

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: P556078

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-97-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: P556078  
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-93-97-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

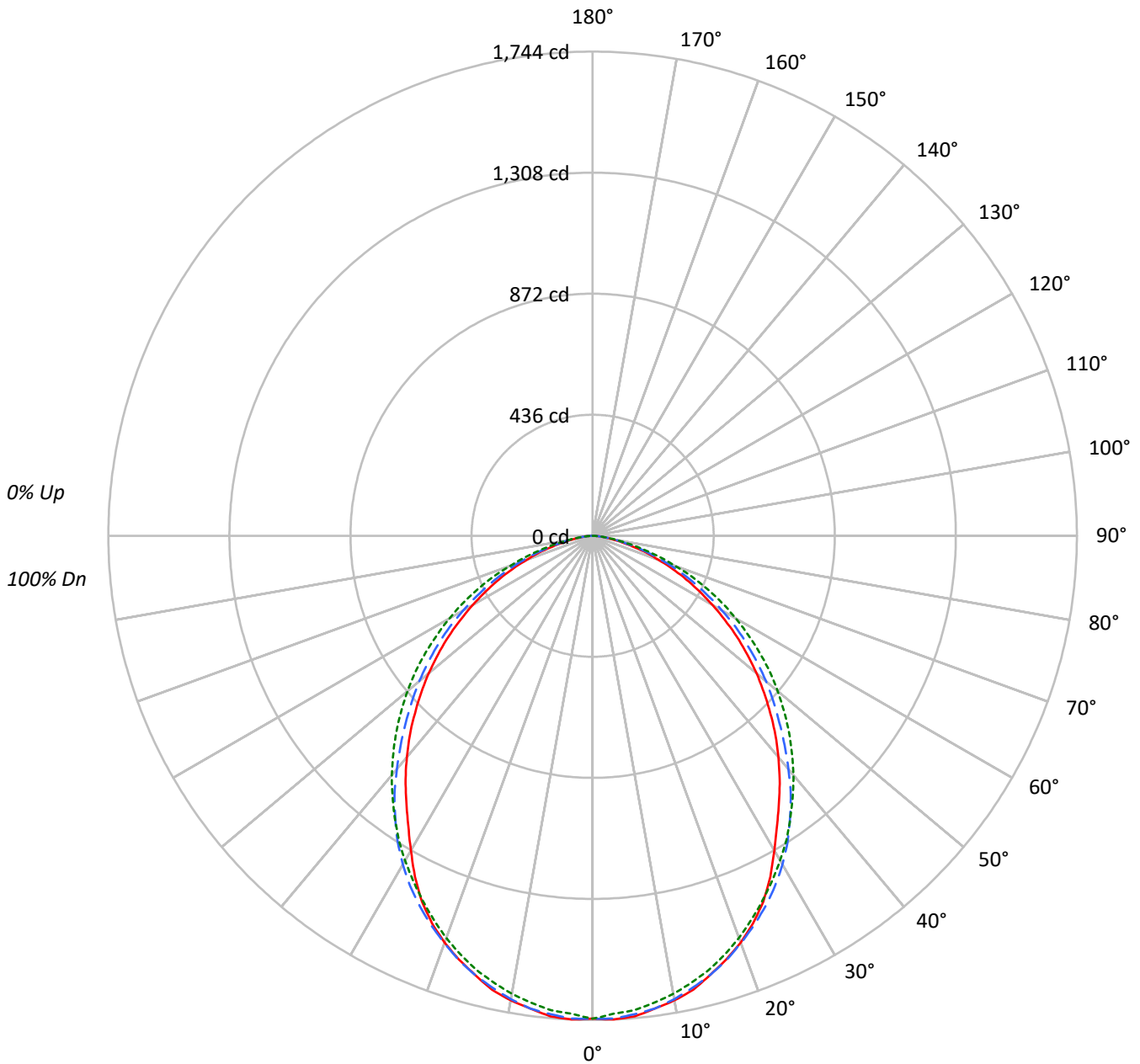
Lumens per Lamp: N/A  
Luminaire Lumens: 4022.0 lumens  
Efficiency: N/A  
Efficacy: 80.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9361	9361	9361
5°	9386	9347	9267
10°	9287	9261	9155
15°	9122	9122	9018
20°	8929	8940	8825
25°	8635	8742	8603
30°	8131	8497	8393
35°	7683	8144	8158
40°	7309	7704	7906
45°	6892	7238	7609
50°	6451	6821	7284
55°	5951	6346	6891
60°	5358	5790	6409
65°	4731	5149	5829
70°	3943	4386	4952
75°	3098	3502	3876
80°	2216	2464	2734
85°	1445	1445	1365



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.8	4.1
10°-20°	460.1	11.4
20°-30°	672.3	16.7
30°-40°	763.2	19.0
40°-50°	736.7	18.3
50°-60°	607.7	15.1
60°-70°	404.7	10.1
70°-80°	181.1	4.5
80°-90°	32.4	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°	1296.2	32.2
0°-40°	2059.3	51.2
0°-60°	3403.8	84.6
0°-90°	4022.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4022.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1739	1739	1739	1739	1739	
5°	1737	1737	1730	1721	1715	164
15°	1637	1641	1637	1630	1618	462
25°	1454	1465	1472	1461	1449	666
35°	1169	1185	1240	1246	1242	733
45°	906	921	951	994	1000	699
55°	634	645	676	714	734	566
65°	372	382	404	433	458	368
75°	149	157	168	176	186	163
85°	23	23	23	22	22	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1739.4	1739.4	1739.4	1739.4	1739.4
2.5°	1744.1	1744.8	1740.7	1730.1	1723.4
5°	1737.4	1736.7	1730.1	1720.7	1715.4
7.5°	1718.0	1719.4	1717.4	1704.0	1696.6
10°	1699.3	1700.0	1694.6	1683.9	1675.3
12.5°	1675.3	1674.6	1667.2	1661.9	1647.9
15°	1637.2	1641.2	1637.2	1629.8	1618.5
17.5°	1600.4	1600.4	1603.1	1590.4	1581.7
20°	1559.0	1561.0	1561.0	1551.0	1540.9
22.5°	1510.9	1516.9	1518.9	1508.2	1496.2
25°	1454.1	1465.4	1472.1	1461.4	1448.7
27.5°	1385.2	1402.6	1422.7	1414.6	1400.6
30°	1308.4	1333.8	1367.2	1360.5	1350.5
32.5°	1235.6	1261.0	1307.1	1304.4	1299.0
35°	1169.4	1185.4	1239.6	1246.3	1241.6
37.5°	1106.6	1121.3	1172.1	1187.5	1183.4
40°	1040.4	1056.5	1096.6	1124.0	1125.3
42.5°	975.0	990.3	1023.1	1062.5	1062.5
45°	905.5	920.8	950.9	994.3	999.7
47.5°	837.3	853.3	882.7	926.2	934.9
50°	770.5	785.2	814.6	856.7	870.0
52.5°	701.0	717.0	745.7	784.5	803.9
55°	634.2	644.8	676.3	713.7	734.4
57.5°	564.7	574.7	610.1	642.2	663.6
60°	497.8	510.5	537.9	570.7	595.4
62.5°	433.7	447.0	470.4	499.2	527.2
65°	371.5	381.6	404.3	433.0	457.7
67.5°	311.4	320.1	342.8	362.9	388.9
70°	250.6	261.9	278.7	298.0	314.7
72.5°	201.8	206.5	220.5	234.5	251.9
75°	149.0	157.0	168.4	176.4	186.4
77.5°	106.9	111.6	118.3	125.0	134.3
80°	71.5	73.5	79.5	80.9	88.2
82.5°	43.4	44.8	46.1	46.8	49.4
85°	23.4	23.4	23.4	22.1	22.1
87.5°	13.4	13.4	11.4	9.4	6.7
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)