

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: P558072

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-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: P558072  
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-LD4-3LO-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

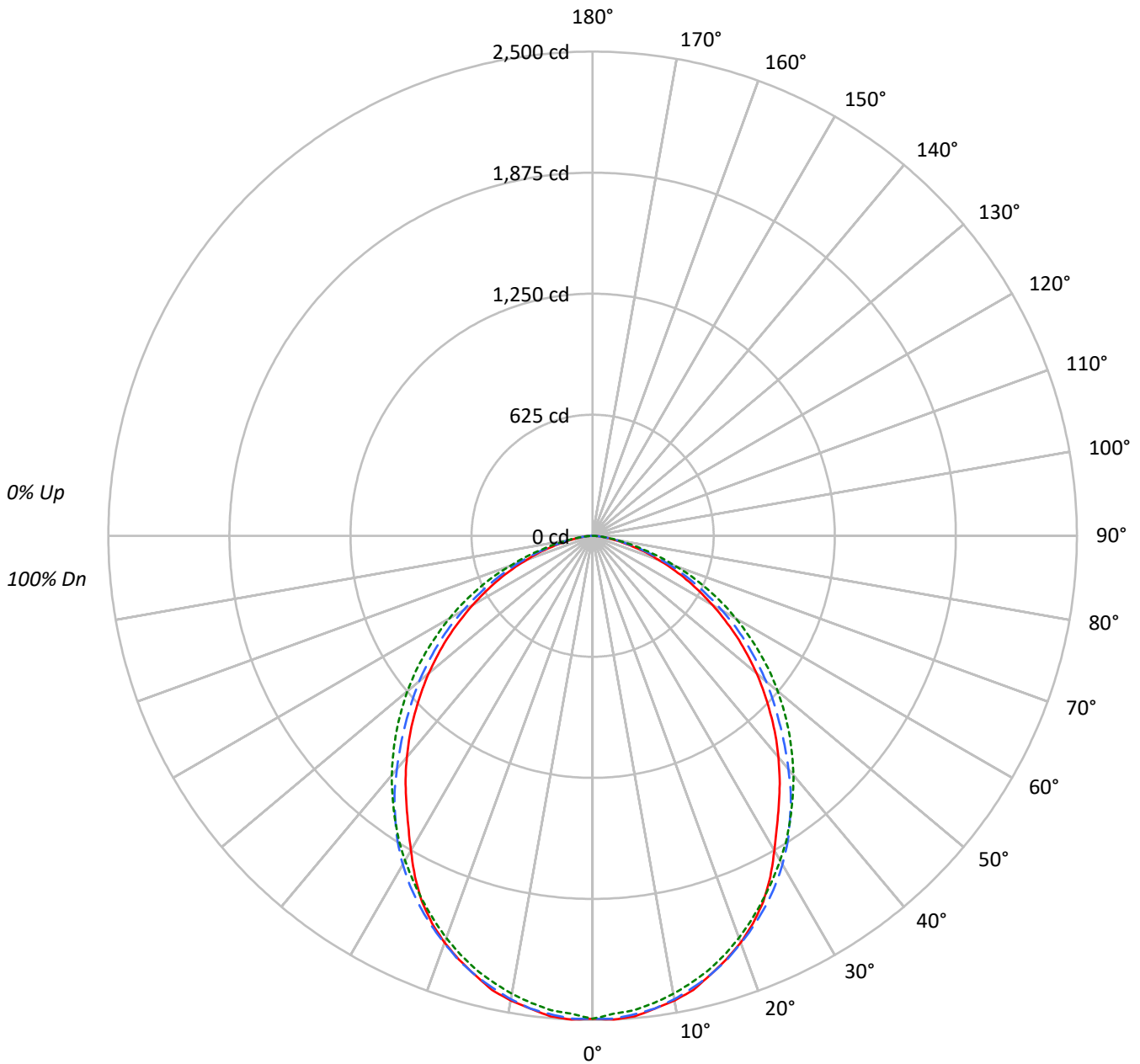
Lumens per Lamp: N/A  
Luminaire Lumens: 5766.0 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 70.2  
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°	6710	6710	6710
5°	6728	6700	6643
10°	6657	6639	6563
15°	6539	6539	6464
20°	6400	6409	6326
25°	6190	6266	6167
30°	5828	6090	6016
35°	5507	5838	5847
40°	5240	5523	5667
45°	4940	5188	5454
50°	4624	4889	5222
55°	4265	4548	4939
60°	3841	4151	4594
65°	3391	3691	4178
70°	2826	3143	3550
75°	2221	2510	2779
80°	1588	1767	1960
85°	1034	1034	976



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.8	4.1
10°-20°	659.6	11.4
20°-30°	963.9	16.7
30°-40°	1094.1	19.0
40°-50°	1056.2	18.3
50°-60°	871.3	15.1
60°-70°	580.2	10.1
70°-80°	259.6	4.5
80°-90°	46.5	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°	1858.2	32.2
0°-40°	2952.3	51.2
0°-60°	4879.7	84.6
0°-90°	5766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5766.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2494	2494	2494	2494	2494	
5°	2491	2490	2480	2467	2459	236
15°	2347	2353	2347	2336	2320	662
25°	2085	2101	2110	2095	2077	955
35°	1676	1700	1777	1787	1780	1050
45°	1298	1320	1363	1426	1433	1002
55°	909	924	970	1023	1053	811
65°	533	547	580	621	656	528
75°	214	225	241	253	267	234
85°	34	34	34	32	32	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2493.6	2493.6	2493.6	2493.6	2493.6
2.5°	2500.4	2501.3	2495.6	2480.2	2470.7
5°	2490.8	2489.8	2480.2	2466.8	2459.2
7.5°	2463.0	2464.9	2462.0	2442.9	2432.3
10°	2436.2	2437.1	2429.5	2414.1	2401.7
12.5°	2401.7	2400.7	2390.2	2382.5	2362.4
15°	2347.1	2352.8	2347.1	2336.5	2320.3
17.5°	2294.4	2294.4	2298.2	2280.0	2267.6
20°	2235.0	2237.9	2237.9	2223.5	2209.1
22.5°	2166.0	2174.6	2177.5	2162.2	2144.9
25°	2084.6	2100.9	2110.5	2095.1	2076.9
27.5°	1985.9	2010.8	2039.6	2028.1	2007.9
30°	1875.7	1912.1	1960.0	1950.5	1936.1
32.5°	1771.3	1807.7	1873.8	1870.0	1862.3
35°	1676.5	1699.5	1777.1	1786.7	1779.9
37.5°	1586.4	1607.5	1680.3	1702.3	1696.6
40°	1491.6	1514.6	1572.1	1611.3	1613.3
42.5°	1397.7	1419.7	1466.7	1523.2	1523.2
45°	1298.1	1320.1	1363.2	1425.5	1433.2
47.5°	1200.4	1223.4	1265.5	1327.8	1340.2
50°	1104.6	1125.6	1167.8	1228.1	1247.3
52.5°	1004.9	1027.9	1069.1	1124.7	1152.5
55°	909.1	924.5	969.5	1023.1	1052.8
57.5°	809.5	823.9	874.6	920.6	951.3
60°	713.7	731.9	771.2	818.1	853.6
62.5°	621.7	640.9	674.4	715.6	755.9
65°	532.6	547.0	579.6	620.8	656.2
67.5°	446.4	458.9	491.4	520.2	557.5
70°	359.2	375.5	399.5	427.3	451.2
72.5°	289.3	296.0	316.1	336.3	361.2
75°	213.6	225.1	241.4	252.9	267.3
77.5°	153.3	160.0	169.6	179.1	192.6
80°	102.5	105.4	114.0	115.9	126.5
82.5°	62.3	64.2	66.1	67.1	70.9
85°	33.5	33.5	33.5	31.6	31.6
87.5°	19.2	19.2	16.3	13.4	9.6
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)