

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: P557105

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-80-84-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: P557105  
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-LD4-2HI-50-UNV-80-84-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

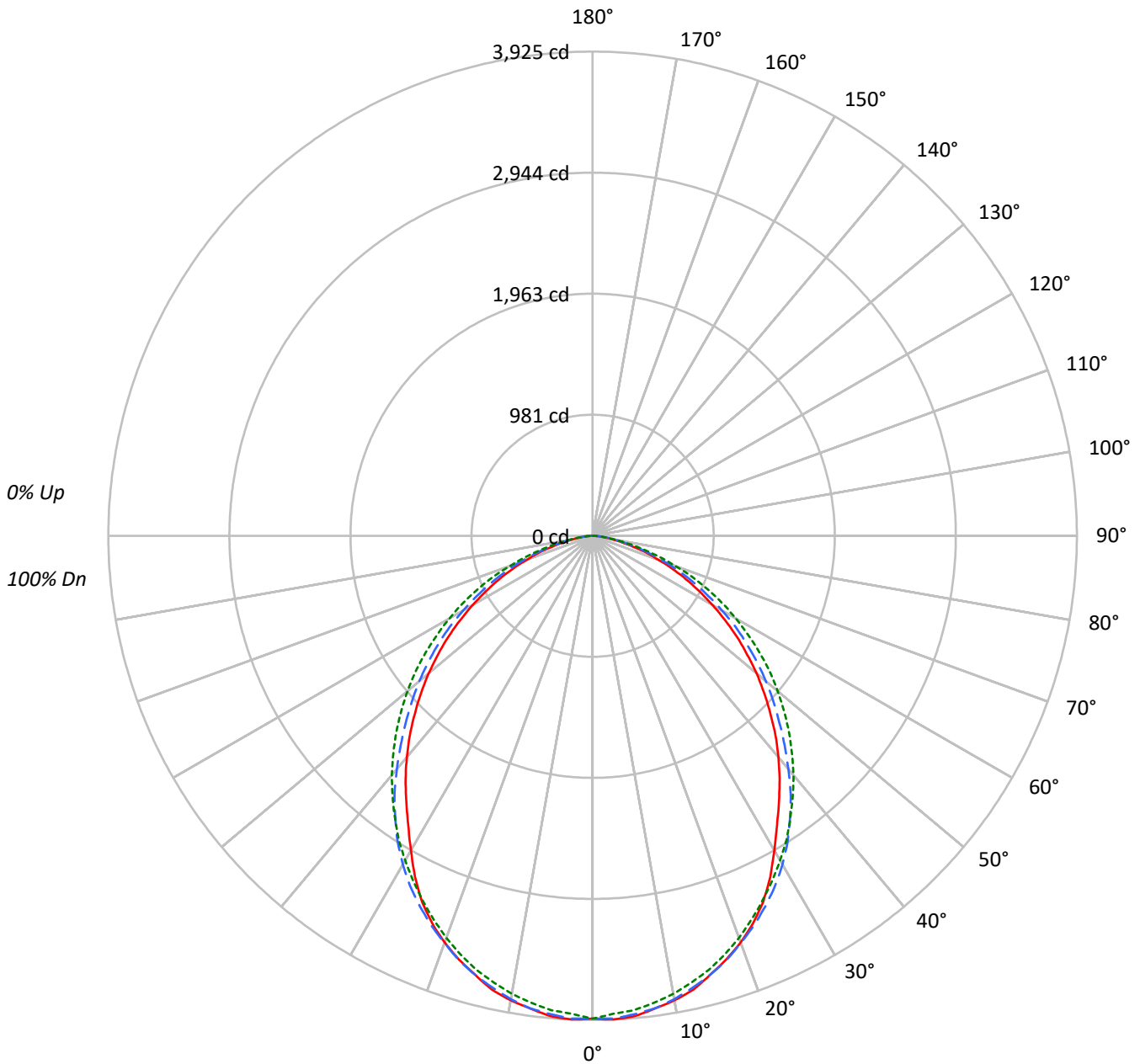
Lumens per Lamp: N/A  
Luminaire Lumens: 9051.0 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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°	10533	10533	10533
5°	10561	10517	10427
10°	10449	10421	10301
15°	10264	10264	10147
20°	10047	10060	9930
25°	9716	9836	9680
30°	9149	9560	9443
35°	8645	9164	9179
40°	8225	8669	8896
45°	7754	8144	8561
50°	7259	7674	8197
55°	6695	7140	7753
60°	6029	6515	7211
65°	5324	5793	6559
70°	4437	4934	5573
75°	3486	3941	4363
80°	2493	2772	3076
85°	1624	1624	1531



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	368.5	4.1
10°-20°	1035.3	11.4
20°-30°	1513.0	16.7
30°-40°	1717.4	19.0
40°-50°	1657.9	18.3
50°-60°	1367.6	15.1
60°-70°	910.7	10.1
70°-80°	407.5	4.5
80°-90°	72.9	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°	2916.9	32.2
0°-40°	4634.3	51.2
0°-60°	7659.8	84.6
0°-90°	9051.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9051.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3914	3914	3914	3914	3914	
5°	3910	3908	3893	3872	3860	370
15°	3684	3693	3684	3668	3642	1039
25°	3272	3298	3313	3289	3260	1499
35°	2632	2668	2790	2804	2794	1649
45°	2038	2072	2140	2238	2250	1572
55°	1427	1451	1522	1606	1653	1274
65°	836	859	910	974	1030	829
75°	335	353	379	397	420	367
85°	53	53	53	50	50	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3914.3	3914.3	3914.3	3914.3	3914.3
2.5°	3924.9	3926.4	3917.3	3893.3	3878.2
5°	3909.8	3908.3	3893.3	3872.2	3860.2
7.5°	3866.2	3869.2	3864.7	3834.6	3818.1
10°	3824.1	3825.6	3813.6	3789.5	3770.0
12.5°	3770.0	3768.5	3751.9	3739.9	3708.3
15°	3684.2	3693.3	3684.2	3667.7	3642.1
17.5°	3601.5	3601.5	3607.6	3579.0	3559.4
20°	3508.3	3512.8	3512.8	3490.3	3467.7
22.5°	3400.0	3413.6	3418.1	3394.0	3367.0
25°	3272.2	3297.8	3312.8	3288.8	3260.2
27.5°	3117.3	3156.4	3201.5	3183.5	3151.9
30°	2944.4	3001.5	3076.7	3061.7	3039.1
32.5°	2780.5	2837.6	2941.4	2935.4	2923.3
35°	2631.6	2667.7	2789.5	2804.5	2794.0
37.5°	2490.2	2523.3	2637.6	2672.2	2663.2
40°	2341.4	2377.5	2467.7	2529.3	2532.4
42.5°	2194.0	2228.6	2302.3	2391.0	2391.0
45°	2037.6	2072.2	2139.9	2237.6	2249.6
47.5°	1884.2	1920.3	1986.5	2084.2	2103.8
50°	1733.9	1766.9	1833.1	1927.8	1957.9
52.5°	1577.5	1613.5	1678.2	1765.4	1809.0
55°	1427.1	1451.1	1521.8	1606.0	1652.6
57.5°	1270.7	1293.2	1372.9	1445.1	1493.2
60°	1120.3	1148.9	1210.5	1284.2	1339.9
62.5°	975.9	1006.0	1058.7	1123.3	1186.5
65°	836.1	858.7	909.8	974.4	1030.1
67.5°	700.8	720.3	771.4	816.5	875.2
70°	563.9	589.5	627.1	670.7	708.3
72.5°	454.1	464.7	496.2	527.8	566.9
75°	335.3	353.4	379.0	397.0	419.6
77.5°	240.6	251.1	266.2	281.2	302.3
80°	160.9	165.4	178.9	182.0	198.5
82.5°	97.7	100.8	103.8	105.3	111.3
85°	52.6	52.6	52.6	49.6	49.6
87.5°	30.1	30.1	25.6	21.1	15.0
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)