

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: P557818

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-80-94-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: P557818  
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-LD4-3HI-40-UNV-80-94-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

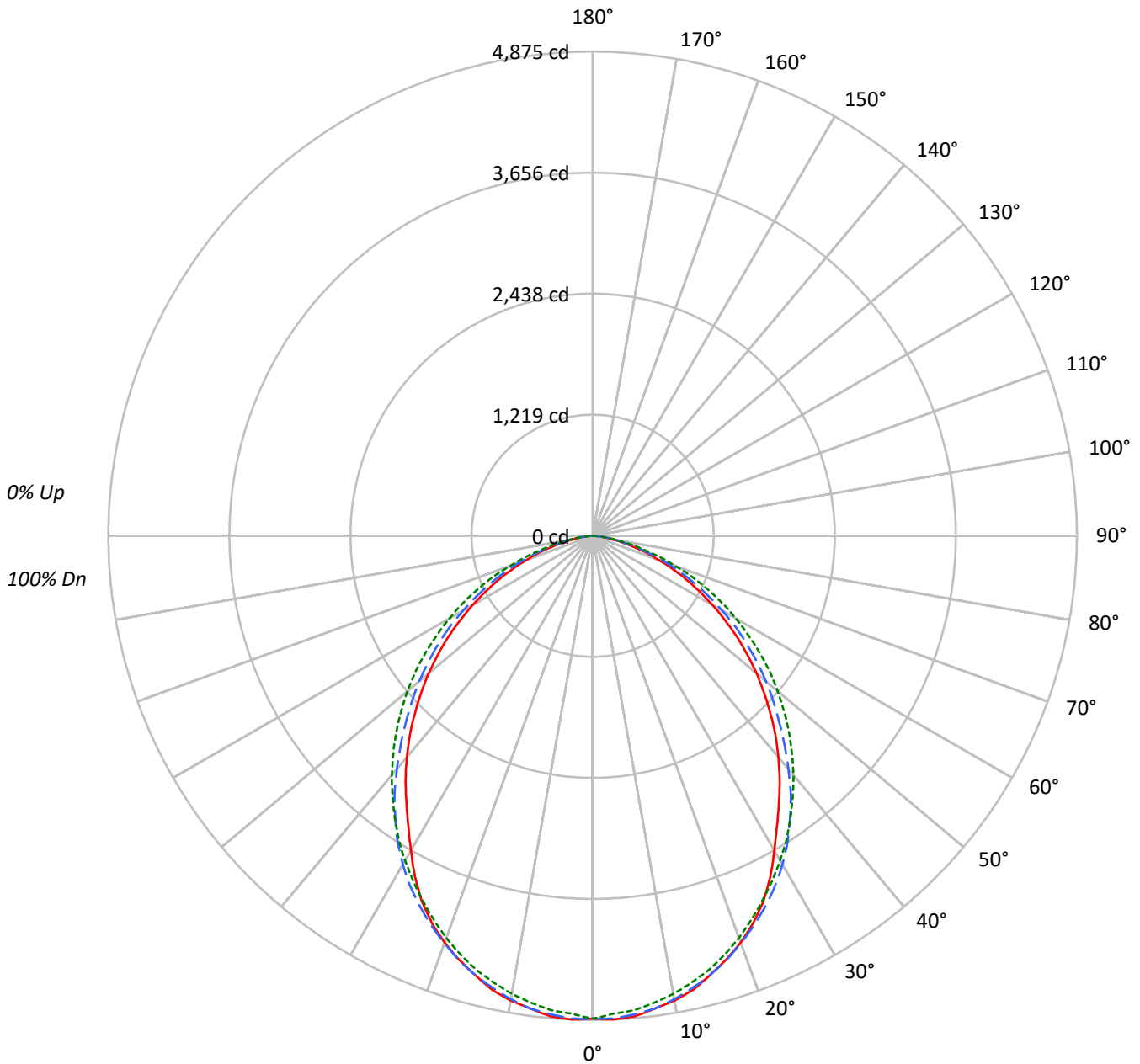
Lumens per Lamp: N/A  
Luminaire Lumens: 11243.0 lumens  
Efficiency: N/A  
Efficacy: 86.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 129.6  
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°	13084	13084	13084
5°	13119	13064	12953
10°	12980	12944	12796
15°	12750	12750	12604
20°	12480	12496	12335
25°	12069	12218	12024
30°	11365	11876	11731
35°	10739	11383	11402
40°	10217	10768	11050
45°	9632	10116	10635
50°	9017	9532	10182
55°	8317	8869	9631
60°	7490	8093	8958
65°	6613	7196	8148
70°	5511	6128	6922
75°	4331	4894	5419
80°	3098	3445	3821
85°	2019	2019	1902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	457.8	4.1
10°-20°	1286.1	11.4
20°-30°	1879.4	16.7
30°-40°	2133.3	19.0
40°-50°	2059.4	18.3
50°-60°	1698.9	15.1
60°-70°	1131.3	10.1
70°-80°	506.2	4.5
80°-90°	90.6	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°	3623.3	32.2
0°-40°	5756.6	51.2
0°-60°	9514.9	84.6
0°-90°	11243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11243.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4862	4862	4862	4862	4862	
5°	4857	4855	4836	4810	4795	460
15°	4576	4588	4576	4556	4524	1290
25°	4065	4096	4115	4085	4050	1861
35°	3269	3314	3465	3484	3471	2048
45°	2531	2574	2658	2780	2794	1953
55°	1773	1803	1890	1995	2053	1582
65°	1039	1067	1130	1210	1280	1030
75°	417	439	471	493	521	456
85°	65	65	65	62	62	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4862.3	4862.3	4862.3	4862.3	4862.3
2.5°	4875.4	4877.3	4866.0	4836.2	4817.5
5°	4856.7	4854.8	4836.2	4810.0	4795.1
7.5°	4802.5	4806.3	4800.7	4763.3	4742.8
10°	4750.2	4752.1	4737.2	4707.3	4683.0
12.5°	4683.0	4681.1	4660.6	4645.6	4606.4
15°	4576.5	4587.7	4576.5	4556.0	4524.2
17.5°	4473.8	4473.8	4481.2	4445.8	4421.5
20°	4358.0	4363.6	4363.6	4335.5	4307.5
22.5°	4223.5	4240.3	4245.9	4216.0	4182.4
25°	4064.7	4096.4	4115.1	4085.2	4049.7
27.5°	3872.3	3920.9	3976.9	3954.5	3915.3
30°	3657.5	3728.5	3821.9	3803.2	3775.2
32.5°	3453.9	3524.8	3653.7	3646.3	3631.3
35°	3268.9	3313.8	3465.1	3483.8	3470.7
37.5°	3093.3	3134.4	3276.4	3319.4	3308.2
40°	2908.4	2953.2	3065.3	3141.9	3145.6
42.5°	2725.4	2768.3	2859.9	2970.1	2970.1
45°	2531.1	2574.1	2658.1	2779.5	2794.5
47.5°	2340.6	2385.4	2467.6	2589.0	2613.3
50°	2153.8	2194.9	2277.0	2394.7	2432.1
52.5°	1959.5	2004.3	2084.6	2193.0	2247.2
55°	1772.7	1802.6	1890.4	1995.0	2052.9
57.5°	1578.4	1606.4	1705.5	1795.1	1854.9
60°	1391.6	1427.1	1503.7	1595.2	1664.4
62.5°	1212.3	1249.7	1315.0	1395.4	1473.8
65°	1038.6	1066.6	1130.1	1210.4	1279.6
67.5°	870.5	894.8	958.3	1014.3	1087.2
70°	700.5	732.2	778.9	833.1	879.8
72.5°	564.1	577.2	616.4	655.7	704.2
75°	416.6	439.0	470.7	493.1	521.2
77.5°	298.9	311.9	330.6	349.3	375.5
80°	199.9	205.5	222.3	226.0	246.6
82.5°	121.4	125.2	128.9	130.8	138.2
85°	65.4	65.4	65.4	61.6	61.6
87.5°	37.4	37.4	31.8	26.2	18.7
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)