

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: P557141

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-86-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: P557141
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

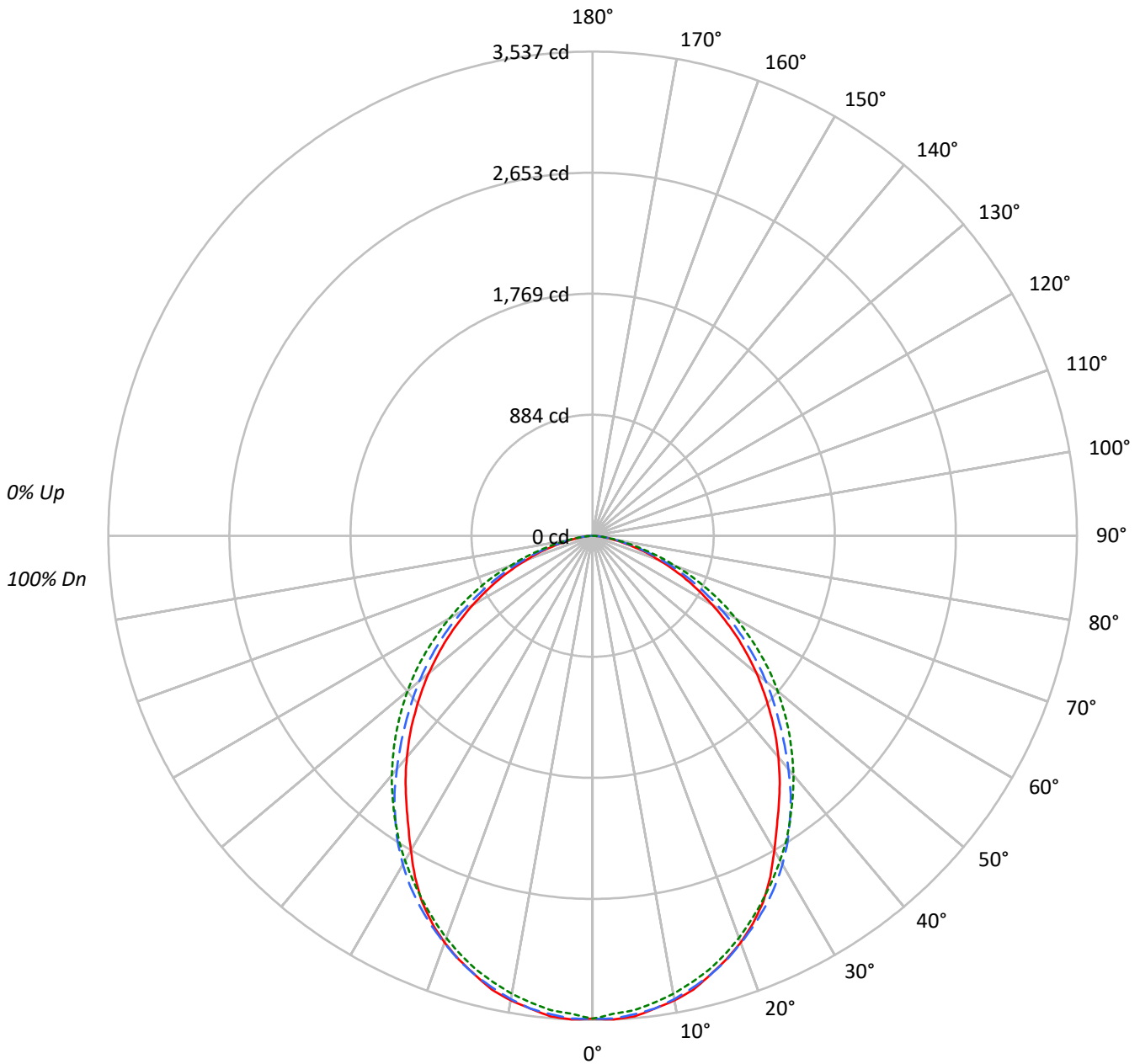
Lumens per Lamp: N/A
Luminaire Lumens: 8157.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	9493	9493	9493
5°	9518	9478	9397
10°	9417	9391	9284
15°	9250	9250	9144
20°	9054	9066	8950
25°	8756	8865	8724
30°	8245	8616	8511
35°	7791	8259	8272
40°	7412	7813	8017
45°	6989	7339	7716
50°	6542	6916	7387
55°	6034	6434	6988
60°	5434	5872	6499
65°	4798	5221	5911
70°	3998	4446	5022
75°	3142	3551	3931
80°	2247	2500	2772
85°	1463	1463	1380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	332.1	4.1
10°-20°	933.1	11.4
20°-30°	1363.5	16.7
30°-40°	1547.8	19.0
40°-50°	1494.1	18.3
50°-60°	1232.6	15.1
60°-70°	820.8	10.1
70°-80°	367.3	4.5
80°-90°	65.7	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°	2628.8	32.2
0°-40°	4176.5	51.2
0°-60°	6903.2	84.6
0°-90°	8157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8157.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3528	3528	3528	3528	3528	
5°	3524	3522	3509	3490	3479	334
15°	3320	3328	3320	3305	3282	936
25°	2949	2972	2986	2964	2938	1351
35°	2372	2404	2514	2528	2518	1486
45°	1836	1868	1928	2017	2027	1417
55°	1286	1308	1372	1447	1489	1148
65°	754	774	820	878	928	747
75°	302	318	342	358	378	330
85°	47	47	47	45	45	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3527.7	3527.7	3527.7	3527.7	3527.7
2.5°	3537.2	3538.5	3530.4	3508.7	3495.2
5°	3523.6	3522.3	3508.7	3489.7	3478.9
7.5°	3484.3	3487.0	3483.0	3455.9	3441.0
10°	3446.4	3447.7	3436.9	3415.2	3397.6
12.5°	3397.6	3396.2	3381.3	3370.5	3342.0
15°	3320.3	3328.5	3320.3	3305.4	3282.4
17.5°	3245.8	3245.8	3251.2	3225.5	3207.9
20°	3161.8	3165.8	3165.8	3145.5	3125.2
22.5°	3064.2	3076.4	3080.5	3058.8	3034.4
25°	2949.0	2972.0	2985.6	2963.9	2938.2
27.5°	2809.4	2844.7	2885.3	2869.0	2840.6
30°	2653.6	2705.1	2772.8	2759.3	2738.9
32.5°	2505.8	2557.3	2650.9	2645.4	2634.6
35°	2371.7	2404.2	2514.0	2527.5	2518.0
37.5°	2244.3	2274.1	2377.1	2408.3	2400.1
40°	2110.1	2142.6	2224.0	2279.5	2282.2
42.5°	1977.3	2008.5	2074.9	2154.8	2154.8
45°	1836.4	1867.5	1928.5	2016.6	2027.4
47.5°	1698.1	1730.6	1790.3	1878.4	1896.0
50°	1562.6	1592.4	1652.0	1737.4	1764.5
52.5°	1421.6	1454.2	1512.4	1591.1	1630.4
55°	1286.1	1307.8	1371.5	1447.4	1489.4
57.5°	1145.2	1165.5	1237.3	1302.4	1345.8
60°	1009.7	1035.4	1091.0	1157.4	1207.5
62.5°	879.6	906.7	954.1	1012.4	1069.3
65°	753.5	773.8	819.9	878.2	928.3
67.5°	631.5	649.2	695.2	735.9	788.8
70°	508.2	531.3	565.1	604.4	638.3
72.5°	409.3	418.8	447.2	475.7	510.9
75°	302.2	318.5	341.5	357.8	378.1
77.5°	216.8	226.3	239.9	253.4	272.4
80°	145.0	149.1	161.3	164.0	178.9
82.5°	88.1	90.8	93.5	94.9	100.3
85°	47.4	47.4	47.4	44.7	44.7
87.5°	27.1	27.1	23.0	19.0	13.6
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)