

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: P554240

Luminaire Tested: **FUSL-12-2-LD4-1LO-40-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: P554240  
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-40-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 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

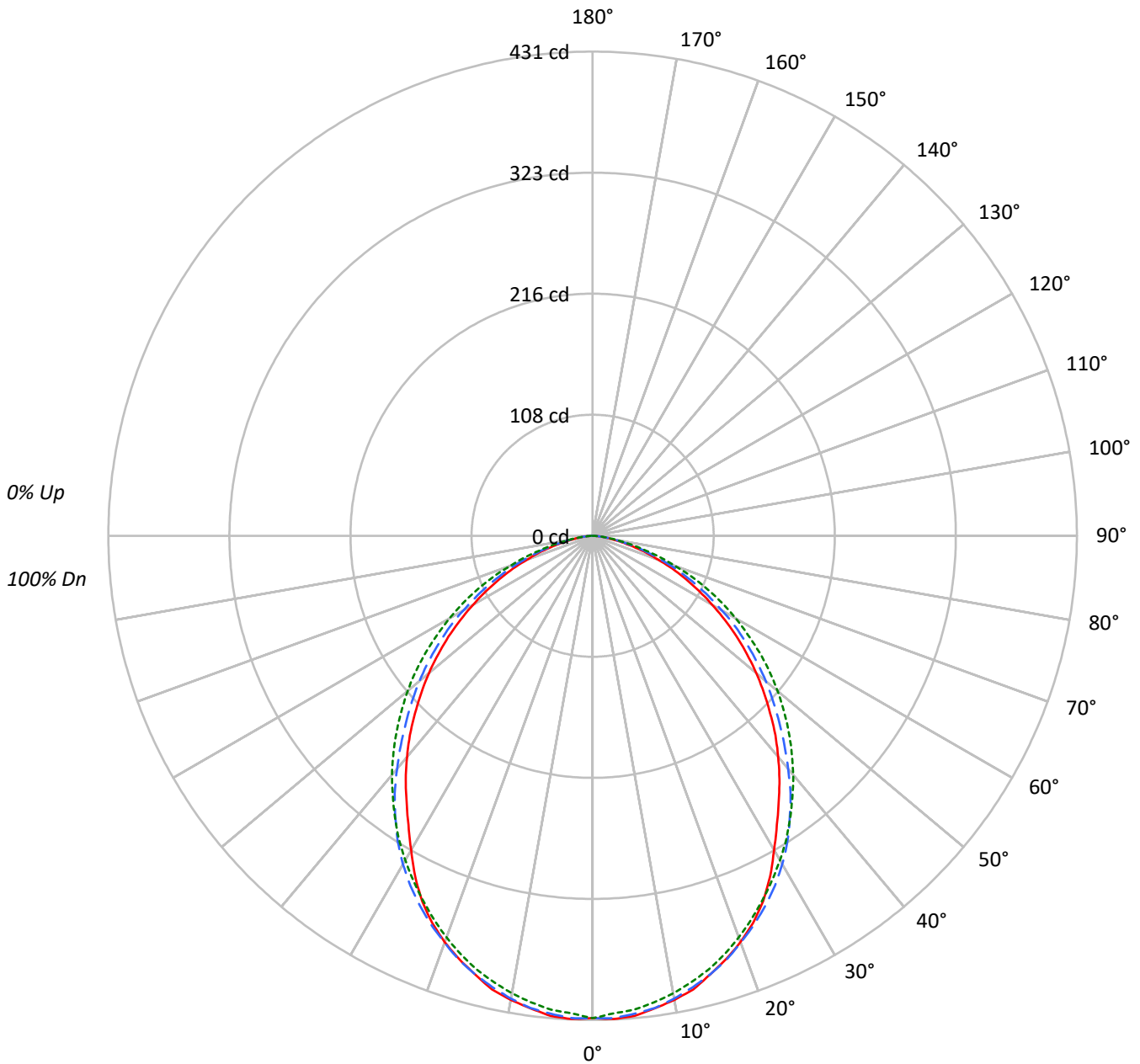
Lumens per Lamp: N/A  
Luminaire Lumens: 993.0 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	2311	2311	2311
5°	2318	2307	2288
10°	2293	2287	2260
15°	2252	2252	2226
20°	2204	2207	2179
25°	2132	2159	2124
30°	2007	2098	2072
35°	1897	2010	2014
40°	1805	1902	1952
45°	1701	1787	1878
50°	1593	1684	1798
55°	1469	1567	1701
60°	1323	1429	1582
65°	1168	1271	1439
70°	974	1083	1223
75°	765	865	957
80°	549	607	676
85°	358	358	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.4	4.1
10°-20°	113.6	11.4
20°-30°	166.0	16.7
30°-40°	188.4	19.0
40°-50°	181.9	18.3
50°-60°	150.0	15.1
60°-70°	99.9	10.1
70°-80°	44.7	4.5
80°-90°	8.0	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°	320.0	32.2
0°-40°	508.4	51.2
0°-60°	840.4	84.6
0°-90°	993.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	993.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	429	429	429	429	429	
5°	429	429	427	425	424	41
15°	404	405	404	402	400	114
25°	359	362	364	361	358	164
35°	289	293	306	308	306	181
45°	224	227	235	246	247	172
55°	157	159	167	176	181	140
65°	92	94	100	107	113	91
75°	37	39	42	44	46	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°	429.4	429.4	429.4	429.4	429.4
2.5°	430.6	430.8	429.8	427.1	425.5
5°	429.0	428.8	427.1	424.8	423.5
7.5°	424.2	424.5	424.0	420.7	418.9
10°	419.5	419.7	418.4	415.8	413.6
12.5°	413.6	413.4	411.6	410.3	406.8
15°	404.2	405.2	404.2	402.4	399.6
17.5°	395.1	395.1	395.8	392.7	390.5
20°	384.9	385.4	385.4	382.9	380.4
22.5°	373.0	374.5	375.0	372.4	369.4
25°	359.0	361.8	363.5	360.8	357.7
27.5°	342.0	346.3	351.2	349.3	345.8
30°	323.0	329.3	337.6	335.9	333.4
32.5°	305.1	311.3	322.7	322.0	320.7
35°	288.7	292.7	306.0	307.7	306.5
37.5°	273.2	276.8	289.4	293.2	292.2
40°	256.9	260.8	270.7	277.5	277.8
42.5°	240.7	244.5	252.6	262.3	262.3
45°	223.5	227.3	234.8	245.5	246.8
47.5°	206.7	210.7	217.9	228.7	230.8
50°	190.2	193.9	201.1	211.5	214.8
52.5°	173.1	177.0	184.1	193.7	198.5
55°	156.6	159.2	167.0	176.2	181.3
57.5°	139.4	141.9	150.6	158.5	163.8
60°	122.9	126.0	132.8	140.9	147.0
62.5°	107.1	110.4	116.1	123.2	130.2
65°	91.7	94.2	99.8	106.9	113.0
67.5°	76.9	79.0	84.6	89.6	96.0
70°	61.9	64.7	68.8	73.6	77.7
72.5°	49.8	51.0	54.4	57.9	62.2
75°	36.8	38.8	41.6	43.6	46.0
77.5°	26.4	27.6	29.2	30.9	33.2
80°	17.7	18.1	19.6	20.0	21.8
82.5°	10.7	11.1	11.4	11.5	12.2
85°	5.8	5.8	5.8	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)