

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: P558224

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-84-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: P558224
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-LD4-3STD-30-UNV-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

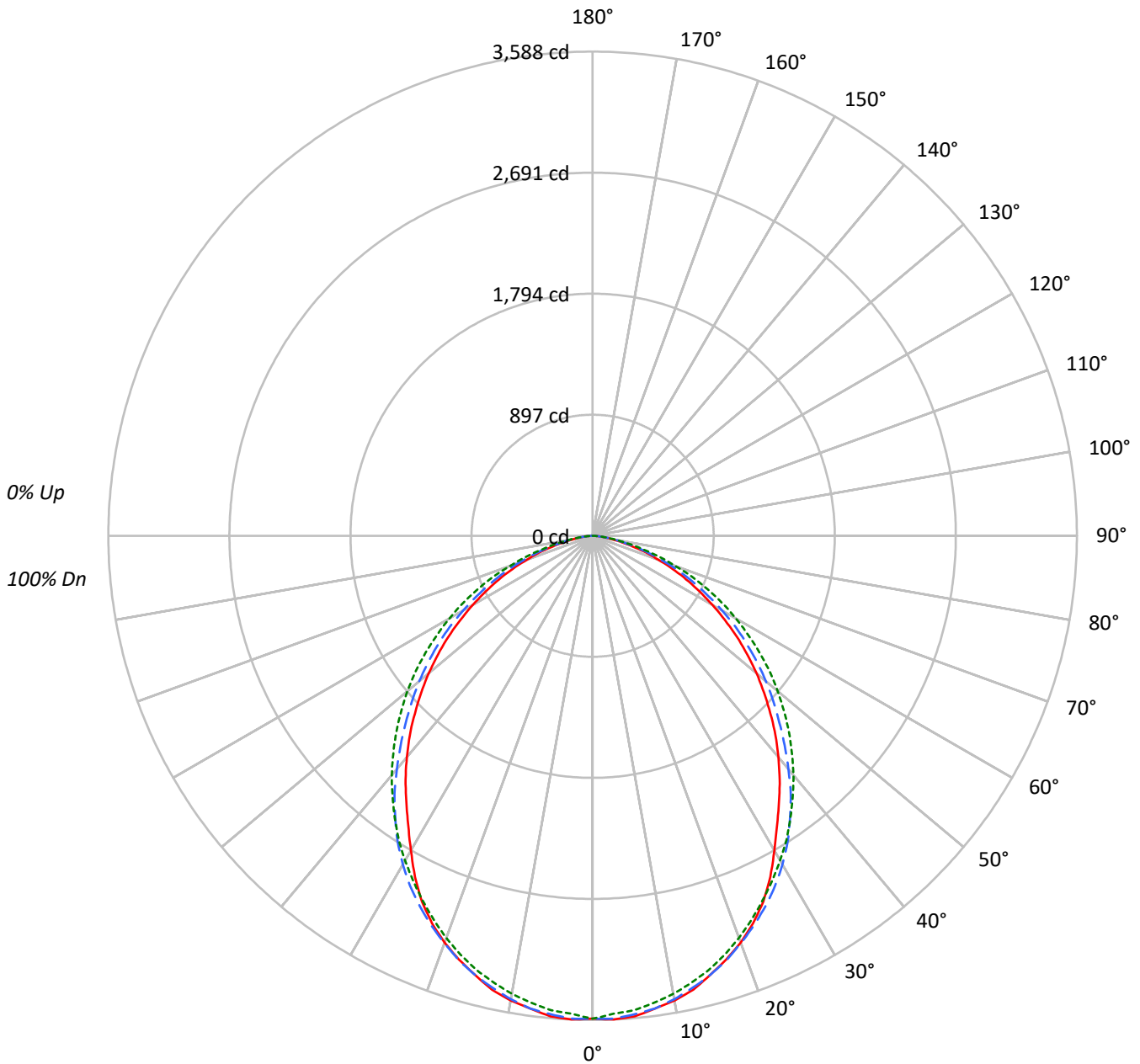
Lumens per Lamp: N/A
Luminaire Lumens: 8275.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P558224

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-82-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P558224

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-82-84-EDD-90

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°	9630	9630	9630
5°	9656	9615	9533
10°	9553	9527	9418
15°	9384	9384	9277
20°	9185	9197	9079
25°	8883	8993	8850
30°	8364	8740	8634
35°	7904	8378	8392
40°	7520	7925	8133
45°	7089	7445	7827
50°	6636	7016	7494
55°	6121	6527	7089
60°	5513	5957	6593
65°	4867	5296	5997
70°	4057	4511	5095
75°	3188	3603	3988
80°	2280	2535	2813
85°	1485	1485	1402



TEST NUMBER: P558224

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-82-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.9	4.1
10°-20°	946.6	11.4
20°-30°	1383.3	16.7
30°-40°	1570.2	19.0
40°-50°	1515.7	18.3
50°-60°	1250.4	15.1
60°-70°	832.7	10.1
70°-80°	372.6	4.5
80°-90°	66.7	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°	2666.8	32.2
0°-40°	4236.9	51.2
0°-60°	7003.1	84.6
0°-90°	8275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3579	3579	3579	3579	3579	
5°	3575	3573	3560	3540	3529	338
15°	3368	3377	3368	3353	3330	950
25°	2992	3015	3029	3007	2981	1370
35°	2406	2439	2550	2564	2554	1507
45°	1863	1894	1956	2046	2057	1437
55°	1305	1327	1391	1468	1511	1164
65°	764	785	832	891	942	758
75°	307	323	346	363	384	335
85°	48	48	48	45	45	65
90°	0	0	0	0	0	



TEST NUMBER: P558224

CATALOG NUMBER: FUSL-12-4-LD4-3STD-30-UNV-82-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3578.7	3578.7	3578.7	3578.7	3578.7
2.5°	3588.3	3589.7	3581.5	3559.5	3545.7
5°	3574.6	3573.2	3559.5	3540.2	3529.2
7.5°	3534.7	3537.5	3533.4	3505.9	3490.7
10°	3496.2	3497.6	3486.6	3464.6	3446.7
12.5°	3446.7	3445.4	3430.2	3419.2	3390.4
15°	3368.4	3376.6	3368.4	3353.2	3329.9
17.5°	3292.8	3292.8	3298.3	3272.1	3254.3
20°	3207.5	3211.6	3211.6	3191.0	3170.4
22.5°	3108.5	3120.9	3125.0	3103.0	3078.3
25°	2991.7	3015.0	3028.8	3006.8	2980.7
27.5°	2850.1	2885.8	2927.0	2910.5	2881.7
30°	2691.9	2744.2	2812.9	2799.2	2778.6
32.5°	2542.1	2594.3	2689.2	2683.7	2672.7
35°	2406.0	2439.0	2550.3	2564.1	2554.5
37.5°	2276.7	2307.0	2411.5	2443.1	2434.9
40°	2140.6	2173.6	2256.1	2312.5	2315.2
42.5°	2005.9	2037.5	2104.9	2186.0	2186.0
45°	1862.9	1894.5	1956.4	2045.8	2056.8
47.5°	1722.7	1755.7	1816.2	1905.5	1923.4
50°	1585.2	1615.4	1675.9	1762.6	1790.0
52.5°	1442.2	1475.2	1534.3	1614.1	1653.9
55°	1304.7	1326.7	1391.3	1468.3	1511.0
57.5°	1161.7	1182.4	1255.2	1321.2	1365.2
60°	1024.3	1050.4	1106.8	1174.1	1225.0
62.5°	892.3	919.8	967.9	1027.0	1084.8
65°	764.4	785.0	831.8	890.9	941.8
67.5°	640.7	658.6	705.3	746.5	800.2
70°	515.6	538.9	573.3	613.2	647.6
72.5°	415.2	424.8	453.7	482.6	518.3
75°	306.6	323.1	346.5	363.0	383.6
77.5°	220.0	229.6	243.3	257.1	276.3
80°	147.1	151.2	163.6	166.4	181.5
82.5°	89.4	92.1	94.9	96.2	101.7
85°	48.1	48.1	48.1	45.4	45.4
87.5°	27.5	27.5	23.4	19.2	13.7
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)