

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: P556111

Luminaire Tested: **FUSL-12-2-LD4-3STD-50-UNV-81-97-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: P556111  
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-12-2-LD4-3STD-50-UNV-81-97-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375  
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

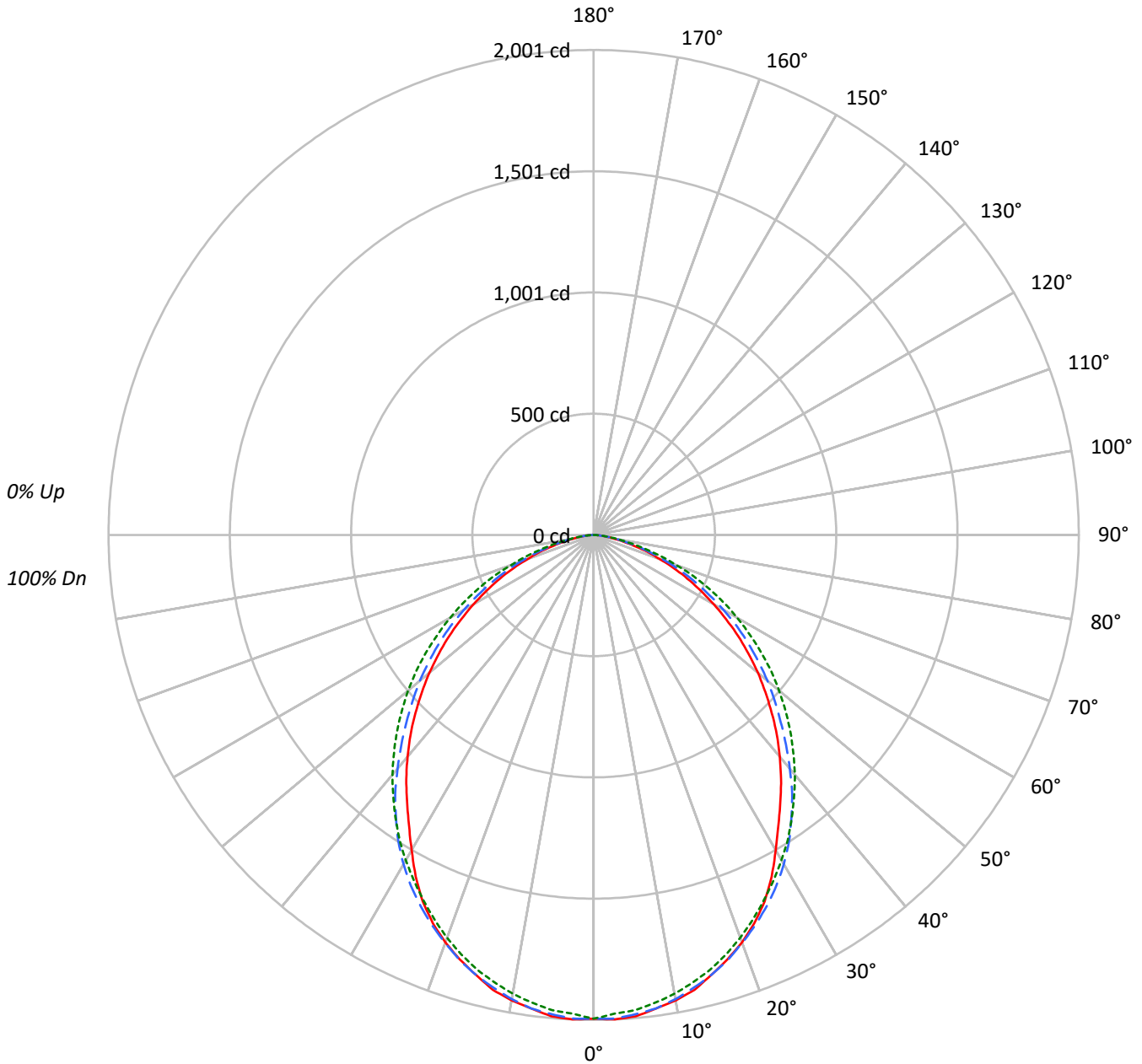
Lumens per Lamp: N/A  
Luminaire Lumens: 4614.9 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 50  
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°	10742	10742	10742
5°	10770	10725	10634
10°	10656	10627	10505
15°	10467	10467	10347
20°	10245	10258	10127
25°	9908	10031	9871
30°	9330	9749	9630
35°	8816	9345	9360
40°	8387	8840	9072
45°	7908	8305	8731
50°	7402	7826	8359
55°	6828	7281	7907
60°	6148	6643	7354
65°	5429	5908	6688
70°	4524	5031	5682
75°	3556	4017	4448
80°	2541	2827	3137
85°	1655	1655	1562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.9	4.1
10°-20°	527.9	11.4
20°-30°	771.4	16.7
30°-40°	875.7	19.0
40°-50°	845.3	18.3
50°-60°	697.3	15.1
60°-70°	464.4	10.1
70°-80°	207.8	4.5
80°-90°	37.2	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°	1487.3	32.2
0°-40°	2363.0	51.2
0°-60°	3905.6	84.6
0°-90°	4614.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4614.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1996	1996	1996	1996	1996	
5°	1994	1993	1985	1974	1968	189
15°	1879	1883	1879	1870	1857	530
25°	1668	1682	1689	1677	1662	764
35°	1342	1360	1422	1430	1425	841
45°	1039	1057	1091	1141	1147	802
55°	728	740	776	819	843	649
65°	426	438	464	497	525	423
75°	171	180	193	202	214	187
85°	27	27	27	25	25	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1995.9	1995.9	1995.9	1995.9	1995.9
2.5°	2001.2	2002.0	1997.4	1985.1	1977.5
5°	1993.6	1992.8	1985.1	1974.4	1968.3
7.5°	1971.3	1972.9	1970.6	1955.2	1946.8
10°	1949.9	1950.6	1944.5	1932.2	1922.3
12.5°	1922.3	1921.5	1913.1	1906.9	1890.8
15°	1878.6	1883.2	1878.6	1870.1	1857.1
17.5°	1836.4	1836.4	1839.4	1824.9	1814.9
20°	1788.8	1791.1	1791.1	1779.6	1768.1
22.5°	1733.6	1740.5	1742.8	1730.6	1716.8
25°	1668.5	1681.5	1689.2	1676.9	1662.3
27.5°	1589.5	1609.4	1632.4	1623.2	1607.1
30°	1501.3	1530.4	1568.8	1561.1	1549.6
32.5°	1417.7	1446.9	1499.8	1496.7	1490.6
35°	1341.8	1360.2	1422.3	1430.0	1424.6
37.5°	1269.7	1286.6	1344.9	1362.5	1357.9
40°	1193.8	1212.2	1258.2	1289.7	1291.2
42.5°	1118.7	1136.3	1173.9	1219.1	1219.1
45°	1039.0	1056.6	1091.1	1140.9	1147.1
47.5°	960.7	979.1	1012.9	1062.7	1072.7
50°	884.1	900.9	934.7	983.0	998.3
52.5°	804.3	822.7	855.7	900.2	922.4
55°	727.7	739.9	776.0	818.9	842.7
57.5°	647.9	659.4	700.0	736.9	761.4
60°	571.2	585.8	617.2	654.8	683.2
62.5°	497.6	513.0	539.8	572.8	605.0
65°	426.3	437.8	463.9	496.9	525.2
67.5°	357.3	367.3	393.3	416.3	446.3
70°	287.5	300.6	319.7	342.0	361.1
72.5°	231.6	236.9	253.0	269.1	289.1
75°	171.0	180.2	193.2	202.4	213.9
77.5°	122.7	128.0	135.7	143.4	154.1
80°	82.0	84.3	91.2	92.8	101.2
82.5°	49.8	51.4	52.9	53.7	56.7
85°	26.8	26.8	26.8	25.3	25.3
87.5°	15.3	15.3	13.0	10.7	7.7
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)