

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: P558076

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-80-96-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: P558076  
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-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

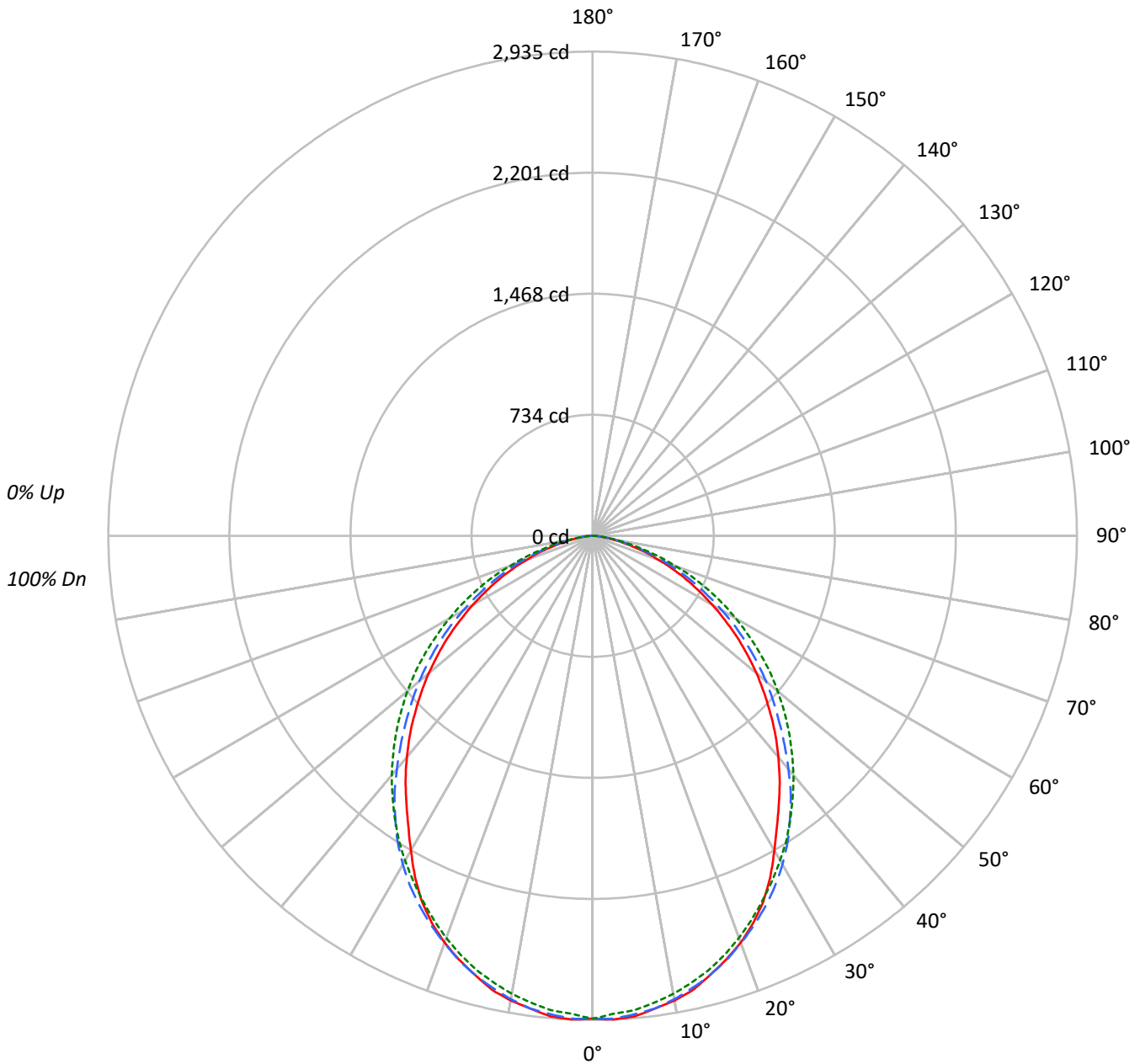
Lumens per Lamp: N/A  
Luminaire Lumens: 6769.0 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (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°	7878	7878	7878
5°	7898	7865	7798
10°	7815	7793	7704
15°	7676	7676	7589
20°	7514	7523	7427
25°	7266	7356	7239
30°	6842	7150	7063
35°	6465	6853	6865
40°	6151	6483	6653
45°	5799	6091	6403
50°	5429	5739	6130
55°	5007	5339	5799
60°	4510	4872	5393
65°	3982	4332	4905
70°	3318	3690	4168
75°	2608	2947	3263
80°	1864	2073	2301
85°	1216	1216	1145



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.6	4.1
10°-20°	774.3	11.4
20°-30°	1131.5	16.7
30°-40°	1284.4	19.0
40°-50°	1239.9	18.3
50°-60°	1022.8	15.1
60°-70°	681.1	10.1
70°-80°	304.8	4.5
80°-90°	54.5	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°	2181.5	32.2
0°-40°	3465.9	51.2
0°-60°	5728.6	84.6
0°-90°	6769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6769.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2927	2927	2927	2927	2927	
5°	2924	2923	2912	2896	2887	277
15°	2755	2762	2755	2743	2724	777
25°	2447	2466	2478	2460	2438	1121
35°	1968	1995	2086	2097	2090	1233
45°	1524	1550	1600	1674	1682	1176
55°	1067	1085	1138	1201	1236	953
65°	625	642	680	729	770	620
75°	251	264	283	297	314	274
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2927.4	2927.4	2927.4	2927.4	2927.4
2.5°	2935.3	2936.4	2929.7	2911.7	2900.4
5°	2924.0	2922.9	2911.7	2895.9	2886.9
7.5°	2891.4	2893.7	2890.3	2867.8	2855.4
10°	2859.9	2861.1	2852.1	2834.1	2819.5
12.5°	2819.5	2818.3	2806.0	2797.0	2773.3
15°	2755.3	2762.1	2755.3	2743.0	2723.9
17.5°	2693.5	2693.5	2698.0	2676.6	2662.0
20°	2623.8	2627.1	2627.1	2610.3	2593.4
22.5°	2542.8	2552.9	2556.3	2538.3	2518.1
25°	2447.2	2466.3	2477.6	2459.6	2438.2
27.5°	2331.4	2360.6	2394.3	2380.8	2357.2
30°	2202.0	2244.8	2301.0	2289.8	2272.9
32.5°	2079.4	2122.2	2199.8	2195.3	2186.3
35°	1968.1	1995.1	2086.2	2097.4	2089.6
37.5°	1862.4	1887.1	1972.6	1998.5	1991.7
40°	1751.1	1778.0	1845.5	1891.6	1893.9
42.5°	1640.8	1666.7	1721.8	1788.2	1788.2
45°	1523.9	1549.7	1600.4	1673.5	1682.4
47.5°	1409.2	1436.2	1485.6	1558.7	1573.4
50°	1296.7	1321.4	1370.9	1441.8	1464.3
52.5°	1179.7	1206.7	1255.1	1320.3	1352.9
55°	1067.3	1085.3	1138.1	1201.1	1236.0
57.5°	950.3	967.2	1026.8	1080.8	1116.8
60°	837.9	859.2	905.3	960.4	1002.0
62.5°	729.9	752.4	791.7	840.1	887.3
65°	625.3	642.2	680.4	728.8	770.4
67.5°	524.1	538.7	576.9	610.7	654.5
70°	421.7	440.9	469.0	501.6	529.7
72.5°	339.6	347.5	371.1	394.7	424.0
75°	250.8	264.3	283.4	296.9	313.8
77.5°	179.9	187.8	199.1	210.3	226.1
80°	120.3	123.7	133.8	136.1	148.5
82.5°	73.1	75.4	77.6	78.7	83.2
85°	39.4	39.4	39.4	37.1	37.1
87.5°	22.5	22.5	19.1	15.7	11.2
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)