

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: P558066

Luminaire Tested: **FUSL-12-4-LD4-3LO-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: P558066  
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-LD4-3LO-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**

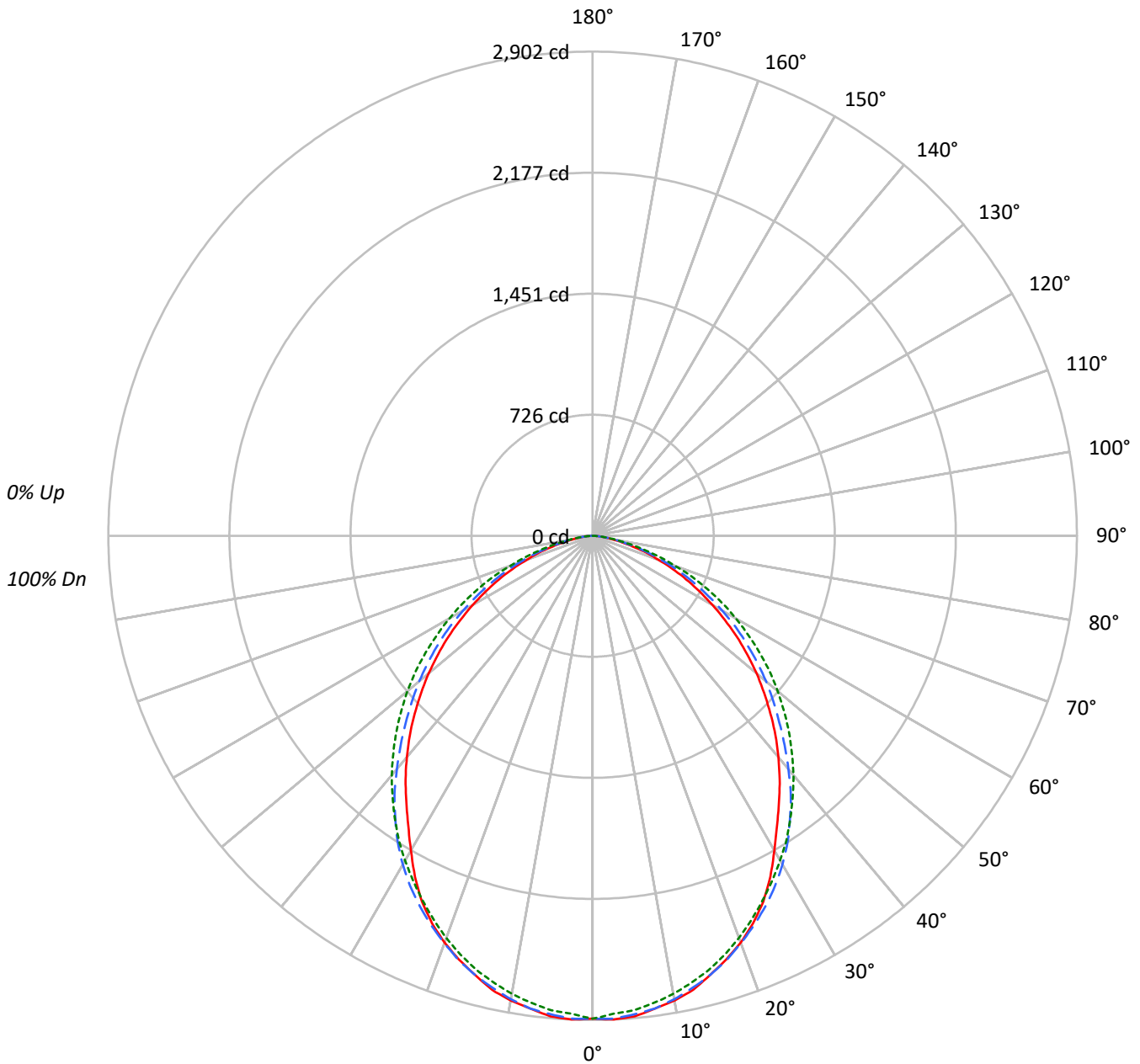
Lumens per Lamp: N/A  
Luminaire Lumens: 6693.0 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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					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	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100		
	1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86	86	86	86	86	86		
	2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73	73	73	73	73		
	3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63	63	63	63	63	63		
	4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54	54	54	54	54	54		
	5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47	47	47	47	47	47		
	6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42	42	42	42	42	42		
	7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37	37	37	37	37	37		
	8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34	34	34	34	34	34		
	9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30	30	30	30	30	30		
	10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28	28	28	28	28	28		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7789	7789	7789
5°	7810	7777	7711
10°	7727	7706	7618
15°	7590	7590	7503
20°	7429	7439	7343
25°	7184	7274	7158
30°	6765	7070	6983
35°	6393	6776	6787
40°	6082	6410	6578
45°	5734	6022	6331
50°	5367	5675	6061
55°	4951	5279	5734
60°	4458	4818	5332
65°	3937	4284	4850
70°	3281	3648	4121
75°	2578	2913	3225
80°	1844	2050	2275
85°	1201	1201	1133



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.5	4.1
10°-20°	765.6	11.4
20°-30°	1118.8	16.7
30°-40°	1270.0	19.0
40°-50°	1226.0	18.3
50°-60°	1011.3	15.1
60°-70°	673.5	10.1
70°-80°	301.4	4.5
80°-90°	53.9	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°	2157.0	32.2
0°-40°	3426.9	51.2
0°-60°	5664.2	84.6
0°-90°	6693.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6693.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2894	2894	2894	2894	2894	
5°	2891	2890	2879	2863	2854	274
15°	2724	2731	2724	2712	2693	768
25°	2420	2439	2450	2432	2411	1108
35°	1946	1973	2063	2074	2066	1219
45°	1507	1532	1582	1655	1664	1163
55°	1055	1073	1125	1188	1222	942
65°	618	635	673	721	762	613
75°	248	261	280	294	310	271
85°	39	39	39	37	37	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2894.5	2894.5	2894.5	2894.5	2894.5
2.5°	2902.3	2903.4	2896.8	2879.0	2867.9
5°	2891.2	2890.1	2879.0	2863.4	2854.5
7.5°	2859.0	2861.2	2857.9	2835.6	2823.4
10°	2827.8	2828.9	2820.0	2802.3	2787.8
12.5°	2787.8	2786.7	2774.5	2765.6	2742.2
15°	2724.4	2731.1	2724.4	2712.2	2693.3
17.5°	2663.3	2663.3	2667.7	2646.6	2632.1
20°	2594.3	2597.6	2597.6	2581.0	2564.3
22.5°	2514.2	2524.3	2527.6	2509.8	2489.8
25°	2419.7	2438.6	2449.7	2432.0	2410.8
27.5°	2305.2	2334.1	2367.5	2354.1	2330.8
30°	2177.3	2219.6	2275.2	2264.0	2247.4
32.5°	2056.1	2098.4	2175.1	2170.6	2161.7
35°	1946.0	1972.7	2062.8	2073.9	2066.1
37.5°	1841.5	1865.9	1950.5	1976.0	1969.4
40°	1731.4	1758.1	1824.8	1870.4	1872.6
42.5°	1622.4	1648.0	1702.5	1768.1	1768.1
45°	1506.8	1532.3	1582.4	1654.7	1663.6
47.5°	1393.3	1420.0	1469.0	1541.2	1555.7
50°	1282.1	1306.6	1355.5	1425.6	1447.8
52.5°	1166.5	1193.2	1241.0	1305.5	1337.7
55°	1055.3	1073.1	1125.3	1187.6	1222.1
57.5°	939.6	956.3	1015.3	1068.6	1104.2
60°	828.4	849.6	895.2	949.7	990.8
62.5°	721.7	743.9	782.9	830.7	877.4
65°	618.3	635.0	672.8	720.6	761.7
67.5°	518.2	532.7	570.5	603.8	647.2
70°	417.0	435.9	463.7	496.0	523.8
72.5°	335.8	343.6	367.0	390.3	419.2
75°	248.0	261.3	280.2	293.6	310.2
77.5°	177.9	185.7	196.8	207.9	223.5
80°	119.0	122.3	132.3	134.6	146.8
82.5°	72.3	74.5	76.7	77.8	82.3
85°	38.9	38.9	38.9	36.7	36.7
87.5°	22.2	22.2	18.9	15.6	11.1
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)