

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: P557297

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-80-84-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: P557297  
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-LD4-2LO-40-UNV-80-84-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

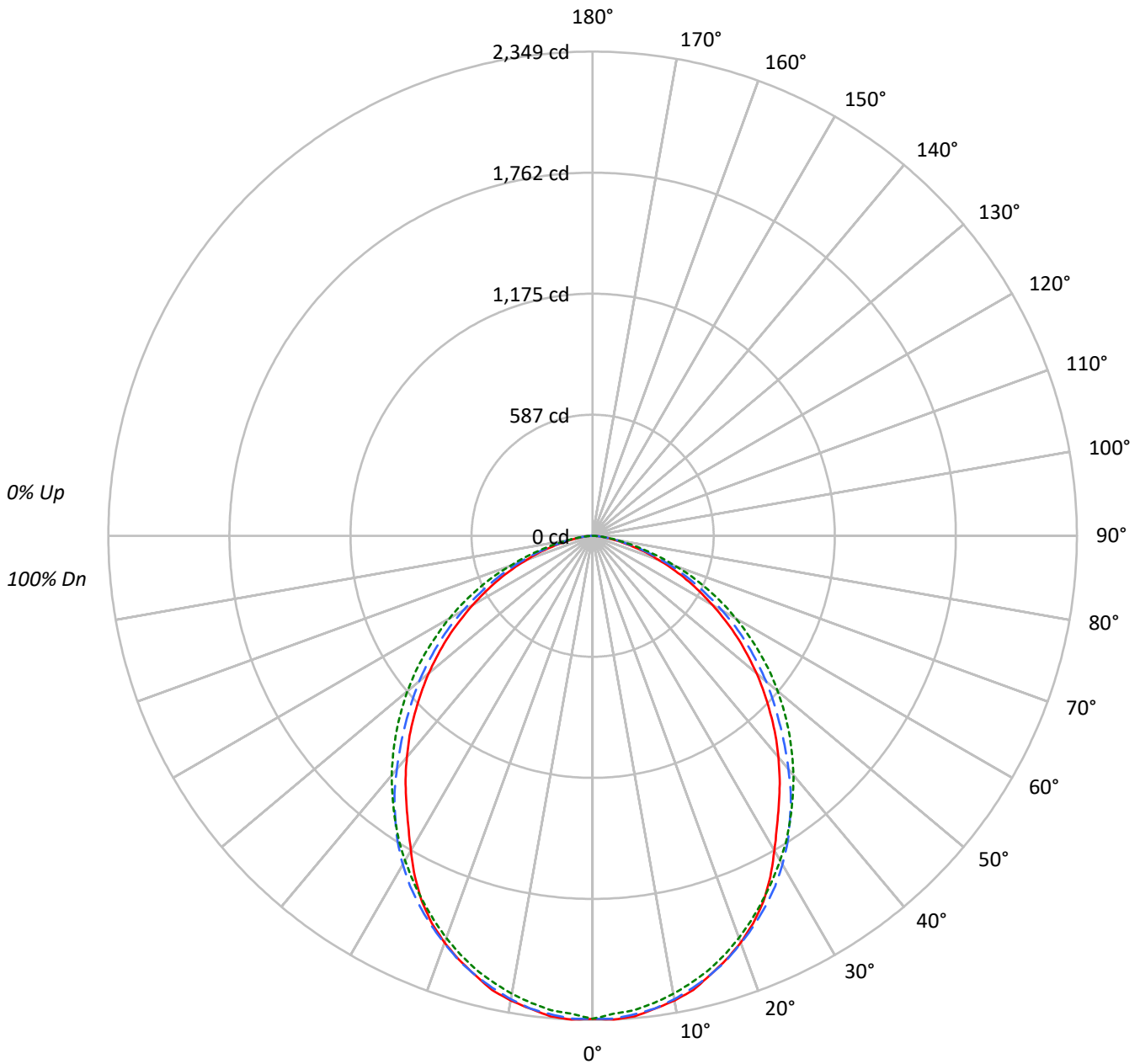
Lumens per Lamp: N/A  
Luminaire Lumens: 5418.0 lumens  
Efficiency: N/A  
Efficacy: 115.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6305	6305	6305
5°	6322	6295	6242
10°	6255	6238	6166
15°	6144	6144	6074
20°	6014	6022	5944
25°	5816	5888	5795
30°	5477	5723	5653
35°	5175	5485	5494
40°	4924	5189	5325
45°	4642	4875	5125
50°	4345	4594	4906
55°	4008	4274	4641
60°	3609	3900	4317
65°	3187	3468	3926
70°	2656	2954	3336
75°	2087	2358	2611
80°	1492	1660	1841
85°	973	973	917



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.6	4.1
10°-20°	619.8	11.4
20°-30°	905.7	16.7
30°-40°	1028.0	19.0
40°-50°	992.4	18.3
50°-60°	818.7	15.1
60°-70°	545.2	10.1
70°-80°	244.0	4.5
80°-90°	43.6	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°	1746.1	32.2
0°-40°	2774.1	51.2
0°-60°	4585.2	84.6
0°-90°	5418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5418.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2343	2343	2343	2343	2343	
5°	2340	2340	2330	2318	2311	222
15°	2205	2211	2205	2196	2180	622
25°	1959	1974	1983	1969	1952	897
35°	1575	1597	1670	1679	1672	987
45°	1220	1240	1281	1340	1347	941
55°	854	869	911	961	989	762
65°	500	514	545	583	617	496
75°	201	212	227	238	251	219
85°	32	32	32	30	30	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2343.1	2343.1	2343.1	2343.1	2343.1
2.5°	2349.4	2350.3	2344.9	2330.5	2321.5
5°	2340.4	2339.5	2330.5	2317.9	2310.7
7.5°	2314.3	2316.1	2313.4	2295.4	2285.5
10°	2289.1	2290.0	2282.8	2268.4	2256.7
12.5°	2256.7	2255.8	2245.9	2238.7	2219.8
15°	2205.4	2210.8	2205.4	2195.5	2180.2
17.5°	2155.9	2155.9	2159.5	2142.4	2130.7
20°	2100.1	2102.8	2102.8	2089.3	2075.8
22.5°	2035.3	2043.4	2046.1	2031.7	2015.5
25°	1958.8	1974.1	1983.1	1968.7	1951.6
27.5°	1866.1	1889.5	1916.5	1905.7	1886.8
30°	1762.5	1796.7	1841.7	1832.7	1819.2
32.5°	1664.4	1698.6	1760.7	1757.1	1749.9
35°	1575.3	1596.9	1669.8	1678.8	1672.5
37.5°	1490.7	1510.5	1578.9	1599.6	1594.2
40°	1401.6	1423.2	1477.2	1514.1	1515.9
42.5°	1313.3	1334.1	1378.2	1431.3	1431.3
45°	1219.7	1240.4	1280.9	1339.5	1346.7
47.5°	1127.9	1149.5	1189.1	1247.6	1259.3
50°	1037.9	1057.7	1097.3	1154.0	1172.0
52.5°	944.3	965.9	1004.6	1056.8	1082.9
55°	854.3	868.7	911.0	961.4	989.3
57.5°	760.6	774.1	821.9	865.1	893.9
60°	670.6	687.7	724.6	768.7	802.1
62.5°	584.2	602.2	633.7	672.4	710.2
65°	500.5	514.0	544.6	583.3	616.6
67.5°	419.5	431.2	461.8	488.8	523.9
70°	337.6	352.9	375.4	401.5	424.0
72.5°	271.9	278.2	297.1	316.0	339.4
75°	200.7	211.5	226.8	237.6	251.1
77.5°	144.0	150.3	159.3	168.3	180.9
80°	96.3	99.0	107.1	108.9	118.8
82.5°	58.5	60.3	62.1	63.0	66.6
85°	31.5	31.5	31.5	29.7	29.7
87.5°	18.0	18.0	15.3	12.6	9.0
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)