

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: P554598

Luminaire Tested: **FUSL-12-2-LD4-1STD-50-UNV-93-87-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: P554598  
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-LD4-1STD-50-UNV-93-87-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

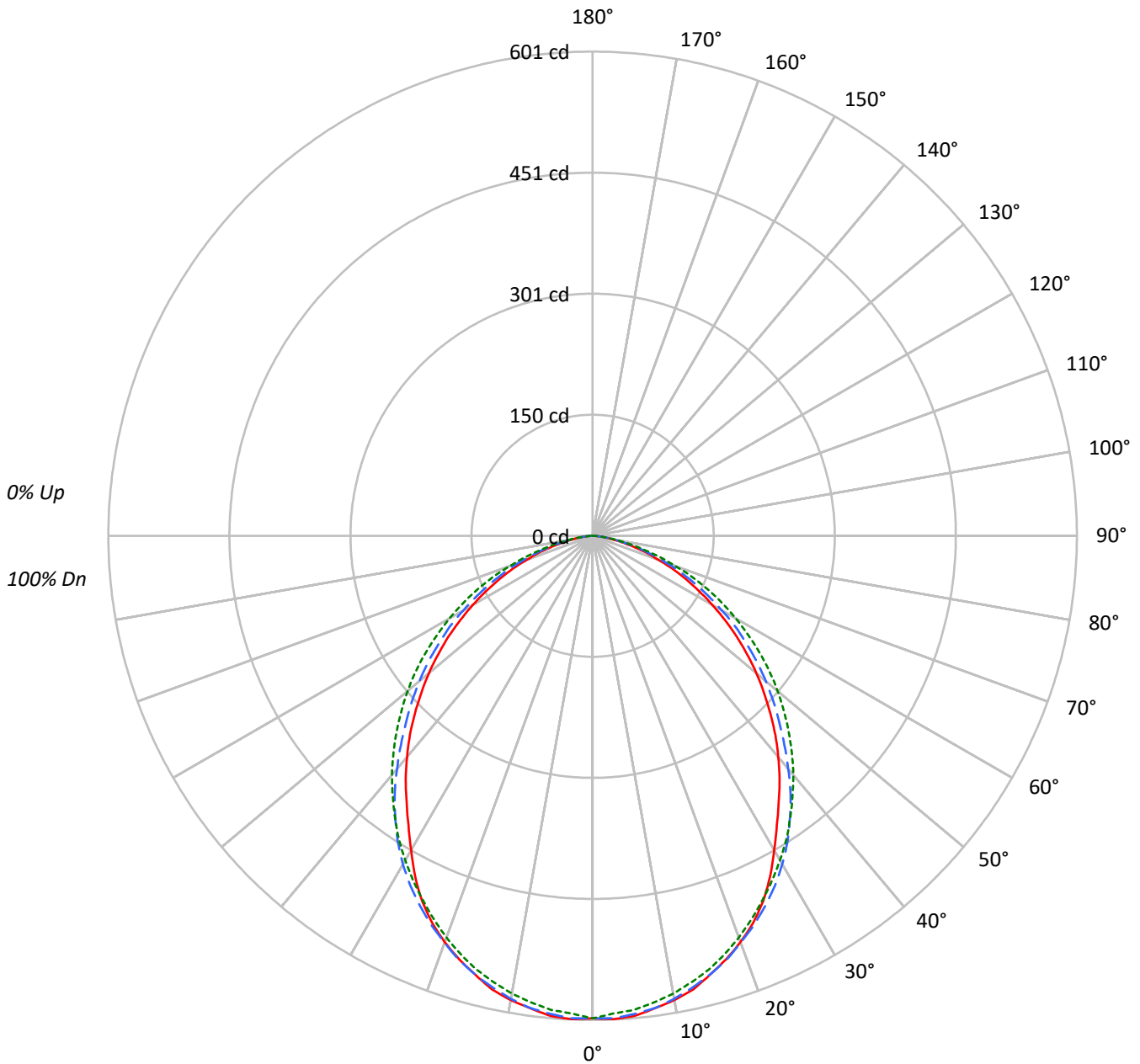
Lumens per Lamp: N/A  
Luminaire Lumens: 1385.0 lumens  
Efficiency: N/A  
Efficacy: 83.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
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°	3224	3224	3224
5°	3232	3219	3191
10°	3198	3189	3153
15°	3141	3141	3105
20°	3074	3078	3039
25°	2973	3010	2963
30°	2800	2926	2890
35°	2646	2805	2809
40°	2517	2653	2722
45°	2373	2492	2620
50°	2221	2349	2509
55°	2049	2185	2373
60°	1845	1993	2207
65°	1629	1773	2007
70°	1358	1511	1706
75°	1067	1206	1335
80°	762	849	942
85°	500	500	469



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	4.1
10°-20°	158.4	11.4
20°-30°	231.5	16.7
30°-40°	262.8	19.0
40°-50°	253.7	18.3
50°-60°	209.3	15.1
60°-70°	139.3	10.1
70°-80°	62.4	4.5
80°-90°	11.2	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°	446.3	32.2
0°-40°	709.1	51.2
0°-60°	1172.1	84.6
0°-90°	1385.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1385.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	599	599	599	599	599	
5°	598	598	596	592	591	57
15°	564	565	564	561	557	159
25°	501	505	507	503	499	229
35°	403	408	427	429	428	252
45°	312	317	327	342	344	241
55°	218	222	233	246	253	195
65°	128	131	139	149	158	127
75°	51	54	58	61	64	56
85°	8	8	8	8	8	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	599.0	599.0	599.0	599.0	599.0
2.5°	600.6	600.8	599.4	595.8	593.5
5°	598.3	598.1	595.8	592.5	590.7
7.5°	591.6	592.1	591.4	586.8	584.2
10°	585.2	585.4	583.6	579.9	576.9
12.5°	576.9	576.7	574.1	572.3	567.5
15°	563.8	565.2	563.8	561.2	557.3
17.5°	551.1	551.1	552.0	547.7	544.7
20°	536.8	537.5	537.5	534.1	530.6
22.5°	520.3	522.4	523.0	519.4	515.2
25°	500.7	504.6	506.9	503.3	498.9
27.5°	477.0	483.0	489.9	487.1	482.3
30°	450.6	459.3	470.8	468.5	465.1
32.5°	425.5	434.2	450.1	449.2	447.3
35°	402.7	408.2	426.9	429.2	427.5
37.5°	381.1	386.1	403.6	408.9	407.5
40°	358.3	363.8	377.6	387.0	387.5
42.5°	335.7	341.0	352.3	365.9	365.9
45°	311.8	317.1	327.4	342.4	344.2
47.5°	288.3	293.9	304.0	318.9	321.9
50°	265.3	270.4	280.5	295.0	299.6
52.5°	241.4	246.9	256.8	270.1	276.8
55°	218.4	222.1	232.9	245.8	252.9
57.5°	194.4	197.9	210.1	221.1	228.5
60°	171.4	175.8	185.2	196.5	205.0
62.5°	149.3	153.9	162.0	171.9	181.6
65°	127.9	131.4	139.2	149.1	157.6
67.5°	107.2	110.2	118.0	124.9	133.9
70°	86.3	90.2	96.0	102.6	108.4
72.5°	69.5	71.1	75.9	80.8	86.8
75°	51.3	54.1	58.0	60.7	64.2
77.5°	36.8	38.4	40.7	43.0	46.3
80°	24.6	25.3	27.4	27.8	30.4
82.5°	15.0	15.4	15.9	16.1	17.0
85°	8.1	8.1	8.1	7.6	7.6
87.5°	4.6	4.6	3.9	3.2	2.3
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)