

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: P557169

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-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: P557169  
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-30-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 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

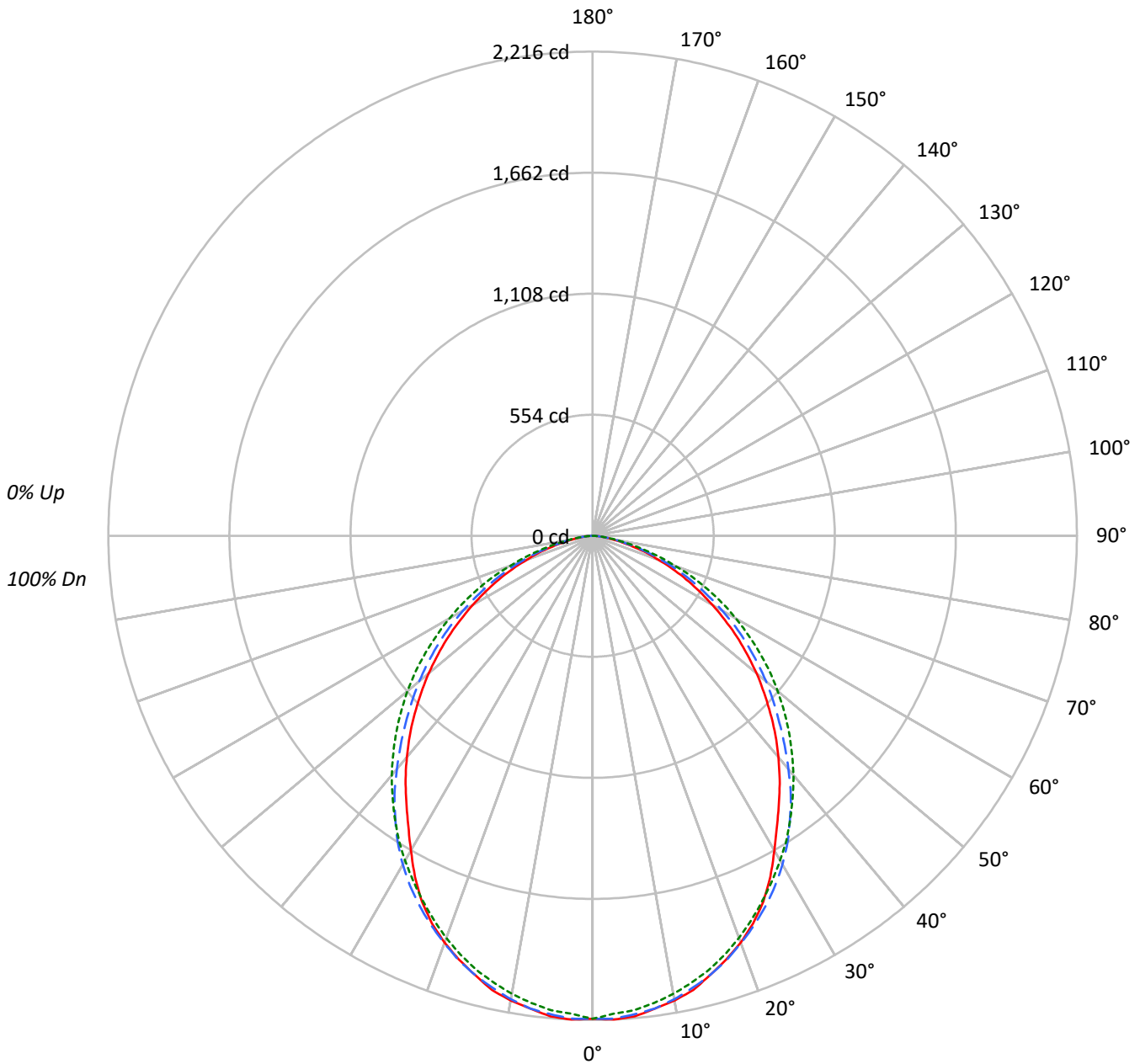
Lumens per Lamp: N/A  
Luminaire Lumens: 5111.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
Input Voltage (V): NR  
Input Current (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°	5948	5948	5948
5°	5964	5939	5888
10°	5901	5884	5817
15°	5796	5796	5730
20°	5673	5680	5608
25°	5486	5554	5466
30°	5166	5399	5333
35°	4882	5175	5183
40°	4644	4895	5023
45°	4379	4599	4835
50°	4099	4333	4629
55°	3781	4032	4378
60°	3405	3679	4072
65°	3006	3271	3704
70°	2505	2786	3147
75°	1969	2225	2463
80°	1409	1567	1737
85°	917	917	865



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.1	4.1
10°-20°	584.6	11.4
20°-30°	854.4	16.7
30°-40°	969.8	19.0
40°-50°	936.2	18.3
50°-60°	772.3	15.1
60°-70°	514.3	10.1
70°-80°	230.1	4.5
80°-90°	41.2	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°	1647.1	32.2
0°-40°	2616.9	51.2
0°-60°	4325.4	84.6
0°-90°	5111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5111.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2210	2210	2210	2210	2210	
5°	2208	2207	2198	2187	2180	209
15°	2080	2086	2080	2071	2057	586
25°	1848	1862	1871	1857	1841	846
35°	1486	1506	1575	1584	1578	931
45°	1151	1170	1208	1264	1270	888
55°	806	819	859	907	933	719
65°	472	485	514	550	582	468
75°	189	200	214	224	237	207
85°	30	30	30	28	28	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2210.4	2210.4	2210.4	2210.4	2210.4
2.5°	2216.3	2217.2	2212.1	2198.5	2190.0
5°	2207.8	2207.0	2198.5	2186.6	2179.8
7.5°	2183.2	2184.9	2182.4	2165.4	2156.0
10°	2159.4	2160.3	2153.5	2139.9	2128.9
12.5°	2128.9	2128.0	2118.7	2111.9	2094.0
15°	2080.5	2085.5	2080.5	2071.1	2056.7
17.5°	2033.7	2033.7	2037.1	2021.0	2010.0
20°	1981.1	1983.6	1983.6	1970.9	1958.2
22.5°	1920.0	1927.6	1930.2	1916.6	1901.3
25°	1847.8	1862.2	1870.7	1857.1	1841.0
27.5°	1760.3	1782.4	1807.9	1797.7	1779.8
30°	1662.7	1694.9	1737.4	1728.9	1716.2
32.5°	1570.1	1602.4	1661.0	1657.6	1650.8
35°	1486.0	1506.4	1575.2	1583.7	1577.7
37.5°	1406.2	1424.9	1489.4	1509.0	1503.9
40°	1322.1	1342.5	1393.5	1428.3	1430.0
42.5°	1238.9	1258.5	1300.1	1350.2	1350.2
45°	1150.6	1170.1	1208.4	1263.6	1270.4
47.5°	1064.0	1084.4	1121.7	1176.9	1188.0
50°	979.1	997.8	1035.1	1088.6	1105.6
52.5°	890.8	911.2	947.7	996.9	1021.5
55°	805.9	819.4	859.4	906.9	933.2
57.5°	717.5	730.3	775.3	816.0	843.2
60°	632.6	648.8	683.6	725.2	756.6
62.5°	551.1	568.1	597.8	634.3	670.0
65°	472.1	484.9	513.7	550.3	581.7
67.5°	395.7	406.7	435.6	461.1	494.2
70°	318.4	332.9	354.1	378.7	400.0
72.5°	256.4	262.4	280.2	298.1	320.1
75°	189.4	199.6	214.0	224.2	236.9
77.5°	135.9	141.8	150.3	158.8	170.7
80°	90.9	93.4	101.1	102.7	112.1
82.5°	55.2	56.9	58.6	59.4	62.8
85°	29.7	29.7	29.7	28.0	28.0
87.5°	17.0	17.0	14.4	11.9	8.5
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)