

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: P554024

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-93-88-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: P554024  
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-LD4-1HI-40-UNV-93-88-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

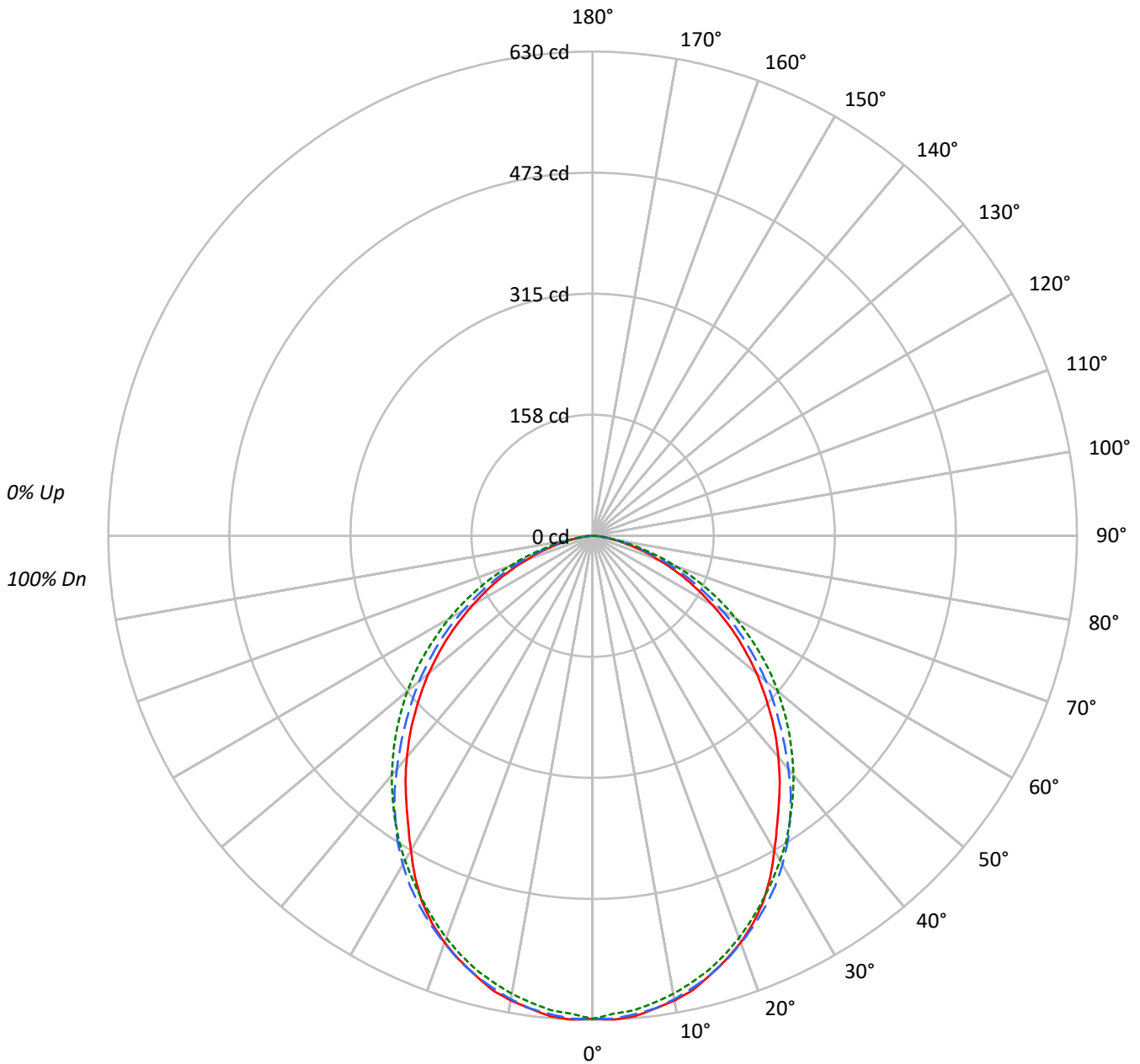
Lumens per Lamp: N/A  
Luminaire Lumens: 1453.0 lumens  
Efficiency: N/A  
Efficacy: 67.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
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

TEST NUMBER: P554024

CATALOG NUMBER: FUSL-12-2-LD4-1HI-40-UNV-93-88-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P554024

CATALOG NUMBER: FUSL-12-2-LD4-1HI-40-UNV-93-88-EDD-90

**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°	3382	3382	3382
5°	3391	3377	3348
10°	3355	3346	3307
15°	3295	3295	3258
20°	3226	3230	3188
25°	3119	3158	3108
30°	2938	3069	3032
35°	2776	2942	2947
40°	2641	2784	2856
45°	2490	2614	2748
50°	2330	2464	2632
55°	2150	2292	2489
60°	1935	2091	2315
65°	1709	1861	2106
70°	1424	1585	1789
75°	1119	1264	1402
80°	800	890	989
85°	519	519	494



TEST NUMBER: P554024

CATALOG NUMBER: FUSL-12-2-LD4-1HI-40-UNV-93-88-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.2	4.1
10°-20°	166.2	11.4
20°-30°	242.9	16.7
30°-40°	275.7	19.0
40°-50°	266.1	18.3
50°-60°	219.5	15.1
60°-70°	146.2	10.1
70°-80°	65.4	4.5
80°-90°	11.7	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°	468.3	32.2
0°-40°	744.0	51.2
0°-60°	1229.7	84.6
0°-90°	1453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1453.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	628	627	625	622	620	59
15°	591	593	591	589	585	167
25°	525	529	532	528	523	241
35°	422	428	448	450	448	265
45°	327	333	344	359	361	252
55°	229	233	244	258	265	204
65°	134	138	146	156	165	133
75°	54	57	61	64	67	59
85°	8	8	8	8	8	11
90°	0	0	0	0	0	



TEST NUMBER: P554024

CATALOG NUMBER: FUSL-12-2-LD4-1HI-40-UNV-93-88-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	628.4	628.4	628.4	628.4	628.4
2.5°	630.1	630.3	628.9	625.0	622.6
5°	627.7	627.4	625.0	621.6	619.7
7.5°	620.7	621.1	620.4	615.6	612.9
10°	613.9	614.1	612.2	608.3	605.2
12.5°	605.2	605.0	602.3	600.4	595.3
15°	591.4	592.9	591.4	588.8	584.7
17.5°	578.2	578.2	579.1	574.6	571.4
20°	563.2	563.9	563.9	560.3	556.7
22.5°	545.8	548.0	548.7	544.9	540.5
25°	525.3	529.4	531.8	528.0	523.4
27.5°	500.4	506.7	514.0	511.1	506.0
30°	472.7	481.9	493.9	491.5	487.9
32.5°	446.4	455.5	472.2	471.2	469.3
35°	422.5	428.3	447.8	450.2	448.5
37.5°	399.8	405.1	423.4	429.0	427.5
40°	375.9	381.7	396.2	406.0	406.5
42.5°	352.2	357.8	369.6	383.8	383.8
45°	327.1	332.7	343.5	359.2	361.1
47.5°	302.5	308.3	318.9	334.6	337.7
50°	278.3	283.7	294.3	309.5	314.3
52.5°	253.2	259.0	269.4	283.4	290.4
55°	229.1	233.0	244.3	257.8	265.3
57.5°	204.0	207.6	220.4	232.0	239.7
60°	179.8	184.4	194.3	206.2	215.1
62.5°	156.7	161.5	170.0	180.3	190.5
65°	134.2	137.8	146.1	156.4	165.4
67.5°	112.5	115.6	123.8	131.1	140.5
70°	90.5	94.6	100.7	107.7	113.7
72.5°	72.9	74.6	79.7	84.7	91.0
75°	53.8	56.7	60.8	63.7	67.4
77.5°	38.6	40.3	42.7	45.1	48.5
80°	25.8	26.6	28.7	29.2	31.9
82.5°	15.7	16.2	16.7	16.9	17.9
85°	8.4	8.4	8.4	8.0	8.0
87.5°	4.8	4.8	4.1	3.4	2.4
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)