

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: P554708

Luminaire Tested: **FUSL-12-2-LD4-2HI-35-UNV-82-86-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: P554708  
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-35-UNV-82-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

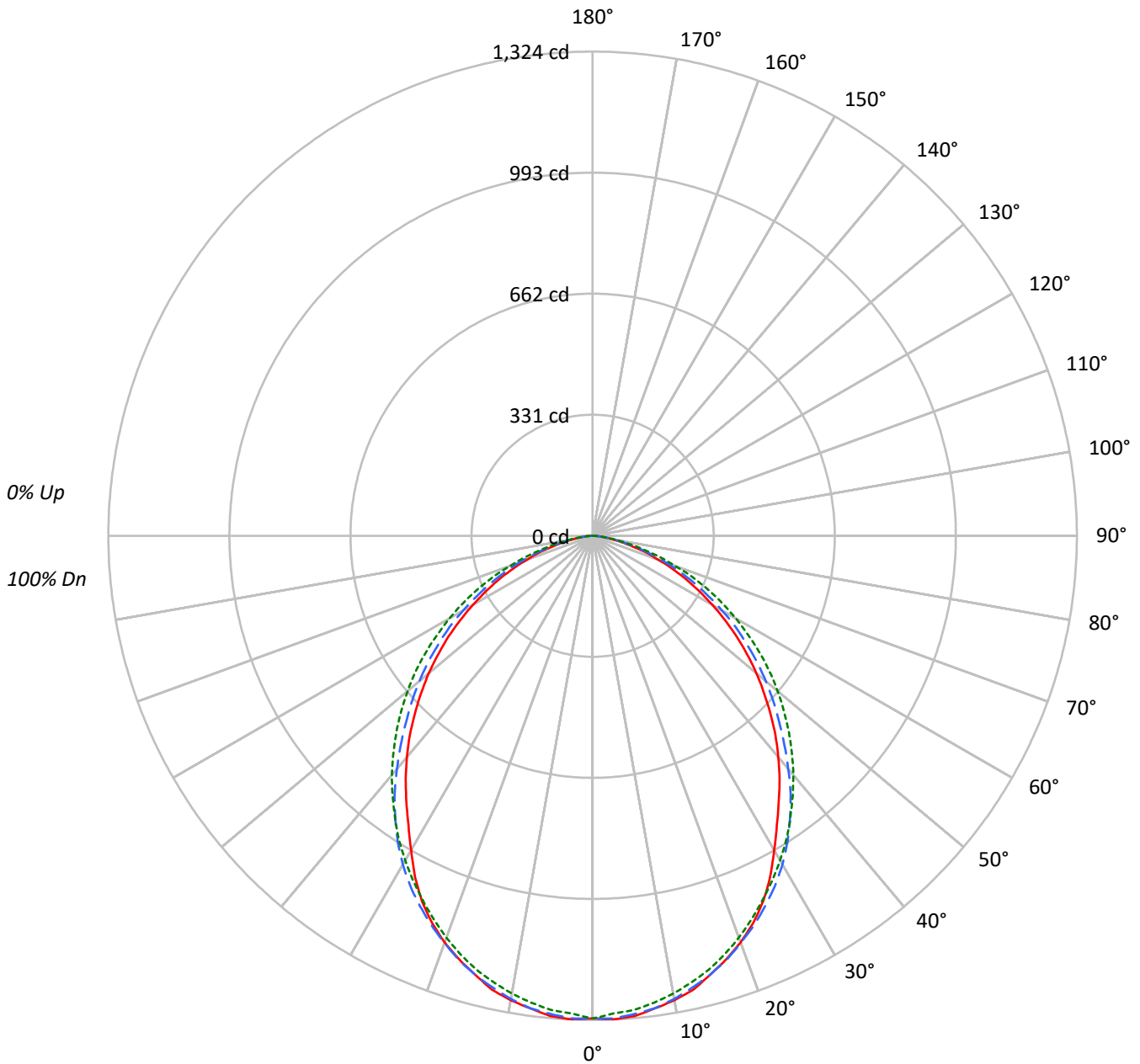
Lumens per Lamp: N/A  
Luminaire Lumens: 3052.0 lumens  
Efficiency: N/A  
Efficacy: 70.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (Ain): 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°	7104	7104	7104
5°	7123	7092	7032
10°	7047	7027	6947
15°	6922	6922	6843
20°	6775	6784	6697
25°	6552	6634	6528
30°	6170	6448	6369
35°	5830	6180	6190
40°	5547	5846	5999
45°	5230	5492	5774
50°	4896	5175	5528
55°	4515	4815	5229
60°	4067	4394	4863
65°	3590	3907	4423
70°	2993	3327	3758
75°	2352	2658	2942
80°	1683	1869	2073
85°	1093	1093	1031



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.3	4.1
10°-20°	349.1	11.4
20°-30°	510.2	16.7
30°-40°	579.1	19.0
40°-50°	559.0	18.3
50°-60°	461.2	15.1
60°-70°	307.1	10.1
70°-80°	137.4	4.5
80°-90°	24.6	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°	983.6	32.2
0°-40°	1562.7	51.2
0°-60°	2582.9	84.6
0°-90°	3052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3052.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1320	1320	1320	1320	1320	
5°	1318	1318	1313	1306	1302	125
15°	1242	1245	1242	1237	1228	350
25°	1103	1112	1117	1109	1099	505
35°	887	900	941	946	942	556
45°	687	699	722	754	759	530
55°	481	489	513	542	557	430
65°	282	290	307	329	347	280
75°	113	119	128	134	142	124
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1319.9	1319.9	1319.9	1319.9	1319.9
2.5°	1323.5	1324.0	1320.9	1312.8	1307.7
5°	1318.4	1317.9	1312.8	1305.7	1301.7
7.5°	1303.7	1304.7	1303.2	1293.0	1287.5
10°	1289.5	1290.0	1285.9	1277.8	1271.2
12.5°	1271.2	1270.7	1265.1	1261.1	1250.4
15°	1242.3	1245.4	1242.3	1236.8	1228.1
17.5°	1214.4	1214.4	1216.5	1206.8	1200.2
20°	1183.0	1184.5	1184.5	1176.9	1169.3
22.5°	1146.5	1151.1	1152.6	1144.5	1135.3
25°	1103.4	1112.0	1117.1	1109.0	1099.3
27.5°	1051.2	1064.3	1079.6	1073.5	1062.8
30°	992.8	1012.1	1037.5	1032.4	1024.8
32.5°	937.6	956.8	991.8	989.8	985.8
35°	887.4	899.5	940.6	945.7	942.1
37.5°	839.7	850.9	889.4	901.1	898.0
40°	789.5	801.7	832.1	852.9	853.9
42.5°	739.8	751.5	776.3	806.2	806.2
45°	687.1	698.7	721.6	754.5	758.6
47.5°	635.4	647.5	669.8	702.8	709.4
50°	584.7	595.8	618.1	650.1	660.2
52.5°	531.9	544.1	565.9	595.3	610.0
55°	481.2	489.3	513.2	541.6	557.3
57.5°	428.5	436.1	463.0	487.3	503.5
60°	377.8	387.4	408.2	433.0	451.8
62.5°	329.1	339.2	357.0	378.8	400.1
65°	281.9	289.5	306.8	328.6	347.3
67.5°	236.3	242.9	260.1	275.3	295.1
70°	190.2	198.8	211.4	226.2	238.8
72.5°	153.1	156.7	167.3	178.0	191.2
75°	113.1	119.2	127.8	133.9	141.5
77.5°	81.1	84.7	89.8	94.8	101.9
80°	54.3	55.8	60.3	61.4	66.9
82.5°	33.0	34.0	35.0	35.5	37.5
85°	17.7	17.7	17.7	16.7	16.7
87.5°	10.1	10.1	8.6	7.1	5.1
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)