

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: P557636

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-81-86-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: P557636
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-LD4-2STD-50-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

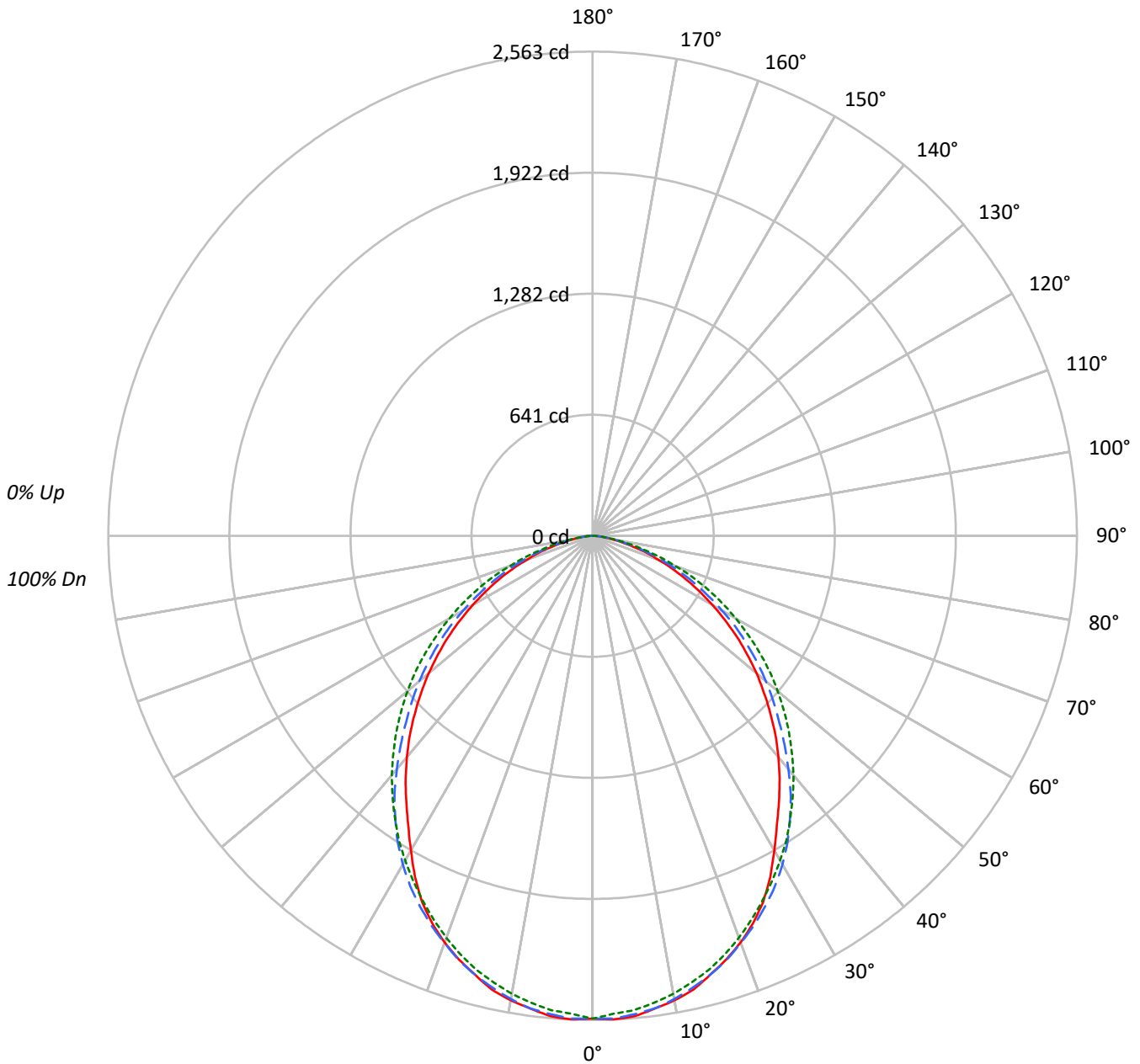
Lumens per Lamp: N/A
Luminaire Lumens: 5910.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	6878	6878	6878
5°	6896	6867	6809
10°	6823	6804	6727
15°	6702	6702	6625
20°	6560	6569	6484
25°	6344	6423	6321
30°	5974	6243	6166
35°	5645	5984	5993
40°	5370	5660	5808
45°	5063	5318	5590
50°	4739	5011	5352
55°	4372	4662	5063
60°	3937	4254	4709
65°	3476	3783	4283
70°	2897	3222	3639
75°	2277	2572	2849
80°	1629	1810	2008
85°	1062	1062	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.6	4.1
10°-20°	676.1	11.4
20°-30°	987.9	16.7
30°-40°	1121.4	19.0
40°-50°	1082.5	18.3
50°-60°	893.0	15.1
60°-70°	594.7	10.1
70°-80°	266.1	4.5
80°-90°	47.6	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°	1904.6	32.2
0°-40°	3026.0	51.2
0°-60°	5001.6	84.6
0°-90°	5910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2556	2556	2556	2556	2556	
5°	2553	2552	2542	2528	2521	242
15°	2406	2412	2406	2395	2378	678
25°	2137	2153	2163	2147	2129	978
35°	1718	1742	1822	1831	1824	1077
45°	1330	1353	1397	1461	1469	1027
55°	932	948	994	1049	1079	832
65°	546	561	594	636	673	541
75°	219	231	247	259	274	239
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2555.9	2555.9	2555.9	2555.9	2555.9
2.5°	2562.8	2563.8	2557.9	2542.2	2532.4
5°	2553.0	2552.0	2542.2	2528.4	2520.6
7.5°	2524.5	2526.5	2523.5	2503.9	2493.1
10°	2497.0	2498.0	2490.1	2474.4	2461.7
12.5°	2461.7	2460.7	2449.9	2442.0	2421.4
15°	2405.7	2411.6	2405.7	2394.9	2378.2
17.5°	2351.7	2351.7	2355.6	2337.0	2324.2
20°	2290.8	2293.8	2293.8	2279.0	2264.3
22.5°	2220.1	2228.9	2231.9	2216.2	2198.5
25°	2136.6	2153.3	2163.2	2147.4	2128.8
27.5°	2035.5	2061.0	2090.5	2078.7	2058.1
30°	1922.6	1959.9	2009.0	1999.2	1984.4
32.5°	1815.6	1852.9	1920.6	1916.7	1908.8
35°	1718.3	1741.9	1821.5	1831.3	1824.4
37.5°	1626.0	1647.7	1722.3	1744.9	1739.0
40°	1528.8	1552.4	1611.3	1651.6	1653.5
42.5°	1432.6	1455.2	1503.3	1561.2	1561.2
45°	1330.5	1353.1	1397.3	1461.1	1468.9
47.5°	1230.3	1253.9	1297.1	1360.9	1373.7
50°	1132.1	1153.7	1197.0	1258.8	1278.5
52.5°	1030.0	1053.6	1095.8	1152.8	1181.2
55°	931.8	947.5	993.7	1048.7	1079.1
57.5°	829.7	844.4	896.5	943.6	975.0
60°	731.5	750.2	790.4	838.6	874.9
62.5°	637.3	656.9	691.3	733.5	774.7
65°	545.9	560.7	594.1	636.3	672.6
67.5°	457.6	470.3	503.7	533.2	571.5
70°	368.2	384.9	409.5	437.9	462.5
72.5°	296.5	303.4	324.0	344.7	370.2
75°	219.0	230.7	247.4	259.2	274.0
77.5°	157.1	164.0	173.8	183.6	197.4
80°	105.1	108.0	116.8	118.8	129.6
82.5°	63.8	65.8	67.8	68.7	72.7
85°	34.4	34.4	34.4	32.4	32.4
87.5°	19.6	19.6	16.7	13.7	9.8
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)