

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: P554569

Luminaire Tested: **FUSL-12-2-LD4-1STD-50-UNV-81-88-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: P554569  
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-81-88-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

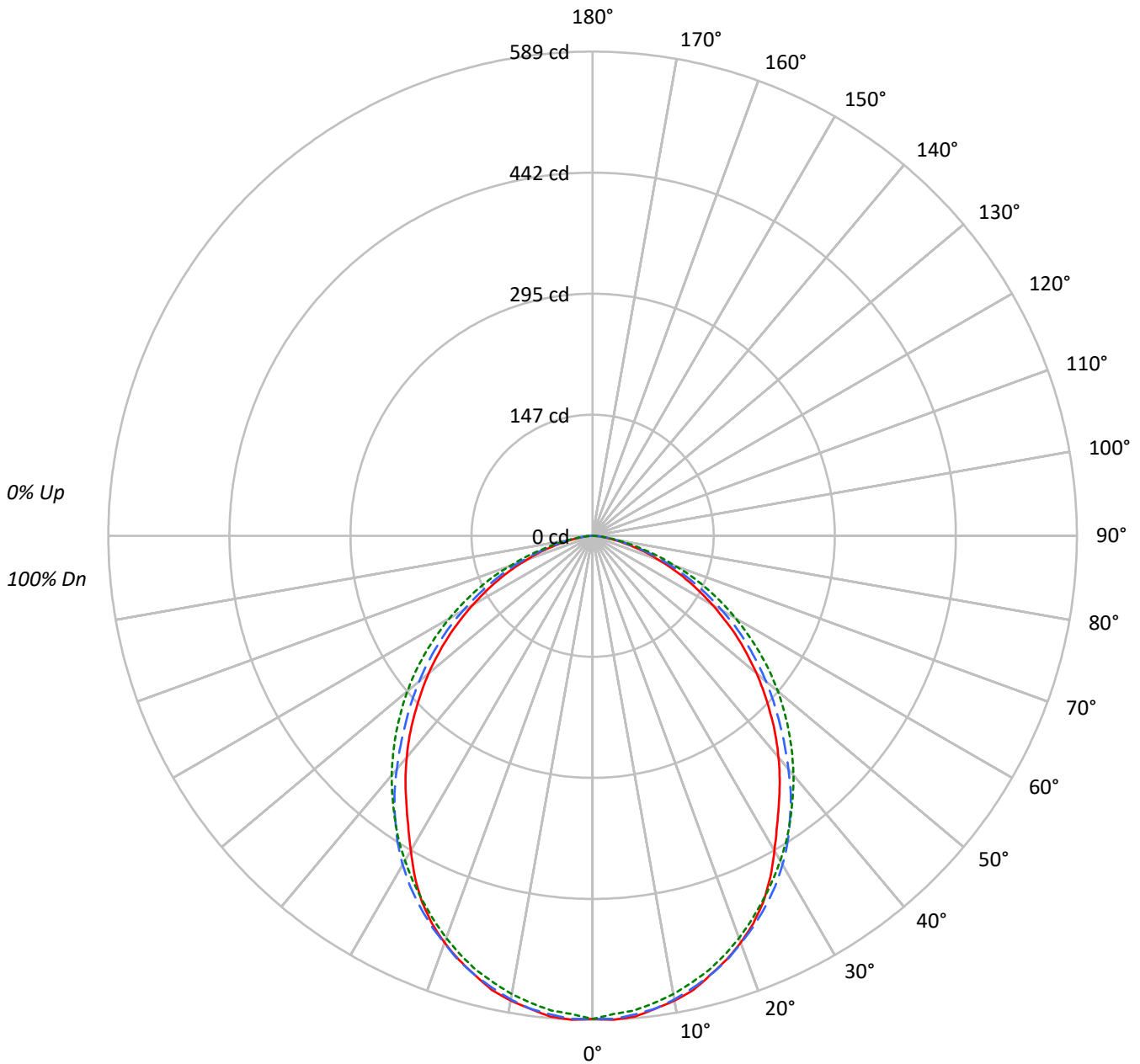
Lumens per Lamp: N/A  
Luminaire Lumens: 1359.0 lumens  
Efficiency: N/A  
Efficacy: 81.9 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (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°	3163	3163	3163
5°	3172	3158	3131
10°	3138	3129	3094
15°	3082	3082	3047
20°	3017	3021	2982
25°	2918	2954	2907
30°	2747	2871	2836
35°	2596	2752	2756
40°	2470	2603	2671
45°	2328	2445	2571
50°	2179	2304	2462
55°	2011	2144	2328
60°	1810	1957	2166
65°	1598	1740	1970
70°	1333	1482	1673
75°	1048	1183	1310
80°	750	834	924
85°	488	488	463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.3	4.1
10°-20°	155.5	11.4
20°-30°	227.2	16.7
30°-40°	257.9	19.0
40°-50°	248.9	18.3
50°-60°	205.4	15.1
60°-70°	136.7	10.1
70°-80°	61.2	4.5
80°-90°	11.0	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°	438.0	32.2
0°-40°	695.8	51.2
0°-60°	1150.1	84.6
0°-90°	1359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1359.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	587	587	585	581	580	56
15°	553	554	553	551	547	156
25°	491	495	497	494	490	225
35°	395	401	419	421	420	248
45°	306	311	321	336	338	236
55°	214	218	228	241	248	191
65°	126	129	137	146	155	124
75°	50	53	57	60	63	55
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°	587.7	587.7	587.7	587.7	587.7
2.5°	589.3	589.5	588.2	584.6	582.3
5°	587.1	586.8	584.6	581.4	579.6
7.5°	580.5	581.0	580.3	575.8	573.3
10°	574.2	574.4	572.6	569.0	566.1
12.5°	566.1	565.8	563.3	561.5	556.8
15°	553.2	554.5	553.2	550.7	546.9
17.5°	540.8	540.8	541.7	537.4	534.4
20°	526.8	527.4	527.4	524.1	520.7
22.5°	510.5	512.5	513.2	509.6	505.5
25°	491.3	495.2	497.4	493.8	489.5
27.5°	468.1	473.9	480.7	478.0	473.3
30°	442.1	450.7	462.0	459.7	456.3
32.5°	417.5	426.1	441.6	440.7	438.9
35°	395.1	400.6	418.8	421.1	419.5
37.5°	373.9	378.9	396.0	401.2	399.9
40°	351.6	357.0	370.5	379.8	380.2
42.5°	329.4	334.6	345.7	359.0	359.0
45°	305.9	311.1	321.3	336.0	337.8
47.5°	282.9	288.3	298.3	312.9	315.9
50°	260.3	265.3	275.2	289.5	294.0
52.5°	236.9	242.3	252.0	265.1	271.6
55°	214.3	217.9	228.5	241.1	248.1
57.5°	190.8	194.2	206.1	217.0	224.2
60°	168.2	172.5	181.8	192.8	201.2
62.5°	146.5	151.1	159.0	168.7	178.1
65°	125.5	128.9	136.6	146.3	154.7
67.5°	105.2	108.2	115.8	122.6	131.4
70°	84.7	88.5	94.2	100.7	106.3
72.5°	68.2	69.8	74.5	79.3	85.1
75°	50.4	53.1	56.9	59.6	63.0
77.5°	36.1	37.7	40.0	42.2	45.4
80°	24.2	24.8	26.9	27.3	29.8
82.5°	14.7	15.1	15.6	15.8	16.7
85°	7.9	7.9	7.9	7.5	7.5
87.5°	4.5	4.5	3.8	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)