

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: P557426

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-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: P557426  
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-30-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 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

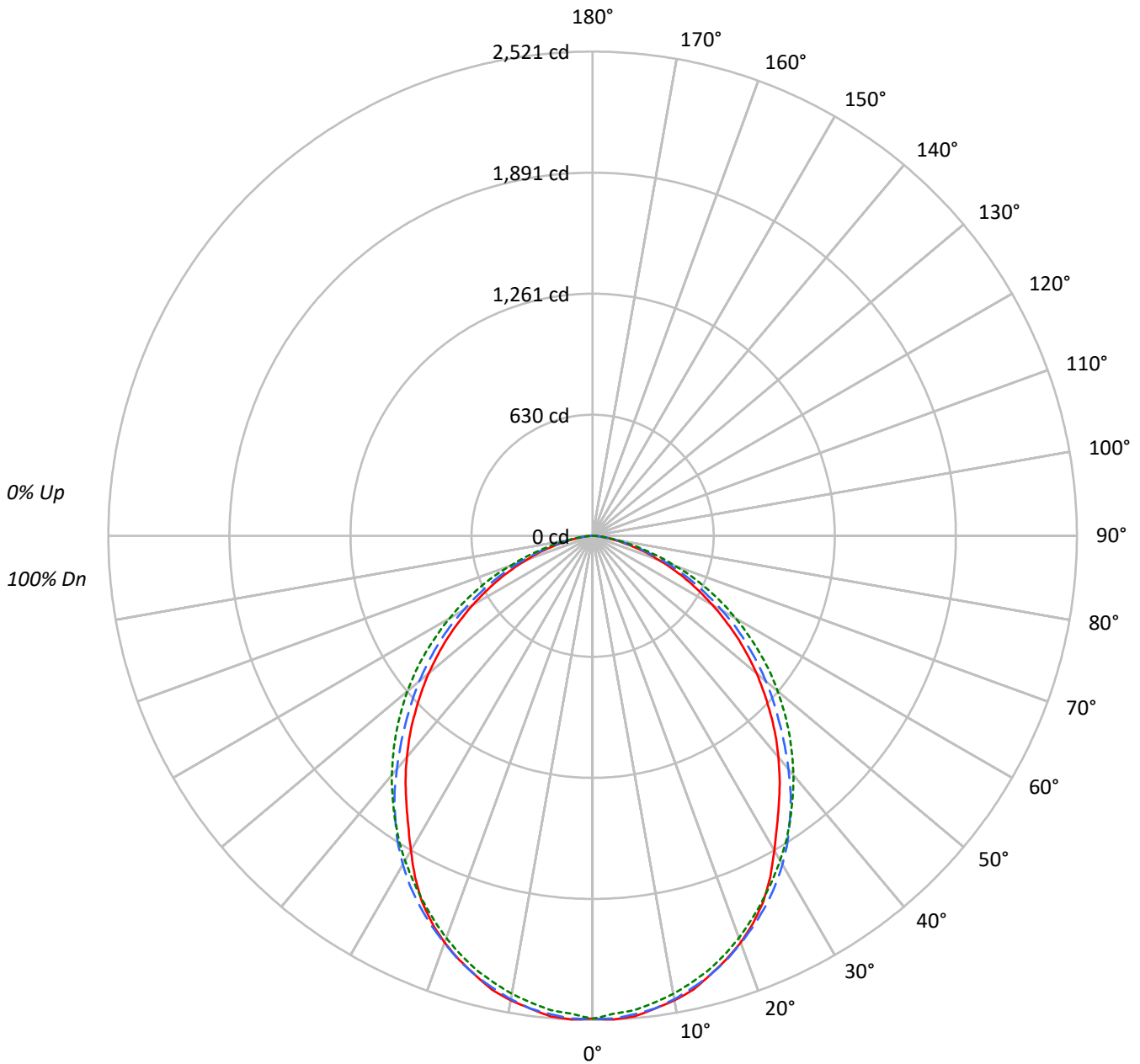
Lumens per Lamp: N/A  
Luminaire Lumens: 5814.0 lumens  
Efficiency: N/A  
Efficacy: 87.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	6766	6766	6766
5°	6784	6756	6698
10°	6712	6694	6617
15°	6593	6593	6518
20°	6454	6462	6379
25°	6241	6318	6218
30°	5877	6141	6066
35°	5553	5887	5896
40°	5283	5568	5714
45°	4981	5231	5499
50°	4663	4930	5265
55°	4301	4586	4981
60°	3873	4185	4632
65°	3420	3721	4213
70°	2850	3169	3580
75°	2240	2531	2802
80°	1602	1781	1976
85°	1044	1044	985



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.7	4.1
10°-20°	665.1	11.4
20°-30°	971.9	16.7
30°-40°	1103.2	19.0
40°-50°	1065.0	18.3
50°-60°	878.5	15.1
60°-70°	585.0	10.1
70°-80°	261.8	4.5
80°-90°	46.8	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°	1873.7	32.2
0°-40°	2976.9	51.2
0°-60°	4920.4	84.6
0°-90°	5814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5814.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2514	2514	2514	2514	2514	
5°	2512	2510	2501	2487	2480	238
15°	2367	2372	2367	2356	2340	667
25°	2102	2118	2128	2113	2094	963
35°	1690	1714	1792	1802	1795	1059
45°	1309	1331	1375	1437	1445	1010
55°	917	932	978	1032	1062	818
65°	537	552	584	626	662	533
75°	215	227	243	255	270	236
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°	2514.4	2514.4	2514.4	2514.4	2514.4
2.5°	2521.2	2522.1	2516.3	2500.9	2491.2
5°	2511.5	2510.5	2500.9	2487.4	2479.6
7.5°	2483.5	2485.4	2482.5	2463.2	2452.6
10°	2456.4	2457.4	2449.7	2434.2	2421.7
12.5°	2421.7	2420.7	2410.1	2402.4	2382.1
15°	2366.6	2372.4	2366.6	2356.0	2339.6
17.5°	2313.5	2313.5	2317.3	2299.0	2286.4
20°	2253.6	2256.5	2256.5	2242.0	2227.5
22.5°	2184.0	2192.7	2195.6	2180.2	2162.8
25°	2101.9	2118.4	2128.0	2112.6	2094.2
27.5°	2002.4	2027.6	2056.5	2044.9	2024.7
30°	1891.4	1928.1	1976.4	1966.7	1952.2
32.5°	1786.1	1822.8	1889.4	1885.6	1877.8
35°	1690.4	1713.6	1791.9	1801.5	1794.8
37.5°	1599.6	1620.9	1694.3	1716.5	1710.7
40°	1504.0	1527.2	1585.1	1624.8	1626.7
42.5°	1409.3	1431.6	1478.9	1535.9	1535.9
45°	1308.9	1331.1	1374.6	1437.4	1445.1
47.5°	1210.4	1233.5	1276.0	1338.8	1351.4
50°	1113.8	1135.0	1177.5	1238.4	1257.7
52.5°	1013.3	1036.5	1078.0	1134.0	1162.1
55°	916.7	932.2	977.6	1031.6	1061.6
57.5°	816.2	830.7	881.9	928.3	959.2
60°	719.6	738.0	777.6	824.9	860.7
62.5°	626.9	646.2	680.0	721.6	762.1
65°	537.1	551.6	584.4	625.9	661.7
67.5°	450.1	462.7	495.5	524.5	562.2
70°	362.2	378.7	402.8	430.8	455.0
72.5°	291.7	298.5	318.8	339.1	364.2
75°	215.4	227.0	243.4	255.0	269.5
77.5°	154.6	161.3	171.0	180.6	194.2
80°	103.4	106.3	114.9	116.9	127.5
82.5°	62.8	64.7	66.7	67.6	71.5
85°	33.8	33.8	33.8	31.9	31.9
87.5°	19.3	19.3	16.4	13.5	9.7
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)