

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: P554953

Luminaire Tested: **FUSL-12-2-LD4-2LO-35-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: P554953  
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-35-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 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

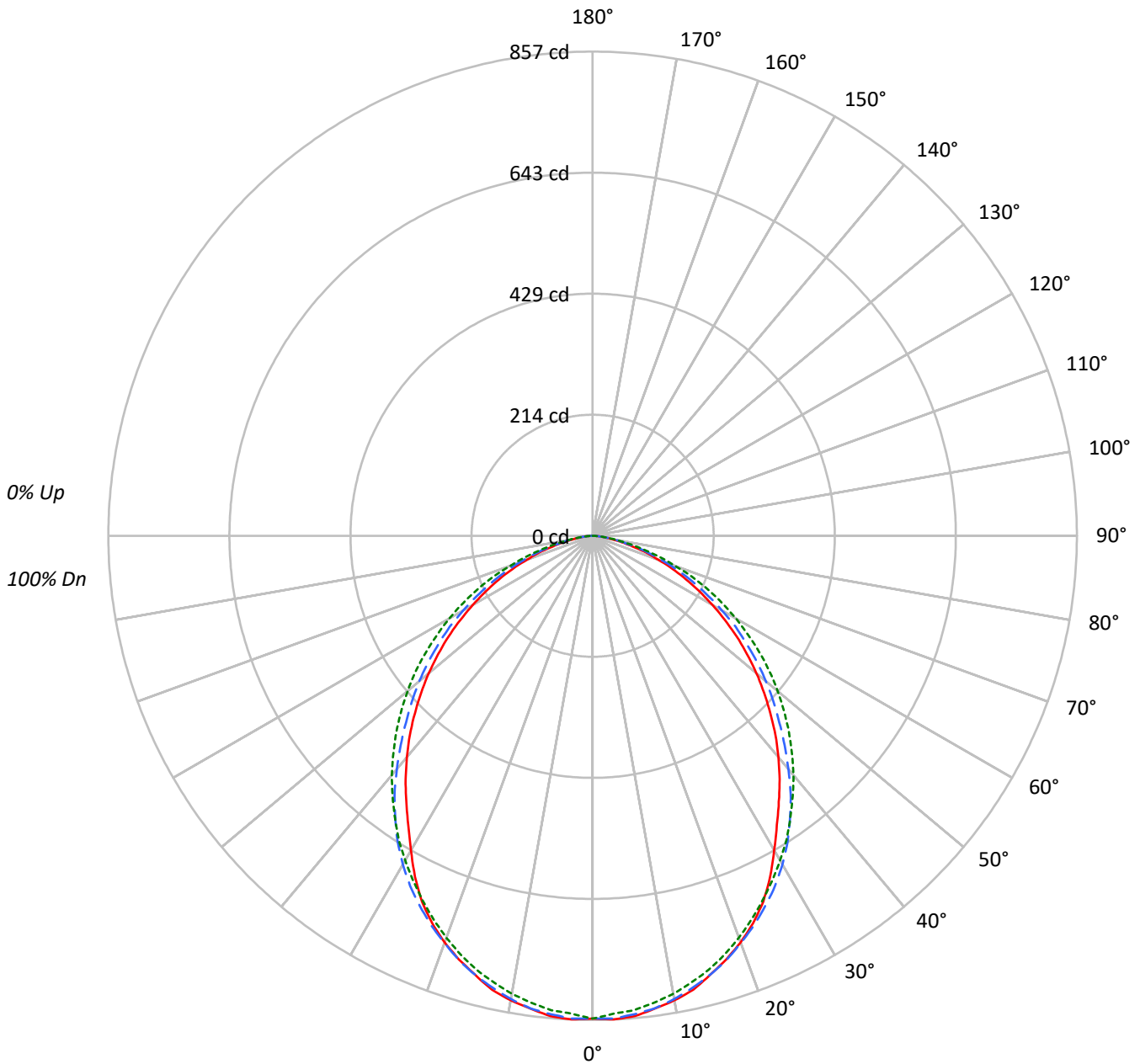
Lumens per Lamp: N/A  
Luminaire Lumens: 1976.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

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°	4599	4599	4599
5°	4612	4592	4553
10°	4563	4550	4498
15°	4481	4481	4430
20°	4387	4392	4336
25°	4242	4295	4227
30°	3995	4174	4123
35°	3775	4001	4008
40°	3592	3785	3884
45°	3385	3556	3738
50°	3169	3351	3579
55°	2924	3117	3385
60°	2633	2845	3148
65°	2324	2529	2864
70°	1937	2154	2433
75°	1522	1720	1905
80°	1088	1212	1342
85°	710	710	667



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	4.1
10°-20°	226.0	11.4
20°-30°	330.3	16.7
30°-40°	374.9	19.0
40°-50°	361.9	18.3
50°-60°	298.6	15.1
60°-70°	198.8	10.1
70°-80°	89.0	4.5
80°-90°	15.9	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°	636.8	32.2
0°-40°	1011.7	51.2
0°-60°	1672.3	84.6
0°-90°	1976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1976.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	854	853	850	845	843	81
15°	804	806	804	801	795	227
25°	714	720	723	718	712	327
35°	574	582	609	612	610	360
45°	445	452	467	488	491	343
55°	312	317	332	351	361	278
65°	182	188	199	213	225	181
75°	73	77	83	87	92	80
85°	12	12	12	11	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	854.6	854.6	854.6	854.6	854.6
2.5°	856.9	857.2	855.2	850.0	846.7
5°	853.6	853.3	850.0	845.4	842.8
7.5°	844.1	844.7	843.7	837.2	833.6
10°	834.9	835.2	832.6	827.3	823.1
12.5°	823.1	822.7	819.1	816.5	809.6
15°	804.3	806.3	804.3	800.7	795.1
17.5°	786.3	786.3	787.6	781.4	777.1
20°	765.9	766.9	766.9	762.0	757.1
22.5°	742.3	745.2	746.2	741.0	735.1
25°	714.4	720.0	723.2	718.0	711.8
27.5°	680.6	689.1	699.0	695.0	688.1
30°	642.8	655.3	671.7	668.4	663.5
32.5°	607.0	619.5	642.2	640.8	638.2
35°	574.5	582.4	609.0	612.3	610.0
37.5°	543.7	550.9	575.8	583.4	581.4
40°	511.2	519.0	538.7	552.2	552.9
42.5°	479.0	486.5	502.6	522.0	522.0
45°	444.8	452.4	467.2	488.5	491.1
47.5°	411.4	419.2	433.7	455.0	459.3
50°	378.5	385.8	400.2	420.9	427.4
52.5°	344.4	352.3	366.4	385.4	394.9
55°	311.6	316.8	332.2	350.6	360.8
57.5°	277.4	282.3	299.7	315.5	326.0
60°	244.6	250.8	264.3	280.4	292.5
62.5°	213.1	219.6	231.1	245.2	259.0
65°	182.5	187.5	198.6	212.7	224.9
67.5°	153.0	157.3	168.4	178.3	191.1
70°	123.1	128.7	136.9	146.4	154.6
72.5°	99.1	101.4	108.3	115.2	123.8
75°	73.2	77.2	82.7	86.7	91.6
77.5°	52.5	54.8	58.1	61.4	66.0
80°	35.1	36.1	39.1	39.7	43.3
82.5°	21.3	22.0	22.7	23.0	24.3
85°	11.5	11.5	11.5	10.8	10.8
87.5°	6.6	6.6	5.6	4.6	3.3
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)