

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: P556611

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-81-85-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: P556611
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-50-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

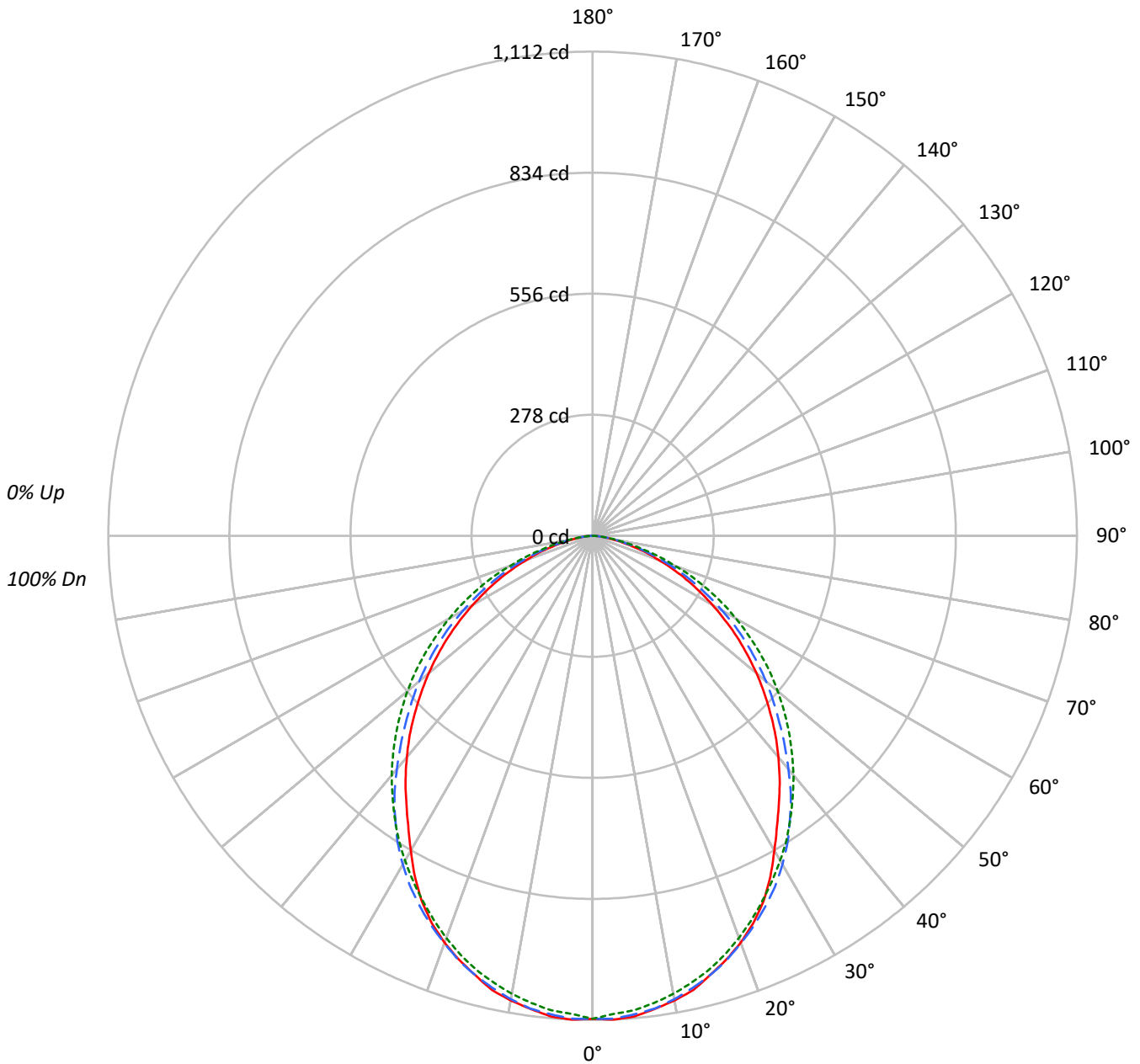
Lumens per Lamp: N/A
Luminaire Lumens: 2565.0 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2985	2985	2985
5°	2993	2980	2955
10°	2961	2953	2919
15°	2909	2909	2876
20°	2847	2851	2814
25°	2753	2787	2743
30°	2593	2709	2676
35°	2450	2597	2601
40°	2331	2457	2521
45°	2197	2308	2426
50°	2057	2175	2323
55°	1897	2023	2198
60°	1709	1847	2044
65°	1508	1642	1859
70°	1257	1398	1579
75°	988	1117	1236
80°	707	786	872
85°	460	460	435



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	4.1
10°-20°	293.4	11.4
20°-30°	428.8	16.7
30°-40°	486.7	19.0
40°-50°	469.8	18.3
50°-60°	387.6	15.1
60°-70°	258.1	10.1
70°-80°	115.5	4.5
80°-90°	20.7	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°	826.6	32.2
0°-40°	1313.3	51.2
0°-60°	2170.7	84.6
0°-90°	2565.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2565.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1108	1108	1103	1097	1094	105
15°	1044	1047	1044	1039	1032	294
25°	927	935	939	932	924	425
35°	746	756	790	795	792	467
45°	577	587	606	634	638	446
55°	404	411	431	455	468	361
65°	237	243	258	276	292	235
75°	95	100	107	112	119	104
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°	1109.3	1109.3	1109.3	1109.3	1109.3
2.5°	1112.3	1112.7	1110.1	1103.3	1099.1
5°	1108.0	1107.6	1103.3	1097.4	1094.0
7.5°	1095.7	1096.5	1095.2	1086.7	1082.0
10°	1083.7	1084.2	1080.7	1073.9	1068.4
12.5°	1068.4	1068.0	1063.3	1059.9	1050.9
15°	1044.1	1046.7	1044.1	1039.4	1032.2
17.5°	1020.7	1020.7	1022.4	1014.3	1008.7
20°	994.2	995.5	995.5	989.1	982.7
22.5°	963.5	967.4	968.7	961.8	954.2
25°	927.3	934.6	938.8	932.0	923.9
27.5°	883.4	894.5	907.3	902.2	893.2
30°	834.4	850.6	871.9	867.7	861.3
32.5°	788.0	804.2	833.6	831.9	828.5
35°	745.8	756.0	790.5	794.8	791.8
37.5°	705.7	715.1	747.5	757.3	754.7
40°	663.5	673.8	699.3	716.8	717.7
42.5°	621.8	631.6	652.5	677.6	677.6
45°	577.4	587.2	606.4	634.1	637.5
47.5°	534.0	544.2	563.0	590.7	596.2
50°	491.4	500.7	519.5	546.3	554.9
52.5°	447.0	457.3	475.6	500.3	512.7
55°	404.4	411.2	431.3	455.1	468.4
57.5°	360.1	366.5	389.1	409.5	423.2
60°	317.5	325.6	343.1	363.9	379.7
62.5°	276.6	285.1	300.0	318.3	336.2
65°	236.9	243.3	257.8	276.2	291.9
67.5°	198.6	204.1	218.6	231.4	248.0
70°	159.8	167.1	177.7	190.1	200.7
72.5°	128.7	131.7	140.6	149.6	160.7
75°	95.0	100.1	107.4	112.5	118.9
77.5°	68.2	71.2	75.4	79.7	85.7
80°	45.6	46.9	50.7	51.6	56.3
82.5°	27.7	28.6	29.4	29.8	31.5
85°	14.9	14.9	14.9	14.1	14.1
87.5°	8.5	8.5	7.2	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)