

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: P557939

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-80-85-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: P557939  
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-LD4-3LO-30-UNV-80-85-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

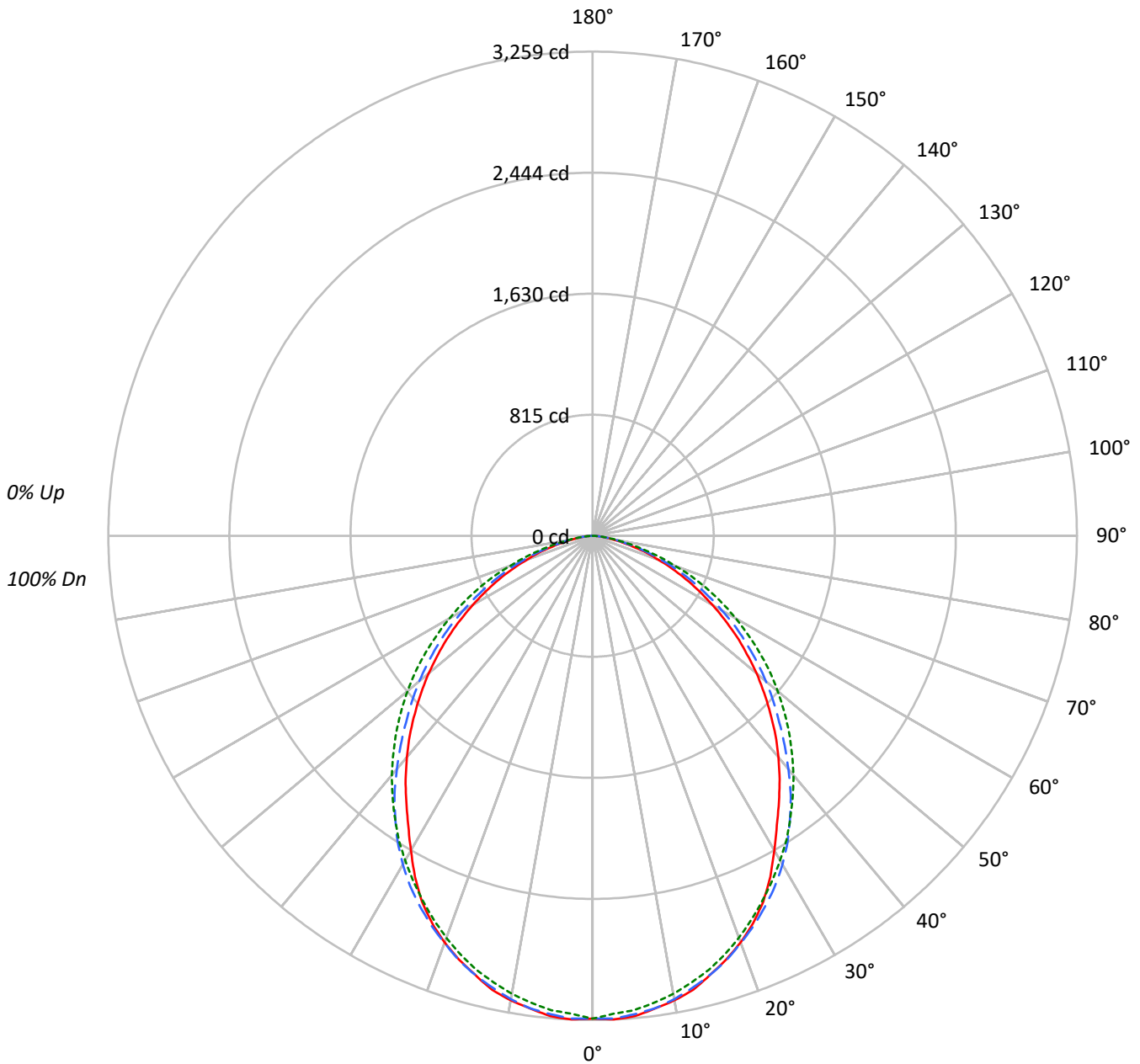
Lumens per Lamp: N/A  
Luminaire Lumens: 7515.0 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	8746	8746	8746
5°	8769	8732	8658
10°	8676	8652	8553
15°	8522	8522	8425
20°	8342	8352	8245
25°	8067	8167	8037
30°	7596	7938	7841
35°	7178	7609	7621
40°	6829	7197	7386
45°	6438	6761	7109
50°	6027	6372	6805
55°	5559	5928	6438
60°	5006	5409	5987
65°	4420	4810	5446
70°	3684	4097	4627
75°	2895	3271	3622
80°	2070	2303	2554
85°	1349	1349	1272



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	306.0	4.1
10°-20°	859.6	11.4
20°-30°	1256.2	16.7
30°-40°	1425.9	19.0
40°-50°	1376.5	18.3
50°-60°	1135.5	15.1
60°-70°	756.2	10.1
70°-80°	338.4	4.5
80°-90°	60.5	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°	2421.9	32.2
0°-40°	3847.8	51.2
0°-60°	6359.9	84.6
0°-90°	7515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7515.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3250	3250	3250	3250	3250	
5°	3246	3245	3233	3215	3205	307
15°	3059	3066	3059	3045	3024	862
25°	2717	2738	2751	2731	2707	1244
35°	2185	2215	2316	2329	2320	1369
45°	1692	1720	1777	1858	1868	1305
55°	1185	1205	1264	1334	1372	1058
65°	694	713	755	809	855	688
75°	278	293	315	330	348	304
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3250.0	3250.0	3250.0	3250.0	3250.0
2.5°	3258.8	3260.0	3252.5	3232.6	3220.1
5°	3246.3	3245.0	3232.6	3215.1	3205.1
7.5°	3210.1	3212.6	3208.8	3183.9	3170.1
10°	3175.1	3176.4	3166.4	3146.4	3130.2
12.5°	3130.2	3128.9	3115.2	3105.2	3079.0
15°	3059.0	3066.5	3059.0	3045.3	3024.1
17.5°	2990.3	2990.3	2995.3	2971.6	2955.4
20°	2912.9	2916.7	2916.7	2897.9	2879.2
22.5°	2823.0	2834.3	2838.0	2818.0	2795.6
25°	2716.9	2738.1	2750.6	2730.6	2706.9
27.5°	2588.3	2620.8	2658.2	2643.2	2617.0
30°	2444.7	2492.2	2554.6	2542.1	2523.4
32.5°	2308.6	2356.1	2442.2	2437.2	2427.2
35°	2185.0	2215.0	2316.1	2328.6	2319.9
37.5°	2067.6	2095.1	2190.0	2218.7	2211.2
40°	1944.0	1974.0	2048.9	2100.1	2102.6
42.5°	1821.7	1850.4	1911.6	1985.2	1985.2
45°	1691.8	1720.5	1776.7	1857.9	1867.9
47.5°	1564.5	1594.4	1649.4	1730.5	1746.8
50°	1439.6	1467.1	1522.0	1600.7	1625.6
52.5°	1309.8	1339.7	1393.4	1465.8	1502.0
55°	1184.9	1204.9	1263.6	1333.5	1372.2
57.5°	1055.0	1073.8	1139.9	1199.9	1239.8
60°	930.2	953.9	1005.1	1066.3	1112.5
62.5°	810.3	835.3	879.0	932.7	985.1
65°	694.2	712.9	755.4	809.1	855.3
67.5°	581.8	598.1	640.5	678.0	726.7
70°	468.2	489.4	520.7	556.9	588.1
72.5°	377.1	385.8	412.0	438.3	470.7
75°	278.4	293.4	314.6	329.6	348.4
77.5°	199.8	208.5	221.0	233.5	251.0
80°	133.6	137.3	148.6	151.1	164.8
82.5°	81.2	83.7	86.2	87.4	92.4
85°	43.7	43.7	43.7	41.2	41.2
87.5°	25.0	25.0	21.2	17.5	12.5
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)