

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: P556631

Luminaire Tested: **FUSL-12-4-LD4-1LO-50-UNV-82-87-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: P556631
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

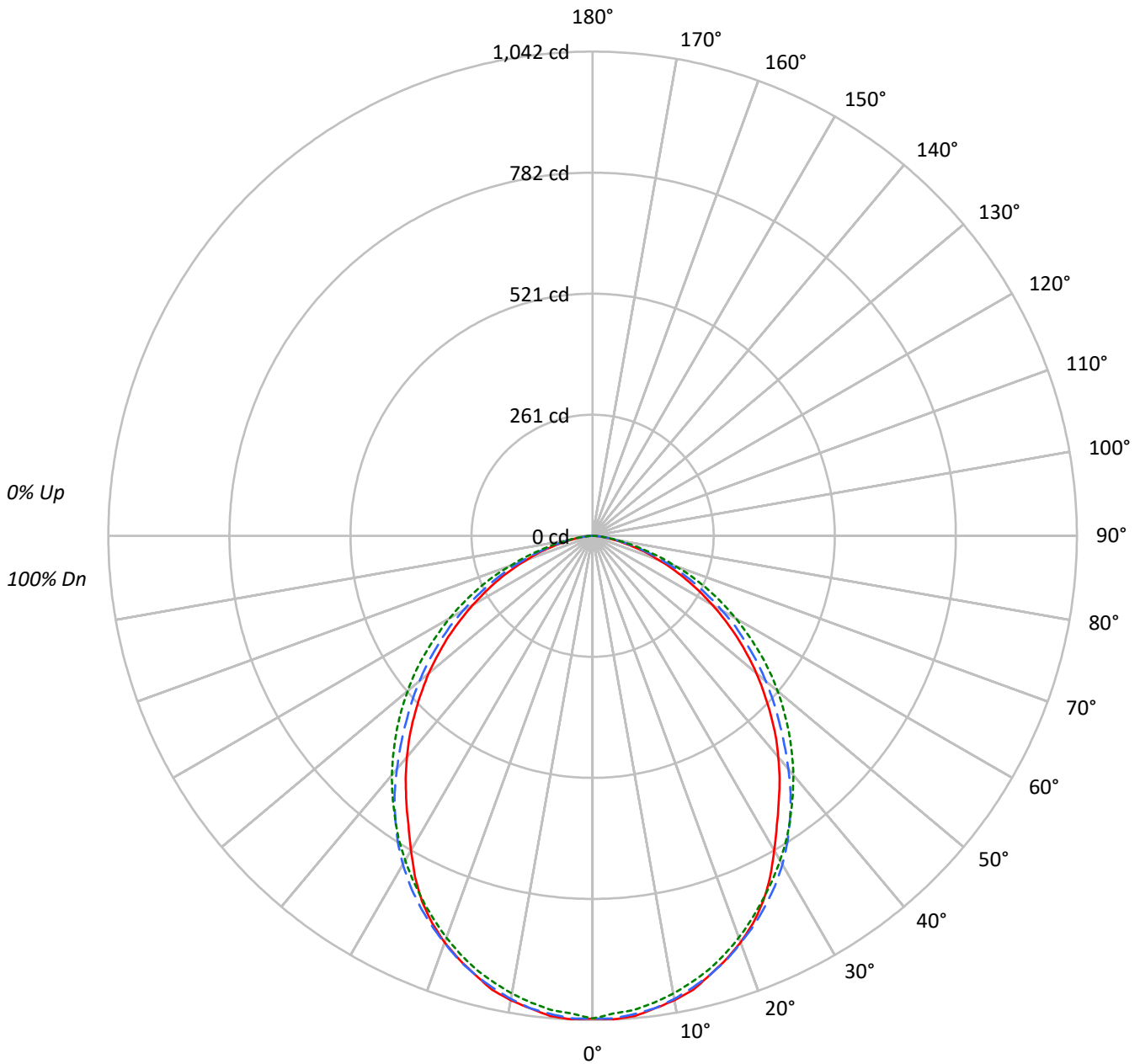
Lumens per Lamp: N/A
Luminaire Lumens: 2402.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	2795	2795	2795
5°	2803	2791	2767
10°	2773	2766	2734
15°	2724	2724	2693
20°	2666	2670	2635
25°	2578	2610	2569
30°	2428	2537	2506
35°	2294	2432	2436
40°	2183	2301	2361
45°	2058	2161	2272
50°	1926	2037	2175
55°	1777	1895	2058
60°	1600	1729	1914
65°	1413	1537	1741
70°	1178	1309	1479
75°	925	1046	1157
80°	662	736	817
85°	432	432	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	4.1
10°-20°	274.8	11.4
20°-30°	401.5	16.7
30°-40°	455.8	19.0
40°-50°	440.0	18.3
50°-60°	363.0	15.1
60°-70°	241.7	10.1
70°-80°	108.2	4.5
80°-90°	19.4	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°	774.1	32.2
0°-40°	1229.9	51.2
0°-60°	2032.8	84.6
0°-90°	2402.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2402.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1039	1039	1039	1039	1039	
5°	1038	1037	1033	1028	1024	98
15°	978	980	978	973	967	276
25°	868	875	879	873	865	398
35°	698	708	740	744	742	438
45°	541	550	568	594	597	417
55°	379	385	404	426	439	338
65°	222	228	241	259	273	220
75°	89	94	101	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°	1038.8	1038.8	1038.8	1038.8	1038.8
2.5°	1041.6	1042.0	1039.6	1033.2	1029.2
5°	1037.6	1037.2	1033.2	1027.6	1024.4
7.5°	1026.0	1026.8	1025.6	1017.7	1013.3
10°	1014.9	1015.3	1012.1	1005.7	1000.5
12.5°	1000.5	1000.1	995.7	992.5	984.1
15°	977.7	980.1	977.7	973.4	966.6
17.5°	955.8	955.8	957.4	949.8	944.6
20°	931.1	932.2	932.2	926.3	920.3
22.5°	902.3	905.9	907.1	900.7	893.5
25°	868.4	875.2	879.2	872.8	865.2
27.5°	827.3	837.7	849.6	844.9	836.5
30°	781.4	796.6	816.5	812.5	806.5
32.5°	737.9	753.1	780.6	779.0	775.8
35°	698.4	708.0	740.3	744.3	741.5
37.5°	660.9	669.7	700.0	709.2	706.8
40°	621.4	630.9	654.9	671.3	672.0
42.5°	582.3	591.4	611.0	634.5	634.5
45°	540.8	549.9	567.9	593.8	597.0
47.5°	500.0	509.6	527.2	553.1	558.3
50°	460.1	468.9	486.5	511.6	519.6
52.5°	418.6	428.2	445.4	468.5	480.1
55°	378.7	385.1	403.9	426.2	438.6
57.5°	337.2	343.2	364.4	383.5	396.3
60°	297.3	304.9	321.3	340.8	355.6
62.5°	259.0	267.0	281.0	298.1	314.9
65°	221.9	227.9	241.4	258.6	273.4
67.5°	186.0	191.2	204.7	216.7	232.3
70°	149.7	156.4	166.4	178.0	188.0
72.5°	120.5	123.3	131.7	140.1	150.5
75°	89.0	93.8	100.6	105.4	111.3
77.5°	63.9	66.6	70.6	74.6	80.2
80°	42.7	43.9	47.5	48.3	52.7
82.5°	25.9	26.7	27.5	27.9	29.5
85°	14.0	14.0	14.0	13.2	13.2
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)