

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: P557429

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-80-86-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: P557429  
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-LD4-2STD-30-UNV-80-86-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

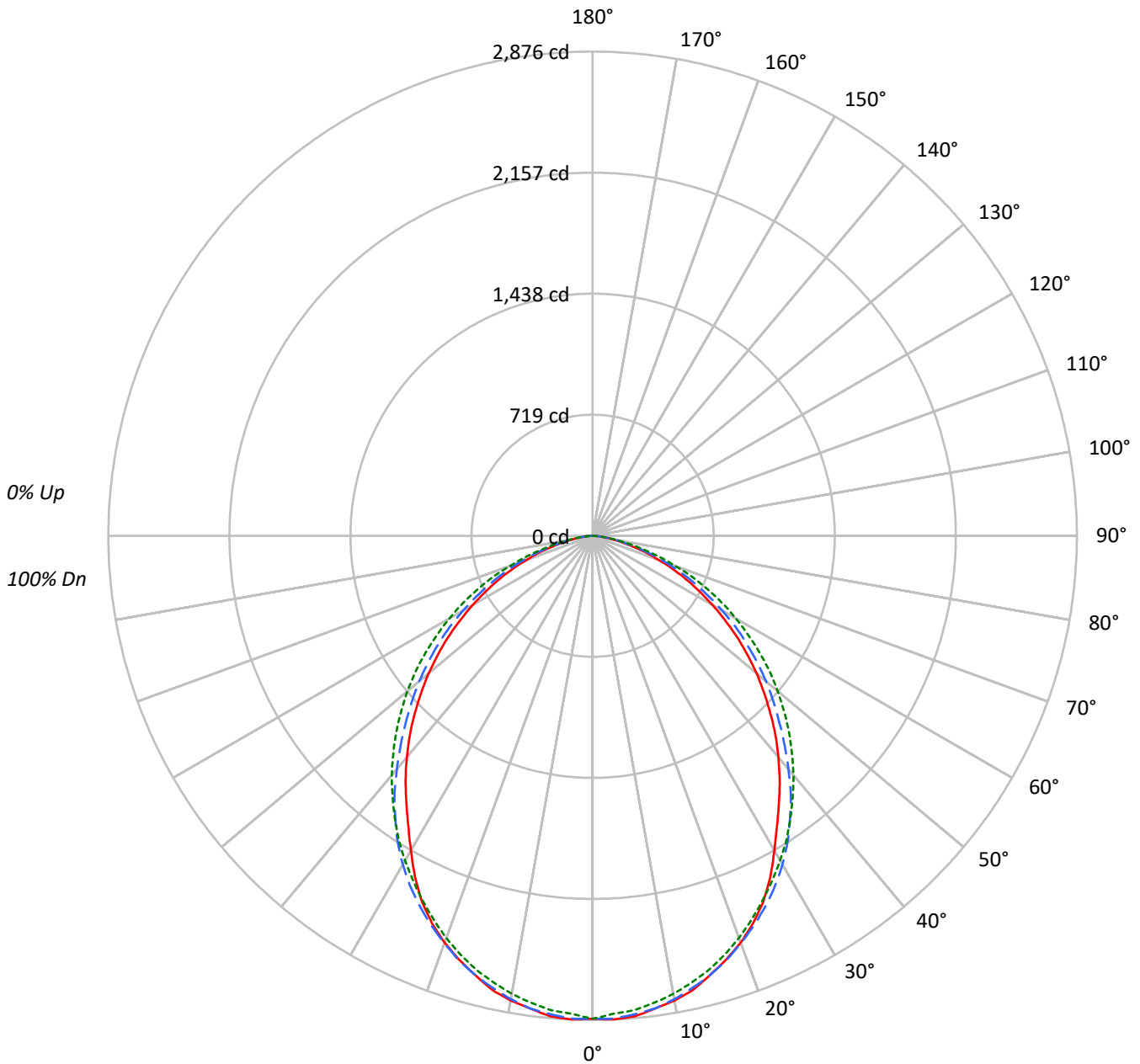
Lumens per Lamp: N/A  
Luminaire Lumens: 6633.0 lumens  
Efficiency: N/A  
Efficacy: 99.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
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°	7719	7719	7719
5°	7740	7707	7642
10°	7658	7637	7549
15°	7522	7522	7436
20°	7363	7372	7277
25°	7120	7209	7094
30°	6705	7006	6921
35°	6336	6716	6727
40°	6028	6353	6519
45°	5683	5968	6274
50°	5319	5624	6007
55°	4906	5233	5682
60°	4419	4774	5285
65°	3901	4245	4807
70°	3252	3615	4084
75°	2556	2887	3197
80°	1827	2032	2255
85°	1192	1192	1124



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.1	4.1
10°-20°	758.8	11.4
20°-30°	1108.8	16.7
30°-40°	1258.6	19.0
40°-50°	1215.0	18.3
50°-60°	1002.3	15.1
60°-70°	667.4	10.1
70°-80°	298.7	4.5
80°-90°	53.4	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°	2137.6	32.2
0°-40°	3396.2	51.2
0°-60°	5613.5	84.6
0°-90°	6633.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6633.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2869	2869	2869	2869	2869	
5°	2865	2864	2853	2838	2829	271
15°	2700	2707	2700	2688	2669	761
25°	2398	2417	2428	2410	2389	1098
35°	1929	1955	2044	2055	2048	1208
45°	1493	1519	1568	1640	1649	1152
55°	1046	1064	1115	1177	1211	933
65°	613	629	667	714	755	608
75°	246	259	278	291	308	269
85°	39	39	39	36	36	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2868.6	2868.6	2868.6	2868.6	2868.6
2.5°	2876.3	2877.4	2870.8	2853.2	2842.2
5°	2865.3	2864.2	2853.2	2837.7	2828.9
7.5°	2833.3	2835.5	2832.2	2810.2	2798.1
10°	2802.5	2803.6	2794.8	2777.1	2762.8
12.5°	2762.8	2761.7	2749.6	2740.8	2717.6
15°	2700.0	2706.6	2700.0	2687.9	2669.1
17.5°	2639.4	2639.4	2643.8	2622.8	2608.5
20°	2571.1	2574.4	2574.4	2557.8	2541.3
22.5°	2491.7	2501.6	2504.9	2487.3	2467.5
25°	2398.0	2416.8	2427.8	2410.2	2389.2
27.5°	2284.5	2313.2	2346.2	2333.0	2309.9
30°	2157.8	2199.7	2254.8	2243.7	2227.2
32.5°	2037.7	2079.5	2155.6	2151.2	2142.4
35°	1928.6	1955.0	2044.3	2055.3	2047.6
37.5°	1825.0	1849.2	1933.0	1958.3	1951.7
40°	1715.9	1742.3	1808.4	1853.6	1855.8
42.5°	1607.9	1633.2	1687.2	1752.2	1752.2
45°	1493.3	1518.6	1568.2	1639.8	1648.6
47.5°	1380.9	1407.3	1455.8	1527.4	1541.7
50°	1270.6	1294.9	1343.4	1412.8	1434.9
52.5°	1156.0	1182.5	1229.9	1293.8	1325.7
55°	1045.8	1063.5	1115.3	1177.0	1211.1
57.5°	931.2	947.8	1006.2	1059.1	1094.3
60°	821.0	842.0	887.1	941.1	981.9
62.5°	715.2	737.3	775.8	823.2	869.5
65°	612.7	629.3	666.7	714.1	754.9
67.5°	513.5	527.9	565.3	598.4	641.4
70°	413.3	432.0	459.5	491.5	519.1
72.5°	332.8	340.5	363.7	386.8	415.5
75°	245.8	259.0	277.7	290.9	307.5
77.5°	176.3	184.0	195.1	206.1	221.5
80°	117.9	121.2	131.1	133.3	145.5
82.5°	71.6	73.8	76.0	77.1	81.6
85°	38.6	38.6	38.6	36.4	36.4
87.5°	22.0	22.0	18.7	15.4	11.0
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)