

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: P557307

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-80-94-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: P557307  
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-12-4-LD4-2LO-40-UNV-80-94-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

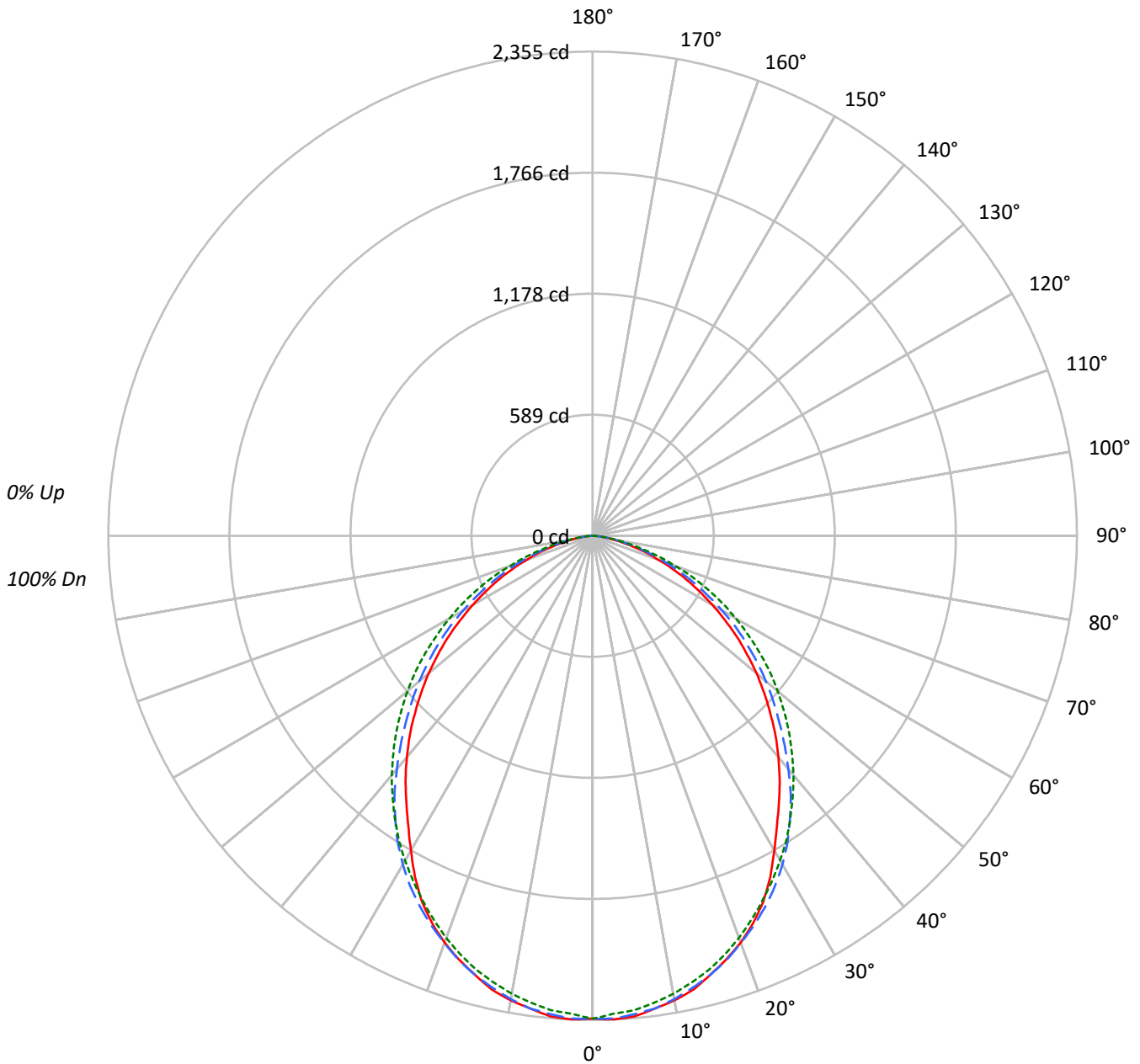
Lumens per Lamp: N/A  
Luminaire Lumens: 5431.0 lumens  
Efficiency: N/A  
Efficacy: 116.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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°	6321	6321	6321
5°	6337	6310	6257
10°	6270	6253	6181
15°	6159	6159	6088
20°	6028	6036	5959
25°	5830	5902	5809
30°	5490	5737	5666
35°	5187	5499	5507
40°	4935	5201	5338
45°	4653	4886	5137
50°	4356	4605	4918
55°	4017	4284	4653
60°	3618	3909	4327
65°	3195	3476	3936
70°	2662	2961	3344
75°	2092	2364	2618
80°	1495	1664	1846
85°	976	976	920



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.1	4.1
10°-20°	621.3	11.4
20°-30°	907.9	16.7
30°-40°	1030.5	19.0
40°-50°	994.8	18.3
50°-60°	820.6	15.1
60°-70°	546.5	10.1
70°-80°	244.5	4.5
80°-90°	43.8	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°	1750.3	32.2
0°-40°	2780.8	51.2
0°-60°	4596.2	84.6
0°-90°	5431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5431.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2349	2349	2349	2349	2349	
5°	2346	2345	2336	2324	2316	222
15°	2211	2216	2211	2201	2185	623
25°	1964	1979	1988	1973	1956	899
35°	1579	1601	1674	1683	1676	989
45°	1223	1243	1284	1343	1350	943
55°	856	871	913	964	992	764
65°	502	515	546	585	618	497
75°	201	212	227	238	252	220
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2348.8	2348.8	2348.8	2348.8	2348.8
2.5°	2355.1	2356.0	2350.6	2336.1	2327.1
5°	2346.1	2345.2	2336.1	2323.5	2316.3
7.5°	2319.9	2321.7	2319.0	2300.9	2291.0
10°	2294.6	2295.5	2288.3	2273.9	2262.1
12.5°	2262.1	2261.2	2251.3	2244.1	2225.1
15°	2210.7	2216.1	2210.7	2200.8	2185.4
17.5°	2161.1	2161.1	2164.7	2147.5	2135.8
20°	2105.1	2107.8	2107.8	2094.3	2080.8
22.5°	2040.2	2048.3	2051.0	2036.6	2020.3
25°	1963.5	1978.8	1987.8	1973.4	1956.3
27.5°	1870.5	1894.0	1921.1	1910.2	1891.3
30°	1766.8	1801.1	1846.2	1837.1	1823.6
32.5°	1668.4	1702.7	1765.0	1761.3	1754.1
35°	1579.1	1600.7	1673.8	1682.8	1676.5
37.5°	1494.3	1514.1	1582.7	1603.4	1598.0
40°	1404.9	1426.6	1480.7	1517.7	1519.5
42.5°	1316.5	1337.3	1381.5	1434.7	1434.7
45°	1222.7	1243.4	1284.0	1342.7	1349.9
47.5°	1130.6	1152.3	1192.0	1250.6	1262.4
50°	1040.4	1060.2	1099.9	1156.8	1174.8
52.5°	946.5	968.2	1007.0	1059.3	1085.5
55°	856.3	870.7	913.2	963.7	991.7
57.5°	762.5	776.0	823.8	867.1	896.0
60°	672.2	689.4	726.4	770.6	804.0
62.5°	585.6	603.7	635.2	674.0	711.9
65°	501.7	515.2	545.9	584.7	618.1
67.5°	420.5	432.2	462.9	490.0	525.2
70°	338.4	353.7	376.3	402.4	425.0
72.5°	272.5	278.8	297.8	316.7	340.2
75°	201.2	212.0	227.4	238.2	251.8
77.5°	144.4	150.7	159.7	168.7	181.4
80°	96.5	99.3	107.4	109.2	119.1
82.5°	58.7	60.5	62.3	63.2	66.8
85°	31.6	31.6	31.6	29.8	29.8
87.5°	18.0	18.0	15.3	12.6	9.0
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)