

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: P556563

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-82-85-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: P556563
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-40-UNV-82-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

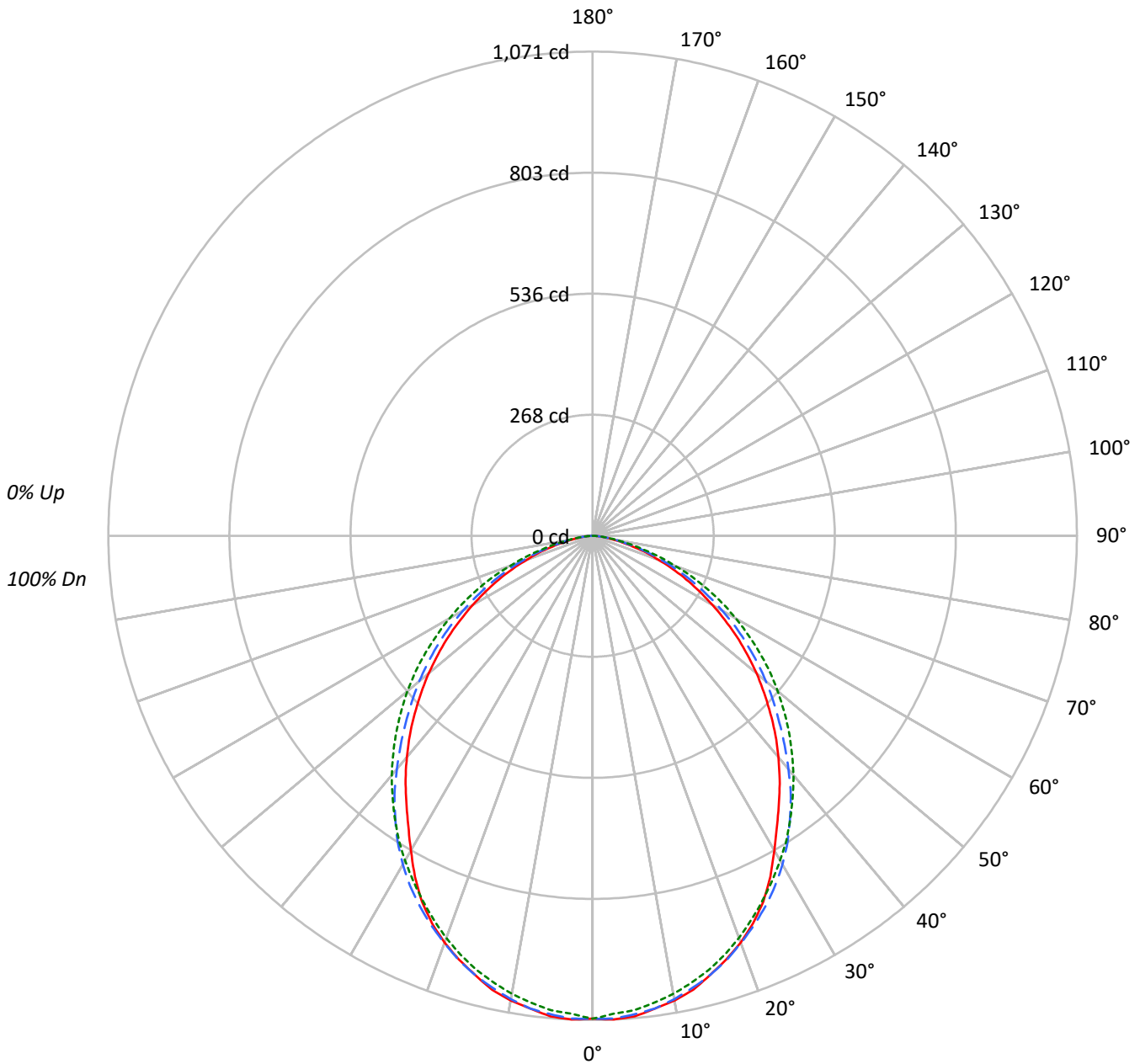
Lumens per Lamp: N/A
Luminaire Lumens: 2470.0 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	2875	2875	2875
5°	2882	2870	2846
10°	2852	2844	2811
15°	2801	2801	2769
20°	2742	2745	2710
25°	2651	2684	2642
30°	2497	2609	2577
35°	2359	2501	2505
40°	2245	2366	2428
45°	2116	2222	2336
50°	1981	2094	2237
55°	1827	1948	2116
60°	1645	1778	1968
65°	1453	1581	1790
70°	1211	1346	1521
75°	951	1075	1190
80°	680	756	840
85°	445	445	417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.6	4.1
10°-20°	282.5	11.4
20°-30°	412.9	16.7
30°-40°	468.7	19.0
40°-50°	452.4	18.3
50°-60°	373.2	15.1
60°-70°	248.5	10.1
70°-80°	111.2	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°	796.0	32.2
0°-40°	1264.7	51.2
0°-60°	2090.4	84.6
0°-90°	2470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2470.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1067	1067	1062	1057	1053	101
15°	1005	1008	1005	1001	994	283
25°	893	900	904	898	890	409
35°	718	728	761	765	762	450
45°	556	566	584	611	614	429
55°	389	396	415	438	451	348
65°	228	234	248	266	281	226
75°	92	96	103	108	114	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°	1068.2	1068.2	1068.2	1068.2	1068.2
2.5°	1071.1	1071.5	1069.0	1062.5	1058.4
5°	1067.0	1066.6	1062.5	1056.7	1053.4
7.5°	1055.1	1055.9	1054.7	1046.5	1041.9
10°	1043.6	1044.0	1040.7	1034.1	1028.8
12.5°	1028.8	1028.4	1023.9	1020.6	1012.0
15°	1005.4	1007.9	1005.4	1000.9	993.9
17.5°	982.9	982.9	984.5	976.7	971.4
20°	957.4	958.6	958.6	952.5	946.3
22.5°	927.9	931.6	932.8	926.2	918.8
25°	893.0	900.0	904.1	897.5	889.7
27.5°	850.7	861.4	873.7	868.8	860.2
30°	803.5	819.1	839.6	835.5	829.4
32.5°	758.8	774.4	802.7	801.1	797.8
35°	718.2	728.0	761.2	765.4	762.5
37.5°	679.6	688.6	719.8	729.2	726.8
40°	639.0	648.8	673.4	690.3	691.1
42.5°	598.7	608.2	628.3	652.5	652.5
45°	556.1	565.5	584.0	610.6	613.9
47.5°	514.2	524.1	542.1	568.8	574.1
50°	473.2	482.2	500.2	526.1	534.3
52.5°	430.5	440.3	458.0	481.8	493.7
55°	389.4	396.0	415.3	438.3	451.0
57.5°	346.8	352.9	374.7	394.4	407.5
60°	305.7	313.5	330.4	350.5	365.6
62.5°	266.3	274.5	288.9	306.6	323.8
65°	228.2	234.3	248.3	265.9	281.1
67.5°	191.2	196.6	210.5	222.8	238.8
70°	153.9	160.9	171.1	183.0	193.3
72.5°	123.9	126.8	135.4	144.0	154.7
75°	91.5	96.4	103.4	108.3	114.5
77.5°	65.7	68.5	72.6	76.7	82.5
80°	43.9	45.1	48.8	49.7	54.2
82.5°	26.7	27.5	28.3	28.7	30.4
85°	14.4	14.4	14.4	13.5	13.5
87.5°	8.2	8.2	7.0	5.7	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)