

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: P553954

Luminaire Tested: **FUSL-12-2-LD4-1HI-35-UNV-93-85-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: P553954  
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-35-UNV-93-85-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

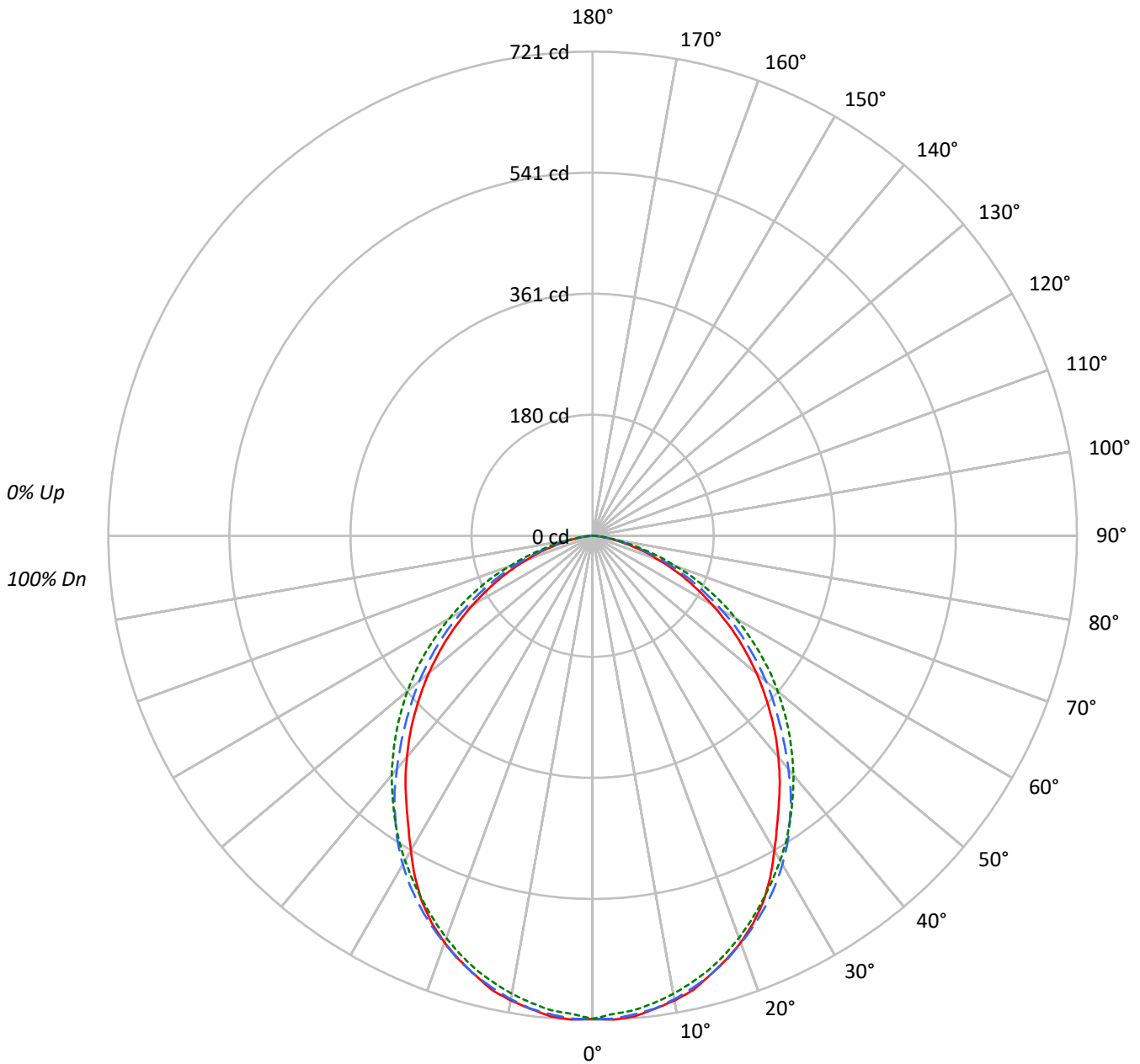
Lumens per Lamp: N/A  
Luminaire Lumens: 1663.0 lumens  
Efficiency: N/A  
Efficacy: 77.0 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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

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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°	3871	3871	3871
5°	3881	3864	3832
10°	3840	3829	3786
15°	3772	3772	3729
20°	3692	3696	3649
25°	3570	3615	3557
30°	3362	3513	3470
35°	3177	3367	3373
40°	3022	3185	3269
45°	2850	2993	3146
50°	2668	2820	3012
55°	2460	2624	2850
60°	2215	2394	2650
65°	1956	2129	2411
70°	1630	1813	2047
75°	1281	1447	1603
80°	917	1020	1131
85°	599	599	562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.7	4.1
10°-20°	190.2	11.4
20°-30°	278.0	16.7
30°-40°	315.5	19.0
40°-50°	304.6	18.3
50°-60°	251.3	15.1
60°-70°	167.3	10.1
70°-80°	74.9	4.5
80°-90°	13.4	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°	535.9	32.2
0°-40°	851.5	51.2
0°-60°	1407.4	84.6
0°-90°	1663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1663.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	718	718	715	712	709	68
15°	677	679	677	674	669	191
25°	601	606	609	604	599	275
35°	484	490	512	515	513	303
45°	374	381	393	411	413	289
55°	262	267	280	295	304	234
65°	154	158	167	179	189	152
75°	62	65	70	73	77	67
85°	10	10	10	9	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	719.2	719.2	719.2	719.2	719.2
2.5°	721.1	721.4	719.8	715.3	712.6
5°	718.4	718.1	715.3	711.5	709.3
7.5°	710.4	710.9	710.1	704.6	701.5
10°	702.6	702.9	700.7	696.3	692.7
12.5°	692.7	692.4	689.4	687.2	681.4
15°	676.9	678.6	676.9	673.9	669.2
17.5°	661.7	661.7	662.8	657.6	654.0
20°	644.6	645.4	645.4	641.3	637.1
22.5°	624.7	627.2	628.0	623.6	618.6
25°	601.2	605.9	608.7	604.3	599.0
27.5°	572.8	580.0	588.2	584.9	579.1
30°	541.0	551.5	565.3	562.5	558.4
32.5°	510.9	521.4	540.4	539.3	537.1
35°	483.5	490.2	512.5	515.3	513.4
37.5°	457.6	463.6	484.6	491.0	489.3
40°	430.2	436.8	453.4	464.7	465.3
42.5°	403.1	409.5	423.0	439.3	439.3
45°	374.4	380.7	393.2	411.1	413.3
47.5°	346.2	352.8	365.0	382.9	386.5
50°	318.6	324.7	336.8	354.2	359.7
52.5°	289.8	296.5	308.3	324.4	332.4
55°	262.2	266.6	279.6	295.1	303.7
57.5°	233.5	237.6	252.3	265.5	274.4
60°	205.8	211.1	222.4	236.0	246.2
62.5°	179.3	184.8	194.5	206.4	218.0
65°	153.6	157.8	167.2	179.0	189.3
67.5°	128.8	132.3	141.7	150.0	160.8
70°	103.6	108.3	115.2	123.2	130.1
72.5°	83.4	85.4	91.2	97.0	104.2
75°	61.6	64.9	69.6	72.9	77.1
77.5°	44.2	46.1	48.9	51.7	55.5
80°	29.6	30.4	32.9	33.4	36.5
82.5°	18.0	18.5	19.1	19.3	20.4
85°	9.7	9.7	9.7	9.1	9.1
87.5°	5.5	5.5	4.7	3.9	2.8
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)