

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: P556003

Luminaire Tested: **FUSL-12-2-LD4-3STD-35-UNV-93-85-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: P556003  
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-35-UNV-93-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

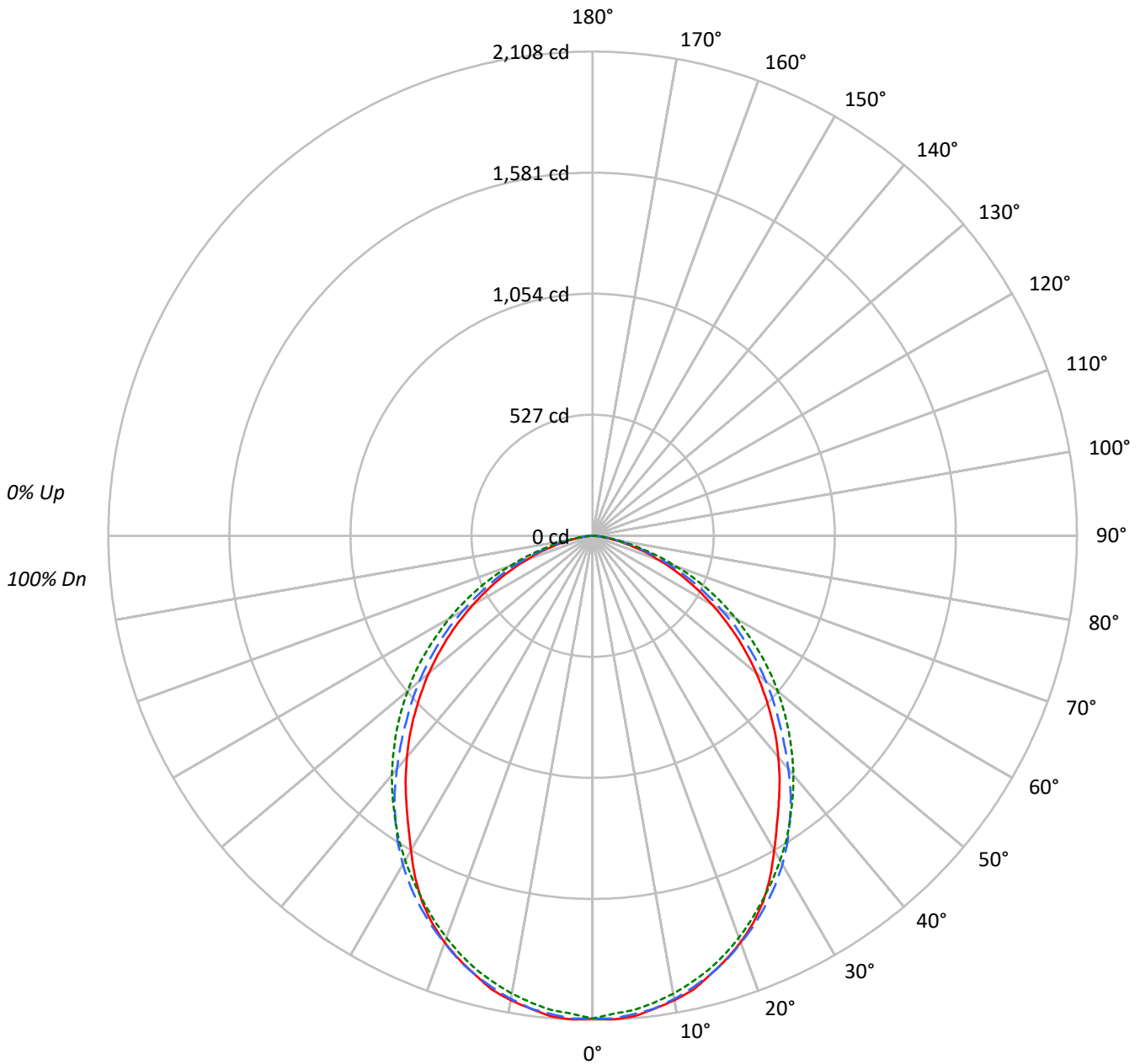
Lumens per Lamp: N/A  
Luminaire Lumens: 4860.0 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11312	11312	11312
5°	11342	11294	11198
10°	11222	11191	11063
15°	11023	11023	10897
20°	10789	10803	10664
25°	10434	10563	10396
30°	9825	10267	10142
35°	9284	9841	9857
40°	8833	9309	9553
45°	8327	8745	9194
50°	7795	8241	8802
55°	7190	7668	8327
60°	6476	6997	7744
65°	5717	6221	7044
70°	4765	5298	5984
75°	3745	4232	4685
80°	2678	2978	3304
85°	1748	1748	1643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.9	4.1
10°-20°	555.9	11.4
20°-30°	812.4	16.7
30°-40°	922.2	19.0
40°-50°	890.2	18.3
50°-60°	734.4	15.1
60°-70°	489.0	10.1
70°-80°	218.8	4.5
80°-90°	39.1	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°	1566.2	32.2
0°-40°	2488.4	51.2
0°-60°	4113.0	84.6
0°-90°	4860.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4860.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2099	2099	2090	2079	2073	199
15°	1978	1983	1978	1969	1956	558
25°	1757	1771	1779	1766	1751	805
35°	1413	1432	1498	1506	1500	885
45°	1094	1113	1149	1202	1208	844
55°	766	779	817	862	887	684
65°	449	461	488	523	553	445
75°	180	190	204	213	225	197
85°	28	28	28	27	27	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2101.8	2101.8	2101.8	2101.8	2101.8
2.5°	2107.5	2108.3	2103.4	2090.5	2082.4
5°	2099.4	2098.6	2090.5	2079.2	2072.8
7.5°	2076.0	2077.6	2075.2	2059.0	2050.1
10°	2053.4	2054.2	2047.7	2034.8	2024.3
12.5°	2024.3	2023.5	2014.6	2008.2	1991.2
15°	1978.3	1983.1	1978.3	1969.4	1955.7
17.5°	1933.9	1933.9	1937.1	1921.8	1911.3
20°	1883.8	1886.2	1886.2	1874.1	1862.0
22.5°	1825.7	1832.9	1835.4	1822.4	1807.9
25°	1757.0	1770.8	1778.8	1765.9	1750.6
27.5°	1673.9	1694.9	1719.1	1709.4	1692.4
30°	1581.0	1611.7	1652.1	1644.0	1631.9
32.5°	1493.0	1523.7	1579.4	1576.2	1569.7
35°	1413.1	1432.4	1497.8	1505.9	1500.3
37.5°	1337.2	1354.9	1416.3	1434.9	1430.0
40°	1257.2	1276.6	1325.0	1358.2	1359.8
42.5°	1178.1	1196.7	1236.2	1283.9	1283.9
45°	1094.1	1112.7	1149.0	1201.5	1208.0
47.5°	1011.8	1031.1	1066.7	1119.1	1129.6
50°	931.0	948.8	984.3	1035.2	1051.3
52.5°	847.0	866.4	901.1	948.0	971.4
55°	766.3	779.2	817.2	862.4	887.4
57.5°	682.3	694.4	737.2	776.0	801.8
60°	601.6	616.9	650.0	689.6	719.4
62.5°	524.0	540.2	568.5	603.2	637.1
65°	448.9	461.1	488.5	523.2	553.1
67.5°	376.3	386.8	414.2	438.5	469.9
70°	302.8	316.5	336.7	360.1	380.3
72.5°	243.9	249.5	266.5	283.4	304.4
75°	180.1	189.8	203.5	213.2	225.3
77.5°	129.2	134.8	142.9	151.0	162.3
80°	86.4	88.8	96.1	97.7	106.6
82.5°	52.5	54.1	55.7	56.5	59.8
85°	28.3	28.3	28.3	26.6	26.6
87.5°	16.1	16.1	13.7	11.3	8.1
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)