

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: P557538

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-93-85-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: P557538
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-LD4-2STD-35-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

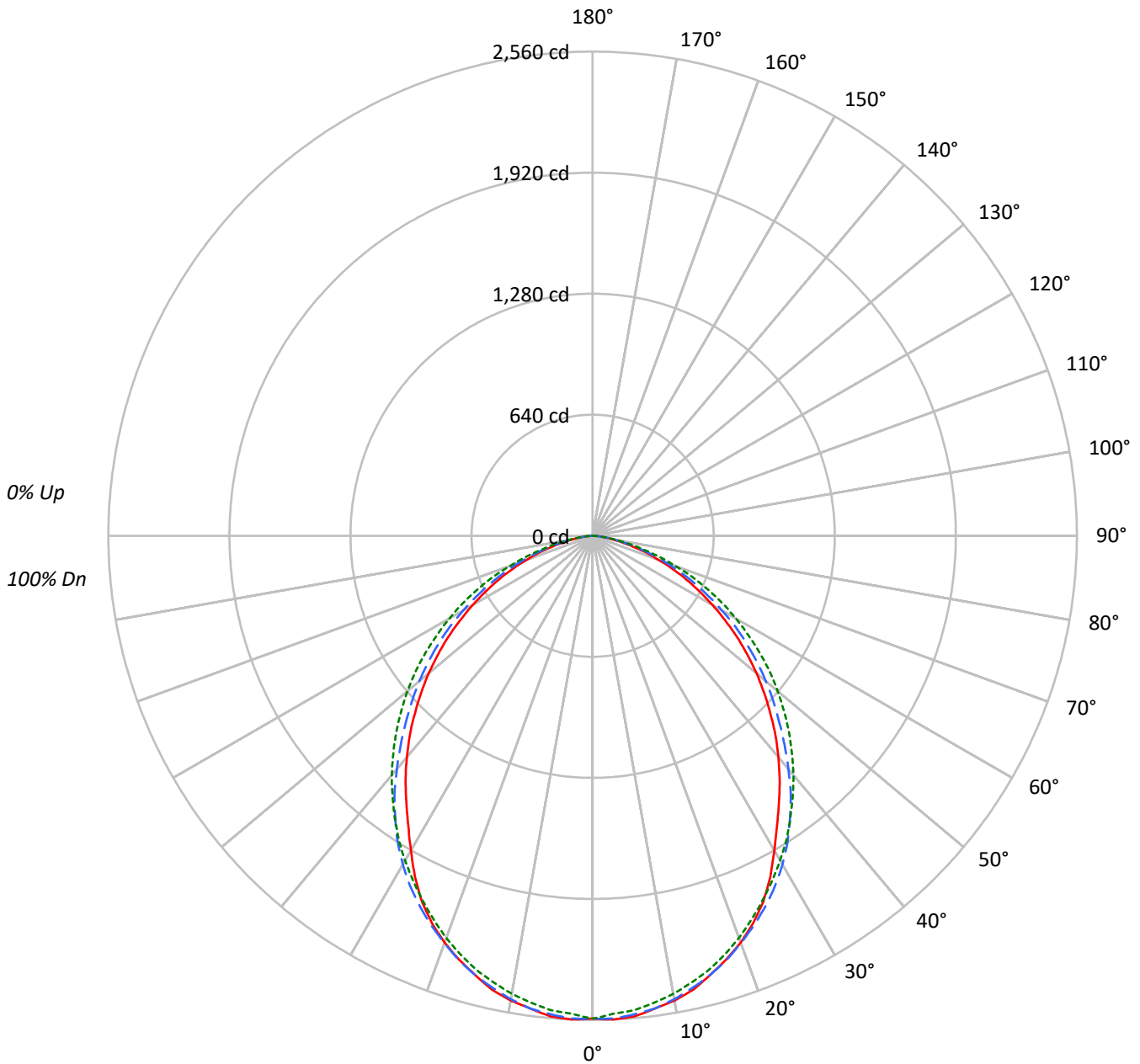
Lumens per Lamp: N/A
Luminaire Lumens: 5904.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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

TEST NUMBER: P557538

CATALOG NUMBER: FUSL-12-4-LD4-2STD-35-UNV-93-85-EDD-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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								
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86								
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73								
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63								
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54								
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47								
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42								
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37								
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34								
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30								
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6871	6871	6871
5°	6889	6860	6802
10°	6816	6797	6720
15°	6695	6695	6619
20°	6554	6562	6478
25°	6338	6416	6314
30°	5968	6236	6160
35°	5639	5978	5987
40°	5365	5655	5803
45°	5058	5312	5585
50°	4735	5006	5347
55°	4367	4657	5058
60°	3933	4250	4704
65°	3473	3779	4278
70°	2894	3218	3635
75°	2274	2570	2846
80°	1627	1808	2007
85°	1059	1059	1000



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.4	4.1
10°-20°	675.4	11.4
20°-30°	986.9	16.7
30°-40°	1120.3	19.0
40°-50°	1081.4	18.3
50°-60°	892.1	15.1
60°-70°	594.1	10.1
70°-80°	265.8	4.5
80°-90°	47.6	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°	1902.7	32.2
0°-40°	3023.0	51.2
0°-60°	4996.5	84.6
0°-90°	5904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2553	2553	2553	2553	2553	
5°	2550	2549	2540	2526	2518	241
15°	2403	2409	2403	2392	2376	677
25°	2134	2151	2161	2145	2127	977
35°	1717	1740	1820	1829	1822	1076
45°	1329	1352	1396	1460	1468	1026
55°	931	947	993	1048	1078	831
65°	545	560	594	636	672	541
75°	219	230	247	259	274	239
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2553.3	2553.3	2553.3	2553.3	2553.3
2.5°	2560.2	2561.2	2555.3	2539.6	2529.8
5°	2550.4	2549.4	2539.6	2525.9	2518.0
7.5°	2521.9	2523.9	2521.0	2501.3	2490.5
10°	2494.5	2495.5	2487.6	2471.9	2459.2
12.5°	2459.2	2458.2	2447.4	2439.5	2418.9
15°	2403.2	2409.1	2403.2	2392.5	2375.8
17.5°	2349.3	2349.3	2353.2	2334.6	2321.8
20°	2288.5	2291.4	2291.4	2276.7	2262.0
22.5°	2217.9	2226.7	2229.6	2213.9	2196.3
25°	2134.5	2151.2	2161.0	2145.3	2126.6
27.5°	2033.4	2058.9	2088.4	2076.6	2056.0
30°	1920.6	1957.9	2007.0	1997.1	1982.4
32.5°	1813.7	1851.0	1918.7	1914.8	1906.9
35°	1716.6	1740.1	1819.6	1829.4	1822.5
37.5°	1624.4	1646.0	1720.5	1743.1	1737.2
40°	1527.3	1550.8	1609.7	1649.9	1651.9
42.5°	1431.2	1453.7	1501.8	1559.7	1559.7
45°	1329.1	1351.7	1395.8	1459.6	1467.5
47.5°	1229.1	1252.6	1295.8	1359.6	1372.3
50°	1131.0	1152.6	1195.7	1257.5	1277.2
52.5°	1029.0	1052.5	1094.7	1151.6	1180.0
55°	930.9	946.6	992.7	1047.6	1078.0
57.5°	828.9	843.6	895.6	942.7	974.1
60°	730.8	749.4	789.6	837.7	874.0
62.5°	636.6	656.2	690.6	732.7	773.9
65°	545.4	560.1	593.5	635.6	671.9
67.5°	457.1	469.9	503.2	532.6	570.9
70°	367.8	384.5	409.0	437.5	462.0
72.5°	296.2	303.1	323.7	344.3	369.8
75°	218.7	230.5	247.2	259.0	273.7
77.5°	156.9	163.8	173.6	183.4	197.2
80°	105.0	107.9	116.7	118.7	129.5
82.5°	63.8	65.7	67.7	68.7	72.6
85°	34.3	34.3	34.3	32.4	32.4
87.5°	19.6	19.6	16.7	13.7	9.8
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)