

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: P558000

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-80-84-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: P558000  
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-35-UNV-80-84-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

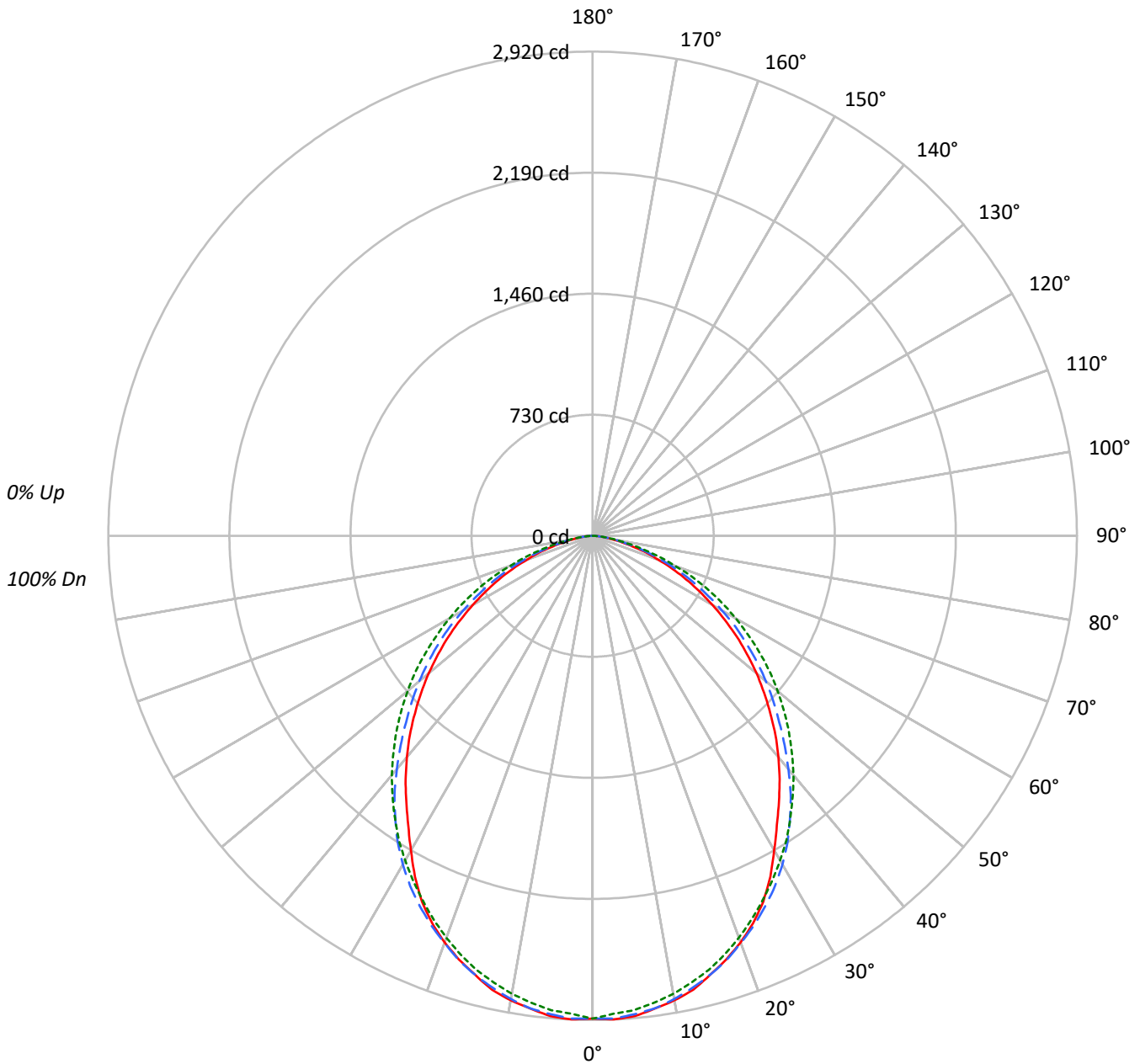
Lumens per Lamp: N/A  
Luminaire Lumens: 6733.0 lumens  
Efficiency: N/A  
Efficacy: 95.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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									
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°	7836	7836	7836
5°	7857	7823	7757
10°	7773	7752	7663
15°	7635	7635	7548
20°	7474	7483	7387
25°	7228	7317	7201
30°	6806	7112	7025
35°	6431	6817	6828
40°	6118	6448	6617
45°	5769	6058	6369
50°	5400	5709	6098
55°	4981	5311	5768
60°	4485	4846	5364
65°	3961	4309	4879
70°	3301	3670	4146
75°	2594	2931	3245
80°	1855	2063	2289
85°	1210	1210	1139



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	274.2	4.1
10°-20°	770.2	11.4
20°-30°	1125.5	16.7
30°-40°	1277.6	19.0
40°-50°	1233.3	18.3
50°-60°	1017.4	15.1
60°-70°	677.5	10.1
70°-80°	303.2	4.5
80°-90°	54.2	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°	2169.9	32.2
0°-40°	3447.4	51.2
0°-60°	5698.1	84.6
0°-90°	6733.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6733.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2912	2912	2912	2912	2912	
5°	2908	2907	2896	2880	2872	275
15°	2741	2747	2741	2728	2709	773
25°	2434	2453	2464	2446	2425	1115
35°	1958	1984	2075	2086	2078	1227
45°	1516	1542	1592	1665	1674	1170
55°	1062	1080	1132	1195	1229	948
65°	622	639	677	725	766	617
75°	250	263	282	295	312	273
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°	2911.8	2911.8	2911.8	2911.8	2911.8
2.5°	2919.7	2920.8	2914.1	2896.2	2885.0
5°	2908.5	2907.4	2896.2	2880.5	2871.6
7.5°	2876.1	2878.3	2874.9	2852.6	2840.3
10°	2844.7	2845.8	2836.9	2819.0	2804.5
12.5°	2804.5	2803.3	2791.0	2782.1	2758.6
15°	2740.7	2747.4	2740.7	2728.4	2709.4
17.5°	2679.2	2679.2	2683.6	2662.4	2647.8
20°	2609.8	2613.2	2613.2	2596.4	2579.6
22.5°	2529.3	2539.3	2542.7	2524.8	2504.7
25°	2434.2	2453.2	2464.4	2446.5	2425.2
27.5°	2319.0	2348.0	2381.6	2368.2	2344.7
30°	2190.3	2232.8	2288.8	2277.6	2260.8
32.5°	2068.4	2110.9	2188.1	2183.6	2174.7
35°	1957.6	1984.5	2075.1	2086.3	2078.5
37.5°	1852.5	1877.1	1962.1	1987.8	1981.1
40°	1741.7	1768.6	1835.7	1881.6	1883.8
42.5°	1632.1	1657.8	1712.7	1778.7	1778.7
45°	1515.8	1541.5	1591.8	1664.6	1673.5
47.5°	1401.7	1428.5	1477.7	1550.5	1565.0
50°	1289.8	1314.4	1363.6	1434.1	1456.5
52.5°	1173.5	1200.3	1248.4	1313.3	1345.7
55°	1061.6	1079.5	1132.1	1194.7	1229.4
57.5°	945.3	962.0	1021.3	1075.0	1110.8
60°	833.4	854.6	900.5	955.3	996.7
62.5°	726.0	748.4	787.5	835.6	882.6
65°	622.0	638.7	676.8	724.9	766.3
67.5°	521.3	535.8	573.9	607.4	651.1
70°	419.5	438.5	466.5	498.9	526.9
72.5°	337.8	345.7	369.2	392.6	421.7
75°	249.5	262.9	281.9	295.3	312.1
77.5°	179.0	186.8	198.0	209.2	224.8
80°	119.7	123.1	133.1	135.4	147.7
82.5°	72.7	74.9	77.2	78.3	82.8
85°	39.2	39.2	39.2	36.9	36.9
87.5°	22.4	22.4	19.0	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)