lumens: 3992.0 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	9291	9291	9291
5°	9316	9277	9198
10°	9217	9192	9087
15°	9054	9054	8951
20°	8863	8873	8760
25°	8570	8676	8539
30°	8070	8433	8330
35°	7626	8083	8096
40°	7255	7647	7847
45°	6840	7183	7552
50°	6403	6769	7231
55°	5906	6298	6839
60°	5318	5747	6361
65°	4697	5110	5785
70°	3913	4353	4916
75°	3075	3475	3847
80°	2201	2445	2712
85°	1433	1433	1352



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.5	4.1
10°-20°	456.6	11.4
20°-30°	667.3	16.7
30°-40°	757.5	19.0
40°-50°	731.2	18.3
50°-60°	603.2	15.1
60°-70°	401.7	10.1
70°-80°	179.7	4.5
80°-90°	32.2	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°	1286.5	32.2
0°-40°	2044.0	51.2
0°-60°	3378.4	84.6
0°-90°	3992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3992.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1726	1726	1726	1726	1726	
5°	1724	1724	1717	1708	1703	163
15°	1625	1629	1625	1618	1606	458
25°	1443	1454	1461	1450	1438	661
35°	1161	1177	1230	1237	1232	727
45°	899	914	944	987	992	693
55°	629	640	671	708	729	562
65°	369	379	401	430	454	366
75°	148	156	167	175	185	162
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°	1726.4	1726.4	1726.4	1726.4	1726.4
2.5°	1731.1	1731.7	1727.8	1717.2	1710.5
5°	1724.4	1723.8	1717.2	1707.9	1702.6
7.5°	1705.2	1706.5	1704.5	1691.3	1684.0
10°	1686.6	1687.3	1682.0	1671.4	1662.8
12.5°	1662.8	1662.1	1654.8	1649.5	1635.6
15°	1625.0	1628.9	1625.0	1617.7	1606.4
17.5°	1588.5	1588.5	1591.1	1578.5	1569.9
20°	1547.4	1549.3	1549.3	1539.4	1529.5
22.5°	1499.6	1505.6	1507.6	1497.0	1485.0
25°	1443.2	1454.5	1461.1	1450.5	1437.9
27.5°	1374.9	1392.2	1412.1	1404.1	1390.2
30°	1298.6	1323.8	1357.0	1350.4	1340.4
32.5°	1226.3	1251.6	1297.3	1294.7	1289.4
35°	1160.7	1176.6	1230.3	1237.0	1232.3
37.5°	1098.3	1112.9	1163.3	1178.6	1174.6
40°	1032.7	1048.6	1088.4	1115.6	1116.9
42.5°	967.7	982.9	1015.4	1054.6	1054.6
45°	898.7	914.0	943.8	986.9	992.2
47.5°	831.1	847.0	876.2	919.3	927.9
50°	764.7	779.3	808.5	850.3	863.6
52.5°	695.7	711.7	740.2	778.7	797.9
55°	629.4	640.0	671.2	708.3	728.9
57.5°	560.4	570.4	605.5	637.4	658.6
60°	494.1	506.7	533.9	566.4	591.0
62.5°	430.4	443.7	466.9	495.4	523.3
65°	368.8	378.7	401.3	429.8	454.3
67.5°	309.1	317.7	340.2	360.1	386.0
70°	248.7	260.0	276.6	295.8	312.4
72.5°	200.3	204.9	218.9	232.8	250.0
75°	147.9	155.9	167.1	175.1	185.0
77.5°	106.1	110.8	117.4	124.0	133.3
80°	71.0	73.0	78.9	80.3	87.5
82.5°	43.1	44.4	45.8	46.4	49.1
85°	23.2	23.2	23.2	21.9	21.9
87.5°	13.3	13.3	11.3	9.3	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)