

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: P558389

Luminaire Tested: **FUSL-12-4-LD4-3STD-50-UNV-80-86-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: P558389  
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-LD4-3STD-50-UNV-80-86-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

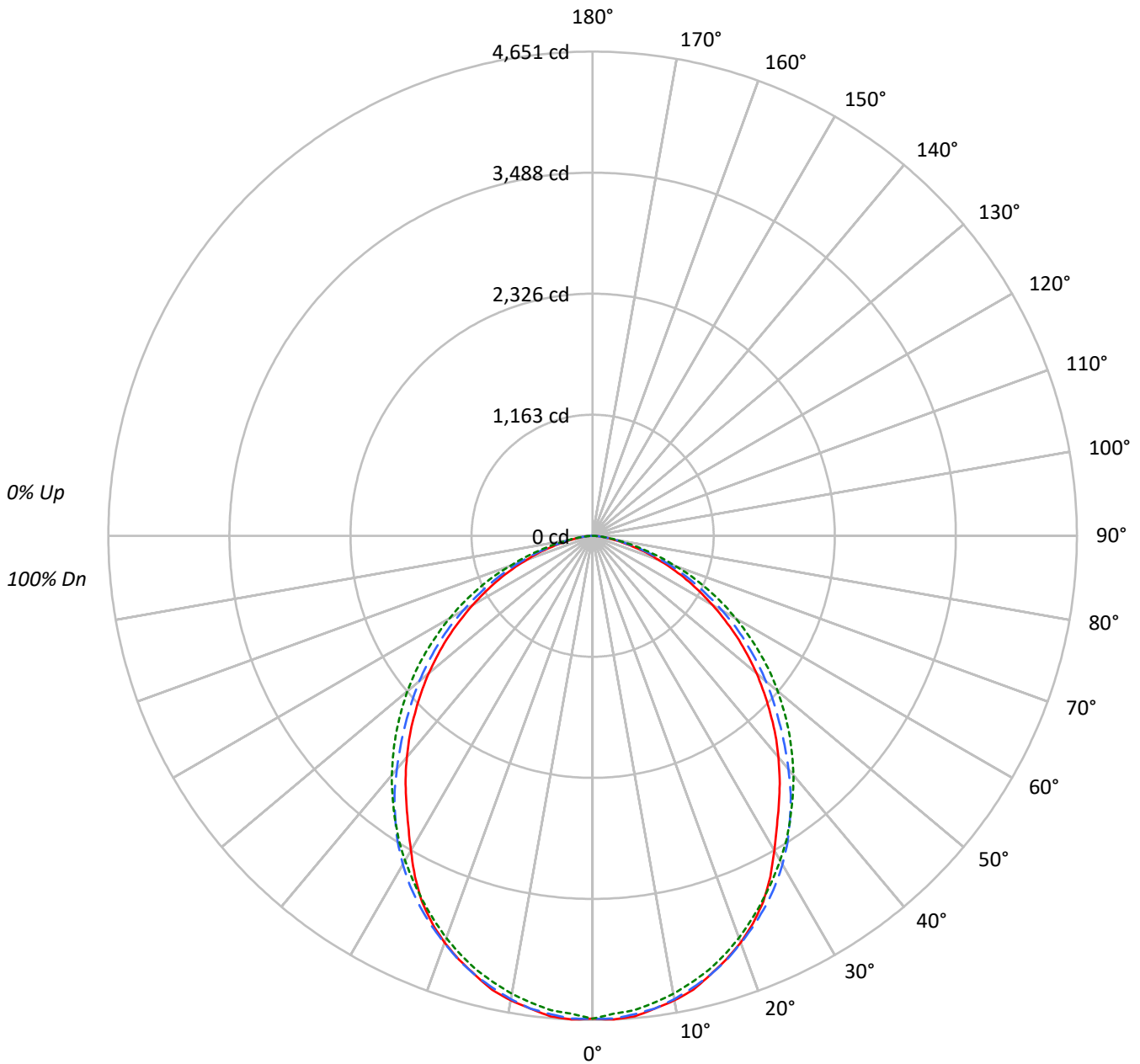
Lumens per Lamp: N/A  
Luminaire Lumens: 10726.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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°	12483	12483	12483
5°	12516	12463	12357
10°	12383	12349	12208
15°	12164	12164	12025
20°	11906	11921	11768
25°	11514	11657	11471
30°	10842	11329	11191
35°	10245	10859	10877
40°	9747	10273	10542
45°	9189	9651	10146
50°	8602	9094	9714
55°	7934	8461	9188
60°	7145	7721	8545
65°	6309	6865	7773
70°	5258	5847	6604
75°	4132	4669	5169
80°	2955	3287	3645
85°	1927	1927	1815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	436.7	4.1
10°-20°	1227.0	11.4
20°-30°	1793.0	16.7
30°-40°	2035.2	19.0
40°-50°	1964.7	18.3
50°-60°	1620.7	15.1
60°-70°	1079.3	10.1
70°-80°	483.0	4.5
80°-90°	86.4	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°	3456.7	32.2
0°-40°	5491.9	51.2
0°-60°	9077.3	84.6
0°-90°	10726.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10726.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4639	4639	4639	4639	4639	
5°	4633	4632	4614	4589	4575	439
15°	4366	4377	4366	4346	4316	1231
25°	3878	3908	3926	3897	3864	1776
35°	3119	3161	3306	3324	3311	1954
45°	2415	2456	2536	2652	2666	1863
55°	1691	1720	1804	1903	1958	1509
65°	991	1018	1078	1155	1221	982
75°	397	419	449	470	497	435
85°	62	62	62	59	59	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4638.7	4638.7	4638.7	4638.7	4638.7
2.5°	4651.2	4653.0	4642.3	4613.8	4595.9
5°	4633.4	4631.6	4613.8	4588.8	4574.6
7.5°	4581.7	4585.3	4579.9	4544.3	4524.7
10°	4531.8	4533.6	4519.3	4490.8	4467.6
12.5°	4467.6	4465.9	4446.3	4432.0	4394.6
15°	4366.1	4376.8	4366.1	4346.5	4316.2
17.5°	4268.0	4268.0	4275.2	4241.3	4218.2
20°	4157.6	4162.9	4162.9	4136.2	4109.4
22.5°	4029.3	4045.3	4050.6	4022.1	3990.0
25°	3877.8	3908.1	3925.9	3897.4	3863.5
27.5°	3694.2	3740.6	3794.0	3772.6	3735.2
30°	3489.3	3557.0	3646.1	3628.3	3601.6
32.5°	3295.0	3362.8	3485.7	3478.6	3464.3
35°	3118.6	3161.4	3305.7	3323.6	3311.1
37.5°	2951.1	2990.3	3125.7	3166.7	3156.0
40°	2774.7	2817.4	2924.4	2997.4	3001.0
42.5°	2600.0	2641.0	2728.3	2833.5	2833.5
45°	2414.7	2455.7	2535.9	2651.7	2666.0
47.5°	2232.9	2275.7	2354.1	2469.9	2493.1
50°	2054.7	2093.9	2172.3	2284.6	2320.3
52.5°	1869.4	1912.2	1988.8	2092.1	2143.8
55°	1691.2	1719.7	1803.5	1903.2	1958.5
57.5°	1505.8	1532.6	1627.0	1712.6	1769.6
60°	1327.6	1361.5	1434.6	1521.9	1587.8
62.5°	1156.6	1192.2	1254.6	1331.2	1406.1
65°	990.8	1017.6	1078.1	1154.8	1220.7
67.5°	830.4	853.6	914.2	967.7	1037.2
70°	668.3	698.6	743.1	794.8	839.4
72.5°	538.2	550.7	588.1	625.5	671.8
75°	397.4	418.8	449.1	470.5	497.2
77.5°	285.1	297.6	315.4	333.2	358.2
80°	190.7	196.0	212.1	215.6	235.2
82.5°	115.8	119.4	123.0	124.7	131.9
85°	62.4	62.4	62.4	58.8	58.8
87.5°	35.6	35.6	30.3	24.9	17.8
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)