

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: P558117

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-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: P558117
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-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

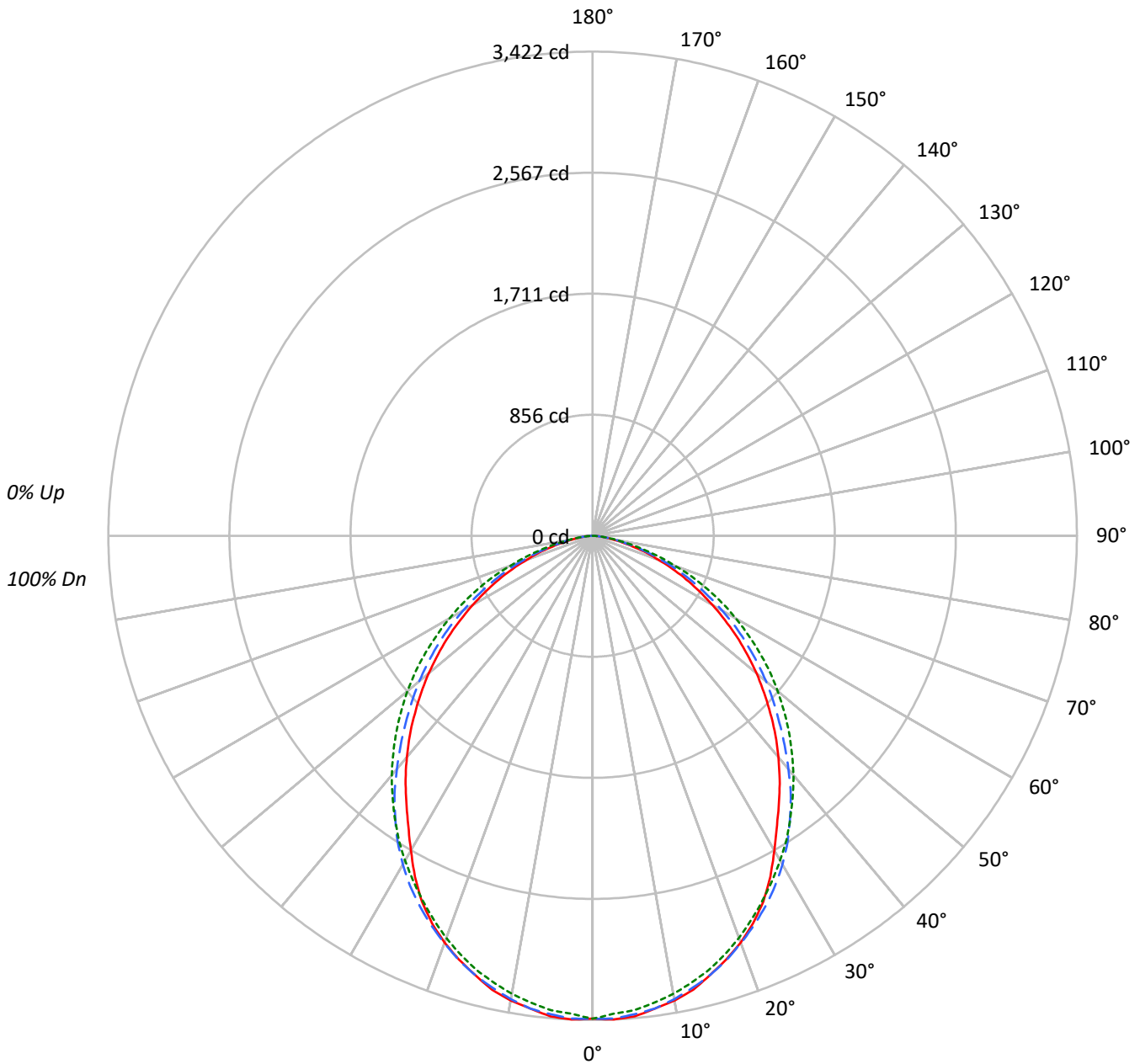
Lumens per Lamp: N/A
Luminaire Lumens: 7892.0 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9185	9185	9185
5°	9209	9170	9092
10°	9111	9086	8982
15°	8950	8950	8847
20°	8760	8771	8659
25°	8472	8577	8440
30°	7978	8336	8234
35°	7538	7990	8003
40°	7172	7559	7757
45°	6761	7101	7465
50°	6329	6692	7147
55°	5838	6225	6761
60°	5258	5681	6288
65°	4642	5051	5719
70°	3869	4302	4859
75°	3040	3435	3803
80°	2174	2417	2682
85°	1417	1417	1337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.4	4.1
10°-20°	902.8	11.4
20°-30°	1319.2	16.7
30°-40°	1497.5	19.0
40°-50°	1445.6	18.3
50°-60°	1192.5	15.1
60°-70°	794.1	10.1
70°-80°	355.4	4.5
80°-90°	63.6	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°	2543.4	32.2
0°-40°	4040.9	51.2
0°-60°	6679.0	84.6
0°-90°	7892.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7892.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3413	3413	3413	3413	3413	
5°	3409	3408	3395	3376	3366	323
15°	3212	3220	3212	3198	3176	906
25°	2853	2876	2889	2868	2843	1307
35°	2295	2326	2432	2445	2436	1438
45°	1777	1807	1866	1951	1962	1371
55°	1244	1265	1327	1400	1441	1111
65°	729	749	793	850	898	723
75°	292	308	330	346	366	320
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3413.1	3413.1	3413.1	3413.1	3413.1
2.5°	3422.3	3423.6	3415.7	3394.7	3381.6
5°	3409.2	3407.8	3394.7	3376.4	3365.9
7.5°	3371.1	3373.7	3369.8	3343.6	3329.2
10°	3334.4	3335.7	3325.2	3304.3	3287.2
12.5°	3287.2	3285.9	3271.5	3261.0	3233.5
15°	3212.5	3220.3	3212.5	3198.0	3175.8
17.5°	3140.4	3140.4	3145.6	3120.7	3103.6
20°	3059.1	3063.0	3063.0	3043.3	3023.7
22.5°	2964.7	2976.5	2980.4	2959.4	2935.8
25°	2853.2	2875.5	2888.6	2867.6	2842.7
27.5°	2718.1	2752.2	2791.6	2775.8	2748.3
30°	2567.4	2617.2	2682.7	2669.6	2650.0
32.5°	2424.4	2474.3	2564.7	2559.5	2549.0
35°	2294.6	2326.1	2432.3	2445.4	2436.2
37.5°	2171.4	2200.2	2299.9	2330.0	2322.2
40°	2041.6	2073.0	2151.7	2205.5	2208.1
42.5°	1913.1	1943.2	2007.5	2084.8	2084.8
45°	1776.7	1806.9	1865.9	1951.1	1961.6
47.5°	1642.9	1674.4	1732.1	1817.3	1834.4
50°	1511.8	1540.7	1598.4	1681.0	1707.2
52.5°	1375.5	1406.9	1463.3	1539.4	1577.4
55°	1244.3	1265.3	1326.9	1400.4	1441.0
57.5°	1108.0	1127.6	1197.1	1260.1	1302.0
60°	976.9	1001.8	1055.5	1119.8	1168.3
62.5°	851.0	877.2	923.1	979.5	1034.5
65°	729.0	748.7	793.3	849.7	898.2
67.5°	611.0	628.1	672.7	712.0	763.1
70°	491.7	514.0	546.8	584.8	617.6
72.5°	396.0	405.2	432.7	460.2	494.3
75°	292.4	308.1	330.4	346.2	365.8
77.5°	209.8	219.0	232.1	245.2	263.6
80°	140.3	144.2	156.0	158.7	173.1
82.5°	85.2	87.9	90.5	91.8	97.0
85°	45.9	45.9	45.9	43.3	43.3
87.5°	26.2	26.2	22.3	18.4	13.1
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)