

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: P558096

Luminaire Tested: **FUSL-12-4-LD4-3LO-40-UNV-82-84-EDD-90**

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: P558096
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-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

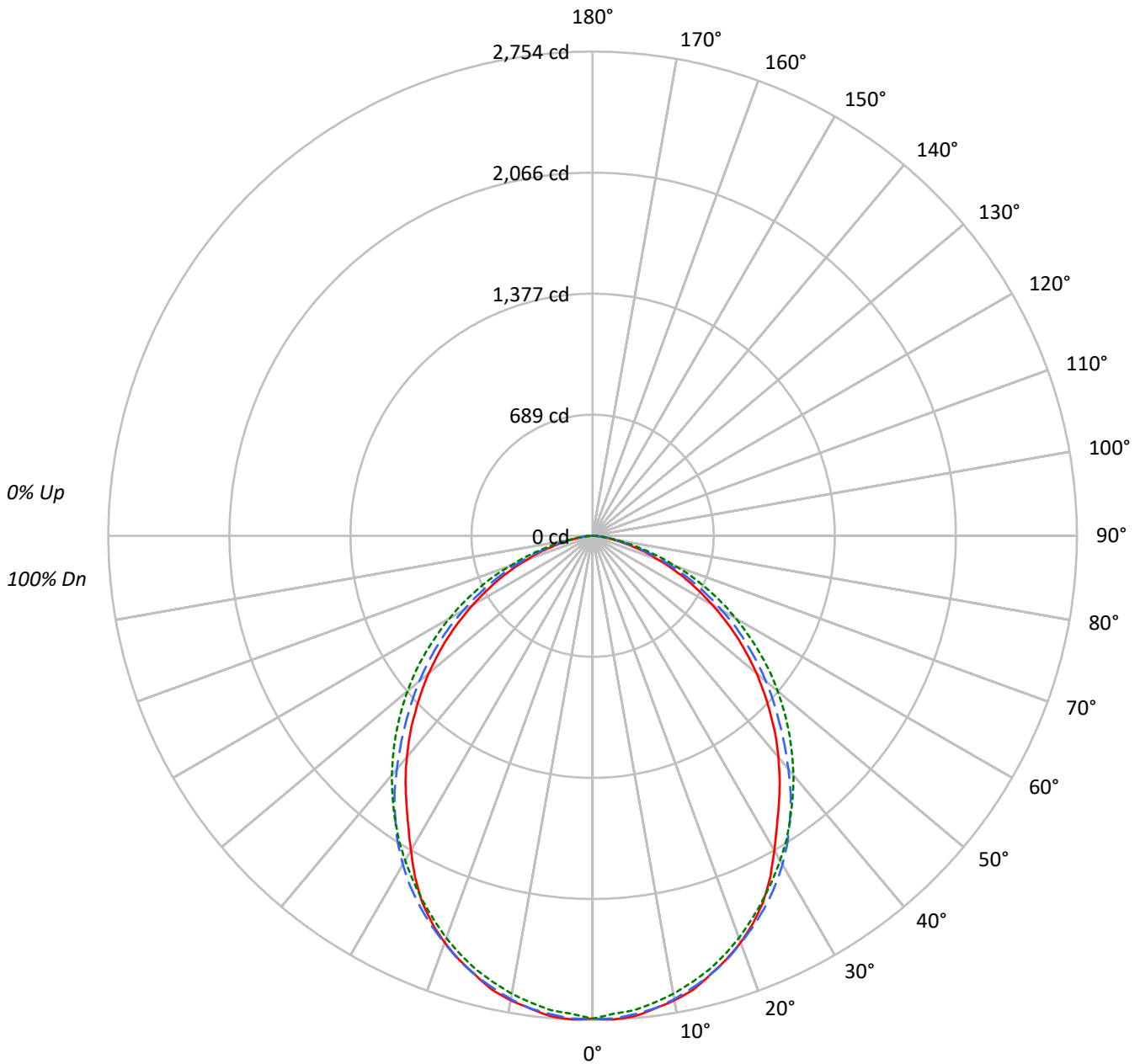
Lumens per Lamp: N/A
Luminaire Lumens: 6351.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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°	7391	7391	7391
5°	7411	7380	7317
10°	7332	7312	7228
15°	7202	7202	7120
20°	7050	7059	6968
25°	6818	6902	6792
30°	6420	6708	6626
35°	6066	6430	6440
40°	5771	6083	6242
45°	5441	5714	6008
50°	5093	5385	5751
55°	4698	5010	5440
60°	4231	4571	5060
65°	3736	4065	4602
70°	3113	3462	3910
75°	2446	2765	3061
80°	1750	1946	2159
85°	1139	1139	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.6	4.1
10°-20°	726.5	11.4
20°-30°	1061.6	16.7
30°-40°	1205.1	19.0
40°-50°	1163.3	18.3
50°-60°	959.7	15.1
60°-70°	639.0	10.1
70°-80°	286.0	4.5
80°-90°	51.2	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°	2046.7	32.2
0°-40°	3251.8	51.2
0°-60°	5374.8	84.6
0°-90°	6351.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6351.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2747	2747	2747	2747	2747	
5°	2744	2742	2732	2717	2709	260
15°	2585	2592	2585	2574	2556	729
25°	2296	2314	2325	2308	2288	1051
35°	1847	1872	1957	1968	1960	1157
45°	1430	1454	1502	1570	1579	1103
55°	1001	1018	1068	1127	1160	894
65°	587	602	638	684	723	582
75°	235	248	266	279	294	257
85°	37	37	37	35	35	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2746.6	2746.6	2746.6	2746.6	2746.6
2.5°	2754.0	2755.1	2748.8	2731.9	2721.3
5°	2743.5	2742.4	2731.9	2717.1	2708.7
7.5°	2712.9	2715.0	2711.8	2690.7	2679.1
10°	2683.3	2684.4	2675.9	2659.1	2645.3
12.5°	2645.3	2644.3	2632.7	2624.2	2602.1
15°	2585.2	2591.5	2585.2	2573.6	2555.7
17.5°	2527.2	2527.2	2531.4	2511.3	2497.6
20°	2461.7	2464.9	2464.9	2449.1	2433.3
22.5°	2385.8	2395.3	2398.4	2381.5	2362.6
25°	2296.1	2314.0	2324.6	2307.7	2287.6
27.5°	2187.4	2214.8	2246.5	2233.8	2211.7
30°	2066.0	2106.1	2158.9	2148.4	2132.5
32.5°	1951.0	1991.1	2063.9	2059.7	2051.3
35°	1846.6	1871.9	1957.4	1967.9	1960.5
37.5°	1747.4	1770.6	1850.8	1875.1	1868.7
40°	1642.9	1668.2	1731.6	1774.8	1776.9
42.5°	1539.5	1563.8	1615.5	1677.7	1677.7
45°	1429.8	1454.0	1501.5	1570.1	1578.6
47.5°	1322.1	1347.5	1393.9	1462.5	1476.2
50°	1216.6	1239.8	1286.3	1352.7	1373.8
52.5°	1106.9	1132.2	1177.6	1238.8	1269.4
55°	1001.4	1018.3	1067.8	1126.9	1159.6
57.5°	891.6	907.5	963.4	1014.0	1047.8
60°	786.1	806.2	849.4	901.1	940.2
62.5°	684.8	705.9	742.8	788.2	832.5
65°	586.7	602.5	638.4	683.8	722.8
67.5°	491.7	505.4	541.3	573.0	614.1
70°	395.7	413.6	440.0	470.6	497.0
72.5°	318.7	326.1	348.2	370.4	397.8
75°	235.3	248.0	265.9	278.6	294.4
77.5°	168.8	176.2	186.8	197.3	212.1
80°	112.9	116.1	125.6	127.7	139.3
82.5°	68.6	70.7	72.8	73.9	78.1
85°	36.9	36.9	36.9	34.8	34.8
87.5°	21.1	21.1	17.9	14.8	10.6
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)