

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: P557556

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-80-86-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: P557556  
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-LD4-2STD-40-UNV-80-86-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

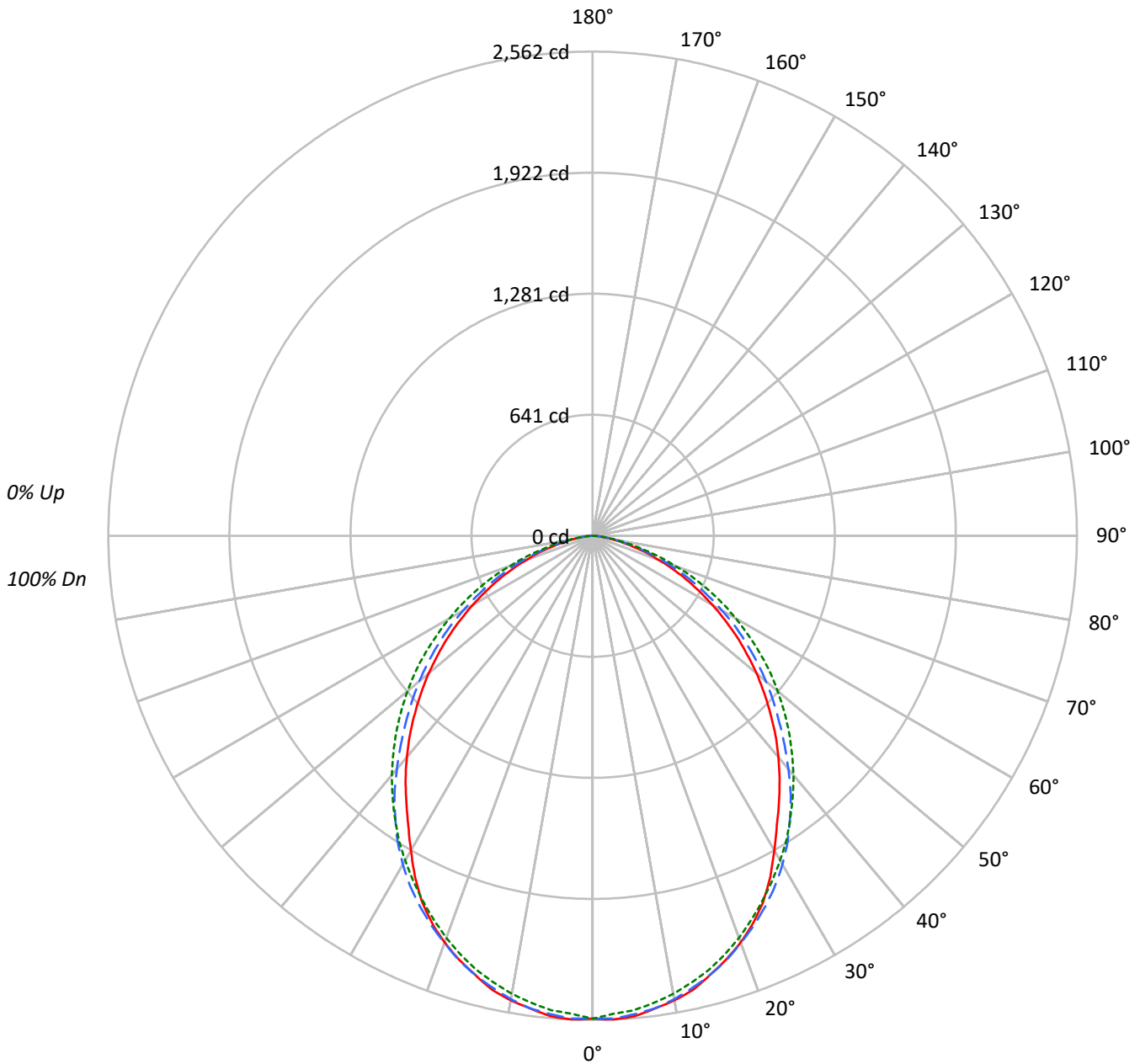
Lumens per Lamp: N/A  
Luminaire Lumens: 5908.0 lumens  
Efficiency: N/A  
Efficacy: 88.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	6876	6876	6876
5°	6894	6865	6806
10°	6821	6802	6724
15°	6700	6700	6623
20°	6558	6566	6482
25°	6342	6421	6319
30°	5972	6240	6164
35°	5643	5981	5991
40°	5369	5658	5807
45°	5061	5316	5588
50°	4738	5009	5350
55°	4370	4661	5061
60°	3936	4253	4707
65°	3475	3782	4281
70°	2896	3220	3637
75°	2276	2572	2848
80°	1627	1810	2008
85°	1062	1062	1000



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.6	4.1
10°-20°	675.8	11.4
20°-30°	987.6	16.7
30°-40°	1121.0	19.0
40°-50°	1082.2	18.3
50°-60°	892.7	15.1
60°-70°	594.5	10.1
70°-80°	266.0	4.5
80°-90°	47.6	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°	1904.0	32.2
0°-40°	3025.0	51.2
0°-60°	4999.9	84.6
0°-90°	5908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5908.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2555	2555	2555	2555	2555	
5°	2552	2551	2541	2528	2520	242
15°	2405	2411	2405	2394	2377	678
25°	2136	2153	2162	2147	2128	978
35°	1718	1741	1821	1831	1824	1076
45°	1330	1353	1397	1461	1468	1026
55°	932	947	993	1048	1079	831
65°	546	560	594	636	672	541
75°	219	231	247	259	274	239
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2555.1	2555.1	2555.1	2555.1	2555.1
2.5°	2561.9	2562.9	2557.0	2541.3	2531.5
5°	2552.1	2551.1	2541.3	2527.6	2519.7
7.5°	2523.6	2525.6	2522.7	2503.0	2492.2
10°	2496.2	2497.1	2489.3	2473.6	2460.8
12.5°	2460.8	2459.8	2449.0	2441.2	2420.6
15°	2404.9	2410.8	2404.9	2394.1	2377.4
17.5°	2350.9	2350.9	2354.8	2336.2	2323.4
20°	2290.0	2293.0	2293.0	2278.3	2263.5
22.5°	2219.4	2228.2	2231.1	2215.4	2197.8
25°	2135.9	2152.6	2162.4	2146.7	2128.1
27.5°	2034.8	2060.3	2089.8	2078.0	2057.4
30°	1921.9	1959.2	2008.3	1998.5	1983.8
32.5°	1814.9	1852.2	1920.0	1916.0	1908.2
35°	1717.8	1741.3	1820.8	1830.7	1823.8
37.5°	1625.5	1647.1	1721.7	1744.3	1738.4
40°	1528.3	1551.9	1610.8	1651.0	1653.0
42.5°	1432.1	1454.7	1502.8	1560.7	1560.7
45°	1330.0	1352.6	1396.8	1460.6	1468.4
47.5°	1229.9	1253.5	1296.7	1360.5	1373.2
50°	1131.8	1153.4	1196.5	1258.4	1278.0
52.5°	1029.7	1053.2	1095.4	1152.4	1180.8
55°	931.5	947.2	993.4	1048.3	1078.8
57.5°	829.4	844.2	896.2	943.3	974.7
60°	731.3	749.9	790.2	838.3	874.6
62.5°	637.0	656.7	691.0	733.2	774.5
65°	545.8	560.5	593.9	636.1	672.4
67.5°	457.4	470.2	503.6	533.0	571.3
70°	368.1	384.8	409.3	437.8	462.3
72.5°	296.4	303.3	323.9	344.5	370.1
75°	218.9	230.7	247.4	259.1	273.9
77.5°	157.1	163.9	173.7	183.6	197.3
80°	105.0	108.0	116.8	118.8	129.6
82.5°	63.8	65.8	67.7	68.7	72.6
85°	34.4	34.4	34.4	32.4	32.4
87.5°	19.6	19.6	16.7	13.7	9.8
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)