

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: P556920

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-80-88-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: P556920  
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-80-88-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

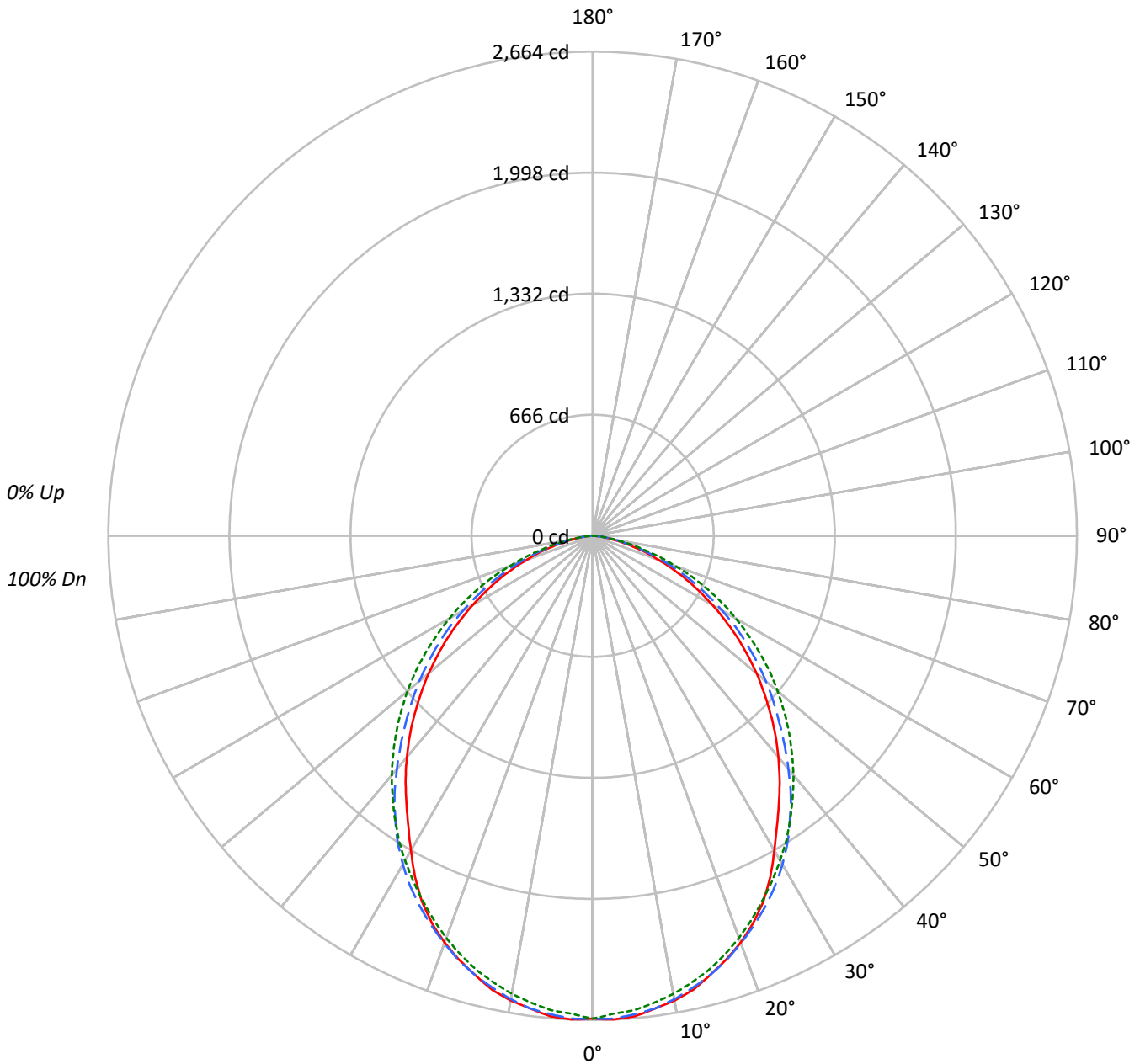
Lumens per Lamp: N/A  
Luminaire Lumens: 6144.0 lumens  
Efficiency: N/A  
Efficacy: 71.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	7150	7150	7150
5°	7169	7139	7078
10°	7093	7074	6993
15°	6967	6967	6888
20°	6820	6829	6741
25°	6595	6677	6571
30°	6211	6490	6410
35°	5868	6221	6230
40°	5583	5884	6039
45°	5264	5528	5812
50°	4927	5209	5564
55°	4545	4846	5263
60°	4093	4422	4895
65°	3614	3933	4452
70°	3012	3349	3783
75°	2366	2674	2961
80°	1692	1883	2087
85°	1102	1102	1041



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.2	4.1
10°-20°	702.8	11.4
20°-30°	1027.0	16.7
30°-40°	1165.8	19.0
40°-50°	1125.4	18.3
50°-60°	928.4	15.1
60°-70°	618.2	10.1
70°-80°	276.7	4.5
80°-90°	49.5	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°	1980.0	32.2
0°-40°	3145.8	51.2
0°-60°	5199.6	84.6
0°-90°	6144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6144.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2657	2657	2657	2657	2657	
5°	2654	2653	2643	2628	2620	251
15°	2501	2507	2501	2490	2472	705
25°	2221	2239	2249	2232	2213	1017
35°	1786	1811	1894	1904	1897	1119
45°	1383	1407	1453	1519	1527	1067
55°	969	985	1033	1090	1122	865
65°	568	583	618	662	699	563
75°	228	240	257	270	285	249
85°	36	36	36	34	34	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2657.1	2657.1	2657.1	2657.1	2657.1
2.5°	2664.3	2665.3	2659.2	2642.8	2632.6
5°	2654.1	2653.0	2642.8	2628.5	2620.4
7.5°	2624.5	2626.5	2623.4	2603.0	2591.8
10°	2595.9	2596.9	2588.7	2572.4	2559.1
12.5°	2559.1	2558.1	2546.9	2538.7	2517.3
15°	2500.9	2507.1	2500.9	2489.7	2472.4
17.5°	2444.8	2444.8	2448.9	2429.5	2416.2
20°	2381.5	2384.6	2384.6	2369.3	2353.9
22.5°	2308.0	2317.2	2320.3	2303.9	2285.6
25°	2221.2	2238.6	2248.8	2232.5	2213.1
27.5°	2116.1	2142.6	2173.3	2161.0	2139.6
30°	1998.7	2037.5	2088.5	2078.3	2063.0
32.5°	1887.4	1926.2	1996.7	1992.6	1984.4
35°	1786.4	1810.9	1893.6	1903.8	1896.6
37.5°	1690.4	1712.9	1790.5	1813.9	1807.8
40°	1589.4	1613.9	1675.1	1717.0	1719.0
42.5°	1489.3	1512.8	1562.8	1623.1	1623.1
45°	1383.2	1406.7	1452.6	1518.9	1527.1
47.5°	1279.1	1303.6	1348.5	1414.8	1428.1
50°	1177.0	1199.4	1244.3	1308.7	1329.1
52.5°	1070.8	1095.3	1139.2	1198.4	1228.0
55°	968.7	985.1	1033.0	1090.2	1121.9
57.5°	862.6	877.9	932.0	981.0	1013.6
60°	760.5	779.9	821.7	871.8	909.5
62.5°	662.5	682.9	718.6	762.5	805.4
65°	567.6	582.9	617.6	661.5	699.2
67.5°	475.7	489.0	523.7	554.3	594.1
70°	382.8	400.2	425.7	455.3	480.8
72.5°	308.3	315.4	336.9	358.3	384.8
75°	227.6	239.9	257.2	269.5	284.8
77.5°	163.3	170.5	180.7	190.9	205.2
80°	109.2	112.3	121.5	123.5	134.7
82.5°	66.4	68.4	70.4	71.5	75.5
85°	35.7	35.7	35.7	33.7	33.7
87.5°	20.4	20.4	17.4	14.3	10.2
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)