

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: P555045

Luminaire Tested: **FUSL-12-2-LD4-2LO-40-UNV-93-86-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: P555045  
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-40-UNV-93-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

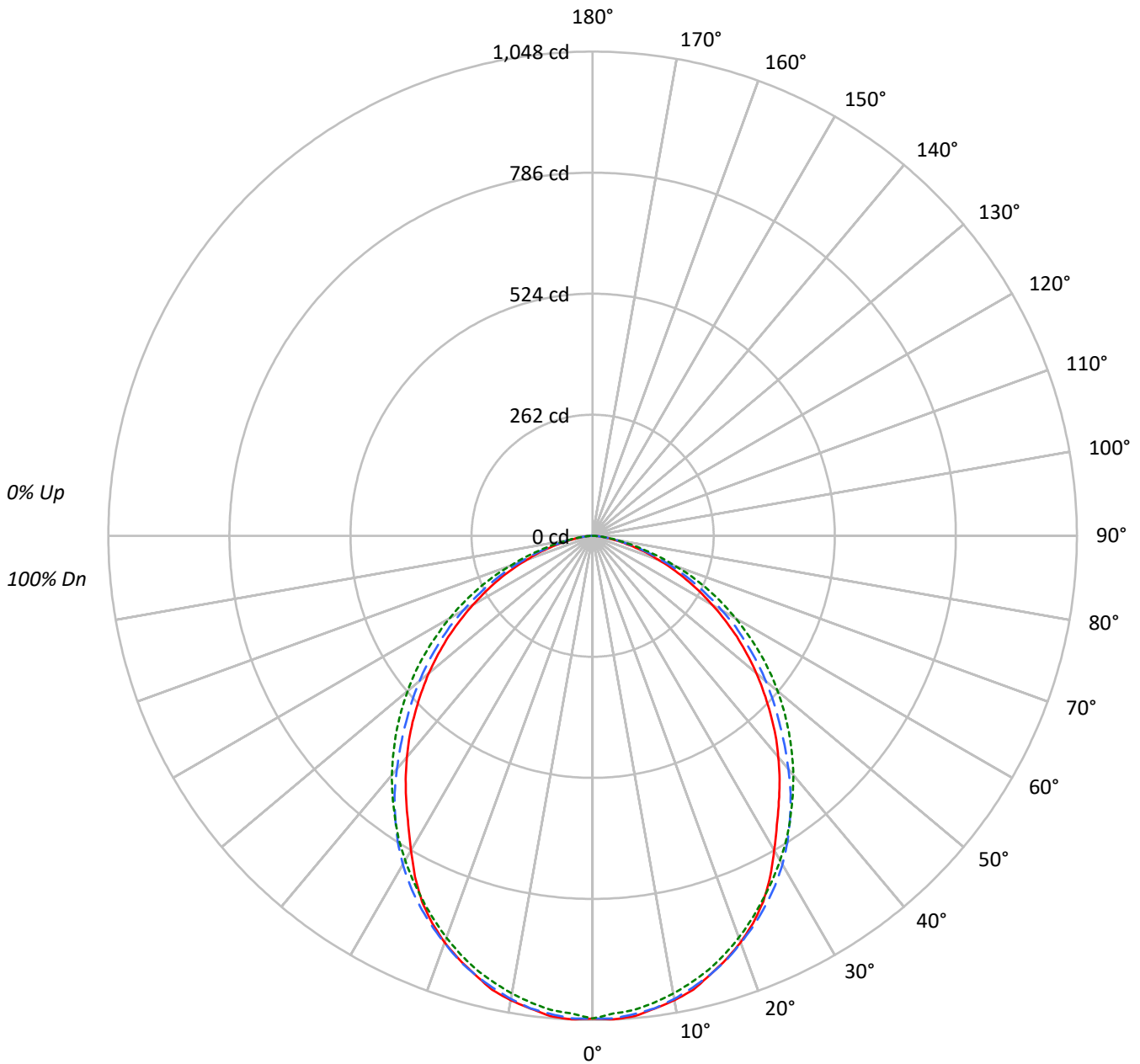
Lumens per Lamp: N/A  
Luminaire Lumens: 2416.0 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
Input Voltage (V): NR  
Input Current (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°	5624	5624	5624
5°	5639	5614	5567
10°	5579	5563	5499
15°	5479	5479	5417
20°	5364	5371	5301
25°	5187	5251	5168
30°	4885	5104	5041
35°	4616	4892	4900
40°	4391	4628	4749
45°	4140	4348	4571
50°	3875	4097	4376
55°	3574	3811	4139
60°	3218	3478	3850
65°	2842	3093	3502
70°	2368	2634	2976
75°	1861	2104	2329
80°	1333	1481	1643
85°	865	865	815



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.4	4.1
10°-20°	276.4	11.4
20°-30°	403.9	16.7
30°-40°	458.4	19.0
40°-50°	442.5	18.3
50°-60°	365.1	15.1
60°-70°	243.1	10.1
70°-80°	108.8	4.5
80°-90°	19.4	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°	778.6	32.2
0°-40°	1237.0	51.2
0°-60°	2044.7	84.6
0°-90°	2416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2416.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1044	1043	1039	1034	1030	99
15°	983	986	983	979	972	277
25°	874	880	884	878	870	400
35°	702	712	745	749	746	440
45°	544	553	571	597	600	420
55°	381	387	406	429	441	340
65°	223	229	243	260	275	221
75°	90	94	101	106	112	98
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1044.9	1044.9	1044.9	1044.9	1044.9
2.5°	1047.7	1048.1	1045.7	1039.2	1035.2
5°	1043.7	1043.3	1039.2	1033.6	1030.4
7.5°	1032.0	1032.8	1031.6	1023.6	1019.2
10°	1020.8	1021.2	1018.0	1011.5	1006.3
12.5°	1006.3	1005.9	1001.5	998.3	989.9
15°	983.4	985.9	983.4	979.0	972.2
17.5°	961.4	961.4	963.0	955.3	950.1
20°	936.5	937.7	937.7	931.7	925.6
22.5°	907.6	911.2	912.4	906.0	898.7
25°	873.5	880.3	884.3	877.9	870.2
27.5°	832.1	842.5	854.6	849.8	841.3
30°	786.0	801.2	821.3	817.3	811.2
32.5°	742.2	757.5	785.1	783.5	780.3
35°	702.5	712.1	744.6	748.6	745.8
37.5°	664.7	673.6	704.1	713.3	710.9
40°	625.0	634.6	658.7	675.2	676.0
42.5°	585.7	594.9	614.6	638.2	638.2
45°	543.9	553.1	571.2	597.3	600.5
47.5°	503.0	512.6	530.3	556.3	561.6
50°	462.8	471.7	489.3	514.6	522.6
52.5°	421.1	430.7	448.0	471.2	482.9
55°	380.9	387.4	406.2	428.7	441.1
57.5°	339.2	345.2	366.5	385.8	398.6
60°	299.0	306.7	323.1	342.8	357.7
62.5°	260.5	268.5	282.6	299.8	316.7
65°	223.2	229.2	242.9	260.1	275.0
67.5°	187.1	192.3	205.9	218.0	233.6
70°	150.5	157.4	167.4	179.0	189.1
72.5°	121.2	124.0	132.5	140.9	151.3
75°	89.5	94.3	101.2	106.0	112.0
77.5°	64.2	67.0	71.0	75.1	80.7
80°	43.0	44.2	47.8	48.6	53.0
82.5°	26.1	26.9	27.7	28.1	29.7
85°	14.0	14.0	14.0	13.2	13.2
87.5°	8.0	8.0	6.8	5.6	4.0
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)