

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: P554889

Luminaire Tested: **FUSL-12-2-LD4-2LO-30-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: P554889  
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-LD4-2LO-30-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 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

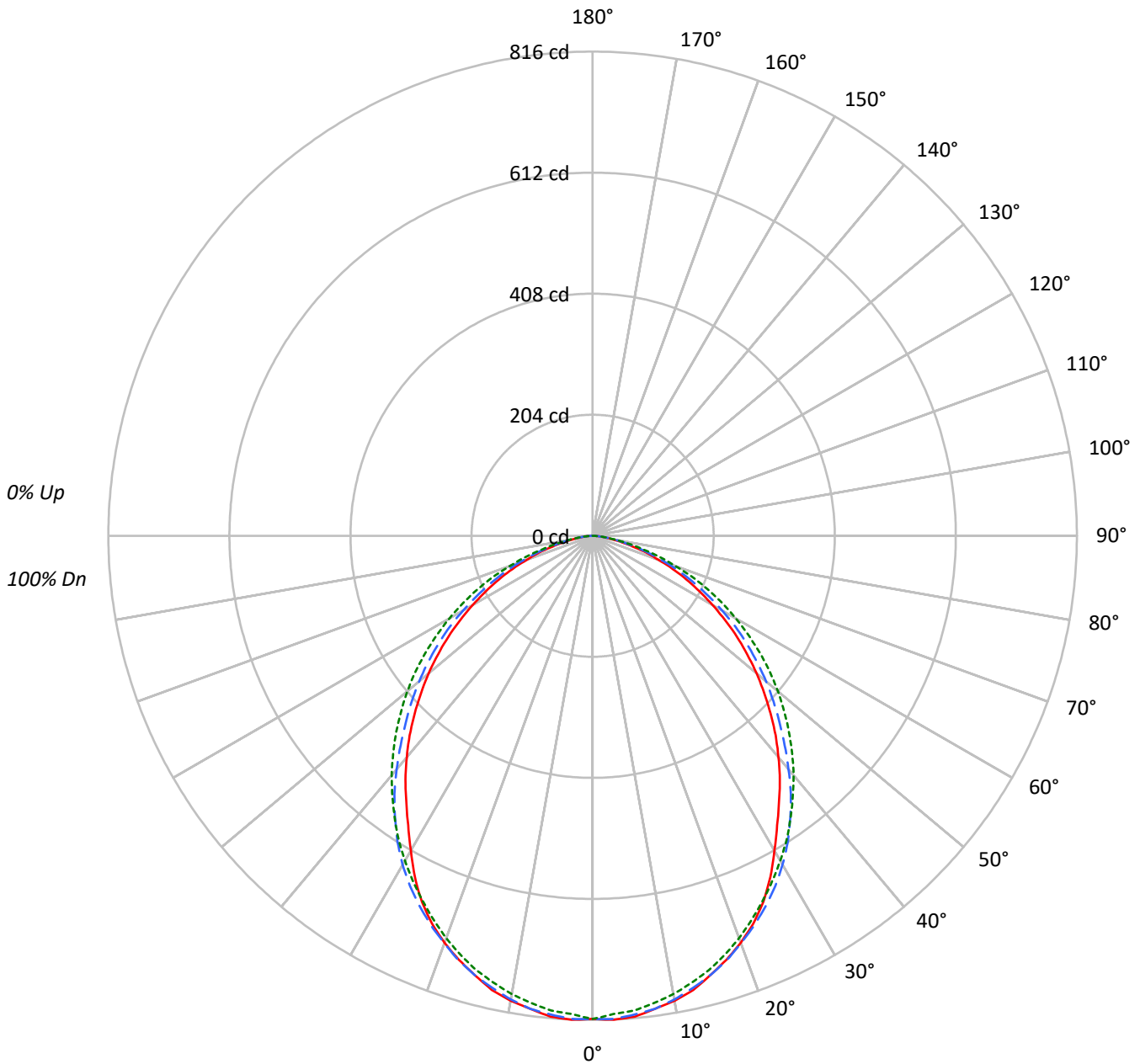
Lumens per Lamp: N/A  
Luminaire Lumens: 1883.0 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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°	4383	4383	4383
5°	4394	4376	4339
10°	4348	4336	4286
15°	4271	4271	4222
20°	4180	4186	4132
25°	4043	4093	4028
30°	3807	3978	3929
35°	3597	3813	3819
40°	3422	3607	3701
45°	3226	3389	3562
50°	3020	3193	3410
55°	2786	2971	3226
60°	2509	2710	3000
65°	2215	2411	2729
70°	1846	2054	2319
75°	1451	1639	1815
80°	1038	1153	1280
85°	673	673	636



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.7	4.1
10°-20°	215.4	11.4
20°-30°	314.8	16.7
30°-40°	357.3	19.0
40°-50°	344.9	18.3
50°-60°	284.5	15.1
60°-70°	189.5	10.1
70°-80°	84.8	4.5
80°-90°	15.2	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°	606.8	32.2
0°-40°	964.1	51.2
0°-60°	1593.6	84.6
0°-90°	1883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1883.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	813	813	810	806	803	77
15°	766	768	766	763	758	216
25°	681	686	689	684	678	312
35°	548	555	580	584	581	343
45°	424	431	445	466	468	327
55°	297	302	317	334	344	265
65°	174	179	189	203	214	172
75°	70	74	79	83	87	76
85°	11	11	11	10	10	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	814.3	814.3	814.3	814.3	814.3
2.5°	816.5	816.9	815.0	810.0	806.8
5°	813.4	813.1	810.0	805.6	803.1
7.5°	804.3	805.0	804.0	797.8	794.3
10°	795.6	795.9	793.4	788.4	784.3
12.5°	784.3	784.0	780.6	778.1	771.5
15°	766.5	768.4	766.5	763.0	757.7
17.5°	749.3	749.3	750.5	744.6	740.5
20°	729.9	730.8	730.8	726.1	721.4
22.5°	707.4	710.2	711.1	706.1	700.5
25°	680.8	686.1	689.2	684.2	678.3
27.5°	648.5	656.7	666.1	662.3	655.7
30°	612.6	624.4	640.1	637.0	632.3
32.5°	578.5	590.3	611.9	610.7	608.2
35°	547.5	555.0	580.3	583.5	581.3
37.5°	518.1	525.0	548.7	555.9	554.1
40°	487.1	494.6	513.4	526.2	526.8
42.5°	456.4	463.6	479.0	497.4	497.4
45°	423.9	431.1	445.2	465.5	468.0
47.5°	392.0	399.5	413.3	433.6	437.7
50°	360.7	367.6	381.4	401.1	407.3
52.5°	328.2	335.7	349.1	367.3	376.4
55°	296.9	301.9	316.6	334.1	343.8
57.5°	264.4	269.1	285.6	300.6	310.7
60°	233.1	239.0	251.8	267.2	278.7
62.5°	203.0	209.3	220.2	233.7	246.8
65°	173.9	178.6	189.3	202.7	214.3
67.5°	145.8	149.9	160.5	169.9	182.1
70°	117.3	122.6	130.5	139.5	147.4
72.5°	94.5	96.7	103.2	109.8	117.9
75°	69.8	73.5	78.8	82.6	87.3
77.5°	50.1	52.2	55.4	58.5	62.9
80°	33.5	34.4	37.2	37.9	41.3
82.5°	20.3	21.0	21.6	21.9	23.2
85°	10.9	10.9	10.9	10.3	10.3
87.5°	6.3	6.3	5.3	4.4	3.1
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)