

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: P558067

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-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: P558067  
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-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

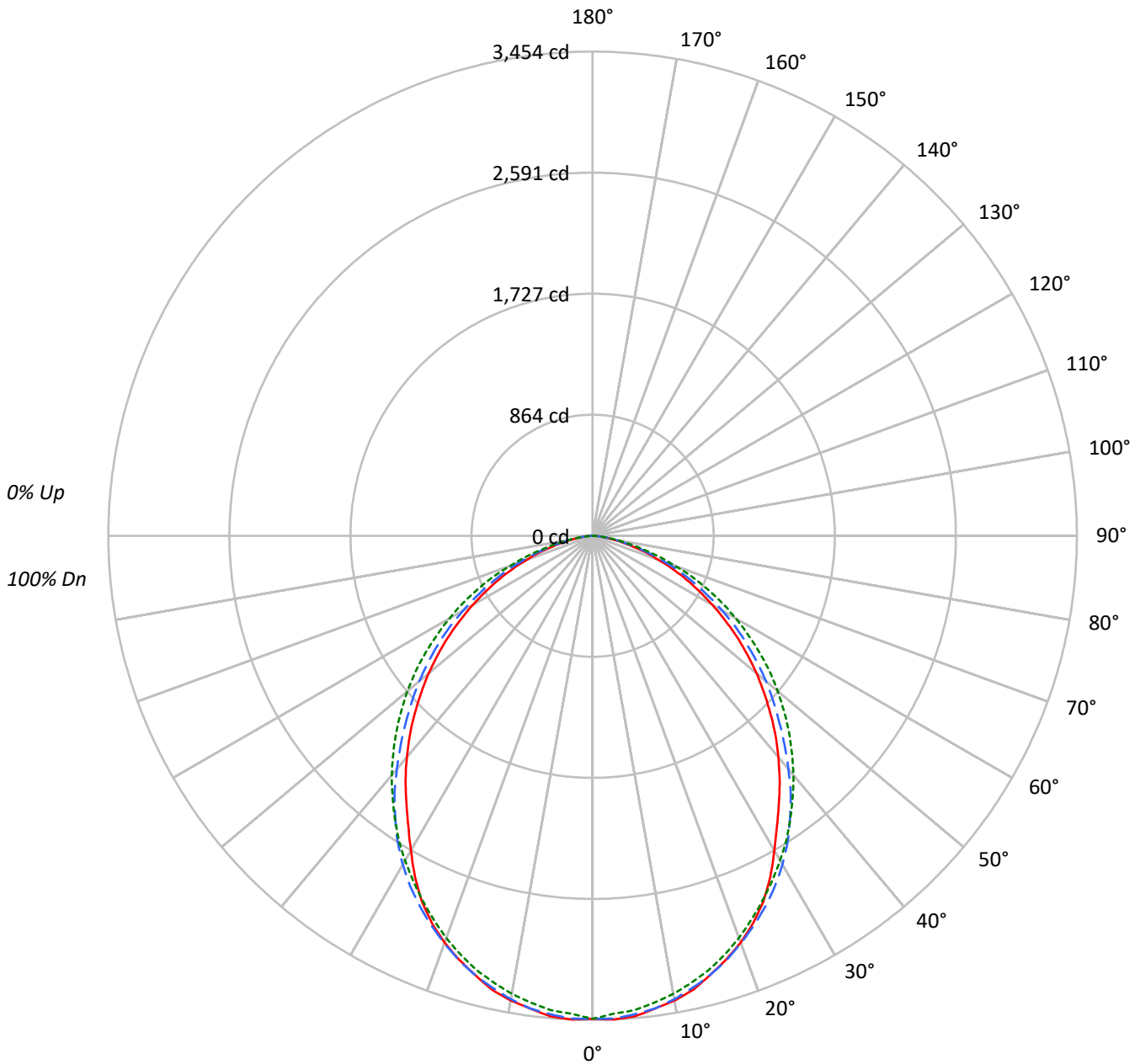
Lumens per Lamp: N/A  
Luminaire Lumens: 7966.0 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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					20					
RC	80					70					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°	9271	9271	9271
5°	9295	9256	9177
10°	9197	9171	9066
15°	9034	9034	8930
20°	8842	8854	8740
25°	8551	8657	8520
30°	8052	8414	8311
35°	7609	8065	8078
40°	7239	7630	7829
45°	6825	7168	7535
50°	6388	6754	7214
55°	5893	6284	6824
60°	5307	5734	6346
65°	4686	5098	5773
70°	3905	4342	4905
75°	3068	3467	3840
80°	2194	2441	2707
85°	1430	1430	1349



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	324.4	4.1
10°-20°	911.2	11.4
20°-30°	1331.6	16.7
30°-40°	1511.5	19.0
40°-50°	1459.2	18.3
50°-60°	1203.7	15.1
60°-70°	801.6	10.1
70°-80°	358.7	4.5
80°-90°	64.2	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°	2567.2	32.2
0°-40°	4078.7	51.2
0°-60°	6741.6	84.6
0°-90°	7966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7966.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3445	3445	3445	3445	3445	
5°	3441	3440	3427	3408	3397	326
15°	3243	3250	3243	3228	3206	914
25°	2880	2902	2916	2894	2869	1319
35°	2316	2348	2455	2468	2459	1451
45°	1793	1824	1883	1969	1980	1384
55°	1256	1277	1339	1414	1454	1121
65°	736	756	801	858	907	730
75°	295	311	334	349	369	323
85°	46	46	46	44	44	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3445.1	3445.1	3445.1	3445.1	3445.1
2.5°	3454.4	3455.7	3447.7	3426.6	3413.3
5°	3441.1	3439.8	3426.6	3408.0	3397.4
7.5°	3402.7	3405.4	3401.4	3374.9	3360.4
10°	3365.7	3367.0	3356.4	3335.2	3318.0
12.5°	3318.0	3316.7	3302.2	3291.6	3263.8
15°	3242.6	3250.5	3242.6	3228.0	3205.5
17.5°	3169.8	3169.8	3175.1	3149.9	3132.7
20°	3087.7	3091.7	3091.7	3071.9	3052.0
22.5°	2992.4	3004.4	3008.3	2987.2	2963.3
25°	2880.0	2902.5	2915.7	2894.5	2869.4
27.5°	2743.6	2778.0	2817.7	2801.9	2774.1
30°	2591.4	2641.7	2707.9	2694.7	2674.8
32.5°	2447.2	2497.5	2588.8	2583.5	2572.9
35°	2316.1	2347.9	2455.1	2468.3	2459.1
37.5°	2191.7	2220.8	2321.4	2351.9	2343.9
40°	2060.7	2092.5	2171.9	2226.1	2228.8
42.5°	1931.0	1961.4	2026.3	2104.4	2104.4
45°	1793.4	1823.8	1883.4	1969.4	1980.0
47.5°	1658.4	1690.1	1748.4	1834.4	1851.6
50°	1526.0	1555.1	1613.4	1696.7	1723.2
52.5°	1388.4	1420.1	1477.0	1553.8	1592.2
55°	1256.0	1277.2	1339.4	1413.5	1454.5
57.5°	1118.4	1138.2	1208.4	1271.9	1314.2
60°	986.0	1011.2	1065.4	1130.3	1179.2
62.5°	859.0	885.4	931.7	988.7	1044.2
65°	735.9	755.7	800.7	857.6	906.6
67.5°	616.8	634.0	679.0	718.7	770.3
70°	496.3	518.8	551.9	590.3	623.4
72.5°	399.7	409.0	436.8	464.6	499.0
75°	295.1	311.0	333.5	349.4	369.3
77.5°	211.8	221.0	234.3	247.5	266.0
80°	141.6	145.6	157.5	160.1	174.7
82.5°	86.0	88.7	91.3	92.6	97.9
85°	46.3	46.3	46.3	43.7	43.7
87.5°	26.5	26.5	22.5	18.5	13.2
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)