

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: P557245

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-80-96-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: P557245  
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-35-UNV-80-96-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

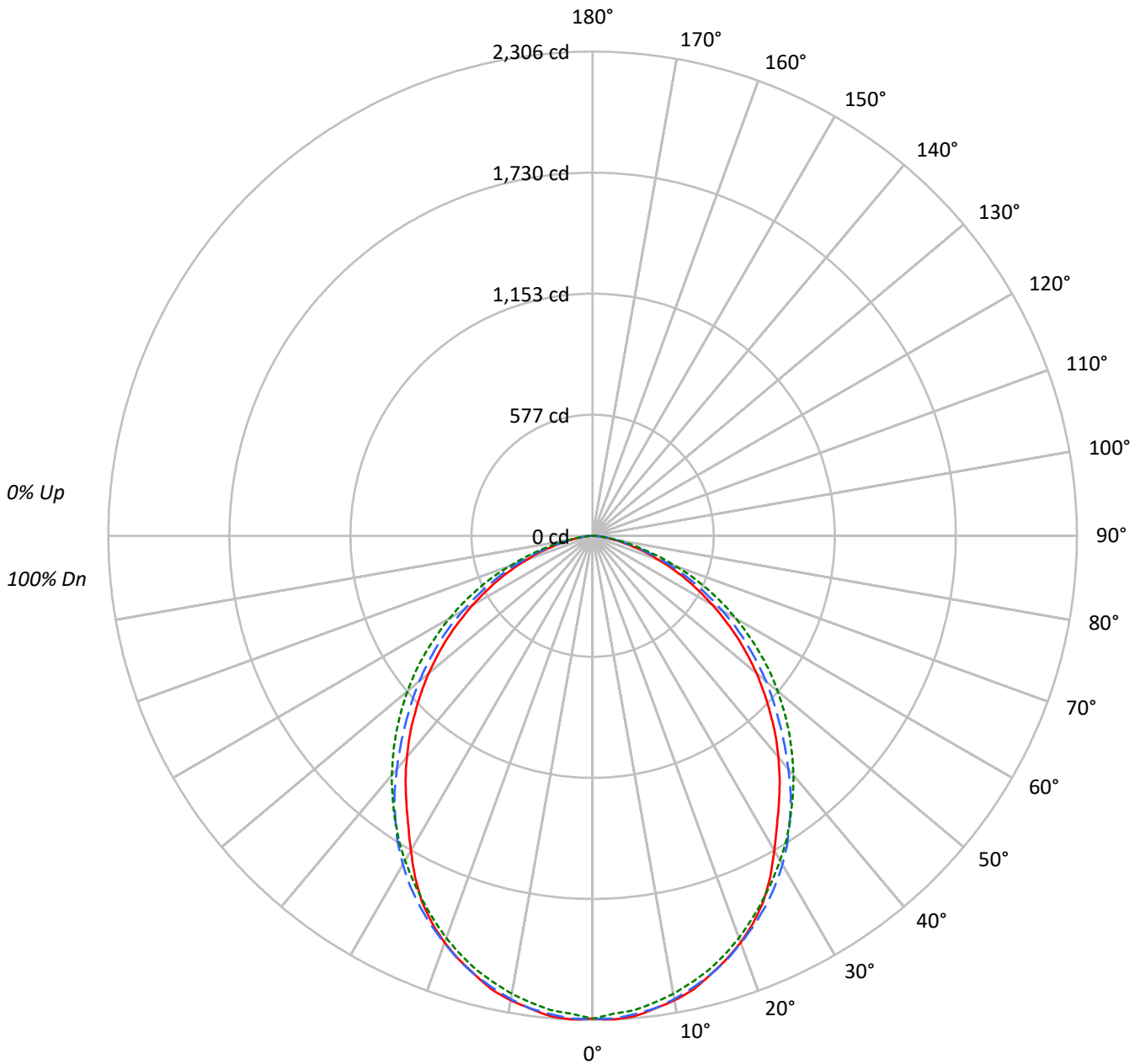
Lumens per Lamp: N/A  
Luminaire Lumens: 5318.0 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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									
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°	6189	6189	6189
5°	6205	6179	6127
10°	6140	6123	6053
15°	6031	6031	5962
20°	5903	5911	5835
25°	5709	5779	5688
30°	5376	5617	5549
35°	5079	5384	5393
40°	4833	5093	5227
45°	4556	4785	5030
50°	4265	4509	4816
55°	3934	4195	4556
60°	3542	3828	4237
65°	3128	3404	3854
70°	2607	2899	3275
75°	2048	2315	2563
80°	1464	1629	1807
85°	954	954	902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.5	4.1
10°-20°	608.3	11.4
20°-30°	889.0	16.7
30°-40°	1009.1	19.0
40°-50°	974.1	18.3
50°-60°	803.6	15.1
60°-70°	535.1	10.1
70°-80°	239.5	4.5
80°-90°	42.8	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°	1713.8	32.2
0°-40°	2722.9	51.2
0°-60°	4500.6	84.6
0°-90°	5318.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5318.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2300	2300	2300	2300	2300	
5°	2297	2296	2288	2275	2268	217
15°	2165	2170	2165	2155	2140	610
25°	1923	1938	1946	1932	1916	880
35°	1546	1567	1639	1648	1642	969
45°	1197	1218	1257	1315	1322	924
55°	838	853	894	944	971	748
65°	491	504	535	572	605	487
75°	197	208	223	233	246	215
85°	31	31	31	29	29	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2299.9	2299.9	2299.9	2299.9	2299.9
2.5°	2306.1	2307.0	2301.7	2287.5	2278.7
5°	2297.2	2296.4	2287.5	2275.2	2268.1
7.5°	2271.6	2273.4	2270.7	2253.1	2243.4
10°	2246.9	2247.8	2240.7	2226.6	2215.1
12.5°	2215.1	2214.2	2204.5	2197.4	2178.9
15°	2164.7	2170.0	2164.7	2155.0	2140.0
17.5°	2116.1	2116.1	2119.7	2102.9	2091.4
20°	2061.3	2064.0	2064.0	2050.7	2037.5
22.5°	1997.7	2005.7	2008.3	1994.2	1978.3
25°	1922.6	1937.6	1946.5	1932.3	1915.6
27.5°	1831.6	1854.6	1881.1	1870.5	1851.9
30°	1730.0	1763.6	1807.8	1798.9	1785.7
32.5°	1633.7	1667.3	1728.2	1724.7	1717.6
35°	1546.2	1567.4	1639.0	1647.8	1641.6
37.5°	1463.2	1482.6	1549.8	1570.1	1564.8
40°	1375.7	1396.9	1449.9	1486.1	1487.9
42.5°	1289.1	1309.4	1352.7	1404.9	1404.9
45°	1197.2	1217.5	1257.3	1314.7	1321.8
47.5°	1107.1	1128.3	1167.2	1224.6	1236.1
50°	1018.7	1038.2	1077.1	1132.7	1150.4
52.5°	926.9	948.1	986.0	1037.3	1062.9
55°	838.5	852.6	894.2	943.6	971.0
57.5°	746.6	759.9	806.7	849.1	877.4
60°	658.2	675.0	711.3	754.6	787.2
62.5°	573.4	591.1	622.0	660.0	697.1
65°	491.3	504.5	534.6	572.5	605.2
67.5°	411.7	423.2	453.3	479.8	514.2
70°	331.3	346.4	368.4	394.1	416.2
72.5°	266.8	273.0	291.6	310.1	333.1
75°	197.0	207.6	222.7	233.3	246.5
77.5°	141.4	147.6	156.4	165.2	177.6
80°	94.5	97.2	105.1	106.9	116.6
82.5°	57.4	59.2	61.0	61.8	65.4
85°	30.9	30.9	30.9	29.2	29.2
87.5°	17.7	17.7	15.0	12.4	8.8
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)