

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: P555364

Luminaire Tested: **FUSL-12-2-LD4-2STD-50-UNV-93-86-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: P555364  
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-LD4-2STD-50-UNV-93-86-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

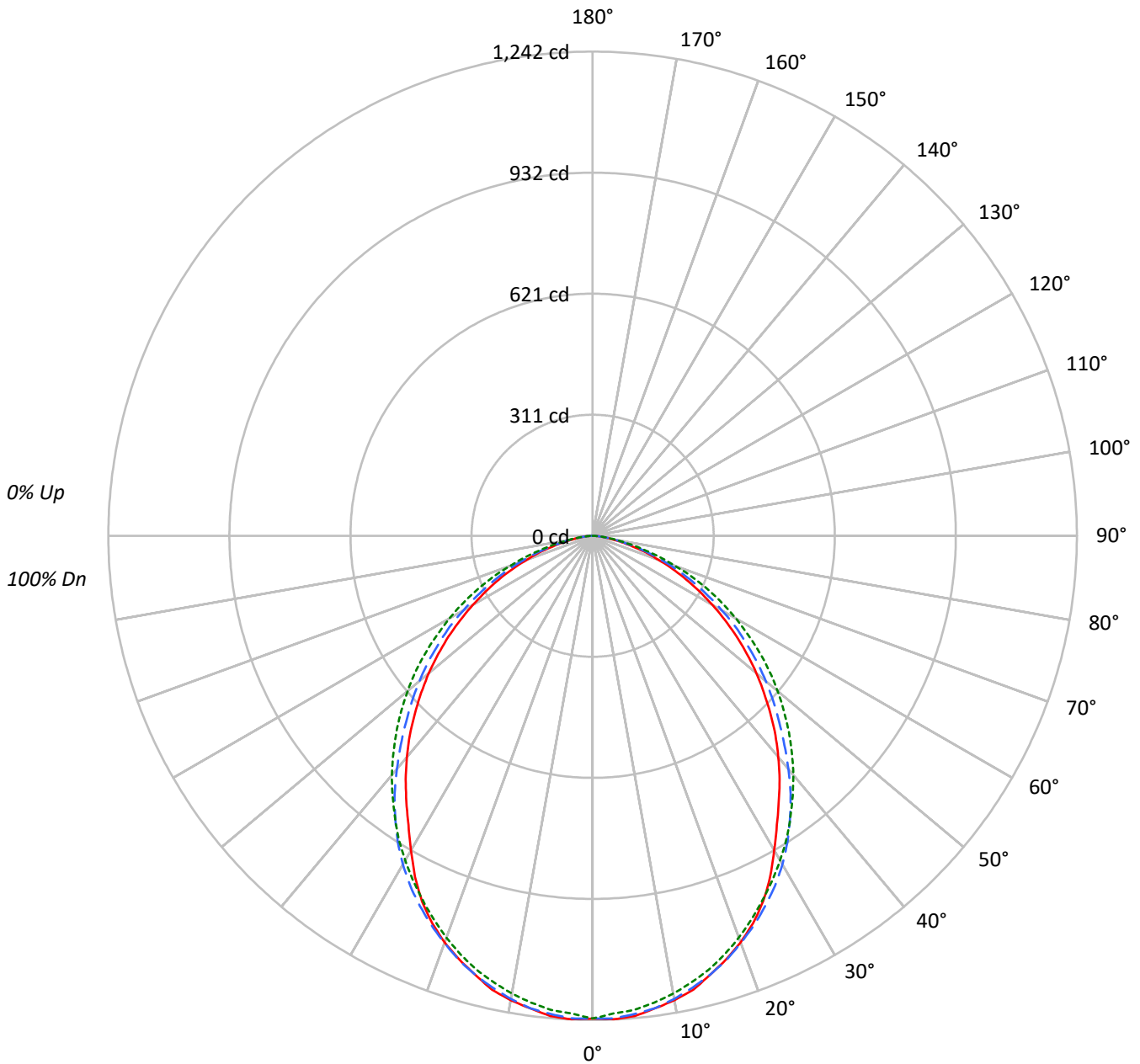
Lumens per Lamp: N/A  
Luminaire Lumens: 2863.0 lumens  
Efficiency: N/A  
Efficacy: 86.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
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°	6664	6664	6664
5°	6681	6653	6596
10°	6610	6592	6517
15°	6493	6493	6419
20°	6356	6364	6282
25°	6147	6223	6124
30°	5788	6048	5974
35°	5469	5798	5807
40°	5203	5484	5628
45°	4905	5152	5416
50°	4592	4855	5185
55°	4236	4517	4906
60°	3815	4122	4562
65°	3368	3665	4149
70°	2807	3122	3525
75°	2206	2493	2759
80°	1578	1754	1946
85°	1025	1025	969



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.6	4.1
10°-20°	327.5	11.4
20°-30°	478.6	16.7
30°-40°	543.2	19.0
40°-50°	524.4	18.3
50°-60°	432.6	15.1
60°-70°	288.1	10.1
70°-80°	128.9	4.5
80°-90°	23.1	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°	922.7	32.2
0°-40°	1465.9	51.2
0°-60°	2422.9	84.6
0°-90°	2863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2863.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1238	1238	1238	1238	1238	
5°	1237	1236	1232	1225	1221	117
15°	1165	1168	1165	1160	1152	329
25°	1035	1043	1048	1040	1031	474
35°	832	844	882	887	884	522
45°	644	656	677	708	712	497
55°	451	459	481	508	523	403
65°	264	272	288	308	326	262
75°	106	112	120	126	133	116
85°	17	17	17	16	16	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1238.2	<i>1238.2</i>	1238.2	1238.2	1238.2
2.5°	<i>1241.5</i>	<i>1242.0</i>	<i>1239.1</i>	<i>1231.5</i>	<i>1226.8</i>
5°	1236.7	<i>1236.3</i>	1231.5	1224.9	1221.0
7.5°	1223.0	<i>1223.9</i>	1222.5	1213.0	1207.7
10°	1209.6	<i>1210.1</i>	1206.3	1198.7	1192.5
12.5°	1192.5	<i>1192.0</i>	1186.8	1183.0	1173.0
15°	1165.4	<i>1168.2</i>	1165.4	1160.2	1152.1
17.5°	1139.2	<i>1139.2</i>	1141.1	1132.1	1125.9
20°	1109.7	<i>1111.2</i>	1111.2	1104.0	1096.9
22.5°	1075.5	<i>1079.8</i>	1081.2	1073.6	1065.0
25°	1035.1	<i>1043.1</i>	1047.9	1040.3	1031.3
27.5°	986.1	<i>998.4</i>	1012.7	1007.0	997.0
30°	931.4	<i>949.4</i>	973.2	968.5	961.3
32.5°	879.5	<i>897.6</i>	930.4	928.5	924.7
35°	832.4	<i>843.8</i>	882.4	887.1	883.8
37.5°	787.7	<i>798.2</i>	834.3	845.3	842.4
40°	740.6	<i>752.0</i>	780.6	800.1	801.0
42.5°	694.0	<i>704.9</i>	728.3	756.3	756.3
45°	644.5	<i>655.5</i>	676.9	707.8	711.6
47.5°	596.0	<i>607.4</i>	628.4	659.3	665.5
50°	548.4	<i>558.9</i>	579.8	609.8	619.3
52.5°	499.0	<i>510.4</i>	530.8	558.4	572.2
55°	451.4	<i>459.0</i>	481.4	508.0	522.8
57.5°	401.9	<i>409.1</i>	434.3	457.1	472.3
60°	354.4	<i>363.4</i>	382.9	406.2	423.8
62.5°	308.7	<i>318.2</i>	334.9	355.3	375.3
65°	264.5	<i>271.6</i>	287.8	308.2	325.8
67.5°	221.7	<i>227.8</i>	244.0	258.3	276.8
70°	178.4	<i>186.5</i>	198.4	212.1	224.0
72.5°	143.7	<i>147.0</i>	157.0	167.0	179.3
75°	106.1	<i>111.8</i>	119.9	125.6	132.7
77.5°	76.1	<i>79.4</i>	84.2	89.0	95.6
80°	50.9	<i>52.3</i>	56.6	57.6	62.8
82.5°	30.9	<i>31.9</i>	32.8	33.3	35.2
85°	16.6	<i>16.6</i>	16.6	15.7	15.7
87.5°	9.5	<i>9.5</i>	8.1	6.7	4.8
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)