

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: P557780

Luminaire Tested: **FUSL-12-4-LD4-3HI-35-UNV-82-86-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: P557780
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-LD4-3HI-35-UNV-82-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

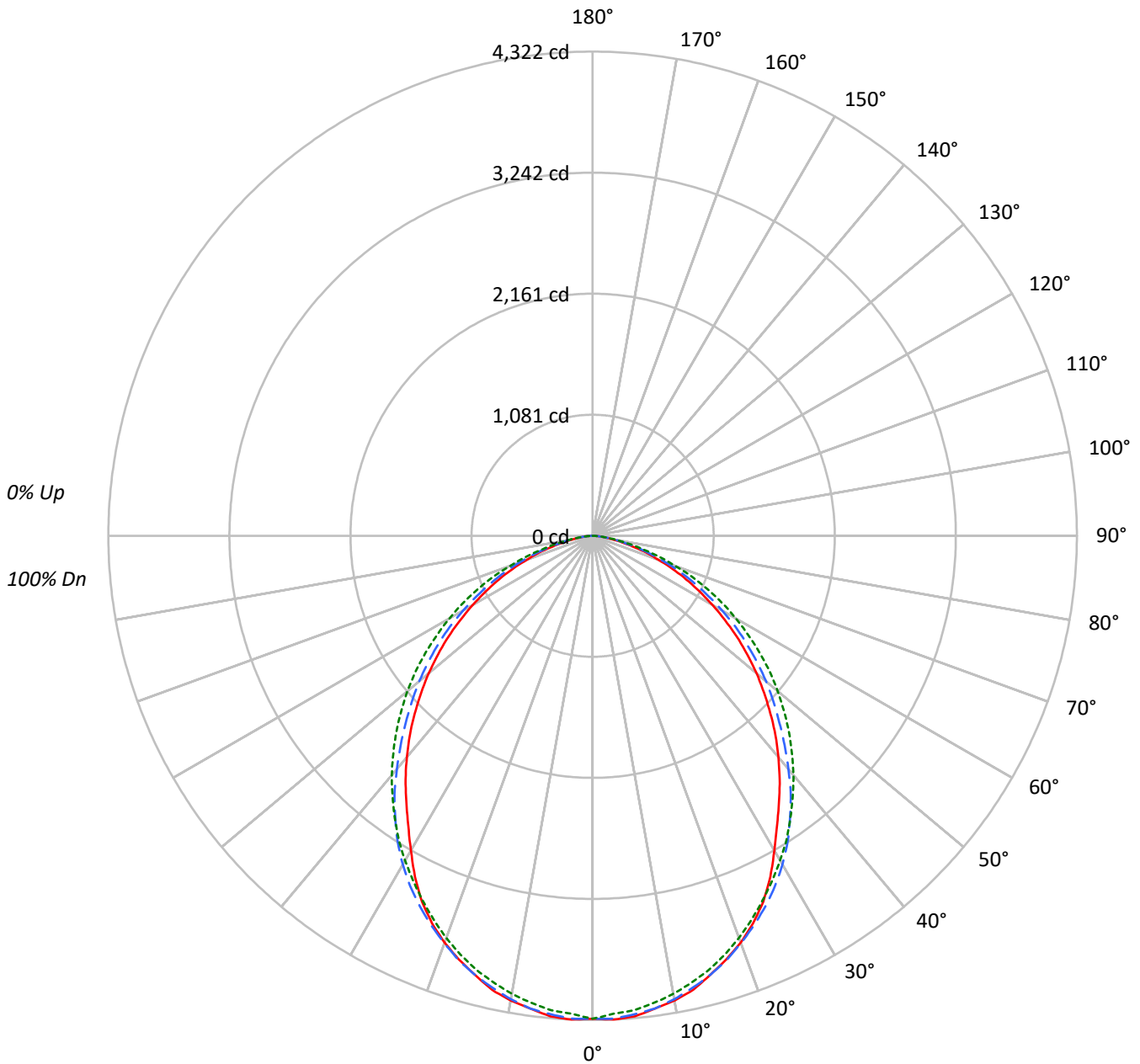
Lumens per Lamp: N/A
Luminaire Lumens: 9968.0 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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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CATALOG NUMBER: FUSL-12-4-LD4-3HI-35-UNV-82-86-EDD-90

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°	11601	11601	11601
5°	11631	11582	11484
10°	11508	11476	11345
15°	11304	11304	11175
20°	11064	11079	10936
25°	10700	10833	10661
30°	10076	10529	10400
35°	9521	10092	10109
40°	9058	9547	9797
45°	8540	8969	9429
50°	7994	8452	9027
55°	7374	7863	8539
60°	6640	7175	7942
65°	5863	6380	7223
70°	4886	5434	6137
75°	3840	4339	4805
80°	2746	3054	3388
85°	1791	1791	1689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	405.9	4.1
10°-20°	1140.2	11.4
20°-30°	1666.3	16.7
30°-40°	1891.4	19.0
40°-50°	1825.8	18.3
50°-60°	1506.2	15.1
60°-70°	1003.0	10.1
70°-80°	448.8	4.5
80°-90°	80.3	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°	3212.4	32.2
0°-40°	5103.8	51.2
0°-60°	8435.8	84.6
0°-90°	9968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4311	4311	4311	4311	4311	
5°	4306	4304	4288	4264	4251	408
15°	4058	4068	4058	4039	4011	1144
25°	3604	3632	3648	3622	3590	1650
35°	2898	2938	3072	3089	3077	1816
45°	2244	2282	2357	2464	2478	1731
55°	1572	1598	1676	1769	1820	1403
65°	921	946	1002	1073	1134	913
75°	369	389	417	437	462	404
85°	58	58	58	55	55	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4310.9	4310.9	4310.9	4310.9	4310.9
2.5°	4322.5	4324.2	4314.2	4287.7	4271.2
5°	4305.9	4304.3	4287.7	4264.5	4251.3
7.5°	4257.9	4261.2	4256.3	4223.1	4204.9
10°	4211.5	4213.2	4199.9	4173.4	4151.9
12.5°	4151.9	4150.3	4132.0	4118.8	4084.0
15°	4057.5	4067.5	4057.5	4039.3	4011.1
17.5°	3966.4	3966.4	3973.1	3941.6	3920.1
20°	3863.7	3868.7	3868.7	3843.9	3819.0
22.5°	3744.5	3759.4	3764.4	3737.9	3708.1
25°	3603.7	3631.9	3648.5	3622.0	3590.5
27.5°	3433.2	3476.2	3525.9	3506.0	3471.2
30°	3242.7	3305.6	3388.4	3371.9	3347.0
32.5°	3062.2	3125.1	3239.4	3232.8	3219.5
35°	2898.2	2938.0	3072.1	3088.7	3077.1
37.5°	2742.5	2779.0	2904.8	2942.9	2933.0
40°	2578.6	2618.3	2717.7	2785.6	2788.9
42.5°	2416.3	2454.4	2535.5	2633.2	2633.2
45°	2244.1	2282.1	2356.7	2464.3	2477.6
47.5°	2075.1	2114.9	2187.7	2295.4	2316.9
50°	1909.5	1946.0	2018.8	2123.2	2156.3
52.5°	1737.3	1777.0	1848.2	1944.3	1992.3
55°	1571.7	1598.2	1676.0	1768.7	1820.1
57.5°	1399.4	1424.3	1512.0	1591.5	1644.5
60°	1233.8	1265.3	1333.2	1414.3	1475.6
62.5°	1074.8	1107.9	1165.9	1237.1	1306.7
65°	920.8	945.6	1002.0	1073.2	1134.4
67.5°	771.8	793.3	849.6	899.3	963.9
70°	621.0	649.2	690.6	738.6	780.0
72.5°	500.2	511.7	546.5	581.3	624.4
75°	369.3	389.2	417.3	437.2	462.1
77.5°	265.0	276.6	293.1	309.7	332.9
80°	177.2	182.2	197.1	200.4	218.6
82.5°	107.6	111.0	114.3	115.9	122.6
85°	58.0	58.0	58.0	54.7	54.7
87.5°	33.1	33.1	28.2	23.2	16.6
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)