

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: P558109

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-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: P558109
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

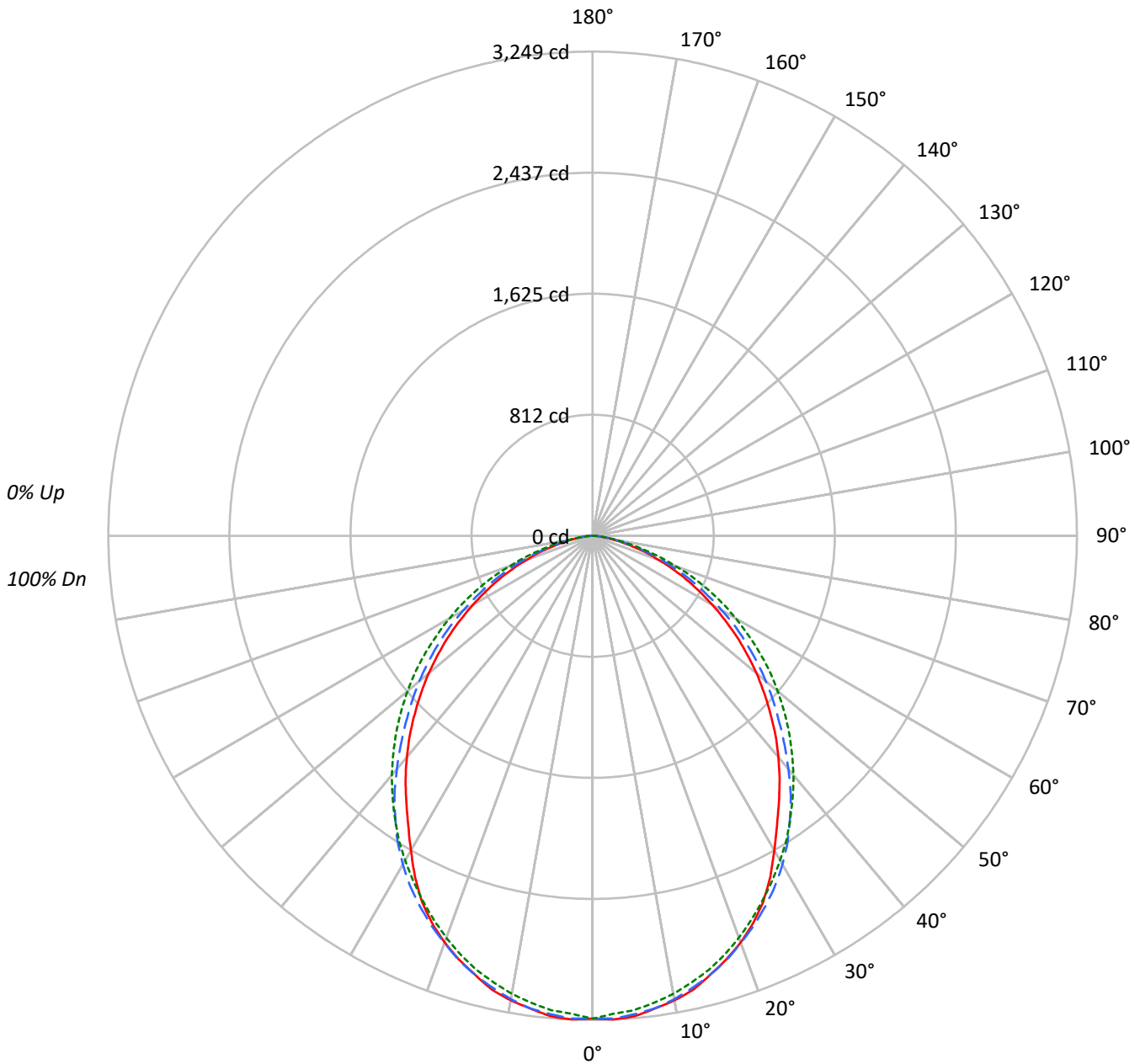
Lumens per Lamp: N/A
Luminaire Lumens: 7492.0 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8719	8719	8719
5°	8742	8705	8631
10°	8649	8626	8527
15°	8496	8496	8399
20°	8316	8327	8220
25°	8042	8142	8013
30°	7573	7914	7817
35°	7156	7585	7598
40°	6808	7175	7364
45°	6419	6741	7087
50°	6008	6352	6785
55°	5542	5910	6418
60°	4991	5393	5969
65°	4407	4795	5429
70°	3673	4084	4613
75°	2886	3262	3611
80°	2064	2295	2546
85°	1346	1346	1269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.1	4.1
10°-20°	857.0	11.4
20°-30°	1252.4	16.7
30°-40°	1421.6	19.0
40°-50°	1372.3	18.3
50°-60°	1132.1	15.1
60°-70°	753.9	10.1
70°-80°	337.3	4.5
80°-90°	60.4	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°	2414.5	32.2
0°-40°	3836.0	51.2
0°-60°	6340.4	84.6
0°-90°	7492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7492.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3240	3240	3240	3240	3240	
5°	3236	3235	3223	3205	3195	306
15°	3050	3057	3050	3036	3015	860
25°	2709	2730	2742	2722	2699	1240
35°	2178	2208	2309	2322	2313	1365
45°	1687	1715	1771	1852	1862	1301
55°	1181	1201	1260	1329	1368	1054
65°	692	711	753	807	853	686
75°	278	292	314	329	347	304
85°	44	44	44	41	41	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3240.1	3240.1	3240.1	3240.1	3240.1
2.5°	3248.8	3250.1	3242.6	3222.7	3210.2
5°	3236.4	3235.1	3222.7	3205.2	3195.3
7.5°	3200.3	3202.8	3199.0	3174.1	3160.4
10°	3165.4	3166.7	3156.7	3136.8	3120.6
12.5°	3120.6	3119.4	3105.7	3095.7	3069.6
15°	3049.6	3057.1	3049.6	3036.0	3014.8
17.5°	2981.2	2981.2	2986.2	2962.5	2946.3
20°	2904.0	2907.7	2907.7	2889.1	2870.4
22.5°	2814.4	2825.6	2829.3	2809.4	2787.0
25°	2708.6	2729.7	2742.2	2722.3	2698.6
27.5°	2580.4	2612.7	2650.1	2635.1	2609.0
30°	2437.2	2484.5	2546.8	2534.3	2515.6
32.5°	2301.6	2348.9	2434.7	2429.8	2419.8
35°	2178.3	2208.2	2309.0	2321.5	2312.8
37.5°	2061.3	2088.7	2183.3	2211.9	2204.5
40°	1938.1	1968.0	2042.6	2093.7	2096.2
42.5°	1816.1	1844.7	1905.7	1979.2	1979.2
45°	1686.6	1715.3	1771.3	1852.2	1862.2
47.5°	1559.7	1589.6	1644.3	1725.2	1741.4
50°	1435.2	1462.6	1517.4	1595.8	1620.7
52.5°	1305.7	1335.6	1389.1	1461.3	1497.4
55°	1181.3	1201.2	1259.7	1329.4	1368.0
57.5°	1051.8	1070.5	1136.5	1196.2	1236.0
60°	927.3	951.0	1002.0	1063.0	1109.1
62.5°	807.8	832.7	876.3	929.8	982.1
65°	692.1	710.8	753.1	806.6	852.7
67.5°	580.1	596.2	638.6	675.9	724.4
70°	466.8	487.9	519.1	555.2	586.3
72.5°	375.9	384.6	410.8	436.9	469.3
75°	277.6	292.5	313.7	328.6	347.3
77.5°	199.2	207.9	220.3	232.8	250.2
80°	133.2	136.9	148.1	150.6	164.3
82.5°	80.9	83.4	85.9	87.1	92.1
85°	43.6	43.6	43.6	41.1	41.1
87.5°	24.9	24.9	21.2	17.4	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)