

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: P557469

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-82-96-EDD**

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: P557469  
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-30-UNV-82-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

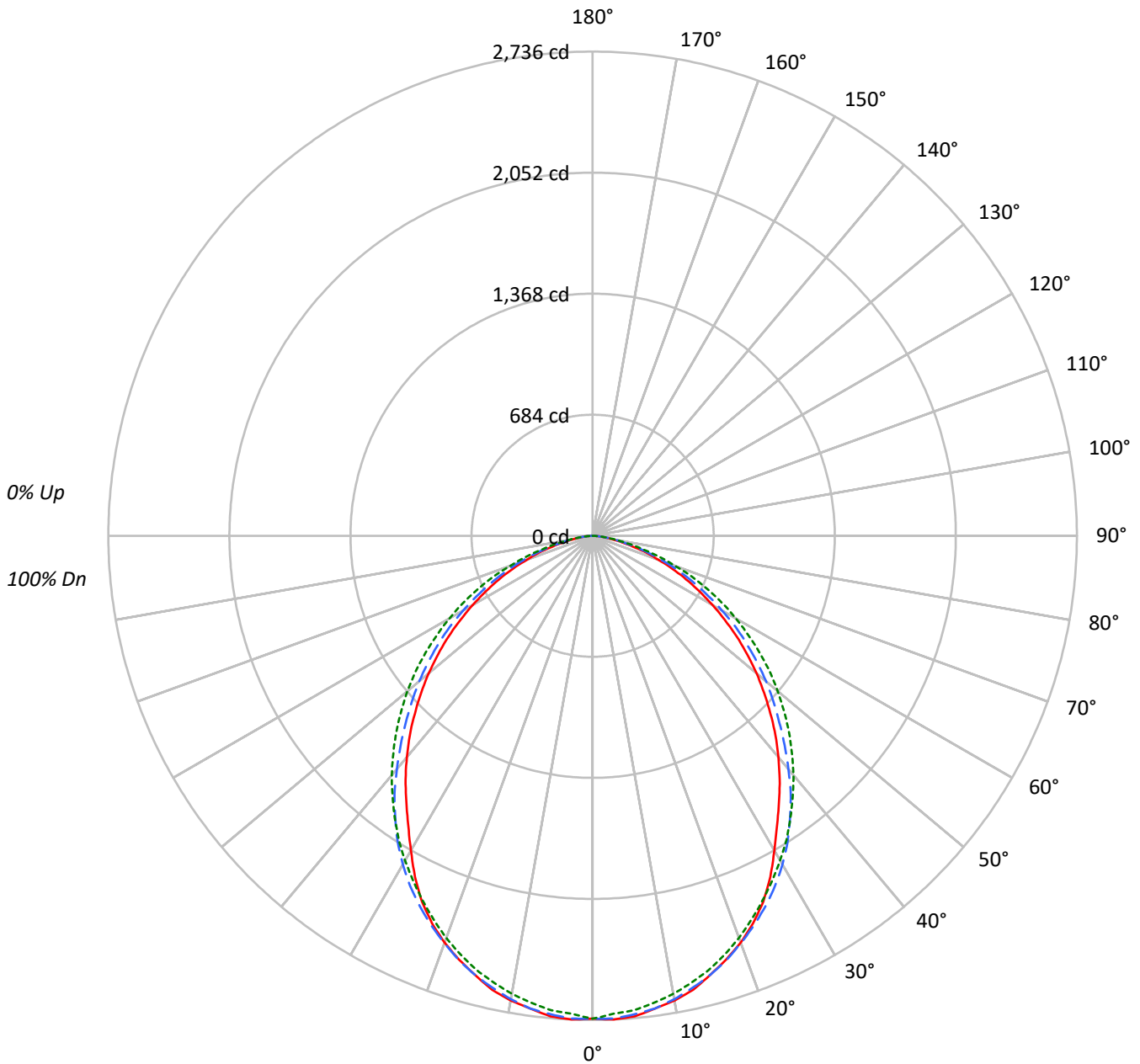
Lumens per Lamp: N/A  
Luminaire Lumens: 6310.0 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (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°	7343	7343	7343
5°	7363	7332	7270
10°	7285	7265	7182
15°	7156	7156	7074
20°	7004	7013	6923
25°	6774	6858	6749
30°	6378	6665	6584
35°	6027	6388	6399
40°	5734	6043	6202
45°	5406	5677	5969
50°	5061	5350	5714
55°	4668	4978	5406
60°	4203	4542	5027
65°	3712	4039	4572
70°	3093	3440	3885
75°	2431	2747	3041
80°	1739	1934	2145
85°	1133	1133	1068



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.9	4.1
10°-20°	721.8	11.4
20°-30°	1054.8	16.7
30°-40°	1197.3	19.0
40°-50°	1155.8	18.3
50°-60°	953.5	15.1
60°-70°	634.9	10.1
70°-80°	284.1	4.5
80°-90°	50.8	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°	2033.5	32.2
0°-40°	3230.8	51.2
0°-60°	5340.1	84.6
0°-90°	6310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6310.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2729	2729	2729	2729	2729	
5°	2726	2725	2714	2700	2691	258
15°	2568	2575	2568	2557	2539	724
25°	2281	2299	2310	2293	2273	1045
35°	1835	1860	1945	1955	1948	1150
45°	1420	1445	1492	1560	1568	1096
55°	995	1012	1061	1120	1152	888
65°	583	599	634	679	718	578
75°	234	246	264	277	292	256
85°	37	37	37	35	35	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2728.9	2728.9	2728.9	2728.9	2728.9
2.5°	2736.3	2737.3	2731.0	2714.2	2703.8
5°	2725.8	2724.7	2714.2	2699.6	2691.2
7.5°	2695.4	2697.5	2694.3	2673.3	2661.8
10°	2666.0	2667.1	2658.7	2641.9	2628.3
12.5°	2628.3	2627.2	2615.7	2607.3	2585.3
15°	2568.5	2574.8	2568.5	2557.0	2539.2
17.5°	2510.9	2510.9	2515.0	2495.1	2481.5
20°	2445.9	2449.0	2449.0	2433.3	2417.5
22.5°	2370.4	2379.8	2382.9	2366.2	2347.3
25°	2281.3	2299.1	2309.6	2292.8	2272.9
27.5°	2173.3	2200.5	2232.0	2219.4	2197.4
30°	2052.7	2092.6	2145.0	2134.5	2118.8
32.5°	1938.4	1978.3	2050.6	2046.4	2038.0
35°	1834.7	1859.8	1944.7	1955.2	1947.9
37.5°	1736.1	1759.2	1838.8	1863.0	1856.7
40°	1632.3	1657.5	1720.4	1763.4	1765.5
42.5°	1529.6	1553.7	1605.1	1666.9	1666.9
45°	1420.5	1444.7	1491.8	1560.0	1568.4
47.5°	1313.6	1338.8	1384.9	1453.0	1466.7
50°	1208.8	1231.8	1278.0	1344.0	1365.0
52.5°	1099.7	1124.9	1170.0	1230.8	1261.2
55°	994.9	1011.7	1061.0	1119.7	1152.2
57.5°	885.9	901.6	957.2	1007.5	1041.0
60°	781.0	801.0	843.9	895.3	934.1
62.5°	680.4	701.4	738.1	783.1	827.2
65°	582.9	598.6	634.3	679.3	718.1
67.5°	488.5	502.2	537.8	569.3	610.2
70°	393.1	411.0	437.2	467.6	493.8
72.5°	316.6	323.9	346.0	368.0	395.2
75°	233.8	246.4	264.2	276.8	292.5
77.5°	167.7	175.1	185.6	196.0	210.7
80°	112.2	115.3	124.8	126.9	138.4
82.5°	68.1	70.2	72.3	73.4	77.6
85°	36.7	36.7	36.7	34.6	34.6
87.5°	21.0	21.0	17.8	14.7	10.5
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)