

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: P557956

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-81-86-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: P557956
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-30-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

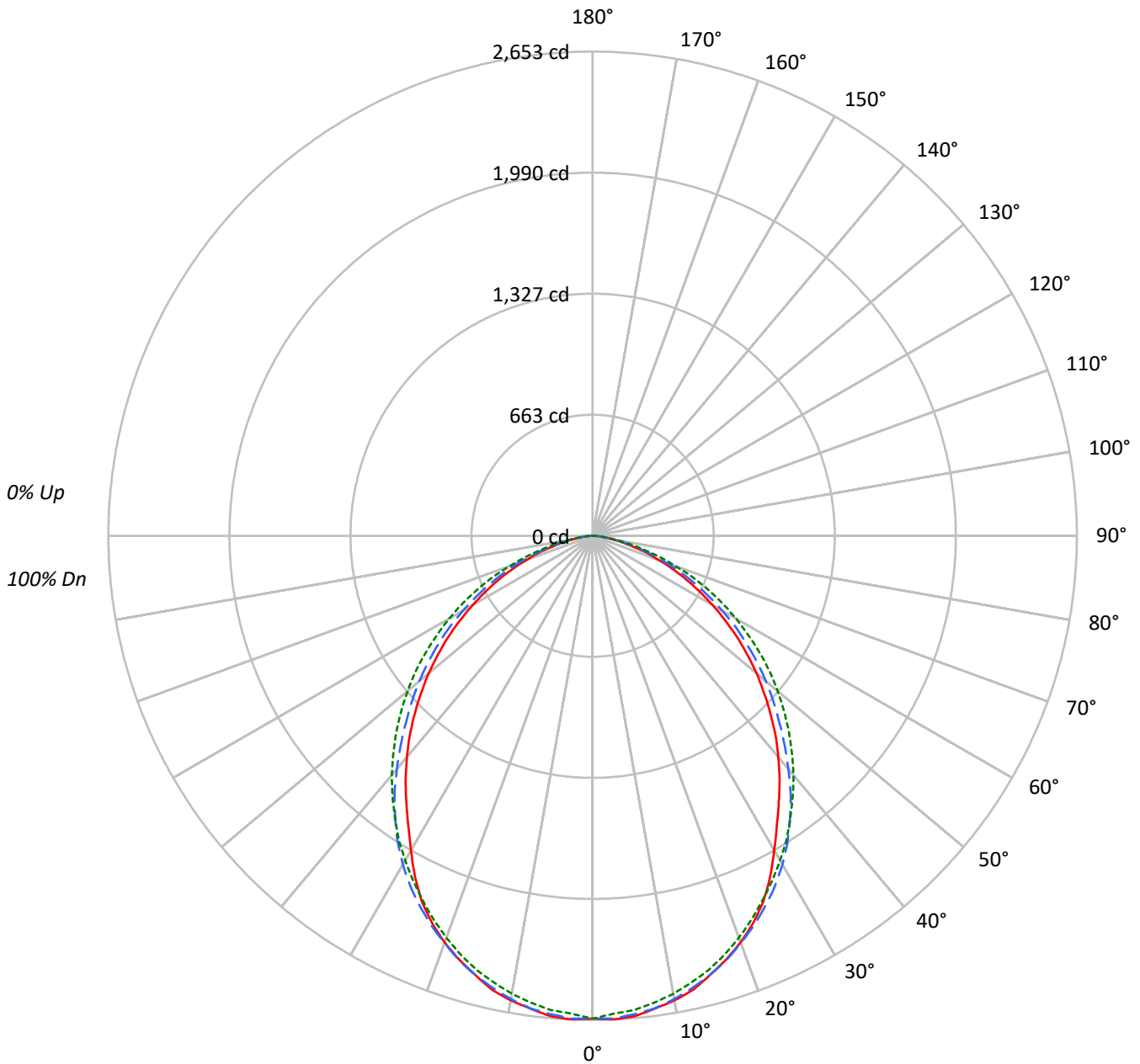
Lumens per Lamp: N/A
Luminaire Lumens: 6117.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
RC	80									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°	7119	7119	7119
5°	7138	7108	7047
10°	7062	7043	6962
15°	6937	6937	6858
20°	6790	6799	6711
25°	6566	6648	6542
30°	6183	6461	6382
35°	5843	6193	6203
40°	5559	5859	6012
45°	5241	5504	5786
50°	4906	5187	5539
55°	4525	4825	5240
60°	4075	4403	4873
65°	3598	3915	4433
70°	2998	3334	3766
75°	2356	2663	2948
80°	1684	1874	2080
85°	1099	1099	1034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.1	4.1
10°-20°	699.7	11.4
20°-30°	1022.5	16.7
30°-40°	1160.7	19.0
40°-50°	1120.5	18.3
50°-60°	924.3	15.1
60°-70°	615.5	10.1
70°-80°	275.4	4.5
80°-90°	49.3	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°	1971.3	32.2
0°-40°	3132.0	51.2
0°-60°	5176.8	84.6
0°-90°	6117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6117.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2645	2645	2645	2645	2645	
5°	2642	2641	2631	2617	2609	250
15°	2490	2496	2490	2479	2462	702
25°	2212	2229	2239	2223	2203	1013
35°	1778	1803	1885	1895	1888	1114
45°	1377	1400	1446	1512	1520	1063
55°	964	981	1028	1085	1117	861
65°	565	580	615	659	696	560
75°	227	239	256	268	284	248
85°	36	36	36	34	34	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2645.4	2645.4	2645.4	2645.4	2645.4
2.5°	2652.6	2653.6	2647.5	2631.2	2621.1
5°	2642.4	2641.4	2631.2	2617.0	2608.9
7.5°	2612.9	2615.0	2611.9	2591.6	2580.4
10°	2584.5	2585.5	2577.4	2561.1	2547.9
12.5°	2547.9	2546.9	2535.7	2527.6	2506.2
15°	2489.9	2496.0	2489.9	2478.8	2461.5
17.5°	2434.1	2434.1	2438.1	2418.8	2405.6
20°	2371.0	2374.1	2374.1	2358.8	2343.6
22.5°	2297.9	2307.0	2310.1	2293.8	2275.5
25°	2211.5	2228.8	2238.9	2222.7	2203.4
27.5°	2106.8	2133.2	2163.7	2151.5	2130.2
30°	1989.9	2028.5	2079.4	2069.2	2054.0
32.5°	1879.1	1917.8	1987.9	1983.8	1975.7
35°	1778.5	1802.9	1885.2	1895.4	1888.3
37.5°	1683.0	1705.4	1782.6	1806.0	1799.9
40°	1582.4	1606.8	1667.8	1709.4	1711.5
42.5°	1482.8	1506.2	1556.0	1615.9	1615.9
45°	1377.1	1400.5	1446.2	1512.3	1520.4
47.5°	1273.4	1297.8	1342.5	1408.6	1421.8
50°	1171.8	1194.2	1238.9	1302.9	1323.2
52.5°	1066.1	1090.5	1134.2	1193.1	1222.6
55°	964.5	980.7	1028.5	1085.4	1116.9
57.5°	858.8	874.0	927.9	976.7	1009.2
60°	757.1	776.5	818.1	867.9	905.5
62.5°	659.6	679.9	715.5	759.2	801.9
65°	565.1	580.3	614.9	658.6	696.2
67.5°	473.6	486.8	521.4	551.9	591.5
70°	381.1	398.4	423.8	453.3	478.7
72.5°	306.9	314.0	335.4	356.7	383.1
75°	226.6	238.8	256.1	268.3	283.5
77.5°	162.6	169.7	179.9	190.0	204.3
80°	108.7	111.8	120.9	123.0	134.2
82.5°	66.1	68.1	70.1	71.1	75.2
85°	35.6	35.6	35.6	33.5	33.5
87.5°	20.3	20.3	17.3	14.2	10.2
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)