

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: P557010

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-82-85-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: P557010
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-35-UNV-82-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

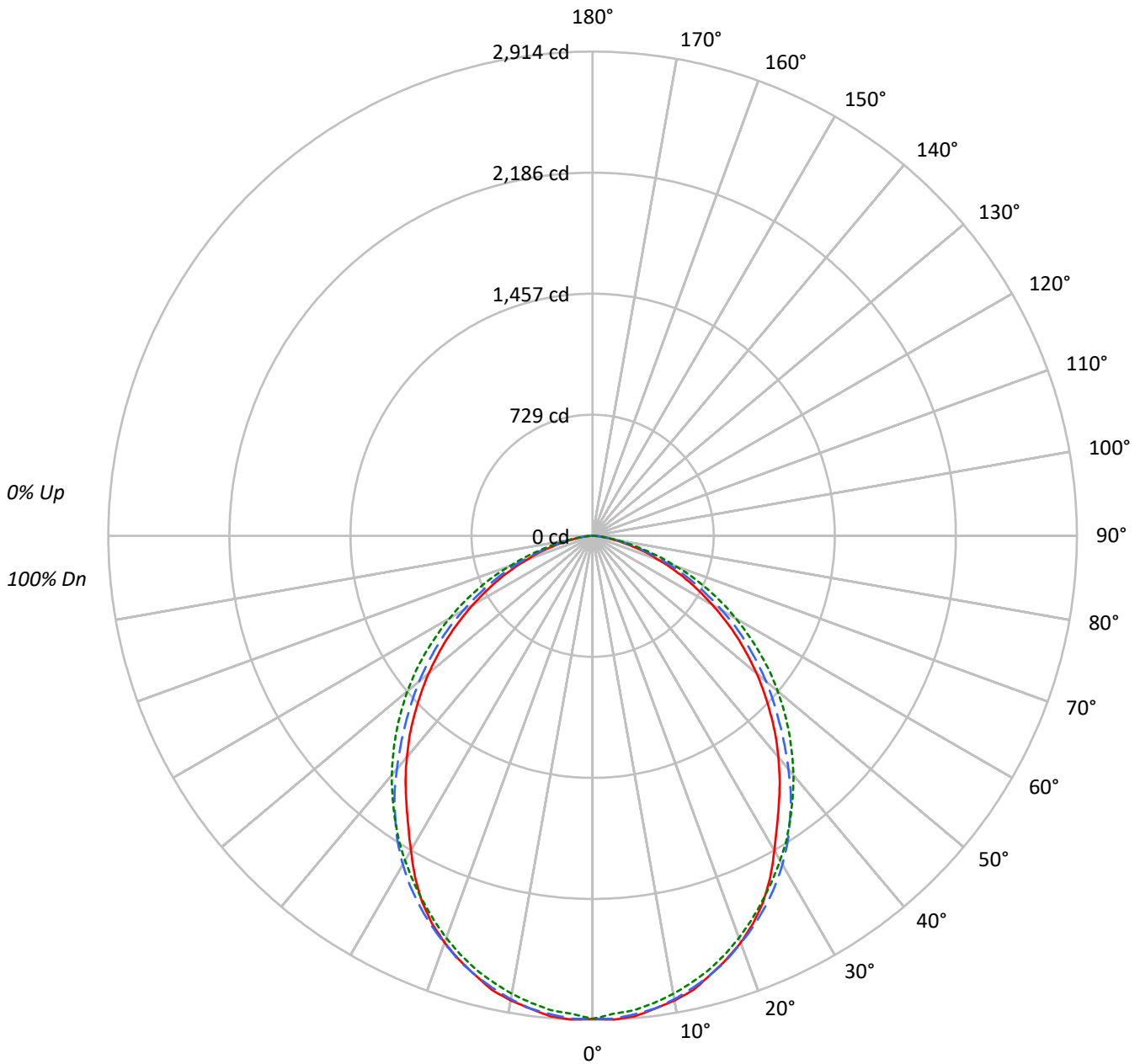
Lumens per Lamp: N/A
Luminaire Lumens: 6721.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7822	7822	7822
5°	7843	7809	7743
10°	7759	7738	7650
15°	7622	7622	7534
20°	7460	7470	7374
25°	7214	7304	7188
30°	6794	7099	7012
35°	6420	6805	6816
40°	6107	6437	6606
45°	5758	6047	6357
50°	5390	5699	6087
55°	4972	5302	5758
60°	4477	4838	5355
65°	3954	4302	4870
70°	3294	3663	4138
75°	2589	2926	3239
80°	1852	2060	2284
85°	1207	1207	1136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.7	4.1
10°-20°	768.8	11.4
20°-30°	1123.5	16.7
30°-40°	1275.3	19.0
40°-50°	1231.1	18.3
50°-60°	1015.6	15.1
60°-70°	676.3	10.1
70°-80°	302.6	4.5
80°-90°	54.1	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°	2166.0	32.2
0°-40°	3441.3	51.2
0°-60°	5688.0	84.6
0°-90°	6721.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6721.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2907	2907	2907	2907	2907	
5°	2903	2902	2891	2875	2866	275
15°	2736	2742	2736	2724	2704	771
25°	2430	2449	2460	2442	2421	1113
35°	1954	1981	2071	2083	2075	1224
45°	1513	1539	1589	1662	1670	1167
55°	1060	1078	1130	1193	1227	946
65°	621	638	676	724	765	616
75°	249	262	281	295	312	272
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°	2906.7	2906.7	2906.7	2906.7	2906.7
2.5°	2914.5	2915.6	2908.9	2891.0	2879.9
5°	2903.3	2902.2	2891.0	2875.4	2866.5
7.5°	2870.9	2873.2	2869.8	2847.5	2835.2
10°	2839.7	2840.8	2831.8	2814.0	2799.5
12.5°	2799.5	2798.3	2786.1	2777.1	2753.7
15°	2735.8	2742.5	2735.8	2723.5	2704.5
17.5°	2674.4	2674.4	2678.9	2657.6	2643.1
20°	2605.2	2608.5	2608.5	2591.8	2575.0
22.5°	2524.8	2534.8	2538.2	2520.3	2500.2
25°	2429.8	2448.8	2460.0	2442.1	2420.9
27.5°	2314.8	2343.9	2377.4	2364.0	2340.5
30°	2186.4	2228.8	2284.7	2273.5	2256.8
32.5°	2064.7	2107.1	2184.2	2179.7	2170.8
35°	1954.2	1981.0	2071.4	2082.6	2074.7
37.5°	1849.2	1873.8	1958.6	1984.3	1977.6
40°	1738.6	1765.4	1832.4	1878.2	1880.5
42.5°	1629.2	1654.9	1709.6	1775.5	1775.5
45°	1513.1	1538.8	1589.0	1661.6	1670.5
47.5°	1399.2	1426.0	1475.1	1547.7	1562.2
50°	1287.5	1312.1	1361.2	1431.6	1453.9
52.5°	1171.4	1198.2	1246.2	1311.0	1343.3
55°	1059.7	1077.6	1130.1	1192.6	1227.2
57.5°	943.6	960.3	1019.5	1073.1	1108.8
60°	831.9	853.1	898.9	953.6	994.9
62.5°	724.7	747.0	786.1	834.1	881.0
65°	620.9	637.6	675.6	723.6	764.9
67.5°	520.4	534.9	572.8	606.3	649.9
70°	418.7	437.7	465.6	498.0	525.9
72.5°	337.2	345.0	368.5	391.9	421.0
75°	249.0	262.4	281.4	294.8	311.5
77.5°	178.7	186.5	197.6	208.8	224.4
80°	119.5	122.8	132.9	135.1	147.4
82.5°	72.6	74.8	77.0	78.2	82.6
85°	39.1	39.1	39.1	36.8	36.8
87.5°	22.3	22.3	19.0	15.6	11.2
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)