

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: P557372

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-80-96-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: P557372  
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-50-UNV-80-96-EDD-90  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND  
5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

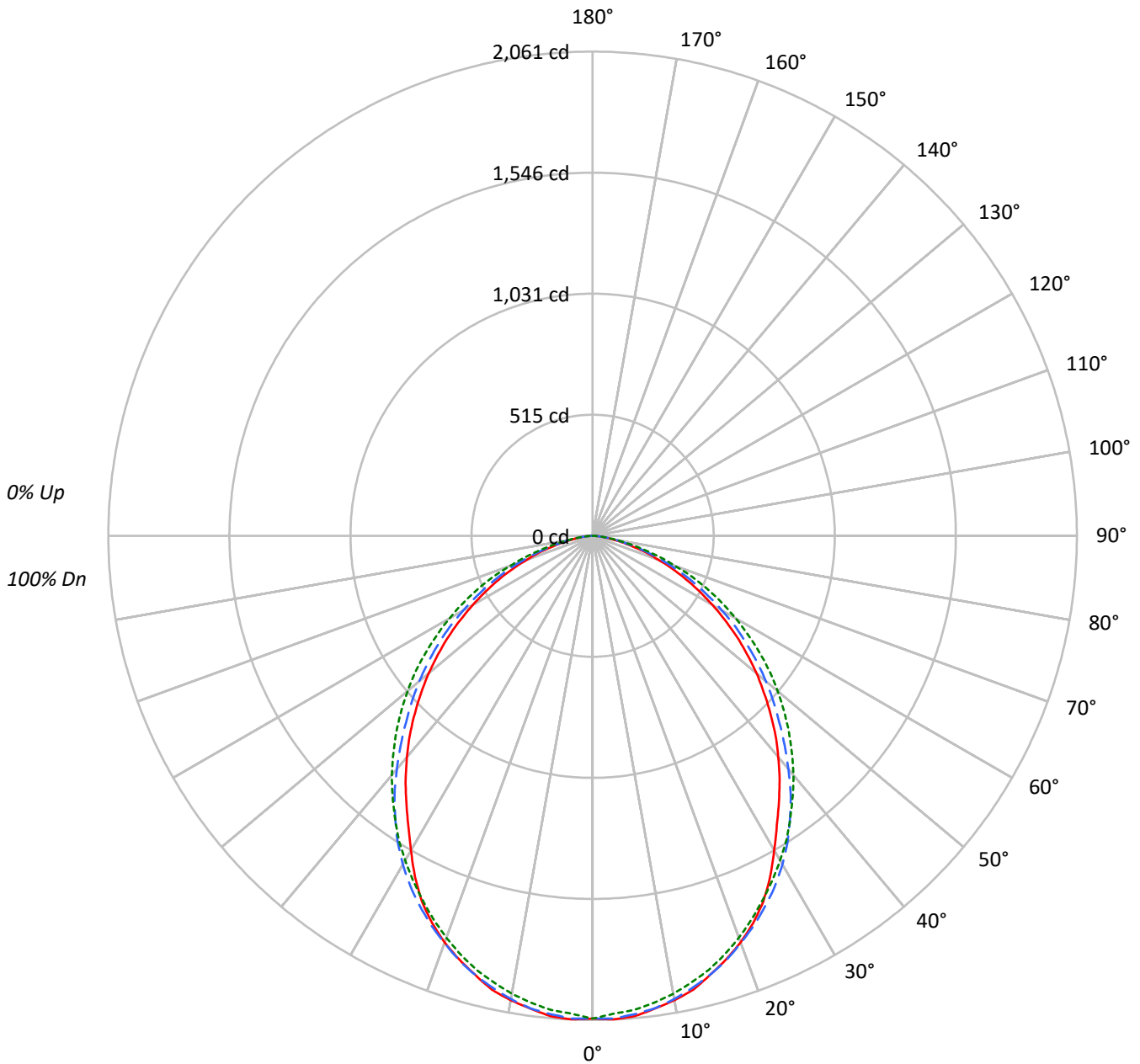
Lumens per Lamp: N/A  
Luminaire Lumens: 4752.0 lumens  
Efficiency: N/A  
Efficacy: 101.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	5530	5530	5530
5°	5545	5522	5475
10°	5486	5471	5408
15°	5389	5389	5327
20°	5275	5281	5214
25°	5101	5164	5082
30°	4804	5019	4958
35°	4539	4811	4819
40°	4318	4551	4670
45°	4071	4276	4495
50°	3811	4029	4304
55°	3515	3749	4071
60°	3166	3421	3786
65°	2795	3042	3443
70°	2330	2590	2926
75°	1831	2069	2290
80°	1309	1457	1615
85°	852	852	806



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.5	4.1
10°-20°	543.6	11.4
20°-30°	794.4	16.7
30°-40°	901.7	19.0
40°-50°	870.4	18.3
50°-60°	718.0	15.1
60°-70°	478.2	10.1
70°-80°	214.0	4.5
80°-90°	38.3	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°	1531.4	32.2
0°-40°	2433.1	51.2
0°-60°	4021.6	84.6
0°-90°	4752.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4752.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2055	2055	2055	2055	2055	
5°	2053	2052	2044	2033	2027	194
15°	1934	1939	1934	1926	1912	545
25°	1718	1731	1739	1727	1712	787
35°	1382	1401	1465	1472	1467	866
45°	1070	1088	1124	1175	1181	825
55°	749	762	799	843	868	669
65°	439	451	478	512	541	435
75°	176	186	199	208	220	193
85°	28	28	28	26	26	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2055.1	2055.1	2055.1	2055.1	2055.1
2.5°	2060.6	2061.4	2056.7	2044.1	2036.2
5°	2052.7	2052.0	2044.1	2033.0	2026.7
7.5°	2029.9	2031.4	2029.1	2013.3	2004.6
10°	2007.7	2008.5	2002.2	1989.6	1979.3
12.5°	1979.3	1978.5	1969.8	1963.5	1947.0
15°	1934.3	1939.1	1934.3	1925.6	1912.2
17.5°	1890.9	1890.9	1894.1	1879.1	1868.8
20°	1841.9	1844.3	1844.3	1832.5	1820.6
22.5°	1785.1	1792.2	1794.6	1781.9	1767.7
25°	1718.0	1731.4	1739.3	1726.7	1711.7
27.5°	1636.7	1657.2	1680.9	1671.4	1654.8
30°	1545.9	1575.9	1615.4	1607.5	1595.6
32.5°	1459.8	1489.8	1544.3	1541.1	1534.8
35°	1381.7	1400.6	1464.6	1472.5	1466.9
37.5°	1307.4	1324.8	1384.8	1403.0	1398.2
40°	1229.3	1248.2	1295.6	1328.0	1329.5
42.5°	1151.9	1170.1	1208.8	1255.3	1255.3
45°	1069.8	1088.0	1123.5	1174.8	1181.1
47.5°	989.3	1008.2	1043.0	1094.3	1104.5
50°	910.3	927.7	962.4	1012.2	1028.0
52.5°	828.2	847.2	881.1	926.9	949.8
55°	749.3	761.9	799.0	843.2	867.7
57.5°	667.1	679.0	720.8	758.7	784.0
60°	588.2	603.2	635.6	674.2	703.5
62.5°	512.4	528.2	555.8	589.8	622.9
65°	439.0	450.8	477.7	511.6	540.8
67.5°	367.9	378.2	405.0	428.7	459.5
70°	296.1	309.5	329.2	352.1	371.9
72.5°	238.4	244.0	260.5	277.1	297.6
75°	176.1	185.5	199.0	208.4	220.3
77.5°	126.3	131.8	139.7	147.6	158.7
80°	84.5	86.8	94.0	95.5	104.2
82.5°	51.3	52.9	54.5	55.3	58.4
85°	27.6	27.6	27.6	26.1	26.1
87.5°	15.8	15.8	13.4	11.1	7.9
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)