

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: P557554

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-80-85-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: P557554  
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-80-85-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

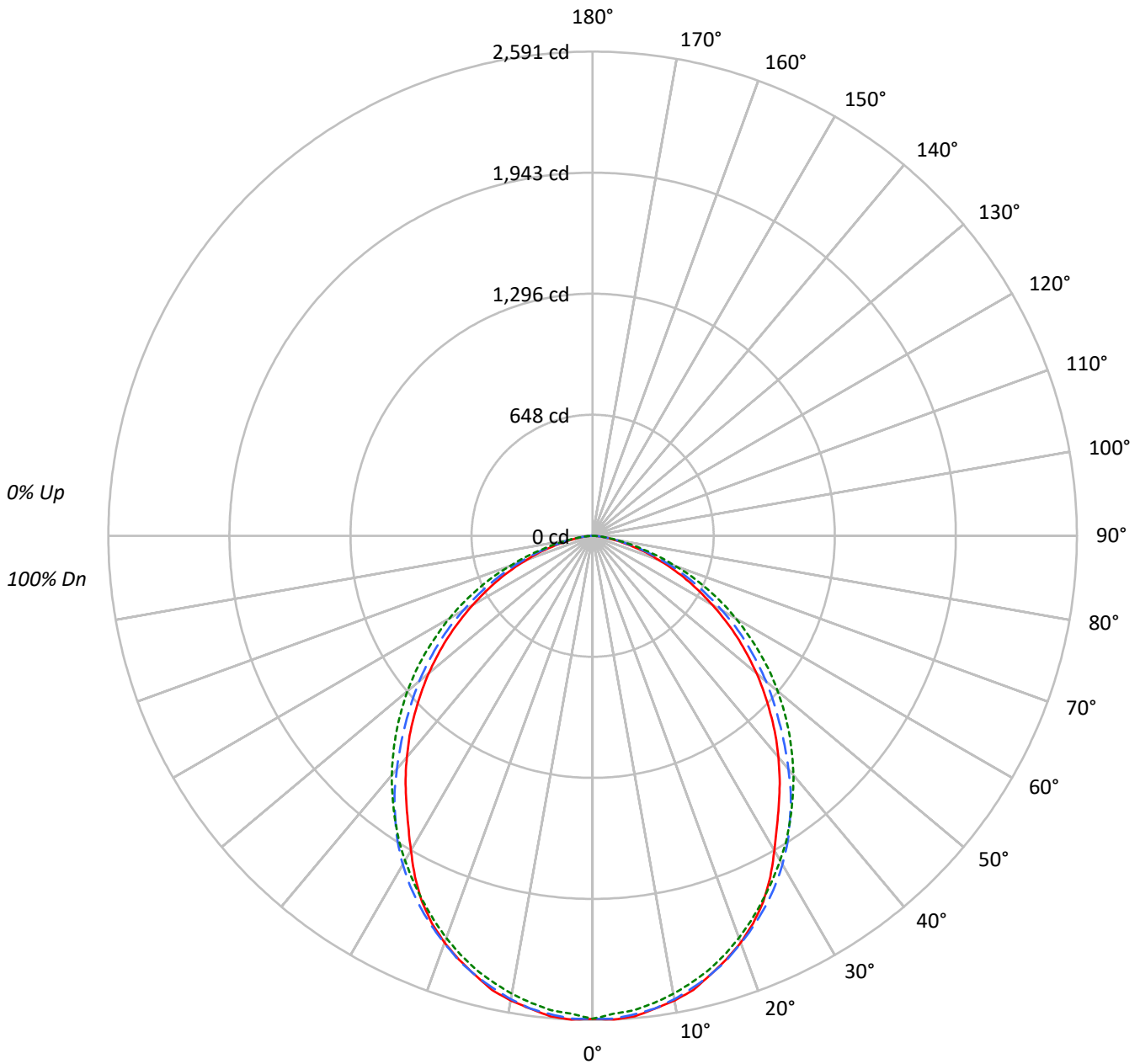
Lumens per Lamp: N/A  
Luminaire Lumens: 5976.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	6955	6955	6955
5°	6973	6944	6885
10°	6899	6880	6801
15°	6777	6777	6700
20°	6633	6642	6557
25°	6415	6494	6391
30°	6041	6312	6235
35°	5708	6050	6060
40°	5430	5723	5873
45°	5120	5377	5652
50°	4793	5067	5412
55°	4420	4714	5119
60°	3981	4302	4761
65°	3515	3825	4330
70°	2929	3257	3679
75°	2302	2601	2880
80°	1646	1832	2032
85°	1074	1074	1013



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	243.3	4.1
10°-20°	683.6	11.4
20°-30°	999.0	16.7
30°-40°	1133.9	19.0
40°-50°	1094.6	18.3
50°-60°	903.0	15.1
60°-70°	601.3	10.1
70°-80°	269.1	4.5
80°-90°	48.2	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°	1925.9	32.2
0°-40°	3059.8	51.2
0°-60°	5057.5	84.6
0°-90°	5976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5976.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2584	2584	2584	2584	2584	
5°	2582	2580	2571	2557	2549	244
15°	2433	2438	2433	2422	2405	686
25°	2160	2177	2187	2171	2153	989
35°	1738	1761	1842	1852	1845	1089
45°	1345	1368	1413	1477	1485	1038
55°	942	958	1005	1060	1091	841
65°	552	567	601	643	680	547
75°	221	233	250	262	277	242
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2584.5	2584.5	2584.5	2584.5	2584.5
2.5°	2591.4	2592.4	2586.5	2570.6	2560.6
5°	2581.5	2580.5	2570.6	2556.7	2548.7
7.5°	2552.7	2554.7	2551.7	2531.8	2520.9
10°	2524.9	2525.9	2517.9	2502.1	2489.1
12.5°	2489.1	2488.2	2477.2	2469.3	2448.4
15°	2432.6	2438.5	2432.6	2421.6	2404.8
17.5°	2377.9	2377.9	2381.9	2363.1	2350.1
20°	2316.4	2319.4	2319.4	2304.5	2289.6
22.5°	2244.9	2253.8	2256.8	2240.9	2223.1
25°	2160.5	2177.4	2187.3	2171.4	2152.6
27.5°	2058.2	2084.1	2113.8	2101.9	2081.1
30°	1944.1	1981.8	2031.4	2021.5	2006.6
32.5°	1835.8	1873.6	1942.1	1938.1	1930.2
35°	1737.5	1761.4	1841.8	1851.7	1844.8
37.5°	1644.2	1666.1	1741.5	1764.3	1758.4
40°	1545.9	1569.7	1629.3	1670.0	1672.0
42.5°	1448.6	1471.4	1520.1	1578.7	1578.7
45°	1345.4	1368.2	1412.9	1477.4	1485.3
47.5°	1244.1	1267.9	1311.6	1376.1	1389.0
50°	1144.8	1166.6	1210.3	1272.9	1292.7
52.5°	1041.5	1065.4	1108.1	1165.6	1194.4
55°	942.2	958.1	1004.8	1060.4	1091.2
57.5°	839.0	853.9	906.5	954.2	985.9
60°	739.7	758.6	799.3	847.9	884.7
62.5°	644.4	664.2	699.0	741.7	783.4
65°	552.0	566.9	600.7	643.4	680.1
67.5°	462.7	475.6	509.3	539.1	577.9
70°	372.3	389.2	414.0	442.8	467.6
72.5°	299.8	306.8	327.7	348.5	374.3
75°	221.4	233.3	250.2	262.1	277.0
77.5°	158.9	165.8	175.7	185.7	199.6
80°	106.2	109.2	118.2	120.1	131.1
82.5°	64.5	66.5	68.5	69.5	73.5
85°	34.8	34.8	34.8	32.8	32.8
87.5°	19.9	19.9	16.9	13.9	9.9
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)