

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: P557143

Luminaire Tested: **FUSL-12-4-LD4-2HI-50-UNV-82-87-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: P557143
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

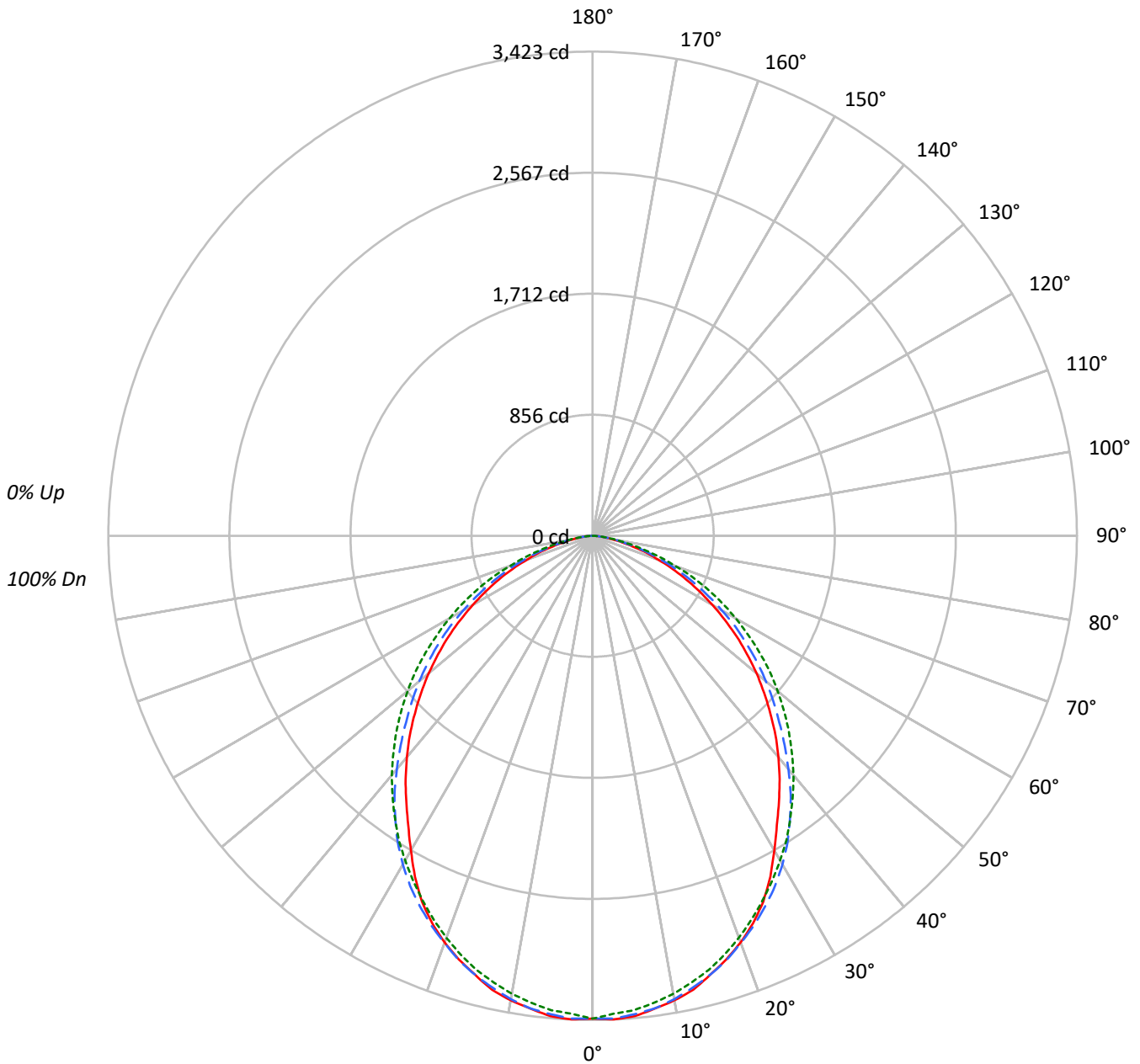
Lumens per Lamp: N/A
Luminaire Lumens: 7893.0 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	9186	9186	9186
5°	9210	9171	9093
10°	9112	9087	8983
15°	8951	8951	8849
20°	8761	8773	8660
25°	8473	8578	8442
30°	7979	8337	8235
35°	7539	7991	8004
40°	7172	7560	7758
45°	6762	7102	7466
50°	6330	6692	7148
55°	5839	6226	6762
60°	5258	5682	6288
65°	4642	5052	5720
70°	3869	4302	4860
75°	3040	3436	3804
80°	2174	2419	2682
85°	1417	1417	1337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.4	4.1
10°-20°	902.9	11.4
20°-30°	1319.4	16.7
30°-40°	1497.7	19.0
40°-50°	1445.8	18.3
50°-60°	1192.7	15.1
60°-70°	794.2	10.1
70°-80°	355.4	4.5
80°-90°	63.6	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°	2543.7	32.2
0°-40°	4041.4	51.2
0°-60°	6679.8	84.6
0°-90°	7893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3414	3414	3414	3414	3414	
5°	3410	3408	3395	3377	3366	323
15°	3213	3221	3213	3198	3176	906
25°	2854	2876	2889	2868	2843	1307
35°	2295	2326	2433	2446	2436	1438
45°	1777	1807	1866	1951	1962	1371
55°	1244	1266	1327	1401	1441	1111
65°	729	749	793	850	898	723
75°	292	308	330	346	366	320
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3413.5	3413.5	3413.5	3413.5	3413.5
2.5°	3422.7	3424.0	3416.1	3395.2	3382.0
5°	3409.6	3408.3	3395.2	3376.8	3366.3
7.5°	3371.6	3374.2	3370.2	3344.0	3329.6
10°	3334.8	3336.1	3325.7	3304.7	3287.6
12.5°	3287.6	3286.3	3271.9	3261.4	3233.9
15°	3212.9	3220.7	3212.9	3198.5	3176.2
17.5°	3140.8	3140.8	3146.0	3121.1	3104.0
20°	3059.4	3063.4	3063.4	3043.7	3024.0
22.5°	2965.0	2976.8	2980.8	2959.8	2936.2
25°	2853.6	2875.9	2889.0	2868.0	2843.1
27.5°	2718.5	2752.6	2791.9	2776.2	2748.6
30°	2567.7	2617.5	2683.1	2670.0	2650.3
32.5°	2424.7	2474.6	2565.1	2559.8	2549.3
35°	2294.9	2326.4	2432.6	2445.7	2436.5
37.5°	2171.6	2200.5	2300.2	2330.3	2322.5
40°	2041.8	2073.3	2152.0	2205.7	2208.4
42.5°	1913.3	1943.5	2007.7	2085.1	2085.1
45°	1776.9	1807.1	1866.1	1951.3	1961.8
47.5°	1643.2	1674.6	1732.3	1817.6	1834.6
50°	1512.0	1540.9	1598.6	1681.2	1707.4
52.5°	1375.6	1407.1	1463.5	1539.6	1577.6
55°	1244.5	1265.5	1327.1	1400.6	1441.2
57.5°	1108.1	1127.8	1197.3	1260.2	1302.2
60°	977.0	1001.9	1055.7	1119.9	1168.4
62.5°	851.1	877.3	923.2	979.6	1034.7
65°	729.1	748.8	793.4	849.8	898.3
67.5°	611.1	628.2	672.7	712.1	763.2
70°	491.8	514.1	546.8	584.9	617.7
72.5°	396.0	405.2	432.8	460.3	494.4
75°	292.4	308.2	330.5	346.2	365.9
77.5°	209.8	219.0	232.1	245.2	263.6
80°	140.3	144.3	156.1	158.7	173.1
82.5°	85.2	87.9	90.5	91.8	97.0
85°	45.9	45.9	45.9	43.3	43.3
87.5°	26.2	26.2	22.3	18.4	13.1
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)