

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: P553861

Luminaire Tested: **FUSL-12-2-LD4-1HI-30-UNV-81-86-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: P553861  
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-30-UNV-81-86-EDD  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

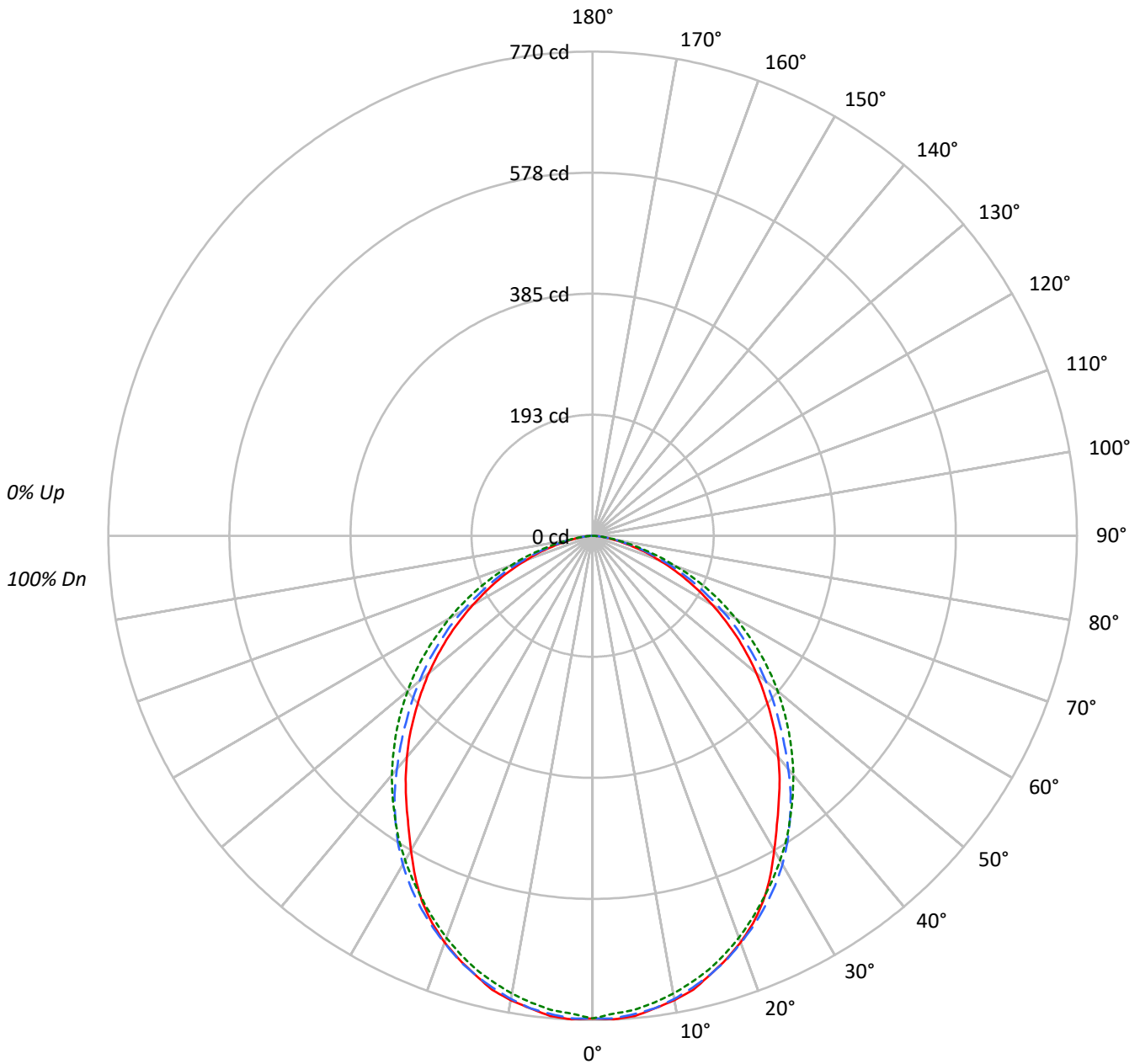
Lumens per Lamp: N/A  
Luminaire Lumens: 1775.0 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.6  
Input Voltage (V): NR  
Input Current (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°	4131	4131	4131
5°	4143	4125	4090
10°	4098	4087	4040
15°	4026	4026	3980
20°	3940	3946	3895
25°	3811	3858	3797
30°	3588	3750	3704
35°	3391	3595	3600
40°	3226	3400	3489
45°	3041	3194	3358
50°	2847	3010	3215
55°	2626	2800	3041
60°	2365	2555	2829
65°	2089	2272	2572
70°	1740	1936	2186
75°	1368	1545	1711
80°	979	1088	1206
85°	636	636	599



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	4.1
10°-20°	203.0	11.4
20°-30°	296.7	16.7
30°-40°	336.8	19.0
40°-50°	325.1	18.3
50°-60°	268.2	15.1
60°-70°	178.6	10.1
70°-80°	79.9	4.5
80°-90°	14.3	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°	572.0	32.2
0°-40°	908.8	51.2
0°-60°	1502.2	84.6
0°-90°	1775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1775.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	767	766	764	759	757	73
15°	722	724	722	719	714	204
25°	642	647	650	645	639	294
35°	516	523	547	550	548	323
45°	400	406	420	439	441	308
55°	280	285	298	315	324	250
65°	164	168	178	191	202	163
75°	66	69	74	78	82	72
85°	10	10	10	10	10	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	767.6	767.6	767.6	767.6	767.6
2.5°	769.7	770.0	768.2	763.5	760.6
5°	766.8	766.5	763.5	759.4	757.0
7.5°	758.2	758.8	757.9	752.0	748.8
10°	749.9	750.2	747.9	743.2	739.3
12.5°	739.3	739.0	735.8	733.4	727.2
15°	722.5	724.3	722.5	719.3	714.3
17.5°	706.3	706.3	707.5	701.9	698.0
20°	688.0	688.9	688.9	684.5	680.1
22.5°	666.8	669.4	670.3	665.6	660.3
25°	641.7	646.7	649.7	645.0	639.4
27.5°	611.3	619.0	627.9	624.3	618.1
30°	577.4	588.6	603.4	600.4	596.0
32.5°	545.3	556.5	576.8	575.7	573.3
35°	516.1	523.2	547.1	550.0	547.9
37.5°	488.4	494.9	517.3	524.0	522.3
40°	459.2	466.2	483.9	496.0	496.6
42.5°	430.3	437.1	451.5	468.9	468.9
45°	399.6	406.4	419.7	438.8	441.2
47.5°	369.5	376.6	389.6	408.7	412.6
50°	340.0	346.5	359.5	378.1	384.0
52.5°	309.4	316.4	329.1	346.2	354.8
55°	279.9	284.6	298.4	315.0	324.1
57.5°	249.2	253.6	269.2	283.4	292.8
60°	219.7	225.3	237.4	251.9	262.8
62.5°	191.4	197.3	207.6	220.3	232.7
65°	164.0	168.4	178.4	191.1	202.0
67.5°	137.4	141.3	151.3	160.1	171.6
70°	110.6	115.6	123.0	131.5	138.9
72.5°	89.1	91.1	97.3	103.5	111.2
75°	65.8	69.3	74.3	77.9	82.3
77.5°	47.2	49.2	52.2	55.1	59.3
80°	31.6	32.4	35.1	35.7	38.9
82.5°	19.2	19.8	20.3	20.6	21.8
85°	10.3	10.3	10.3	9.7	9.7
87.5°	5.9	5.9	5.0	4.1	2.9
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)