

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: P556469

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-80-86-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: P556469  
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-35-UNV-80-86-EDD  
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND  
.250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

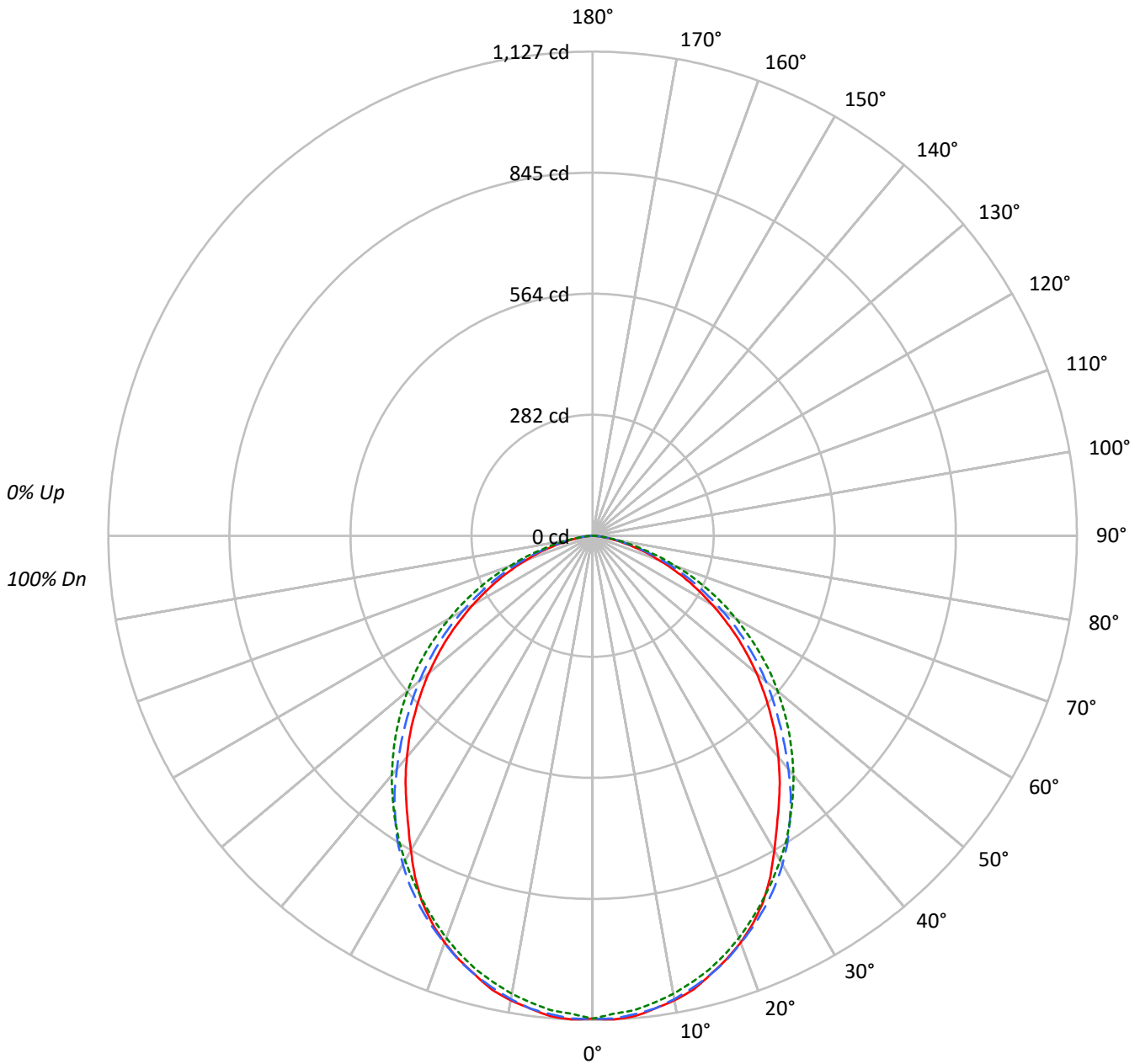
Lumens per Lamp: N/A  
Luminaire Lumens: 2599.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	3025	3025	3025
5°	3033	3020	2994
10°	3001	2992	2958
15°	2947	2947	2914
20°	2885	2889	2852
25°	2790	2825	2780
30°	2627	2745	2712
35°	2483	2631	2636
40°	2362	2489	2555
45°	2227	2339	2458
50°	2084	2204	2354
55°	1923	2050	2227
60°	1731	1871	2070
65°	1529	1663	1883
70°	1274	1417	1600
75°	1001	1131	1253
80°	716	797	883
85°	466	466	438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	4.1
10°-20°	297.3	11.4
20°-30°	434.5	16.7
30°-40°	493.2	19.0
40°-50°	476.1	18.3
50°-60°	392.7	15.1
60°-70°	261.5	10.1
70°-80°	117.0	4.5
80°-90°	20.9	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°	837.6	32.2
0°-40°	1330.7	51.2
0°-60°	2199.5	84.6
0°-90°	2599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2599.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1124	1124	1124	1124	1124	
5°	1123	1122	1118	1112	1108	106
15°	1058	1060	1058	1053	1046	298
25°	940	947	951	944	936	430
35°	756	766	801	805	802	473
45°	585	595	614	642	646	451
55°	410	417	437	461	475	366
65°	240	247	261	280	296	238
75°	96	102	109	114	120	105
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1124.0	1124.0	1124.0	1124.0	1124.0
2.5°	1127.0	1127.5	1124.9	1118.0	1113.6
5°	1122.7	1122.3	1118.0	1111.9	1108.5
7.5°	1110.2	1111.0	1109.8	1101.1	1096.4
10°	1098.1	1098.5	1095.1	1088.2	1082.5
12.5°	1082.5	1082.1	1077.4	1073.9	1064.8
15°	1057.9	1060.5	1057.9	1053.2	1045.8
17.5°	1034.2	1034.2	1035.9	1027.7	1022.1
20°	1007.4	1008.7	1008.7	1002.2	995.8
22.5°	976.3	980.2	981.5	974.6	966.8
25°	939.6	947.0	951.3	944.4	936.2
27.5°	895.1	906.4	919.3	914.1	905.1
30°	845.5	861.9	883.5	879.2	872.7
32.5°	798.4	814.8	844.6	842.9	839.4
35°	755.7	766.0	801.0	805.3	802.3
37.5°	715.1	724.6	757.4	767.3	764.7
40°	672.3	682.7	708.6	726.3	727.2
42.5°	630.0	639.9	661.1	686.6	686.6
45°	585.1	595.0	614.5	642.5	646.0
47.5°	541.1	551.4	570.4	598.5	604.1
50°	497.9	507.4	526.4	553.6	562.2
52.5°	453.0	463.3	481.9	506.9	519.5
55°	409.8	416.7	437.0	461.2	474.6
57.5°	364.9	371.4	394.2	415.0	428.8
60°	321.7	329.9	347.6	368.8	384.7
62.5°	280.2	288.9	304.0	322.6	340.7
65°	240.1	246.6	261.2	279.8	295.8
67.5°	201.2	206.8	221.5	234.5	251.3
70°	161.9	169.3	180.1	192.6	203.4
72.5°	130.4	133.4	142.5	151.6	162.8
75°	96.3	101.5	108.8	114.0	120.5
77.5°	69.1	72.1	76.4	80.7	86.8
80°	46.2	47.5	51.4	52.2	57.0
82.5°	28.1	28.9	29.8	30.2	32.0
85°	15.1	15.1	15.1	14.2	14.2
87.5°	8.6	8.6	7.3	6.0	4.3
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)