

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: P556509

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-82-96-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: P556509
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-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

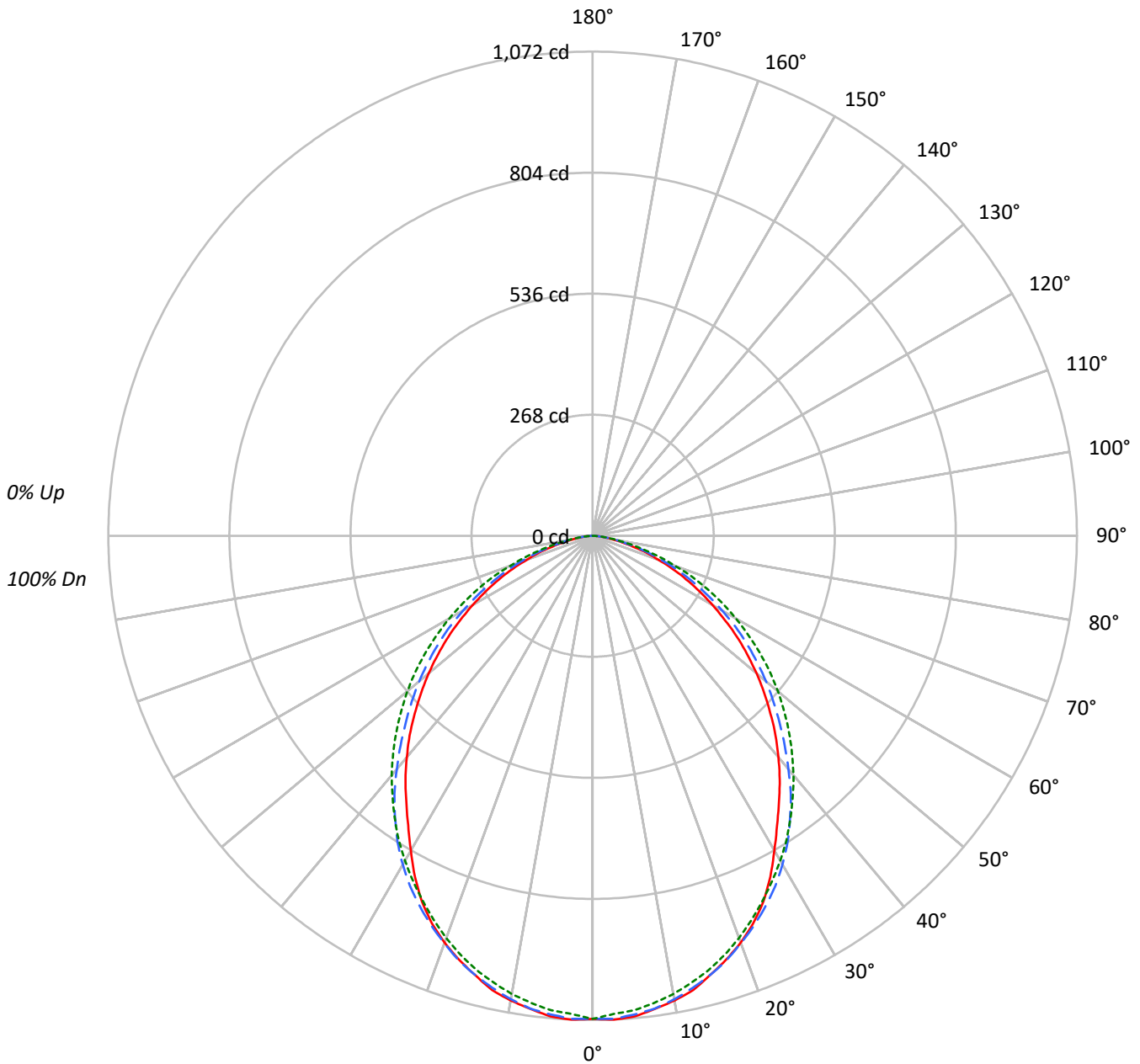
Lumens per Lamp: N/A
Luminaire Lumens: 2473.0 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2878	2878	2878
5°	2886	2874	2849
10°	2855	2847	2815
15°	2804	2804	2772
20°	2745	2749	2713
25°	2655	2688	2645
30°	2500	2612	2580
35°	2362	2504	2508
40°	2247	2368	2431
45°	2119	2225	2339
50°	1983	2097	2240
55°	1829	1951	2119
60°	1647	1780	1970
65°	1454	1583	1792
70°	1212	1348	1522
75°	952	1076	1192
80°	682	758	840
85°	445	445	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	4.1
10°-20°	282.9	11.4
20°-30°	413.4	16.7
30°-40°	469.2	19.0
40°-50°	453.0	18.3
50°-60°	373.7	15.1
60°-70°	248.8	10.1
70°-80°	111.4	4.5
80°-90°	19.9	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°	797.0	32.2
0°-40°	1266.2	51.2
0°-60°	2092.9	84.6
0°-90°	2473.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2473.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1068	1068	1064	1058	1055	101
15°	1007	1009	1007	1002	995	284
25°	894	901	905	899	891	409
35°	719	729	762	766	763	451
45°	557	566	585	611	615	430
55°	390	396	416	439	452	348
65°	228	235	249	266	281	227
75°	92	97	104	108	115	100
85°	14	14	14	14	14	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1069.5	1069.5	1069.5	1069.5	1069.5
2.5°	1072.4	1072.8	1070.3	1063.8	1059.6
5°	1068.3	1067.9	1063.8	1058.0	1054.7
7.5°	1056.4	1057.2	1055.9	1047.7	1043.2
10°	1044.9	1045.3	1042.0	1035.4	1030.1
12.5°	1030.1	1029.7	1025.1	1021.8	1013.2
15°	1006.6	1009.1	1006.6	1002.1	995.1
17.5°	984.0	984.0	985.7	977.9	972.5
20°	958.6	959.8	959.8	953.6	947.5
22.5°	929.0	932.7	933.9	927.3	919.9
25°	894.1	901.0	905.2	898.6	890.8
27.5°	851.7	862.4	874.8	869.8	861.2
30°	804.5	820.1	840.7	836.5	830.4
32.5°	759.7	775.3	803.7	802.0	798.7
35°	719.0	728.9	762.2	766.3	763.4
37.5°	680.4	689.4	720.7	730.1	727.7
40°	639.7	649.6	674.2	691.1	691.9
42.5°	599.5	608.9	629.1	653.3	653.3
45°	556.7	566.2	584.7	611.4	614.7
47.5°	514.8	524.7	542.8	569.5	574.8
50°	473.7	482.8	500.9	526.7	535.0
52.5°	431.0	440.9	458.5	482.4	494.3
55°	389.9	396.5	415.8	438.8	451.6
57.5°	347.2	353.4	375.1	394.9	408.0
60°	306.1	313.9	330.8	350.9	366.1
62.5°	266.7	274.9	289.3	306.9	324.2
65°	228.4	234.6	248.6	266.2	281.4
67.5°	191.5	196.8	210.8	223.1	239.1
70°	154.1	161.1	171.3	183.3	193.5
72.5°	124.1	127.0	135.6	144.2	154.9
75°	91.6	96.6	103.5	108.5	114.6
77.5°	65.7	68.6	72.7	76.8	82.6
80°	44.0	45.2	48.9	49.7	54.2
82.5°	26.7	27.5	28.4	28.8	30.4
85°	14.4	14.4	14.4	13.6	13.6
87.5°	8.2	8.2	7.0	5.8	4.1
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)