

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: P233224

Luminaire Tested: **FCB-24-4-LD4-75-50-UNV-EDD1-WDA12**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P233224  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCB-24-4-LD4-75-50-UNV-EDD1-WDA12  
Description: FAILSAFE 2X4 FCB LED TROFFER  
.125 ACRYLIC LENS  
Light Source: (168)5000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

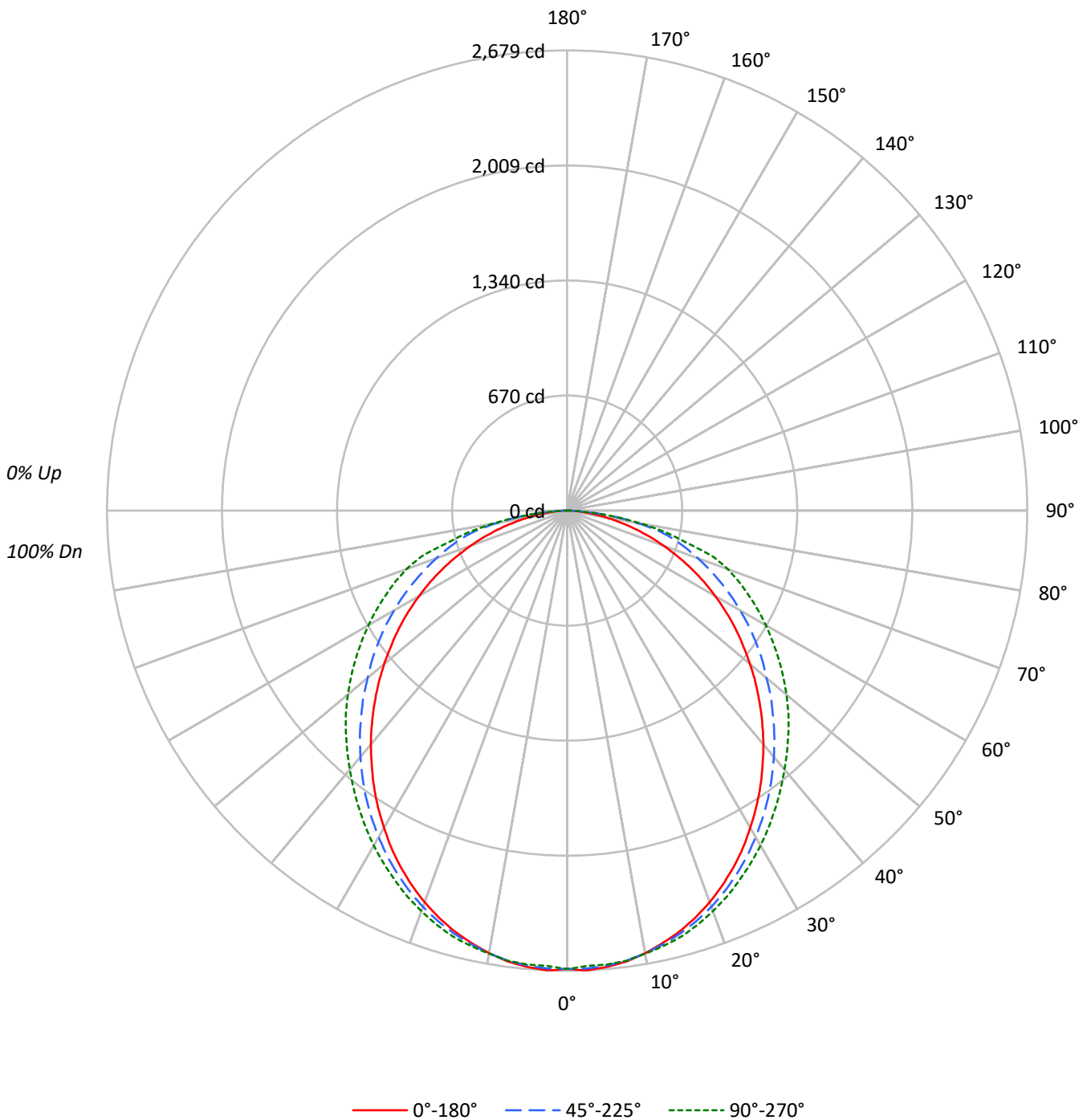
Lumens per Lamp: N/A  
Luminaire Lumens: 7604.0 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 69.1  
Input Voltage (V): 120  
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: P233224

CATALOG NUMBER: FCB-24-4-LD4-75-50-UNV-EDD1-WDA12

### Luminous Intensity Polar Plot





TEST NUMBER: P233224

CATALOG NUMBER: FCB-24-4-LD4-75-50-UNV-EDD1-WDA12

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3591	3591	3591
5°	3601	3590	3583
10°	3575	3575	3578
15°	3532	3550	3576
20°	3474	3515	3553
25°	3401	3467	3525
30°	3313	3410	3499
35°	3220	3353	3472
40°	3123	3288	3457
45°	3017	3225	3468
50°	2910	3172	3488
55°	2803	3151	3524
60°	2676	3132	3594
65°	2536	3133	3713
70°	2345	3185	3912
75°	2098	3330	3722
80°	1755	3188	3409
85°	1326	2452	2331



TEST NUMBER: P233224

CATALOG NUMBER: FCB-24-4-LD4-75-50-UNV-EDD1-WDA12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.2	3.3
10°-20°	717.7	9.4
20°-30°	1073.0	14.1
30°-40°	1272.9	16.7
40°-50°	1310.1	17.2
50°-60°	1201.9	15.8
60°-70°	971.8	12.8
70°-80°	630.7	8.3
80°-90°	173.9	2.3
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°	2042.9	26.9
0°-40°	3315.7	43.6
0°-60°	5827.7	76.6
0°-90°	7604.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7604.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2669	2669	2669	2669	2669	
5°	2666	2648	2658	2656	2653	253
15°	2536	2525	2549	2559	2567	714
25°	2291	2294	2335	2356	2374	1055
35°	1960	1976	2041	2085	2114	1226
45°	1586	1612	1695	1776	1822	1224
55°	1195	1232	1343	1453	1502	1068
65°	797	844	984	1114	1166	787
75°	404	479	640	716	716	429
85°	86	146	159	154	151	105
90°	0	0	0	0	0	



TEST NUMBER: P233224

CATALOG NUMBER: FCB-24-4-LD4-75-50-UNV-EDD1-WDA12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2668.6	2668.6	2668.6	2668.6	2668.6
2.5°	2679.0	2658.2	2668.6	2666.0	2653.0
5°	2666.0	2647.8	2658.2	2655.6	2653.0
7.5°	2647.8	2629.6	2642.6	2640.0	2642.6
10°	2616.5	2600.9	2616.5	2619.1	2619.1
12.5°	2577.5	2564.5	2585.3	2590.5	2595.7
15°	2535.8	2525.4	2548.8	2559.3	2567.1
17.5°	2483.8	2475.9	2504.6	2517.6	2528.0
20°	2426.5	2423.9	2455.1	2468.1	2481.2
22.5°	2361.4	2361.4	2397.8	2413.5	2431.7
25°	2291.1	2293.7	2335.4	2356.2	2374.4
27.5°	2215.6	2218.2	2267.7	2293.7	2314.5
30°	2132.3	2142.7	2194.8	2228.6	2252.0
32.5°	2049.0	2062.0	2119.3	2158.3	2184.4
35°	1960.5	1976.1	2041.2	2085.4	2114.1
37.5°	1869.3	1887.6	1957.8	2007.3	2041.2
40°	1778.2	1799.0	1871.9	1929.2	1968.3
42.5°	1681.9	1705.3	1786.0	1853.7	1895.4
45°	1585.5	1611.6	1694.9	1775.6	1822.5
47.5°	1489.2	1520.5	1609.0	1697.5	1747.0
50°	1390.3	1421.5	1515.2	1616.8	1666.3
52.5°	1291.3	1327.8	1431.9	1536.1	1585.5
55°	1195.0	1231.5	1343.4	1452.8	1502.2
57.5°	1096.1	1132.5	1254.9	1369.5	1418.9
60°	994.5	1036.2	1163.8	1280.9	1335.6
62.5°	895.6	939.9	1075.3	1200.2	1252.3
65°	796.7	843.5	984.1	1114.3	1166.4
67.5°	695.1	749.8	895.6	1028.4	1083.1
70°	596.2	656.1	809.7	942.5	994.5
72.5°	499.9	565.0	723.8	859.2	890.4
75°	403.5	479.0	640.5	716.0	716.0
77.5°	312.4	395.7	546.7	575.4	591.0
80°	226.5	317.6	411.4	445.2	440.0
82.5°	151.0	242.1	294.2	294.2	286.4
85°	85.9	145.8	158.8	153.6	151.0
87.5°	36.4	54.7	49.5	39.1	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)