

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: P556042

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-81-94-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: P556042  
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-40-UNV-81-94-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

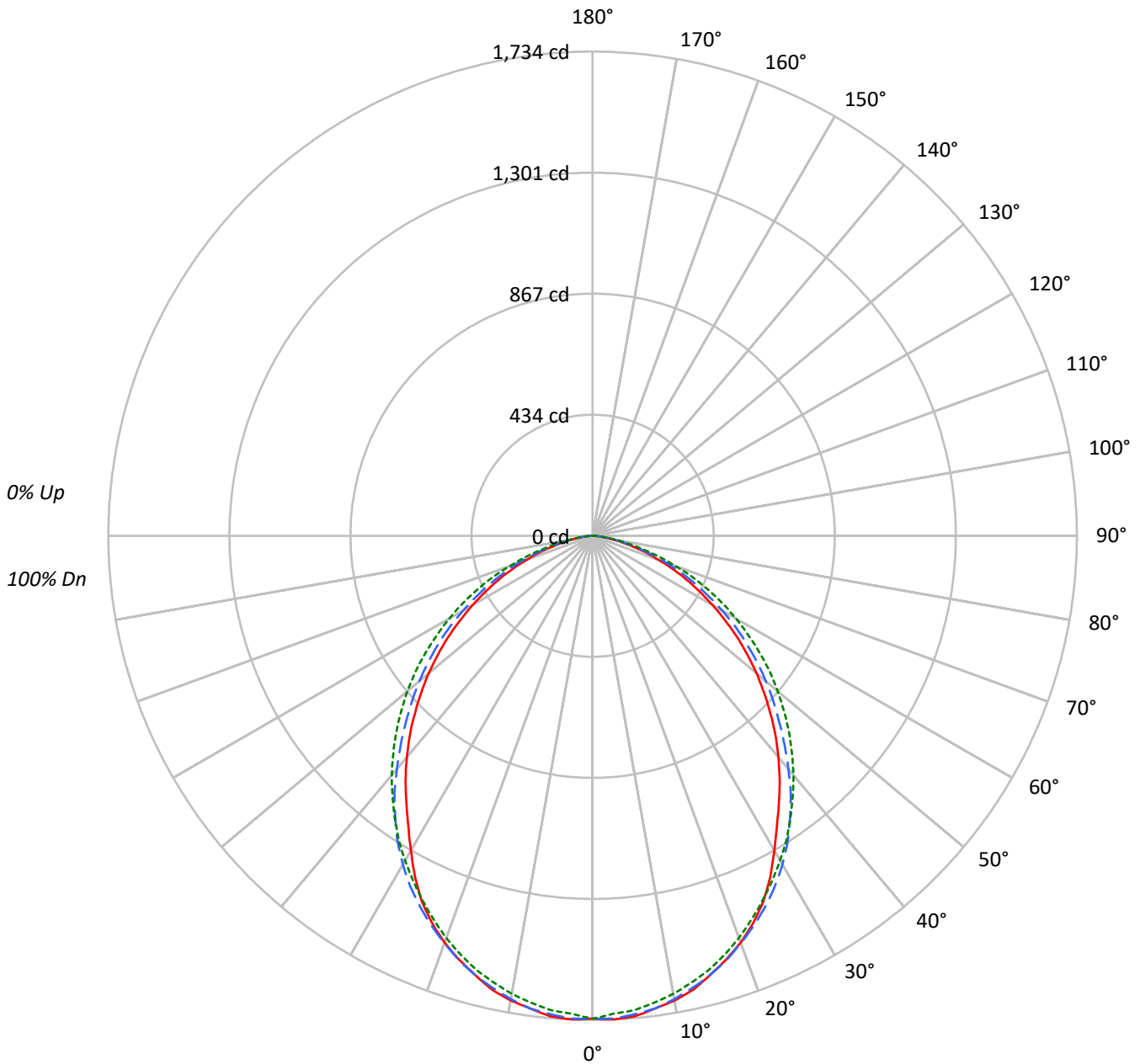
Lumens per Lamp: N/A  
Luminaire Lumens: 3999.0 lumens  
Efficiency: N/A  
Efficacy: 80.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	9308	9308	9308
5°	9333	9293	9214
10°	9234	9208	9103
15°	9070	9070	8966
20°	8878	8889	8775
25°	8586	8692	8554
30°	8085	8448	8345
35°	7639	8098	8111
40°	7268	7660	7861
45°	6852	7196	7566
50°	6414	6781	7243
55°	5916	6309	6852
60°	5328	5758	6372
65°	4704	5119	5796
70°	3921	4360	4924
75°	3082	3481	3855
80°	2204	2452	2718
85°	1439	1439	1352



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.8	4.1
10°-20°	457.4	11.4
20°-30°	668.5	16.7
30°-40°	758.8	19.0
40°-50°	732.5	18.3
50°-60°	604.3	15.1
60°-70°	402.4	10.1
70°-80°	180.1	4.5
80°-90°	32.2	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°	1288.8	32.2
0°-40°	2047.6	51.2
0°-60°	3384.3	84.6
0°-90°	3999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3999.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1730	1730	1730	1730	1730	
5°	1728	1727	1720	1711	1706	164
15°	1628	1632	1628	1620	1609	459
25°	1446	1457	1464	1453	1440	662
35°	1163	1179	1232	1239	1234	729
45°	900	916	946	989	994	695
55°	630	641	672	710	730	563
65°	369	379	402	430	455	366
75°	148	156	167	175	185	162
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1729.5	1729.5	1729.5	1729.5	1729.5
2.5°	1734.1	1734.8	1730.8	1720.2	1713.5
5°	1727.5	1726.8	1720.2	1710.9	1705.5
7.5°	1708.2	1709.5	1707.5	1694.3	1686.9
10°	1689.6	1690.3	1684.9	1674.3	1665.7
12.5°	1665.7	1665.0	1657.7	1652.4	1638.4
15°	1627.8	1631.8	1627.8	1620.5	1609.2
17.5°	1591.3	1591.3	1593.9	1581.3	1572.7
20°	1550.1	1552.1	1552.1	1542.1	1532.1
22.5°	1502.2	1508.2	1510.2	1499.6	1487.6
25°	1445.8	1457.1	1463.7	1453.1	1440.4
27.5°	1377.3	1394.6	1414.5	1406.6	1392.6
30°	1300.9	1326.2	1359.4	1352.7	1342.8
32.5°	1228.5	1253.7	1299.6	1296.9	1291.6
35°	1162.7	1178.7	1232.5	1239.1	1234.5
37.5°	1100.3	1114.9	1165.4	1180.7	1176.7
40°	1034.5	1050.4	1090.3	1117.5	1118.9
42.5°	969.4	984.7	1017.2	1056.4	1056.4
45°	900.3	915.6	945.5	988.6	994.0
47.5°	832.5	848.5	877.7	920.9	929.5
50°	766.1	780.7	809.9	851.8	865.1
52.5°	697.0	712.9	741.5	780.0	799.3
55°	630.5	641.2	672.4	709.6	730.2
57.5°	561.4	571.4	606.6	638.5	659.8
60°	495.0	507.6	534.9	567.4	592.0
62.5°	431.2	444.5	467.7	496.3	524.2
65°	369.4	379.4	402.0	430.5	455.1
67.5°	309.6	318.3	340.8	360.8	386.7
70°	249.2	260.4	277.1	296.3	312.9
72.5°	200.7	205.3	219.3	233.2	250.5
75°	148.2	156.1	167.4	175.4	185.4
77.5°	106.3	111.0	117.6	124.2	133.5
80°	71.1	73.1	79.1	80.4	87.7
82.5°	43.2	44.5	45.8	46.5	49.2
85°	23.3	23.3	23.3	21.9	21.9
87.5°	13.3	13.3	11.3	9.3	6.6
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)