

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: P558062

Luminaire Tested: **FUSL-12-4-LD4-3LO-35-UNV-93-97-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: P558062  
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-93-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

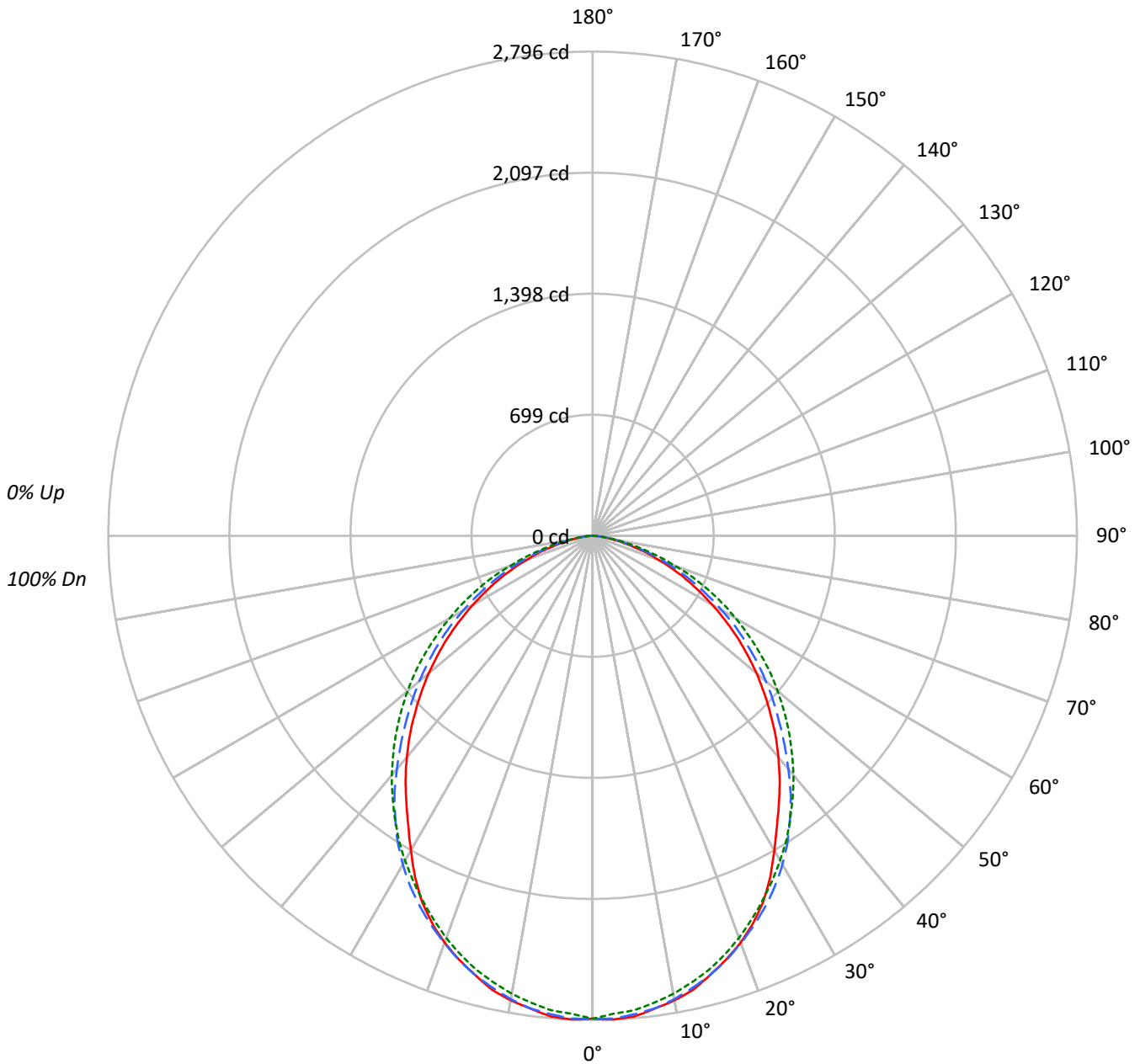
Lumens per Lamp: N/A  
Luminaire Lumens: 6448.0 lumens  
Efficiency: N/A  
Efficacy: 91.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
Input Voltage (V): NR  
Input Current (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°	7504	7504	7504
5°	7524	7492	7428
10°	7444	7424	7339
15°	7312	7312	7229
20°	7157	7167	7074
25°	6921	7008	6896
30°	6518	6811	6728
35°	6159	6528	6539
40°	5859	6176	6337
45°	5524	5802	6099
50°	5171	5467	5839
55°	4770	5087	5524
60°	4295	4641	5137
65°	3792	4127	4672
70°	3161	3515	3970
75°	2484	2807	3108
80°	1776	1976	2191
85°	1158	1158	1093



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.6	4.1
10°-20°	737.6	11.4
20°-30°	1077.9	16.7
30°-40°	1223.5	19.0
40°-50°	1181.1	18.3
50°-60°	974.3	15.1
60°-70°	648.8	10.1
70°-80°	290.3	4.5
80°-90°	51.9	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°	2078.0	32.2
0°-40°	3301.5	51.2
0°-60°	5456.9	84.6
0°-90°	6448.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6448.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2789	2789	2789	2789	2789	
5°	2785	2784	2774	2759	2750	264
15°	2625	2631	2625	2613	2595	740
25°	2331	2349	2360	2343	2323	1068
35°	1875	1900	1987	1998	1990	1175
45°	1452	1476	1524	1594	1603	1120
55°	1017	1034	1084	1144	1177	907
65°	596	612	648	694	734	591
75°	239	252	270	283	299	261
85°	38	38	38	35	35	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2788.6	2788.6	2788.6	2788.6	2788.6
2.5°	2796.1	2797.2	2790.7	2773.6	2762.9
5°	2785.4	2784.3	2773.6	2758.6	2750.0
7.5°	2754.3	2756.5	2753.2	2731.8	2720.0
10°	2724.3	2725.4	2716.8	2699.7	2685.7
12.5°	2685.7	2684.7	2672.9	2664.3	2641.8
15°	2624.7	2631.1	2624.7	2612.9	2594.7
17.5°	2565.8	2565.8	2570.0	2549.7	2535.8
20°	2499.3	2502.6	2502.6	2486.5	2470.4
22.5°	2422.2	2431.9	2435.1	2417.9	2398.6
25°	2331.1	2349.4	2360.1	2342.9	2322.6
27.5°	2220.8	2248.7	2280.8	2267.9	2245.4
30°	2097.6	2138.3	2191.9	2181.2	2165.1
32.5°	1980.8	2021.5	2095.5	2091.2	2082.6
35°	1874.8	1900.5	1987.3	1998.0	1990.5
37.5°	1774.1	1797.6	1879.1	1903.7	1897.3
40°	1668.0	1693.7	1758.0	1801.9	1804.1
42.5°	1563.0	1587.7	1640.2	1703.4	1703.4
45°	1451.6	1476.3	1524.5	1594.1	1602.7
47.5°	1342.3	1368.0	1415.2	1484.8	1498.7
50°	1235.2	1258.8	1305.9	1373.4	1394.8
52.5°	1123.8	1149.5	1195.6	1257.7	1288.8
55°	1016.7	1033.8	1084.2	1144.1	1177.4
57.5°	905.2	921.3	978.1	1029.5	1063.8
60°	798.1	818.5	862.4	914.9	954.5
62.5°	695.3	716.7	754.2	800.3	845.3
65°	595.6	611.7	648.1	694.2	733.8
67.5°	499.2	513.2	549.6	581.7	623.5
70°	401.7	419.9	446.7	477.8	504.6
72.5°	323.5	331.0	353.5	376.0	403.9
75°	238.9	251.8	270.0	282.8	298.9
77.5°	171.4	178.9	189.6	200.3	215.3
80°	114.6	117.8	127.5	129.6	141.4
82.5°	69.6	71.8	73.9	75.0	79.3
85°	37.5	37.5	37.5	35.4	35.4
87.5°	21.4	21.4	18.2	15.0	10.7
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)