

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: P554536

Luminaire Tested: **FUSL-12-2-LD4-1STD-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: P554536  
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-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**

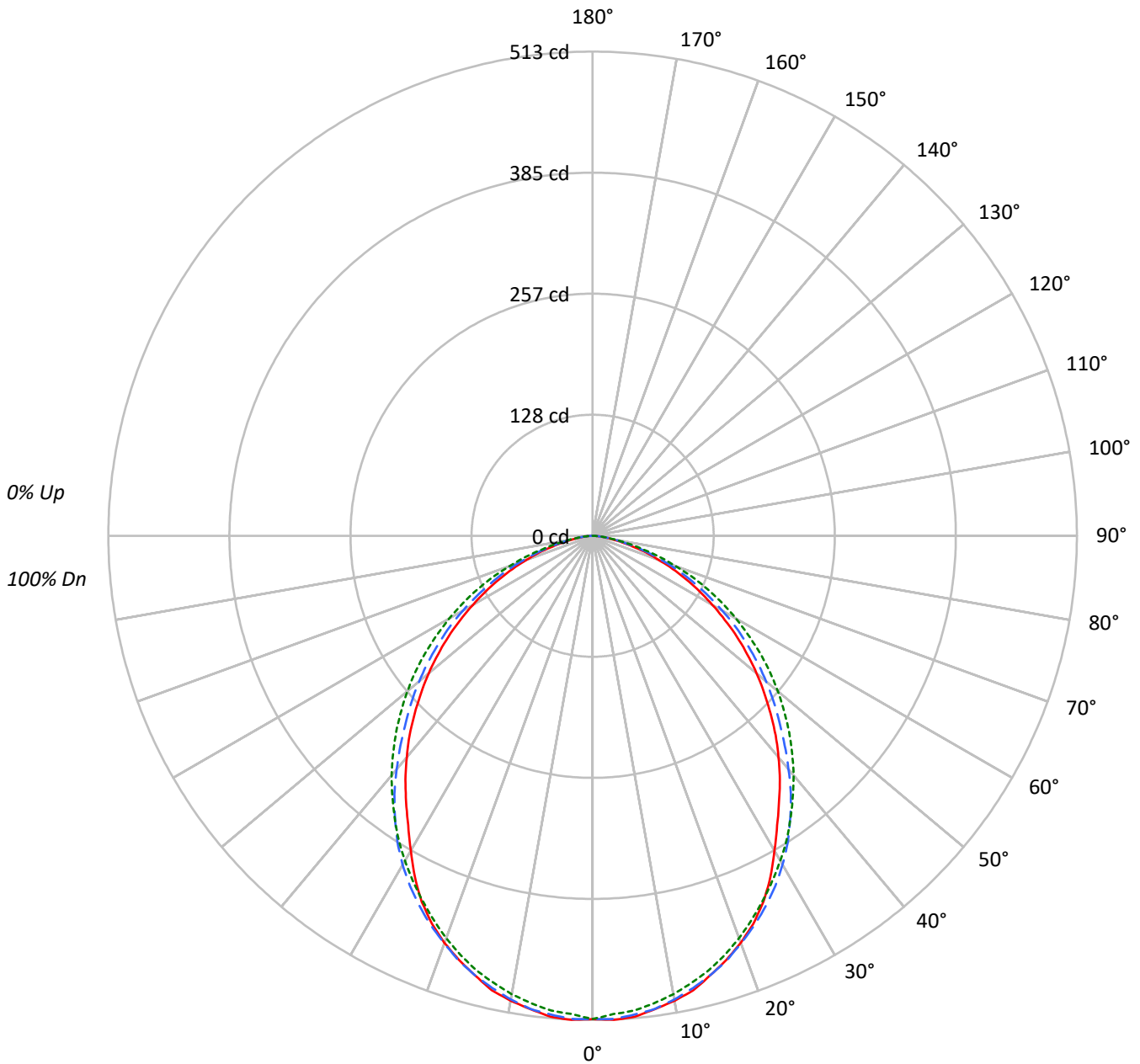
Lumens per Lamp: N/A  
Luminaire Lumens: 1184.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	2756	2756	2756
5°	2763	2752	2728
10°	2734	2726	2695
15°	2686	2686	2654
20°	2628	2632	2598
25°	2542	2574	2533
30°	2394	2501	2471
35°	2262	2397	2401
40°	2152	2268	2328
45°	2028	2130	2240
50°	1899	2008	2144
55°	1752	1868	2029
60°	1578	1705	1887
65°	1393	1515	1715
70°	1161	1290	1459
75°	913	1031	1142
80°	651	725	806
85°	426	426	401



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.2	4.1
10°-20°	135.4	11.4
20°-30°	197.9	16.7
30°-40°	224.7	19.0
40°-50°	216.9	18.3
50°-60°	178.9	15.1
60°-70°	119.1	10.1
70°-80°	53.3	4.5
80°-90°	9.5	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°	381.6	32.2
0°-40°	606.2	51.2
0°-60°	1002.0	84.6
0°-90°	1184.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1184.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	512	511	509	506	505	48
15°	482	483	482	480	476	136
25°	428	431	433	430	426	196
35°	344	349	365	367	366	216
45°	266	271	280	293	294	206
55°	187	190	199	210	216	167
65°	109	112	119	128	135	108
75°	44	46	50	52	55	48
85°	7	7	7	6	6	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	512.0	512.0	512.0	512.0	512.0
2.5°	513.4	513.6	512.4	509.3	507.3
5°	511.5	511.3	509.3	506.5	505.0
7.5°	505.8	506.1	505.6	501.6	499.5
10°	500.2	500.4	498.9	495.7	493.2
12.5°	493.2	493.0	490.8	489.2	485.1
15°	482.0	483.1	482.0	479.8	476.4
17.5°	471.1	471.1	471.9	468.2	465.6
20°	458.9	459.5	459.5	456.6	453.6
22.5°	444.8	446.5	447.1	444.0	440.4
25°	428.1	431.4	433.4	430.2	426.5
27.5°	407.8	412.9	418.8	416.4	412.3
30°	385.2	392.6	402.5	400.5	397.6
32.5°	363.7	371.2	384.8	384.0	382.4
35°	344.3	349.0	364.9	366.9	365.5
37.5°	325.8	330.1	345.0	349.6	348.4
40°	306.3	311.0	322.8	330.9	331.3
42.5°	287.0	291.5	301.2	312.8	312.8
45°	266.5	271.1	279.9	292.7	294.3
47.5°	246.5	251.2	259.9	272.6	275.2
50°	226.8	231.1	239.8	252.2	256.1
52.5°	206.4	211.1	219.5	230.9	236.6
55°	186.7	189.8	199.1	210.1	216.2
57.5°	166.2	169.2	179.6	189.0	195.3
60°	146.6	150.3	158.4	168.0	175.3
62.5°	127.7	131.6	138.5	146.9	155.2
65°	109.4	112.3	119.0	127.5	134.7
67.5°	91.7	94.2	100.9	106.8	114.5
70°	73.8	77.1	82.0	87.7	92.7
72.5°	59.4	60.8	64.9	69.0	74.2
75°	43.9	46.2	49.6	51.9	54.9
77.5°	31.5	32.9	34.8	36.8	39.5
80°	21.0	21.6	23.4	23.8	26.0
82.5°	12.8	13.2	13.6	13.8	14.6
85°	6.9	6.9	6.9	6.5	6.5
87.5°	3.9	3.9	3.3	2.8	2.0
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)