

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: P556132

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-93-86-EDD-90**

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: P556132  
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-93-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

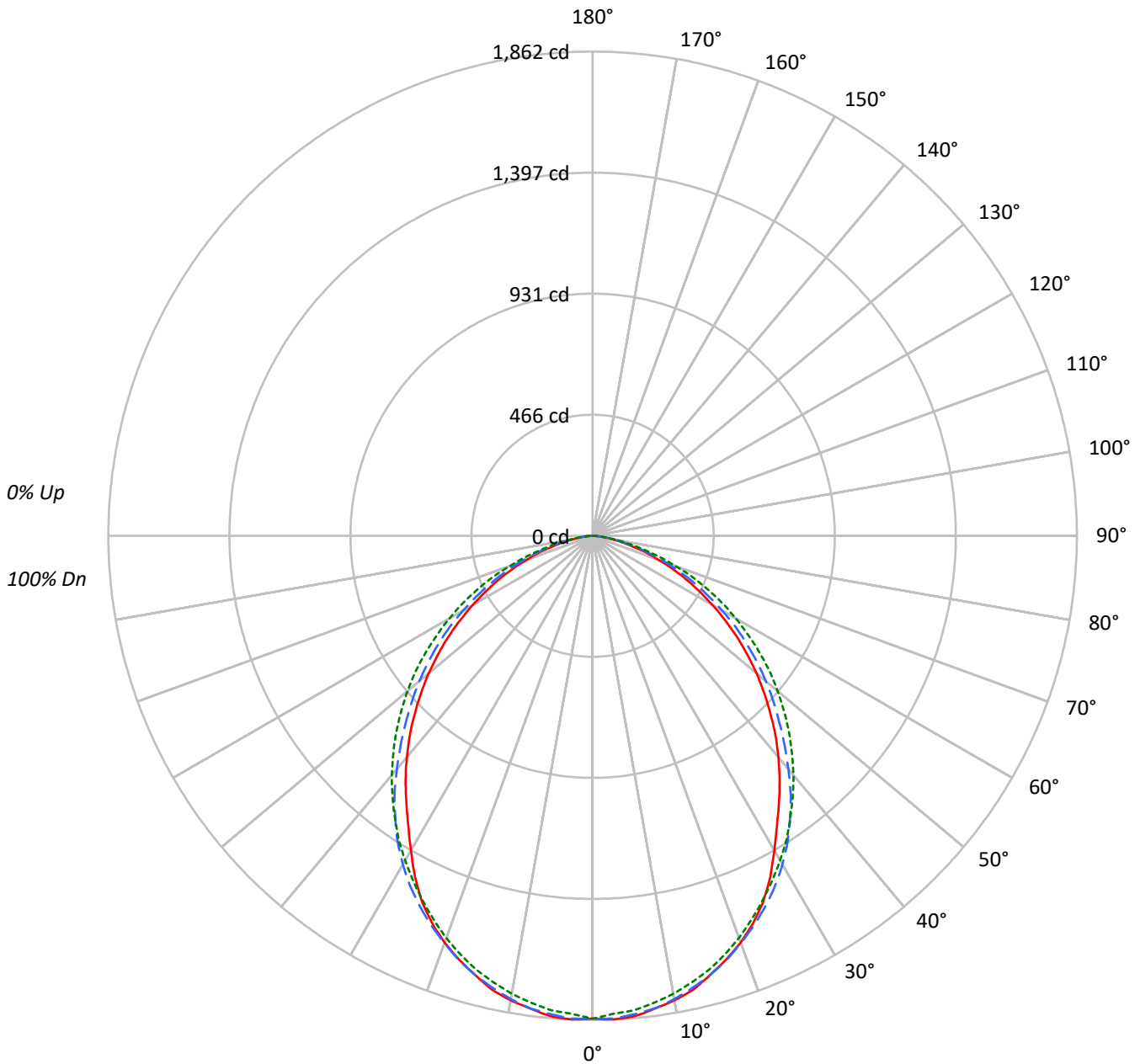
Lumens per Lamp: N/A  
Luminaire Lumens: 4294.0 lumens  
Efficiency: N/A  
Efficacy: 85.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	9994	9994	9994
5°	10021	9979	9894
10°	9915	9887	9775
15°	9739	9739	9628
20°	9533	9545	9423
25°	9219	9333	9185
30°	8681	9071	8960
35°	8203	8695	8709
40°	7804	8225	8441
45°	7358	7727	8123
50°	6887	7282	7778
55°	6352	6775	7357
60°	5721	6182	6843
65°	5052	5496	6223
70°	4209	4681	5287
75°	3308	3739	4138
80°	2365	2631	2920
85°	1544	1544	1451



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.8	4.1
10°-20°	491.2	11.4
20°-30°	717.8	16.7
30°-40°	814.8	19.0
40°-50°	786.5	18.3
50°-60°	648.8	15.1
60°-70°	432.1	10.1
70°-80°	193.3	4.5
80°-90°	34.6	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°	1383.8	32.2
0°-40°	2198.6	51.2
0°-60°	3634.0	84.6
0°-90°	4294.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4294.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1857	1857	1857	1857	1857	
5°	1855	1854	1847	1837	1831	176
15°	1748	1752	1748	1740	1728	493
25°	1552	1564	1572	1560	1547	711
35°	1248	1266	1323	1330	1326	782
45°	967	983	1015	1062	1067	746
55°	677	688	722	762	784	604
65°	397	407	432	462	489	393
75°	159	168	180	188	199	174
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1857.0	1857.0	1857.0	1857.0	1857.0
2.5°	1862.0	1862.8	1858.5	1847.1	1839.9
5°	1854.9	1854.2	1847.1	1837.1	1831.4
7.5°	1834.2	1835.6	1833.5	1819.2	1811.4
10°	1814.2	1815.0	1809.2	1797.8	1788.6
12.5°	1788.6	1787.8	1780.0	1774.3	1759.3
15°	1747.9	1752.2	1747.9	1740.0	1727.9
17.5°	1708.7	1708.7	1711.5	1698.0	1688.7
20°	1664.4	1666.6	1666.6	1655.9	1645.2
22.5°	1613.1	1619.5	1621.6	1610.2	1597.4
25°	1552.4	1564.5	1571.7	1560.3	1546.7
27.5°	1478.9	1497.5	1518.9	1510.3	1495.3
30°	1396.9	1424.0	1459.7	1452.5	1441.8
32.5°	1319.1	1346.2	1395.5	1392.6	1386.9
35°	1248.5	1265.6	1323.4	1330.5	1325.5
37.5°	1181.4	1197.1	1251.3	1267.8	1263.5
40°	1110.8	1127.9	1170.7	1200.0	1201.4
42.5°	1040.9	1057.3	1092.3	1134.3	1134.3
45°	966.7	983.1	1015.2	1061.6	1067.3
47.5°	893.9	911.0	942.4	988.8	998.1
50°	822.6	838.3	869.7	914.6	928.9
52.5°	748.4	765.5	796.2	837.6	858.2
55°	677.0	688.5	722.0	761.9	784.1
57.5°	602.8	613.5	651.4	685.6	708.4
60°	531.5	545.1	574.3	609.3	635.7
62.5°	463.0	477.3	502.3	532.9	562.9
65°	396.7	407.4	431.6	462.3	488.7
67.5°	332.5	341.7	366.0	387.4	415.2
70°	267.5	279.7	297.5	318.2	336.0
72.5°	215.5	220.4	235.4	250.4	269.0
75°	159.1	167.7	179.8	188.3	199.0
77.5°	114.1	119.1	126.3	133.4	143.4
80°	76.3	78.5	84.9	86.3	94.2
82.5°	46.4	47.8	49.2	49.9	52.8
85°	25.0	25.0	25.0	23.5	23.5
87.5°	14.3	14.3	12.1	10.0	7.1
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)