

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: P557623

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-80-87-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: P557623  
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-50-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

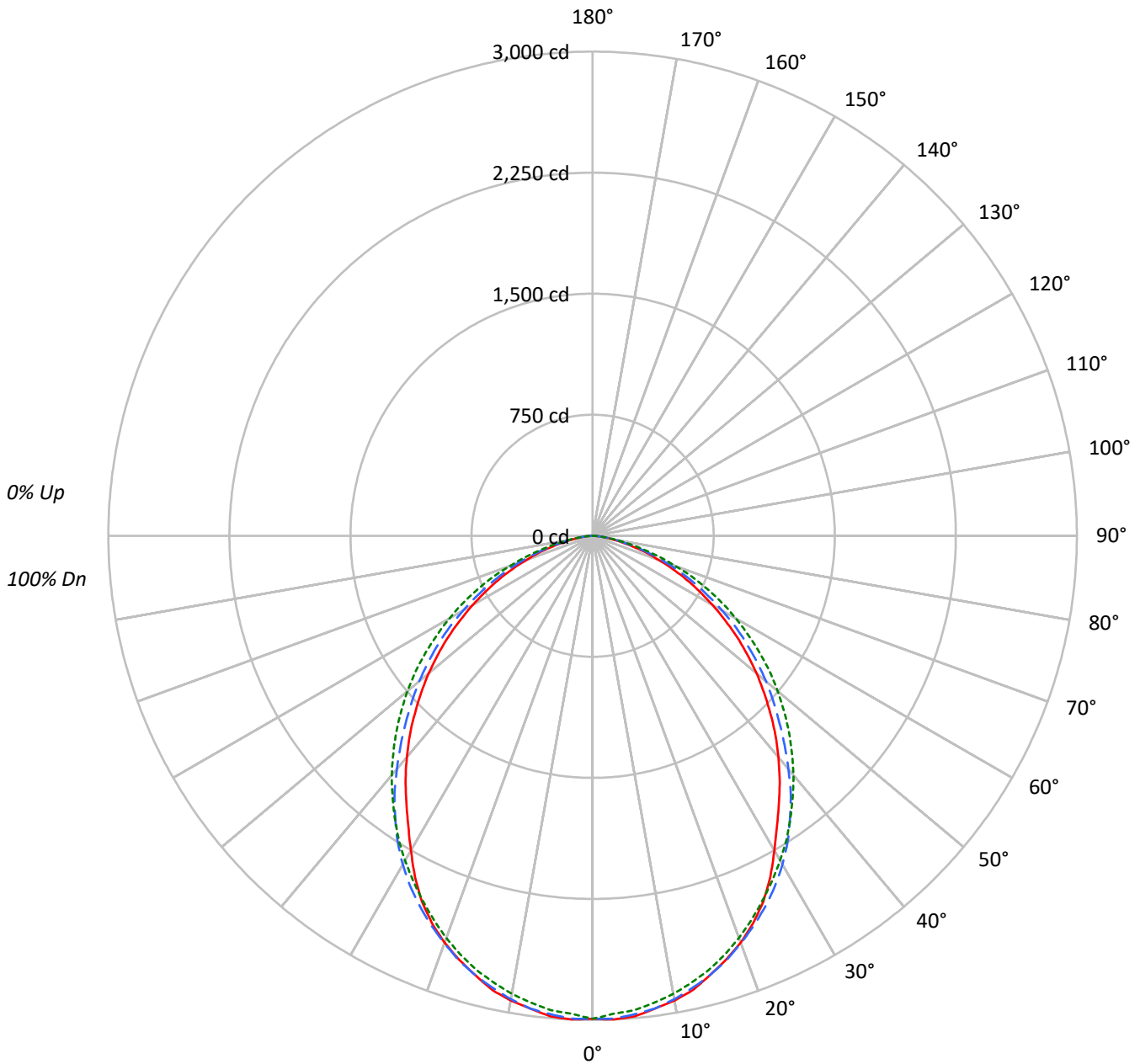
Lumens per Lamp: N/A  
Luminaire Lumens: 6919.0 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	8052	8052	8052
5°	8074	8039	7971
10°	7988	7966	7875
15°	7846	7846	7757
20°	7680	7690	7591
25°	7427	7519	7400
30°	6994	7308	7219
35°	6609	7005	7017
40°	6288	6627	6800
45°	5928	6225	6545
50°	5549	5866	6266
55°	5118	5458	5927
60°	4609	4980	5513
65°	4070	4429	5014
70°	3392	3772	4260
75°	2666	3012	3334
80°	1906	2120	2351
85°	1241	1241	1170



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	281.7	4.1
10°-20°	791.5	11.4
20°-30°	1156.6	16.7
30°-40°	1312.9	19.0
40°-50°	1267.4	18.3
50°-60°	1045.5	15.1
60°-70°	696.2	10.1
70°-80°	311.6	4.5
80°-90°	55.7	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°	2229.8	32.2
0°-40°	3542.7	51.2
0°-60°	5855.5	84.6
0°-90°	6919.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6919.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2992	2992	2992	2992	2992	
5°	2989	2988	2976	2960	2951	283
15°	2816	2823	2816	2804	2784	794
25°	2501	2521	2532	2514	2492	1146
35°	2012	2039	2132	2144	2136	1260
45°	1558	1584	1636	1710	1720	1202
55°	1091	1109	1163	1228	1263	974
65°	639	656	696	745	787	634
75°	256	270	290	304	321	280
85°	40	40	40	38	38	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2992.3	2992.3	2992.3	2992.3	2992.3
2.5°	3000.3	3001.5	2994.6	2976.2	2964.7
5°	2988.8	2987.7	2976.2	2960.1	2950.9
7.5°	2955.5	2957.8	2954.4	2931.4	2918.7
10°	2923.3	2924.5	2915.3	2896.9	2881.9
12.5°	2881.9	2880.8	2868.1	2858.9	2834.8
15°	2816.4	2823.3	2816.4	2803.8	2784.2
17.5°	2753.2	2753.2	2757.8	2735.9	2721.0
20°	2681.9	2685.4	2685.4	2668.1	2650.9
22.5°	2599.1	2609.5	2612.9	2594.5	2573.9
25°	2501.4	2521.0	2532.5	2514.1	2492.2
27.5°	2383.0	2412.9	2447.4	2433.6	2409.5
30°	2250.8	2294.5	2352.0	2340.5	2323.2
32.5°	2125.5	2169.2	2248.5	2243.9	2234.7
35°	2011.7	2039.3	2132.4	2143.9	2135.9
37.5°	1903.7	1929.0	2016.3	2042.8	2035.9
40°	1789.9	1817.4	1886.4	1933.5	1935.8
42.5°	1677.2	1703.6	1760.0	1827.8	1827.8
45°	1557.6	1584.1	1635.8	1710.5	1719.7
47.5°	1440.4	1468.0	1518.6	1593.3	1608.2
50°	1325.4	1350.7	1401.3	1473.7	1496.7
52.5°	1205.9	1233.5	1282.9	1349.6	1382.9
55°	1090.9	1109.3	1163.3	1227.7	1263.4
57.5°	971.4	988.6	1049.5	1104.7	1141.5
60°	856.4	878.3	925.4	981.7	1024.3
62.5°	746.1	769.1	809.3	858.7	907.0
65°	639.2	656.4	695.5	744.9	787.4
67.5°	535.7	550.6	589.7	624.2	669.0
70°	431.1	450.6	479.4	512.7	541.4
72.5°	347.2	355.2	379.4	403.5	433.4
75°	256.4	270.1	289.7	303.5	320.7
77.5°	183.9	192.0	203.5	215.0	231.1
80°	123.0	126.5	136.8	139.1	151.7
82.5°	74.7	77.0	79.3	80.5	85.1
85°	40.2	40.2	40.2	37.9	37.9
87.5°	23.0	23.0	19.5	16.1	11.5
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)