

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: P557989

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-86-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: P557989
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-LD4-3LO-30-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

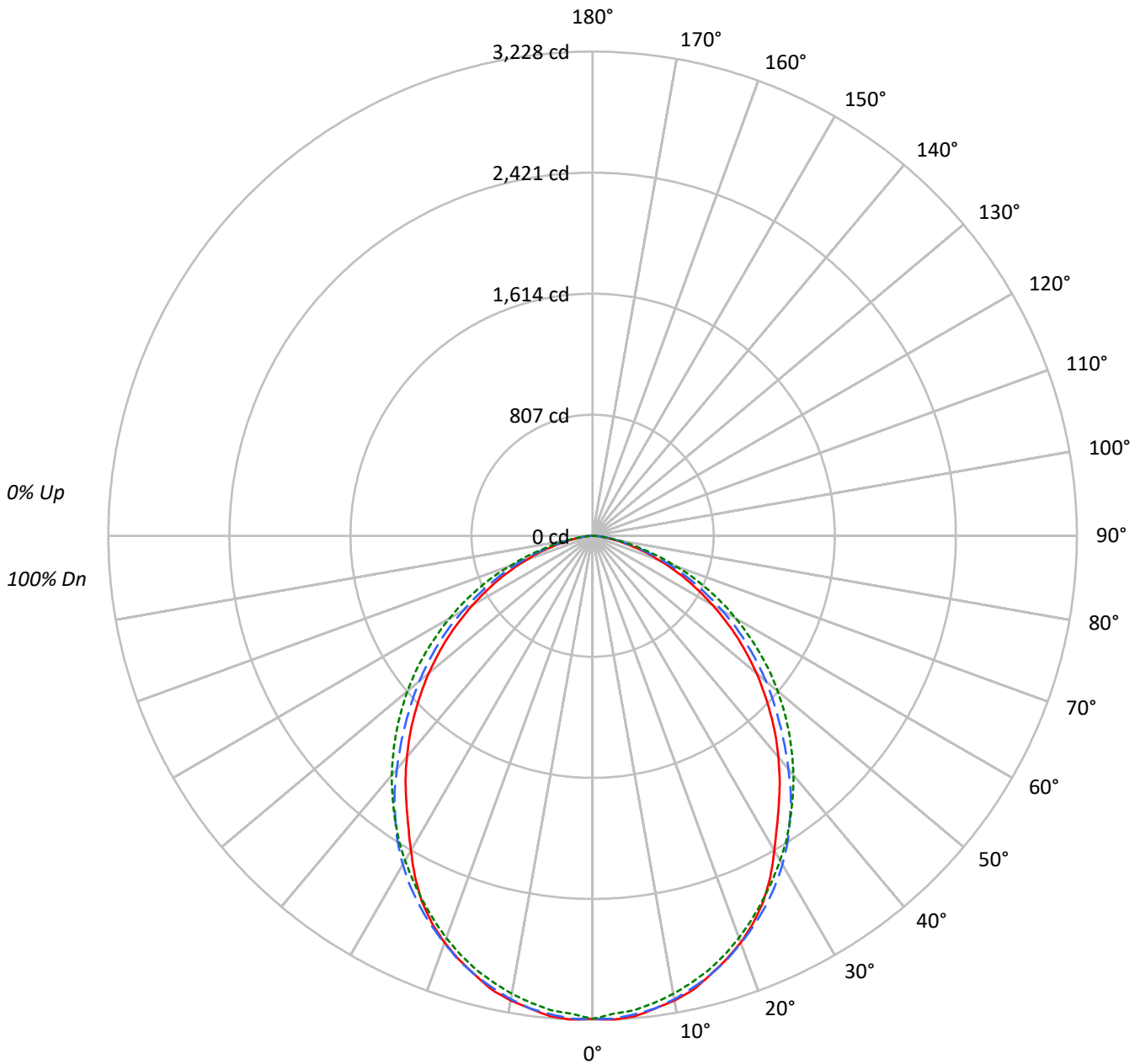
Lumens per Lamp: N/A
Luminaire Lumens: 7445.0 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	8664	8664	8664
5°	8688	8651	8577
10°	8595	8572	8473
15°	8443	8443	8346
20°	8264	8275	8168
25°	7992	8091	7962
30°	7526	7864	7768
35°	7111	7538	7550
40°	6765	7130	7317
45°	6379	6699	7042
50°	5971	6312	6742
55°	5507	5873	6378
60°	4959	5359	5931
65°	4379	4765	5395
70°	3650	4058	4584
75°	2868	3241	3588
80°	2052	2281	2531
85°	1337	1337	1260



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	303.2	4.1
10°-20°	851.6	11.4
20°-30°	1244.5	16.7
30°-40°	1412.7	19.0
40°-50°	1363.7	18.3
50°-60°	1125.0	15.1
60°-70°	749.1	10.1
70°-80°	335.2	4.5
80°-90°	60.0	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°	2399.3	32.2
0°-40°	3812.0	51.2
0°-60°	6300.7	84.6
0°-90°	7445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3220	3220	3220	3220	3220	
5°	3216	3215	3202	3185	3175	304
15°	3030	3038	3030	3017	2996	854
25°	2692	2713	2725	2705	2682	1233
35°	2165	2194	2294	2307	2298	1356
45°	1676	1704	1760	1841	1850	1293
55°	1174	1194	1252	1321	1359	1048
65°	688	706	748	802	847	682
75°	276	291	312	327	345	302
85°	43	43	43	41	41	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3219.8	3219.8	3219.8	3219.8	3219.8
2.5°	3228.4	3229.7	3222.2	3202.5	3190.1
5°	3216.1	3214.8	3202.5	3185.1	3175.2
7.5°	3180.2	3182.7	3179.0	3154.2	3140.6
10°	3145.6	3146.8	3136.9	3117.1	3101.0
12.5°	3101.0	3099.8	3086.2	3076.3	3050.3
15°	3030.5	3037.9	3030.5	3016.9	2995.9
17.5°	2962.5	2962.5	2967.4	2943.9	2927.9
20°	2885.8	2889.5	2889.5	2871.0	2852.4
22.5°	2796.7	2807.9	2811.6	2791.8	2769.5
25°	2691.6	2712.6	2725.0	2705.2	2681.7
27.5°	2564.2	2596.3	2633.5	2618.6	2592.6
30°	2421.9	2468.9	2530.8	2518.4	2499.9
32.5°	2287.1	2334.1	2419.5	2414.5	2404.6
35°	2164.7	2194.3	2294.5	2306.9	2298.2
37.5°	2048.4	2075.6	2169.6	2198.1	2190.6
40°	1925.9	1955.6	2029.8	2080.5	2083.0
42.5°	1804.7	1833.2	1893.8	1966.7	1966.7
45°	1676.1	1704.5	1760.2	1840.6	1850.5
47.5°	1549.9	1579.6	1634.0	1714.4	1730.5
50°	1426.2	1453.4	1507.8	1585.8	1610.5
52.5°	1297.6	1327.2	1380.4	1452.2	1488.0
55°	1173.9	1193.7	1251.8	1321.1	1359.4
57.5°	1045.2	1063.8	1129.3	1188.7	1228.3
60°	921.5	945.0	995.7	1056.4	1102.1
62.5°	802.8	827.5	870.8	924.0	976.0
65°	687.7	706.3	748.4	801.5	847.3
67.5°	576.4	592.5	634.6	671.7	719.9
70°	463.9	484.9	515.8	551.7	582.6
72.5°	373.6	382.2	408.2	434.2	466.3
75°	275.8	290.7	311.7	326.6	345.1
77.5°	197.9	206.6	218.9	231.3	248.6
80°	132.4	136.1	147.2	149.7	163.3
82.5°	80.4	82.9	85.3	86.6	91.5
85°	43.3	43.3	43.3	40.8	40.8
87.5°	24.7	24.7	21.0	17.3	12.4
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)