

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: P556937

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-81-88-EDD**

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: P556937
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-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

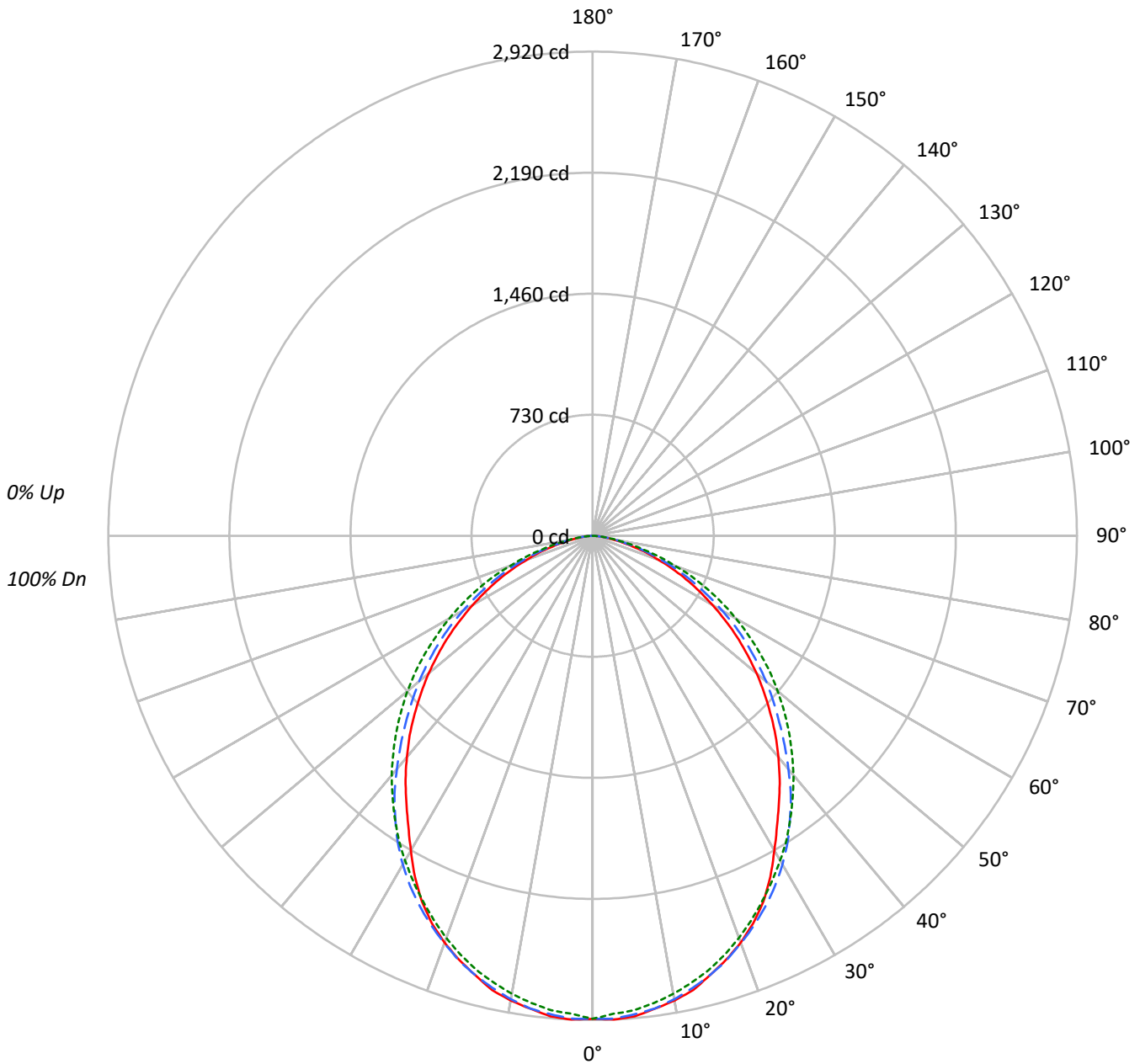
Lumens per Lamp: N/A
Luminaire Lumens: 6735.0 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P556937

CATALOG NUMBER: FUSL-12-4-LD4-2HI-30-UNV-81-88-EDD

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°	7838	7838	7838
5°	7859	7826	7759
10°	7776	7754	7665
15°	7638	7638	7550
20°	7476	7485	7389
25°	7230	7319	7203
30°	6808	7114	7027
35°	6433	6819	6830
40°	6120	6451	6620
45°	5770	6060	6371
50°	5401	5710	6099
55°	4982	5313	5770
60°	4486	4848	5366
65°	3962	4311	4881
70°	3301	3671	4146
75°	2594	2932	3246
80°	1855	2064	2289
85°	1210	1210	1139



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.2	4.1
10°-20°	770.4	11.4
20°-30°	1125.8	16.7
30°-40°	1277.9	19.0
40°-50°	1233.7	18.3
50°-60°	1017.7	15.1
60°-70°	677.7	10.1
70°-80°	303.3	4.5
80°-90°	54.3	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°	2170.5	32.2
0°-40°	3448.4	51.2
0°-60°	5699.8	84.6
0°-90°	6735.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6735.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2913	2913	2913	2913	2913	
5°	2909	2908	2897	2881	2872	275
15°	2742	2748	2742	2729	2710	773
25°	2435	2454	2465	2447	2426	1115
35°	1958	1985	2076	2087	2079	1227
45°	1516	1542	1592	1665	1674	1170
55°	1062	1080	1132	1195	1230	948
65°	622	639	677	725	766	617
75°	250	263	282	295	312	273
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°	2912.7	2912.7	2912.7	2912.7	2912.7
2.5°	2920.5	2921.7	2915.0	2897.0	2885.9
5°	2909.4	2908.2	2897.0	2881.4	2872.4
7.5°	2876.9	2879.1	2875.8	2853.4	2841.1
10°	2845.6	2846.7	2837.7	2819.8	2805.3
12.5°	2805.3	2804.2	2791.9	2782.9	2759.4
15°	2741.5	2748.2	2741.5	2729.2	2710.2
17.5°	2680.0	2680.0	2684.4	2663.2	2648.6
20°	2610.6	2613.9	2613.9	2597.2	2580.4
22.5°	2530.0	2540.1	2543.4	2525.5	2505.4
25°	2434.9	2453.9	2465.1	2447.2	2426.0
27.5°	2319.7	2348.7	2382.3	2368.9	2345.4
30°	2191.0	2233.5	2289.4	2278.3	2261.5
32.5°	2069.0	2111.5	2188.7	2184.3	2175.3
35°	1958.2	1985.1	2075.7	2086.9	2079.1
37.5°	1853.0	1877.7	1962.7	1988.4	1981.7
40°	1742.3	1769.1	1836.3	1882.1	1884.4
42.5°	1632.6	1658.3	1713.2	1779.2	1779.2
45°	1516.2	1542.0	1592.3	1665.0	1674.0
47.5°	1402.1	1428.9	1478.2	1550.9	1565.5
50°	1290.2	1314.8	1364.0	1434.5	1456.9
52.5°	1173.8	1200.7	1248.8	1313.7	1346.1
55°	1061.9	1079.8	1132.4	1195.1	1229.8
57.5°	945.5	962.3	1021.6	1075.3	1111.2
60°	833.6	854.9	900.8	955.6	997.0
62.5°	726.2	748.6	787.8	835.9	882.9
65°	622.2	638.9	677.0	725.1	766.5
67.5°	521.4	536.0	574.0	607.6	651.2
70°	419.6	438.6	466.6	499.1	527.0
72.5°	337.9	345.8	369.3	392.8	421.9
75°	249.5	263.0	282.0	295.4	312.2
77.5°	179.0	186.9	198.1	209.2	224.9
80°	119.7	123.1	133.2	135.4	147.7
82.5°	72.7	75.0	77.2	78.3	82.8
85°	39.2	39.2	39.2	36.9	36.9
87.5°	22.4	22.4	19.0	15.7	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)