

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: P554774

Luminaire Tested: **FUSL-12-2-LD4-2HI-40-UNV-82-87-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: P554774  
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-LD4-2HI-40-UNV-82-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

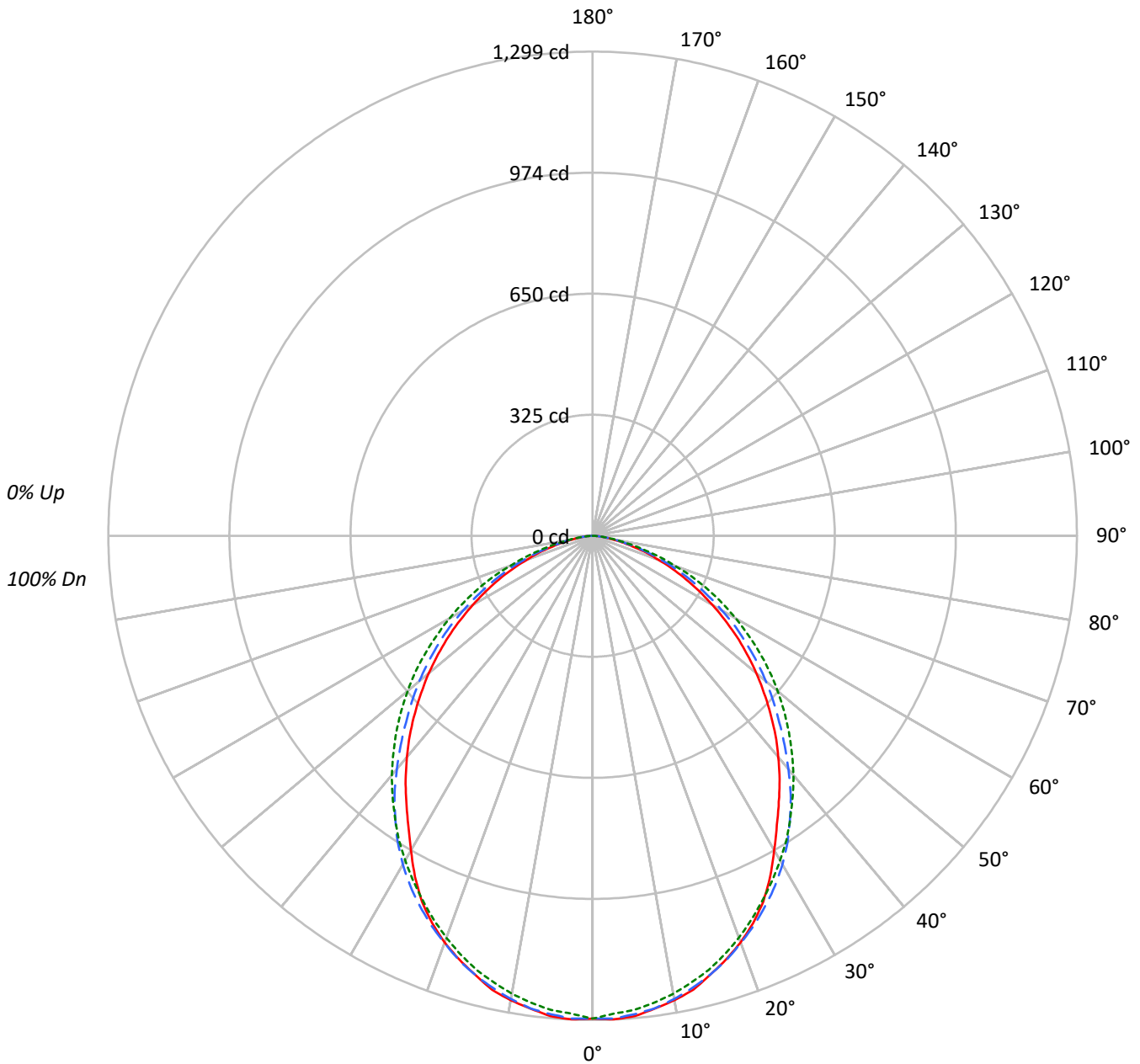
Lumens per Lamp: N/A  
Luminaire Lumens: 2995.0 lumens  
Efficiency: N/A  
Efficacy: 69.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
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°	6971	6971	6971
5°	6990	6960	6901
10°	6915	6896	6818
15°	6793	6793	6715
20°	6649	6657	6572
25°	6430	6510	6406
30°	6055	6327	6250
35°	5721	6065	6074
40°	5443	5737	5887
45°	5132	5390	5666
50°	4803	5079	5425
55°	4431	4725	5132
60°	3990	4312	4773
65°	3524	3833	4341
70°	2936	3265	3688
75°	2308	2608	2886
80°	1649	1835	2036
85°	1074	1074	1013



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.0	4.1
10°-20°	342.6	11.4
20°-30°	500.7	16.7
30°-40°	568.3	19.0
40°-50°	548.6	18.3
50°-60°	452.6	15.1
60°-70°	301.4	10.1
70°-80°	134.9	4.5
80°-90°	24.1	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°	965.2	32.2
0°-40°	1533.5	51.2
0°-60°	2534.6	84.6
0°-90°	2995.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2995.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1295	1295	1295	1295	1295	
5°	1294	1293	1288	1281	1277	122
15°	1219	1222	1219	1214	1205	344
25°	1083	1091	1096	1088	1079	496
35°	871	883	923	928	924	546
45°	674	686	708	740	744	520
55°	472	480	504	531	547	421
65°	277	284	301	322	341	274
75°	111	117	125	131	139	121
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1295.3	1295.3	1295.3	1295.3	1295.3
2.5°	1298.7	1299.2	1296.3	1288.3	1283.3
5°	1293.8	1293.3	1288.3	1281.3	1277.3
7.5°	1279.3	1280.3	1278.8	1268.9	1263.4
10°	1265.4	1265.9	1261.9	1254.0	1247.5
12.5°	1247.5	1247.0	1241.5	1237.5	1227.1
15°	1219.1	1222.1	1219.1	1213.7	1205.2
17.5°	1191.8	1191.8	1193.7	1184.3	1177.8
20°	1160.9	1162.4	1162.4	1154.9	1147.5
22.5°	1125.1	1129.6	1131.1	1123.1	1114.1
25°	1082.8	1091.2	1096.2	1088.3	1078.8
27.5°	1031.5	1044.5	1059.4	1053.4	1043.0
30°	974.3	993.2	1018.1	1013.1	1005.7
32.5°	920.1	939.0	973.3	971.3	967.3
35°	870.8	882.7	923.1	928.0	924.5
37.5°	824.0	835.0	872.8	884.2	881.3
40°	774.8	786.7	816.6	837.0	838.0
42.5°	726.0	737.4	761.8	791.2	791.2
45°	674.3	685.7	708.1	740.4	744.4
47.5°	623.5	635.4	657.3	689.7	696.1
50°	573.7	584.7	606.6	637.9	647.9
52.5°	522.0	533.9	555.3	584.2	598.6
55°	472.2	480.2	503.6	531.4	546.9
57.5°	420.5	427.9	454.3	478.2	494.1
60°	370.7	380.2	400.6	425.0	443.4
62.5°	322.9	332.9	350.3	371.7	392.6
65°	276.7	284.1	301.0	322.4	340.9
67.5°	231.9	238.4	255.3	270.2	289.6
70°	186.6	195.1	207.5	221.9	234.4
72.5°	150.3	153.8	164.2	174.7	187.6
75°	111.0	116.9	125.4	131.4	138.8
77.5°	79.6	83.1	88.1	93.1	100.0
80°	53.2	54.7	59.2	60.2	65.7
82.5°	32.3	33.3	34.3	34.8	36.8
85°	17.4	17.4	17.4	16.4	16.4
87.5°	10.0	10.0	8.5	7.0	5.0
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)