

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: P558226

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-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: P558226
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-30-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

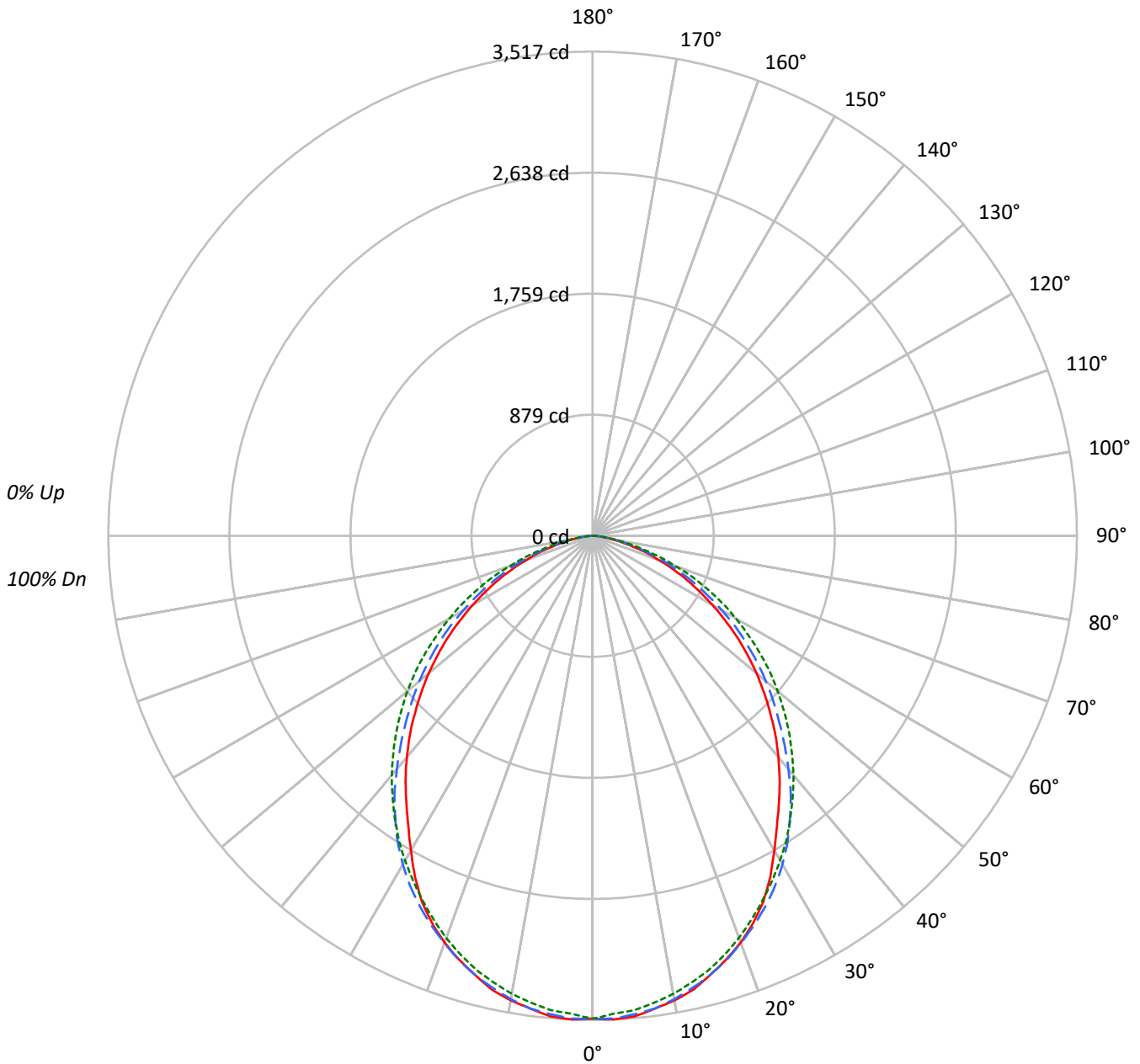
Lumens per Lamp: N/A
Luminaire Lumens: 8111.0 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9439	9439	9439
5°	9465	9424	9344
10°	9364	9338	9231
15°	9198	9198	9093
20°	9003	9015	8899
25°	8707	8815	8675
30°	8199	8567	8463
35°	7747	8212	8225
40°	7371	7768	7972
45°	6949	7298	7672
50°	6505	6877	7345
55°	6000	6398	6948
60°	5403	5838	6462
65°	4771	5191	5878
70°	3976	4421	4994
75°	3124	3531	3909
80°	2235	2486	2757
85°	1457	1457	1374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.3	4.1
10°-20°	927.8	11.4
20°-30°	1355.9	16.7
30°-40°	1539.0	19.0
40°-50°	1485.7	18.3
50°-60°	1225.6	15.1
60°-70°	816.1	10.1
70°-80°	365.2	4.5
80°-90°	65.4	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°	2613.9	32.2
0°-40°	4153.0	51.2
0°-60°	6864.3	84.6
0°-90°	8111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8111.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3508	3508	3508	3508	3508	
5°	3504	3502	3489	3470	3459	332
15°	3302	3310	3302	3287	3264	931
25°	2932	2955	2969	2947	2922	1343
35°	2358	2391	2500	2513	2504	1478
45°	1826	1857	1918	2005	2016	1409
55°	1279	1300	1364	1439	1481	1141
65°	749	770	815	873	923	743
75°	300	317	340	356	376	329
85°	47	47	47	44	44	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3507.8	3507.8	3507.8	3507.8	3507.8
2.5°	3517.2	3518.6	3510.5	3488.9	3475.5
5°	3503.8	3502.4	3488.9	3470.1	3459.3
7.5°	3464.7	3467.4	3463.3	3436.4	3421.6
10°	3426.9	3428.3	3417.5	3395.9	3378.4
12.5°	3378.4	3377.1	3362.3	3351.5	3323.2
15°	3301.6	3309.7	3301.6	3286.8	3263.9
17.5°	3227.5	3227.5	3232.9	3207.3	3189.8
20°	3143.9	3148.0	3148.0	3127.8	3107.6
22.5°	3046.9	3059.0	3063.1	3041.5	3017.3
25°	2932.4	2955.3	2968.8	2947.2	2921.6
27.5°	2793.6	2828.6	2869.0	2852.9	2824.6
30°	2638.6	2689.8	2757.2	2743.7	2723.5
32.5°	2491.7	2542.9	2635.9	2630.5	2619.7
35°	2358.3	2390.6	2499.8	2513.3	2503.8
37.5°	2231.6	2261.3	2363.7	2394.7	2386.6
40°	2098.2	2130.6	2211.4	2266.7	2269.4
42.5°	1966.1	1997.1	2063.2	2142.7	2142.7
45°	1826.0	1857.0	1917.6	2005.2	2016.0
47.5°	1688.5	1720.9	1780.2	1867.8	1885.3
50°	1553.8	1583.4	1642.7	1727.6	1754.6
52.5°	1413.6	1446.0	1503.9	1582.1	1621.2
55°	1278.9	1300.4	1363.8	1439.2	1481.0
57.5°	1138.7	1158.9	1230.4	1295.0	1338.2
60°	1004.0	1029.6	1084.8	1150.8	1200.7
62.5°	874.6	901.5	948.7	1006.7	1063.3
65°	749.3	769.5	815.3	873.2	923.1
67.5°	628.0	645.5	691.3	731.7	784.3
70°	505.3	528.3	561.9	601.0	634.7
72.5°	407.0	416.4	444.7	473.0	508.0
75°	300.5	316.7	339.6	355.8	376.0
77.5°	215.6	225.0	238.5	252.0	270.9
80°	144.2	148.2	160.4	163.1	177.9
82.5°	87.6	90.3	93.0	94.3	99.7
85°	47.2	47.2	47.2	44.5	44.5
87.5°	27.0	27.0	22.9	18.9	13.5
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)