

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: P554192

Luminaire Tested: **FUSL-12-2-LD4-1LO-35-UNV-82-84-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: P554192  
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-82-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .187 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**

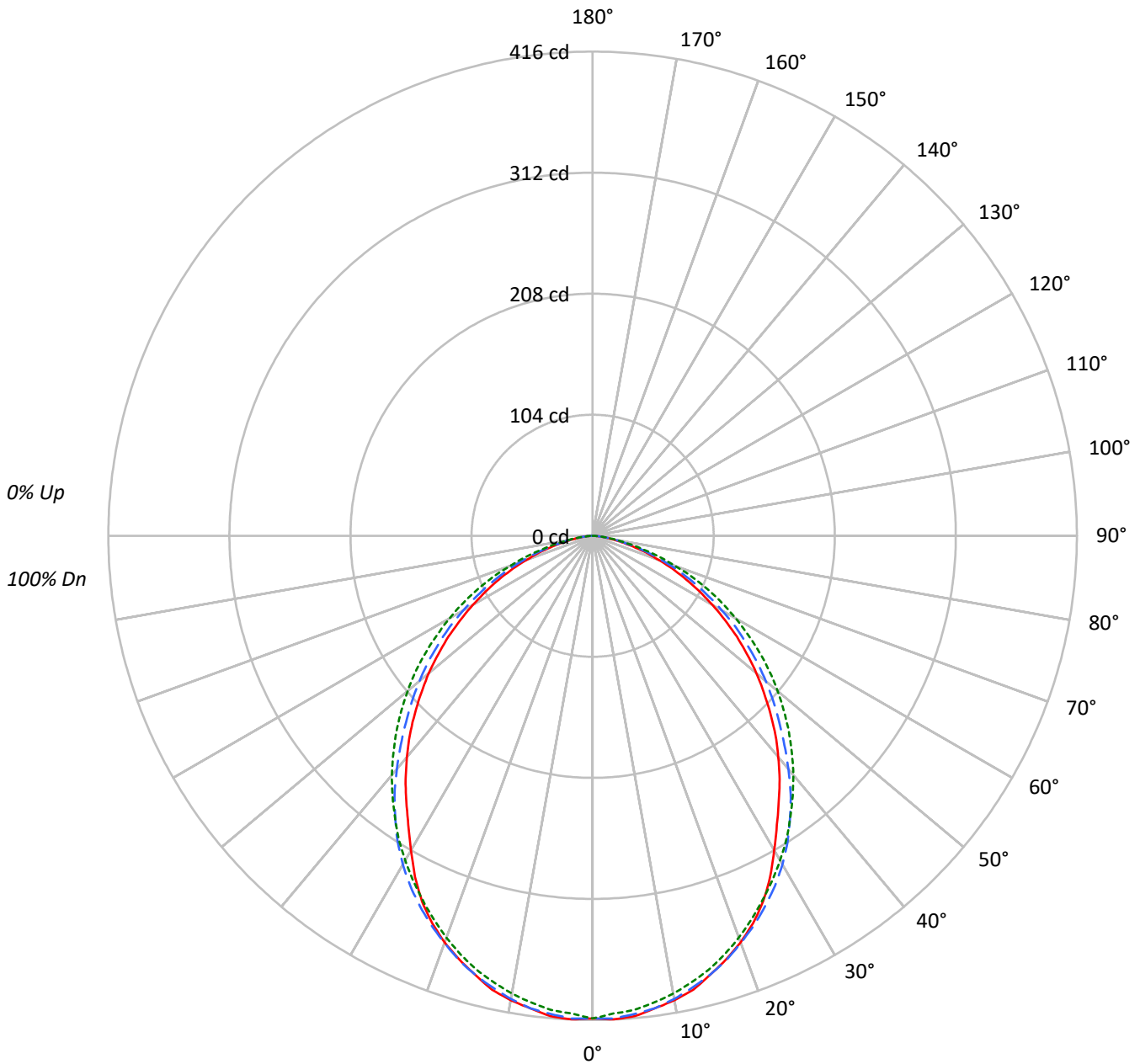
Lumens per Lamp: N/A  
Luminaire Lumens: 959.0 lumens  
Efficiency: N/A  
Efficacy: 82.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2232	2232	2232
5°	2238	2229	2210
10°	2214	2208	2183
15°	2175	2175	2150
20°	2129	2132	2104
25°	2059	2084	2051
30°	1939	2026	2001
35°	1832	1942	1945
40°	1743	1837	1885
45°	1643	1725	1815
50°	1538	1626	1737
55°	1419	1513	1643
60°	1278	1381	1528
65°	1128	1228	1389
70°	939	1045	1180
75°	738	836	925
80°	527	589	651
85°	346	346	327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.0	4.1
10°-20°	109.7	11.4
20°-30°	160.3	16.7
30°-40°	182.0	19.0
40°-50°	175.7	18.3
50°-60°	144.9	15.1
60°-70°	96.5	10.1
70°-80°	43.2	4.5
80°-90°	7.7	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°	309.1	32.2
0°-40°	491.0	51.2
0°-60°	811.6	84.6
0°-90°	959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	959.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	415	415	415	415	415	
5°	414	414	412	410	409	39
15°	390	391	390	389	386	110
25°	347	349	351	348	345	159
35°	279	283	296	297	296	175
45°	216	220	227	237	238	167
55°	151	154	161	170	175	135
65°	89	91	96	103	109	88
75°	36	37	40	42	44	39
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°	414.7	414.7	414.7	414.7	414.7
2.5°	415.9	416.0	415.1	412.5	410.9
5°	414.3	414.1	412.5	410.3	409.0
7.5°	409.6	410.0	409.5	406.3	404.5
10°	405.2	405.3	404.1	401.5	399.4
12.5°	399.4	399.3	397.5	396.3	392.9
15°	390.4	391.3	390.4	388.6	385.9
17.5°	381.6	381.6	382.2	379.2	377.1
20°	371.7	372.2	372.2	369.8	367.4
22.5°	360.3	361.7	362.2	359.6	356.7
25°	346.7	349.4	351.0	348.5	345.4
27.5°	330.3	334.4	339.2	337.3	334.0
30°	312.0	318.0	326.0	324.4	322.0
32.5°	294.6	300.7	311.7	311.0	309.7
35°	278.8	282.7	295.6	297.2	296.0
37.5°	263.9	267.4	279.5	283.1	282.2
40°	248.1	251.9	261.5	268.0	268.3
42.5°	232.5	236.1	243.9	253.3	253.3
45°	215.9	219.6	226.7	237.1	238.4
47.5°	199.6	203.5	210.5	220.8	222.9
50°	183.7	187.2	194.2	204.3	207.5
52.5°	167.1	171.0	177.8	187.1	191.7
55°	151.2	153.8	161.2	170.2	175.1
57.5°	134.6	137.0	145.5	153.1	158.2
60°	118.7	121.7	128.3	136.1	142.0
62.5°	103.4	106.6	112.2	119.0	125.7
65°	88.6	91.0	96.4	103.2	109.1
67.5°	74.2	76.3	81.7	86.5	92.7
70°	59.7	62.5	66.4	71.1	75.0
72.5°	48.1	49.2	52.6	55.9	60.1
75°	35.5	37.4	40.2	42.1	44.5
77.5°	25.5	26.6	28.2	29.8	32.0
80°	17.0	17.5	19.0	19.3	21.0
82.5°	10.4	10.7	11.0	11.2	11.8
85°	5.6	5.6	5.6	5.3	5.3
87.5°	3.2	3.2	2.7	2.2	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)