

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: P556043

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-81-94-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: P556043  
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-40-UNV-81-94-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEADS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

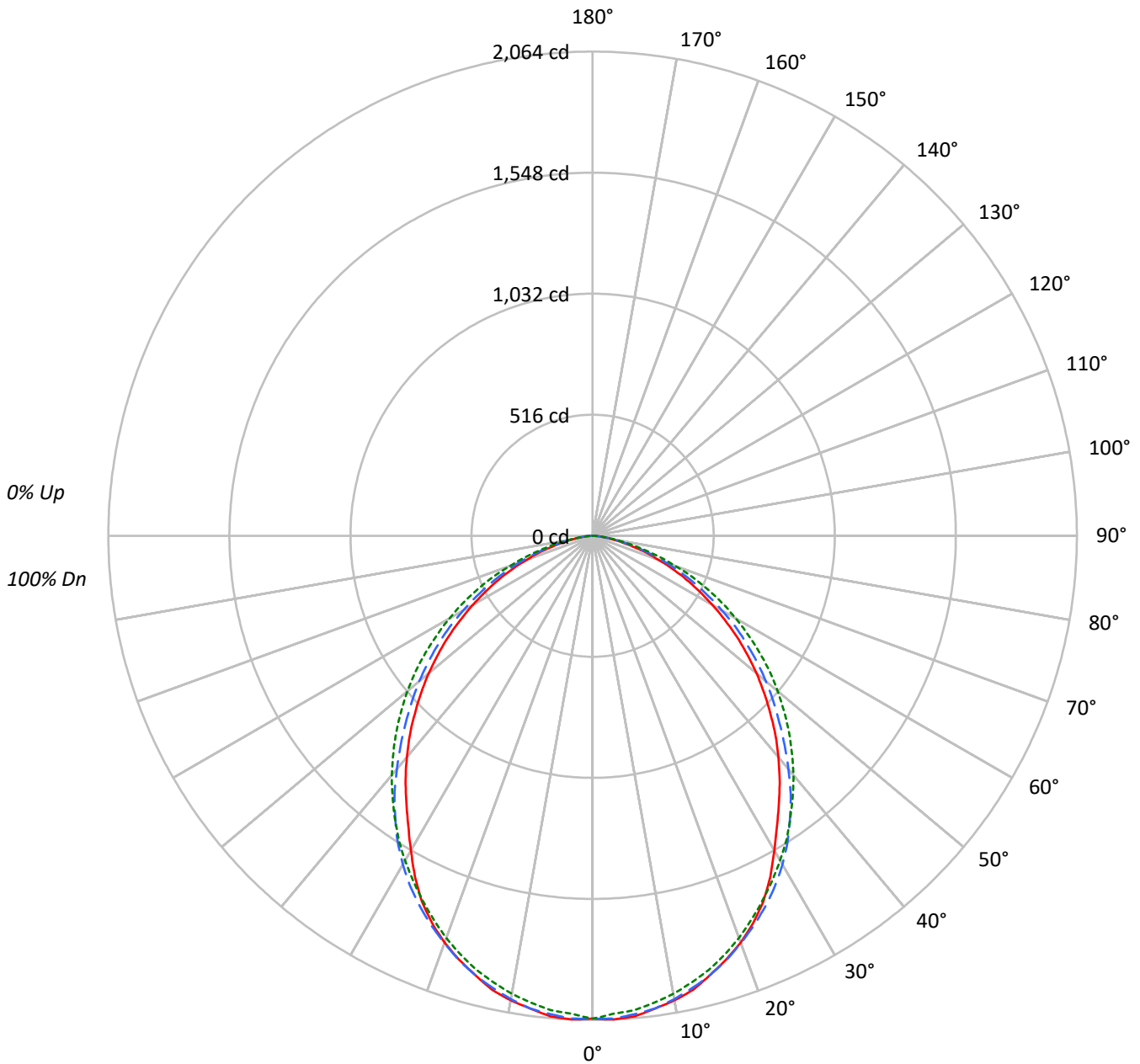
Lumens per Lamp: N/A  
Luminaire Lumens: 4760.0 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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					
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								
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°	11079	11079	11079
5°	11109	11062	10968
10°	10991	10961	10835
15°	10796	10796	10672
20°	10567	10581	10445
25°	10219	10346	10182
30°	9623	10056	9933
35°	9093	9638	9654
40°	8651	9118	9357
45°	8156	8566	9005
50°	7634	8071	8622
55°	7042	7509	8155
60°	6342	6852	7584
65°	5599	6094	6898
70°	4667	5190	5862
75°	3668	4144	4587
80°	2622	2916	3236
85°	1711	1711	1612



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.8	4.1
10°-20°	544.5	11.4
20°-30°	795.7	16.7
30°-40°	903.2	19.0
40°-50°	871.9	18.3
50°-60°	719.2	15.1
60°-70°	479.0	10.1
70°-80°	214.3	4.5
80°-90°	38.3	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°	1534.0	32.2
0°-40°	2437.2	51.2
0°-60°	4028.3	84.6
0°-90°	4760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4760.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2059	2059	2059	2059	2059	
5°	2056	2055	2048	2036	2030	195
15°	1938	1942	1938	1929	1915	546
25°	1721	1734	1742	1730	1715	788
35°	1384	1403	1467	1475	1469	867
45°	1072	1090	1125	1177	1183	827
55°	750	763	800	845	869	670
65°	440	452	478	512	542	436
75°	176	186	199	209	221	193
85°	28	28	28	26	26	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2058.6	2058.6	2058.6	2058.6	2058.6
2.5°	2064.1	2064.9	2060.2	2047.5	2039.6
5°	2056.2	2055.4	2047.5	2036.4	2030.1
7.5°	2033.3	2034.9	2032.5	2016.7	2008.0
10°	2011.1	2011.9	2005.6	1992.9	1982.7
12.5°	1982.7	1981.9	1973.2	1966.8	1950.2
15°	1937.6	1942.3	1937.6	1928.9	1915.4
17.5°	1894.1	1894.1	1897.2	1882.2	1871.9
20°	1845.0	1847.4	1847.4	1835.6	1823.7
22.5°	1788.1	1795.2	1797.6	1784.9	1770.7
25°	1720.9	1734.3	1742.2	1729.6	1714.6
27.5°	1639.4	1660.0	1683.7	1674.2	1657.6
30°	1548.5	1578.5	1618.1	1610.2	1598.3
32.5°	1462.3	1492.3	1546.9	1543.7	1537.4
35°	1384.0	1403.0	1467.0	1474.9	1469.4
37.5°	1309.6	1327.0	1387.1	1405.3	1400.6
40°	1231.4	1250.3	1297.8	1330.2	1331.8
42.5°	1153.8	1172.0	1210.8	1257.4	1257.4
45°	1071.6	1089.8	1125.4	1176.8	1183.1
47.5°	990.9	1009.9	1044.7	1096.1	1106.4
50°	911.8	929.2	964.0	1013.9	1029.7
52.5°	829.6	848.6	882.6	928.5	951.4
55°	750.5	763.2	800.3	844.6	869.1
57.5°	668.3	680.1	722.0	760.0	785.3
60°	589.2	604.2	636.6	675.4	704.6
62.5°	513.3	529.1	556.8	590.8	624.0
65°	439.7	451.6	478.5	512.5	541.7
67.5°	368.5	378.8	405.7	429.4	460.3
70°	296.6	310.0	329.8	352.7	372.5
72.5°	238.8	244.4	261.0	277.6	298.1
75°	176.4	185.8	199.3	208.8	220.6
77.5°	126.5	132.1	140.0	147.9	159.0
80°	84.6	87.0	94.1	95.7	104.4
82.5°	51.4	53.0	54.6	55.4	58.5
85°	27.7	27.7	27.7	26.1	26.1
87.5°	15.8	15.8	13.4	11.1	7.9
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)