

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: P557183

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-97-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: P557183  
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-80-97-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND  
3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

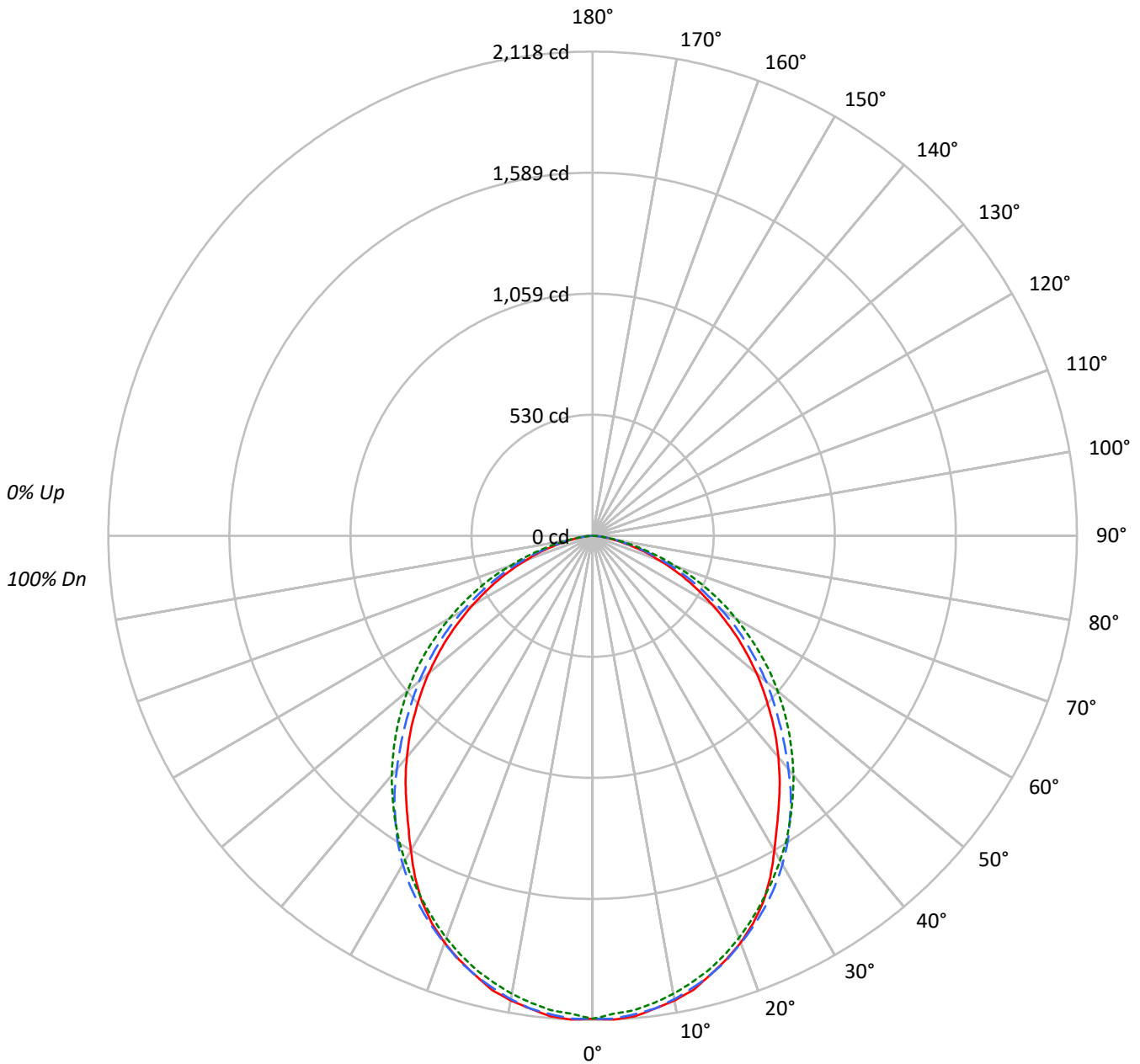
Lumens per Lamp: N/A  
Luminaire Lumens: 4885.0 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	5685	5685	5685
5°	5700	5676	5628
10°	5640	5624	5560
15°	5540	5540	5476
20°	5422	5429	5360
25°	5244	5309	5225
30°	4938	5160	5097
35°	4666	4946	4954
40°	4439	4679	4801
45°	4185	4395	4621
50°	3918	4142	4424
55°	3613	3854	4185
60°	3254	3517	3892
65°	2874	3126	3540
70°	2395	2662	3008
75°	1882	2126	2354
80°	1345	1497	1660
85°	877	877	827



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.9	4.1
10°-20°	558.8	11.4
20°-30°	816.6	16.7
30°-40°	926.9	19.0
40°-50°	894.8	18.3
50°-60°	738.2	15.1
60°-70°	491.6	10.1
70°-80°	220.0	4.5
80°-90°	39.4	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°	1574.3	32.2
0°-40°	2501.2	51.2
0°-60°	4134.2	84.6
0°-90°	4885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4885.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2113	2113	2113	2113	2113	
5°	2110	2109	2101	2090	2083	200
15°	1988	1993	1988	1980	1966	561
25°	1766	1780	1788	1775	1760	809
35°	1420	1440	1506	1514	1508	890
45°	1100	1118	1155	1208	1214	849
55°	770	783	821	867	892	687
65°	451	463	491	526	556	447
75°	181	191	204	214	226	198
85°	28	28	28	27	27	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2112.6	2112.6	2112.6	2112.6	2112.6
2.5°	2118.3	2119.1	2114.3	2101.3	2093.2
5°	2110.2	2109.4	2101.3	2089.9	2083.4
7.5°	2086.7	2088.3	2085.9	2069.6	2060.7
10°	2063.9	2064.8	2058.3	2045.3	2034.7
12.5°	2034.7	2033.9	2025.0	2018.5	2001.4
15°	1988.5	1993.3	1988.5	1979.5	1965.7
17.5°	1943.8	1943.8	1947.1	1931.6	1921.1
20°	1893.5	1895.9	1895.9	1883.8	1871.6
22.5°	1835.1	1842.4	1844.8	1831.8	1817.2
25°	1766.1	1779.9	1788.0	1775.0	1759.6
27.5°	1682.5	1703.6	1727.9	1718.2	1701.1
30°	1589.1	1620.0	1660.6	1652.5	1640.3
32.5°	1500.7	1531.5	1587.5	1584.3	1577.8
35°	1420.3	1439.8	1505.5	1513.7	1508.0
37.5°	1344.0	1361.9	1423.6	1442.2	1437.4
40°	1263.7	1283.2	1331.9	1365.1	1366.8
42.5°	1184.1	1202.8	1242.6	1290.5	1290.5
45°	1099.7	1118.4	1154.9	1207.7	1214.2
47.5°	1017.0	1036.4	1072.1	1124.9	1135.5
50°	935.8	953.6	989.4	1040.5	1056.7
52.5°	851.4	870.9	905.8	952.8	976.4
55°	770.2	783.2	821.4	866.8	892.0
57.5°	685.8	698.0	741.0	780.0	805.9
60°	604.7	620.1	653.4	693.1	723.1
62.5°	526.7	543.0	571.4	606.3	640.4
65°	451.3	463.4	491.0	525.9	556.0
67.5°	378.2	388.8	416.4	440.7	472.4
70°	304.4	318.2	338.4	362.0	382.3
72.5°	245.1	250.8	267.8	284.9	306.0
75°	181.0	190.7	204.5	214.3	226.4
77.5°	129.9	135.5	143.7	151.8	163.1
80°	86.8	89.3	96.6	98.2	107.1
82.5°	52.8	54.4	56.0	56.8	60.1
85°	28.4	28.4	28.4	26.8	26.8
87.5°	16.2	16.2	13.8	11.4	8.1
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)