

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: P556914

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-80-85-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: P556914  
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-LD4-2HI-30-UNV-80-85-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

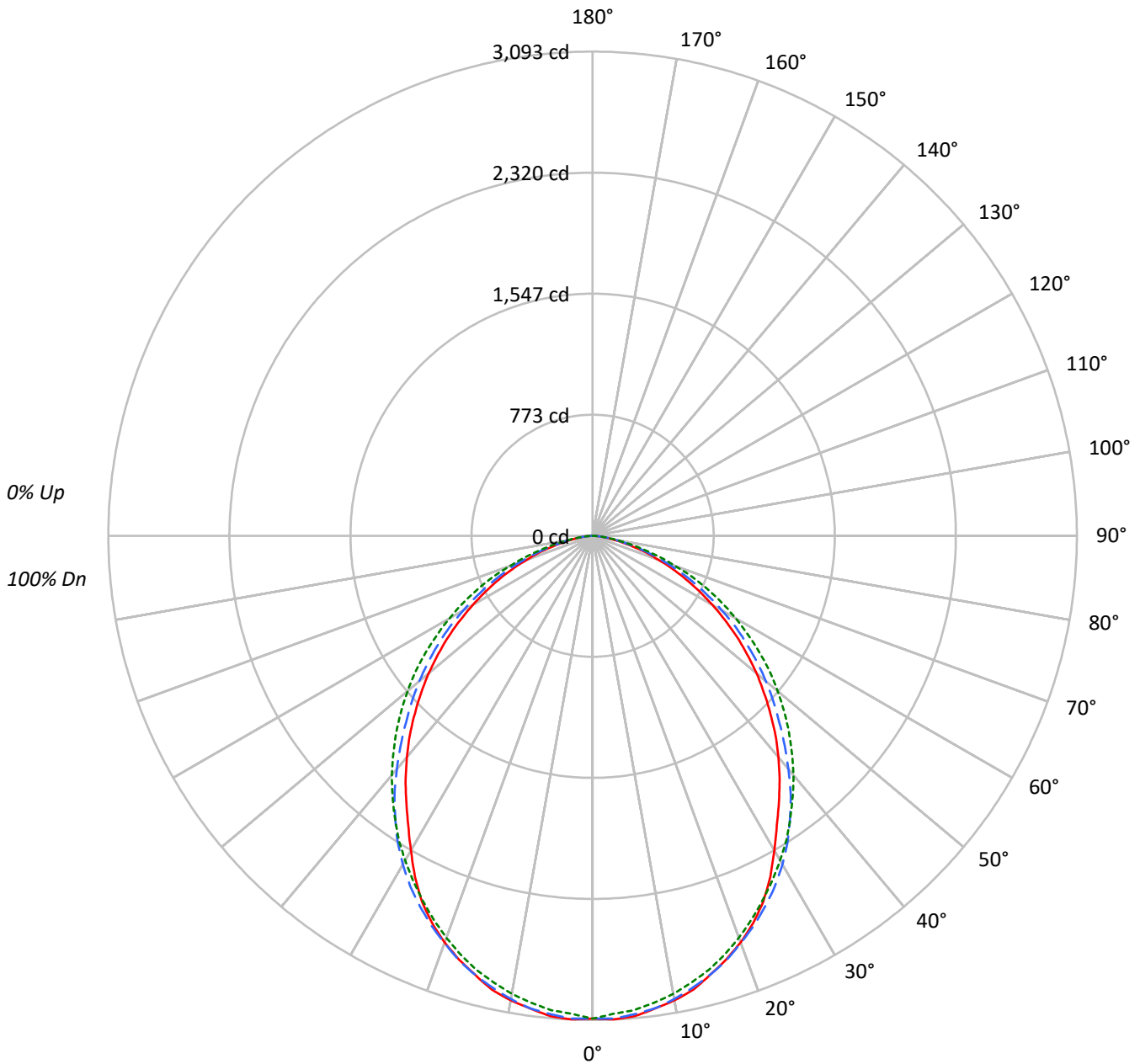
Lumens per Lamp: N/A  
Luminaire Lumens: 7132.0 lumens  
Efficiency: N/A  
Efficacy: 82.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 86.4  
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°	8300	8300	8300
5°	8322	8287	8216
10°	8234	8211	8117
15°	8088	8088	7995
20°	7917	7927	7825
25°	7656	7751	7628
30°	7209	7533	7441
35°	6812	7221	7232
40°	6481	6831	7009
45°	6110	6417	6746
50°	5719	6047	6459
55°	5276	5626	6110
60°	4751	5134	5682
65°	4195	4565	5168
70°	3496	3888	4391
75°	2747	3105	3437
80°	1965	2185	2424
85°	1281	1281	1207



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	290.4	4.1
10°-20°	815.8	11.4
20°-30°	1192.2	16.7
30°-40°	1353.3	19.0
40°-50°	1306.4	18.3
50°-60°	1077.7	15.1
60°-70°	717.6	10.1
70°-80°	321.1	4.5
80°-90°	57.5	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°	2298.4	32.2
0°-40°	3651.7	51.2
0°-60°	6035.8	84.6
0°-90°	7132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7132.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3084	3084	3084	3084	3084	
5°	3081	3080	3068	3051	3042	292
15°	2903	2910	2903	2890	2870	818
25°	2578	2599	2610	2592	2569	1181
35°	2074	2102	2198	2210	2202	1299
45°	1606	1633	1686	1763	1773	1239
55°	1124	1144	1199	1266	1302	1004
65°	659	677	717	768	812	653
75°	264	278	299	313	331	289
85°	42	42	42	39	39	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3084.4	3084.4	3084.4	3084.4	3084.4
2.5°	3092.7	3093.9	3086.8	3067.8	3056.0
5°	3080.9	3079.7	3067.8	3051.2	3041.7
7.5°	3046.5	3048.9	3045.3	3021.6	3008.6
10°	3013.3	3014.5	3005.0	2986.1	2970.7
12.5°	2970.7	2969.5	2956.4	2947.0	2922.1
15°	2903.1	2910.2	2903.1	2890.1	2869.9
17.5°	2837.9	2837.9	2842.7	2820.2	2804.8
20°	2764.5	2768.0	2768.0	2750.3	2732.5
22.5°	2679.2	2689.8	2693.4	2674.4	2653.1
25°	2578.4	2598.6	2610.4	2591.5	2569.0
27.5°	2456.4	2487.2	2522.7	2508.5	2483.6
30°	2320.1	2365.1	2424.4	2412.5	2394.8
32.5°	2191.0	2236.0	2317.7	2313.0	2303.5
35°	2073.6	2102.1	2198.1	2209.9	2201.6
37.5°	1962.3	1988.3	2078.4	2105.6	2098.5
40°	1845.0	1873.4	1944.5	1993.1	1995.4
42.5°	1728.8	1756.1	1814.1	1884.1	1884.1
45°	1605.6	1632.9	1686.2	1763.2	1772.7
47.5°	1484.7	1513.2	1565.3	1642.3	1657.7
50°	1366.2	1392.3	1444.4	1519.1	1542.8
52.5°	1243.0	1271.4	1322.4	1391.1	1425.5
55°	1124.5	1143.5	1199.2	1265.5	1302.3
57.5°	1001.3	1019.1	1081.9	1138.7	1176.6
60°	882.8	905.3	953.9	1011.9	1055.8
62.5°	769.0	792.7	834.2	885.2	934.9
65°	658.8	676.6	716.9	767.8	811.7
67.5°	552.2	567.6	607.9	643.4	689.6
70°	444.4	464.5	494.1	528.5	558.1
72.5°	357.9	366.1	391.0	415.9	446.7
75°	264.2	278.5	298.6	312.8	330.6
77.5°	189.6	197.9	209.7	221.6	238.2
80°	126.8	130.3	141.0	143.4	156.4
82.5°	77.0	79.4	81.8	82.9	87.7
85°	41.5	41.5	41.5	39.1	39.1
87.5°	23.7	23.7	20.1	16.6	11.8
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)