

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: P556600

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-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: P556600  
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-LD4-1LO-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

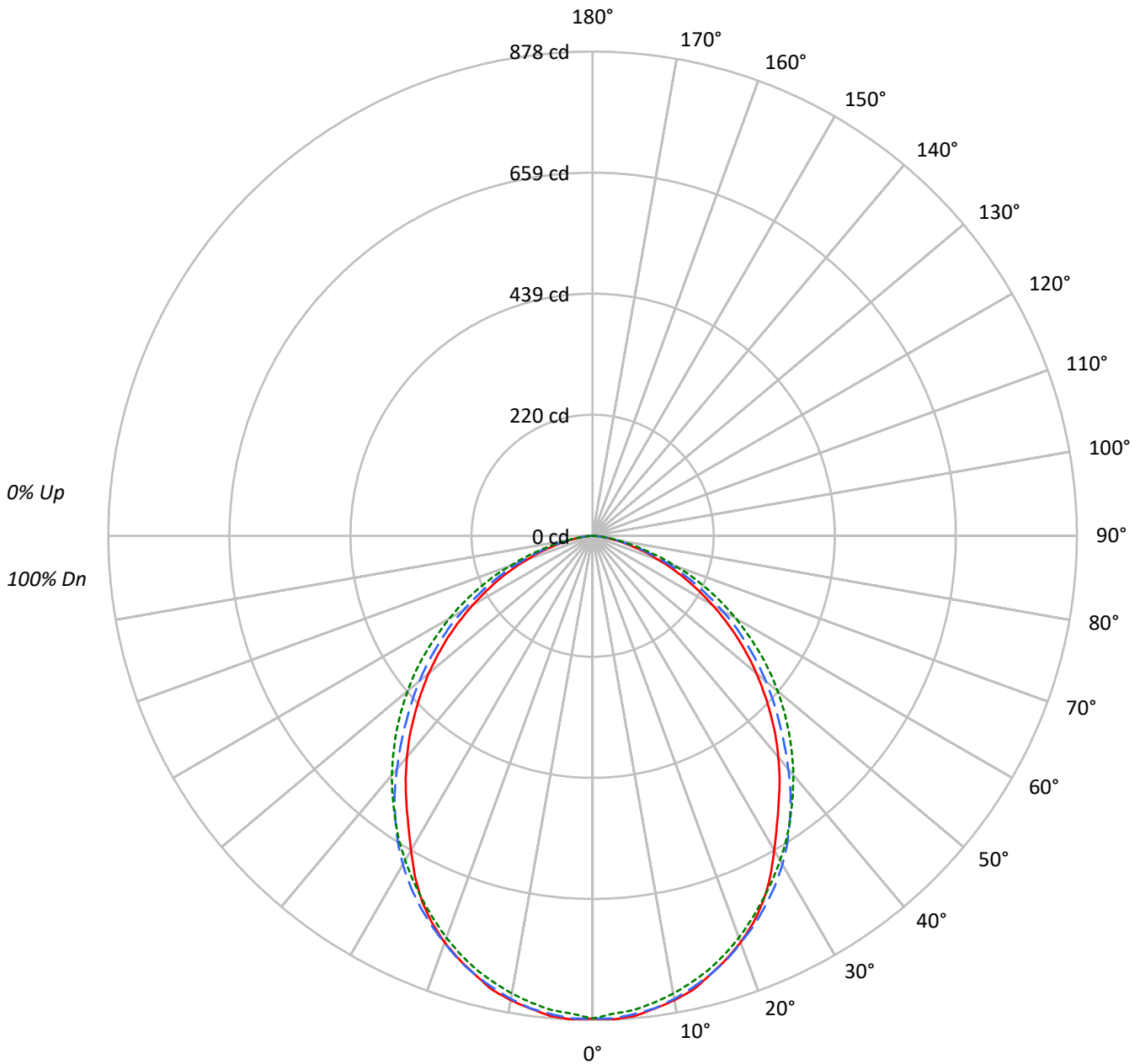
Lumens per Lamp: N/A  
Luminaire Lumens: 2024.0 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	2355	2355	2355
5°	2362	2352	2332
10°	2337	2330	2303
15°	2295	2295	2269
20°	2247	2249	2221
25°	2173	2200	2165
30°	2046	2138	2112
35°	1933	2049	2053
40°	1839	1938	1989
45°	1734	1821	1915
50°	1623	1716	1833
55°	1497	1597	1734
60°	1348	1457	1612
65°	1191	1295	1466
70°	992	1103	1246
75°	780	881	975
80°	558	620	688
85°	364	364	343



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.4	4.1
10°-20°	231.5	11.4
20°-30°	338.3	16.7
30°-40°	384.1	19.0
40°-50°	370.7	18.3
50°-60°	305.8	15.1
60°-70°	203.7	10.1
70°-80°	91.1	4.5
80°-90°	16.3	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°	652.3	32.2
0°-40°	1036.3	51.2
0°-60°	1712.9	84.6
0°-90°	2024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2024.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	874	874	871	866	863	83
15°	824	826	824	820	814	232
25°	732	738	741	735	729	335
35°	588	597	624	627	625	369
45°	456	463	478	500	503	352
55°	319	324	340	359	370	285
65°	187	192	203	218	230	185
75°	75	79	85	89	94	82
85°	12	12	12	11	11	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	875.3	875.3	875.3	875.3	875.3
2.5°	877.7	878.0	876.0	870.6	867.3
5°	874.3	874.0	870.6	865.9	863.2
7.5°	864.6	865.2	864.2	857.5	853.8
10°	855.2	855.5	852.8	847.4	843.0
12.5°	843.0	842.7	839.0	836.3	829.3
15°	823.9	825.9	823.9	820.2	814.5
17.5°	805.4	805.4	806.7	800.3	796.0
20°	784.5	785.5	785.5	780.5	775.5
22.5°	760.3	763.3	764.4	759.0	752.9
25°	731.7	737.5	740.8	735.4	729.0
27.5°	697.1	705.8	715.9	711.9	704.8
30°	658.4	671.2	688.0	684.7	679.6
32.5°	621.8	634.6	657.8	656.4	653.7
35°	588.5	596.6	623.8	627.2	624.8
37.5°	556.9	564.3	589.8	597.6	595.5
40°	523.6	531.7	551.8	565.6	566.3
42.5°	490.6	498.4	514.8	534.7	534.7
45°	455.7	463.4	478.5	500.4	503.1
47.5°	421.4	429.4	444.2	466.1	470.5
50°	387.7	395.1	409.9	431.1	437.8
52.5°	352.8	360.8	375.3	394.8	404.5
55°	319.1	324.5	340.3	359.1	369.6
57.5°	284.2	289.2	307.0	323.2	333.9
60°	250.5	256.9	270.7	287.2	299.6
62.5°	218.2	225.0	236.7	251.2	265.3
65°	187.0	192.0	203.4	217.9	230.3
67.5°	156.7	161.1	172.5	182.6	195.7
70°	126.1	131.8	140.2	150.0	158.4
72.5°	101.6	103.9	111.0	118.0	126.8
75°	75.0	79.0	84.7	88.8	93.8
77.5°	53.8	56.2	59.5	62.9	67.6
80°	36.0	37.0	40.0	40.7	44.4
82.5°	21.9	22.5	23.2	23.5	24.9
85°	11.8	11.8	11.8	11.1	11.1
87.5°	6.7	6.7	5.7	4.7	3.4
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)