

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: P558338

Luminaire Tested: **FUSL-12-4-LD4-3STD-40-UNV-81-85-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: P558338
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

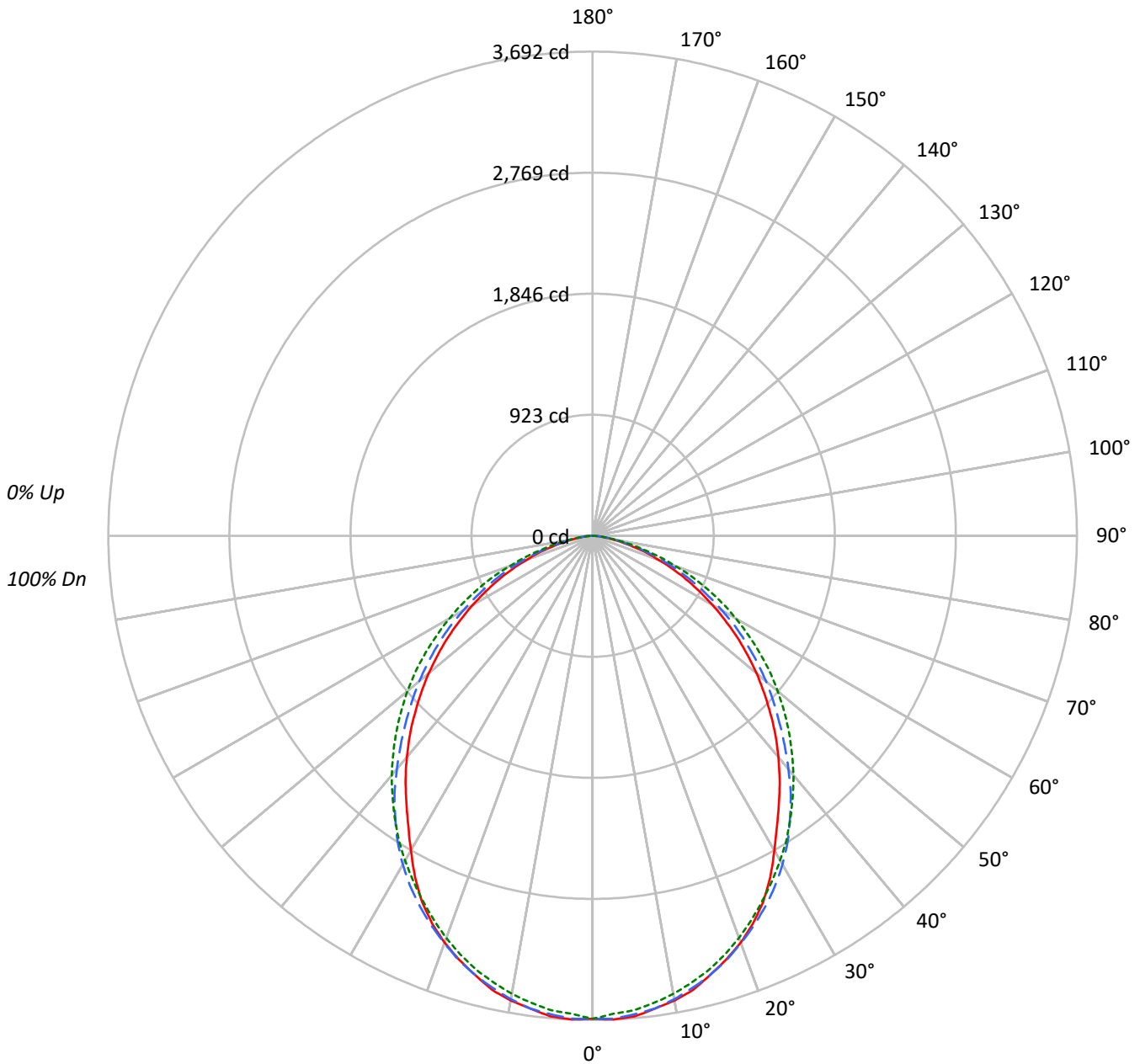
Lumens per Lamp: N/A
Luminaire Lumens: 8515.0 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9910	9910	9910
5°	9936	9894	9810
10°	9830	9803	9691
15°	9656	9656	9546
20°	9452	9464	9342
25°	9140	9254	9107
30°	8607	8994	8884
35°	8133	8621	8635
40°	7738	8155	8369
45°	7295	7661	8054
50°	6829	7219	7711
55°	6299	6717	7294
60°	5673	6130	6784
65°	5009	5450	6171
70°	4174	4641	5242
75°	3280	3707	4104
80°	2346	2610	2893
85°	1528	1528	1442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.7	4.1
10°-20°	974.0	11.4
20°-30°	1423.4	16.7
30°-40°	1615.7	19.0
40°-50°	1559.7	18.3
50°-60°	1286.6	15.1
60°-70°	856.8	10.1
70°-80°	383.4	4.5
80°-90°	68.6	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°	2744.1	32.2
0°-40°	4359.8	51.2
0°-60°	7206.2	84.6
0°-90°	8515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8515.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3682	3682	3682	3682	3682	
5°	3678	3677	3663	3643	3632	348
15°	3466	3475	3466	3450	3426	977
25°	3078	3102	3117	3094	3067	1410
35°	2476	2510	2624	2638	2629	1551
45°	1917	1950	2013	2105	2116	1479
55°	1343	1365	1432	1511	1555	1198
65°	787	808	856	917	969	780
75°	316	332	356	374	395	345
85°	50	50	50	47	47	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3682.5	3682.5	3682.5	3682.5	3682.5
2.5°	3692.4	3693.8	3685.3	3662.7	3648.6
5°	3678.3	3676.9	3662.7	3642.9	3631.6
7.5°	3637.2	3640.1	3635.8	3607.5	3592.0
10°	3597.6	3599.0	3587.7	3565.1	3546.7
12.5°	3546.7	3545.3	3529.7	3518.4	3488.7
15°	3466.1	3474.6	3466.1	3450.5	3426.5
17.5°	3388.3	3388.3	3393.9	3367.0	3348.6
20°	3300.5	3304.8	3304.8	3283.6	3262.3
22.5°	3198.7	3211.4	3215.7	3193.0	3167.6
25°	3078.4	3102.5	3116.6	3094.0	3067.1
27.5°	2932.7	2969.5	3011.9	2995.0	2965.3
30°	2770.0	2823.8	2894.5	2880.4	2859.2
32.5°	2615.8	2669.6	2767.2	2761.5	2750.2
35°	2475.8	2509.7	2624.3	2638.5	2628.6
37.5°	2342.8	2373.9	2481.4	2514.0	2505.5
40°	2202.7	2236.7	2321.6	2379.6	2382.4
42.5°	2064.1	2096.6	2165.9	2249.4	2249.4
45°	1916.9	1949.5	2013.1	2105.1	2116.4
47.5°	1772.6	1806.6	1868.8	1960.8	1979.2
50°	1631.2	1662.3	1724.5	1813.7	1842.0
52.5°	1484.0	1518.0	1578.8	1660.9	1701.9
55°	1342.6	1365.2	1431.7	1510.9	1554.8
57.5°	1195.4	1216.7	1291.6	1359.5	1404.8
60°	1054.0	1080.8	1138.9	1208.2	1260.5
62.5°	918.2	946.4	996.0	1056.8	1116.2
65°	786.6	807.8	855.9	916.7	969.1
67.5°	659.3	677.7	725.8	768.2	823.4
70°	530.5	554.6	589.9	631.0	666.3
72.5°	427.2	437.1	466.9	496.6	533.3
75°	315.5	332.5	356.5	373.5	394.7
77.5°	226.4	236.3	250.4	264.6	284.4
80°	151.4	155.6	168.4	171.2	186.7
82.5°	92.0	94.8	97.6	99.0	104.7
85°	49.5	49.5	49.5	46.7	46.7
87.5°	28.3	28.3	24.1	19.8	14.1
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)