

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: P554644

Luminaire Tested: **FUSL-12-2-LD4-2HI-30-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: P554644  
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-30-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 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

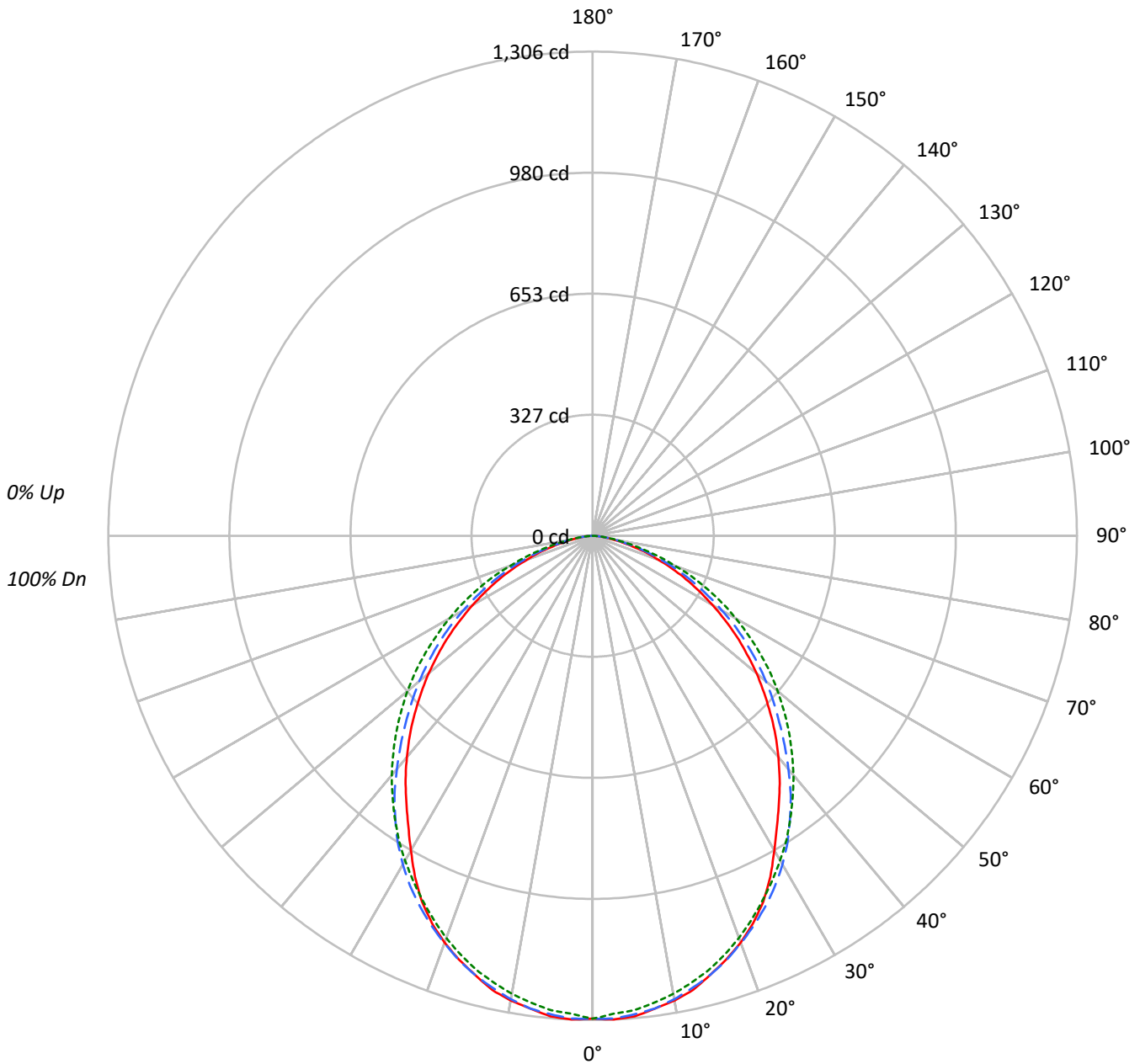
Lumens per Lamp: N/A  
Luminaire Lumens: 3012.0 lumens  
Efficiency: N/A  
Efficacy: 69.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	7011	7011	7011
5°	7029	6999	6940
10°	6955	6936	6856
15°	6831	6831	6753
20°	6687	6695	6609
25°	6466	6546	6442
30°	6089	6363	6285
35°	5753	6099	6109
40°	5474	5769	5921
45°	5161	5420	5698
50°	4831	5107	5456
55°	4456	4752	5161
60°	4013	4336	4800
65°	3543	3856	4365
70°	2954	3284	3709
75°	2321	2622	2903
80°	1658	1847	2049
85°	1081	1081	1019



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.6	4.1
10°-20°	344.5	11.4
20°-30°	503.5	16.7
30°-40°	571.5	19.0
40°-50°	551.7	18.3
50°-60°	455.1	15.1
60°-70°	303.1	10.1
70°-80°	135.6	4.5
80°-90°	24.3	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°	970.7	32.2
0°-40°	1542.2	51.2
0°-60°	2549.0	84.6
0°-90°	3012.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3012.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1301	1301	1296	1289	1285	123
15°	1226	1229	1226	1220	1212	346
25°	1089	1097	1102	1094	1085	499
35°	876	888	928	933	930	549
45°	678	690	712	745	749	523
55°	475	483	506	534	550	424
65°	278	286	303	324	343	276
75°	112	118	126	132	140	122
85°	18	18	18	16	16	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1302.6	1302.6	1302.6	1302.6	1302.6
2.5°	1306.1	1306.6	1303.6	1295.6	1290.6
5°	1301.1	1300.6	1295.6	1288.6	1284.6
7.5°	1286.6	1287.6	1286.1	1276.1	1270.6
10°	1272.6	1273.1	1269.1	1261.1	1254.6
12.5°	1254.6	1254.1	1248.6	1244.6	1234.1
15°	1226.0	1229.0	1226.0	1220.5	1212.0
17.5°	1198.5	1198.5	1200.5	1191.0	1184.5
20°	1167.5	1169.0	1169.0	1161.5	1154.0
22.5°	1131.5	1136.0	1137.5	1129.5	1120.5
25°	1088.9	1097.4	1102.4	1094.4	1084.9
27.5°	1037.4	1050.4	1065.4	1059.4	1048.9
30°	979.8	998.9	1023.9	1018.9	1011.4
32.5°	925.3	944.3	978.8	976.8	972.8
35°	875.7	887.8	928.3	933.3	929.8
37.5°	828.7	839.7	877.7	889.3	886.3
40°	779.2	791.2	821.2	841.7	842.7
42.5°	730.1	741.6	766.2	795.7	795.7
45°	678.1	689.6	712.1	744.6	748.6
47.5°	627.0	639.0	661.1	693.6	700.1
50°	577.0	588.0	610.0	641.5	651.6
52.5°	524.9	537.0	558.5	587.5	602.0
55°	474.9	482.9	506.4	534.5	550.0
57.5°	422.9	430.4	456.9	480.9	496.9
60°	372.8	382.3	402.8	427.4	445.9
62.5°	324.8	334.8	352.3	373.8	394.8
65°	278.2	285.7	302.8	324.3	342.8
67.5°	233.2	239.7	256.7	271.7	291.2
70°	187.7	196.2	208.7	223.2	235.7
72.5°	151.1	154.6	165.1	175.6	188.7
75°	111.6	117.6	126.1	132.1	139.6
77.5°	80.1	83.6	88.6	93.6	100.6
80°	53.5	55.0	59.6	60.6	66.1
82.5°	32.5	33.5	34.5	35.0	37.0
85°	17.5	17.5	17.5	16.5	16.5
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)