

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: P557690

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-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: P557690  
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-30-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  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

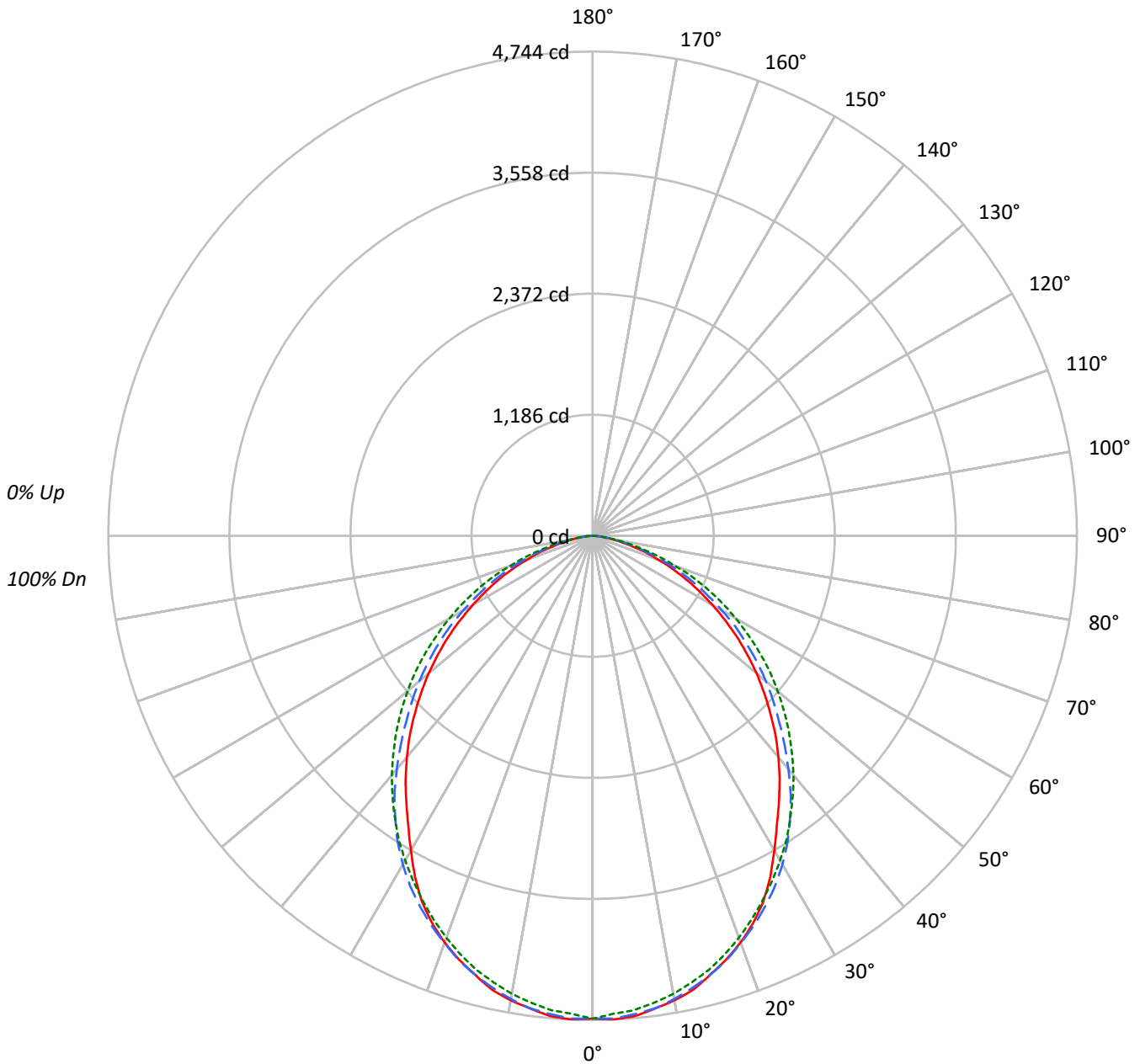
Lumens per Lamp: N/A  
Luminaire Lumens: 10939.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	12730	12730	12730
5°	12765	12710	12602
10°	12629	12594	12450
15°	12405	12405	12263
20°	12142	12158	12002
25°	11742	11888	11699
30°	11058	11554	11413
35°	10448	11075	11093
40°	9941	10477	10751
45°	9372	9842	10347
50°	8773	9275	9906
55°	8092	8629	9371
60°	7287	7874	8716
65°	6434	7002	7927
70°	5362	5963	6735
75°	4214	4762	5272
80°	3014	3352	3718
85°	1964	1964	1853



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	445.4	4.1
10°-20°	1251.3	11.4
20°-30°	1828.6	16.7
30°-40°	2075.6	19.0
40°-50°	2003.7	18.3
50°-60°	1652.9	15.1
60°-70°	1100.7	10.1
70°-80°	492.6	4.5
80°-90°	88.1	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°	3525.3	32.2
0°-40°	5601.0	51.2
0°-60°	9257.6	84.6
0°-90°	10939.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10939.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4731	4731	4731	4731	4731	
5°	4725	4724	4705	4680	4665	447
15°	4453	4464	4453	4433	4402	1255
25°	3955	3986	4004	3975	3940	1811
35°	3180	3224	3371	3390	3377	1993
45°	2463	2504	2586	2704	2719	1900
55°	1725	1754	1839	1941	1997	1539
65°	1010	1038	1100	1178	1245	1002
75°	405	427	458	480	507	443
85°	64	64	64	60	60	86
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4730.8	4730.8	4730.8	4730.8	4730.8
2.5°	4743.6	4745.4	4734.5	4705.4	4687.2
5°	4725.4	4723.6	4705.4	4679.9	4665.4
7.5°	4672.7	4676.3	4670.9	4634.5	4614.5
10°	4621.8	4623.6	4609.1	4580.0	4556.4
12.5°	4556.4	4554.5	4534.5	4520.0	4481.8
15°	4452.8	4463.7	4452.8	4432.8	4401.9
17.5°	4352.8	4352.8	4360.1	4325.5	4301.9
20°	4240.1	4245.6	4245.6	4218.3	4191.1
22.5°	4109.3	4125.6	4131.1	4102.0	4069.3
25°	3954.8	3985.7	4003.9	3974.8	3940.2
27.5°	3767.6	3814.8	3869.4	3847.6	3809.4
30°	3558.6	3627.6	3718.5	3700.3	3673.1
32.5°	3360.5	3429.5	3554.9	3547.7	3533.1
35°	3180.5	3224.2	3371.4	3389.6	3376.8
37.5°	3009.7	3049.7	3187.8	3229.6	3218.7
40°	2829.8	2873.4	2982.4	3057.0	3060.6
42.5°	2651.7	2693.5	2782.5	2889.8	2889.8
45°	2462.7	2504.5	2586.2	2704.4	2718.9
47.5°	2277.3	2320.9	2400.9	2519.0	2542.6
50°	2095.5	2135.5	2215.5	2330.0	2366.3
52.5°	1906.5	1950.1	2028.3	2133.7	2186.4
55°	1724.8	1753.8	1839.3	1941.0	1997.4
57.5°	1535.7	1563.0	1659.3	1746.6	1804.7
60°	1354.0	1388.5	1463.1	1552.1	1619.4
62.5°	1179.5	1215.9	1279.5	1357.6	1434.0
65°	1010.5	1037.8	1099.6	1177.7	1245.0
67.5°	846.9	870.6	932.4	986.9	1057.8
70°	681.5	712.4	757.9	810.6	856.0
72.5°	548.9	561.6	599.8	637.9	685.2
75°	405.3	427.1	458.0	479.8	507.1
77.5°	290.8	303.5	321.7	339.9	365.3
80°	194.5	199.9	216.3	219.9	239.9
82.5°	118.1	121.8	125.4	127.2	134.5
85°	63.6	63.6	63.6	60.0	60.0
87.5°	36.3	36.3	30.9	25.4	18.2
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)