

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: P556612

Luminaire Tested: **FUSL-12-4-LD4-1LO-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: P556612
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-LD4-1LO-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

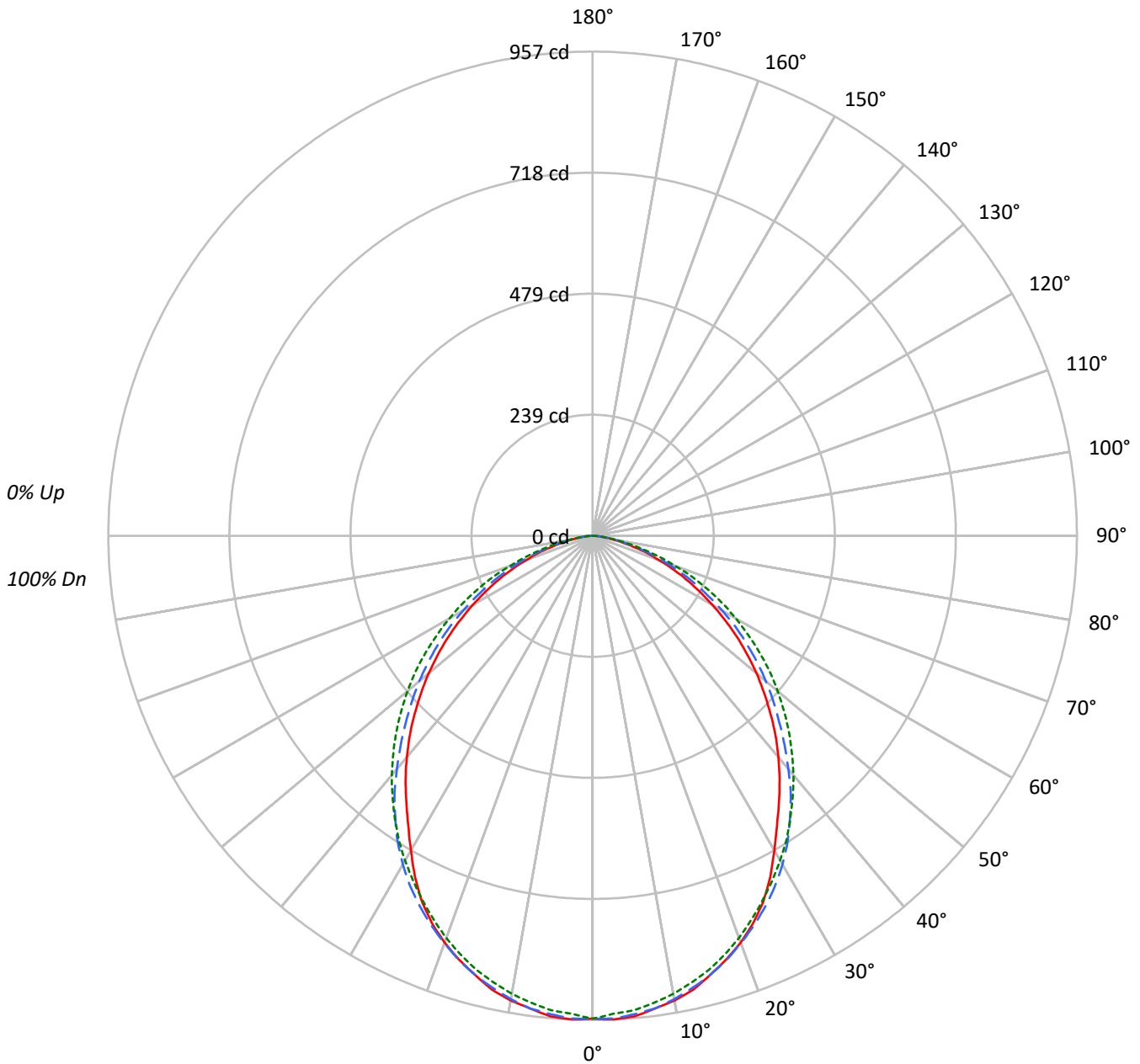
Lumens per Lamp: N/A
Luminaire Lumens: 2207.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2569	2569	2569
5°	2575	2564	2543
10°	2548	2541	2512
15°	2503	2503	2474
20°	2450	2453	2422
25°	2369	2398	2360
30°	2231	2331	2303
35°	2108	2235	2238
40°	2005	2114	2169
45°	1891	1986	2088
50°	1770	1871	1999
55°	1633	1741	1891
60°	1470	1589	1758
65°	1298	1412	1599
70°	1082	1203	1359
75°	850	961	1064
80°	607	676	750
85°	395	395	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	4.1
10°-20°	252.5	11.4
20°-30°	368.9	16.7
30°-40°	418.8	19.0
40°-50°	404.3	18.3
50°-60°	333.5	15.1
60°-70°	222.1	10.1
70°-80°	99.4	4.5
80°-90°	17.8	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°	711.3	32.2
0°-40°	1130.0	51.2
0°-60°	1867.8	84.6
0°-90°	2207.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2207.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	953	953	949	944	941	90
15°	898	901	898	894	888	253
25°	798	804	808	802	795	365
35°	642	650	680	684	681	402
45°	497	505	522	546	549	383
55°	348	354	371	392	403	311
65°	204	209	222	238	251	202
75°	82	86	92	97	102	89
85°	13	13	13	12	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	954.5	954.5	954.5	954.5	954.5
2.5°	957.0	957.4	955.2	949.3	945.7
5°	953.4	953.0	949.3	944.2	941.3
7.5°	942.7	943.5	942.4	935.0	931.0
10°	932.5	932.8	929.9	924.0	919.3
12.5°	919.3	918.9	914.9	911.9	904.2
15°	898.4	900.6	898.4	894.3	888.1
17.5°	878.2	878.2	879.7	872.7	867.9
20°	855.5	856.6	856.6	851.1	845.6
22.5°	829.1	832.4	833.5	827.6	821.0
25°	797.9	804.1	807.8	801.9	795.0
27.5°	760.1	769.7	780.7	776.3	768.6
30°	718.0	731.9	750.2	746.6	741.1
32.5°	678.0	691.9	717.2	715.8	712.8
35°	641.7	650.5	680.2	683.9	681.3
37.5°	607.2	615.3	643.2	651.6	649.4
40°	570.9	579.7	601.7	616.8	617.5
42.5°	535.0	543.4	561.4	583.0	583.0
45°	496.9	505.3	521.8	545.6	548.6
47.5°	459.5	468.3	484.4	508.2	513.0
50°	422.8	430.9	447.0	470.1	477.4
52.5°	384.6	393.4	409.2	430.5	441.1
55°	348.0	353.8	371.1	391.6	403.0
57.5°	309.8	315.3	334.8	352.4	364.1
60°	273.2	280.1	295.2	313.1	326.7
62.5°	238.0	245.3	258.1	273.9	289.3
65°	203.9	209.4	221.8	237.6	251.2
67.5°	170.9	175.6	188.1	199.1	213.4
70°	137.5	143.7	152.9	163.5	172.7
72.5°	110.7	113.3	121.0	128.7	138.2
75°	81.8	86.2	92.4	96.8	102.3
77.5°	58.7	61.2	64.9	68.6	73.7
80°	39.2	40.3	43.6	44.4	48.4
82.5°	23.8	24.6	25.3	25.7	27.1
85°	12.8	12.8	12.8	12.1	12.1
87.5°	7.3	7.3	6.2	5.1	3.7
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)