

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: P557676

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-93-96-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: P557676  
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-50-UNV-93-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

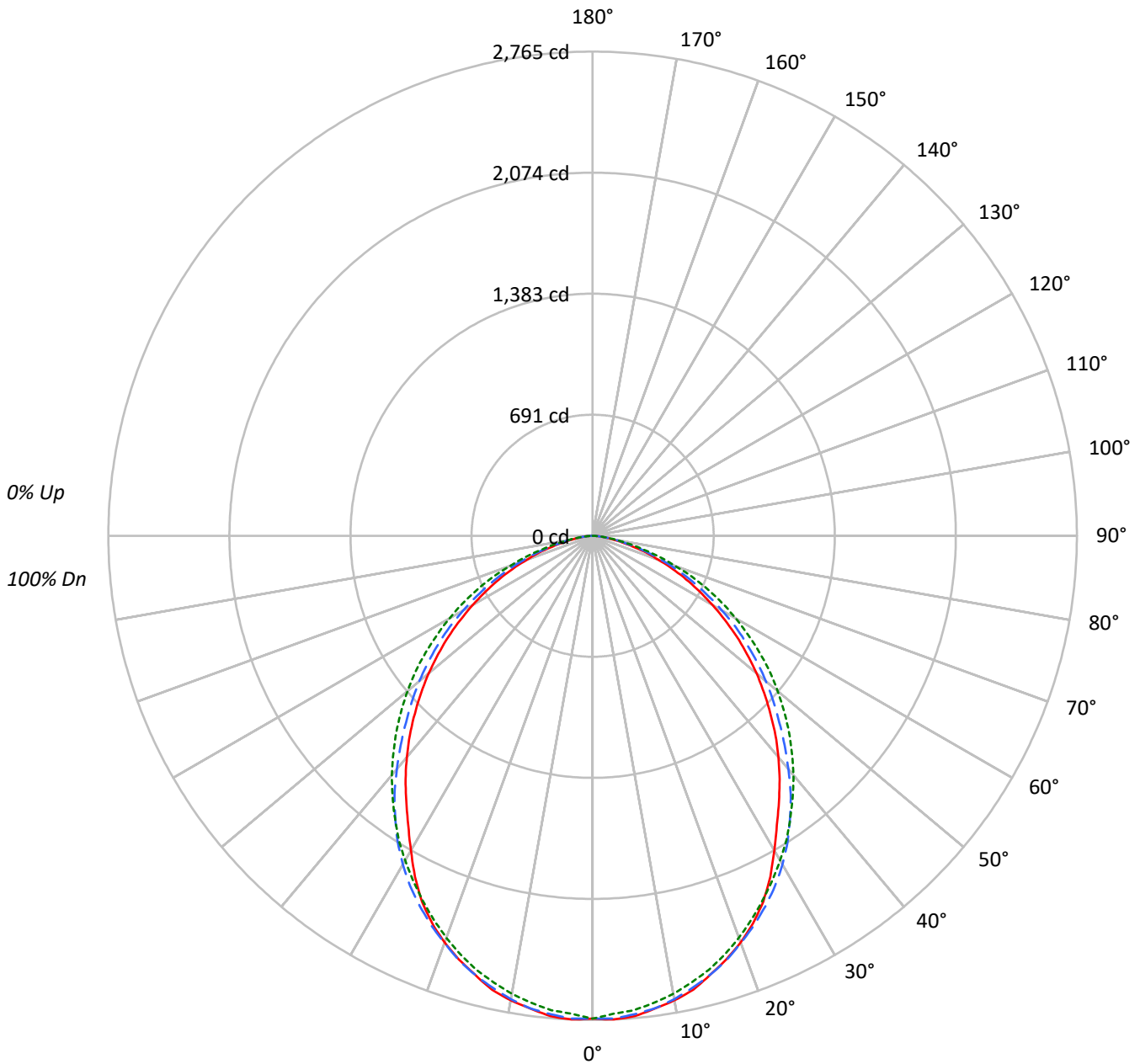
Lumens per Lamp: N/A  
Luminaire Lumens: 6376.0 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	7420	7420	7420
5°	7440	7408	7346
10°	7361	7341	7257
15°	7231	7231	7148
20°	7077	7086	6995
25°	6844	6929	6819
30°	6445	6735	6652
35°	6090	6456	6466
40°	5794	6107	6267
45°	5463	5737	6031
50°	5113	5406	5774
55°	4716	5029	5462
60°	4247	4590	5080
65°	3750	4081	4620
70°	3126	3475	3925
75°	2456	2776	3073
80°	1756	1954	2166
85°	1145	1145	1081



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	259.6	4.1
10°-20°	729.4	11.4
20°-30°	1065.8	16.7
30°-40°	1209.8	19.0
40°-50°	1167.9	18.3
50°-60°	963.4	15.1
60°-70°	641.6	10.1
70°-80°	287.1	4.5
80°-90°	51.4	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°	2054.8	32.2
0°-40°	3264.6	51.2
0°-60°	5396.0	84.6
0°-90°	6376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6376.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2758	2758	2758	2758	2758	
5°	2754	2753	2743	2728	2719	261
15°	2595	2602	2595	2584	2566	732
25°	2305	2323	2334	2317	2297	1056
35°	1854	1879	1965	1976	1968	1162
45°	1435	1460	1507	1576	1585	1107
55°	1005	1022	1072	1131	1164	897
65°	589	605	641	686	726	584
75°	236	249	267	280	296	258
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2757.5	2757.5	2757.5	2757.5	2757.5
2.5°	2764.9	2765.9	2759.6	2742.6	2732.0
5°	2754.3	2753.2	2742.6	2727.8	2719.3
7.5°	2723.6	2725.7	2722.5	2701.3	2689.7
10°	2693.9	2695.0	2686.5	2669.5	2655.8
12.5°	2655.8	2654.7	2643.0	2634.6	2612.3
15°	2595.4	2601.7	2595.4	2583.7	2565.7
17.5°	2537.1	2537.1	2541.4	2521.2	2507.5
20°	2471.4	2474.6	2474.6	2458.7	2442.8
22.5°	2395.2	2404.7	2407.9	2390.9	2371.9
25°	2305.1	2323.1	2333.7	2316.8	2296.6
27.5°	2196.0	2223.5	2255.3	2242.6	2220.4
30°	2074.2	2114.4	2167.4	2156.8	2140.9
32.5°	1958.7	1999.0	2072.1	2067.8	2059.4
35°	1853.8	1879.3	1965.1	1975.7	1968.2
37.5°	1754.3	1777.6	1858.1	1882.4	1876.1
40°	1649.4	1674.8	1738.4	1781.8	1783.9
42.5°	1545.6	1569.9	1621.8	1684.3	1684.3
45°	1435.4	1459.8	1507.4	1576.3	1584.8
47.5°	1327.3	1352.8	1399.4	1468.2	1482.0
50°	1221.4	1244.7	1291.3	1358.1	1379.3
52.5°	1111.2	1136.7	1182.2	1243.7	1274.4
55°	1005.3	1022.3	1072.0	1131.4	1164.2
57.5°	895.1	911.0	967.2	1018.0	1051.9
60°	789.2	809.3	852.8	904.7	943.9
62.5°	687.5	708.7	745.8	791.3	835.8
65°	589.0	604.9	640.9	686.5	725.6
67.5°	493.7	507.4	543.4	575.2	616.5
70°	397.3	415.3	441.7	472.5	498.9
72.5°	319.9	327.3	349.6	371.8	399.4
75°	236.2	248.9	267.0	279.7	295.6
77.5°	169.5	176.9	187.5	198.1	212.9
80°	113.3	116.5	126.1	128.2	139.8
82.5°	68.9	71.0	73.1	74.2	78.4
85°	37.1	37.1	37.1	35.0	35.0
87.5°	21.2	21.2	18.0	14.8	10.6
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)