

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: P557123

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-81-85-EDD**

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: P557123
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-LD4-2HI-50-UNV-81-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

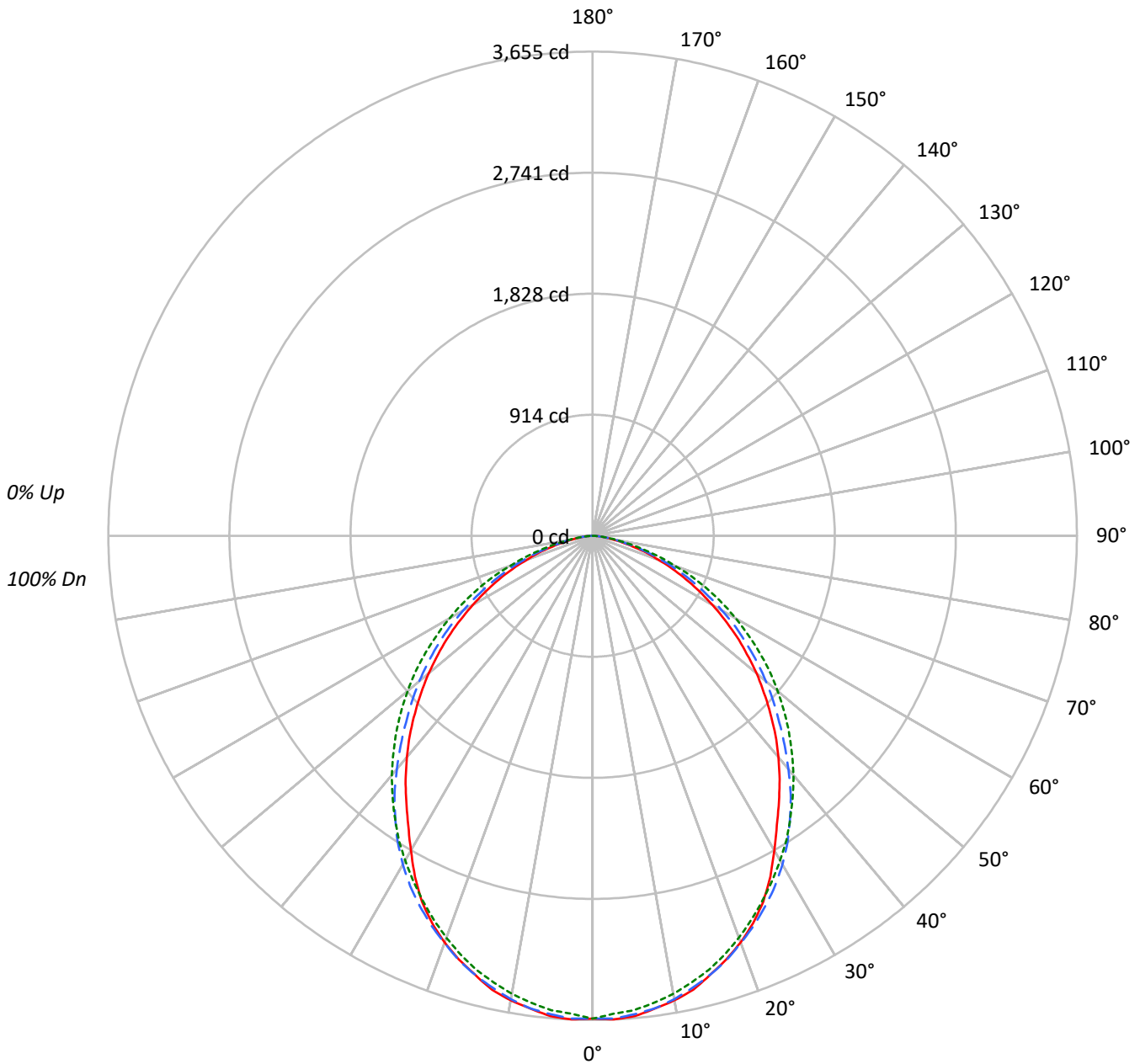
Lumens per Lamp: N/A
Luminaire Lumens: 8428.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9808	9808	9808
5°	9834	9793	9710
10°	9730	9703	9592
15°	9558	9558	9448
20°	9355	9367	9247
25°	9047	9159	9014
30°	8519	8902	8793
35°	8050	8533	8547
40°	7659	8072	8283
45°	7221	7583	7972
50°	6759	7146	7632
55°	6235	6648	7220
60°	5614	6067	6715
65°	4957	5394	6108
70°	4131	4594	5189
75°	3247	3669	4062
80°	2321	2582	2864
85°	1513	1513	1426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.2	4.1
10°-20°	964.1	11.4
20°-30°	1408.8	16.7
30°-40°	1599.2	19.0
40°-50°	1543.8	18.3
50°-60°	1273.5	15.1
60°-70°	848.0	10.1
70°-80°	379.5	4.5
80°-90°	67.9	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°	2716.1	32.2
0°-40°	4315.3	51.2
0°-60°	7132.6	84.6
0°-90°	8428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3645	3645	3645	3645	3645	
5°	3641	3639	3625	3606	3594	345
15°	3431	3439	3431	3415	3391	967
25°	3047	3071	3085	3062	3036	1395
35°	2450	2484	2598	2612	2602	1535
45°	1897	1930	1993	2084	2095	1464
55°	1329	1351	1417	1496	1539	1186
65°	778	800	847	907	959	772
75°	312	329	353	370	391	341
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3644.9	3644.9	3644.9	3644.9	3644.9
2.5°	3654.7	3656.1	3647.7	3625.3	3611.3
5°	3640.7	3639.3	3625.3	3605.7	3594.5
7.5°	3600.1	3602.9	3598.7	3570.7	3555.3
10°	3560.9	3562.3	3551.1	3528.7	3510.5
12.5°	3510.5	3509.1	3493.7	3482.5	3453.1
15°	3430.7	3439.1	3430.7	3415.2	3391.4
17.5°	3353.6	3353.6	3359.2	3332.6	3314.4
20°	3266.8	3271.0	3271.0	3250.0	3229.0
22.5°	3166.0	3178.6	3182.8	3160.4	3135.2
25°	3047.0	3070.8	3084.8	3062.4	3035.8
27.5°	2902.8	2939.2	2981.2	2964.4	2935.0
30°	2741.7	2794.9	2864.9	2850.9	2829.9
32.5°	2589.1	2642.3	2738.9	2733.3	2722.1
35°	2450.5	2484.1	2597.5	2611.5	2601.7
37.5°	2318.8	2349.6	2456.1	2488.3	2479.9
40°	2180.2	2213.8	2297.8	2355.2	2358.0
42.5°	2043.0	2075.2	2143.8	2226.4	2226.4
45°	1897.4	1929.6	1992.6	2083.6	2094.8
47.5°	1754.5	1788.1	1849.8	1940.8	1959.0
50°	1614.5	1645.3	1706.9	1795.1	1823.1
52.5°	1468.9	1502.5	1562.7	1643.9	1684.5
55°	1328.9	1351.3	1417.1	1495.5	1538.9
57.5°	1183.2	1204.2	1278.4	1345.7	1390.5
60°	1043.2	1069.8	1127.2	1195.8	1247.6
62.5°	908.8	936.8	985.8	1046.0	1104.8
65°	778.5	799.6	847.2	907.4	959.2
67.5°	652.5	670.7	718.3	760.3	815.0
70°	525.1	548.9	583.9	624.5	659.5
72.5°	422.9	432.7	462.1	491.5	527.9
75°	312.3	329.1	352.9	369.7	390.7
77.5°	224.0	233.8	247.8	261.8	281.5
80°	149.8	154.0	166.6	169.4	184.8
82.5°	91.0	93.8	96.6	98.0	103.6
85°	49.0	49.0	49.0	46.2	46.2
87.5°	28.0	28.0	23.8	19.6	14.0
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)