

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: P556407

Luminaire Tested: **FUSL-12-4-LD4-1LO-30-UNV-80-87-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: P556407  
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-12-4-LD4-1LO-30-UNV-80-87-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

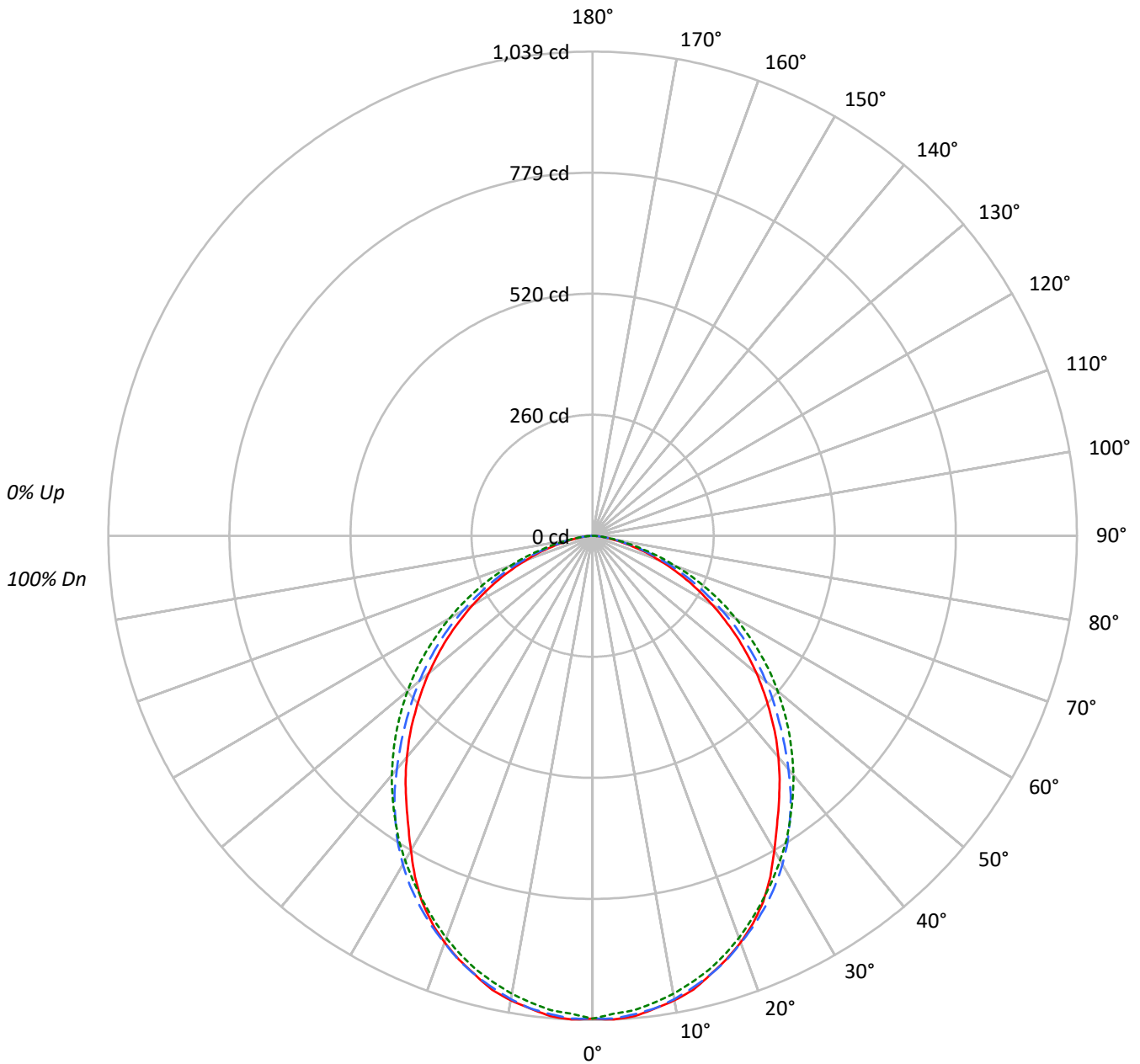
Lumens per Lamp: N/A  
Luminaire Lumens: 2396.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	2788	2788	2788
5°	2796	2784	2760
10°	2766	2758	2727
15°	2717	2717	2686
20°	2659	2663	2629
25°	2572	2604	2562
30°	2422	2531	2500
35°	2288	2426	2430
40°	2177	2295	2355
45°	2053	2156	2266
50°	1922	2032	2170
55°	1772	1890	2053
60°	1596	1725	1909
65°	1409	1533	1736
70°	1175	1306	1475
75°	923	1043	1155
80°	660	735	814
85°	429	429	404



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	4.1
10°-20°	274.1	11.4
20°-30°	400.5	16.7
30°-40°	454.6	19.0
40°-50°	438.9	18.3
50°-60°	362.0	15.1
60°-70°	241.1	10.1
70°-80°	107.9	4.5
80°-90°	19.3	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°	772.2	32.2
0°-40°	1226.8	51.2
0°-60°	2027.7	84.6
0°-90°	2396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2396.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1036	1036	1036	1036	1036	
5°	1035	1035	1031	1025	1022	98
15°	975	978	975	971	964	275
25°	866	873	877	871	863	397
35°	697	706	738	742	740	436
45°	539	549	566	592	596	416
55°	378	384	403	425	438	337
65°	221	227	241	258	273	219
75°	89	94	100	105	111	97
85°	14	14	14	13	13	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1036.2	1036.2	1036.2	1036.2	1036.2
2.5°	1039.0	1039.4	1037.0	1030.6	1026.7
5°	1035.0	1034.6	1030.6	1025.1	1021.9
7.5°	1023.5	1024.3	1023.1	1015.1	1010.7
10°	1012.3	1012.7	1009.5	1003.2	998.0
12.5°	998.0	997.6	993.2	990.0	981.7
15°	975.3	977.7	975.3	970.9	964.2
17.5°	953.4	953.4	955.0	947.4	942.3
20°	928.7	929.9	929.9	923.9	918.0
22.5°	900.1	903.6	904.8	898.5	891.3
25°	866.2	873.0	877.0	870.6	863.0
27.5°	825.2	835.6	847.5	842.7	834.4
30°	779.4	794.6	814.5	810.5	804.5
32.5°	736.1	751.2	778.6	777.1	773.9
35°	696.6	706.2	738.4	742.4	739.6
37.5°	659.2	668.0	698.2	707.4	705.0
40°	619.8	629.4	653.3	669.6	670.4
42.5°	580.8	590.0	609.5	633.0	633.0
45°	539.4	548.6	566.5	592.3	595.5
47.5°	498.8	508.4	525.9	551.7	556.9
50°	459.0	467.7	485.3	510.3	518.3
52.5°	417.6	427.1	444.3	467.3	478.9
55°	377.8	384.1	402.9	425.2	437.5
57.5°	336.4	342.4	363.4	382.6	395.3
60°	296.6	304.1	320.5	340.0	354.7
62.5°	258.4	266.3	280.2	297.4	314.1
65°	221.3	227.3	240.8	258.0	272.7
67.5°	185.5	190.7	204.2	216.2	231.7
70°	149.3	156.0	166.0	177.5	187.5
72.5°	120.2	123.0	131.4	139.7	150.1
75°	88.8	93.5	100.3	105.1	111.1
77.5°	63.7	66.5	70.5	74.4	80.0
80°	42.6	43.8	47.4	48.2	52.5
82.5°	25.9	26.7	27.5	27.9	29.5
85°	13.9	13.9	13.9	13.1	13.1
87.5°	8.0	8.0	6.8	5.6	4.0
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)