

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: P554957

Luminaire Tested: **FUSL-12-2-LD4-2LO-35-UNV-81-96-EDD**

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: P554957  
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-LD4-2LO-35-UNV-81-96-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

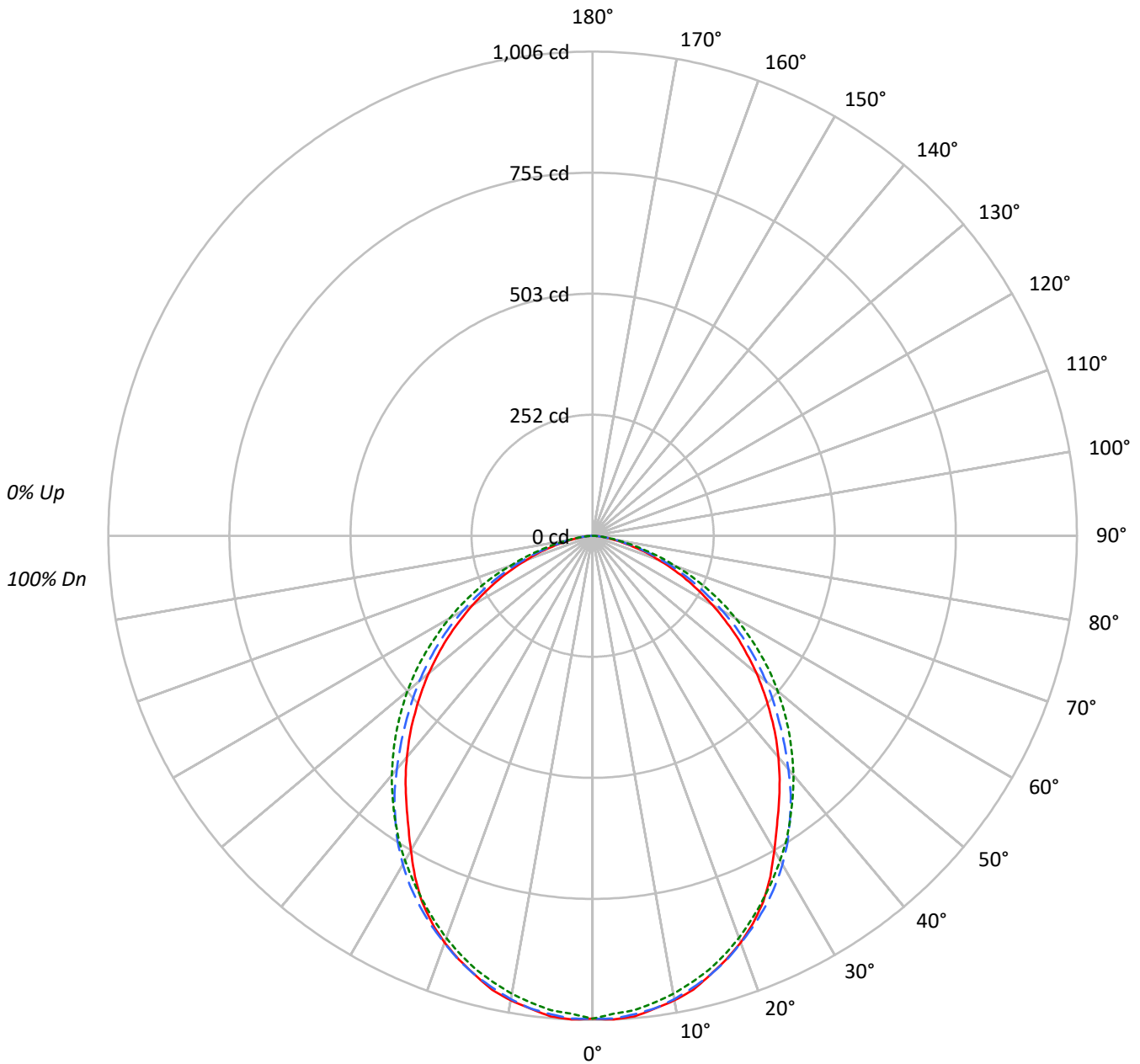
Lumens per Lamp: N/A  
Luminaire Lumens: 2320.0 lumens  
Efficiency: N/A  
Efficacy: 99.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	5400	5400	5400
5°	5414	5391	5346
10°	5357	5342	5281
15°	5262	5262	5202
20°	5151	5157	5091
25°	4981	5043	4963
30°	4690	4901	4841
35°	4432	4698	4706
40°	4217	4444	4560
45°	3975	4175	4389
50°	3721	3934	4202
55°	3432	3660	3975
60°	3091	3340	3696
65°	2729	2970	3362
70°	2274	2529	2856
75°	1788	2019	2235
80°	1277	1423	1578
85°	834	834	784



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	4.1
10°-20°	265.4	11.4
20°-30°	387.8	16.7
30°-40°	440.2	19.0
40°-50°	425.0	18.3
50°-60°	350.6	15.1
60°-70°	233.4	10.1
70°-80°	104.5	4.5
80°-90°	18.7	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°	747.7	32.2
0°-40°	1187.9	51.2
0°-60°	1963.4	84.6
0°-90°	2320.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2320.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1003	1003	1003	1003	1003	
5°	1002	1002	998	992	990	95
15°	944	947	944	940	934	266
25°	839	845	849	843	836	384
35°	674	684	715	719	716	423
45°	522	531	548	574	577	403
55°	366	372	390	412	424	326
65°	214	220	233	250	264	213
75°	86	91	97	102	108	94
85°	14	14	14	13	13	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1003.3	1003.3	1003.3	1003.3	1003.3
2.5°	1006.0	1006.4	1004.1	997.9	994.1
5°	1002.2	1001.8	997.9	992.5	989.5
7.5°	991.0	991.8	990.6	982.9	978.7
10°	980.2	980.6	977.5	971.3	966.3
12.5°	966.3	966.0	961.7	958.6	950.5
15°	944.4	946.7	944.4	940.1	933.6
17.5°	923.2	923.2	924.7	917.4	912.4
20°	899.3	900.4	900.4	894.6	888.9
22.5°	871.5	875.0	876.1	870.0	863.0
25°	838.8	845.3	849.2	843.0	835.7
27.5°	799.0	809.1	820.6	816.0	807.9
30°	754.7	769.4	788.6	784.8	779.0
32.5°	712.7	727.4	754.0	752.4	749.3
35°	674.5	683.8	715.0	718.9	716.2
37.5°	638.3	646.8	676.1	685.0	682.6
40°	600.2	609.4	632.5	648.3	649.1
42.5°	562.4	571.2	590.1	612.9	612.9
45°	522.3	531.2	548.5	573.6	576.6
47.5°	483.0	492.2	509.2	534.2	539.3
50°	444.4	452.9	469.9	494.2	501.9
52.5°	404.3	413.6	430.2	452.5	463.7
55°	365.8	372.0	390.1	411.7	423.6
57.5°	325.7	331.5	351.9	370.4	382.8
60°	287.2	294.5	310.3	329.2	343.4
62.5°	250.2	257.9	271.4	287.9	304.1
65°	214.3	220.1	233.2	249.8	264.0
67.5°	179.6	184.6	197.7	209.3	224.3
70°	144.5	151.1	160.7	171.9	181.5
72.5°	116.4	119.1	127.2	135.3	145.3
75°	86.0	90.6	97.1	101.8	107.5
77.5°	61.7	64.4	68.2	72.1	77.5
80°	41.2	42.4	45.9	46.6	50.9
82.5°	25.1	25.8	26.6	27.0	28.5
85°	13.5	13.5	13.5	12.7	12.7
87.5°	7.7	7.7	6.6	5.4	3.9
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)