

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: P554013

Luminaire Tested: **FUSL-12-2-LD4-1HI-40-UNV-82-96-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: P554013  
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-40-UNV-82-96-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

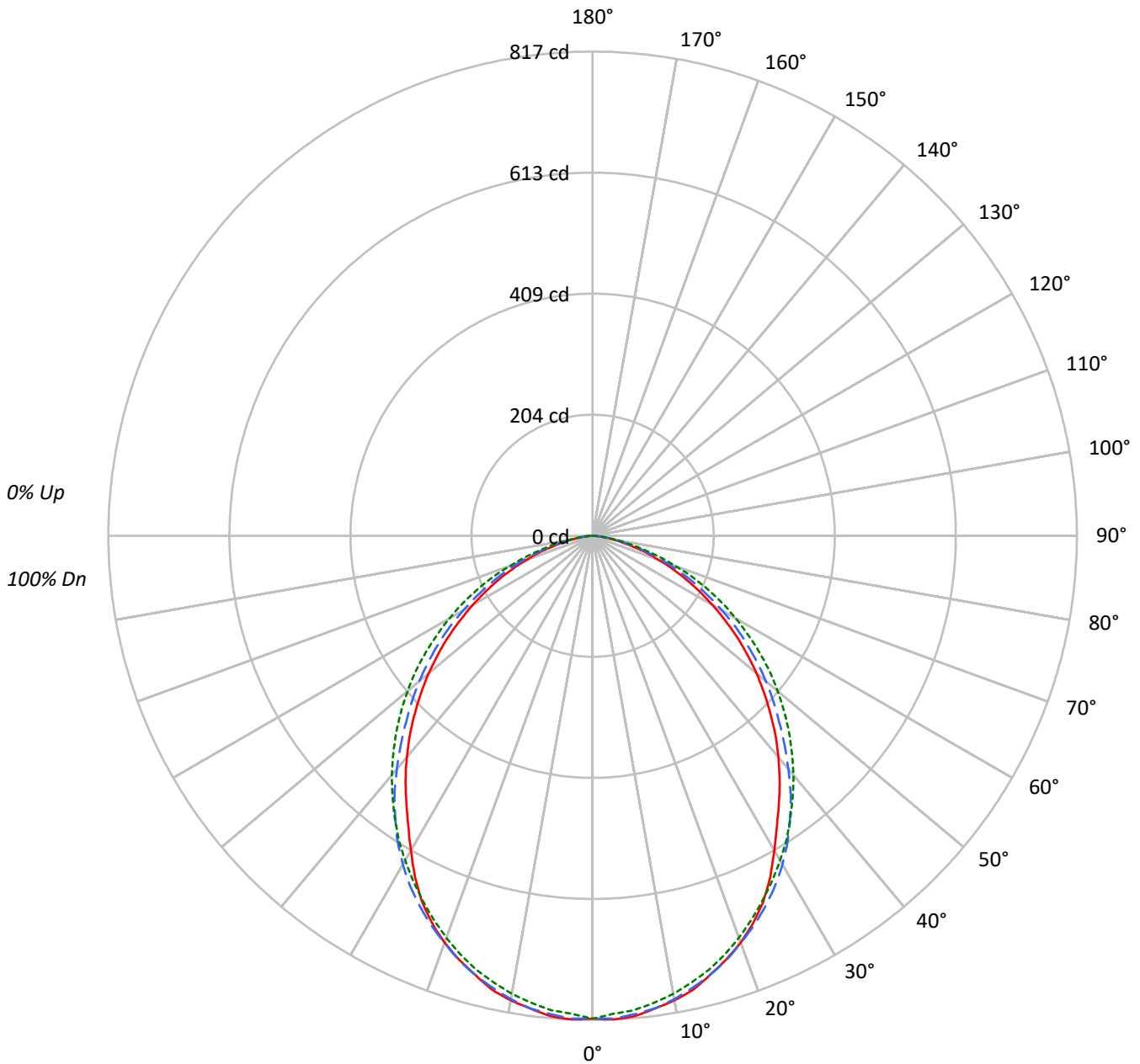
Lumens per Lamp: N/A  
Luminaire Lumens: 1884.0 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	4385	4385	4385
5°	4397	4378	4341
10°	4350	4338	4288
15°	4273	4273	4224
20°	4183	4188	4134
25°	4045	4095	4030
30°	3809	3980	3931
35°	3599	3815	3821
40°	3424	3609	3703
45°	3228	3390	3564
50°	3022	3195	3412
55°	2788	2973	3228
60°	2510	2713	3002
65°	2216	2412	2730
70°	1847	2054	2319
75°	1451	1641	1815
80°	1038	1153	1280
85°	679	679	636



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.7	4.1
10°-20°	215.5	11.4
20°-30°	314.9	16.7
30°-40°	357.5	19.0
40°-50°	345.1	18.3
50°-60°	284.7	15.1
60°-70°	189.6	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°	607.2	32.2
0°-40°	964.6	51.2
0°-60°	1594.4	84.6
0°-90°	1884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1884.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	814	814	810	806	804	77
15°	767	769	767	763	758	216
25°	681	686	690	685	679	312
35°	548	555	581	584	582	343
45°	424	431	445	466	468	327
55°	297	302	317	334	344	265
65°	174	179	189	203	214	173
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°	814.8	814.8	814.8	814.8	814.8
2.5°	817.0	817.3	815.4	810.4	807.3
5°	813.8	813.5	810.4	806.0	803.5
7.5°	804.8	805.4	804.5	798.2	794.7
10°	796.0	796.3	793.8	788.8	784.7
12.5°	784.7	784.4	781.0	778.5	771.9
15°	766.9	768.8	766.9	763.4	758.1
17.5°	749.7	749.7	750.9	745.0	740.9
20°	730.3	731.2	731.2	726.5	721.8
22.5°	707.7	710.5	711.5	706.5	700.8
25°	681.1	686.4	689.6	684.6	678.6
27.5°	648.9	657.0	666.4	662.7	656.1
30°	612.9	624.8	640.4	637.3	632.6
32.5°	578.8	590.7	612.3	611.0	608.5
35°	547.8	555.3	580.6	583.8	581.6
37.5°	518.4	525.2	549.0	556.2	554.4
40°	487.4	494.9	513.7	526.5	527.1
42.5°	456.7	463.9	479.2	497.7	497.7
45°	424.1	431.3	445.4	465.8	468.3
47.5°	392.2	399.7	413.5	433.8	437.9
50°	360.9	367.8	381.6	401.3	407.5
52.5°	328.4	335.9	349.3	367.5	376.6
55°	297.1	302.1	316.8	334.3	344.0
57.5°	264.5	269.2	285.8	300.8	310.8
60°	233.2	239.1	252.0	267.3	278.9
62.5°	203.1	209.4	220.4	233.8	247.0
65°	174.0	178.7	189.4	202.8	214.4
67.5°	145.9	149.9	160.6	170.0	182.2
70°	117.4	122.7	130.5	139.6	147.4
72.5°	94.5	96.7	103.3	109.9	118.0
75°	69.8	73.6	78.9	82.6	87.3
77.5°	50.1	52.3	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°	11.0	11.0	11.0	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)