

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: P554176

Luminaire Tested: **FUSL-12-2-LD4-1LO-35-UNV-81-84-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: P554176  
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-LD4-1LO-35-UNV-81-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

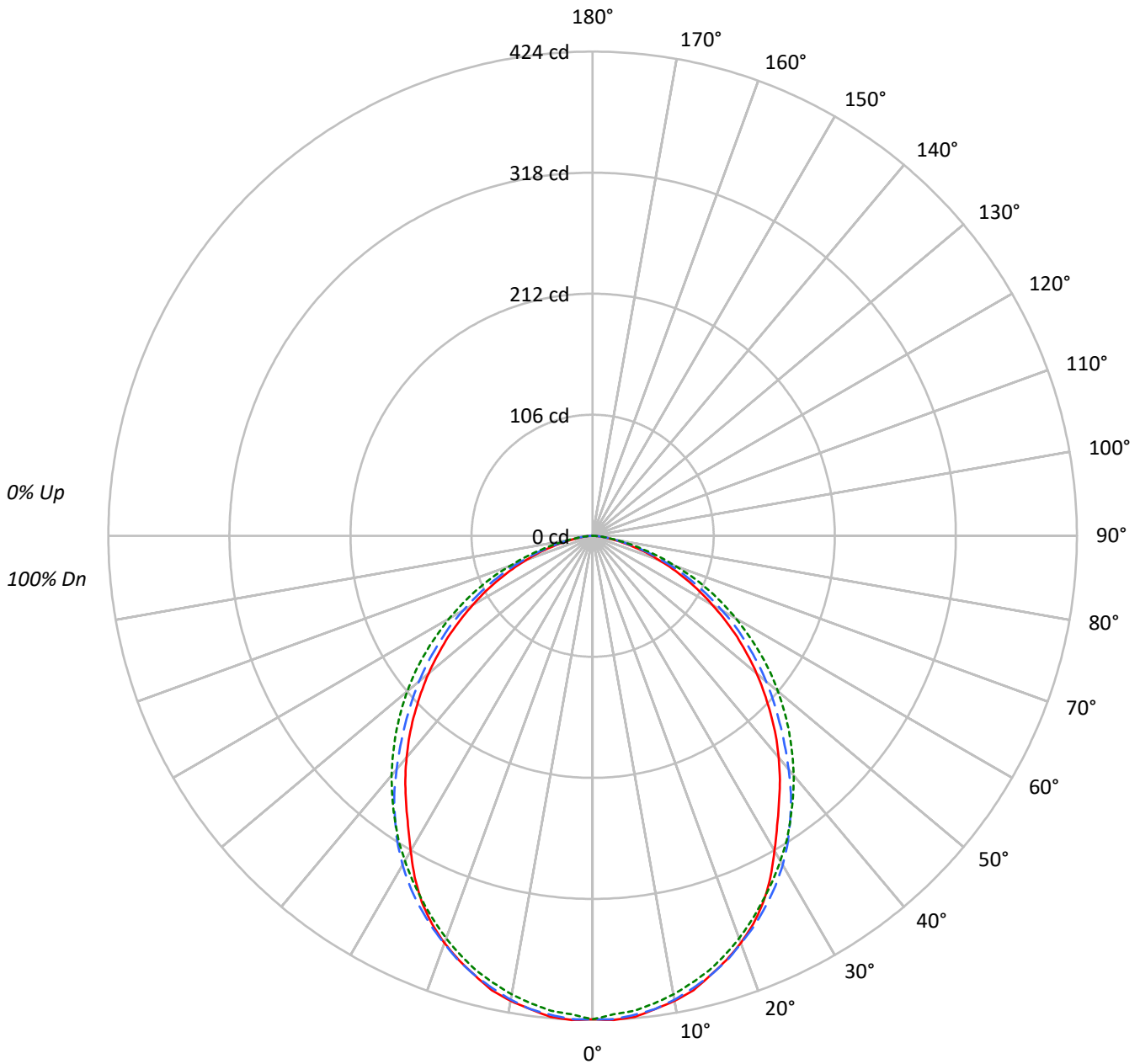
Lumens per Lamp: N/A  
Luminaire Lumens: 979.0 lumens  
Efficiency: N/A  
Efficacy: 83.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
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°	2279	2279	2279
5°	2285	2275	2256
10°	2260	2254	2229
15°	2220	2220	2195
20°	2174	2176	2148
25°	2102	2128	2094
30°	1979	2068	2043
35°	1870	1982	1986
40°	1780	1875	1924
45°	1678	1762	1852
50°	1570	1660	1773
55°	1449	1544	1678
60°	1305	1409	1560
65°	1151	1253	1419
70°	960	1067	1205
75°	755	853	944
80°	539	601	666
85°	352	352	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.9	4.1
10°-20°	112.0	11.4
20°-30°	163.6	16.7
30°-40°	185.8	19.0
40°-50°	179.3	18.3
50°-60°	147.9	15.1
60°-70°	98.5	10.1
70°-80°	44.1	4.5
80°-90°	7.9	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°	315.5	32.2
0°-40°	501.3	51.2
0°-60°	828.5	84.6
0°-90°	979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	979.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	423	423	423	423	423	
5°	423	423	421	419	418	40
15°	398	400	398	397	394	112
25°	354	357	358	356	353	162
35°	285	289	302	303	302	178
45°	220	224	232	242	243	170
55°	154	157	165	174	179	138
65°	90	93	98	105	111	90
75°	36	38	41	43	45	40
85°	6	6	6	5	5	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	423.4	423.4	423.4	423.4	423.4
2.5°	424.5	424.7	423.7	421.1	419.5
5°	422.9	422.7	421.1	418.8	417.5
7.5°	418.2	418.5	418.0	414.8	413.0
10°	413.6	413.8	412.5	409.9	407.8
12.5°	407.8	407.6	405.8	404.5	401.1
15°	398.5	399.5	398.5	396.7	394.0
17.5°	389.6	389.6	390.2	387.1	385.0
20°	379.5	380.0	380.0	377.5	375.1
22.5°	367.8	369.2	369.7	367.1	364.2
25°	353.9	356.7	358.3	355.7	352.6
27.5°	337.2	341.4	346.3	344.3	340.9
30°	318.5	324.7	332.8	331.2	328.7
32.5°	300.7	306.9	318.2	317.5	316.2
35°	284.6	288.6	301.7	303.4	302.2
37.5°	269.4	272.9	285.3	289.0	288.1
40°	253.3	257.2	266.9	273.6	273.9
42.5°	237.3	241.1	249.0	258.6	258.6
45°	220.4	224.1	231.5	242.0	243.3
47.5°	203.8	207.7	214.9	225.4	227.6
50°	187.5	191.1	198.3	208.5	211.8
52.5°	170.6	174.5	181.5	191.0	195.7
55°	154.4	157.0	164.6	173.7	178.8
57.5°	137.4	139.9	148.5	156.3	161.5
60°	121.2	124.3	130.9	138.9	144.9
62.5°	105.6	108.8	114.5	121.5	128.3
65°	90.4	92.9	98.4	105.4	111.4
67.5°	75.8	77.9	83.4	88.3	94.7
70°	61.0	63.8	67.8	72.5	76.6
72.5°	49.1	50.3	53.7	57.1	61.3
75°	36.3	38.2	41.0	42.9	45.4
77.5°	26.0	27.2	28.8	30.4	32.7
80°	17.4	17.9	19.4	19.7	21.5
82.5°	10.6	10.9	11.2	11.4	12.0
85°	5.7	5.7	5.7	5.4	5.4
87.5°	3.3	3.3	2.8	2.3	1.6
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)