

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: P558146

Luminaire Tested: **FUSL-12-4-LD4-3LO-50-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: P558146
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-LD4-3LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

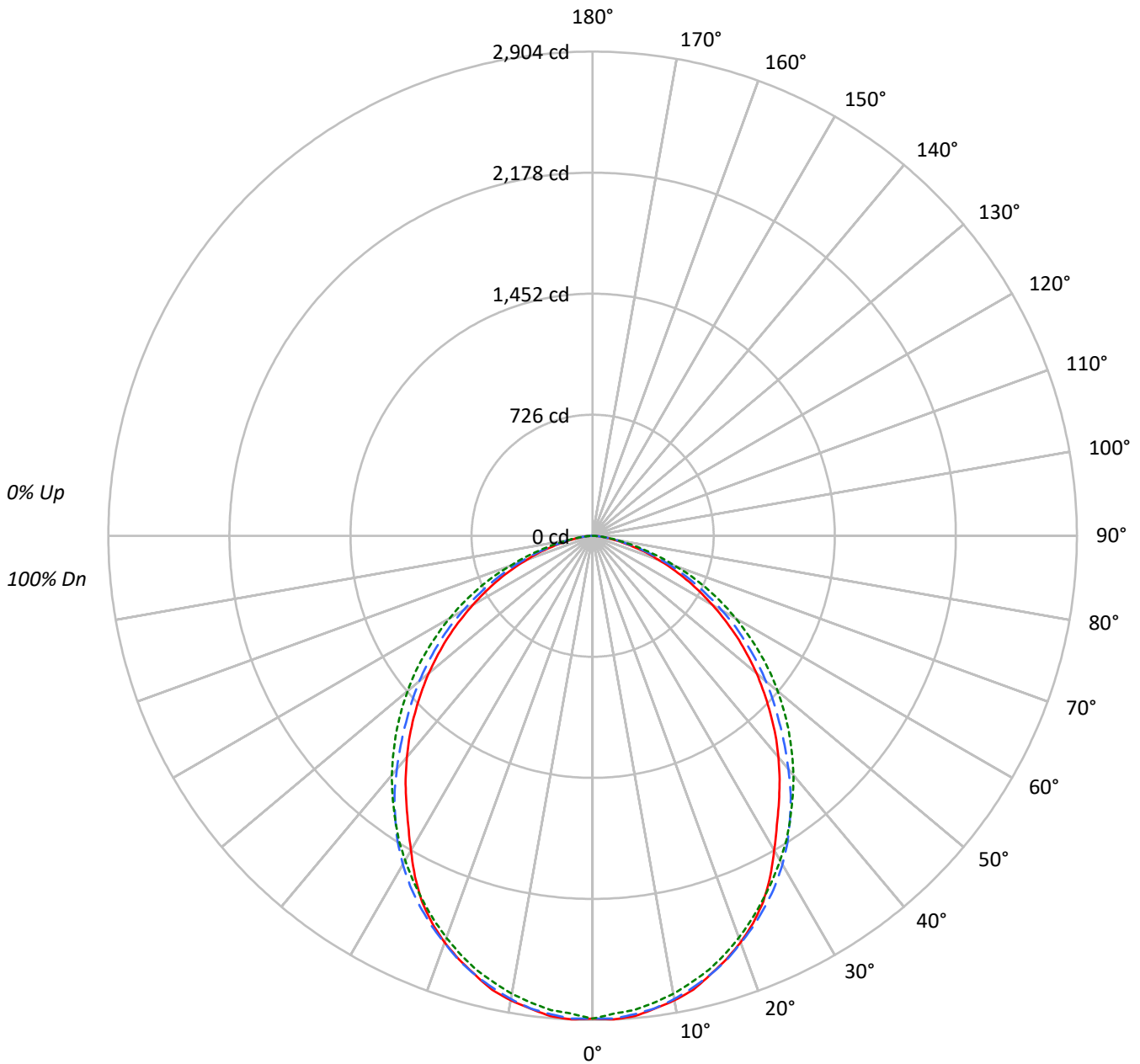
Lumens per Lamp: N/A
Luminaire Lumens: 6696.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7793	7793	7793
5°	7813	7780	7714
10°	7730	7709	7621
15°	7593	7593	7507
20°	7433	7442	7346
25°	7188	7277	7161
30°	6769	7073	6986
35°	6396	6779	6790
40°	6085	6413	6581
45°	5737	6025	6334
50°	5370	5677	6064
55°	4953	5282	5736
60°	4461	4820	5335
65°	3939	4286	4853
70°	3282	3650	4123
75°	2580	2915	3227
80°	1844	2052	2276
85°	1201	1201	1133



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	272.7	4.1
10°-20°	766.0	11.4
20°-30°	1119.3	16.7
30°-40°	1270.5	19.0
40°-50°	1226.5	18.3
50°-60°	1011.8	15.1
60°-70°	673.8	10.1
70°-80°	301.5	4.5
80°-90°	53.9	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°	2157.9	32.2
0°-40°	3428.5	51.2
0°-60°	5666.8	84.6
0°-90°	6696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6696.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2896	2896	2896	2896	2896	
5°	2892	2891	2880	2865	2856	274
15°	2726	2732	2726	2713	2694	768
25°	2421	2440	2451	2433	2412	1109
35°	1947	1974	2064	2075	2067	1220
45°	1507	1533	1583	1655	1664	1163
55°	1056	1074	1126	1188	1223	942
65°	619	635	673	721	762	613
75°	248	261	280	294	310	271
85°	39	39	39	37	37	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2895.8	2895.8	2895.8	2895.8	2895.8
2.5°	2903.6	2904.7	2898.1	2880.3	2869.1
5°	2892.5	2891.4	2880.3	2864.7	2855.8
7.5°	2860.2	2862.5	2859.1	2836.9	2824.6
10°	2829.1	2830.2	2821.3	2803.5	2789.0
12.5°	2789.0	2787.9	2775.7	2766.8	2743.4
15°	2725.6	2732.3	2725.6	2713.4	2694.5
17.5°	2664.4	2664.4	2668.9	2647.8	2633.3
20°	2595.5	2598.8	2598.8	2582.1	2565.4
22.5°	2515.4	2525.4	2528.7	2510.9	2490.9
25°	2420.8	2439.7	2450.8	2433.0	2411.9
27.5°	2306.2	2335.1	2368.5	2355.2	2331.8
30°	2178.3	2220.6	2276.2	2265.1	2248.4
32.5°	2057.0	2099.3	2176.1	2171.6	2162.7
35°	1946.9	1973.6	2063.7	2074.8	2067.0
37.5°	1842.3	1866.8	1951.3	1976.9	1970.2
40°	1732.2	1758.9	1825.6	1871.2	1873.5
42.5°	1623.1	1648.7	1703.2	1768.9	1768.9
45°	1507.4	1533.0	1583.1	1655.4	1664.3
47.5°	1394.0	1420.7	1469.6	1541.9	1556.4
50°	1282.7	1307.2	1356.1	1426.2	1448.5
52.5°	1167.0	1193.7	1241.6	1306.1	1338.3
55°	1055.8	1073.6	1125.9	1188.2	1222.6
57.5°	940.1	956.8	1015.7	1069.1	1104.7
60°	828.8	850.0	895.6	950.1	991.2
62.5°	722.0	744.3	783.2	831.0	877.8
65°	618.6	635.2	673.1	720.9	762.1
67.5°	518.4	532.9	570.7	604.1	647.5
70°	417.2	436.1	463.9	496.2	524.0
72.5°	336.0	343.8	367.1	390.5	419.4
75°	248.1	261.4	280.4	293.7	310.4
77.5°	178.0	185.8	196.9	208.0	223.6
80°	119.0	122.4	132.4	134.6	146.9
82.5°	72.3	74.5	76.8	77.9	82.3
85°	38.9	38.9	38.9	36.7	36.7
87.5°	22.3	22.3	18.9	15.6	11.1
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)