

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: P557502

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-80-97-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: P557502  
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-35-UNV-80-97-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

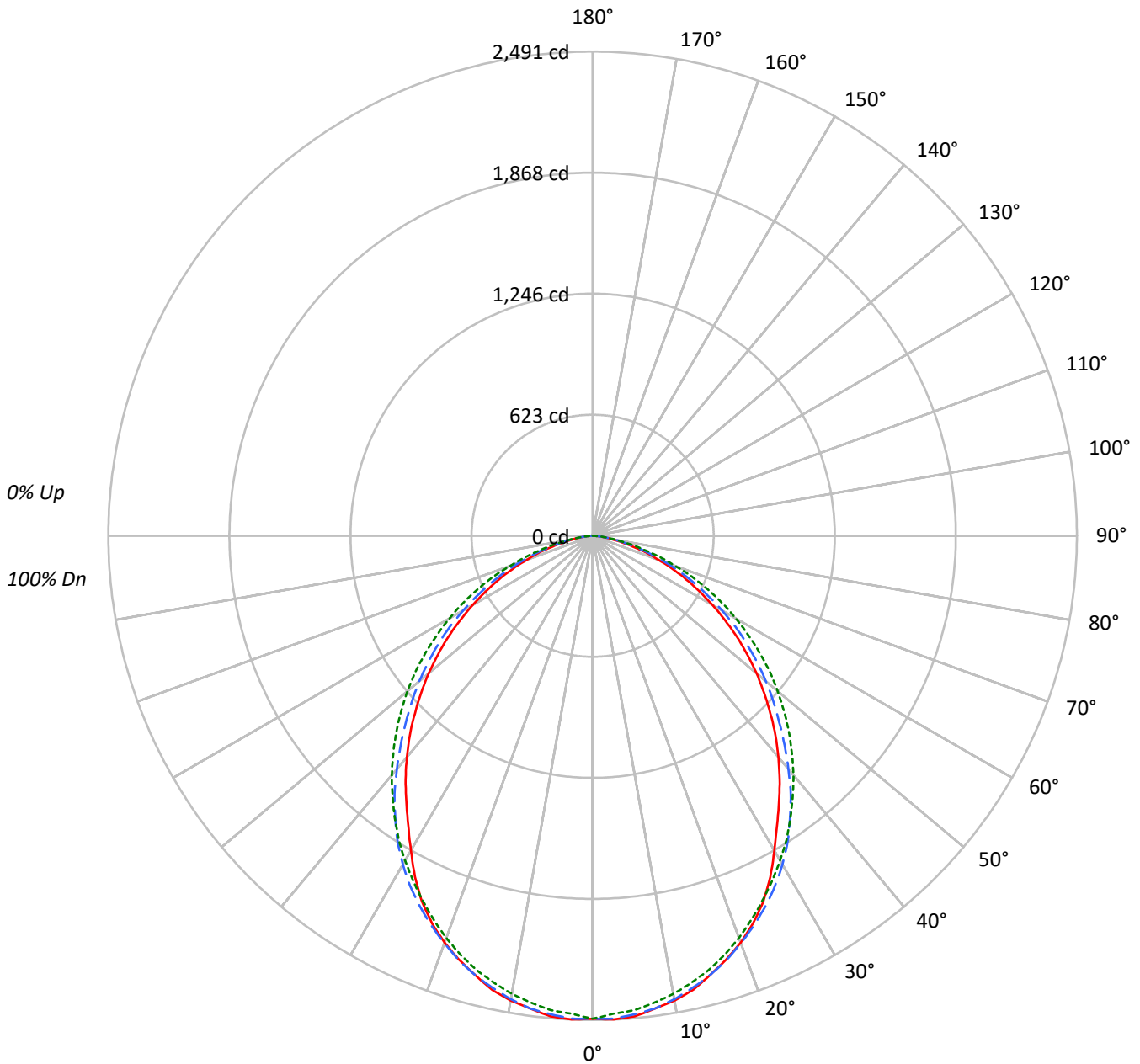
Lumens per Lamp: N/A  
Luminaire Lumens: 5745.0 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	6686	6686	6686
5°	6704	6675	6619
10°	6633	6614	6539
15°	6515	6515	6440
20°	6377	6385	6303
25°	6167	6244	6144
30°	5807	6068	5994
35°	5487	5817	5826
40°	5221	5502	5647
45°	4922	5169	5434
50°	4607	4871	5203
55°	4250	4532	4921
60°	3827	4135	4577
65°	3379	3677	4163
70°	2816	3131	3537
75°	2214	2501	2769
80°	1582	1760	1953
85°	1031	1031	973



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	233.9	4.1
10°-20°	657.2	11.4
20°-30°	960.3	16.7
30°-40°	1090.1	19.0
40°-50°	1052.3	18.3
50°-60°	868.1	15.1
60°-70°	578.1	10.1
70°-80°	258.7	4.5
80°-90°	46.3	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°	1851.4	32.2
0°-40°	2941.5	51.2
0°-60°	4862.0	84.6
0°-90°	5745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5745.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2485	2485	2485	2485	2485	
5°	2482	2481	2471	2458	2450	235
15°	2338	2344	2338	2328	2312	659
25°	2077	2093	2103	2088	2069	951
35°	1670	1693	1771	1780	1774	1047
45°	1293	1315	1358	1420	1428	998
55°	906	921	966	1019	1049	808
65°	531	545	578	618	654	526
75°	213	224	240	252	266	233
85°	33	33	33	32	32	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2484.6	2484.6	2484.6	2484.6	2484.6
2.5°	2491.2	2492.2	2486.5	2471.2	2461.7
5°	2481.7	2480.7	2471.2	2457.8	2450.2
7.5°	2454.0	2455.9	2453.1	2434.0	2423.5
10°	2427.3	2428.2	2420.6	2405.3	2392.9
12.5°	2392.9	2392.0	2381.5	2373.8	2353.8
15°	2338.5	2344.3	2338.5	2328.0	2311.8
17.5°	2286.0	2286.0	2289.8	2271.7	2259.3
20°	2226.8	2229.7	2229.7	2215.4	2201.1
22.5°	2158.1	2166.7	2169.6	2154.3	2137.1
25°	2077.0	2093.2	2102.8	2087.5	2069.4
27.5°	1978.7	2003.5	2032.1	2020.7	2000.6
30°	1868.9	1905.2	1952.9	1943.4	1929.0
32.5°	1764.9	1801.1	1867.0	1863.2	1855.5
35°	1670.4	1693.3	1770.6	1780.1	1773.5
37.5°	1580.7	1601.7	1674.2	1696.1	1690.4
40°	1486.2	1509.1	1566.3	1605.5	1607.4
42.5°	1392.6	1414.6	1461.3	1517.7	1517.7
45°	1293.3	1315.3	1358.3	1420.3	1427.9
47.5°	1196.0	1218.9	1260.9	1322.9	1335.3
50°	1100.5	1121.5	1163.5	1223.7	1242.8
52.5°	1001.3	1024.2	1065.2	1120.6	1148.3
55°	905.8	921.1	966.0	1019.4	1049.0
57.5°	806.6	820.9	871.5	917.3	947.8
60°	711.1	729.2	768.4	815.1	850.5
62.5°	619.5	638.6	672.0	713.0	753.1
65°	530.7	545.0	577.5	618.5	653.8
67.5°	444.8	457.2	489.7	518.3	555.5
70°	357.9	374.2	398.0	425.7	449.6
72.5°	288.3	294.9	315.0	335.0	359.8
75°	212.9	224.3	240.5	252.0	266.3
77.5°	152.7	159.4	168.9	178.5	191.9
80°	102.1	105.0	113.6	115.5	126.0
82.5°	62.0	64.0	65.9	66.8	70.6
85°	33.4	33.4	33.4	31.5	31.5
87.5°	19.1	19.1	16.2	13.4	9.5
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)