

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: P556954

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-82-94-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: P556954
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-LD4-2HI-30-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

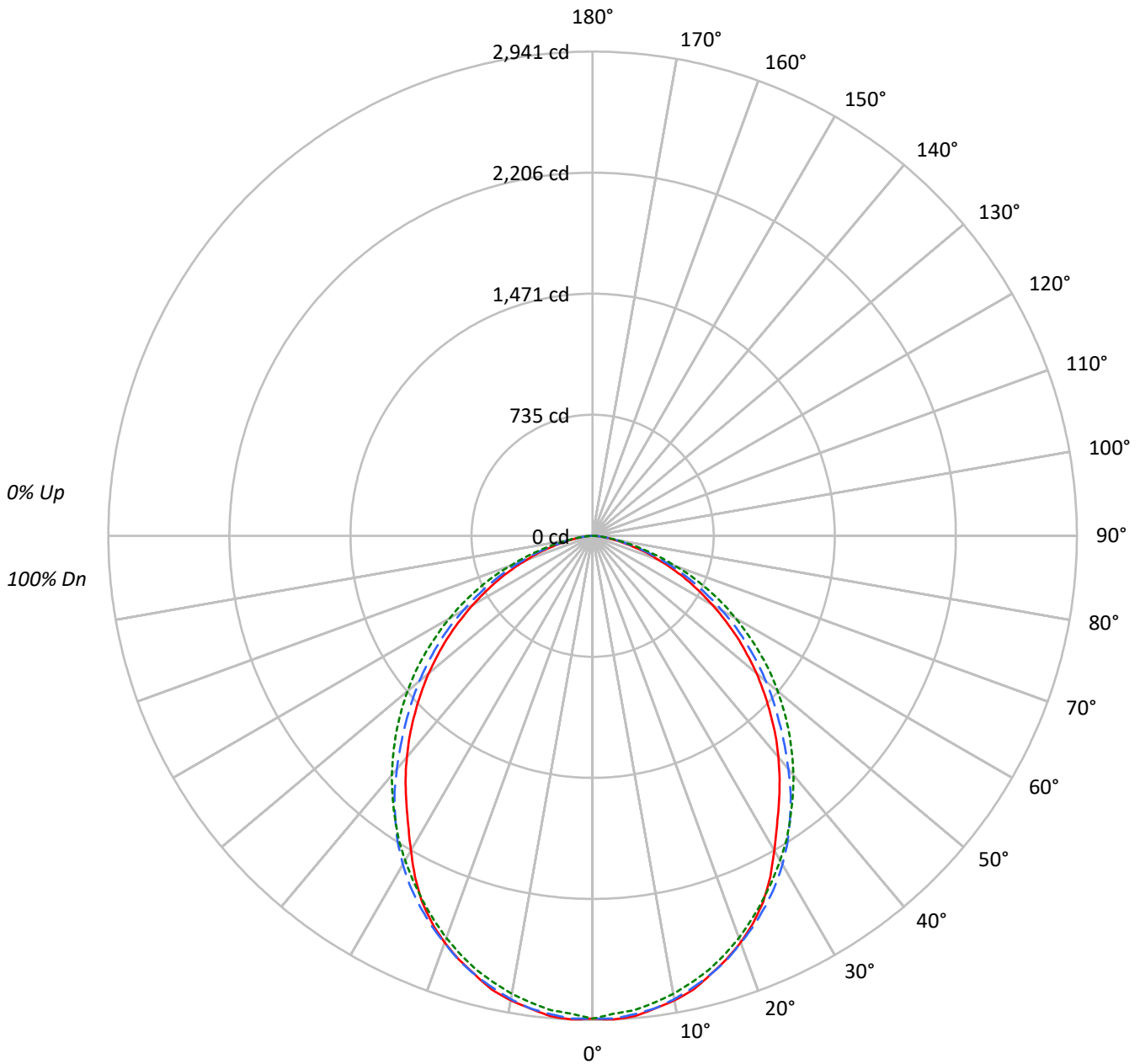
Lumens per Lamp: N/A
Luminaire Lumens: 6782.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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

TEST NUMBER: P556954

CATALOG NUMBER: FUSL-12-4-LD4-2HI-30-UNV-82-94-EDD-90

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°	7893	7893	7893
5°	7914	7880	7813
10°	7830	7808	7719
15°	7691	7691	7603
20°	7528	7538	7441
25°	7280	7370	7253
30°	6856	7164	7076
35°	6478	6866	6878
40°	6163	6496	6666
45°	5810	6102	6415
50°	5439	5750	6142
55°	5017	5350	5810
60°	4518	4882	5403
65°	3989	4341	4915
70°	3324	3697	4175
75°	2613	2953	3269
80°	1869	2078	2304
85°	1216	1216	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.2	4.1
10°-20°	775.8	11.4
20°-30°	1133.7	16.7
30°-40°	1286.9	19.0
40°-50°	1242.3	18.3
50°-60°	1024.8	15.1
60°-70°	682.4	10.1
70°-80°	305.4	4.5
80°-90°	54.6	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°	2185.6	32.2
0°-40°	3472.5	51.2
0°-60°	5739.6	84.6
0°-90°	6782.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6782.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2933	2933	2933	2933	2933	
5°	2930	2928	2917	2902	2892	277
15°	2761	2767	2761	2748	2729	778
25°	2452	2471	2482	2464	2443	1123
35°	1972	1999	2090	2102	2094	1236
45°	1527	1553	1603	1677	1686	1178
55°	1069	1087	1140	1203	1238	954
65°	626	643	682	730	772	621
75°	251	265	284	298	314	275
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2933.0	2933.0	2933.0	2933.0	2933.0
2.5°	2940.9	2942.1	2935.3	2917.3	2906.0
5°	2929.7	2928.5	2917.3	2901.5	2892.5
7.5°	2897.0	2899.2	2895.9	2873.3	2860.9
10°	2865.4	2866.6	2857.5	2839.5	2824.9
12.5°	2824.9	2823.7	2811.3	2802.3	2778.7
15°	2760.6	2767.4	2760.6	2748.2	2729.1
17.5°	2698.7	2698.7	2703.2	2681.8	2667.1
20°	2628.8	2632.2	2632.2	2615.3	2598.4
22.5°	2547.7	2557.8	2561.2	2543.2	2522.9
25°	2451.9	2471.1	2482.3	2464.3	2442.9
27.5°	2335.8	2365.1	2398.9	2385.4	2361.8
30°	2206.3	2249.1	2305.4	2294.1	2277.2
32.5°	2083.4	2126.3	2204.0	2199.5	2190.5
35°	1971.9	1998.9	2090.2	2101.5	2093.6
37.5°	1866.0	1890.8	1976.4	2002.3	1995.5
40°	1754.4	1781.5	1849.1	1895.3	1897.5
42.5°	1644.0	1669.9	1725.1	1791.6	1791.6
45°	1526.8	1552.7	1603.4	1676.7	1685.7
47.5°	1411.9	1438.9	1488.5	1561.7	1576.4
50°	1299.2	1324.0	1373.6	1444.5	1467.1
52.5°	1182.0	1209.0	1257.5	1322.9	1355.5
55°	1069.3	1087.4	1140.3	1203.4	1238.3
57.5°	952.1	969.0	1028.8	1082.8	1118.9
60°	839.5	860.9	907.1	962.3	1004.0
62.5°	731.3	753.8	793.3	841.7	889.0
65°	626.5	643.4	681.7	730.2	771.9
67.5°	525.1	539.7	578.0	611.8	655.8
70°	422.5	441.7	469.9	502.5	530.7
72.5°	340.3	348.2	371.8	395.5	424.8
75°	251.3	264.8	284.0	297.5	314.4
77.5°	180.3	188.2	199.4	210.7	226.5
80°	120.6	123.9	134.1	136.3	148.7
82.5°	73.2	75.5	77.7	78.9	83.4
85°	39.4	39.4	39.4	37.2	37.2
87.5°	22.5	22.5	19.2	15.8	11.3
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)