

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: P554451

Luminaire Tested: **FUSL-12-2-LD4-1STD-35-UNV-82-85-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: P554451  
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-35-UNV-82-85-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

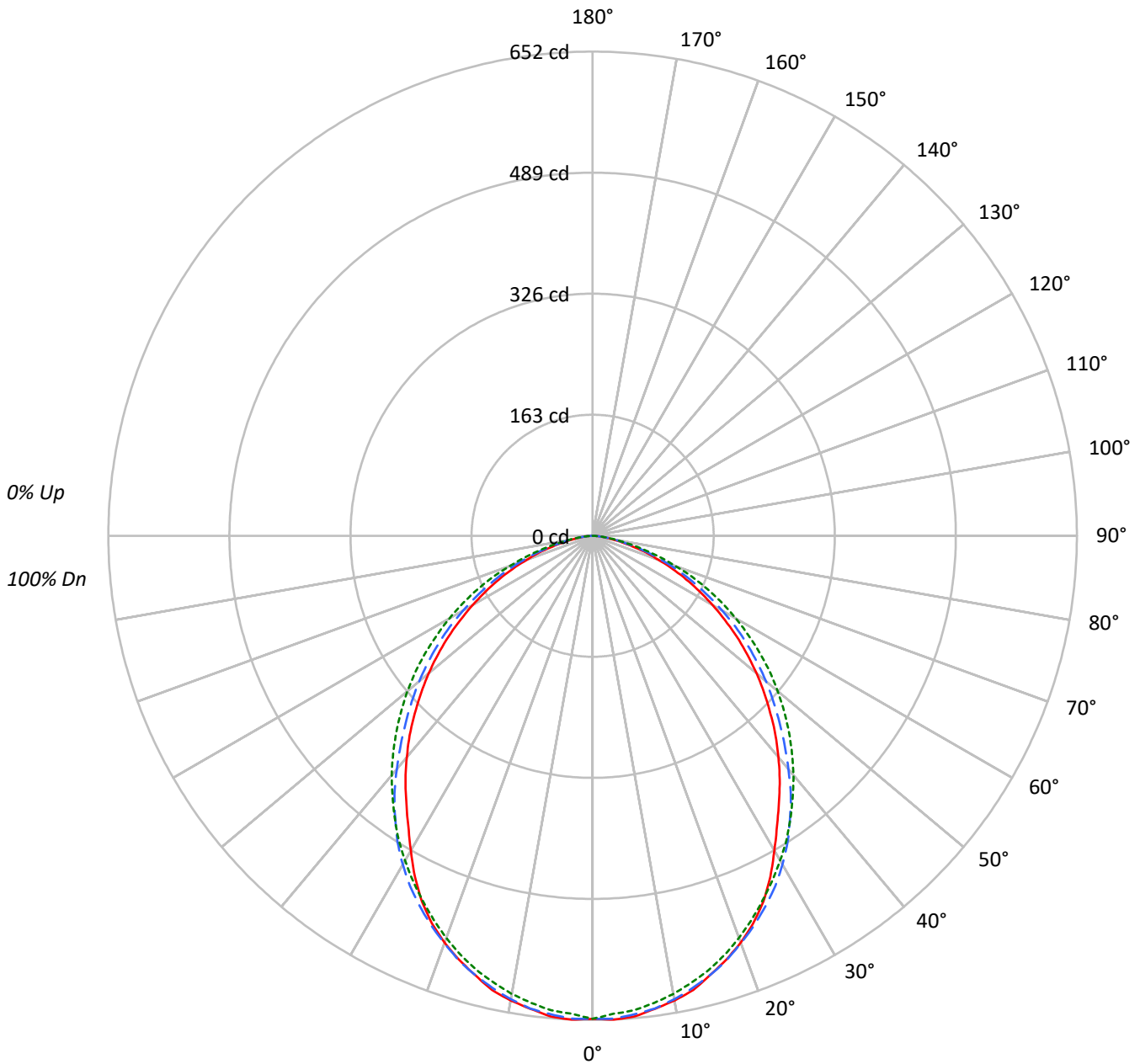
Lumens per Lamp: N/A  
Luminaire Lumens: 1504.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	3500	3500	3500
5°	3510	3495	3465
10°	3472	3463	3424
15°	3411	3411	3372
20°	3339	3343	3300
25°	3229	3269	3217
30°	3041	3177	3138
35°	2873	3045	3051
40°	2734	2881	2956
45°	2577	2707	2845
50°	2412	2550	2724
55°	2225	2373	2577
60°	2004	2166	2396
65°	1769	1926	2180
70°	1474	1640	1852
75°	1158	1310	1449
80°	828	921	1023
85°	537	537	506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.2	4.1
10°-20°	172.0	11.4
20°-30°	251.4	16.7
30°-40°	285.4	19.0
40°-50°	275.5	18.3
50°-60°	227.3	15.1
60°-70°	151.3	10.1
70°-80°	67.7	4.5
80°-90°	12.1	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°	484.7	32.2
0°-40°	770.1	51.2
0°-60°	1272.8	84.6
0°-90°	1504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1504.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	650	649	647	643	641	61
15°	612	614	612	610	605	173
25°	544	548	550	546	542	249
35°	437	443	464	466	464	274
45°	339	344	356	372	374	261
55°	237	241	253	267	275	212
65°	139	143	151	162	171	138
75°	56	59	63	66	70	61
85°	9	9	9	8	8	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	650.4	650.4	650.4	650.4	650.4
2.5°	652.2	652.4	650.9	646.9	644.4
5°	649.7	649.4	646.9	643.4	641.4
7.5°	642.4	642.9	642.2	637.2	634.4
10°	635.4	635.7	633.7	629.7	626.5
12.5°	626.5	626.2	623.5	621.5	616.2
15°	612.2	613.7	612.2	609.5	605.2
17.5°	598.5	598.5	599.5	594.7	591.5
20°	583.0	583.7	583.7	580.0	576.2
22.5°	565.0	567.2	568.0	564.0	559.5
25°	543.7	548.0	550.5	546.5	541.7
27.5°	518.0	524.5	532.0	529.0	523.8
30°	489.3	498.8	511.3	508.8	505.0
32.5°	462.0	471.5	488.8	487.8	485.8
35°	437.3	443.3	463.5	466.0	464.3
37.5°	413.8	419.3	438.3	444.0	442.5
40°	389.1	395.1	410.1	420.3	420.8
42.5°	364.6	370.3	382.6	397.3	397.3
45°	338.6	344.3	355.6	371.8	373.8
47.5°	313.1	319.1	330.1	346.3	349.6
50°	288.1	293.6	304.6	320.3	325.3
52.5°	262.1	268.1	278.9	293.4	300.6
55°	237.1	241.1	252.9	266.9	274.6
57.5°	211.1	214.9	228.1	240.1	248.1
60°	186.2	190.9	201.2	213.4	222.6
62.5°	162.2	167.2	175.9	186.7	197.2
65°	138.9	142.7	151.2	161.9	171.2
67.5°	116.4	119.7	128.2	135.7	145.4
70°	93.7	98.0	104.2	111.4	117.7
72.5°	75.5	77.2	82.5	87.7	94.2
75°	55.7	58.7	63.0	66.0	69.7
77.5°	40.0	41.7	44.2	46.7	50.2
80°	26.7	27.5	29.7	30.2	33.0
82.5°	16.2	16.7	17.2	17.5	18.5
85°	8.7	8.7	8.7	8.2	8.2
87.5°	5.0	5.0	4.2	3.5	2.5
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)