

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: P558356

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-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: P558356
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-LD4-3STD-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

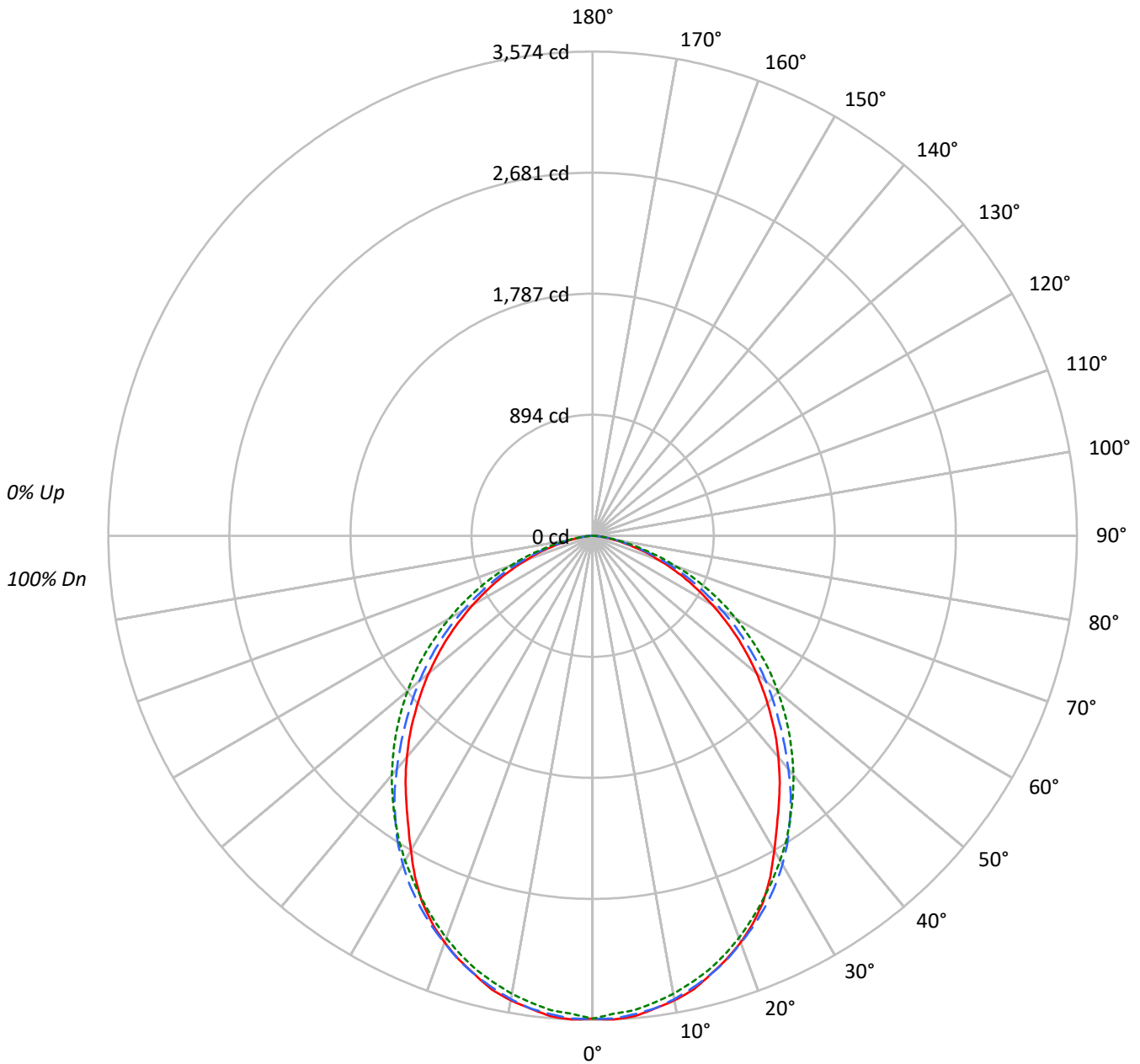
Lumens per Lamp: N/A
Luminaire Lumens: 8242.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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				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°	9592	9592	9592
5°	9617	9577	9495
10°	9515	9489	9381
15°	9346	9346	9240
20°	9149	9160	9043
25°	8847	8957	8815
30°	8331	8706	8599
35°	7872	8345	8358
40°	7490	7894	8101
45°	7061	7416	7796
50°	6610	6988	7464
55°	6097	6502	7060
60°	5491	5933	6567
65°	4848	5275	5973
70°	4040	4493	5075
75°	3175	3588	3973
80°	2270	2526	2802
85°	1479	1479	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.6	4.1
10°-20°	942.8	11.4
20°-30°	1377.8	16.7
30°-40°	1563.9	19.0
40°-50°	1509.7	18.3
50°-60°	1245.4	15.1
60°-70°	829.3	10.1
70°-80°	371.1	4.5
80°-90°	66.4	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°	2656.2	32.2
0°-40°	4220.1	51.2
0°-60°	6975.2	84.6
0°-90°	8242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8242.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3564	3564	3564	3564	3564	
5°	3560	3559	3545	3526	3515	337
15°	3355	3363	3355	3340	3317	946
25°	2980	3003	3017	2995	2969	1365
35°	2396	2429	2540	2554	2544	1501
45°	1856	1887	1949	2038	2049	1432
55°	1300	1321	1386	1462	1505	1160
65°	761	782	828	887	938	755
75°	305	322	345	362	382	334
85°	48	48	48	45	45	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3564.5	3564.5	3564.5	3564.5	3564.5
2.5°	3574.0	3575.4	3567.2	3545.3	3531.6
5°	3560.3	3559.0	3545.3	3526.1	3515.2
7.5°	3520.6	3523.4	3519.3	3491.9	3476.8
10°	3482.3	3483.7	3472.7	3450.8	3433.0
12.5°	3433.0	3431.6	3416.6	3405.6	3376.8
15°	3354.9	3363.2	3354.9	3339.9	3316.6
17.5°	3279.6	3279.6	3285.1	3259.1	3241.3
20°	3194.7	3198.8	3198.8	3178.3	3157.8
22.5°	3096.1	3108.5	3112.6	3090.7	3066.0
25°	2979.7	3003.0	3016.7	2994.8	2968.8
27.5°	2838.7	2874.3	2915.4	2898.9	2870.2
30°	2681.2	2733.2	2801.7	2788.0	2767.5
32.5°	2532.0	2584.0	2678.5	2673.0	2662.0
35°	2396.4	2429.3	2540.2	2553.9	2544.3
37.5°	2267.7	2297.8	2401.9	2433.4	2425.1
40°	2132.1	2165.0	2247.1	2303.3	2306.0
42.5°	1997.9	2029.4	2096.5	2177.3	2177.3
45°	1855.5	1887.0	1948.6	2037.6	2048.6
47.5°	1715.8	1748.7	1808.9	1897.9	1915.7
50°	1578.9	1609.0	1669.3	1755.5	1782.9
52.5°	1436.5	1469.3	1528.2	1607.6	1647.3
55°	1299.5	1321.4	1385.8	1462.5	1504.9
57.5°	1157.1	1177.7	1250.2	1316.0	1359.8
60°	1020.2	1046.2	1102.3	1169.4	1220.1
62.5°	888.7	916.1	964.0	1022.9	1080.4
65°	761.4	781.9	828.5	887.3	938.0
67.5°	638.1	655.9	702.5	743.6	797.0
70°	513.5	536.8	571.0	610.7	645.0
72.5°	413.5	423.1	451.9	480.6	516.2
75°	305.4	321.8	345.1	361.5	382.1
77.5°	219.1	228.7	242.4	256.1	275.2
80°	146.5	150.6	163.0	165.7	180.8
82.5°	89.0	91.7	94.5	95.9	101.3
85°	47.9	47.9	47.9	45.2	45.2
87.5°	27.4	27.4	23.3	19.2	13.7
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)